

INDUSTRIAL ARCHAEOLOGY NEWS

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**Gasholder reuse in Europe • Elsecar in action
Footpads and highwaymen • Industrialising prison**



INDUSTRIAL ARCHAEOLOGY NEWS 173

Summer 2015

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COVER PICTURE

Riga, aerial view of gasworks showing the two water towers

Photo: Gvido Puķe

Gas holders Part 2

The attitude of different countries towards their gasworks varies from dislike to reverence. In the UK we are not reusing our surviving gasholders in the way they are doing in many other places. This article is a selection from a comprehensive gazetteer of gasholders in Europe and elsewhere, many of which have been reused for other purposes. These range from apartments to performance spaces and include parking, television studios and even a diving tank. Regrettably, lack of space prevents the inclusion of many other interesting examples.

Robert Carr

British open framed gasholders are unsuitable for colder climates where gasholder buildings are generally preferred to prevent the water seals freezing. The reuse of gasholder buildings is commonplace but gasholders with guide frames do not suggest adaptive reuse so obviously; nonetheless there are examples in Dublin and Berlin, and nearer home the intended re-use of the guide frames of the gasholder triplet at St Pancras in London provides a third example. A scheme for the reuse of the large East Greenwich gasholder has been proposed by two architects from BDP (formerly Building Design Partnership). A model was exhibited at the Royal Academy summer exhibition in 2014. Search – 'BDP model chosen for summer exhibition'.

Austria

Vienna – Simmering

One of the most famous examples of the re-use of gasholders. Four large gasholder houses were built here 1896-1899 and were in use until 1986. The gasholders they contained were each 70m high and 60m in diameter. These buildings are utterly stunning – four Albert Halls in a row! For comparison, London's Albert Hall is 41m high.

Following a competition in 1995, four architects were chosen and each allotted a gasholder building to adapt. The interiors have been reused for apartments, offices and entertainment. There are interconnected shopping malls on the ground floors.
www.archi-ninja.com/excellent-examples-of-adaptive-reuse/

Germany

Oberhausen

Perhaps the most famous gasholder conversion of all. This is a MAN type holder 120m high and is now an important cultural centre. Built 1927-29, it is the largest of its kind in Europe. It was decommissioned in 1988. Described as 'the landmark of the city of Oberhausen' – it has become 'an entire region's identification sign that cannot be overlooked'.

Tauchrevier, Duisberg – Indoor diving centre

An above ground single-lift gasholder with guide frame built in the 1920s, the tank has become an

indoor diving centre with the original single-lift bell still in place. This serves as a dome for the pool beneath. The largest such diving and training centre in Europe, the tank here has a diameter of 45m and is 13m deep. An unusual gasholder redevelopment, it is part of the Landscape Park Duisburg Nord, a former steel works complex now a public park.

Augsburg

Gaswerks Augsburg is a large partly preserved gasworks which dates from 1915. Three gasholders remain and most of the 1915 buildings, including some of their contents. Augsburg is the home of the company Maschinenfabrik Augsburg-Nürnberg (M.A.N.) which originated the M.A.N. dry gasholder. These holders consist of a fixed steel tower and have a vertically running piston inside with a tar seal retaining the gas which is admitted beneath the piston. They have been built in large numbers around the world. The example at Gaswerks Augsburg is the oldest of this type, the first dry gasholder in the area and also the smallest M.A.N. gasholder.

Leipzig

The second gasworks to be built in Leipzig opened in 1885. At one time there were four gasholders here, the two surviving were built in 1885 and 1909-10. The 1910 gasholder has been converted for commercial exhibition purposes and at present has a long running special exhibition – the Asisi panoramas. These display 360 degree panoramas designed by the artist Yadegar Asisi. Subjects have included Mount Everest, Ancient Rome, Amazonia and the Great Barrier Reef and they form a major tourist attraction.

Dresden

There is a gas holder house here built 1891 which has been turned into an art gallery for a panorama, showing Dresden as it might have appeared in 1756 – as seen from the Katholische Hofkirche. Known as the Panometer, it was created by the Austrian-born artist Yadegar Asisi, who coined the name as a portmanteau of 'panorama' and 'gasometer'. A great tourist attraction nearly ten stories high, the Dresden Panometer had over 500,000 visitors in the first two years following its opening in 2006. There is also a large reinforced concrete gas holder house close by built 1907-09. This is the Erlwein Gasometer, named after the Dresden municipal architect, Hans-Jakob Erlwein.

Berlin – The Fichte Bunker

A gasholder building designed by the civil engineer Johann Wilhelm Schwedler and built in 1874; this Berlin gasholder house has a brick shell 21m high and 56m in diameter. The holder inside, now removed, stored gas for street lighting in Berlin until the 1920s. During World War II the building was reinforced and used as a six-level air

raid shelter – known as the Fichte Bunker. Despite heavy bombardment it survived the war more or less undamaged. It is Berlin's last remaining brick gasholder building. Exclusive new flats have been constructed at the top, under the dome.

Gasholder Schöneberg

A giant water sealed gasholder built 1908-10 with a guide frame 78m high. Listed in 1994 it is regarded as an important local landmark. Inside at the bottom, a structure resembling the German Reichstag dome was built in 2009 in the above ground water tank. It is used as an event space for up to 600 people and hosts a regular television political talk show. For a charge of 30 Euros and accompanied by a guide it is possible to climb to the top of the gasholder frame. There



Berlin, Schöneberg 1910 gasholder

photo Oliver Fröhschütz.

are 456 steps.

Latvia

Riga

The first gasworks in Latvia opened in Riga in 1862, designed by C A Kühnell, the technical director of the Berlin gasworks. It sported two castellated gasholder buildings, generally considered very picturesque, and even depicted on postcards in the early twentieth century. Both gasholder houses were demolished in 1934. The rest of this complex was reused in the interwar period and survives today.

Clearly, gas in Riga was a success as a second gasworks opened in the city in 1875. Both these works were municipal. By the early twentieth century this second gasworks had three gasholder buildings. Gas production finished at this works in 1962. The oldest gasholder, now demolished, dated from 1873-4; a second gasholder building designed by the civil engineer A Hartmann was built in 1882. The largest gasholder designed by the architect K Felsko was completed in 1901.

Czech Republic

Ostrava, North Moravia

At the Vítkovice steelworks a gas holder for blast furnace gas has been converted into a multifunctional auditorium known as the Gong – a popular venue for education, cultural events, conferences, congresses and all kinds of exhibitions. It has excellent acoustics. Built 1922-24, the holder ceased operation in 1998 and opened as a concert hall in 2012. The AIA Spring Tour visited in 2014.

The Netherlands

Amsterdam

Thirteen heritage buildings here formed part of 'Westergasfabriek'. Most were originally designed by the famous Amsterdam architect Isaac Gosschalk (1838-1907) in the Dutch Neo-Renaissance style. Westergasfabriek has been reused as 'Culture park Westergasfabriek', including a large area of parkland. There are television studios and a large circular gasholder now hosts trade fairs.

Italy

Venice – San Francesco della Vigna

Close to the walls of the Arsenal is the site of the first gasworks in Venice: San Francesco della Vigna. There are two water sealed gasholders of the two lift telescopic type which have their tanks entirely above ground.

The original bell-type gasholder n° V of 1882 was enlarged in 1890 by adding a second lift doubling its capacity. It is column-guided with its guide frame horizontally divided into two parts corresponding to the two lifts. Gasholder n° V has a height of 21m and a diameter of 30m. Because it was built in two phases this gasholder n° V is listed as a monument.



Venice, Gasometro VI 1928

photo Barbara Berger 2008

Gasholder n° VI was built in 1928 as a two-lift, frame-guided telescopic gasholder with a height of 23m and a diameter of 25m. Both gasholders were in use until 1971.

Demolition was proposed but did not take place owing to local protest.

Florence – San Frediano

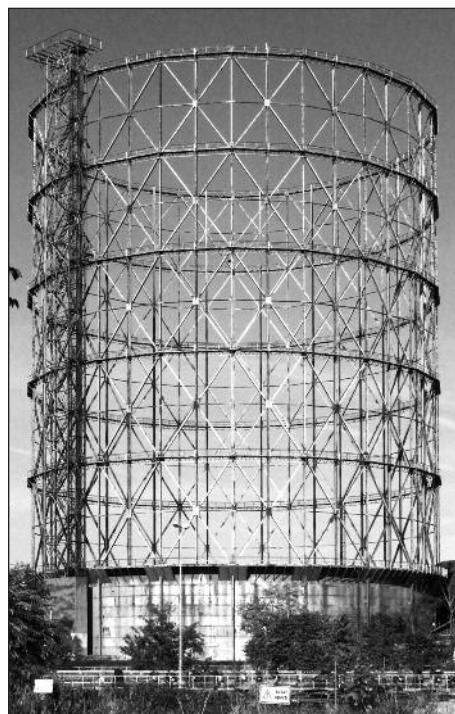
This is the first gasworks site in Florence. Only one historic gasholder remains here, an original bell-type holder built in 1882 by 'V-Ve-Moussy-Constructeur-Lyon'. The water tank is partially underground and the guide framing has columns. These have a circular cross section and at the top terminate in an ornamental 'flame' decoration. This gasholder was one of the smallest surviving gasholders in Italy. However in 1955 the holder acquired a second spiral-guided flying lift. Today a public park surrounds it and it is now part of a social centre.

Rome – San Paolo

By the Tiber in zona San Paolo there are four water sealed gasholders whose guide frames and water tanks have survived.

In 1908 two telescopic gasholders were built here under a patent of Samuel Cutler & Sons of London. A third much larger Cutler-type followed in 1912. All of them have water tanks which are partially underground.

The tallest holder at San Paolo, probably the tallest in Italy, has five telescopic lifts. Known as 'gazometro' it is 90m high and 63m in diameter. This gasholder, built in 1936, is a German patent design by August Klönne. Today the Cutler-type gasholders have been repaired and re-used by their owner 'ITALGAS' (a power supply company) for warehousing, parking, etc. The concept is minimally invasive so that the guide frames can still be seen as an important part of the cityscape.



Rome, Klönne gasholder

photo Barbara Berger

Because of its great size the Klönne holder is a special landmark for Rome. Now the 'luxometro', an art installation, it has been illuminated at night.

Greece

Athens – Technopolis

This is the Athens Gasworks which was built from 1857 by the French Gas Light Company, production starting in 1862. Near the city centre and Acropolis, it closed in August 1984 and was redeveloped in the 1980s as an industrial museum and cultural centre – the Technopolis. The gasworks have been impressively restored so as to maintain their social and architectural significance. Three gasholders remain on site; the frames of the two water sealed gasholders have been reused. This is a Museum which aims to highlight both the work's history and the industrial development of Athens over the last two centuries.

'The charm of a bygone era conveyed through stacks, large gasholders, chimneys and ovens, conspires with reverence to establish the site as a factory for the protection and production of art. Etymologically, the word 'gas' (derived from the ancient German galist, later geist) means spirit.'

Ireland

Dublin UK Ltd

Closer to home and looking westward, we have an excellent example of the reuse of a gasholder guide frame in Dublin at the Barrow Street gasworks by O'Mahony Pike Architects. A water sealed holder, the Alliance, was erected here in 1884 by S Cutler and Sons of London. The guide frame has been fully restored and repainted; within it has been built a circular nine-storey 240 apartment residential building with a central light well. This is an exemplary conversion, see omparchitects.com/en/projects/the-gasworks/

Denmark

Copenhagen – Østergård Gasværk Teater,

Roughly two kilometres from the city centre, a renovated gasholder building houses the city theatre with about 800 seats. It has a diameter of roughly 45 metres and a height of about 26



Stockholm, general view of the gasworks.

photo Katriina Etholén

metres. Service facilities are housed in a new extension, connected to the theatre by a tunnel. The stage is against a wall; this is not theatre in the round. Toilets, workshops and other support facilities are beneath the stage.

