

INDUSTRIAL ARCHAEOLOGY NEWS

168
SPRING
2014

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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Canal Boat Weighing Machine**



INDUSTRIAL ARCHAEOLOGY NEWS 168 Spring 2014

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COVER PICTURE

Kirkaldy's 1874 machine. This is single-acting, water hydraulic powered and has a designed load capacity of 1,000,000 lb – 446 UK tons – 500 US tons at 6700 psi. The actuator is 18 inch diameter and 6 foot stroke. See page 9
Photo Colin Jenkins

E FAITH in Switzerland

The 7th European Industrial and Technical Heritage Weekend took place from 25 to 27 October 2013. This annual event is a highlight of E FAITH's year (European Federation of Associations of Industrial and Technical Heritage). As would be expected, the meeting covered a wide variety of themes relating to preservation, conservation and reuse.

Paul Sautler

I must confess that the name La Chaux-de Fonds did not immediately arouse my interest. But any lingering doubt about its importance was quickly dispelled by a visit to the impressive collection of masterpieces of timekeeping housed in its fabulous international watch-making museum. Those more knowledgeable than I will of course know this Swiss town in the Jura mountains rebuilt along rational lines following a fire in 1794 and the third largest in Switzerland's French-speaking area, is the centre of the Swiss watch-making industry. It also boasts one of Switzerland's first railways (1857) and is the birthplace of Charles-Edouard Jeanneret, perhaps better known as Le Corbusier.

Our hosts were the Haute École Arc Conservation-Restoration, based in Neuchâtel, serving the heritage sector as a non-commercial research and training centre and offering a wide range of courses in the fields of preventive conservation and restoration. They include a three-year Bachelor of Arts in Conservation. We were shown work being carried out on a self-propelled baby carriage, where research was necessary to establish the exact nature of the materials before restoration.

The main themes of the conference, held in the watch-making museum, were Endangered Industrial and Technical Heritage and the European Industrial Heritage Year 2015. The Year had been endorsed by the European Council and over 100 organisations in 18 European countries.

Bringing the Coffin Works back to life was project manager Kate Dickson's paper on the Birmingham Conservation Trust's restoration scheme. It was in these works that the Newman

Brothers manufactured high-quality metal handles and ornaments for coffins from 1894 to 1999. The site was very vulnerable and to save the buildings from being demolished, English Heritage awarded grade 2* listing in 2000. Offices and workshops will be provided for rent to creative businesses to provide income to support a museum. Volunteers played a very important role throughout.

The industrial heritage of Lyon in France formed the basis of a presentation by Jean-Paul Dumontier, Chairman of Usines Sans Fin. The hydroelectric power station of Cusset, on the outskirts of Lyon, is at the heart of a project to harness the innovation of the past to inform the future not only of Lyon but the region as a whole.

Approaching Barcelona by air, three tall chimneys are the only witnesses to a failed campaign to save the former power station of Sant Adria de Besos. Closed in 1995, when all its machinery was removed, Assumpcio Feliu, President of E-Faith, used the site to illustrate the challenge posed by endangered industrial heritage sites.

A paper on the restoration of a Benz motor of 1898 was the contribution of Célia Fontaine from the Haute École ARC. This demonstrated their approach to conservation involving thorough research to fully understand the vehicle. We were also shown an intriguing computer-generated video of the engine in operation after restoration.

A hydro-electric power station, at Rheinfelden in Germany, illustrated a part failure, part success, jointly presented by Romain Jeanneret and Wolf Meyer zu Bargholz. Constructed in 1898, this very impressive building both inside and out was demolished in 2010.



Dinner between Serrières and La Presta

Photo: Adriaan Linters



The last factory chimney of the town, La Chaux-de-Fonds, Tour Espacité. photo Adriaan Linters

Fortunately, the No 10 turbine and generator were saved to be documented and restored using modern techniques to allow a proper interpretation of its manufacture, the context in which it was used and the many repairs made during its 100 plus years in operation. Today, it is on view at the new power station.

Dr Jur Kingma, E-FAITH's Vice-President, in his presentation, outlined the history of the wooden warehouses in the Zaan area in the Netherlands; their use in connection with the Baltic trade, their destruction by fire, neglect or the need for more space, and their second life in those that survived as a visitor centre, restaurant, fashion centre or for vocational training. An interesting observation was that the techniques used in their construction were based on shipbuilding.

