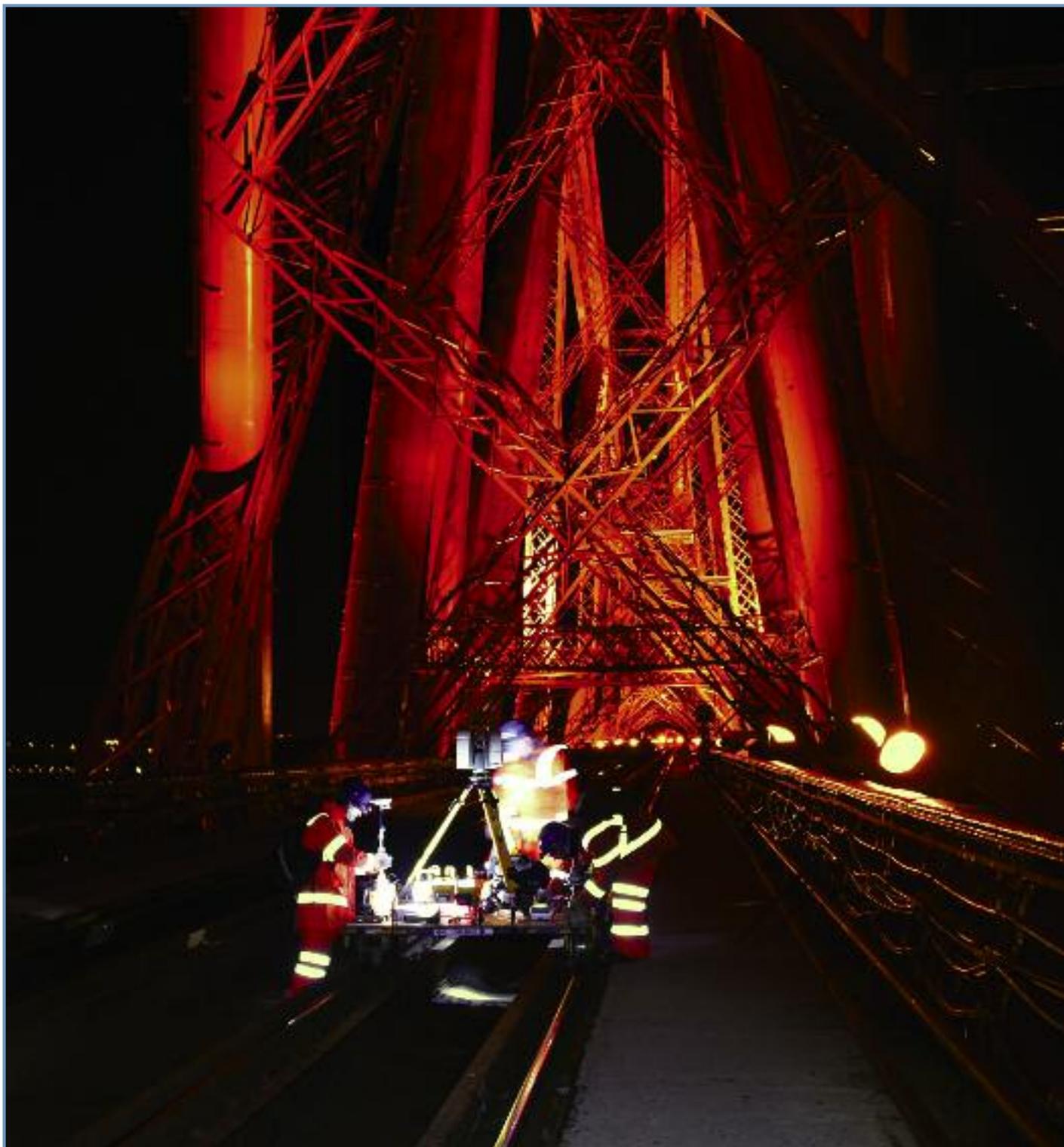


INDUSTRIAL ARCHAEOLOGY NEWS

181
SUMMER
2017

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

FREE TO MEMBERS OF AIA



2016 Report • Sewage in the Black Country and Prague
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INDUSTRIAL ARCHAEOLOGY NEWS 181 Summer 2017

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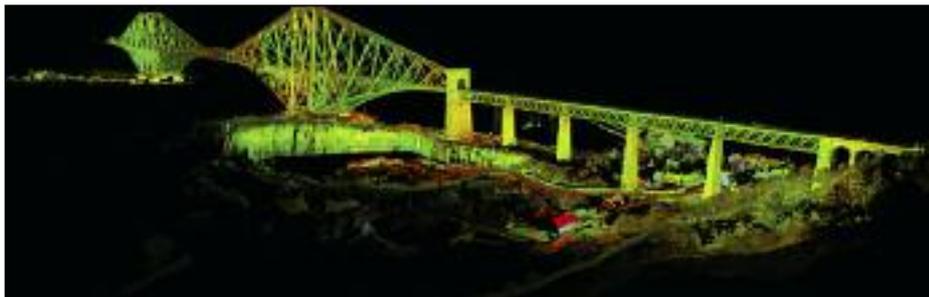
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The FORTH Dimension: 3D Documentation of the Forth Bridges



Completed Survey

Historic Environment Scotland

A team of surveyors from Historic Environment Scotland's Conservation Directorate and the Glasgow School of Art's School of Simulation and Visualisation has completed 3D surveys of The Forth Bridge and the Forth Road Bridge. The team, which operates under the flag of the two organisations' joint partnership, the Centre for Digital Documentation and Visualisation (CDDV), has also documented the construction of the new Queensferry Crossing, which is due to open in May/June 2017.

Miles Oglethorpe, Historic Environment Scotland

Funding for the survey work has been provided by the Scottish Government through Transport Scotland, and further resources have been set aside to develop digital educational resources to promote STEM subjects in Scottish schools.

In the case of The Forth Bridge, it took over 1,400 separate scans to create a comprehensive record of the 2.5km-long structure, and these have now been woven together into a single 3D model which, in the process, has generated an enormous dataset. In addition to educational applications, it will be useful to Network Rail's conservation and maintenance programme, acting as an exceptionally accurate baseline record from which monitoring and interpretation work will be possible. It will also be a valuable asset when developing a potential visitor

experience at the Bridge itself, and online for virtual visitors.

By chance, the survey coincided with the fracture of one of the Forth Road Bridge's 'truss-end links' in December 2015, and it was therefore possible at the time to use the laser scan data in the analysis and planning of repairs to the damaged link, and for the reinforcement of the other three links, there being two at each end of the structure. As with the neighboring railway bridge, the 3D model will be a useful resource both for the maintenance and conservation of the bridge, and for interpretation and education purposes. The 'A'-listed structure, the largest suspension bridge in the world outside North America when it opened in 1966, will be closed to all traffic except public transport, bicycles and pedestrians when the new crossing opens later in 2017.

In the longer term, CDDV hopes that the experience gained surveying these enormous engineering structures can help with the recording, conservation and potential restoration of other World Heritage Sites, some of which have recently suffered severe damage as a consequence of both natural and human disasters.

Fly-through animations derived from the 3D models of the Forth Bridges were made available in January 2017, and can be found in a film on YouTube at: youtu.be/ikLjgXXAMas



Setting up the equipment

Historic Environment Scotland

COVER PICTURE

*Preparing to scan – night shift on the Forth Bridge
Historic Environment Scotland.*

Photo: Chris McGregor

Sad news for the world's last steam-powered cotton spinning mill

Following on from the news in 2016 that Lancashire County Council had taken the decision to close several of its museums, including Queen Street Mill and Helmshore Mills Textile Museum, English Heritage has just announced its decision not to acquire these two sites. For the moment, care and maintenance will continue but the museums will not re-open for the foreseeable future, if at all. Higher Mill at Helmshore dates from c.1789 when the Turner family constructed a small, stone-built mill to enable local home-based weavers to have their cloth fulled without having to trek all the way across the fells to Rochdale. It possesses one of the very few remaining wooden fulling stocks driven by a water wheel. The second mill on the site, Whitaker's Mill, was a cotton mill which suffered the common fate of fire due to the flammability of cotton dust, but was rebuilt and equipped for condenser spinning which makes use of cotton waste. It was therefore a spinning mill, and so is complementary to Queen Street Mill which is for weaving. The museum displays tell two stories, the Wool Story and the Cotton Story, and has quite recently been refurbished with an ingenious hub linking the two sites.

Queen Street Mill, dating from the 1890s, is the only surviving site in the world where the



Water powered fulling stocks at Helmshore



Loom shed at Queen Street – all in working in order

original steam engine is still fired daily and works the original weaving looms in the mill. It was run by a community of weaving concerns, not by an entrepreneur seeking a profit, and as such is a very rare example of this cooperative way of the community establishing a new mill for mutual benefit. The site has Grade 1 listing status.

Negotiations for the future will continue but a prolonged shut down with only static care and maintenance would certainly prejudice the resurrection of Queen Street Mill. Ian Gibson, former Curator of Industry and Technology, Museums Service, Lancashire County Council, has pointed out that the boiler flame bed is below mill pond water level and with no fires lit over many months the fire brick will get wet enough to start disintegrating. Given the importance of textiles to the British economy from the medieval period onwards, it is shameful that neither the County Council nor the body concerned with the conservation of historic places which bring the past to life consider these two sites worth saving.

Marilyn Palmer

Congratulations to Keith Baker

Congratulations to Keith Baker who has been awarded the 2016 John Monash Medal by Engineers Australia for his 'outstanding contribution in raising awareness and conservation of the ACT's heritage, and providing national leadership in the promotion of engineering heritage'.

Despite serious ill health, Keith guided the AIA and Newcomen group on a fascinating tour

of Canberra, part of the trip touring southern New South Wales which was organised by Heritage of Industry and preceded the 2015 Australian Engineers Conference.

The medal perpetuates the memory of Sir John Monash as Australia's greatest military commander, and an exceptional engineer.

Keith said he was honoured and delighted. "It's so easy for industrial heritage to become lost or degraded," he said. "It's not as pretty as some things regarded as 'real' heritage. To my mind, engineering has so much to do with everything

that goes on in daily life, that to not record the engineering that goes into things is to only get part of the story.

**VISIT THE AIA
WEBSITE**

www.industrial-archaeology.org

AIA Conference, Moulton College, Northampton 25 – 30 August 2017

If you have not yet booked for this year's AIA conference, it would be a good idea to do so straight away as the various visits are filling up fast. The detailed programme is on the AIA website, together with the booking forms – do use the new electronic booking system which is both quick and convenient.

The Thursday seminar has an impressive range of speakers from archaeological contract units on the 'big' projects that are taking place across the UK, including the M74 completion project round Glasgow where a lot of industrial sites were uncovered, and the remarkable discoveries made during the transformation of the Kings Cross Goods Yard in London.

Northamptonshire and Bedfordshire have not previously been explored in any depth by AIA conferences, and talks will cover the major brick industry in that area, the boots and shoe industry and the history of lifts, since one of the visits is to the impressive Lift Tower in Northampton, a landmark seen from many miles around.

This is also an important transport corridor, and we expect to have a film of the construction of the M1, talks on various railways in the area and the Rolt Memorial Lecture on the heritage of what is now the Canal and River Trust. Visits will be made to various heritage railways, the Blisworth Tunnel on the Grand Union Canal, the former Royal Ordnance Depot at Weedon, the Shuttleworth Collection at Old Warden Aerodrome and the Museum of Computing together with the Home of the Codebreakers at Bletchley Park which has developed considerably since some delegates visited it from the Hatfield Conference.C3



Roller mills at Jordans Mill, Biggleswade

Pre-conference Seminar:

The contribution of developer-funded projects to industrial archaeology. Moulton College, Northamptonshire, 9.00 Friday 25 August 2017

The AIA has always tried to begin its annual conference with a day seminar intended to bring together both professionals and volunteers engaged in work advancing the discipline of industrial archaeology. Given the volume of work that has been carried out in recent times on industrial sites that are scheduled for redevelopment, this year's seminar will concentrate on the enormous contribution of developer-funded projects, particularly large-scale projects in city centres. The seminar is open to non-conference delegates and is designed to bring together academic staff and students, archaeologists and other heritage professionals as well as AIA members attending the conference. It is hoped that contributions to the seminar will be published on the AIA's website, and the opportunity exists for some articles based on these contributions to be published in the peer-reviewed journal *Industrial Archaeology Review*.

Norman Redhead, Heritage Management Director (Archaeology), Greater Manchester Archaeological Advisory Service: *Industrial Archaeology and the National Planning Policy Framework: the Greater Manchester experience*

Michael Shapland, Senior Archaeologist (Historic Environment), Archaeology South East: *From Moby Dick to the Transatlantic Telegraph Cable: the former Whaling Company and Telecommunications Factory at Enderby Wharf, Greenwich*

Gerry Thacker, Senior Project Manager, Oxford Archaeology: *Upper Bank, Swansea: the Excavation of a Copper and Zinc Smelting Works*

Russel Coleman, Director, Headland Archaeology: *The M74 Completion Project, Glasgow: Industrial Archaeology on an Industrial Scale*

Rebecca Haslam, Senior Archaeologist, Pre-Construct Archaeology: *An Immense and Exceedingly Commodious Goods Station: Excavations at King's Cross Goods Yard*

Lucy Dawson, Project Manager (Built Heritage), Wessex Archaeology: *Thrills and Spillways: Pumping Industrial Enthusiasm into Water Infrastructure*

Mike Nevell, Head of Archaeology, University of Salford: *The Research Impact of Developer-funded Industrial Archaeology*

Conference programme

Friday 25 August

17.00 Registration

Drinks Reception followed by dinner

Conference opening lecture **Brian Giggins**: *From smelting to tugs – 2000 years of industrial development in Northamptonshire and Milton Keynes*



Leighton Buzzard Light Railway

Saturday 26 August – From 9.30

Peter Perkins: *The boot and shoe industry of Northamptonshire*

Tim Smith: *The history of lifts*

Mark Phillips: *Onion barns and other light agricultural buildings in Bedfordshire*

Alan Cox: *The Bedfordshire brick industry*

Members' contributions

Introduction to the 2017 Awards

Drinks Reception in the Loft Bar followed by the **Annual Dinner**

Sunday 27 August

Association for Industrial Archaeology AGM followed by reports on Overseas visits and an update on the 2018 AIA conference

The Rolt Memorial Lecture:

Nigel Crowe: *The Grand Union Canal – Engineering and Archaeology*

Afternoon visits

Tour A: Carpetbagger Secret Warfare Museum, Harrington Airfield

Tour B: Northampton Boot & Shoe Quarter; Phipps Brewery

Tour C: Rushden Transport Museum; Irchester Country Park

Dinner followed by

Nick Burton: *'The Leighton Buzzard Light Railway'*



Church's Shoe Factory, Northampton

Monday 28 August

Full day tours to: the Shuttleworth Collection, Jordans Mill and Leighton Buzzard Light Railway

Dinner followed by film of the **M1's construction**

Tuesday 29 August

Full day tours to: National Museum of Computing; Bletchley Park, Blisworth Tunnel, Stoke Bruerne Canal Museum and Weedon Depot

Dinner followed by talk Phil Marsh: *The Wolverton Railway Works*

Wednesday 30 August

Full day tours to: Wolverton Works; Milton Keynes Museum, National Lift Tower and Church's Shoes



Royal Ordnance Depot, Weedon Bec

The Loft Bar will be open each evening from 21.00 to 23.00

Further details and timing may be found on the AIA website together with booking form and details of the electronic booking system.