Sweden

Stockholm – Värtan

In Stockholm in an area known as Norra Djurgårdsstaden; the former dockland area is now run down and is being massively redeveloped. Over the next 20 to 30 years some 30,000 workplaces and 10,000 apartments are to be created – The Royal Seaport development. Central to this area is a gas works, Värtagasverket, which a group of local actors and officials intend to turn into a cultural centre. There are four low pressure gasholders here: two redbrick gasholder houses, built 1893 and 1900, a steel multi-lift holder built in 1912 and a large MAN piston-type holder dating from 1932. The latter is to be replaced by an even taller tower block. The red brick gasholder buildings which were designed by Ferdinand Boberg (1860 – 1946) will be retained. It is intended that relocating the

main stage of the Royal Swedish Opera will transform the 65m diameter gasholder house built in 1900 into a 950-seat auditorium.

Ballet, opera, art, a library and a museum are all planned for this area.

There are also plans for a data storage centre inside the 1893 gasholder building. Search – gigaom.com/2013/04/04/caves-ships-and-aging-gasometers-3-unlikely-homes-for-data-centers/

Gävle – Gefle Gasverks,

This complete gas works has two gasholder houses, now used for theatre performances. One has a diameter of 26 metres and height of 12 metres, the other has a diameter of 25 metres and a height of 8 metres. Both gasholder buildings have flexible seating and stage areas. Support facilities are underground and in the surrounding buildings. They are used by independent theatre groups and organisers of fairs and similar events. The other buildings are also being renovated with municipal and EU funds.

Finland

Helsinki – Suviлаhti,

At Suviлаhti there are nine buildings, two large gasholders and 2.5 hectares of open-air yard. It is intended that a cultural centre will be formed gradually as the buildings are renovated and tenants move in. Suviлаhti is already an established venue for new circus and other performing arts. The circus performers at Suviлаhti cover the entire range from amateur to professional.

The original buildings were designed more than a century ago by Selim A. Lindqvist (1867 – 1939), who was inspired in part by the Art Nouveau architecture of Vienna.

The property management company Kiinteistö Oy Kaapelitalo is responsible for the renovations and development of Suviлаhti, as well as for renting out space. This company is owned by the City of Helsinki and operates entirely on income from rents with no outside support.

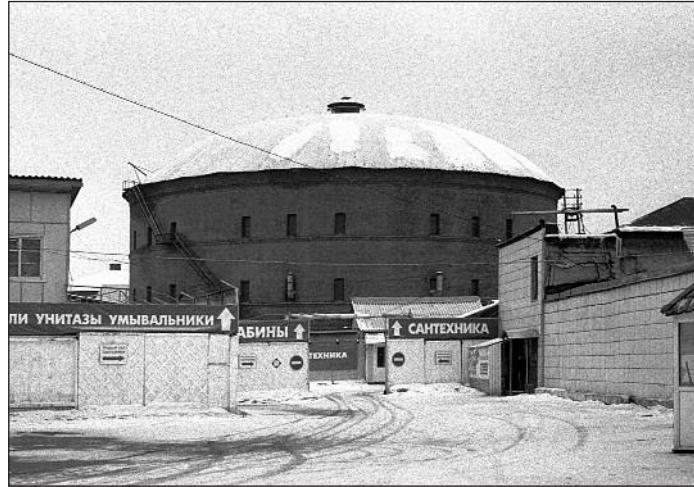


Inside view of converted gasworks, Dublin.



Helsinki, gasholders of 1910 (rear) and 1929 (front).

photo Katriina Etholén, February 2012



St Petersburg,

photo Katriina Etholén, March 2009.

Turku

There is a gasholder house here built in 1913, about 30m in diameter and 25m high. This gasholder house was saved from destruction by the local power company Turku Energia and the site is now used as a thermal battery for the district heating network, storing hot water. The gasholder house contains tanks which can easily hold several million litres of water at 100°C. Public spaces have been created on several floors

inside the building. Before this it had hosted music events in the attic space and two successful concerts were held there in 2010. The site also has a Horton sphere gasholder.

Acknowledgements

Many people have been helpful in preparing this article; in particular special thanks are due to Katriina Etholén, Inga Karlström, Barbara Berger, Oliver Fröhschütz and Rasmus Radach.

The recently published papers on gasholders by Louis Bergeron and Katriina Etholén in Industrial Patrimony 27 have been consulted. Use has also been made of numerous websites and the excellent work of Dr Russell Thomas deserves special mention. These sources have been invaluable in preparing this article on the retention and reuse of gasholders overseas.

Of Footpads and Highwaymen

So much is said and written about the hazardous working conditions faced by the miners and smelters that we can be forgiven for overlooking the fact that being a lead company owner or steward could also be a dangerous occupation. Business correspondence transcribed by members of the 'Reading the Past' group of the Dukesfield Smelters and Carriers Project (see below) has uncovered some illuminating examples of this.

Mike Powell, Reading the Past Group

In the eighteenth century the Blackett-Beaumont lead company's miners in Allendale, Coalcleugh and Weardale received payment annually for the ore they won from the mines. In between these 'great pays', they received small subsistence payments to keep themselves and their families going. This system was convenient for the owners in terms of cash flow as it gave them time to process, transport and sell the lead before they were obliged to pay the miners. On the downside, it meant that when a great pay was approaching the company had to lay its hands on large quantities of cash, which then had to be taken out to the mines by the stewards. Amassing sufficient cash for a pay was always a headache of significant proportions for the Beaumonts and their Chief Steward, John Erasmus Blackett, in Newcastle.

In a letter of 22 April 1793 Blackett wrote to Col. T.R. Beaumont indicating how they were going to lay their hands on £43,300 in cash in

order to make the next pay due in May. Blackett had succeeded in securing £30,000 in cash and notes from the company's bankers but the balance of £13,300 was to be delivered to Newcastle in person by the Colonel in gold and silver coin. This appears to have been a common arrangement as the miners were somewhat suspicious of bank notes and preferred to receive a proportion of their pay in hard currency. In the days before Securicor and Group 4 this was not an undertaking to be approached lightly. In a personal note at the end of the letter Blackett recounted the cautionary tale of Mr Rowland Burdon, a Newcastle banker, who a few weeks earlier was transporting a large quantity of cash in a post chaise through Oxfordshire when he was 'attacked on the road ... by three foot pads'. He had succeeded in fighting off the highwaymen before they discovered the large cash consignment he was carrying. Blackett concluded his note by saying 'I mention this to you that you may be very well arm'd and to be cautious how you travel late at night. I wish you safe travel down.'

The 'Oxford Journal' of 18 May 1793 confirms this story. One John Wiltshire appeared in court, 'charged on suspicion of having committed several footpad and highway robberies', one of which was that upon Mr Burdon: 'Mr. Burdon said, that between the hours of one and two o'clock, on 17 April last, he was stopped in a post chaise, in which was his servant also, by three footpads, one of whom opened his chaise door, and presented a pistol at him; he immediately

drew a couteau, with which he made a blow at the robber, but the fellow jumped back, avoided the blow, and snapped his pistol at him. Mr. Burdon turned round, and found that his servant had been dragged out at the opposite side of the chaise, and a man, who he believes to be the prisoner, jumped in, and after some scuffle with him, in which he wounded the footpad, the fellow pinioned down his arms, and rifled his pockets, from whence he took 25 guineas, and a gold watch.'

Col. Beaumont was not the only person in the lead company who travelled armed when carrying cash. An entry in the company's account journals for 1787 reads:

'Pd Jno Knubley for Pistols for the Lead Stewards £16-10-6
Pd William Nicholson for Holsters &c for the Lead Stewards £6-14-0'

(My thanks to Ian Forbes who tracked down the 'Oxford Journal' report in the British Newspaper Archive and to Ian Hancock for information from the lead company account journals.)

The Dukesfield Smelters and Carriers Project aimed to discover and celebrate the heritage of the Dukesfield Arches & lead carriers' routes between Blydon and the lead mines of Allendale and Weardale. A two year community project, it was led by the Friends of the North Pennines in partnership with Hexhamshire and Slaley Parish Councils and the active support of Allendale Estates. It is now drawing to a close.

The Newcomen engine at Elsecar – Moving again after more than 60 years

I was late for the big event, and getting later. It was a dark and stormy night. The rain came down in torrents' (Lord Lytton). Sheffield's evening rush-hour traffic was more congested than ever. It was Friday 2 November, and I was on my way to the 'unveiling and activation' of the 1795 Newcomen atmospheric engine at Elsecar.

Derek Bayliss

This is one of the most important monuments of the Industrial Revolution. Perhaps it should be part of a World Heritage Site. It is the only remaining Newcomen engine, anywhere, in its original engine house. Newcomen opened the way to all the later uses of steam as a source of power, from the work of James Watt to the latest steam turbines. Just as important, he opened a new era in mining. Instead of drainage by low capacity pumps worked by animals, men, or water power, or by digging laborious adits where the terrain permitted, water could be raised in much larger quantities by the new engines. Deeper and more extensive mines became possible, and untouched new seams could be worked. At Elsecar, the engine was an essential part of Lord Fitzwilliam's New Colliery. By 1795 Watt's more efficient engines were available, but the atmospheric engine was robust, ran on the abundant low grade coal, and involved no royalty payments.

Over the years, it was repaired and altered. A larger cylinder was fitted in 1801, and in 1836 the timber beam was replaced by an iron one with parallel motion. But it kept on working, doing the

job it was designed for, until it was replaced by electric pumps in 1923. Henry Ford's representative came to look at it in the 1930s as a candidate for his museum at Dearborn, but a similar engine from near Ashton under Lyne, known as Fairbottom Bobs, was chosen instead. It was steamed again in 1953, for a visit by the Newcomen Society, but something went wrong and it was badly damaged.

In 1973 it was scheduled as an Ancient Monument. Barnsley Council bought it in 1988 from the National Coal Board, along with the Elsecar Workshops, which were built from around 1850 to serve the adjoining iron works and the Fitzwilliam collieries. It was opened up from time to time, for visiting groups or special events. Alan Bates, a retired miner, and then steam enthusiast Richard Lamb, used to outline its history and how it worked, while the visitors puzzled over the dusty and rusty mechanism. Meanwhile there were long if intermittent debates over whether to restore it to working order, and if so, how; and over how to accommodate visitors and provide interpretation in the cramped spaces of the engine house.

At one point the prevailing view seemed to be that it should be restored to run on low pressure steam, as during its working life. But in the end the problems outweighed the merits, and it is now worked by hydraulic power, concealed in the pumping shaft – a solution first suggested by National Coal Board engineers in 1981. Interpretation has been provided in Building 32, one of the oldest and largest in the Workshops. The work has been generously supported by the Heritage Lottery Fund. The Project Lead Engineer



Elsecar: the Newcomen engine house and engine,
photo John Tanner

for the work was Geoff Wallis, appropriately during his term as President of the Newcomen Society.

I arrived late after all, and joined the crowd in Building 32 during the last of the speeches, so I cannot report on them. Then many of us followed the Mayor of Barnsley outside to turn on the Workshops' Christmas lights. After a wait, we were led over to the engine house, where there were increasing signs of activity. There were fireworks, despite the continuing rain. Steam locos ran up and down on the adjoining Cortonwood and Elsecar Railway. The expectation and tension grew. The new power had worked successfully during trials – it had its first run on Friday 24 October, and by chance I was at Barnsley's country house museum, Cannon Hall, when the news came through. Would there now be a hitch before this audience? But no, at last the pump rod moved slowly up and down in the shaft, and raised and lowered the beam. The Elsecar Newcomen engine was moving again. We relaxed and brushed off the rain, and there was a well deserved round of applause.

For details of opening days and times, consult the websites experience-barnsley.com or elsecar-heritage.com. The Newcomen engine will only run on a few days each year; advance booking is essential (01226 740203) and there is a charge of £3 per person.