An example of the use to which old chimneys could be put was presented by Franck Larere, representing Le Non Lieu, a project for putting

industrial heritage at the service of the arts. They could be used for spectacular lighting effects or, in a 2013 promotion, as 'belfrys of labour' to celebrate the world of work throughout the month of May in all the towns around Lille.

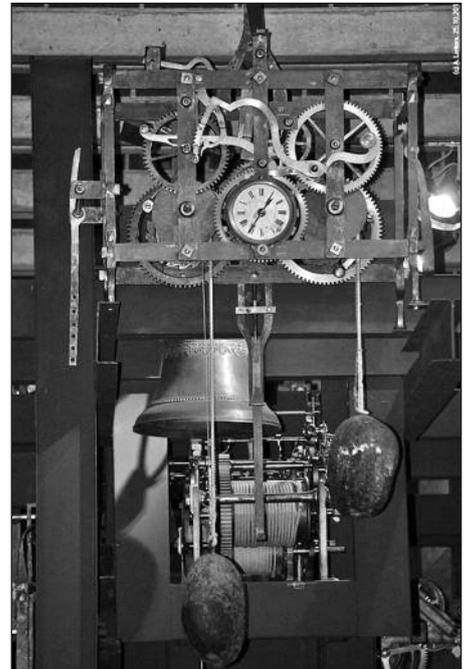
E-FAITH's Secretary, Adriaan Linters, presented us with the lessons to be learned from the campaign to save the *Charlesville*, otherwise known as the *Georg Buchner* in Rostock, Germany. This was the last surviving mixed cargo and passenger ship of the renowned Compagnie Maritime Belge, which plied between Antwerp and the Belgian Congo. Destined for the scrap yard after use as a hotel in Germany, a plea to the German authorities and a Flemish minister prevented its break-up but, despite loud protests, legal protection it had been granted as a historic monument was lifted. En route from Rostock to the scrap yard in Lithuania, it sunk off the Polish coast.

The 1882 steam pumping station 'Hertog Reijnout' in the Netherlands, well known from visits by the AIA and others, was the subject of a paper by Jan Van de Veen, one of its long-time volunteers. Unusually for a steam station, the 5m plus wheel has wooden cogs. Needing new teeth, these were cut in situ using a computer-designed cutter – a successful operation over six weeks, leaving a perfectly-running engine fit for another 50 years.

There followed a session in which various associations outlined their work and objectives. These included the Federation of French Mills, who would like to see national mills days develop into 'The European May of Mills'; it seeks to advance this idea in 2014/15.

The Bois du Cazier, a mining site in South Belgium where 262 miners from twelve different countries, most of them Italian, lost their lives in 1956, has the ambition to develop as a site promoting safety at work and the welfare of migrants.

Restor Hydro is involved in the restoration of small-scale hydro-electric sites. With 2.5 million euros at its disposal, it is identifying sites in Europe capable of restoration.



At La Chaux-de-Fonds, Musée International de l'Horlogerie photo Adriaan Linters

There were reports from three working groups. The factory chimney group met in Roubaix in May, when partners from France, Belgium and Spain discussed uses for old chimneys.

Dr Jur Kingma reported that the aim of the working group on European cranes was to exchange information on historic cranes and good examples of their conservation, to present in 2015 a map of all the historic cranes in Europe, possibly in interactive digital form, to produce a short history of their development, and to arrange some exhibitions in museums in 2015.

The aim of Adriaan Linter's working group on dangerous industrial heritage sites is to exchange information on their conservation and opening to the public, to discuss environmental and safety issues, to compare relevant legislation and practice in different European countries and to organise an international conference in 2015 on the conservation of such sites.