Saving Sandfields Pumping Station – a Hidden History of the Black Country

They say that bad news travels fast, so looking out for bad news is a survival skill that we have honed to perfection. It protects us, and keeps us from harm by giving us fair warning of adverse events. It enables us to prepare for the worst. However, in 1831, no amount of bad news or early warning could have prepared us for the events that were going to land on the shores of our island fortress. A new and deadly disease was sweeping across the continent, wiping out everything in its path. There was no known cause, and there was no known cure. Words like germ and virus were not a part of the scientific vocabulary in the mid nineteenth century. This disease knew no boundaries. It wiped out the young, the old, the rich and the poor. If you caught the disease and were lucky, you would die within four hours. If you were not so lucky, you would die an agonising death in around two days. The victims' bodies would turn blue; hence the disease became known as 'the blue death'.

David Moore,
Chairman of the Lichfield Waterworks Trust

Cholera, as it is now known, arrived in the port of Sunderland early in 1832, and was witnessed by a young apprentice doctor called John Snow. Within a matter of weeks it had wiped out Sunderland and devastated the town of Newcastle.

By August 1832 Cholera struck Bilston. By mid-September 742 people were dead. In the Black Country, over ten thousand people had been affected by this deadly disease. So many people were dying that the burial grounds had to close and the victims were buried in mass graves.

Cholera became firmly established in the industrialised towns of Britain. Epidemic followed epidemic, thousands became ill and died. One epidemic in 1849 killed another 600 people, leaving over 450 orphaned children under the age of twelve. An orphanage was set up in Bilston to educate these children with the money raised from public donation. All the children were given a medal so that they could attend the Cholera school in Bilston.

During one cholera epidemic in Soho, London, John Snow plotted the individual outbreaks of cholera on a map, and by statistical analysis found the mean centre of the outbreak to be within a few feet of a communal water pump in Broad Lane, Soho.

John Snow's hypothesis was that it was contaminated water, not air, that spread cholera, and so he quickly removed the handle from the pump. John Snow's research gave birth to the science of epidemiology, the study and analysis of the patterns, causes, and effects of health and disease. Snow established the need for an organised water supply.

The authorities were quick to realise that an organised water supply would cost a fortune to

set up, so hurriedly replaced the handle of the pump.

While some authorities turned their backs on the causes of cholera, in the Black Country an engineer and mine owner called John McClean took up the challenge to supply the Black Country with clean safe drinking water.

Most of the water supplies in the Black Country had either become contaminated by industry or ineffective sewerage systems, or the wells had dried up due to mining operations. In view of this McClean looked to Lichfield to provide the solution. Eleven miles away and 350 feet lower, Lichfield citizens already benefitted from quite a sophisticated system of water supply. The Franciscan Friary had a piped supply of water from a spring at Aldershawe as early as 1301. Even with the city's needs for clean water already satisfied, Lichfield had an abundance of fresh drinking water that had yet to be tapped, so McClean set about establishing the South Staffordshire Water Works Company.

McClean changed the face of Lichfield by turning the city into a living waterworks. He cleaned out and deepened Minster Pool which for hundreds of years had been used as a cesspit for the cathedral close. He substantially enlarged and deepened Stow Pool. Bishops Pool was drained and remodelled to what is now known as The Museum Gardens and Beacon Park, and the whole system connected up with a mile-long tunnel to the pumping station at Sandfields.

Sited near the Lichfield to Walsall railway a steam pumping station was built to pump two million gallons of water each day. The steam pumps would lift the water 70 feet to the surface, and then push it up a further 300 feet and along an eleven mile pipeline to a brand new reservoir at Walsall.

There is a rumour that the original steam pumping engines were originally destined to be used on Brunel's ill-fated atmospheric railway in Devon.



The authorities were quick to realise that an organised water supply would cost a fortune to set up so they replaced the handle of the pump.

So successful was the scheme that a decision was made in 1865 to double the capacity of the pumping station to four million gallons of water each day. This was certainly a tall order. It was not possible to knock down the older pumping station to start again as a water supply had to be maintained. Thus a very specialist engineer was employed to provide a solution.

William Vawdry was born in Cornwall and served a seven year apprenticeship with Harvey's of Hale before moving to the industrial Midlands. The Cornish built the biggest steam engines in the world, and were quite used to designing steam pumping engines that could move vast quantities of water to great height and distance with amazing efficiency.

Vawdry designed a unique 190 horse power Cornish beam engine and employed some of the finest Black Country craftspeople to build it. Jonah and George Davies of Albion Foundry, Tipton were iron masters of the Black Country. They won awards at the 1851 Great Exhibition in London for their engineering skills, and often supplied engine parts to Boulton and Watt, a relationship that was often fractious. However, for William Vawdry, they were able to build an

immense and beautifully crafted machine that only the skills of the Black Country workforce could produce.

The new engine ran almost uninterrupted from 1874 until 1927, when it was replaced by two uniflow engines.

So pleased were the South Staffs Water Company with their Cornish beam engine that when it was retired from service they placed it into a state of preservation so visitors could continue to marvel at the engineering achievements of the Black Country ironmasters.

Sadly, in 2005 the site was sold to a housing developer, and has become rundown following a number of unauthorised entries and metal thefts. With cholera now a thing of the past in Britain, the death and despair it caused has passed out of living memory. Now that clean safe drinking water is part of the fabric of everyday life, people no longer take an interest in a redundant Victorian waterworks building. Like most monuments to the past its familiarity in the landscape has eroded curiosity.

In 2012, a small group of people started a campaign to save Sandfields Pumping Station. From its small beginnings, the group has grown steadily over the last four years, and is now a Community Incorporated Organisation registered with the Charities Commission as the 'Lichfield Waterworks Trust'. The objective of the Trust is to save the pumping station and bring it back into use for the benefit of the community. The Trust is aiming to restore the beam engine back to steam and to open it up to regular visits. The Trust also wants to convert the electric pump house into a community focused centre.

Progress has been made. On 1 February 2017 Persimmon Homes Ltd handed a set of keys to the trust to commence a six-month licence to enter the building to conduct a feasibility study.

This is a key milestone achievement as the Lichfield Waterworks Trust is now one step closer to achieving its plan to bring the redundant



Vawdry's unique 190 horse power Cornish beam engine

Grade II* building into reuse as a community facility.

Following a short ceremony presided over by the Lord Mayor of Lichfield, Sheelagh James, Paul Foster of Persimmon Homes Ltd handed the keys to David Moore, chairman of the Lichfield Waterworks Trust.

The beam engine and the building are unique. They were built to serve the community of the Black Country, and should continue to do so. The building has now started to tell its own story. There is a complete archive of all the working drawings, tender documents, and shareholder certificates. There is also a full and detailed record of all of the South Staffs Water employees, showing a unique record of each individual's working life.

By opening up this building and reuniting it with its archive, we can create a unique place. This could bring together the best in scientific and related education (STEM), arts opportunities, both social and local history, industrial archaeology and industrial heritage for everyone to study, enjoy and enrich their lives.

Finally, let us not forget, cholera still affects an estimated 3–5 million people worldwide and affects mostly children. By working together, we rid Britain of one of the most dreadful diseases known to the human race. Let us continue to work together, improving our knowledge so that we can rid the world of cholera and enrich the lives of many.

E-FAITH (European Federation of Associations for Industrial Heritage)

I attended the E-FAITH board meeting on 13 January and a full day future planning workshop in Barcelona the next day. The 2017 weekend will take place in Barcelona on 20-22 October and the theme is 'Industrial Heritage – exploring opportunities for education and lifelong learning'. Are there any UK organisations who are particularly well placed to talk about this theme and who could be encouraged to go along and make a presentation? The meeting agreed that the theme for the 2018 Technical Weekend should be 'Industrialisation, science and technology – Key to European integration' (embracing all countries of the European Council under the umbrella of E-FAITH).

For 2018, the European Year of Cultural Heritage, E-FAITH agreed it should coordinate a series of monthly seminars around different industrial heritage themes, building on the success of the 2015 Year for Industrial and

Technical Heritage and the heightened profile of E-FAITH that this achieved.

It was agreed that as part of 2018 European Year of Cultural Heritage, E-FAITH should coordinate a series of monthly seminars during the year around different industrial heritage themes, building on the success of the 2015 Year for Industrial and Technical Heritage and heightened profile of E-FAITH that this achieved. Themes put forward were as follows:

- Adaptive re-use
- Harbours and harbour cranes
- Land transport infrastructure (canals, roads, railways, airfields,...)
- Water towers and water distribution
- Energy and power, including steam, the production of gas, electricity and power stations – even nuclear and renewable energies

- Social aspects of industrialisation – including workers housing, living conditions etc
- Museums of industry, science and technology (note: the International Museums Day is always mid-May)
- Small enterprises (SMEs)
- The heritage of building industries (including brick making, stone quarries, architectural iron, etc)

What role might AIA play in this? Can we organise a seminar (Practical Day) on any of these themes? Do we know of AIA member organisations who might be persuaded to put on a day focussing on any of the themes?

Kate Dickson

Excavating a Cellar

The National Archives has awarded the Mills Archive the status of an Accredited Archive Service, specialising in all aspects of mills and milling. As one of the first, and, certainly the youngest, to be so recognised, they praised 'our



Hardly the best storage

excellent website, online provision and cataloguing and strongly commended our work with the wider mills heritage community'.

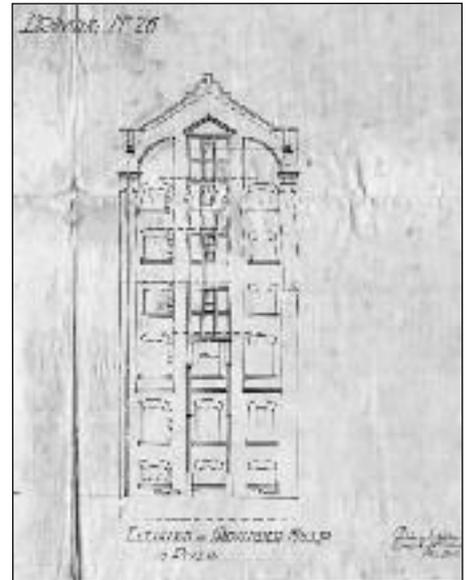
Within days of the award we had to mobilise our forces to rescue an important archive

destined for destruction. The important architectural practice of Gelder and Kitchen had recently been liquidated and their large collection of files at Maister House, a National Trust property in Hull, was under severe threat. Alfred Gelder, the architect who set up the firm in 1878, was a close personal friend of Joseph Rank. As close neighbours and staunch Methodists, Rank approached Gelder to design his first roller flour mill, The Clarence Mills in Hull. Gelder took on a partner, Llewellyn Kitchen, in 1892 and the firm developed expertise on the design of flour mills, oilseed crushing mills and related facilities at a time when Hull was a major European centre for the industry.

Amazingly, we were the only repository to express an interest in any part of the vast archive that had been assembled over the previous century and a quarter. We had, however, to move quickly as the whole archive was destined for the dump within two or three weeks. The Mills Archive archivist, accompanied by the author, spent two days emptying the basement of all the mill files to be taken by courier to Reading.

We had not realised the difficulty of the job before us. The National Trust curator had warned that there was no heat or water in the house. The files were in two cramped and crowded basements with only a 5ft 6in ceiling; no problem for me, but more of a challenge for our over 6ft archivist!

Moving various boxes and other items before we could get to the files ensured that after the first hour we were already warmed up. We could only carry 5 or 6 large files at a time out of the basement labyrinth to stack them in the hallway.



1908 Elevation of Rank provender mill

Some twelve hours hard work resulted in us rescuing over 600 files. The images illustrate our successful expedition. The files are now being cleaned, repackaged in archival storage boxes and catalogued. The earliest files we have found so far are from 1896 with details of The Clarence Mills. We have rescued quite a treasure trove, with more to find as we work our way through them, but now they are saved for future researchers.

Mildred Cookson

Progress on CK18477

The AIA awarded the LNER Coach Association £15,000 towards the restoration of the Thompson CK No. 18477 originally built in York in 1950. The LNERCA have reported on progress.

18477 is parked on the concrete hard-standing outside the Carriage & Wagon Department shed and is moved into position as and when the C&W workload permits. The now derelict carriage looked a sorry sight, with most of the corridor side having been removed, exposing the compartments. Most of this side is being replaced by new hardwood. However, already, a new section of framing has been lifted into place and the transformation has begun. This section of Sapele framing had been assembled in the Atkins shed after being machined in Andrew Daniel's Harrogate workshop. The frame section was treated with fungicide and then painted with aluminium wood primer in the hope of giving it a rather longer working life than the original. The section was lifted out of the shed by four willing helpers and hoisted into place using the C & W's new telehandler machine. It was a doddle compared to the laborious manual handling of old, and just shows how a little mechanization can save a lot of time, a point which will be duly noted when the new steel panels come to be fitted!

The framing, of course, sits on the top of the solebar and this had to be derusted and painted before the framing could be placed on top. Much grinding in the marsh could be heard one December weekend as this was carried out.

In theory, with the bill for the asbestos

removal still to come in, the entire AIA grant money has been spent, but the LNERCA Committee has agreed to fund the remaining work to complete the replacement of this side, after which a further application will be submitted.



CK18477 New side taking shape

Tower Mill in Action

It must be over 50 years since I last stepped inside a cotton spinning plant in the UK and at least 55 years since I worked in one. It was therefore with great interest that I attended an open day at the refurbished Tower Mill at Dukinfield in Greater Manchester though the courtesy of Culimeta Saveguard and English Fine Cotton.