Working on the beam of the Elsecar Newcomen engine,

photo John Tanner

VISIT THE AIA WEBSITE
www.industrial-archaeology.org

E-FAITH in Lyon

In October 2014 the E-FAITH heritage weekend was held in Lyon and Vaulx-en-Velin. E-FAITH is the European Federation of Associations of Industrial and Technical Heritage and the delegates attending came from all over Europe including Russia. The subject for the weekend was 'A Holistic Heritage in a Global World 2015, the European Industrial and Technical Heritage Year.'

Sue Constable

The events began on the Friday morning with a visit to the waterworks at Caluire where a Cornish pump survives in the middle of a historic and, at that time, still working water treatment plant. There are also impressive underground reservoirs on site.

The afternoon was devoted to lectures on 2015 European Industrial and Technical Heritage Year. This has the support of the Council of Europe and it is hoped that the European Heritage Days in 2015 will have a significant input from Industrial Heritage sites.

The day finished with the formal welcome to the conference and presentations on the industrial history of Lyon and the Rhone-Alpes region, followed by an excellent buffet and a great deal of discussion.

Saturday was spent at Vaulx-en-Velin. The day began with a visit to the exhibition outlining the Carré de Soie project which aims to revitalise the former industrial area. We then went to the former artificial silk factory – TASE - where the lecture sessions were to take place. On the way we visited the workers' village which had been built to serve the factory. This was built on the garden city principle and included shops and bars and a medical centre.

We were treated to a varied programme of lectures ranging from power plants in Athens to mining industrial heritage in the Fennoscandia area of Russia.

A paper on the Ghent textile industry was of particular interest. A timeline had been produced which showed in detail the mergers, closures and splitting up of larger conglomerates. The technique was thought by many of the delegates to have relevance to their field of study.

On Sunday morning we had the choice of visiting Soierie Vivante or the Gratte Ciel development at Villeurbanne. We chose to go to Soierie Vivante – a restored silk weaving workshop where metal braids (galon) was made. The workshop still has its two early wooden framed Jacquard looms and these were demonstrated for us.

After lunch we enjoyed a guided walk round the Confluence area. This was the dock area of Lyon. As the docks closed the area became derelict and has recently been redeveloped with the building of new offices, the restoration of some older buildings and the making of a riverside walk with restaurants and bars. We also saw the new Museum of the Confluence building which opens in Spring 2015. The afternoon finished with a visit to Halles Tony Garnier, the former city meat market, which is now an exhibition venue.

It was a fascinating weekend and gave us an insight into the city which the AIA is visiting this May. Our thanks must go to the Heritage of Industry who arranged for us to attend.



Looking at the looms at Soierie Vivante'

photo Sue Constable

THE AIA ON TWITTER

The AIA is now on twitter @AlndustrialArch if any twitter-savvy members would like to follow us or contact us that way. The account isn't constantly monitored, but we'll try and reply to messages as soon as we can. We'll also be happy to retweet industrial heritage news from members, so either tag us in your message or use the hashtag #loveindustrialheritage and we'll do our best!

Industrialising Prison, Georgian Style

For several years now the University of Salford has been exploring the site of New Bailey Prison in the centre of Salford, ahead of regeneration led by Muse Developments. The site is spread across several redevelopment packages so this is the third excavation since 2013, and the scale and impact of the prison are now very visible.

Michael Nevell, University of Salford

New Bailey was constructed between 1787 and 1790 and was the first prison in England to be built entirely in accordance with the reformist principles of John Howard, as set out in his landmark work *The State of Prisons*, published in 1777. His proposition was that prisoners could be reformed and morally improved through hard work, prayer, being categorised according to their level of offence and separated by sex, and from the other inmates, in individual cells. With Georgian England rapidly industrialising and urban populations booming, his ideas found a ready ear in Government and, although philanthropic in outlook, as implemented over the next 50 years these new prisons amounted to the industrialisation of prison life through the mass-concentration and control of felons in purpose-built and designed structures.

Lancashire was an early pioneer, with the Sheriff Thomas Butterworth Bayley (after whom the site was named) approving in 1787 the construction of a new prison to cope with the offenders in the Hundred of Salford, an ancient administrative district. This area covered the south-eastern part of the old county, which was one of the centres of the Industrial Revolution. It contained the booming manufacturing town of

Manchester, whose population grew from 23,000 in 1773 to 74,000 in 1801. The prison acted as both a holding cell before trial and as a place of incarceration afterwards, should the defendant be unlucky enough to be found guilty of a misdemeanour or felony.

In its first phase the prison comprised a rectangular enclosure surrounded by boundary wall, within which were the prison gardens, a radial-plan Gaoler's Building and a Gate Keeper's Lodge. It was expanded in the 1810s with the clearance of Bolton and Faulkner Street to the west making way for the western extension of the New Bailey Prison. Within this extension four structures were erected housing the Male Felon Workshops and Yards (excavated in 2013), Male Felon Wards, a Cook House and a Hospital. A third phase of expansion up to the 1840s included the addition in the western half of the complex of a Turn Keys' Office, Clerks' Office and a new Chapel. In the eastern part of the site the original prison building was partially demolished to make way for the construction of a Tread Wheel (excavated in 2014), Stables and Mill House, a block of Male Misdemeanant Workshops and Yards, a block of Male Misdemeanant Wards and a block of Female Felon Workshops and Wards.

The prison was used for minor offences, rather than capital crimes: several members of the crowd from the Peterloo Massacre were briefly held here in 1819. However, the Manchester Martyrs, three members of the Irish Republican Brotherhood, were hung here in 1867. By the 1860s the prison had become outmoded, and unfit for an urban conurbation of more than half a million people. It was replaced by Strangeways Prison, which opened in 1868. The

site was sold to the Lancashire and Yorkshire Railway who demolished it in 1871 and built railway sidings over the site.

The current excavations are looking at part of the mid- to late 1810s extension. This was erected at the end of the Napoleonic Wars and the timing might be significant. This part of the site and the northern section excavated in 2013 have both been shown to have massive brick foundations built on the bedrock, in some areas over 2m deep, with relieving arches supporting the cell and workshop walls. Although the prisons were of two stories the site seems over engineered. Was it a case of job-creation to try to help off-set the unemployment in Manchester and Salford at the end of the wars?

The most striking feature of the current site is its curving plan, the excavations revealing a 90 degree arc of buildings. Though the extension might be thought to be an admission of the failure of the underlying principles of the original prison, these were nevertheless carried into the new design with rows of cells, each divided by day rooms along the inner part of the radius and larger workshops (used for rope unwinding and bobbin winding), separated by a wide passageway, along the outside of the radius. Exercise was an important part of the regime and each block of cells had access to a walled outdoor yard, with a sentry box in one corner.

By the mid-nineteenth century the site had become over-crowded with around 1000 prisoners, yet two surprising aspects of the site are the lack of artefacts and the lack of rubble. Both are probably the result of careful demolition and the recycling of the building materials after the prison closed. But we do have two artefacts: the ceremonial trowel and mallet used at the laying of the first foundations in 1787. These were recently rediscovered in a private store and are currently available for members of the public to see on the regular tours of the excavations.

It is easy to be horrified, from an early twenty-first-century perspective, at the nature of the harsh regime and lack of personal space within the prison; indeed the inner cells were smaller than those towards the rim of the radius so that tall prisoners would not have been able to lie down. Yet disease was not common, partly because the prisoners had access to a doctor, but also due to regular meals, washing facilities and clean clothing. They also had individual sleeping rooms. As Frederick Engels recorded in his classic social commentary published in 1845, *The Condition of the Working Class in England*, the circumstances of thousands of urban working class people in central Salford and Manchester were much worse. Strict and regimented punishment might have been delivered on an industrial scale at New Bailey Prison, but perhaps the real horrors of the industrial city were to be found in the disease-ridden, poorly built and overcrowded slums of Ancoats, Little Ireland and New Islington.



New Bailey prison,

photo Mike Nevell

Frank Atkinson, Museum Director, 1924-2014.

Frank Atkinson, who died on 30 December 2014, aged 90 years, was an influential advocate for Industrial Archaeology in North East England during its formative years. A Yorkshireman by birth, he came to espouse, and was adopted by, the North East of England.

Frank was born on 13 April 1924 in Mapplewell, a pit village near Barnsley; both of his grandfathers had been coal miners. His mother was a schoolteacher, while his father, who had served as a driver in WW1, then worked as a plumber and builder and came to own a few small blocks of houses in and around Mapplewell, where he also ran a garage and motor repair business. Frank was an avid collector from early childhood, building up an eclectic collection of miscellanea which ranged from fossils via beetles to a German bayonet. By age 16 he had firmly decided on a career in museums, but when he left school it was to study science at the University of Sheffield.

He subsequently worked at a coke works near Wakefield before being appointed as Museum Assistant at the Wakefield Museum and Art Gallery; while there he arranged a major Barbara Hepworth retrospective, but also found time to indulge in his favourite pastime, bordering on an obsession, of potholing. Further museum positions followed, including directorships of the Halifax Museums and Art Gallery, and then the Bowes Museum at Barnard Castle, County Durham, in 1958. But he had undergone a 'Pauline conversion' when visiting 'folk museums' in Scandinavia 6 years earlier, and he suggested, at his very first committee meeting at the Bowes Museum, that there was a need for a museum about the everyday working and living experiences of the people of the county – the germ of the idea which ultimately became Beamish.

Thereafter, Frank became a determined and tireless advocate for his cause, leading him to give (he calculated) some 2000 lectures in the 10 years before Beamish was established. He was a wonderful speaker, his 'pop talks' peppered with humorous anecdotes, and his infectious enthusiasm drew widespread support for the idea of an Open Air Museum for the North East region.

The subject of Industrial Archaeology was just getting underway in North East England by the 1960s, groups being formed in Cleveland, Durham City, Sunderland, and Newcastle, and although Frank was not directly involved in any of these, he galvanised the formation of an umbrella organisation - the 'North East Industrial Archaeology Group' - which he led from the Bowes Museum, publishing its Bulletin from 1966 to 1972. He was, consequently, particularly influential in creating a climate of opinion favourable to industrial archaeology and industrial preservation in the North East. He wrote an article for the very first issue of the journal Industrial Archaeology, and also contributed to Kenneth Hudson's *Industrial Archaeology: An Introduction*, (John Baker, 1963). In 1974 he published, *Industrial Archaeology: Top Ten Sites in North East England*, (Frank Graham, 1974), and in the same year *Industrial Archaeology of North East England*, in two volumes, for the David & Charles series of regional studies.

But he devoted much of his busy life to making Beamish happen – his all-consuming pursuit after the trip to Scandinavia. He was a consummate politician, and he certainly needed to be if his vision was to be realised. In important meetings with local politicians he sought to become, in his own words, a 'puppet-master', and if that meant the odd slightly-shady practice, and the occasional political machination, then so be

it. And Frank could charm a winkle out of its shell.

He was, of course, a collector par excellence. His modus operandi was to collect anything that was offered to his embryonic museum, which is how he acquired more mangles than any normal museum curator could possibly want, but Frank intended to recreate a colliery village, and one or two mangles could not possibly be enough. Consequently, when Beamish finally got the go-ahead in 1970, with Frank as its Director, thousands of potential exhibits were already in store. He sought out the ordinary, knowing that in time they would become rare, but he also valued the unusual – he was delighted when I presented him with a stretched and tanned bull's pizzle from a shop on the Scotswood road in Newcastle, where it had been kept to fend off would-be thieves. Many people assisted with Frank's collecting ambitions at this time, including the late Stuart Smith, the renowned blacksmith Chris Topp, and myself.

For the next 17 years, Frank persevered, often against considerable obstacles, to build the Beamish he so desired, only retiring after an operation to remove one of his lungs. Not one to be idle in his retirement at Ovingham, by the banks of the Tyne in Northumberland, he became involved with the Thomas Bewick Birthplace Trust at nearby Mickley, and participated in the work of the Museums and Galleries Commission. He also continued to write, publishing his autobiography - *The Man who made Beamish* - in 1999, and *The Story of Ovingham on Tyne: A Village History*, in 2001. But his most important legacy is, without doubt, the Beamish Museum which hundreds of thousands of visitors now experience every year. He was a one-off.