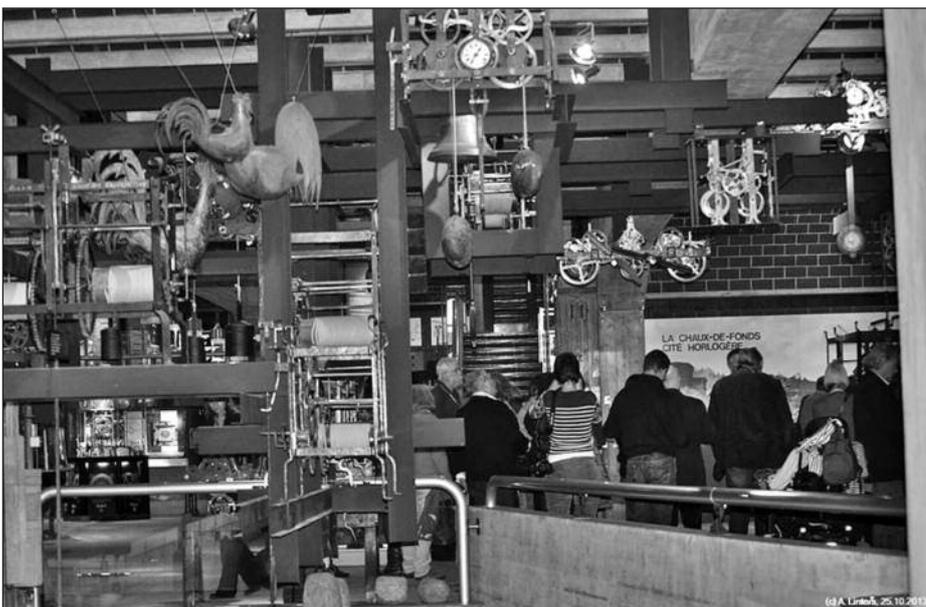
The conference was followed by a reception given by the City of La Chaux-de-Fonds and a visit to the watch-making museum. On Sunday morning we enjoyed a guided walk around the Suchard factory area in Serrieres and a trip on a heritage train from Serrieres to La Pesta, where we visited the asphalt mine worked from 1712 to 1986.

Creative Europe

On 19 October 2013 the European Parliament agreed upon the new *Creative Europe Programme*, which will replace the Culture Programme (2000-2013).

With a budget of €1.46 billion over the next seven years the new programme will provide a boost for the cultural and creative sectors, including heritage.

E-Faith now has a page where one can post a search for partnerships, for projects to start in or being carried out in 2015 *European Industrial and Technical Heritage Year*.



Visit to the Musée International de l'Horlogerie, guided by Jean-Michel Piguët

photo Adriaan Linters

Hatfield Colliery Tip – Landslip and its Consequences

The carriage of heavy loads such as coal, steel and petroleum products by rail is on the increase. The Port of Immingham is one of the most important sources of this heavy traffic but long coal trains are also run from Ayrshire to power stations in Yorkshire. A serious mishap at Hatfield colliery to the northeast of Doncaster blocked the railway line there for five months, necessitating a major rerouting of freight services that had deleterious economic effects.

Robert Carr

For the best part of a mile along the north side of the railway line passing Hatfield Colliery, near Thorne in South Yorkshire, there is an extensive low spoil tip from deep mining and coal trains could often be seen loading coal alongside this tip. At the same time mining spoil was being added to the tip and unfortunately in February a landslip occurred and the railway line past the Colliery from Doncaster to Goole, Scunthorpe, Immingham, Grimsby and Cleethorpes was blocked for five months. It is not entirely clear what caused the 200 yard slip; soil mechanics can be difficult. About 1.4 million tons of spoil moved and the rail track was pushed up to five metres vertically and 15 metres horizontally.

There is naturally some concern locally regarding the safety of the tip. On Friday 21 October 1966 at Aberfan in South Wales, following a period of rain, a heap of spoil from Merthyr Vale Colliery moved – engulfing a school. The death toll was 116 children and 28 adults. However, the tip at Hatfield has been constantly monitored in line with current legislation and all safety requirements have been complied with. The land hereabouts is flat and circumstances are quite unlike South Wales.

Owing to the blockage of the railway line at Hatfield trains had to be rerouted. Apart from passenger services, Network Rail has had to divert about 140 freight trains each day, essential trains carrying steel, oil for aviation fuel and coal for power stations. Most were accommodated on an alternative route via Brigg with some trains being diverted through Lincoln.