Mark Sissons

Tower mill is a grade II listed building designed by Potts, Pickup & Dixon in 1885 and spun cotton, using mules and spinning frames until 1955 when it closed and passed into other use. It has been bought, restored and re-equipped to ring spin superfine counts in 2016 and is the only cotton mill in production in the United Kingdom. In 2015 the mill was chosen as the new manufacturing site for English Fine Cotton. The company is investing £4.8m with a £1m grant from the Textile Growth Programme to restart cotton production in Greater Manchester for the first time since the 1980s. The mill is using new technology frames and produces cotton for high value products.

So what had changed? The most immediately obvious differences when compared to a traditional mill was the huge reduction in noise and airborne cotton fly and dust. Looking at changes in the spinning process the most obvious were in the area of fibre preparation prior to carding. The traditional blow room equipment had disappeared to be replaced by the innovative Trutzchler opening, cleaning and blending system. This is far gentler on the cotton fibre and achieves a very high level of trash removal. The technology of the carding system is conventional but the whole machine now sits in a silenced box with full dust extraction. Most production is combed on conventional rectilinear combs with quite a low rate of waste extraction at combing due to the very high quality of cotton fibre used. Spinning is on six Zinser ring frames with automated doffing. All yarn is wound from the spinning cop on to appropriate packages for subsequent operations on Saurer automatic winders.

I might also comment on the disappointing complete absence of any British built machinery in



Tower Mill ???



Tower Mill ring spinning frames

the mill. Both the speed frames and the spinning frames take advantage of the latest drafting technology.

Thanks to Roger Holden for providing me with background on the mill building itself.

ERIH UK Chapter Meeting, 14 February 2017

The iconic Pierhead Building in Cardiff Bay was the venue for the ERIH Meeting on 14 February. This attractive, red brick building was built in 1897 as the offices of the Bute Docks Company and it became a prominent landmark within Cardiff Docks. The building was retained as part of the redevelopment and regeneration of the docks area and is now used by the National Assembly of Wales as a conference and exhibition venue.

Over 35 people attended the ERIH UK meeting, which was opened by Lynne Neagle who is the Assembly Member for Torfaen, which

includes Big Pit at Blaenavon, an ERIH Anchor Point.

The programme for the morning session focused on 'The effective use of former railways and canals as footpaths and cycle trails and their contribution to industrial heritage tourism' and included presentations about the Vennbahn cycle trail in Germany, Belgium and Luxembourg; cycle trails in South Wales and the work of the Canal and River Trust in looking after the UK's canal heritage.

After lunch, delegates were introduced to the Cornish Man Engine and plans to take it on tour in

the UK in 2017 and mainland Europe in 2018. This was followed by a presentation about plans to organise a major, high profile event in the UK in 2020 which will involve the nine UK industrial World Heritage Sites and which has been inspired by Extraschicht in Germany and Industriada in Poland.

Jonathan Lloyd

ERIH Coordinator, UK and Ireland

The 72-page ERIH booklet *European Industrial Heritage: the International Story* by Barrie Trinder, can be downloaded from the ERIH website as a PDF.

From high-tech to industrial archaeology, in less than a decade!

The 2016 AIA Conference took place at the Telford Campus of the University of Wolverhampton last September. I arrived excited about the agenda and as anyone who has listened to my talks will know, I have a particular interest in the history and heritage of telecommunications. To my delight I spotted industrial heritage right in front of me, even before I'd made it to registration!

Andy Sutton



Figure 1

Those who attended the conference will recognise the view in figure 1, a hard-standing sports area which is flood-lit in the evening by lights mounted on four columns, the only thing is, one of the columns looks very different from the others, it is in fact a cellular radio base station site – or more strictly this should read: 'it was...'

The column in the centre of figure 1 is taller and of heavier construction than the other three structures, which are just lighting columns. The antenna housing can be clearly seen at the top of the heavier column and therefore my interest in surveying this site was very high. I hinted earlier that this site was a cell site but is no longer in operational use; this is an important point as the site was part of the UK's first 3G network, owned and operated by Hutchison 3G UK Limited (H3G) for their network which is marketed with the brand name '3'. In 2007 H3G and T-Mobile UK formed a joint venture company known as Mobile Broadband Network Limited (MBNL) with the aim of building a shared 3G network to reduce their overall costs by sharing cell sites along with associated active (i.e. 3G radio base stations) and passive (i.e. antennas) equipment. T-Mobile had an established 2G network and had upgraded some of these sites with 3G technology, H3G had a 3G only network which had significant geographical overlap with T-Mobile's network. To build a common shared network with the lowest operating costs meant decommissioning and removing duplicate sites, those which provided coverage to the same area; this did not mean that the sites were necessarily co-located, rather that they provided mobile phone signal to the same area. This network consolidation is not unlike what happened historically with the railways when multiple lines and stations originally competed between the same towns and cities were eventually merged.



Figure 2

Many decommissioned sites have completely disappeared and may have left no evidence of their previous role in providing the UK with 2G and/or 3G mobile network services. There is very little documented about these sites, while the sites that remain are constantly evolving such that their form changes with function, therefore even an existing cell site is unlikely to be properly documented from a historical perspective. The reason the column in figure 1 survives is because of its secondary use as a lighting column. The actual base station has been removed and all that remains is the concrete plinth which once housed some incredibly advanced electronic communications technology. Figure 2 shows the antenna shroud at the top of the column along with the flood-light. Such installations typically consisted of three cabinets alongside the column, the largest cabinet being the 3G radio base station, a smaller electrical power cabinet and the third, being mounted on the column support structure to house active amplifiers which helped to improve the 'receive sensitivity' of the base station.

The coaxial cables would connect from the antennas at the top of the column via an underground cable duct to the amplifiers in the cabinet shown in figure 3. The cables from the amplifiers would pass through another underground duct to the base station cabinet where they would connect to the transmitters and receivers as per the site specific configuration. The base station cabinet would also connect to a transmission line which would be provided by a third party fixed network provider such as BT, Cable and Wireless or Virgin Media. This transmission line would connect signals from the local base station to the mobile network operator's core network, from where telephone calls could be switched or data connections routed as appropriate, be this to the Internet or other data networks. This particular site had a fixed line connection from BT, this is confirmed by the close proximity of a BT inspection chamber to the site. The third cabinet would terminate an incoming electrical power supply, typically to an electricity meter, and then provide electrical power via a distribution panel to the various components which required it. The electrical cables would also arrive via an underground duct and be routed between cabinets via other ducts, resulting in

quite a complex local subterranean network of interconnectivity.

Figure 4 allows one to imagine how the site would have looked; the concrete plinth in the foreground would have supported the electricity supply cabinet with three ducts visible, one for the incoming supply, one for the electricity feed to the base station and a spare for future expansion.



Figure 3

The larger concrete plinth, just beyond the cabinet used to accommodate the receive amplifiers, is where the 3G radio base station would have been installed, cable ducts from the electricity cabinet and amplifier cabinet enter the side of the plinth and would have connected to



Figure 4

the systems within the base station cabinet. Given the geographical location of this cell site, the base station would have been a Nokia Optima Compact solution. This would have supported a number of 3G radio units and also accommodated the terminating equipment for the copper or fibre optic transmission line.

The site was an unexpected find. However a short archaeological investigation of the remains tells a fascinating story. From being a key component of the UK's first 3G network, which was launched on 3 March 2003 to being surplus to requirements just a few years later. It is an example of how quickly our industrial landscape continues to evolve.

A sewage works turns into an adventure – The Old Wastewater Museum, Stará Istírna, in Prague, Czech Republic

Something is missing, although it might be expected in such an unusual place. It's the stench! For Prague's old water treatment plant in Bubene has not been used to clean up the sewage from the Golden City on the Vltava for decades. Instead, the imposing redbrick building with its two chimneys has long been a tourist attraction. The site in the sixth quarter of Prague is one of the most significant industrial buildings in the Czech capital. The building, erected between 1901 and 1905, is still in a good state. Indeed it is the oldest extant construction of its type in Europe. The grit chambers, sluices, sedimentary basins and the unique two-storey engine house with its steam engines have remained unchanged.

Since people in towns live close to one another sewage treatment is a problem that becomes ever more urgent when the towns begin to grow. As early as ancient Greece people were building sewer systems and public lavatories. Rome had a sewer system in 600 BCE. But the technical achievements of ancient times fell into oblivion after the collapse of the Roman Empire. In the Christian west, in the Middle Ages everything was thrown onto the streets. It took a long time before the disgusting stench compelled householders to set up sewage sumps. Indeed it was not until the mid-nineteenth century that the problems of water supply and sewage disposal could no longer be ignored. Towns and cities grew at lightning speed during industrialisation. Catastrophic hygienic conditions led to epidemics of typhus and cholera that forced people to take action.

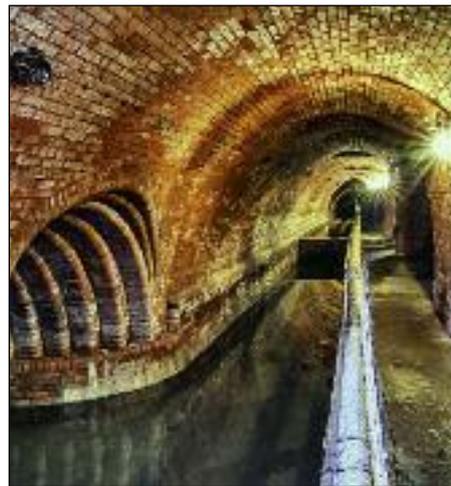


William Heerlein Lindley

In 1884 the city fathers in Prague announced a competition for a new system of sewers and a sewage cleaning plant. The winner was the English engineer, William Heerlein Lindley (1853 – 1917), who had already had experience overseeing the construction of Warsaw waterworks which had been designed by his father, William Lindley (1808 – 1900), an assistant to Marc Brunel and a disciple of Chadwick, in

1876-8. Lindley went on to design water and sewage systems in several other European cities and as far east as Baku.

His design exploited the sloping ground to such an extent that it was unnecessary to pump out the wastewater. Indeed the network of sewers – at the time this comprised more than 90 kilometres catering for 700,000 inhabitants – flowed into a new wastewater plant in Bubene. An architect by the name of Quido B Iský was commissioned to supervise the construction. Trial operations began on 27 June 1906, five years after construction work had begun.



Sewage tunnel

The plant was originally planned to be in operation until the end of the 1930s. In fact, it lasted until 1967. In that year a new, mechanical, chemical wastewater plant was opened on the nearby Emperor Island (Císařský ostrov). However since this was subject to frequent disruptions, the historic building remained in reserve to deal with emergencies. At the start of the 1980s the original clarification tanks were still used to contain the slurry from the new clarification plant. In the 1980s the building was discovered by a group of enthusiasts who began to return it to its original state and in 1991 the site was declared an historic landmark. The treatment plant has been a national cultural monument since the 1 June 2010.

A tour begins at the bottom of the operational building. Originally the sewage flowing from the city was used to drive a water wheel here, but this no longer exists. The water wheel delivered the power necessary to ventilate the building, but this was later replaced by electrically-driven engines. Parts of the ventilation pipes leading to the two chimney stacks can still be seen on the roof. The second room in the building was used to draw off the smoke from the steam boiler

In the main room of the cellar – the largest room in the Prague sewer system – the sewage flowed in from three entrance points for pre-treatment and screening. At first this was done by

hand, later by mechanical rakes which pushed all the trash in the water up along a rounded grid. The refuse was then moved to a lift which transported it to the surface. In the next step the water was pushed into sand chambers. The remains from this process were then used to flatten out the ground on the Emperor Island nearby. Before the water flowed into the Vltava it was channelled into large sedimentation tanks which collected all the particles heavier than water. The slurry from the sedimentation tanks was in great demand as a fertiliser.

The two-storey engine room is the high point of the tour. Both the Breitfeld & Daněk steam engines that were built in 1903, are still in operation and demonstrations are given from time to time. A walk through one of the old oval-shaped channels proves a particular adventure. Visitors can choose two possible ways to avoid having to step into the water in the middle. They can either straddle it on both sides or hop to and fro from one side to the other. But don't worry! The water in the middle is no longer sewage. And the stench is no longer noticeable.



1903 Engines

The Museum is an Anchor Point on the European Route of Industrial Heritage

Text: Frieder Bluhm;

English translation: Roy Kift

Originally published in Industriekultur

More for the Restoration Fund

The AIA is delighted to announce that a second 'anonymous donor' has come forward to support the AIA Restoration Fund. Please celebrate this good news which will enable the AIA to help further projects. The next edition of the IA News will have a comprehensive review of the state of current projects and a list of the 2017 awards.

Norwegian Industrial Buildings for the Cultural Sector



The Hammerdalen mill was used for processing raw wood into wood pulp, cellulose, cardboard or fibreboard. It was constructed in 1875 and extended in 1905 and 1975, and finally closed down in 2000. It was totally renovated and adapted for the Larvik Cultural School and the dance studio Nille in 2007/2008.

Photo: Fritzøe Eiendom AS

Major restructuring has taken place in our modern society as a result of the massive close-down of heavy industries. Many of these post-industrial sites have become integrated into the urban fabric and are centrally located in cities. Increased urban density and the demand for development and building sites increase the attractiveness of these areas for private developers. Architects and planners find the special qualities of such sites an opportunity to combine cultural heritage and innovative architecture in creating attractive city spaces (see below). The cultural/creative sector, in particular, has welcomed these sites as inspiring environments for creative activity.

Grete Swensen, senior researcher, and Sveinung K. Berg, researcher
Norwegian Institute for Culture Heritage Research

The transformation of the former industrial sites at Hammerdalen in Larvik and Papirbredden in Drammen are examples of this process. In Hammerdalen, parts of the present buildings have been in use since the seventeenth century as forge and saw mills. Other parts are more recent remnants from industry and workshops of the nineteenth and twentieth centuries, such as the silo in Papirbredden. Culture in combination with several other functions has played a central role, both as a motivation for starting up and as a basis for developing a commercial opportunity. During the transformation, various degrees of 'parkification' have taken place with partial renovation and by adding new structures to the sites.