Stafford M Linsley. [Some of the above first appeared in Newcomen Links, (March, 2015)]

Celebrating James Watt 2015 and 2019

**The Invention That Changed the World:
The Separate Condenser 1765
Is Watt's 'big idea' relevant and
inspirational today?**

Seminar at Western Infirmary Lecture Theatre (WILT),
University of Glasgow
5 June 2015, 10am - 4.30pm

Find out more:

engineeringhalloffame.org/wattsthestory

Tickets: £20/£10 concessions from Rhona Rodger
STICK Treasurer c/o The McManus: Dundee's Art
Gallery and Museum Leisure and Culture Dundee
The Collections Unit, Barrack Street, Dundee
DD1 1PG, or on the door on the day. Cheques to
be made payable to 'STICK'.

Devizes Industrial Archaeology Symposium

All day Saturday 31 October at the new venue of
the Town Hall in the centre of the town.

Registration 9.30

David Viner - Farm wagons

David Hardwick - Yate Colliery

Ivor Slocombe - Agriculture in Wiltshire in WW1
Water supplies and dowsing in North Wiltshire. –
Mike Stone/Jan Flanagan

Tickets £14 includes morning coffee, afternoon tea and
free admission to the Wiltshire Museum (just 100 yards
away) at lunchtime.

Bookings 01380 727369; Wiltshire Museum, 41 Long
Street, Devizes SN10 1NS (cheques payable to
WANHS Ltd) or via the Museum website -
www.wiltshiremuseum.org.uk.

Directors' Report for the year ended 31 December 2014

The Council of Management presents its report, with the financial statements of the Association, for the year ended 31 December 2014. This report also represents the Trustees' Report, which is required to be prepared by Part 8 of the Charities Act 2011.

Meetings and Representation

In 2014 the AIA Council met four times: Leicester in March, London in June, Chester in September and Coalbrookdale in October. 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. Here are some of the key positions they hold. Marilyn Palmer, our President, is on the National Trust Archaeology Panel, on the Council for British Archaeology, the East Midlands CBA Committee, the National Railway Heritage Awards committee and on the Leicestershire Industrial History Society as Vice President; Keith Falconer, AIA Chairman, is on the All Party Parliamentary Group (APPG) on the Industrial Heritage, the Industrial Heritage Support Officer steering group, on HLF's Industrial Maritime & Transport Group, on the European Route of Industrial Heritage UK group and on the AIA's advisory panel for European Industrial Heritage Year 2015; Michael Nevell, AIA Vice-Chairman, is on the English Heritage Industrial Archaeology Panel, and a member of the Industrial Archaeology Committee of the Cumbria & Westmorland Antiquarian and Archaeological Society; Mark Sissons, Immediate Past AIA Chairman, is on the CBA National Listed Buildings Panel, on the Heritage Railway Association and the North York Moors National Park Archaeological Panel, as archivist to the Heritage Railway Association and both a director of, and archivist to, the North York Moors Historical Railway Trust; Robert Carr represents the AIA at the AGM of the Heritage Alliance and the AGM of the British Archaeological Awards, on the Newcomen Society, the Greater London IA Society, and the AIA representative on TICCIH-GB; Tony Crosby is on the English Heritage Industrial Archaeology Panel, on the All Party Parliamentary Group (APPG) on Industrial Heritage, on the Essex Industrial Archaeology Group as chairman, on the Waltham Abbey Royal Gunpowder Mills as director, and on the Committee of the Friends of Great Dunmow Maltings; Ian Miller is a member of the Industrial Archaeology Committee of the Cumbria & Westmorland Antiquarian and Archaeological Society; David de Haan AIA Honorary Secretary is on the HLF's Industrial, Maritime & Transport group; Roy Murphy is on the Council of the Droitwich History & Archaeology Society, on Droitwich Town Council's Planning Committee, and represents AIA at regional IA conferences; Amber Patrick is on the Council of the Gloucestershire Society for Industrial Archaeology; Paul Saulter is the AIA Liaison Officer on E-FAITH – European Federation of Associations of Industrial and Technical

Heritage, and on the AIA's advisory panel for European Industrial Heritage Year 2015; Mark Watson is the UK Chairman of TICCIH-GB – the International Committee for the Conservation of the Industrial Heritage, on the Scottish Industrial Archaeology Panel, the committee of the Scottish Industrial Heritage Society, the Scottish ICE Panel for Historical Engineering Works, the Scottish Vernacular Buildings Working Group, the Institute of Historic Building Conservation's Education Training and Standards Committee, and on STICK – the Scottish Transport & Industry Collections Knowledge Network.

Annual Conference 2014

The Conference was held at Chester University from 5 to 10 September and was well supported with 104 delegates attending over the six days. A series of fascinating presentations was on offer for the Friday seminar on the Archaeology of Chemicals and Textile Finishing, including sessions on Salt, the Chemical Industry, Bleaching, Dyeing, Fustian and Velvet and on Sewage Works. The speakers were Andrew Fielding, Peter Bone, Mark Sissons, Marilyn Palmer, Ian Miller, Roger Holden and Chris Brisbane. Following the AGM on 7 September attended by 78 members and guests, Richard Newman gave the Rolt Memorial Lecture on *Harbour Developments as a Precursor for Industrialisation: the Case of the Ports of Lancaster and Whitehaven*. There were visits to the Chester Canal, Birkenhead Docks, the Wirral Transport Museum, the National Waterways Museum at Ellesmere Port and the Widnes chemical industry; to Fiddlers Ferry power station and the Anderton Boat Lift; to Liverpool Docks, the mines of Alderley Edge, the Macclesfield Canal and the Anson Engine Museum; to the salt sites in Nantwich, Middlewich and Northwich, including the Lion Salt Works. Full credit must go to our Conference organisers John McGuinness and Stephen Miles, to the hosts at the study visit sites, and especially to Michael Nevell and his team for planning such an exciting programme.

Weekend Meeting 2014

This was held in Llanymynech in April on the subject of lime for use in restoring historic buildings. The course was at full capacity for the first day, and usefully reduced for the very practical hands-on training the following day, while the rest of the delegates went to Kidderminster for the regional meeting of the West of England and Wales IA Societies' annual conference. One delegate was supported by a Peter Neaverson Bursary.

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 2014, which aims 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 affiliated societies, restoration grants, regional news, international news, visits, conferences, letters, etc. Highlights during 2014 included illustrated reports on E-Faith's 2013 meeting in La Chaux de Fonds in Switzerland, the Kirkaldy Testing Machine Museum in London, the Origins and Early Years of AIA, an obituary by Neil Cossons of Honorary Vice President the late Stuart Smith who died in April, the 2014 overseas tour of Moravia and Silesia, EMIAC's conference in Chesterfield, the AIA's annual conference in Chester and the 'Country House Comfort and Convenience' tour in north east England.

IA Review: Peer reviewed and with an international Editorial Board, the journal of the AIA edited by Dr Michael Nevell and Dr Ian West is published for the Association by Maney. The May issue, Volume 36.1, was a special twentieth century one, covering Recording Archaeology, Industry on the Hoo Peninsula, The Wearside Pottery in Sunderland, Further Textile Processes and Technologies and Sanitation in Urban Workers' Housing in Ancoats, Manchester. The November issue, Volume 36.2, included the 2013 Rolt Memorial Lecture by Miles Oglethorpe on The Public Benefit of Industrial Heritage and articles on the Reconstruction of the 'Eric Nordevall II' Paddle Steamer, Freight Handling and Warehouses in Chicago and the ReelFitz Newcomen Engine in Cumberland.

Awards

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

1. Two awards were made for the Peter Neaverson Award for Outstanding Scholarship: to Mike Williams for his *Textile Mills of SW England* and to Jonathan Coad's for *Support for the Fleet*.
2. The Peter Neaverson Digital Initiative Award was for '*Investigations at the Ynysfach Ironworks*' nominated for its site-specific website, reconstruction drawings and 3D CG animation of the Ynysfach Ironworks produced by GGAT and iDEA.
3. There were two joint winners in the funded/commercial Archaeological Report Award category. These were: *The Iron Bridge Conservation Plan* by David de Haan, and *Middleport Pottery Historic Building Record Report* by Shane Kelleher and Ric Tyler. The award for the unfunded Archaeological Report produced by volunteers went to the Roggins Local History Group for their work on the Silkstone Waggonway in South Yorkshire.
4. The Publications Award for commercially-produced publications went to Barrie Trinder for his definitive *Britain's Industrial Revolution: the Making of a Manufacturing People 1700-1870*.

- The Local Society Publications Award went to the Sussex Industrial Archaeology Society for the high standard of their various publications, including *Sussex Industrial History*.
- The Peter Neaverson Student Travel Bursary was awarded in February to Scott Smith for travel to South Georgia whaling stations.

Grants

In 2014 the Association received a further very generous amount from the same anonymous donor to support conservation projects. These new projects and progress on the on-going projects were described in greater detail to AIA members at the annual conference and there was widespread support for them. As is usually the case with grants, the fund was heavily over-subscribed with fifteen new applications being received for projects valued at over £855,000. Four awards were made:

- Verdant Works Museum, Dundee for the restoration of a Boulton & Watt engine, £20,000.
- Restoration of a Thomas Telford warehouse at Wappenshall on the Shrewsbury & Newport Canal, £20,000.
- Restoration of a specialist salt wagon at the Lion Salt Works, £7,000.
- Re-erection of a light chamber for the lighthouse on the Scottish island of Colonsay, £4,300.

Consultation

Marilyn Palmer submitted a response to the DCMS consultation on the future of English Heritage on behalf of AIA after liaison with other bodies and useful comments from Tony Crosby, Mark Sissons and Keith Falconer. 'English Heritage' and 'Historic England' will be the names of the two proposed arms.

Industrial Heritage Support Officer (IHSO)

The Officer aims to deliver England-wide support to improve the capacity, sustainability and conservation standards of preserved industrial sites with public access. The IHSO was established in September 2012 and was initially funded for three years by English Heritage. The post is managed by the Ironbridge Gorge Museum Trust (IGMT) and is delivered in partnership with AIA and the Association of Independent Museums (AIM). The project has continued to work effectively in 2014, both consolidating the advisory and training support elements of the post, and taking forward fresh initiatives such as local network development.

AIA Future conferences

Unfortunately the promised questionnaire about AIA conferences was NOT included with the last edition. Apologies for this – it should be with this copy. Please take a few minutes to complete and return it. The conference organisers really do need your advice.

Key outputs in 2014 have included:

42 groups/organisations supported with advice ranging from fundraising, to practical historic building management, re-locating a museum and volunteer development;

Training delivered to 82 organisations around the country via six events (topics including fundraising, marketing, asset transfer etc.);

Working with Museums Development North West, an Industrial heritage network set up in the North West of England, with three day events held to this end;

Mutual working with a range of partners to maximise the industrial heritage support they deliver (e.g. AIM, ERIH, Prince's Regeneration Trust and Heritage Alliance HLF 'Catalyst' Projects, Association of British Transport and Engineering Museums, All Party Parliamentary Group on Industrial Heritage);

Working with and supporting English Heritage work nationally (EH Industrial Network) and at regional level via 'Heritage at Risk' and 'Historic Places' teams (e.g. collaborative project to develop skills training support for stationary engine groups in the North West);

Advocacy work, including attendance/participation at eight meetings, two conferences, preparation of three articles, responses to two national consultations and media liaison.

In August, English Heritage invited IGMT to apply for a project funding extension until March 2016, and this application was successful. Discussions are also underway about the options for developing and funding a follow-on industrial heritage support project beyond that date (potentially both carrying forward the work of the IHSO, and looking to address some of the obvious limits on a single-office national post), and IGMT and the Steering Group will be working with partners to this end in 2015.