When we visited the Port of Immingham in 2009 as part of the AIA Conference held in Lincoln it was made plain just how great the freight traffic through this port is. The combined Port of Grimsby and Immingham has been the largest UK's port by tonnage. The line from



Immingham to Doncaster via Scunthorpe is a key artery for freight services conveying about 20% of the total rail freight volume of the UK. There are usually forty trains a day carrying coal imported through Immingham for power stations in the Aire and Trent Valleys. Steel to and from the TATA works at Scunthorpe accounts for ten trains per day. Petroleum products from the Humber and Lindsey refineries normally require eight trains and there are also two trains daily for petrochemical traffic from Immingham to Preston and Stalybridge. There are six trains a day to Roxby Gullet landfill site carrying domestic waste. Steel from Immingham to the Outokumpu works in Sheffield requires two trains daily and Hatfield colliery itself normally generates eight trains per day.

Following the closure of Daw Mill Colliery in Warwickshire (see page 17) mainly due to underground fires, only Hatfield and two other pits in the UK remain active as deep coal mines.

These are Kellingley Colliery in Yorkshire and Thoresby Colliery in Nottinghamshire.

When we stayed in Lincoln in 2009 there was a noticeable number of lengthy oil tank trains passing through the town. Lincoln is noted for its level crossings and these could be closed to road traffic for quite a time. Parts of Britain still have heavy industry, often on the eastern side of the country where ports trade with the Continent.

However, coal traffic is not all from the East Coast. A large amount of coal arrives in the UK at Hunterston in Ayrshire destined for power stations in the South Yorkshire area. This coal is carried by rail and trains loaded with more than 4000 tons, nearly twice the usual maximum, have been operated between Carlisle and York. Heavy rail freight traffic is currently on the increase. The maximum speed of trains is 60 mph with some trains when empty allowed to run at 75 mph.

[Although work continues at Hatfield, freight and passenger traffic was restored in July *ed*]

'Everything has beauty, but not everyone sees it'

Managing the Industrial Heritage: A course run jointly by Oxford University and English Heritage discussing the management of industrial heritage was held at Rewley House in Oxford on 6 and 7 June. The course was aimed at those involved with industrial heritage at a professional level and it sought to make attendees consider best practice.

Steve Miles

Shane Gould began by discussing 'Industrial Heritage at Risk' which formed the focus of English Heritage's 2011 Heritage at Risk programme. The exercise resulted in a 'top 10' list of Industrial Heritage sites at risk. Stewart Ainsworth followed, illustrating landscape and environmental approaches to management via research into lead-mining landscapes and erosion and climate change

threats. Examples included Grassington Moor where, in response to unauthorised work, rectified photography and other surveys were used, interrogating the landscape to find historic and current water movement, types of waste tip, and ropeway sites. The project identified types of erosion and was able to determine likely hotspots for future water management purposes.

Mike Nevell introduced site specific approaches. With industrial sites comprising two thirds of all sites identified in the planning process as having archaeological potential, Mike looked at types of evaluation and how they help to understand sites historically and archaeologically, along with quantifying risk both to the archaeology and to the developer. Using science to

supplement the understanding of industrial sites was the approach presented by David Dungworth. For example, analysis of distinctive residues from certain processes can provide chemical data relating to those processes, thereby assisting in understanding the operation of the site.

The still controversial subject of twentieth century industrial heritage was examined by Wayne Cocroft, asking how we might value this, being under-researched and under-valued, with challenges to survival including the scale and temporary nature of some sites. Wayne believes that this heritage has historical, aesthetic and cultural value, and pointed out that a lot of the technology we live our daily lives by can be relatively old. A telling slide showed technology in 1960 with a Blue Streak missile on one side, next to a shot of the Evening Star, the last main line steam loco to be built in the UK.

Ian Miller of Oxford Archaeology illustrated a recent survey of Lancashire textile mills, which was instigated to help local authorities make more informed decisions in the planning process when dealing with such sites.

The first day concluded with Oluwaseun Soyemi from the Heritage Lottery Fund looking at various HLF funding initiatives.

The second day opened with Jon Humble looking at English Heritage's role. Both statutory and grant duties were covered before looking in more detail at the work English Heritage has done in the East Midlands.