In Hammerdalen there has been a demand to limit such 'parkification' as far as possible. The plans for both projects have aimed to add new functions and to incorporate new elements side by side with

the old structures. This process has required many decisions: which changes are acceptable and which are not. Various institutions at different levels have co-operated to achieve compromises. Both cases result from a partnership between private and public sectors, and culture in combination with other factors has been an important motivator. But there are also differences related to timing, the length of the planning process and the building period, and the degree of engagement early in the planning from local user groups and activists. A survey in several Norwegian municipalities studying the re-use of former industrial buildings shows that around half the sites in the survey are used as various forms of cultural arenas, while less than a third are for purposes which combine culture and business. Population density, historic development and economic adaptation vary between the municipalities, but the point to stress is the variety in the forms of adaptation that the survey identified. While some have grown out of initiatives from artists, others are based on cooperation between private entrepreneurs and municipal planners. There are convincing arguments in the planning debate concerning rehabilitation of redundant industrial buildings, concerning both environmental consideration and sustainability. The two studies referred to above illustrate that the reuse of redundant industrial buildings has become a common strategy in Norwegian cities and towns. Several activities can make use of these buildings in the contemporary city. They are robust but susceptible to change and can be subject to different degrees of restoration; they can be used to bring new life to dilapidated areas and their original rough character and 'unfinished surfaces' are attractive. The two projects referred to share a common framework. National political guidelines specify cultural policy, urban transformation and cultural heritage, and the cultural policies in Norwegian municipalities mirror

these guidelines. The ability to work across different departments in the municipalities seems to be the decisive factor in the success of this type of rehabilitation, rather than economy. The motivations that govern the different participants involved will vary. While artists might find old industrial buildings cheap to rent as studios, entrepreneurs might see a potential for development which makes it worth investment. New interest groups and partners have been brought together through renewal of industrial heritage as a vital contribution to urban regeneration and development and will continue to challenge the future for industrial heritage as a possible resource. Urban regeneration is closely connected to the emphasis which has been put on culture and creative industries as drivers for development. This has shaped a considerable part of the new development projects in Norwegian towns and cities. Some of the buildings that are used to house culture are 'landmark buildings' designed by recognized architects and have become prestigious projects used to promote the city profile.

With kind permission from the TICCIH Bulletin No. 75, 1st Quarter 2017

A warm welcome to our new members:

Mark Barnard, Kenilworth
Henry Cary, New Brunswick, Canada
Terrance Christian, Jackson, Oregon, USA
John Copping, Warwick
Richard Godley, Chesterfield
Rebecca Haslam, Kennington, London
Stephen Hipkin, Royston
Joanna Layton, Shrewsbury
Chris Mayo, Warlingham
Frank Parker, West Haddon
Christopher Pattison
John Pickin, Stranraer
Nick Renwick, Cowbridge, Cardiff

and to both the Northern Archaeological Associates of Barnard Castle, and the Lichfield Waterworks Trust who have joined us as Affiliated Societies.

However we are sorry to hear of the deaths of these members:

Professor R Carey
George Crutcher
Isobel Hartley
William Harris
John Kelleher

Anvil Sounds

The blacksmith's anvil is, in a sense, a musical instrument. It is far more than a dumb block of iron. The skilled smith makes use of the ringing sound it produces when struck, and when forging metals uses its sound as an additional indication of what is taking place as he works the piece. In some senses an anvil might be compared with a large bell.

Robert Carr

The anvil is a deceptively sophisticated tool, made in many styles, materials and sizes. The best anvils are made from selectively hardened tool steel with a well-balanced shape and several useful working surfaces. It has taken centuries to develop the shape and, in the same way as the body of a violin, anvil styles were perfected many years ago and will probably never change. Anvils are made in a variety of sizes; a small jeweller's anvil might weigh as little as five ounces whereas a forging anvil can weigh 200 pounds.

The block of the anvil should be as massive as practicable, because the greater the inertia the more efficiently it causes the energy of the striking tool to be transferred to the workpiece. On a really good anvil the smith's hammer should rebound with almost as much energy as the smith puts into the downward stroke, thereby making the job easier and less physically strenuous.

We are unused nowadays to hearing a large number of smiths working in one place at the same time but 150 years ago things would have been quite different. The sound of anvils other than the smith's own being struck would have been quite apparent to each individual smith and so what might at first be expected to be a random cacophony would in fact have had considerable musical content, particularly so if some of the smiths had latent musical talent.

As mentioned above, anvils can be quite small, not necessarily like the large items we are used to in a country blacksmith's shop. Goldsmiths, silversmiths and so on would have used quite small anvils, so in a mixed industrial artisan area with a variety of small workshops there would have been quite an orchestra of these instruments. In Wagner's *Rheingold*, the first instalment of the Ring Cycle, the composer makes extensive use of multiple anvils to



illustrate the atmosphere of intense artisan activity. It is said that Wagner visited areas of towns where numerous smiths were at work to hear the sound, and so was able to reproduce approximately in music the sound characteristic of such areas.

Another often quoted example of the interest of a composer in the sound of an anvil is Handel's harpsichord piece known as *The Harmonious Blacksmith* which is said to have been inspired in part by a roughly similar kind of experience when the composer was sheltering from the rain in a village smithy. This is not really true; the story was actually made up in the nineteenth century long

after the composer's death. At Whitchurch, Edgware, there is even a tombstone to the *Harmonious Blacksmith* in question, erected in 1868.

When the world was quieter than it is now, the sounds of an artisan area with numerous metalworkers at their anvils would have been quite distinctive. A variety of smiths in a workshop locality working together is a sound now lost and which disappeared too long ago to be incorporated into an example of *musique concrète*. As an instrument it has also entered popular music, in the Beatles song *Maxwell's Silver Hammer* an anvil is played by Ringo Starr.

'This Exploited Land of Iron'

The legacy and landscape of ironstone mining on the North York Moors will be celebrated in a four year project which will explore the industry through art, archaeology and conservation. As the North York Moors National Park has said, the moors made a huge contribution to the industrial revolution.

Virtual 3D models of ironstone kilns in Rosedale and blast furnaces in Grosmont will be created as part of the project. Warren Moor mine,

the only Victorian ironstone mine chimney still standing in the UK, will be opened to the public for the first time and ironstone trails across the moors will be created. Conservation efforts include planting rowan trees for the endangered Ring Ouzel – which nests in Rosedale during summer – and surveying the Fen Bog nature reserve.

Tom Mutton, of North York Moors National Park, said: "The Victorians blazed a trail in the North York Moors with the discovery and subsequent mining of ironstone. With many archaeological remains of this historical period

continuing to melt back into the landscape as nature reclaims them, recording this legacy will be as important as the work to slow down the degradation process and preserve the biodiversity which the area supports."

The project covers 14% of the national park, from Goathland in the east, north along Stephenson's rail route to Grosmont, along the Esk Valley to Kildale and over the Moors to Rosedale. It was launched with a three-week art exhibition and one-day festival at North York Moors National Park Centre at Danby.

Information from Neil Preston

Re-using industrial buildings in France and England

When recycling industrial buildings, it is not unusual to see conflicts arising between the conservation of the industrial heritage and their new cultural re-use, especially when this requires architectural interventions and the association of new buildings with historic architecture.

Aurore Caignet

Architects and developers are often asked to consider the significance of historic buildings and to retain key elements from their original function so that future generations can read the material traces of their industrial past. Moreover, the role of industrial archaeologists and preservation trusts can consist in underlining the historical, architectural, cultural values of industrial buildings and in providing information and advice before any irreversible and detrimental action might be carried out. A dilemma often appears between a willingness to maintain the authenticity and intrinsic value of buildings through minimal intervention, and a desire to promote a new, distinctive image as well as to acquire professional acclaim by adding innovative architectural elements.

Such clashes were apparent in 1994 when Manchester's only remaining hydraulic pumping station was turned into the National Museum of Labour History, now known as the People's History Museum and when plans to redevelop and expand the pump house emerged in 2007. This building supplied hydraulic power from 1909 until 1972. At the time of its conversion into a museum twenty years later, it was decided not to give prominence to its former industrial function. More attention was therefore paid to the conservation of the attractive architectural shell. The contrast between old and new is nonetheless clear when considering the original building and the recent extension, a visual confrontation which hints at dynamism and creativity as opposed to frozen time and architectural inertia.

Another type of re-use approach was adopted for the conversion of the LU biscuit



Lieu Unique, Nantes, France

factory in Nantes, France, into a cultural venue for contemporary arts. An industrial identity is still highly visible. The factory was built at the end of the nineteenth century and partly demolished in the mid-1970s before being resurrected in 2000 as the Lieu Unique – a new name from the old initials which are meant to recall the former industrial activity. Architectural interventions were intentionally modest, and major industrial features such as cast-iron columns and the glazed roofing were kept and enhanced. Whenever alterations were made to redesign the internal space, industrial elements and raw materials were used not only to reinforce the industrial character of the building, but also to give it an unfinished look.

Likewise, during the conversion of Islington Mill in Salford, England, into art studios, Bill Campbell insisted on the need to keep interventions to a minimum and guarantee the expression of the potential, a place in motion and open to change, as opposed to one preserved in aspic. Alterations and additions, when they are

respectful of history, enable industrial heritage to be reshaped so that it remains alive and relevant to twenty-first century uses.

However, the tower of the French biscuit factory was restored, its decapitated dome rebuilt to how it would have originally looked whereas the extension of the Manchester's pump house is a visually strong contemporary architectural addition. It is indeed surprising, given the deliberate emphasis on the unfinished industrial look of the factory, to opt for such faithful restoration over a strategy of controlled ruination.

One may wonder whether it would have been more thought-provoking, from a historical and architectural perspective, to keep the tower without a dome, as an atypical symbol of regeneration and a reminder of a once-neglected heritage, or to rebuild it in a contemporary way, evoking the incremental juxtaposition and near fusion of past and present in a single entity. Cutting-edge architectural additions can produce remarkable temporal juxtaposition, and such contrast is not incompatible with a balanced articulation between conservation and architectural production. Not only does the recycling of industrial heritage help guarantee its durability within a sustainable development approach, but the palimpsestic dimension induced by the creative relationship between adaptive re-use and contemporary architectural redevelopment can also offer a dynamic visual dialogue.

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Correction

The image of Millennium Mills in *IA News 180* on page 20 shows the building before 1933 reconstruction, not after.

Apologies Ed



People's History Museum, Manchester

A Burning Question: Why So Many Mill Fires?

2016 seems to have been a particularly bad year for fires in the historic textile mills of northern England. The year started with the destruction of Drummonds Mill in Manningham in Bradford in January. This was followed by a series of mill fires in Greater Manchester, most notably the destruction of Bailey Mill in Saddleworth in June. The empty Newsome Mill in Huddersfield was burnt down in suspicious circumstances on 18 November as was Howard Mill in Glossop, Derbyshire in the same month. The year finished with a devastating fire at Maple Mill No. 1 in Oldham on 15 December, which destroyed the structure. This has now been confirmed as arson by Greater Manchester Police. These fires all have two things in common. The structures were large and empty and all the fires appear to have been the result of arson.

Mike Nevell

Textile mill design developed in part to reduce the risk of fire from the grease, oil and fibres that covered each mill floor. This can be seen in the shift from wooden floors supported by wooden beams to brick-barrel vaulting supported by cast-iron columns and then steel frame and concrete construction. Even so, no mill is absolutely fire-proof. Although the building materials used may themselves not be flammable a hot enough fire will affect the structure and ultimately bring it down. Cast iron will fail catastrophically, particularly if cold water is played on it when hot, while steel will ultimately distort under high heat. Even brick arches will fail if intense heat loosens the bricks.

Historically, catastrophic mill fires were not uncommon in the working mills of Derbyshire, Dundee, Glasgow, Lancashire, and Yorkshire. Vernon Mill in Stockport burnt down in 1902, as did Ellenroad mill in 1916. Both fires were found to have been started by friction in the spinning mule headstocks. Fires in working mills continued into the mid-twentieth century despite new fire regulations: spectacularly so at Clover Mill in Rochdale in 1952, Texas Mill in Ashton-under-Lyne in 1971 and at Thorp Street Silk Mill in Macclesfield in 1977. In the late twentieth century, as most cotton, jute, linen, silk and woollen mills were closed, there was an increasing trend towards fires in empty factories. Dramatic examples include Tudor Mill in Ashton-



Mlnrow Cotton Mill 1992



Drummond Mill fire 2016

under-Lyne in 1970, Banksfield Mill in Bolton in 1984, Granville Mill in Oldham in 1999. This trend has continued into the early twenty-first century, with the loss of several listed early textile mills at Clegg Hall Mill in Rochdale in 2003, Paton's Mill in Jonhston, Renfrewshire, in 2010 and Frost's Mill in Macclesfield in 2011.

What is worrying has been the rising number of arson attacks in the last few years. A recent freedom of information request to the West Yorkshire Fire and Rescue Service revealed that there were 103 mill fires in the Bradford area over a six year period between April 2010 and September 2016. Fifty eight were found to be arson attacks, of which 36 were in mills classified as derelict or empty (Telegraph and Argus 28/12/2016). Some of these fires can be attributed to rough sleepers lighting a fire to keep warm but others are deliberate attempts to burn the structure.

Similar figures are not available for Greater Manchester, although the Greater Manchester Fire and Rescue Services' website notes at least 28 major mill incidents between 2010 and 2016. Several empty mills have become a focus for repeated arson, such as Elisabeth Mill in

Stockport (now renovated), the derelict Gidlow Mill in Wigan and Maple No. 1 Mill in Oldham. The latter appears to have had six arson incidents in 2016 which culminated in the destructive fire of December 2016.

There remain two stark facts that threaten much of our textile mill heritage across Britain. Firstly, that the huge block spinning mills of the late nineteenth and early twentieth century which can be seen in the Greater Manchester, Lancashire and West Yorkshire urban landscapes, are still perceived by some councils and developers as difficult to re-use. The second is that empty industrial buildings attract vandalism leaving them open to constant small-scale arson incidents that can lead to catastrophic fires. This is why Historic England have been working with the Greater Manchester Fire and Rescue Service on compiling advice as to how to minimize the risk of fire, especially in empty properties. Work by Historic England has also shown that the best way to reduce fire attacks is to keep such buildings occupied, the sprinkler systems maintained, and to reduce the time such structures are empty ahead of redevelopment: simple steps that could help to save more of these important industrial monuments.

Tavistock Canal Bicentenary

This year sees the bicentenary of the Tavistock Canal which opened on 24 June 1817. This four mile long tub coat canal took no less than fourteen years to build mainly because of the need to drive a 2,540 yard tunnel through the unyielding rock of Morwell Down. The canal runs from Tavistock where water is abstracted from the River Tavy to a point above the river port of Morwellham on the River Tamar. The connection to the port was by a 237 yard inclined plane with a gradient of up to 1 in 6, powered by a 30 x 3 ft waterwheel. As well as the tunnel and incline, the canal crossed the River Lumburn on an aqueduct, near which a branch was cut to serve slate quarries at Mill Hill.