Visits

Spring Tour, Moravia & Silesia, 2–7 June 2014

This tour was fully booked with 50 people on the coach. With help from the Brno and Ostrava Tourist Bureaux, Sue Constable set up visits to some 15 sites including the Adamov Blast Furnace, the Villa Tugendhat, the four working watermills at Slup, Zlin (once home of the Bata empire), Dul Michal and the Vítkovice blast furnace blowing engines. Taking an interpreter turned out to be a wise investment – whilst there was some English language guiding, the coach driver and the staff at many sites had only very limited English.

Country House Comfort and Convenience

There were two trips this year: The Welsh Borders led by Ian West in April and Northern Ireland led by Marilyn Palmer in May. The houses visited are

Welcome to our new members

Thomas Hunter of Kirkwall, Orkney

Emma Heron of Ingleton, North Yorkshire

Andy Sutton of Runcorn

Myra Jewell of Southwell in Dorset

William Ellis of Higher Poynton near Stockport and to the Scottish Industrial Heritage Society who have joined as an Affiliated Society.

chosen to demonstrate different aspects of the uptake of technology and the impact that had on the owners and staff. At many sites we benefited from the personal attention of the curators and house managers who often learn a great deal about the early technologies used on their sites from our leaders and members of the group.

All Party Parliamentary Group (APPG) on the Industrial Heritage

This group was established in 2014 and met on 25 February, 10 June and 14 October. Tony Crosby represented the AIA at the meetings held at the Houses of Parliament. Other representatives from the sector included Margaret Faull from the National Coal Mining Museum, Sir Neil Cossons, AIA Chairman Keith Falconer and Ian Bapty. The AIA Secretary sent a covering letter from our President Marilyn Palmer and copies of IA News to 60 names at the House of Commons and House of Lords ahead of the June meeting.

Financial statements

The financial statements are prepared in accordance with the Financial Reporting Standards for Smaller Entities (effective April 2008), the Companies Act 2006 and the recommendations of the Statement of Recommended Practice – Accounting and Reporting by Charities.

Results: The net outgoing resources for the year amounted to £35,886 with £35,723 attributable to restricted funds (2013: net incoming resources of £37,493 which included £34,917 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

Keith Falconer became Chairman and Michael Nevell Vice Chairman at the AGM in September. Shane Kelleher, Ian Miller and Tegwen Roberts were appointed as Council members in place of Stephen Miles, Roy Murphy and Ian West who had completed two consecutive 3-year terms.

The Honorary Secretary is also the Liaison Officer and with the assistance of Anne Sutherland throughout the year continues to support Council, deal with queries and forward information to the appropriate quarter. We are very grateful to all officers and members of Council for the 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

HLF appointment

Malcolm Brown - has recently been appointed as a Consultant (Mentor) to the Heritage Lottery Fund. Malcolm, a graduate of The Ironbridge Institute, is an Industrial Archaeologist, Boat & Ship Conservation Specialist and part-time academic at Swansea University. He will be advising on Engineering, Maritime and Transport.

Endangered Sites Officer's Report

It has been a busy six months or so for Listed Building/Planning applications in respect of industrial buildings. There have been about 40 cases to be considered although comments have not been made on all of them. The majority are listed on the CBA's data base but several have been referred by individual members or societies.

On two of the cases the AIA liaised with the CBA: the Falcon Works in Stoke on Trent and Corn Mill Fold in Leeds. Two cases which came directly to me as Endangered Sites Officer because they were re-referrals were the Kimberley Brewery and Maltings and the proposed demolition of the Weaving Shed at Hollins Mill which had been refused previously. We objected again on both cases and on the former the application has been allowed subject to conditions. Another two cases came directly to me or the AIA. In the latter category was one from Ashfield District Council in respect of the Quantum clothing Group's premises at North Street, Huthwaite, Sutton in Ashfield, Nottinghamshire which was disallowed. The second came from Bob Carr in respect of the Alexandra Palace and we did not object to the whole application but we did to the unblocking of the arches which was the external evidence of the BBC studios of 1936. That application was allowed. Applications on which comments have been made include the Marconi office building in Chelmsford and Gurteens factory in Haverhill (visited by the AIA in 2012), McMullens Brewery in Hertford, and several mills, the most interesting of which was Hollins Mill, Todmorden.

There have been applications for the demolition of listed buildings which through neglect or accident (fire) have become dangerous and as a result not convertible or reusable. This was the case with a textile mill and engine house in Bradford and a saw mill in Sheffield. The former application was allowed, but the latter was withdrawn largely I suspect because of English

Heritage's robust comments. However, whether this application withdrawal will prove beneficial in the long term is doubtful, and the building may now be left to fall down.

As always I am pleased if individuals volunteer to be a correspondent and look at listed building and planning applications affecting industrial buildings or sites for the AIA, either in their own area or because they have expertise in a particular industry or building type. Site visits are not required but an ability to read plans and reports online and form well-argued recommendations is necessary, although guidance can be given. Likewise, I am always pleased to receive details of sites/buildings under threat as a result of planning applications, although I cannot guarantee that the AIA will be able to comment.

Amber Patrick, Endangered Sites Officer.

Support for the Council for British Archaeology

In February letters were sent to all archaeology groups affiliated to the CBA requesting financial support in the light of the government funding that will be withdrawn from the beginning of the financial year. As a result they will have a third less money to sustain their important work campaigning for increased protection for archaeology and their participation programmes. AIA Council recognised that IA as a subject would not have come into existence had it not been for the CBA and accordingly agreed to make a donation of £300 a year for five years.

David de Haan

Peter Neaverson Travel Bursary

An award has been made under the Peter Neaverson Travel Bursary to Charlotte Goudge, a PhD student at the University of Bristol, to enable her to carry out fieldwork in support of her doctoral research in Antigua in May this year. The

main focus of Charlotte's research is the Betty's Hope Plantation, operated by the Codrington family, which combined both sugar and rum production to become one of the most powerful and prolific plantations in the Caribbean. This manufacturing site combines both standing buildings and material culture, which Charlotte is studying in order to gain a better understanding of the British involvement in the rum production industry. It is hoped that a report on Charlotte's trip to Antigua will appear in a later issue of Industrial Archaeology News.

This travel bursary, funded by a legacy from the late Peter Neaverson, exists to provide support to anyone studying or working (in a paid or a voluntary capacity) in connection with industrial heritage, to enable them to further their studies or attend relevant training, conferences or other activities. Full details and an application form can be found on the AIA website.

Ian West

All Party Parliamentary Group (APPG) on Industrial Heritage

The most recent meeting of the APPG on Industrial Heritage was held on Tuesday 3 March at Portcullis House, London. It was chaired by David Anderson, MP for Blaydon, and in fact he was the only MP in attendance. It being a quiet day at Parliament, most MPs were away in their constituencies. Margaret Faull of the National Coal Mining Museum for England and Paul Cuming from Kent County Council were in attendance as the Secretariat. However, there was excellent attendance from Industrial Heritage organisations. The AIA was represented by its Chairman, Keith Falconer, and Tony Crosby; Miles Oglethorpe (Historic Scotland) and Ian Bapty were again there supporting the Group; and there were representatives from the London Transport Museum, Black Country Living Museum, Fakenham Gasworks, Waltham Abbey Royal Gunpowder Mills, Carshalton Water Tower, Crossness Engines



McMullens Brewery, Hertford.

photo Amber Patrick



Charlotte Goudge working on an earlier excavation at Betty's Hope Plantation, Antigua

photo Alexis Ohman

and the Heritage Railway Association. It is good that the sector are so supportive of the potential of this APPG and, if it were to grow and begin to have some influence within Government, the sector including the AIA, is in a good position to contribute towards that influence.

The main business of the meeting was a presentation by Keith Falconer on the European Industrial and Technical Heritage Year 2015 (EITHY). Keith began with a very thorough and detailed exposition on the background to the rise in interest within European countries in their Industrial Heritage, in which there is great pride and a universal recognition of its cultural significance. He explained the role of the various European organisations and institutions, such as E-FAITH, ERIH, Europa Nostra, SHIFT-X, the Council of Europe and the EU, which has helped to grow what started as an aspiration of volunteer groups to what is now an official Europe-wide event. The influence of TICCIH, ICOMOS and the

inscribing of former industrial areas as World Heritage Sites was also mentioned. Keith continued by highlighting the different funding regimes in the different European countries and the fact that the UK with its Heritage Lottery Fund is the envy of many in Europe, having, up to March 2014, given over £1bn to nearly 3,000 industrial, maritime & transport heritage projects. He concluded by highlighting the forthcoming AIA Annual Seminar in Brighton in September, the TICCIH Lille Conference and the Princes Regeneration Trust / Historic England / HLF / AIA conference in the autumn, all being held to mark EITHY 2015, and also the newly launched AIA Best Adaptive Re-use Award.

Comments made during the discussion following Keith's presentation included the fact that industrial tourism is a major aspect of tourism on the European continent; the difficulties small volunteer groups in the UK face in obtaining European funding; the need to have

partners for projects, preferably from Eastern Europe. Also raised were the 250th anniversary of the invention by James Watt of the separate condenser and the 125th anniversary of the Forth Rail Bridge, both this year, with the outcome of the latter's nomination for World Heritage Site status also expected later in the year.

No more meetings are planned at the moment owing to the General Election in May. It is hoped to obtain the support of sufficient MPs following the election for the continuation of this APPG. There will be a need to encourage MPs who have industrial heritage sites in their constituencies to support this APPG and to that end staff at such sites and others, including as AIA members, will be encouraged to write to their local MPs highlighting the potentially important role this APPG could play in the next Government.

Keith Falconer & Tony Crosby

The AIA needs the help of Affiliated Societies and members to nominate buildings for the new award for the
Best Adaptive Reuse of an Industrial Building (BARIB)

The Association for Industrial Archaeology is pleased to announce a plan to launch a programme of awards for building conversions that strike that tricky balance between the practicality of their new function and the readability of their old. The Association believes that adaptive re-use of former factories and other buildings is an effective way to convey the importance of the industrial revolution in the United Kingdom. By celebrating and publicising good examples of conversion, we are confident that developers, planners, trusts and businesses will be encouraged to take up the challenge. The Association for Industrial Archaeology needs to identify appropriate recent developments. We would like Affiliated Societies as well as individual AIA members to help by notifying us of examples of adaptive reuse that they think might be worthy of an award.

Criteria

1 Buildings which may be considered

The obviously industrial, but also including the following:

commercial buildings – for example offices so long as they are associated with a factory complex or a district specific to that industry; farm horse engine houses, steam engine houses and integral farm mills (otherwise agricultural buildings are excluded); corn mills - wind and water – provided that they are exemplary;

transport – road, canal, rail, river and coastal – to include warehouses, maralling yards, signal boxes, station buildings, and engineering infrastructure (such as railway viaducts converted to cycle paths); corn exchanges and hop exchanges.

ADAPTIVE REUSE AWARD

2 Criteria to be considered in the development

The re-use needs to be appropriate and viable (museums are excluded).

New work and new build should be distinguishable from the original. It has to be appropriate and must not detract from the main industrial building.

It is essential that the building can still be 'read' - that is the original layout can be determined and, where appropriate, the processes within the building.

Interpretation should be provided if it helps the understanding of the building where the original function is not self-evident.

Weight will given to the survival, re-use or retention of features, including small ones such as mechanical plant and large ones such as kilns and chimneys, or internal features like fire proofing.

Inappropriate landscaping may detract from the scheme.

There should be a future maintenance programme. This may be self-sustaining or it may require on-going revenue funding.

Climate change: there should be some evidence of attention to energy efficiency in the use and re-use of materials. This may include whole buildings or elements of them. Use or reuse should be the first choice, with recycling at that location the second choice. If known, it should be noted whether the building has been identified in any way as 'at risk'.

Note will be made if the building has been the subject of consent casework comments by the AIA or by anyone else.

3 How to apply

There is no application form. Suggestions should be submitted on A4 paper – no more than four pages.