Ursilla Spence and Jason Mordan from Nottinghamshire County Council explained the work of local authorities and the treatment of industrial sites. Ursula discussed industrial preservation attitudes in the county indicating how this heritage is under-valued. Reasons include the perceptions that post-medieval and modern sites are common, not rare, that they are

'easy to understand' and 'difficult to deal with'. Hawton Gypsum Mill and Clipstone Colliery were illustrated as challenging examples. Despite this, the Portland Path project was highlighted for its local community involvement. Jason discussed the adaptive re-use of industrial heritage in the county, illustrating further challenges and successes including conservation work at Bestwood Colliery.

Ainsley Cocks from the Cornwall and West Devon World Heritage Site spoke about the management of the area. This landscape designation of nearly 20,000 hectares is the largest in the UK. Issues looked at included funding, protection, condition monitoring, and engaging audiences using interpretation, marketing and cultural events.

Then Ken Smith from the Peak District National Park Authority approached tourism and its effects upon the mining heritage of that area. Agricultural and modern mineral extraction impacts were also highlighted. The recent Lead Rakes Project identified the nature of remains and landscape extent and identified a way forward to manage impacts upon the mining landscape.

Finally, Ian Bapty gave a presentation on partnership working with publically accessible industrial heritage sites. With many of these trust-owned and run by volunteers, common problems include volunteer recruitment, a changing funding and visitor environment, and achieving best practice in conservation, management and presentation standards. Ian explained his role in putting together partnerships to support these sites. Other examples shown of partnership working included the East Peak Innovation Partnership's excellent Industrial Heritage programme.

Discussions at the end of both days focussed on reiterating issues highlighted during the

lectures. For twentieth century sites, the feeling was that Historic Landscape Characterisation could be important for understanding this heritage. The role of local authorities was discussed, with the variation in quality of Historic Environment Records across the country being identified, and it was noted that there was a need for more engagement between communities, local authorities and heritage bodies. It was felt that industrial heritage does benefit from specialist volunteer work more than other elements of the historic environment, and it would have been interesting for this conversation to have continued to look at strengths and weaknesses of the volunteer aspect and how it can further the management of such sites.

In concluding, it was asked how we could improve the conservation of our industrial past. It was felt that public perception was extremely important, with the media playing a part in this. A recent English Heritage survey indicated that young people are not currently engaged with this but that there is an appetite, and education should be a high priority. During discussion the feeling was that universities generally are not doing enough in teaching industrial heritage and archaeology in their courses. It was acknowledged though that community archaeology projects are one way of getting people involved.

The title of this article is a quote from Confucius, and was used by one of the lecturers. It neatly sums up some attitudes still prevalent. What came across strongly during the course is how in today's enlightened conservation climate, industrial heritage is still undervalued, and that the key to survival of the historic industrial environment is the sustainable management of change and the engagement of communities with their industrial past.

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National Mills Conference

Delegates came from all over the North to 2013's National Mills Conference held in Brooke's Mill, Huddersfield on 26 November which focussed on the need to preserve the Mill Heritage in both the physical environment and also to record the stories of those who worked in the Mills. From a position of almost a complete standstill two years ago, the Mill Regeneration market is starting to move forward.

Nigel Grizzard, Chief Executive, Our Northern Mills

The conference heard about the plans for Ditherington Flax Mill, in Shrewsbury, which has received the promise of £25 million in funding in a cocktail of funds including the Heritage Lottery, European Regional Development Fund and the Homes and Communities Agency.

Lisa Cowley, from the Friends of the Flaxmill and Claire Cox from Shropshire Council, spoke about how they intend to drive the scheme forward.

Derek Morton who has just been awarded the 2013 Heritage Alliance Heroes Award for his work at Portland Works Sheffield told how a community group came together to raise funds and purchase the historic works and are now on track with its regeneration.

Yaseen Mohammed of Bradford talked about the huge, seven acre, Drummond's Mill site on Lumb Lane and the challenges he faces in bringing it back to life.

Ian Armitage talked about Folly Hall Mills in



National Mills Conference at Brooke's Mill, Huddersfield

Photo: David Hunter

Huddersfield and how the regeneration was linked to a project to record the worker's stories.

Mike Robinson from Our Northern Mills described how he changed from Structural Engineer to recorder of Textile Stories through an HLF project, Threads and Tales, and Peter Stenilius of Kirklees Council gave an overview of how regeneration was progressing in Kirklees.

During the day Mark Brook took delegates on a tour of the huge Mill complex to see the regenerations in progress.