The engineer in charge of construction was famous mining engineer, John Taylor, appointed manager of nearby Wheal Friendship at the age of 19. The canal prospectus made clear that a subsidiary purpose of the enterprise was the identification and exploitation of mineral lodes. The cutting of one such in the early stages of the tunnel led to the opening of Wheal Crebor and this was run by the canal in its early years. Unfortunately the prolonged gestation of the canal meant that, by the time it opened, the local economy was in slump and the mines in decline.

In 1872 the shareholders, facing continuing losses, sold the canal to the Duke of Bedford who owned all the land it traversed. The Duke was under no obligation to maintain the waterway and it disappeared from the Canal Returns in the 1880s. In 1933 the canal bed was cleared and a



Tavistock Canal, approaching the tunnel

photo Robert Waterhouse

new cut made from the tunnel to a new reservoir above Morwellham. This feeds a vertical pipe to a small hydro-electric power station on the old copper quay, which remains in operation today. The whole canal can be traced, including the abandoned section, to the incline head.

Tavistock Museum is marking the bicentenary with an exhibition which will include a set of spectacular photographs taken inside the tunnel.

There will also be a digital plan of the canal proposals overlaid on modern mapping and a programme of walks. The Trevithick Society will be publishing a large, definitive volume on the history and archaeology of the canal, written by Robert Waterhouse, one time archaeologist at Morwellham Quay.

Graham Thorne

Essex Industrial Archaeology Group

The Essex Industrial Archaeology Group (EIAG) was formed in 2013 following the very successful AIA Annual Conference held in 2012 in Essex, organised by David Alderton. Now entering its fourth year, the Group continues to go from strength to strength, and this year, alongside a programme of visits to industrial sites and speakers on related topics, there are two major initiatives to highlight.

The Essex Society for Archaeology and History (ESAH) which is EIAG's parent Society has launched its own independent website; the previous one was hosted by the University of Essex. As part of this new website the EIAG will have its own web pages. These are still in development, the address being – esah1852.org.uk/eiag. Do visit the pages regularly to see how it develops and learn more about the activities of the Group and Essex's industrial past.

Following on from a small, but successful Industrial Heritage Fair held at Braintree District Museum in 2015, the Group is organising a

bigger and better Fair this year, on **Saturday 7 October 2017** at **Wat Tyler Country Park, Pitsea, SS16 4UH**.

Search: wattylercountrypark.org.uk

We will again be inviting all the local industrial heritage groups, sites and museums to have displays at the Fair, putting on a series of short talks and activities, and giving an opportunity for the groups to network with each other. The site of the Country Park has a long industrial history, including fishing and the cultivation of oysters, as evidenced by the remains of oyster pits on the edge of the Park. In the nineteenth century the British Explosives Syndicate established a factory manufacturing nitro-glycerine based explosives and in 1920 the Nobel Explosives Co. took over the site. Some of the original buildings and the protective blast barriers, in the form of large excavations or banks of earth, can still be found scattered throughout the Park.

AIA members would be very welcome to come along on 7 October for this all day, free event. For more details of the programme, and about the Group generally, email us at essexiaig@gmail.com.

Tony Crosby EIAG Chairman

Europa Nostra awards for the UK

On 5 April the European Commission and Europa Nostra revealed the winners of the 2017 European Union Prize for Cultural Heritage / Europa Nostra Awards, Europe's top honour in the heritage field. The 29 laureates from 18 countries are being recognised for their notable achievements in conservation, research, dedicated service, and education, training and awareness-raising. Independent expert juries examined a total of 202 applications, from 39 countries across Europe, and chose the winners. The United Kingdom received two awards.

One went to **Cromford Mills, Building 17** in the Conservation Category.

The other award which was in the Education, Training and Awareness-raising category, went to **SAMPHIRE: Maritime heritage project**. This project focused on western Scotland's coasts and islands which enables local communities to engage with professional underwater archaeologists based in Scotland and aims to support the identification, investigation and appreciation of Scotland's marine heritage.

Reuse for the former Midland Railway Engine Shed at Northampton

At Northampton, the 1873 engine shed built by the Midland Railway for the Northampton to Bedford line is being conserved. It lies on the edge of the University of Northampton's new Waterside campus which is now under construction. Unused for some 20 years and damaged by fire in 1999, the Grade II listed engine shed is being refurbished to provide offices and other facilities for the University of Northampton's Students Union. Heritage Lottery Funding has been approved to restore the shed to its original state, including refurbishing the wooden roof structure and reinstalling the clerestory roof that disappeared a long time ago.

The two-road engine shed was built in 1873 at Hardingstone Junction, where the MR's Northampton (St Johns) to Bedford line met and crossed the LNWR's Northampton (Bridge Street) to Peterborough line. It is believed to have ceased being used as an engine shed in 1924 and from the 1960s was used as a welding school by British Railways. It then stood disused and deteriorating for many years on wasteland behind a ring of steel fencing.

A recent visit revealed that the roof trusses were being dismantled for refurbishment and there is progress in renovating the external brickwork using bricks that closely match the originals. The original iron-framed windows, sent away for stripping back to the metal and repairing where necessary, are to be reinstalled. Removing the floor which had been laid when the building was a welding school, revealed the former inspection pits. One of these had been



Midland railway engine shed in 2001

'robbed out' and was incomplete, but the other one was intact with even the chairs and part of the track still in place. After recording, it is expected the pits will be re-covered.

When completed, the shed will become the hub of Students Union activity on the new Waterside Campus and will also be available for

community use. As part of the funding package, the Students Union will provide interpretation on the history and heritage of the engine shed. Further information can be found at www.northamptonunion.com/engine-shed/the-engine-shed

Peter Perkins

Looking forward to 2018

The 2018 AIA Conference will be in Caithness from 22 to 28 June (well before the midges) please save the dates – meanwhile here are some tasters.



Dounreay 2016



Holborn Head lighthouse



Subsea 7 pipe layer and Telford bridge in Caithness

AIA Directors' Report for the year ended 31 December 2016

Meetings and Representation

In 2016 the AIA Council met three times: Leicester in February, London in June and a two-day meeting was held in Coalbrookdale in October. Extracts of the meetings were posted on the AIA website and reported in IA News. The duties of the Council members will be listed in the next edition of IA News. Council members also represent the AIA and industrial archaeology matters in other groups and committees regionally and nationally to promote the Objects of the Association and these appointments will also be described in the next edition.

Lobbying, Advocacy and Communication

Vice President Sir Neil Cossons, the President and the Chairman submitted representations to various bodies and local authorities about the threats to significant industrial heritage sites – notably the Lancashire museums, Helmshore Mills Textile Museum and Queen's Mill in Burnley. The Endangered Sites Officer reviewed over a hundred relevant cases during the year, mostly applications for de-listing or demolition of industrial sites, and submitted comments on 29 of them. Keith Falconer and Tony Crosby represented the Association at two of the HLF's Industrial, Maritime and Technology group meetings, where the Fund's officers are informed of the issues within the sector and how grants might be best directed to support this. The first was in Portsmouth in June (reported in the Autumn edition of IA News) and the second was in London in December. On an ad-hoc basis several members of the AIA Council advise Historic England on matters of industrial heritage.

The All Party Parliamentary Group (APPG) on the Industrial Heritage met in March when the threat to the Lancashire mills was discussed. Miles Oglethorpe informed the meeting about the work of Historic Environment Scotland, and Chris Smith brought them up to date about the division of English Heritage and the new Historic England. Despite the turmoil following the EU referendum the next meeting went ahead in June where there were representatives from AIA Council, Historic Environment Scotland, the Architectural Heritage Fund, the National Museum Directors Council, the Heritage Railway Association, Fakenham Gasworks and Waltham Abbey Royal Gunpowder Mills. Sir Neil Cossons informed the meeting about changes in the sector's role – no longer being just about preserving interesting places and machinery, but championing how industrial heritage contributes to the economy, communities, the environment and education.

Although there are specialists from the industrial heritage sector who brief members on current issues, the number of MPs and Peers attending the APPG remains small and we urge all AIA members to encourage their local MPs to take an active part in this group and thereby raise the profile of industrial heritage. For our part, in March we wrote to every museum director of a

site with elements or collections of industrial heritage, urging them to press their local MP to get involved in the APPG.

AIA Practical Day

Tegwen Roberts and Mike Nevell organised 'Speaking up for Industrial Archaeology', a very successful advocacy workshop on 23 April in Ironbridge attended by 35 delegates. There were speakers from three umbrella groups – the AIA, Civic Voice and the CBA – as well as three case studies from delegates and a very useful session from John Batchelor about making the most of social media. It was an information-packed day with lots of lively discussion and a considerable amount of live tweeting to broaden the audience.

Annual Conference

The conference was held at Wolverhampton University's Telford campus from 9 to 14 September and was well supported with 137 delegates attending over the six days, a record turnout for recent years. At the Friday Seminar on 'Britain's Industrial Heritage: What has WHS inscription done for it?' The programme was well balanced with contributions from UNESCO who have been working on measuring the value of World Heritage status, from managers of Ironbridge, Derwent Valley, and Blaenavon World Heritage Sites, from the Lake District as a potential WHS and from a Liverpool regeneration company. The seminar closed with a view of the wider context from Sir Neil Cossons.

As part of the conference on 'Shropshire and Beyond' the AIA commissioned Dr Barrie Trinder to produce an updated edition of his book *The Industrial Archaeology of Shropshire* and it was launched at a reception prior to the author giving the inaugural lecture of the main conference. Copies were posted to members who were unable to attend. The following day there were lectures on the Iron Bridge and on Early Transport Routes of the East Shropshire Coal Field, followed by contributions from seven members, reports from the recipients of awards, and the annual dinner. Following the AGM on 11 September attended by 83 members and guests, John Yates gave the Rolt Memorial Lecture on 'The Three Ages of the Ditherington Flax Mill'. On subsequent evenings there were lectures on Middleport's Burleigh Pottery and on Birmingham's Coffin Works.

During the weekend of the conference there were visits to the 1875 model buildings of Apley Park Home Farm, to Broseley Clay Tobacco Pipeworks and to Wappenshall Canal Basin. Delegates also visited the limestone mining landscape of Lilleshall, Ditherington Flaxmill Maltings, Leighton Furnace, and RAF Museum Cosford with a behind-the-scenes tour of the conservation hangar. Over the next three days further visits took delegates to the Burleigh Pottery, Cheddleton Flint Mill, Mill Meece Pumping Station, Kidderminster Carpet Museum, Kidderminster Railway Museum, the 1940s Drakelow Tunnels, the Birmingham sites of

Newman Brothers Coffin Works and Evan Silver Works, plus a visit to see live casting at the Aga Foundry in Coalbrookdale, the Snailbeach lead mining sites, the roads and canals of Thomas Telford in North Wales, and the Clee Hills industrial landscape. A full illustrated report appeared in the winter edition of IA News.

Full credit must go to our Conference organising team of David de Haan, Ian West, Steve Dewhurst, Shane Kelleher and John Powell and for the excellent support from John McGuinness and Steve Miles. Our thanks also go to the many host organisations for their involvement with the study visits.

Publications

IA News: This quarterly is the bulletin and main communication organ of the AIA. Four issues under the editorship of Chris Barney were published by the Association in 2016, which continues to encourage high standards in all aspects of the study of industrial archaeology. Illustrated reports covered all the Association's activities as well as short technical articles, reports on the work of the AIA Council, affiliated societies, restoration grants, regional news, international news, visits, conferences, letters, etc. Highlights during 2016 included illustrated reports on our new Creative Re-use Awards, the overseas tour to New South Wales, a Scottish machine tools project, our Restoration Grants, Lancashire museums, the 1929 North East Coast Exhibition of Industry, the Spring Tour to Romania, Woodbury Wetlands, the annual conference with a special report on the visit to the Aga Foundry, and Germany's Zollverein site.

IA Review: Peer reviewed and with an international Editorial Board, the journal of the AIA edited by Dr Michael Nevell and Dr Ian West was published for the Association by Maney. The May issue, Volume 38.1, contained papers on Mobile Phone Communications, the Archaeology of Guano in Chile, the Ballast Pump of an American Civil War-era Submarine, St Luke's National School for Workers in Sheffield, and Water Resources of Farnborough Hall. The November issue on textile mills, Vol 38.2, was delayed and did not appear until February 2017.

Awards

To encourage scholarship and investigation in the industrial archaeology field, awards were made to archaeologists, historians, professionals and students

The winner of the **Peter Neaverson Award for Outstanding Scholarship** was David Gwynn for his book *Welsh Slate: Archaeology and History of an Industry*.

The **Peter Neaverson Digital Initiative Award** went to Claire Lewis of Take 27 for an animation of *Peace, a compound steam engine at Queen Street Mill Textile Museum, Burnley*.

Peter Neaverson Student Travel Bursaries were awarded to Jamie Davies for a visit to the Zollverein World Heritage Site in Germany, and to

Wes Forsyth to attend the World Archaeology Congress in Japan.

The **Voluntary Societies Publication Award** went to Mike Shaw for *Aerial Ropeways of Shropshire*.

The **Commercial Publications Award** went to Colum Giles and Mike Williams (editors) for *Ditherington Mill and the Industrial Revolution*.

The **Postgraduate Dissertation Award** went to Joanne Harrison for *Heritage at Risk: Victorian back-to-back houses in 21st century Leeds*.

The **Undergraduate Dissertation Award** went to Bill Pickering for *The Role of Souvenirs in the 1929 North East Coast Exhibition*.

The **Best Creative Re-use of an Industrial Building** went to King Edward Mine near Camborne.

The **Dorothea Award** went to Kew Bridge Engine Trust for the restoration of an 1898 Bentham & Co deep well pumping set at the London Museum of Water & Steam.

Grants

In 2016 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 reported in greater detail to the annual conference in September and there was widespread support for them. As is usually the case with grants, the fund was heavily over-subscribed. This year there were 23 applications requesting total grants of £368,809 towards projects with a total value of nearly £1.3 million. Six awards were made totalling £84,400:

Restoration of the fo'c's'le of the Dawn Sailing Barge, £8,500.

Restoration of Leigh Spinners Mill engine, Lancashire, £14,900.

Repair of the winding engine house roof at Hemingfield Colliery, Barnsley, £20,000.

Repair to an 18ft waterwheel at Wheal Martyn, St Austell, £20,000.

Replacement of windmill stocks and a new set of sails to Billingford Mill, Norfolk, £20,000.