Please include the address/location of the site and where known, details of the owner, occupier, developer or the planning authority and, if known, the planning/listed building consent application number.

Please attach between 1 and 6 photographs (jpg preferred, with understanding of copyright clearance for publication by AIA).

The project must have been completed within the past three years or within a year of the announcement of the previous award, or in the case of a large site, a discrete phase should have been substantially completed and in occupation.

Applications can be sent by email to aia.liaisonoffice@virginmedia.com as a word document and the photographs as jpgs. Postal applications can also be made and sent to Association for Industrial Archaeology, The Ironbridge Institute, Ironbridge Gorge Museum, Coalbrookdale, Telford, TF8 7DX.

The closing date for applications is 31 May of each year, unless otherwise stated.

4 Notes

The AIA will be able to publish in print or on the web as part of its publicity for the award, any of the photographs submitted. The photographer should be credited.

The award will not be monetary but will consist of a plaque to be fixed by the owner within a public place inside the building, or to the exterior. The plaque will briefly summarise its former use (if not evident in the name of the building), record the date of the award and include the logo of the AIA.

The AIA will lend publicity to the project through its newsletter and web site and will provide guidance on appropriate publicity measures that the award winner might pursue.

The Committee has the discretion to make, in any one year, no award or up five. Its decision is final.

Rotherhithe derrick in danger – urgent help needed

There is a serious threat to the preserved Scotch derrick crane that stands on the Thames riverside in Odessa Street, Rotherhithe (TQ 3663.7951), a little way north of the Greenland Dock entrance.

In summary, this is a large, traditionally designed Scotch derrick crane of the mid twentieth century. It served a hardwood timber wharf at Commercial Pier Wharf until the mid 1980s. Its jib is over 120 feet long. It is the last one remaining in the Port of London, from a great many Scotch derrick cranes handling timber and stone that once stood on riverside wharves.

This one was saved by the former London Docklands Development Corporation, who in 1997 passed it on to the London Borough of Southwark, within a public open space contiguous with the Riverside Path. A covenant restricting the site's use to open space was vested in the Greater London Authority. Apart from fading paintwork and local rust in the sheet-metal cab, it appears in good structural condition.

We once saw our local authorities as guardians of such public amenities, but recently it has transpired that the Greater London Authority and Southwark Council are involved in a deal with a developer to sell off this currently public land for housing (particularly in demand on the riverside, so much money is likely to be at stake). The crane is partly in the way, and Southwark has no money to look after it, so they have trumped up some weak excuses about health and safety. The GLA has agreed to relinquish the covenant, the Southwark cabinet has resolved to press ahead with the proposals and the developer has preparations in hand for a planning application later this spring.

An embryo action group has started a petition to save it by googling: Please-help-to-



Scotch derrick in 1982, Commercial Pier Wharf SE16

save-red-crane-on-Thames. But we really need to get it listed as quickly as possible and this I'm working on.

I would like to be able to show the scarcity of Scotch derricks within seaports nationally (there are preserved quay cranes in various places, and older scotch derricks preserved in some inland contexts, but not what we have here). So my query is, do you know of any other Scotch derricks remaining in English seaports?

Malcolm Tucker

Chester 40 years ago

I fully enjoyed reading the account of the Chester 2014 Conference. It brought back many happy memories for me; of cycling to Chester from my home in Oldham in my early teens and pulling off what was for us a long distance ride; of evening coach trips with a party from our church and in 1958, of being stationed at Seighton Barracks for a short while during National Service before being posted to Germany. But most especially recalling happy memories 40 years ago when Bill Thompson and I, aided by the Staffordshire Industrial Archaeology Society, organised the first Conference of the AIA, held at Keele University. How different that was to Chester. It was so short. We assembled around teatime on Friday, and broke up after lunch on Sunday. No seminars before and no days of field visits after. But; it was fun, and also a nerve racking experience.

Bill and I had originally reserved Madeley College of Education as the venue but, owing to an upcoming merger with North Staffordshire Polytechnic and an uncertain future, Madeley withdrew. Panic! Luckily Keele University had spare capacity that late summer and, albeit at greater cost, we gratefully took it – a headache for Mike Bussell, the Conference Secretary, who had to deal with revised joining instructions.

The conference went well. Our speakers turned up, and none of them asked for expenses. Robert Vogel, of the Smithsonian in Washington DC asked for a special projector which merged slides from one to another. Keele did not have one, but the Ironbridge Gorge Trust did, and Neil Cossons sent Stuart Smith to get it. Panic over. For our Saturday afternoon excursion there were no options. I announced that delegates should look out for two red coaches with the legend 'Midland Red' on the side. When we got to the car park there were about ten Midland Red coaches waiting. They were for American parties also using the University. We eventually got the groups sorted, save for one lady who wanted to come with us to see a pottery. I told her that she should be on the coach for Shrewsbury and its Tudor buildings. She raised her hand to her throat saying, "I'm up to here with Tudor buildings". Nonetheless, she went.

Bill and I heaved a sigh of relief when it was over. No one was ill, nor got hurt during the excursion, and we broke even financially. The next year's Conference, 1975, would be in Durham, and I had taken over as Conference Secretary from Mike Bussell, a job I did for a short while until I handed over to David Alderton.

I look forward very much to Brighton. The Army posted me there in 1958 to learn (under great secrecy) codes and ciphers.

Good luck to John McGuiness and all the locals involved in the arrangements. I know what is entailed.

Fred Brook, Founder Member

The Birkenhead Tram

My name is Rob Jones. I am a member of Merseyside Industrial Heritage Society and I edit their newsletter.

I was thrilled to see on the back cover of IA News 171 a picture of the Birkenhead Tram number 20 used on the IA visit last year.

May I add — Birkenhead was the first place in Europe to have a purpose built tramcar manufactory. Two tramcar factories remain in Birkenhead, but now used for other purposes. The Chester Conference visited both of them, one being the site of G F Milnes factory from 1886 to 1900. Who has NOT travelled on an Isle of Man tram made here?



Starbuck maker's plate

Before 1886 the factory had been established by the American, George Starbuck who built trams from about 1868. Some early ones remain in the UK such as in Crich, and there are notable ones in Brussels and Oporto. A copy of a Starbuck makers plate is attached, it shows a pre 1872 design of tram. Note the rickety ladders to ascend to the upper deck!

The tram pictured was probably built in Hadley (now subsumed into Telford) by G F Milnes who had relocated from 1898 onwards. The factory at the Hadley site now makes other vehicles – military ones, and it's all very hush hush, no photographs allowed, part of the BAe Systems empire. The site was, and may be still known as, 'The Castle Car Works'.

Rob Jones

Bowbridge Lock hasn't moved

I was pleased to read the update on restoration progress at Bowbridge lock in IA News 172 but puzzled by the reference to the Kennett & Avon canal. Surely Bowbridge lock is on the Thames & Severn canal?

Nigel Wassell (Vice-chairman, South West Wales Industrial Archaeology Society)

Of course it is – sorry – Ed.

Animal and water-powered domestic butter churning.

I expect most members will be aware of the use of horse power on farms for tasks other than as draught animals. The use of whims, whether fixed under a roof or portable to the place of need, must be well known. Horses were also used to work equipment directly such as for the crushing of apples in the making of cider. These items of farm plant must have been expensive and would surely only have been used on the larger farms. Many large country houses had water pumps operated mechanically, more usually by water power, but in some circumstances by either a horse whim or donkey wheel.

I have recently read *Discovering the Historic Houses of Snowdonia* by Richard Suggett and Margaret Dunn, in which there are three references to mechanised dairying. At page 145, referring to Cae-Canol-Mawr, Ffestiniog, they say "A dairy now ruined was added on the west side with machinery for churning driven by

a gin-wheel". At page 148 the plan of Gorllwyn-Uchaf, Penmorfa, shows a water wheel adjacent to the dairy, which is off the cross passage in this house and scales a little under 10ft square. And at page 209 they say that Llwynbedw, Llanwnda "by the later nineteenth century had a water wheel for churning".

These three references raise the question, were they exceptional, and if so why go to the considerable investment if no one else was mechanising? On the other hand were there other farms applying water or animal power to the act of churning butter? What form of churn was necessary for use with water or animal power and do any exist? Are there examples of mechanised farmstead dairies elsewhere in Britain? Richard Suggett informs me that "Farm wheels for dairying (churning) were quite common in Caernarvonshire and Merioneth". Richard referred me to the current issue of the newsletter of the Welsh Mills Society, which states that some of the twenty-five waterwheels recorded in

Gwynedd are thought to have powered gorse mills and dairies.

Nigel Harvey in *Old Farm Buildings* (Shire Album 10) at page 22 shows a photo of "The main wheel for horse-driven butter-making equipment in an advanced dairy of the late eighteenth or early nineteenth century". Sadly there is no indication as to where this was or any details of the equipment it operated.

Arthur Ingram in *Dairying Bygones* (Shire Library series) shows a photo of a butter churn at the Welsh Folk Museum operated by a dog-powered treadmill. Gearing from the treadmill revolved paddles inside the churn.

From this very preliminary investigation into the use of mechanisation in farm butter making it is clear that there is scope for considerable further research. If anyone knows of other examples or relevant references I would be very interested to hear.

John McGuinness.

(johnmcguinness203@btinternet.com)

NEWS

Patrick Graham

We are sorry to report the death of Patrick Graham, a loyal attender at AIA conferences for many years with a membership going back to the Association's earliest days. He worked for Humphreys & Glasgow for 28 years as Principal Chemical Engineer. He was 88.

Campaign to save the Marconi Hall Street factory

There is very good news in the ongoing campaign to get a sustainable and viable presentation of Marconi Heritage content in the original Marconi factory in Hall Street in Chelmsford. As the first wireless factory in the world it is of international

significance and can therefore justify support as a site of special heritage interest.

Although the whole building has been subject to a successful planning application for residential development, negotiations with the owners are underway with a view to acquiring the ground floor for the creation of a community/heritage asset. The Marconi Heritage Group is working with the Moulsham and Central Chelmsford Community Trust to get this underway and to raise finance for this opportunity. The Group are convinced that a successful application can be made to the Heritage Lottery Fund but they have to find matching funding and initially pay the costs to set up a trust body to carry out the necessary work –

the full amount required for purchase and fitting-out is of the order of £1.5 million. To start us off they need a fighting fund of a few thousand.

They are planning on launching both national and worldwide appeals for support, as from the earliest days the Marconi companies traded in an international market, and setting up an online crowd-funding site to collect donations. As a small group they will need additional help with the back-office work in running the appeals and the trust, so both those local boots-on-the-ground and those able to use the internet are invited to contact us through our website www.marconihertiage.org or by personal means to give us an idea of what support we can get.

Tony Crosby

Listing for Maple Brook Pumping Station

Now Grade II, this listing is particularly satisfying as the designation decision specifically covers the 'engineering interest' provided by the 1915 Galloway's triple expansion engine which "survives substantially intact and unaltered" and under 'rarity' "it is only one of nine pumping stations in England to retain original triple expansion steam engines in situ, with only 12 engines surviving nationally in a waterworks context".

Isle of Wight IA

The Isle of Wight IA Society, which for several years has not been able to find sufficient officers to be active, has now joined with the larger and older IW Natural History and Archaeological Society inaugurated in 1919. It will be an autonomous section and like the others provide its own programme plus one general meeting per year. The founder of IWNH&AS envisaged, besides the conservation of the Island's natural history,



Marconi Factory, Hall Street, Chelmsford

photo Tony Crosby

that his society would also ensure the proper preservation of objects of specific archaeological and geological interest. Hence the old IWIAS should fit in well as it effectively now gives the society both a pre and post medieval archaeology group. The old IWIAS funds have been ring-fenced for industrial archaeology use.

Patrick Nott

Snibston Museum to close on 31 July

On the 14 January 2015 Leicestershire County Council's Cabinet met to consider a series of recommendations on the future of Snibston Discovery Museum.