After a hectic day as the organiser I have to look at what we can offer for next year.

We are hoping to achieve the following:

- 1 To bring together, in early January, delegates from the large mill complexes in the Greater Bradford area to look at setting up a mutual support network.

2 To organise a half day tour of the Drummonds Mill Complex in Bradford.

3 To venture North of the Border and in partnership with Historic Scotland run an event in the Borders where the textile industry still flourishes and there are strong links with West Yorkshire.

4 To continue to offer help and support to mill regenerators, be they large or small, who want to save, preserve and regenerate their Mill property.

If you're interested in getting involved please contact: ournorthernmillsgroup@gmail.com and we'll ensure we email you about our future events.

On our website www.ournorthernmills.org.uk are the results of our HLF project and we are hopeful of further funding!

Japan's Meiji industrial revolution

Shinzo Abe, the Prime Minister of Japan, personally decided in September 2013 that the next nomination to be put forward to UNESCO for World Heritage Site status would reflect the rapid industrialisation of Japan during the Meiji Restoration (1868- 1912). This can be seen as a first for Japan, and possibly for Asia, as the nomination includes sites which are still operational.

Stuart B Smith

The application process was carried out by Japanese and industrial consultants from all over the world, many of whom are TICCIH members, and was masterminded by a Consortium led by Governor Ito of Kagoshima prefecture, who drew together funding and technical support from many cities and prefectures. If the application is successful it will be the beginning of a process initiated by an ICOMOS report to UNESCO, largely written by Professor Henry Cleere (Honorary Life Member of TICCIH) who in his GAP report recommended that there were far too few industrial sites on the World Heritage list and far too few sites from Asia. This will certainly start to redress the balance.

During the Tokugawa period, 1600-1867, Japan became a totally closed country as they

feared the effect of Christianity on their society and authority. Christians were all cruelly suppressed, foreigners were not allowed to land on Japanese soil and Japanese were not allowed to travel abroad, on penalty of death. Large ships were not allowed to be constructed and international trade was limited to contacts with the Chinese and Koreans, under strict supervision, and a small contingent of Dutch who were confined to the island of Dejima in Nagasaki. This was a peaceful period in Japan, although governed by strict rules and a very strict hierarchy with the Emperor merely being a puppet living in Kyoto, whereas the Shogun who ran the country lived in Ido (modern day Tokyo). The clans in the south, Kyushu and Yamaguchi, became particularly rich and strong because of



Gunkanjima. Deterioration means that only a limited part of the island is open to visitors. Photo: Stuart B Smith

their contacts with the Dutch and limited trade with Okinawa, and they were horrified when a small nation which they had scarcely heard of, the



Another candidate for World Heritage status – the Reverberatory furnace at Hagi Photo: Stuart B Smith



The Pioneer factory complex at Shuseikan, next to the Shimadzu summer garden, Kagoshima, 1872. A "foreigner's building" was built to house seven English technicians. © Shuseikan Museum

UK, defeated China during the Opium wars. They realised that their isolated country had no army, poor weapons and no large ships, and in 1853 the visit of Commodore Matthew Perry of the US Navy, with a squadron of black ships, demanding the opening up of Japan to trade, threw them into a frenzy of industrial development, initially by copying furnaces and machinery from imported Dutch text books. Soon, however, foreign merchants arrived, particularly the Scotsman Thomas Glover, who settled in Nagasaki and was happy to supply guns, ships and anything else that people wanted, particularly to the Satsuma

and Choshu clans who eventually overthrew the Tokugawa Government and restored the Emperor Meiji to power.

In Kagoshima the Satsuma clan set up Japan's first modern steam-powered textile mill in 1867, within months of the rapprochement with the British Navy following its bombardment of the city. Nearby stands Foreigners' Residence, where the team of Lancashire engineers lived while they set up the mill. This pioneer factory complex, with its origins in the 1850s, embraced a blast furnace, reverberatory iron smelter, shipbuilding, iron and cannon manufacture,

textiles, glassware, food, publishing and chemical products. Firebricks were produced for the smelters, and fine pottery and glassware was made to help generate income to capitalise industrial development. Some 1,200 people were working at Shuseikan at its peak. These pioneering innovations in Kagoshima formed the basis for other textile industry developments elsewhere in Japan, most notably in Osaka. Shuseikan also introduced the Factory System to Japan.