Restoration of a 'Melotone electrostatic unit' for an organ at the Penistone Cinema Organ Trust, £1,000.

Industrial Heritage Support Officer (IHSO)

With further funding secured this project is now in its fifth year and the sector has benefitted enormously from the work of the IHSO who has provided advice, support and training to help preserve industrial sites in England. Ian Bapty left in July and the post was taken up by Shane Kelleher. Key outputs in 2016 have included:

Working with Historic England to organize, chair, and lecture on the 'Understanding Industrial Assets' course at the University of Leicester on 5 and 6 September

Forming part of the organizing committee for the Association for Industrial Archaeology's Annual Conference in Telford

Working with Museum Development Yorkshire to develop and then launch the Yorkshire Industrial Heritage Network at the

National Railway Museum on 21 October; developing and launching the West Midlands Industrial Heritage Network on 30 March at Coalbrookdale with the West Midlands Museum Development Programme and HLF West Midlands

Securing three further years of funding for the Industrial Heritage Support Officer Project from Historic England's National Capacity Building Programme

Directly supporting over 45 industrial heritage sites/organisations through the project's 'clearing house' service. Twitter and Facebook profiles have been set up and maintained for the project, and the Industrial Heritage Support website has been redeveloped to become a source of up-to-date information on funding, training, and support opportunities for the sector.

Visits

Spring Tour to Romania, May 2016

40 participants attended, mostly from the AIA and the Newcomen Society. 'Heritage of Industry', an independent travel company, organised this 7-day tour and a full report by Nigel Grizzard appeared in the autumn issue of IA News. Visits included the oil museum in Ploiesti, a water-powered woollen mill in La Valtori, the gold mining sites of Rosia Montana, the steel town of Hunedoara and nearby Govajdia, and in Sibiu an open air museum, a hydro-electric power station, the Avrig Glass factory and a railway museum.

Country House Comfort and Convenience

In this continuing series of specialist tours organised by 'Heritage of Industry' AIA President Marilyn Palmer led a visit through small and large country houses in Oxfordshire, Buckinghamshire and Surrey, from Greys Court with its Tudor horse wheel, Nuffield Place, former country residence of Lord Nuffield, to Polesden Lacey in Surrey, home of the Edwardian hostess Mrs Ronald Greville in the early 20th century, and ending with a below stairs tour of Blenheim Palace with its superb set of sprung bells.

Financial statements

Subject to approval by the independent examiners, the net outgoing resources for the year amounted to £87,722 with £86,215 attributable to restricted funds (2015: net incoming resources of £17,568 which included £30,793 attributable to restricted funds). In preparing this report, the Council has taken advantage of special exemptions applicable to small companies conferred by Schedule 8 of the Companies Act 2006.

Changes on Council

In February David Alderton retired from Council after playing an active role since 1979, during which time he has served as Conference Secretary, President and Secretary. Paul Sauter, another long-standing member, retired in June. For many years he organised the overseas visits and was also the President of E-FAITH. In September Amber Patrick and Bruce Hedge were appointed as Council members. The Honorary Secretary continues to act as the Liaison Officer, who throughout the year supported Council, dealt with queries and forwarded information to the appropriate quarter.

We are very grateful to all officers and members of Council for the extensive amount of time and effort that they commit voluntarily to ensure the smooth running of the Association through Council and its committees.

David de Haan, Honorary Secretary

APPG – Industrial Heritage

My report on the All Party Parliamentary Group Industrial Heritage meeting on 29 June 2016 was in IA News No. 178 and set out what the Chairman, Nick Thomas-Symonds MP, hoped to achieve over the coming months. The Group met next on 17 October 2016 for its AGM. This was a very good meeting with eight MPs and peers in attendance, three of them really engaging with the discussion about sites within their constituencies which are at risk – Grimsby Ice Factory and the Kasbah; Redcar steel works; and Neath steel works. The AGM business was successfully completed so the Group is secure for at least another year.

The Chair then set out the next steps for the Group:

A visit to the King's Cross regeneration area in December 2016.

Two evidence sessions each based on a particular theme, such as current challenges, good practice and funding, again hopefully in December 2016.

A report and manifesto coming from the Evidence Sessions.

Launch of the report in spring 2017.

Although the King's Cross visit was arranged for 1 December 2016 and we had agreed to postpone the Evidence Sessions until the New Year to allow more time for planning and securing speakers, this was all postponed owing to serious health issues in the Chair's family. However, the King's Cross visit did take place on 2 February 2017. Although only three MPs and one peer attended, the Chair was very pleased with the visit, its content and message, and the fact that four political parties were represented: Lord Andrew Stunell (Lib Dem), Pauline Latham (Cons, Mid Derbyshire), Anne McLaughlin (SNP, Glasgow NE) and Nick Thomas-Symonds (Lab, Torfean). The Group had an introductory talk by the King's Cross visitor centre staff around a model of the whole area, followed a walking tour of much of the area including in particular the historic industrial structures which have been adapted to new uses. All those who attended found the visit very informative and Pauline Latham expressed a wish to bring a group down from Belper to see what can be achieved with heritage-led regeneration. There will be an article about the visit in the Houses of Parliament House Magazine and also a press release.

The Evidence Sessions are now likely to be held on 27 April 2017. The delay allows plenty of time for planning and securing speakers, my absence for much of February, and the fact that there is a Parliamentary Recess from the end of March until 18 April. With luck the report, manifesto and launch can follow soon after.

Tony Crosby

Can you help AIA share its good news?

AIA communicates with its members, supporters and the wider world via a variety of media, including the IA News, the AIA web site, Twitter and Facebook. We'd like to think that these channels are quite good at sharing information about our activities with people who already know us, but we'd like to get better at bringing news about things like our events and awards to a wider audience. We are therefore looking to recruit someone to join AIA's Council to take on the role of Communications Manager, to co-ordinate the messages we put out through our existing channels and to develop new ways of publicising our activities.

Like all the other roles fulfilled by Council members, this will be unpaid but it will be a great opportunity for someone to get more involved in AIA's work and in industrial archaeology across the UK. Ideally we are looking for someone with experience in publicity and communications, but it would be possible to arrange training for someone who was keen to develop these skills. If you would like to find out more about this role, please contact AIA's Secretary, David de Haan, email secretary@industrial-archaeology.org

Endangered Sites the first months of 2017

Over the Christmas period there are often fewer planning and listed building applications affecting industrial sites and this year was no exception, so in January 2017 there were fewer cases for consideration. However, there are four cases worthy of mention.

Two were appeals by applicants against council decisions to refuse permission. The first was in respect of the Chance Glassworks in the West Midlands. The No 1 Skip Hire appealed against Sandwell Council's Enforcement Order that they should vacate the site, their argument being that they should be allowed two years to achieve the move. However, as they have been occupying the site without planning permission, such a long time scale was not appropriate. Until the site is empty the major regeneration scheme, which will create a mixed use facility for the benefit of the local community and ensure the survival of this nationally important site, cannot proceed. Therefore the Association supported the council's decision. The next case was in respect of the Waltham Abbey Royal Gunpowder Mills, Powder Mill Lane, Waltham Abbey, Essex. Again the Association supported Epping Forest Council in their decision to refuse permission.

There have been two textile mill cases. In the first, Bolton Council approved an application to demolish Beehive Mills (Nos 1 and 2) Crescent Road, Bolton. However, Historic England has 'called-in' the application. Therefore the

Association has been able to make further representations. These include that Bolton was the second most important cotton spinning town in the world. The Beehive Spinning Company was the only textile company founded in a depressed year. Therefore it is atypical, and the double mill is now relatively rare, exceeded in Bolton only by the trio at Swan Lane Mills, and it was designed by the reputable architects' firm of Woodhouse & Potts. Owen Ashmore described Beehive Mills as an 'outstanding example of late brick-built cotton mills' in his *The Industrial Archaeology of North-west England*, published by Manchester University Press. The Mills are also noted in the AIA's *Manchester Gazetteer* which was produced for the conference there in 2000.

The final case was in respect of the application to Kirklees Council to demolish the remains of Newsome Mills, Hart Street/Ruth Street, Newsome, Huddersfield. This imposing four storey mill suffered from a disastrous fire in November 2016 which resulted in the demolition, on safety grounds, of all but the ground floor and up to the first floor window cills of the main mill and much of the single storey weaving sheds. The clock tower survived as did the gates and archway entrance to the site as well as the lodge and office façades. The indication was that these would be retained but the remains of the mill and weaving shed would be demolished. To support the latter a structural survey was included. If the remains of the mill were to be demolished, the site could be more easily used for the proposed housing. The Association recommended that every effort should be made to retain the remains of the mill and that we would object most strongly to the demolition of the clock tower,

admittedly not in theory included for demolition. It is pleasing to note that Historic England have expressed serious concern over the proposals.

*Amber Patrick,
Endangered Sites Officer*

From the Treasurer Subscriptions

Thank you to all of our members who have renewed their subscriptions so promptly this year. After last year's troubles, it is pleasing to record that by 3 April only 39 members have still to renew their subscriptions. If you are one of the 39 and for any reason don't want to renew your membership, please would you let me know – email address as below. A brief note of your reasons for non-renewal would be helpful.

Should you have any queries with Taylor & Francis over your subscription or Direct Debits, your best contact is Jacqueline Tearle, email jacqui.society@tandf.co.uk.

Email addresses

Communication by email is fast, economical and convenient, but we hold email addresses for only half of our members and we believe that some of these are out of date. If you've changed your email address in the last few years or believe that we don't hold yours, just send an email to me, quoting your name and address, and I will check for you.

Gift Aid

The tax we reclaim from Gift Aid – £8.25 on a £33 subscription – is a valuable addition to our income and goes a long way towards helping us to keep subscriptions down. However, we can claim the tax refund only for those members who have signed a Gift Aid declaration and there are still quite a few who haven't done so. You only have to sign the form once and it will be valid for as long as you remain a member and are a UK taxpayer. A blank form can be downloaded from our website or I can send you one. If you're in doubt as to whether you've given us a Gift Aid declaration, just send me an email and I'll check our records.

*John Jones
treasurer@industrial-archaeology.org*

Nominate an endangered site

If you know of important heritage that is endangered – such as a historic monument or archaeological site, a place of worship, an industrial complex, a historical park, a museum or even a movable heritage asset – nominate it. For more information search – 7 Most Endangered programme 2018.

The final list of 7 most threatened heritage sites in Europe will be announced by Europa Nostra in February 2018 during the European Year of Cultural Heritage. **Deadline: 30 June 2017.**

AIA Council Meeting 4 March, 2017

Like a Russian Oligarch the AIA has many homes: Coalbrookdale, Leicester and London. The venue for the first Council meeting of 2017 was Leicester University. The highlights and decisions taken are summarised here

Matters discussed but reported elsewhere in this edition of IA News are not included in this summary.

Electronic publication of the Brighton seminar proceedings

The October 2016 Council meeting had discussed the possibility of publishing the proceedings of the Brighton seminar to a wider audience. Unfortunately as the quality of the available material is inconsistent and incomplete, it was decided not to pursue the initiative.

Chairman's Reports

A petition had been launched opposing cuts and appears to have had some success, Birmingham City Council having announced that the proposed budget cuts have been removed for the next financial year, until March 2018. Council member Tegwin Roberts has agreed to co-ordinate a group to assess future threats and to recommend action.

Treasurer's Reports

2016 Accounts – The draft accounts show a small deficit of £1,500 for 2016. Full and final accounts will be published with the AGM papers in due course.

Restoration Grants – With donations from our anonymous donor and the associated Gift Aid, the total funds made available since 2008 amounts to £476,587. After grants already made and promised, the balance available (as at March 2017) is £34,153.

Problems with Taylor & Francis – All members must by now be aware of the problems we have had with the handling of subscriptions by T&F. By the end of last year 79 members were recorded as having failed to renew for 2016. In February David de Haan wrote to almost all of them and so far 21 of them have renewed for 2017, eleven of them also paying for 2016. A further 19 told us they had resigned, and three members have died. It seems that many members had returned Direct Debit forms to T&F but no payments had been taken, and many of the resigning members had informed T&F who had not advised us. A further meeting with T&F is scheduled for later in March to resolve the problems and seek compensation for our lost income.

Secretary's Report

It was agreed that a new membership leaflet should be actioned, the target audience being people interested in industrial heritage conservation and restoration. One growth area is the young archaeologist.

Marilyn Palmer was appointed as our Heritage Alliance representative in place of David Alderton.

Conference Secretary's Report

2017, South-East Midlands 25 to 30 August – Thanks to Bill Barksfield electronic booking has been made possible for the first time via our website. The tour programme has been circulated with IA News and is also on the web-site. An existing regional gazetteer is being reprinted and will be mailed out to all members with the Autumn issue of the *IA News*.

2018, Caithness 22 to 28 June – The Conference Secretary will be visiting the region in May to finalise accommodation and to meet local organisers. It is recognised that cost may have an effect on conference numbers, subsequently budgeting is based on 70 delegates. Subject to availability some of the Saturday afternoon award winners' presentations may be done via Skype.

Publications Editors' Reports

Unfortunately issue 38.2 (2016) of *IA Review* was delayed by technical and copyright issues but appeared in print in early March 2017. The next issue should be with members in May, and will contain five articles including John Minnis' Rolt lecture on Tom Rolt's automotive interests. There has been a marked increase in unsolicited articles, particularly from overseas, reflecting the journal's enhanced overseas profile as a result of the Taylor & Francis takeover. This will be the last year Mike Nevell will be a Co-editor of *IA Review*. There are three candidates for the position and all will be interviewed in due course.

Gazetteers – Steve Dewhirst has scanned 23 gazetteers and 18 sets of tour notes for adding to our web-site as PDFs.

Field Visits – by Heritage of Industry

Spring Tour 2017 – The Randstad, 15 to 21 May

This tour was opened for booking on 29 December and sold out by 11 January. Most of the arrangements in the Netherlands have been made by Jur Kingma who is working very hard to make sure everything will run smoothly. As part of this tour, Amber Patrick and Mark Watson have agreed to speak at the Friday afternoon seminar in Utrecht on the topic of re-use of industrial buildings.

Spring Tour May 2018 – Former East Germany,

Further news will be given at AIA Conference in August.

Country House Comfort & Convenience tours

IHSO (Industrial Heritage Support Officer) report for October 2016 to March 2017

Shane Kelleher reported on a wide range of activities that he had been involved with in his role of Industrial Heritage Support Officer. Direct advice or support was given during the period to 22 organisations and sites, and training to over 150 individuals. The IHSO works closely with a large number of partnerships and forums in the heritage field. To keep up to date with Shane's work see:

<https://industrialheritagesupport.worldpress.com>, and the twitter account @ihsotland.