They decided:

The business case submitted by the Friends of Snibston Museum could not be taken forward, as it did not meet the requirements of the County Council and, following independent assessment, was found not to be financially viable;

To pursue the County Council's revised mining offer and develop a programme to implement this decision, subject to reappraisal of the position following the outcome of the expected comprehensive spending review later in 2015;

To undertake an audit and condition assessment of the collections currently stored or displayed at Snibston.

The museum will close on 31 July.

The Century Theatre and Country Park will continue to operate as normal, as they are not directly affected by this decision.

National Heritage Landmarks Partnership Scheme – Six New Projects Announced

Biffa Award has pledged £1.5m over three years to the Association of Independent Museums (AIM) for the National Heritage Landmarks Partnership Scheme.

Burlesdon Brickworks, Hampshire: £82,000

The Bursledon Brickworks are a complete Victorian steam driven brickworks. Their survival is extraordinary. It is rare for a manufacturing industry not to update their processes but this happened at Bursledon. Newer introductions were made elsewhere on site but the remaining unit is as it was when the Victorian owners built it. This project will reinstate a steam engine working an old pan mill for mixing clay, enabling visitors to the site to gain a better understanding of brick manufacture.

National Waterways Museum, Ellesmere Port: £119,718

This project involves a major redevelopment of the historic Slipway at the National Waterways Museum in Ellesmere Port Conservation Area, opening it up to the public for the first time as a fully accessible site. The Slipway overlooks the Manchester Ship Canal and the Mersey estuary. A viewing area will be created, enabling visitors to

visualise and understand the importance of movement of cargoes between the coast and the canal network and the role of global trade in transforming the region and our nation.

Middleport Pottery, Burslem: £120,000

The Victorian Middleport Pottery with its unique hand-made production of Burleigh ware was saved from closure several years ago by The Prince's Regeneration Trust. Funding from AIM Biffa Award will restore the pottery's original 1888 W. Boulton Steam Engine and open up the Boiler House as part of the visitor experience. The steam engine is thought to be the only recorded example of a Boulton Burslem built steam engine remaining within its original context.

Mail Rail, London: £69,075

The Post Office Underground Railway, also known as Mail Rail, represents an ingenious and uniquely British solution to the problem of the capital city's crowded streets and the need to transport mail quickly and efficiently. Opened in 1927, the world's first driverless, electrified railway ran under the streets of London for more than three quarters of a century from Whitechapel in the east to Paddington in the west. This project will provide visitor interpretation, together with the restoration and display of key rail track features of the railway at Mount Pleasant.

SS Great Britain, Bristol: £117,180

This project will allow the public to enter Brunel's drawing office for the very first time and learn the story of the screw propeller, which was a defining moment in I.K. Brunel's career. Visitors will be invited to enjoy the authentic restoration of the building where Brunel worked on the design and build of the SS Great Britain.

Woodhorn Museum, Ashington: £35,000

Located at the heart of the original colliery building complex at Woodhorn, No.2 winding house was built between 1899 and 1900, and is the last Victorian engine house in Northumberland to still contain a working winder. This project will refurbish the historic colliery winding house (largely untouched since the 1980s), and install new interpretation so that it can be permanently accessible to the public for the first time.

Since 1997 Biffa Award has made grants totaling over £150m. The programme administers money donated by the Biffa Group Ltd through the Landfill Communities Fund

The Arkwright Society appeals for members

Cromford Mills would not be here today if it wasn't for the Arkwright Society – the charity that owns and manages this heritage site of world importance in Derbyshire's Derwent Valley.

Arkwright Society has members around the world who are kept in touch by regular mailings and newsletters. The key objective is to regenerate the site and its Grade I listed mills at Cromford by creating sustainable new uses that contribute positively to the local environment and economy. Its preservation work means it is able to provide training opportunities for those unemployed, work experience and volunteering roles for those seeking work but in need of first hand real life experiences in the workplace, together with volunteering roles for other members of the community.

The Arkwright Society relies on fundraising and its own income generation as it continues to maintain, manage and restore Cromford Mills. However, it cannot do this without members'



Children of the Mills: The Arkwright Society have embarked on new education programmes for groups of primary school children. Each child plays the role of a new worker turning up at Cromford Mills meeting Mr Clack, reincarnation of the 1797 mill manager. The great success of the new programme has led to a large increase in younger visitors eager to participate.

help. Every penny really does count and becoming a member of the Society will help to ensure that Cromford Mills are as dynamic, innovative and creative today as they were in the eighteenth century. Why not help keep that spirit alive by joining as a member as subscriptions are vital to progress the regeneration programme at Cromford Mills.

For further details about Arkwright Society membership please contact Catherine Roth on 01629 823256, visit www.cromfordmills.org.uk or email membership@arkwrightsociety.org.uk.

Fritchley Tunnel and Crawshaw Bridge now listed

Two important listings were announced in March. Fritchley Tunnel, part of the Butterley Gangroad and claimed to be the world's oldest railway tunnel, was the subject of a Community archaeology Project, see *IA News 172 (Spring 2015)* page 10 – has been listed Grade II.

Also listed Grade II is Crawshaw Woods Bridge, thought to be the oldest cast iron bridge in the world over a working railway. It was designed by James Walker and constructed by Stanningley Ironworks for the Leeds & Selby Railway.

In the early nineteenth century Leeds was a major textile manufacturing centre and needed a good transport connection to the sea for the import of raw wool and export of finished cloth. The pre-existing river and canal system to Hull was slow and expensive and a railway link from Leeds to Selby and then onwards to Hull was considered to have potential to improve the transport infrastructure, and could also benefit local coal mine and quarry owners.

In 1825 George Stephenson was asked to survey a possible route to Selby. However, financial uncertainties led to the project being postponed and Stephenson concentrated on the Liverpool & Manchester Railway instead. In 1829 James Walker was asked to review the Stephenson proposal. Walker (1781-1862) is best known for designing harbours, docks and lighthouses, having been appointed consulting engineer to Trinity House in 1825.

The proposed route ran from Leeds to the River Ouse at Selby. Walker suggested that the plan put before Parliament should allow for the construction of a four track line. It was authorised by Parliament in 1830, four months before the pioneering Liverpool & Manchester Railway opened, and was fully opened by December 1834.

The scale of the project was unusual because of the decision to provide four tracks. This resulted in a trackbed of 66ft (20m) rather than the typical two track line which had a trackbed of 30ft (9m). The extra width gave the railway a quite different character from the simple lines and waggon ways that had preceded it. The most distinctive characteristic of the line was the design for the overbridges, which had to span the four tracks rather than the usual two tracks. Walker did not use a twin-span bridge, but designed a bridge with a single, basket arch (three-centred arch where the height is less than half the span) and an unprecedented span of around 60ft. In the event only a twin-track line was laid.

In World War I the bridge was the main access bridge to the Barnbow Munitions Factory.

The bridge deck was renewed in 1943 by the London and North Eastern Railway and again in 1999. The present deck is raised above the cast-iron spans and is structurally independent. It has solid steel parapets which stand inside the unaltered, original iron railings.

Avoncroft post mill back in action

The nineteenth century post mill was rescued from Danzey Green near Tanworth-in-Arden in 1969 and reconstructed at Avoncroft. Having undergone an extensive programme of structural repairs over many years, disaster struck the windmill in January 2012 when high winds brought down one of the sails and damaged the supporting round house. The sail was broken beyond repair and a new one had to be manufactured to replace it. The windmill has now been restored to full working order. The AIA, through its programme of restoration grants, was delighted to be able to help with £6,790 to fund

work that was not covered by insurance.

Simon Carter, Museum Director, says: "we've had some problems along the way but we're delighted that the windmill is now one of the most popular exhibits in our collection at Avoncroft. Our team of windmill volunteers has been absolutely invaluable in re-establishing it as such a highlight and we are now looking into further possibilities to put the mill to good use. We are currently exploring the feasibility of producing Avoncroft Museum flour and hope to be able to do this in the near future."

New executives for English Heritage

English Heritage has named the two chief executives that will take over when the organisation splits in two later this year.

Kate Mavor is to be the new chief executive of English Heritage, which will become an independent charitable trust on 1 April. She is currently the chief executive of the National Trust for Scotland and will join English Heritage in May.

The English Heritage Trust, a new independent charity, will look after the National Heritage Collection, which comprises more than 400 historic sites across England including Stonehenge, Dover Castle and parts of Hadrian's Wall. It will retain the English Heritage name.

The English Heritage charity hopes to become self-sustaining by 2023. To help achieve this it is aiming to increase admissions revenue from £23.7m in 2015-16 to £30.7m in 2022-23. Over the same period it wants to increase membership revenue from £26.8m to £42.6m and fundraising revenue from £3.2m to £8.9m.

The government has awarded English Heritage £80m of capital investment to make repairs to existing properties, and a further £8.5m to finance implementation of the new structure. The charity will continue to receive resource grant-in-aid from the government on a declining basis from 2015/16 to the end of 2022/23.

The Historic Buildings and Monuments Commission for England (now known as Historic England) will review the progress of the English Heritage charity throughout the eight years to 2023 and will have the right to terminate the agreement if the obligations are not met. In that event, the collection would revert back to the management of the Commission.

Duncan Wilson, currently the head of Alexandra Palace and Park in London, has been appointed the first chief executive of Historic England.

This new organisation, which is to remain a government service, will champion England's wider heritage and provide expert advice. Their new website is – historicengland.org.uk (well worth visiting)

The Prefab Museum

The Prefab Museum will not reopen on the Excalibur Estate in Catford. This decision has been made for the safety and security of the organisers, volunteers and visitors, which,



Crawshaw bridge.

ENGLISH HERITAGE
photo English Heritage

following the arson attack in October, could not be guaranteed.

It had been expected that the museum could stay open until 2017, when the final phase of demolition at Excalibur was scheduled to take place.

Some of the money raised has been used to continue the work online and to establish new partnerships with the aim of opening a Prefab Museum in the future. Work has also been continuing with UCL who are helping classify and document the large archive of photos, memories, films and documents.

Elisabeth Blanchet

St Aidans BE1150 Dragline

The Friends of St Aidans are delighted to report that they now have an electricity supply laid on to 'Oddball' and so they will no longer have to hump generators, fuel and cables for the open days. Saturday 13 June (2 – 4pm) is the next one, followed by Heritage Weekend 12 and 13 September.

Hot air heating

The massive College Square East building of Belfast Metropolitan College is being converted to student accommodation. Built in 1902, it was heated by a hot air system powered by a steam engine, built and installed by Musgrave and Company Ltd of Belfast. Concern had been expressed about the future of the engine which is in very good condition.

However, as part of the planning permission the company has agreed to retain the steam engine, even though it will no longer heat the building. Lacuna Development's Anthony Best said "It will be kept where it is, protected behind a glass screen, so it will be a feature as you walk past. The steam engine was installed in 1902 and heated the college until it moved in 2007. It worked under coal, then oil, then gas, and was converted to use the different fossil fuels. There

were two people working on it and running it full time. It worked by heating the air and blowing it through big grilles in each of the rooms – these are all listed and will remain."

Henry Musgrave (1827 – 1922) first went into business with his brother Edgar in about 1850 to trade tea and sugar, founding H & E Musgrave, but later he took over the ironworks started by his older brothers. The company supplied goods throughout Britain, Europe and the Americas. Customers included members of European aristocracy such as the Empress of Germany and the King of Spain. In 1890 they designed and supplied much of the ironwork for the parks in Dublin, including the bandstand in Phoenix Park. A noted philanthropist, he donated the land which became Musgrave Park in south Belfast.

The company survived until 1965.

Call for new right of appeal on planning

An alliance of Campaign to Protect Rural England (CPRE), Civic Voice and the National Association of Local Councils (NALC) has called on all political parties to make a firm manifesto commitment to introduce a 'community right of appeal' into the planning system.