Bruce Hedge

Best Creative Re-Use of an Industrial Building

This AIA award is now in its third year and gaining recognition and respect.

The awards are for building conversions that strike that tricky balance between the practicality of their new function and the readability of their old. Projects that demonstrate a viable and sustainable long-term use for buildings at risk are particularly encouraged to apply. There are two award categories:

- a project led by a not-for-profit developer ('community focussed')
- a project led by a private sector owner or developer ('commercial')

For more information about the awards, including the assessment criteria and a downloadable application form, see the AIA website.

We need nominations, so if any member is aware of a building they think worthy of consideration, even if they have no connection or involvement in its conversion please, email: creative-reuse@industrial-archaeology.org to make the judges aware of its existence but please act swiftly.

The deadline for submissions is 31 May 2017.

TICCIH Congress Proceedings Now Available Online

Most of the TICCIH Congress Proceedings are now accessible online. Working with the staff at the library of Michigan Technological University, we have scanned the Congress Proceedings and used optical character recognition software to help optimize searches of the contents. Eleven volumes, beginning with the 1973 Congress, are mounted on servers through Bepress and SelectedWorks and are universally accessible at works.bepress.com/theinternationalcommitteefortheconservationoftheindustrialheritage/

From this platform, users can search, download, print and share an incredible array of presentations from the past 40-plus years of TICCIH scholarship. In this open-source format, we expect that searches on a full range of sites and topics should reach researchers in ways not possible in the past. We also intend to ultimately mount a full run of TICCIH Bulletins in this format.

Twitter – True Facts

43% of our 1203 followers are in the 25-34 age bracket, 80% are in the UK and 46% are women.

Kerbstone Marks

The note in *IA News 180* on 'Kerbstone Marks' reminded me once again of the many fanciful explanations that I have seen regarding the significance or otherwise of such marks. They have nothing whatsoever to do with mason's marks, nor land ownership, nor pilgrim's way markers, etc. The truth, certainly for Newcastle upon Tyne, but I suspect also for any area with such marks, is really quite prosaic. They simply indicate the nature of an electrical connection between a main cable, buried in a street, and an adjacent property – coded guides to early supply lines. I have on record about 30 different kerbstone symbols for Newcastle upon Tyne which mainly comprise squares, triangles, arrows, crosses, circles and letters, sometimes in combinations, chiselled into the kerbstone *in situ*, almost certainly by electricity supply company workers.

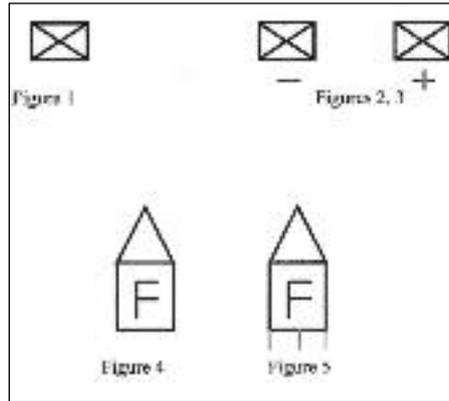
In the 1970s I was in communication with a Mr E H Sadler, who had arrived in North East England from London in 1925 to take up a Premium Pupil student apprenticeship – 'equivalent to a BSc' – with the Newcastle upon Tyne Electricity Supply Co (NESCO). Mr Sadler would remain in the Newcastle electricity supply industry for the rest of his working life, and was very familiar with the kerbstone marks. In his words:

"Cable faults ... were common and there was a continuously manned emergency squad of one engineer and three assistants to give 'fire brigade' style service to deal with these faults. Location of the actual faults was difficult, and heating of the pavements from the fault current going into the earth was often the quickest and best indication. To help, the position of every joint was marked on the kerbstones of Newcastle."

Incidentally, this heating of localised areas of pavement through faults led to some interesting scenes, again as described by Mr Sadler:

"The 'warm pavement' fault technique was easy when there was a light shower of snow, but on a dry day the spectacle of three or four blokes on their hands and knees on the Gosforth [Newcastle upon Tyne] High Street pavement shouting 'Cold, cold', or 'A bit warm', as they progressed along the pavement certainly created alarm if not despondency among passers-by."

The commonest kerb mark in Newcastle is a square with a diagonal cross, Saltire style, which simply indicated a 'joint' (Figure 1.) An added plus sign indicated a joint in the 'positive' cable, while an added minus sign indicated a joint in the 'negative' cable (Figures 2, 3). The letter 'F' indicated a fused connection, (Figure 4) and so on. Figure 5 indicates an early fused service giving a 3 wire supply to the premises, e.g. 250V for lighting and 500V for power. All of these marks probably date from the 1920s and possibly the 1930s.



There is no particular reason to suppose that identical symbols were used elsewhere, for there were no national standards. It was up to individual supply companies to decide to mark their joints on the kerbs, and to determine the design of such marks. The situation in London was bound to be very complicated, for historically it was the most confused district in the country in terms of its electricity supply. By 1917 it had 70 different suppliers, (hence 70 power stations), 50 different types of system, 10 different frequencies, and 20 different voltages; some of these companies would undoubtedly use kerb marks, with their own preferred symbols, while others would not. Hence a possible explanation of 'long runs – several hundred yards – of uniform kerbstones with no marks', and hence, no real 'conundrum'. Newcastle's situation in the 1920s was much simpler, with only two major supply companies, and far-sighted electrical engineers in the Merz family running the show.

Stafford M Linsley.

Is it archaeology?

In his report on the demolition of Westbury Cement Works chimney Peter Stanier wonders whether the works are 'perhaps too recent to be considered as 'archaeology''. I say most certainly not! (Although whether any physical remains will survive the inevitable 'regeneration' of the site, to be discovered by future archaeologists, is open to doubt.)

Surely what matters is that here was a works that was established, flourished, and then has been erased in only a half century. Almost certainly it incorporated equipment and processes that were of their time, even if it is only from the recent past, and those are part of the historical evolution and archaeology of the cement industry. To take another example, no-one I imagine would regard the Concorde aircraft and the processes that produced it as being 'too recent' for inclusion in the history and archaeology of the aircraft industry.

Of course, it does depend on what one means by 'archaeology'; but even in its narrowest usage, when taken to mean just the physical remains (without for example relating these to

documentary sources or oral history), the term surely embraces the tangible evidence. And to get the best understanding of that now and in the future it is best to 'get in there', whenever possible, while the site is still operating.

In 1969 I and two colleagues produced a gazetteer 'Industrial Monuments of Greater London', published as the 'swansong' of the Thames Basin Archaeological Observers Group, predecessor of GLIAS. We were pleasantly surprised to receive several favourable reviews and mentions, including a review by the late Rex Wailes, one of the pioneers of the IA movement. While welcoming the publication, he took us to task for suggesting in our Introduction that "industrial archaeology may be said to begin when the machine stops or the factory closes".

And of course he was right! Regarding industrial archaeology as something that should begin only when the activity has ceased, is rather like saying that one should wait until a person has died before beginning to gather information on their life.

Michael Bussell

Chris Barney forwarded your email re my sentence suggesting Westbury cement works wasn't 'archaeology'. It was a bit of a throw-away line – glad you spotted it. I probably should have inserted 'by many people' to the sentence. The original article was for the CBA Wessex newsletter, for whom I am the IA representative, so the comment was partly aimed at 'traditional' archaeologists to show that archaeology doesn't end with the middle ages, but also the unenlightened population, including local councillors etc. The coming and going of any activity or structure with little or nothing to show for it is something I have always felt very strongly about. I do wonder how future archaeologists would interpret any remains if there were no photographs or plans to guide them. And this is another thing – I am assuming they exist for Westbury. That's something we can all be guilty of, to just assume there has been some form of recording undertaken, without checking!

Peter Stanier

Didcot power station tragedy

On Tuesday 23 February 2016, the boiler house at Didcot A power station suffered a partial collapse during preparation for its demolition – see *IA News 177*. One man was killed and three others were trapped beneath piles of debris. Not until 11 September was last body, that of Mr John Shaw, was recovered from the site. In some newspaper articles the four men killed were described as workmen. They were highly skilled demolition experts. We extend heartfelt sympathy to the families of those involved.

Robert Carr

The Whitechapel Bell Foundry



- A The Casting shop
- B Preparing to cast
- C Opening the mould
- D Bells waiting for attention
- E A selection of clappers
- F An assembled frame

Photos B C and D Whitechapel Bell Foundry
A E and F Chris Barney

Breathe New Life into an Old Place – Make it a Heritage Action Zone

Historic England has announced a new scheme. Their new Heritage Action Zones initiative will unleash 'the power in England's historic environment to create economic growth and improve quality of life in villages, towns and cities'.

Working with local people and partners including local authorities, Historic England will help to 'breathe new life into old places that are rich in heritage and full of promise' – unlocking their potential and making them more attractive to residents, businesses, tourists and investors. They plan to do this with joint-working, grant funding and sharing skills.

Historic buildings that have deteriorated through decades of neglect will be restored and put back into use; conservation areas improved to kick-start regeneration and renewal; and unsung places will be recognised and celebrated for their unique character and heritage, helping instil a sense of local pride wherever there's a Heritage Action Zone.

The first ten Heritage Action Zones are in:

Appleby
Coventry
Elsecar
Hull Old Town
King's Lynn
Nottingham
Ramsgate
Sunderland
Sutton
Weston-super-Mare

In *IA News 182* There will be a description of how this will affect the mining and ironworking world of Elsecar.

Transport Trust Awards

Each year the Transport Trust invites nominations for awards to assist individuals and groups who are working hard to preserve items of importance to the Nation's transport heritage. Awards are made annually to high quality transport restoration projects which are well advanced but which could be helped towards completion by a cash injection and recognition from the Trust.

Awards generally come with a substantial financial lump sum up to £3000 which it is hoped will assist with making good restorations great. Award nominations are invited anytime but those lodged with the Awards Administrator no later than 1 October will be considered for award in the following calendar year. An Award Panel will then select winners who will be advised in the early New Year, and award cheques will follow

shortly afterwards. Winners will also be invited to a high profile transport related location for an awards ceremony at Brooklands Museum where awards are presented by the Trust's Patron, HRH Prince Michael of Kent.

In addition to the Restoration Awards nominations are also invited for the Trust's personal recognition awards: Preservationist of the Year, Young Preservationist of the Year (which has a £500 prize) and Lifetime Achievement. These awards enable the Trust to acknowledge and publicise a wide range of endeavours in the cause of transport preservation, from management or administration to hands-on restoration work.

Further details are available on the Transport Trust's website or from the Awards Administrator, Paul Brook: 07979 720466 or pcbrook@mail2world.com.

Planning Bill Amendment

Peers have passed an amendment to the **Neighbourhood Planning Bill** that would ensure that the government cannot prevent local authorities from attaching conditions to planning permission where those conditions meet the policy tests in the National Planning Policy Framework (NPPF).

The amendment, moved by former Lib Dem Department for Communities and Local Government Minister Lord Stunell, requires that "no regulations shall be made ... that would have the effect of preventing a local planning authority from requiring a condition that would otherwise be in conformity with the NPPF".

Minister admits defeat on archaeology A-level

The plight of the archaeology A-level was in the media again owing to a defeatist comment made in the House of Commons.

When questioned on the matter by Dan Jarvis, Labour MP for Barnsley Central, Nick Gibb the Minister for School Standards stated that, "Officials at the Department held a range of discussions with the A-level exam boards on this issue as soon as AQA made clear that it did not intend to continue developing a new A-level in archaeology. However, it is for individual examination boards to decide which qualifications to offer and we regret that no board has come forward that is willing to develop a new A-level in archaeology for teaching from 2017."

However, despite the Minister's fatalism, the CBA is continuing dialogue with several partners to look at alternative options to deliver the subject and continue to keep archaeology as accessible as possible to new students.

Threat to Birmingham and Walsall Museums abated for now

Many members will have signed the change.org petition to oppose the cuts to funding of the industrial museums in Birmingham. The petition seems to have been successful for the coming year at least and Ellen McAdam, Director of Birmingham Museums Trust, has posted this reply:

"As announced by Birmingham City Council we are pleased to confirm that the proposed budget cuts to Birmingham Museums have been removed until, at least, March 2018. With over 9,000 signatures on our petition and many letters of support, we would like to thank all of our supporters who have helped to show how valued our city's museums are and how vital funding support is to their continued success. .

"The reduction announcement means there is no threat to closure of Birmingham Museums' sites in the next financial year. While we are pleased to share this news, funding beyond 2018 is uncertain."

Meanwhile Walsall City Council has also reversed controversial proposals to cease its funding for New Art Gallery Walsall and either to close Walsall Leather Museum or move it to a smaller site. It has agreed to keep it open at its current venue while seeking out new commercial opportunities to maximise its income.

"Some of the proposals we put forward were controversial and received the response we expected, but at least people could understand the position we're in," said Ian Shires, the council's portfolio holder for agenda for change. "That sparked the interest we needed and set off a two-way conversation. Out of that have come a number of proposal changes we've been able to make. It can honestly be said, this time around, people have influenced the budget."

HLF grants to help with management

Resilient Heritage grants of £3,000-£250,000 can help you to strengthen your organisation, and build the capacity of your staff and volunteers to better manage heritage in the long term.

This programme is available to organisations in the UK who want to build their capacity or achieve strategic change to improve the management of heritage. Grants can fund activities to help you acquire new skills or knowledge, or new models of governance, leadership and business to put your organisation in a better position for the future. Organisations in the early stages of planning their activities may also apply.

Whether you're facing challenges around income and fundraising, or preparing to take on new forms of investment, such as social investment, Resilient Heritage can support these processes.

Holmes Mill Clitheroe

This former textile mill is being redeveloped into a food, drink and leisure hub, with the first phase – 'The Boiler House' – already open.

The project is the brainchild of local entrepreneur James Warburton of James' Places Group who is transforming the 200 year-old site into a bar with brewery followed by a 30 bedroom hotel with gym/pool/spa, and a food hall to showcase the area's local produce.

The Boiler House, which opened in summer 2016, is home to the Bowland Beer Hall which contains the Bowland Brewery and possibly 'the longest bar in Britain' at 106ft, as well as a gelateria, function room and café.

The Boiler House still contains the 1910 cross-compound horizontal engine built by



'Boiler House' at Holmes Mill with 1910 engine

Clayton, Goodfellow & Co Ltd of Blackburn. It is no longer in working condition but it complete and may, in the future, be cosmetically restored and motorised for demonstration purposes. Now drinkers and diners can sit around the giant engine, known in its working life as 'Elizabeth', and walk under the rope drive.