The alliance believes that there should be a limited community right of appeal in areas where a development is non-compliant with a neighbourhood plan or local plan. Currently parish councils and other community groups have the power to produce neighbourhood plans, but no scope to stop developers overriding this by putting in speculative planning applications for approval by the district council. Budget cuts within local authorities mean that they are under increasing pressure to allow large developments, even when these are not in line with the community's aspirations for the future of its area.

CPRE Chief Executive Shaun Spiers said, "The planning system needs to be rebalanced to give

communities the right to stand up to bullying developers and appeal against planning decisions which ignore local or neighbourhood plans. The grounds on which developers can appeal should be restricted and a limited community right of appeal introduced. The vast majority of planning applications would be unaffected by such measures, but they would provide important safeguards to ensure communities can resist unsustainable development proposals".

Freddie Gick, Chair of Civic Voice said, "At present, the only recourse for the public against poor planning decisions is judicial review. A right of appeal would give local people a real opportunity to have a say and would rebalance the planning system and help deliver true localism".

NALC Chairman, Cllr Ken Browne said, "The voice of local people through the local (town and parish) councils should always be at the heart of planning. To some extent this is being achieved through the statutory neighbourhood plan. But communities via local councils feel that their planning demands are being ignored and there is still the potential for developers to try and ride roughshod against the neighbourhood plan. So a 'right of appeal' would stop this planning injustice".

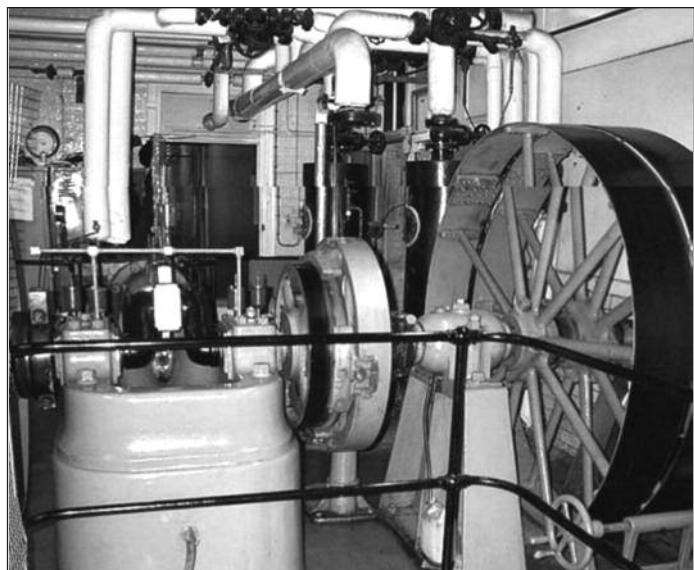
Cullochy Weir breached

Unusually high water levels on Loch Oich, as a result of heavy rains and snow melt, have significantly undermined the weir at Cullochy, about six miles south of Fort Augustus on the Caledonian Canal, and partially washed it away, causing a major breach of the canal embankment.

Scottish Canals had originally hoped to dam the flow of water at the weir itself but, having investigated the site further, they decided to place large stone blocks in the water next to Aberchalder Bridge instead to form a temporary dam.



College Square East, Belfast



Musgrave built engine for hot air heating system.

Once the work to stem the flow of water has been carried out, it is hoped to be able to manage the repair works to the weir while the canal is operational.

Engineers vote for preservation or reuse

In March the journal *The Engineer* challenged its readers with the following question:

"What is the most appropriate fate for large industrial facilities, such as mine workings, power stations, cooling towers and chimneys, once they reach the end of their working lives?" There were five options.

624 readers responded with the following results:

They should be demolished. Sentimentality is misplaced – 29%.

They should be preserved as local landmarks, in such a way as their use is memorialised, eg as museums – 13%.

They should be redeveloped commercially, eg as housing or offices, at minimal cost to the public – 37%.

They should be preserved for public use, eg as art galleries or concert halls – 12%.

None of the above – 9%.

It would be interesting to know what the last group have in mind but leaving them aside it is 62 to 29 in favour of some positive action.

Tees Cottage Pumping Station

The Pumping station originally built in 1849 and housing Lancashire Boilers from 1902, a 1904 steam powered beam engine and a 1914 gas engine (all in working order) has been closed since Easter 2014. It was hoped, that with the essential safety work completed, the site would reopen this Easter. However, the new predicted date is in September.

At the moment there are still holes in the roofs, the chimney needs the top repointing, the

gutters have major issues and vandalism and wear and tear have taken their toll on the downpipes. In all a list of some 130 items.

It is hoped that Northumbrian Water will carry out this work shortly.



Tees Cottage Pumping Station

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

Cumbria Industrial History Society Bulletin, 90, December 2014

Dorset Industrial Archaeology Society Bulletin 41, January 2015

Greater London Industrial Archaeology Society Newsletter, 276, February 2015

Histelec News: Newsletter of the South Western Electricity Historical Society, 58, December 2014

Historic Gas Times, 82, March 2015

Historic Scotland Focus, 2015

ICE Panel for Historical Engineering Works Newsletter, 145, March 2015

Industrial Heritage, 38/1, 2014

Lincolnshire History and Archaeology, 47, 2012

Lincolnshire Past and Present, 98, Winter 2014/5

Manchester Region Industrial Archaeology Society Newsletter, 149, March 2015

National Association of Mining History Organisations Newsletter, 70, December 2014; 71, March 2015

Northamptonshire Industrial Archaeology Group Newsletter, 133, Winter 2015

North East Derbyshire Industrial Archaeology Society Newsletter, 57, February 2015

Northern Mine Research Society Memoirs (British Mining) 98, 2014

Piers: the Journal of the National Piers Society, 114, Winter 2014

Scottish Business and Industrial History, 29, November 2014

Scottish Industrial Heritage Society Bulletin, 73, January-February 2015

Somerset Industrial Archaeological Society Bulletin, 127, December 2014

South West Wales Industrial Archaeology Society Bulletin, 122, February 2015

Surrey Industrial History Group Newsletter, 203, January 2015; 204, March 2015

Sussex Industrial Archaeology Society Newsletter, 165, January 2015

Sussex Mills Group Newsletter, 165, January 2015

WaterWords: News from the Waterworks Museum, Hereford, Spring 2015

Worcestershire Industrial Archaeology and History Society Newsletter, 46, January 2015

Yorkshire Archaeological Society Industrial History Section Newsletter, 93, Early Spring 2015

Books

Mills on the Teign: A gazetteer of water-powered sites on the Teign, Bovey and their tributaries, by Martin Bodman, Leat Press 2015, 156 pp, numerous illus and plans, ISBN 978-0-9548758-3-1, paperback £16.

Following his earlier *Mills on the Yeo*, another labour of love, this volume covers 125 water powered sites, describing the mills themselves, the millers and the history of the ownership and their current state. While many are grain mills there are also general farm, bone, flint, paper, tanners and iron working mills and many others besides those generating electricity. This last includes the turbine house at Castle Drogo designed by Edward Lutyens. Most entries have neatly drawn plans showing the leats and other details mostly from the OS 1:2500 series. Illustrations include contemporary photos, reproduced early photos and nineteenth century water colours. For anyone exploring the area east of Dartmoor this would add greatly to their experience and for anyone else it gives an excellent picture of the diversity of the rural industry of this area.

Britain's Industrial Heritage, by John Hannavy, PiZX Books, 2015, numerous illus, ISBN 978-0-85710-093-1, hardback £9.99.

An introduction to Britain's industrial past with chapters on wind and water power, canals, mining, iron and steel and textiles etc. This book's particular value lies in its illustrations. Besides contemporary photos taken by the author, who was Professor in Photography at University of Bolton there are numerous reproductions of older pictures, mostly postcards. The book finishes with a comprehensive gazetteer of sites to visit.

DVD

Springfield Brewery, Wolverhampton, England built 1873. Destroyed by fire 2004, saved on film 1997.

This DVD, originally launched in 2007 has been updated with new film content showing the ruins of the brewery. It is available from www.springfieldbrewery.com.

2015 EUROPEAN INDUSTRIAL AND TECHNOLOGICAL HERITAGE YEAR

**11 – 17 May 2015
AIA SPRING TOUR**

The Rhone Valley

**28 – 31 MAY 2015
44TH ANNUAL SIA CONFERENCE**

Albany and the Mohawk Region of New York

**1 – 5 June 2015
COUNTRY HOUSE – COMFORT & CONVENIENCE**

EAST ANGLIA

info@heritageofindustry.co.uk

**5 June 2015
CELEBRATING JAMES WATT 2015 AND 2019**

University of Glasgow, 10am – 4.30pm. See page 11

**12 – 14 June 2015
CELEBRATING STREET FURNITURE**

Historic Metallurgy Society Annual Conference – Stratford upon Avon. Enquiries mejbirch@aol.com

**16 – 21 August 2015
ICOHTEC 42ND SYMPOSIUM IN TEL AVIV**

History of High-Technologies and Their Socio-Cultural Contexts
www.icohtec.org/2015-meeting/CfP ICOHTEC-2015

**4 – 9 September 2015
AIA ANNUAL CONFERENCE, BRIGHTON**

**6 – 11 September 2015
TICCIH CONGRESS LILLE**

Industrial Heritage in the twenty first century
ticiih-2015.sciencesconf.org/?lang=en

**10 October 2015
INDUSTRIAL HERITAGE FAIR**

Essex Industrial Archaeology Group Braintree District Museum, Manor Street, Braintree, CM7 3HW
For more details email essexia@gmail.com

**31 October 2015
DEVIZES INDUSTRIAL ARCHAEOLOGY SYMPOSIUM**

Devizes Town see page 11

**27 November – 3 December 2015
NEW SOUTH WALES**

Tour organised by Heritage of Industry to precede conference organised by Engineering Heritage Australia

To enquire or register interest email – info@heritageofindustry.co.uk

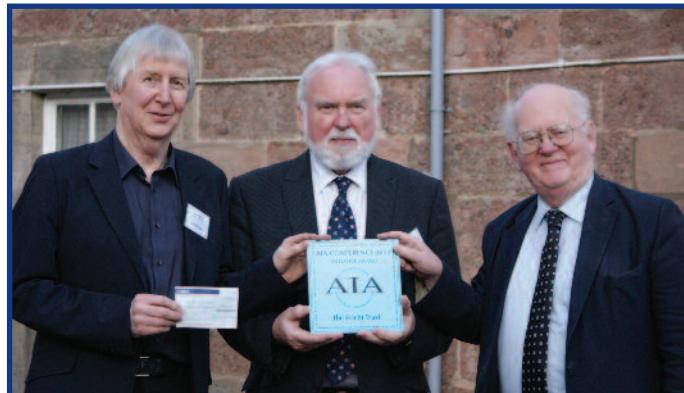
Information for the diary should be sent directly to the Editor as soon as it is available. Dates of mailing and last dates for receipt of copy are given below. Items will normally appear in successive issues up to the date of the event. Please ensure details are sent in if you wish your event to be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

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

Ericht Trust wins Initiative Award from the Association of Industrial Archaeology

At a packed meeting in Blairgowrie, some 57 people saw the presentation of a plaque to the Ericht Trust, which is working towards acquiring the redundant Hill School and installing there the printing machinery from Blairie Printers. Prof John R Hume, Hon Vice President of AIA, presented the plaque and offered some advice on phasing to the Trust and its funding advisor for the project to present the berries and printing story in the old school.

The Trust has been successful at raising funds towards feasibility work – Scottish and Southern Energy Sustainable Development Fund has awarded £40,000, the Architectural Heritage Fund £25,000, and the Prince's Regeneration Trust 'Heritage Dragons', after the Trust came second in competition across the UK, have given the project 80 hours of professional services. While there is a long way to go, other funders may be given confidence by the more modestly-sized £300 donation by AIA: a "great vote of confidence: see how well-regarded we are". The AIA visited the existing printing works during the 2013 Tayside Conference based in Dundee.



Ron Inglis and Ian Gordon of the Ericht Trust receive the AIA Initiative Award from John Hume.



Intertype machines at the Blairie Printers.



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- 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.