Clayton, Goodfellow & Co Ltd were established at the Atlas works in Darwen Street in nearby Blackburn in 1850 and manufactured complete engines as well as acting as contractors for complete factories. The horizontal engine at Holmes Mill replaced two beam engines which had serviced the site for the past 60 years.

The oldest part of Holmes Mill is a multi-storey spinning block erected in 1823 by John Taylor. A second spinning block, named New Mill was added to the site in about 1830 by Edmund, John & James Mercer along with David Murray, who purchased the original mill and combined the two into a single manufacturing complex.



Holmes Mill

The mill expanded in 1848 with the addition of a four-storey office and warehouse extension, followed in 1853 by a weaving house. By now the complex housed 16,000 mule spindles and 707 looms.

Clitheroe Manufacturing Limited took over production of the mill in 1884. Shortly after, the original 1820s block was stripped of its machinery and used as Clitheroe Technical School until 1916.

The New Mill and its associated buildings were sold to Henry Parkinson in 1905 who installed 496 looms and leased the property to James Thornber.

During both World Wars the site produced gun barrels and torpedo tubes, artillery shells, parts for tanks and battleships and even the winching gear for Mulberry Harbours.

The business declined in the 1960s and in 1969 was sold to a merchant bank which kept the company going until 1983 when it ceased to trade. James' Places Group purchased the site in 2015.

The Boiler House is only one tenth of the Holmes Mill site. Construction is currently taking place on 'The Weaving Shed', which will be home to the food hall, gym, pool and spa, and 'The Spinning Block' which will house the bar & grill, hotel, and apartments.

Arson at the Bata Reminiscence Centre

At the 2012 AIA Conference, a party visited East Tilbury, Essex, the home of the remarkable 1932 Bata Shoe Factory (IA News 163). Local people made us very welcome at the Bata Reminiscence and Resource Centre and we spent some time there inspecting the broad range of exhibits well displayed in glass cabinets. As well as examples of the shoes produced by Bata there was period advertising and packaging, many many photographs – and various other kinds of memorabilia – trophies, badges, bags and so on. Unfortunately the fine display that we saw then has since suffered a tragic fate.

On Friday 6 January this year in the early hours of the morning a Ford Fiesta was deliberately reversed through the doors of East Tilbury Library which houses the Reminiscence Centre. The car was set on fire and a large number of irreplaceable items which were on display there were destroyed. When the fire service arrived around 5 am about 25% of the building was alight and it was 100% smoke logged. It took some days for the building to be made safe enough for Bata volunteers to enter the library and start assessing the damage.

It had been thought that the loss to the archives was very serious indeed but after considerable work by Reminiscence Centre volunteers it can now be reported that about 95% of the records have been saved. Most of what has been lost would have been the items that we saw on display near the entrance of the library during our visit in 2012.

Almost everything from the Heritage collection has been smoke damaged; some things have been destroyed, but it is hoped that a good deal of the collection can be cleaned and eventually put back on display. It will be a long job; surprisingly good humoured volunteers have begun cleaning selected items salvaged from the library. Soft toothbrushes, plenty of warm soapy water and much old fashioned elbow grease is necessary. And so far there has been some success with the bust of Tomas Bata.

At East Tilbury the Bata factory buildings were originally single storey. Multi-storey buildings could be added later. All production runs were really big. This was mass production in the style of Henry Ford. They made shoes for the



Part of display 2016

masses, not exclusive items. Low cost was the aim. Leather shoes accounted for about sixty percent of production and rubber forty percent. At one time there were more than 300 Bata shops in the UK.

The Bata shoe factory at East Tilbury was like Crewe railway works in that they made everything they could themselves – in house. They wove socks and nylon stockings and wove their own shoe laces. The machines weaving shoe laces were very noisy we were told. The engineering department employed more than 200 people. There was a foundry, pattern making and machine shops. Some of the factory's own specialist machinery were made by Bata themselves. They made their own cardboard shoe boxes. They had their own road transport department and even their own dairy. In East Tilbury milk was delivered in Bata milk bottles.

One item that was lost in the fire was a very recent gift of just such a bottle which had been in a farmer's field for over 60 years and when dug up was found to be in near perfect condition. Unfortunately, this item was in the foyer display cabinets and although it has not been possible to access these for safety reasons it is thought that the glass has melted in the fire. If any reader has one and would like to donate it to East Tilbury the Bata Reminiscence Centre would be very grateful indeed. If you have anything else appropriate and would be prepared to donate it, this might perhaps help just a little to make up for the sad loss suffered in January.

People thinking of making a donation should email Mr Mike Tarbard, matarbard@hotmail.com, or write to him at Waterview, Orsett Road, Horndon-on-the-Hill, Essex SS17 8NS.

Robert Carr

Govan Workspace receives its plaque



Govan workspace with suspended mezzanine floor

The AIA Best Creative Re-use plaque was presented to Govan Workspace in Fairfield Shipyard Drawing Offices at the STICK AGM on 24 March.

After Pat Cassidy, Director of Govan Workspace, had received the AIA award we were able to see the new space for business start-ups and how new mezzanine floors have been suspended from new beams to either side of original roof trusses without touching external walls.

New home wanted for hydraulic accumulator



Somerset Industrial Archaeological Society has been asked to find a new location for a hydraulic accumulator which has been used for many years by a plastics factory in Somerset.

SIAS has been advised that the usage was unusual and the machine should if possible be preserved. If you know of any museum that would be interested in it then please contact sias@geoffitton.plus.com. We understand that transport costs will be borne by the developers of the site.

Current Archaeology Awards

The winners of this year's awards were announced at a special ceremony on 24 February at 'Current Archaeology Live! 2017'. This annual event which was held at Senate House, University of London on 24-25 February is in some ways rather like our own AIA Conference although there are no field visits involved.

The awards this year had five categories: Archaeologist of the Year, Book of the Year, Rescue Project of the Year, Research Project of the Year, and Best Archaeological Innovation of the Last 50 Years. The Current Archaeology Awards are voted for entirely by the public – unlike the British Archaeological Awards there are no panels of judges.

The entries for these Awards are mostly traditional excavation archaeology carried out in Britain, and generally involve Roman or prehistoric sites, so for *IA News* only those entries for later periods will be discussed here. Among the nominations shortlisted for the Book of the Year, mention might be made of *The Home Front in Britain 1914 – 1918* edited by C Appleby, W Cocroft, and J Schofield. For the Rescue Project of the Year the nomination *Fast track to the past: celebrating Crossrail's archaeology* should be of interest. The shortlist for the Best Archaeological Innovation of

the Last 50 Years consisted of Digital data, DNA, Geophysics, Isotope analysis, and Lidar.

The winners of the ninth annual Current Archaeology Awards this year were as follows: the Archaeologist of the Year was Mark Knight of the Must Farm Project. The chosen Book of the Year was *Images of the Ice Age* by Paul Bahn. For the Research Project of the Year the Stonehenge Hidden Landscapes Project was selected. The winner of the Rescue Project of the Year Award was Must Farm. The Best Archaeological Innovation of the Last 50 Years was judged to be Lidar.

Lidar, Light Detection and Ranging, is a surveying technique that measures the distance to an object with laser light. It can be used to make high resolution maps with applications in many fields and is immediately applicable to archaeology. In an aerial survey it can see through both forest canopy and undergrowth to reveal details of the ground beneath, something previously almost impossible. Archaeological features indistinguishable on the ground can now be clearly revealed. You can also create high resolution digital elevation models of archaeological sites.

An application in industrial archaeology that immediately comes to mind is a survey of the Central Valley of Scotland where extensive

reforestation is taking place. In a few years time the many former industrial sites will be completely obscured but an aerial survey using Lidar will be able to reveal them in crisp detail.

As previously mentioned, Lidar received the award for the Best Archaeological Innovation of the Last 50 Years. The Award was given to the New Forest National Park Authority for a survey of the New Forest. Here laser mapping has revealed thousands of previously unknown archaeological sites. Clearly this is a great advance in technology, revolutionising how we see landscapes.

The proliferation of awards for archaeology is a little confusing, hence some explanation is appropriate. The Current Archaeology Awards are sponsored by the periodical *Current Archaeology* and take place every year. In addition to these, every second year, there are also the British Archaeological Awards (this is a 'fallow year' with no awards ceremony); these are generally of more interest to AIA members. They are chiefly sponsored by English Heritage, Historic Scotland, Cadw, the British Museum and the Robert Kiln Charitable Trust. The British Archaeological Awards have judging panels and the ceremony is held at the British Museum.

Robert Carr

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

- Bristol Industrial Archaeological Society Bulletin*, 150 Spring 2017
Dorset Industrial Archaeology Society Bulletin 47, January 2017
Histelec News: Newsletter of the South Western Electricity Historical Society, 64, December 2016
ICE Panel for Historical Engineering Works Newsletter, 152, December 2016; 153, March 2017
Industrial Heritage Association of Ireland Newsletter, 48, December 2016
Merseyside Industrial Heritage Society Newsletter, 361, February 2017; 362, March 2017
Northamptonshire Industrial Archaeology Group Newsletter, 141, Winter 2017
North East Derbyshire Industrial Archaeology Society Newsletter, 65, February 2017
Piers: the Journal of the National Piers Society, 122, Winter 2016
Scottish Industrial Heritage Society Bulletin, 80, February 2017
Somerset Industrial Archaeological Society Bulletin, 134, April 2017
South West Wales Industrial Archaeology Society Bulletin, 128, February 2017
Suffolk Industrial Archaeology Society Newsletter, 136, February 2017
Surrey Industrial History Group Newsletter, 213, February 2017
Sussex Industrial Archaeology Society Newsletter, 173, January 2017
Sussex Mills Group Newsletter, 173, January 2017
Trevithick Society Newsletter, 174, Winter 2016
Triple News: Newsletter of the Kempton Great Engines Society, 49, Autumn 2016
Welsh Mines Society Newsletter, Autumn 2016
Yorkshire Archaeological Society Industrial History Section Newsletter, 99, Early Spring 2017

Devizes Conference

Saturday 28 October.
Devizes Town Hall, St John's Street,
Devizes SN10 1BZ.

Registration at 0930. Symposium closes at 1630.
£14 which includes morning coffee and
afternoon tea.

Mike Stone – 'Food Production in North Wiltshire 1660-1960'.

Geoff Hobbs – 'Bus Services in North Wiltshire and Surrounding Areas 1955-1985'.

Bob Clarke – 'Adventures in Aviation: Some lesser known aspects of the Boscombe Down industrial landscape'.

Roger Clark, curator of the Bradford-on-Avon Museum – 'The return of the Iron Duke, an early rubber machine, to Bradford-on-Avon'.

Booking is either via the museum website at www.wiltshiremuseum.org.uk, by post to The Bookings Secretary, Wiltshire Museum, Long Street, Devizes SN10 1NS – cheques payable to 'WANHS Ltd.' or by phone on 01380 727369.

**European Route of Industrial Heritage (ERIH).
Annual Conference, Copenhagen, Denmark
20 to 22 September 2017.**

"Industrial Tourism: Linking the past with the present and future".

Industrial tourism is generally regarded as falling into two areas, the promotion of past industry and visits to modern industrial premises. ERIH falls into the first category, presenting sites which evoke the great industries and society of the late 18th, 19th and 20th centuries. Although some ERIH sites, such as breweries, are still producing with updated methods they differ from organised visits to active industrial premises with modern production methods.

New technologies and international communication mean that traditional industries are increasingly seen as historic and obsolete, especially by the younger generation. How can we beneficially link the two strands of industrial tourism?

EERIAC 2017

**This year's EERIAC will be held on
Saturday 3 June, in Braintree.**

The first speaker will be George Courtauld, whose family established their first silk mill in Essex in 1789 and went on to become a major force in the textile industry. George will speak on the early history of the business and those who heard him at the AIA's Essex conference in 2012 will know that he is not only well-informed but also a very entertaining speaker.

Next, Tony Crosby will speak on the housing provided by large Essex businesses for their workers. The county has a number of good examples, notably East Tilbury, designed by Czech architects for the Bata shoe company, and Silver End, built by the Crittall company (presumably all with steel-framed windows – we will find out on the afternoon trip).

After the AGM and a lunch break we will first visit the Warner Textile Archive and then go on for a guided walking tour of Silver End.

Many of you have been to previous EERIAC meetings, but some haven't. It is more than just an interesting day conference, it is a chance to socialise and talk industrial archaeology with like-minded people from your own and adjacent counties.

3 June
EERIAC 2017
Braintree Essex
See page 27

22 – 25 June 2017
INSTITUTE OF HISTORIC BUILDING CONSERVATION ANNUAL SCHOOL
Manchester
Historic Transport Infrastructure – the backbone of civilisation

24 June 2017
WATERWAYS RESEARCH
Railway & Canal Historical Society
Birmingham University

6 – 10 July 2017
BRIDGE: THE HERITAGE OF CONNECTING PLACES AND CULTURES
Ironbridge
Historic Transport Infrastructure – the backbone of civilisation

25 – 30 August 2017
AIA ANNUAL CONFERENCE, SOUTH EAST MIDLANDS
See pages 4 and 5

20 – 22 September
ERIH ANNUAL CONFERENCE
Copenhagen
Industrial Tourism: Linking the past with the present and future
See page 27

7 October 2017
ESSEX INDUSTRIAL HERITAGE FAIR
Wat Tyler Country Park (former Nobel explosives works)
essexiag@gmail.com

7 – 8 October 2017
COMMUNICATION OF WORLD HERITAGE VALUES
International Institute for Cultural Heritage, University of Birmingham in association with World Heritage UK
Ironbridge will hold a special international meeting to discuss

research and global policy. The event will be immediately followed (9-10th October) by the third annual conference of World Heritage UK For further information and if you have any questions please email j.g.davies@bham.ac.uk

20 – 22 October 2017
E-FAITH WEEKEND
Barcelona

28 October
DEVIZES CONFERENCE
See page 27

22 – 28 June 2018
AIA ANNUAL CONFERENCE, CAITHNESS

9 – 16 September 2018
TICCIH CONGRESS
Santiago Chile
Industrial Heritage Making a Sustainable future by understanding the past

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



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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 TF8 7DX. Tel: 01325 359846.

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

*Top: Farmer's bridge on the BCN (then 1993)
Bottom: Farmer's bridge on the BCN even more then (1973)*

Photos: Terry Evans