Republished with thanks from the TICCIH Bulletin n°. 62 (2013)



A site put forward for World Heritage status is the now, uninhabited island of Hashima, popularly known as Gunkanjima, with its coalmine which operated from 1887 to 1974. Particularly noted for its abandoned, early twentieth century, concrete apartment blocks which housed over 5000 workers; they provide a rare insight into the living conditions of the time.

Photo: Stuart B Smith

VISIT THE AIA WEBSITE
www.industrial-archaeology.org

John Hughes

2014 will be the bicentenary of the birth of John Hughes, engineer, ironmaster and businessman and to mark this Ukraine is issuing a commemorative stamp.

Born in Merthyr Tydfil, where his father was head engineer at the Cyfarthfa Ironworks he joined the Uskside Foundry in Newport, Monmouthshire, patenting a number of inventions in armaments and armour plating. The resultant revenues allowed him to acquire a shipyard and by the age of 36 he owned a foundry in Newport.

In the mid-1850s Hughes moved to London, becoming a director of the Millwall Iron Works, Shipbuilding and Graving Docks Company and after its demise he became manager of the residual Millwall Iron Works Company. During this period, the various companies and successors won worldwide acclaim for the iron cladding of wooden warships for the British Admiralty, for which Hughes was given much of the credit.

In 1868, the Millwall Iron Works Company received an order from the Imperial Russian Government for the plating of a naval fortress being built at Kronstadt on the Baltic Sea. In the following year he acquired a piece of land in the eastern Ukraine and formed the 'New Russia Company Ltd.' to raise capital, and in the summer of 1870 aged 55 he moved to Russia. With his



John Hughes

wife and eight children he sailed with eight ships, taking with them not only all the equipment necessary to establish a metal works, but also much of the skilled labour; a group of about a hundred ironworkers and miners mostly from South Wales.

After a journey of 2000 miles they arrived in little more than a wilderness with a climate of

freezing winters and baking hot summers. Here they built eight blast furnaces and opened collieries, iron ore mines and brickworks. After two years work they produced their first iron.

The town they built they called Hughesovka or Yuzovka. Hughes personally provided a hospital, schools, bath houses, tea rooms, a fire brigade and an Anglican church dedicated to the patron saints St George and St David. Many technical, engineering and managerial positions were filled by British (and especially Welsh) emigrants. A thriving expatriate community was established, living in good quality company housing.

Over the next twenty years, the works prospered and expanded, first under John Hughes himself and then, after his death in 1889, under the management of four of his sons. Amazingly, John Hughes was only semi-literate, he was unable to write and could only read capital letters.

By the end of the nineteenth century, the works was the largest in the Russian Empire; in 1913 it produced 74% of all Russian iron.

The Bolshevik revolution of 1917 brought the Hughes family connection with the works to a close. The Hughes brothers and almost all of their foreign employees left Russia, and the works were taken over by the Bolsheviks in 1919. The town of Hughesovka was renamed Stalino, in 1924, and then Donetsk in 1961. The works survived and prospered, and Donetsk is still a major centre of metallurgical industries.

Rust, regeneration and romance

In 10-14 July 2013 at the World Heritage Site of Ironbridge, the birthplace of commercial iron production, some 155 delegates came from 34 countries to attend the conference 'Iron and Steel Landscapes and Cultures'. Some 103 papers were presented at the conference along with keynote speakers Professor Patrick Martin, President of TICCIH, Sir Neil Cossons, former Director of the UK's National Science Museum and Professor Dietrich Soye, University of Cologne.

Professor Mike Robinson (Director, IICH)
Dr Matt Thompson (Senior Curator, IGMT)

The conference was jointly developed by the Ironbridge International Institute for Cultural Heritage (IICH) at the University of Birmingham and the Ironbridge Gorge Museum Trust (IGMT) and was supported by TICCIH. The aim of the event was to examine the legacies of iron and steel production and consumption in terms of landscape and social change and, in the process, begin to set a new agenda for research in industrial heritage in a world radically altered through financial, social and political change. The event formed part of the IICH's research agenda on Industrial Heritage Futures and the location of the Ironbridge Gorge provided a working case-study for many of the issues discussed.

The conference itself was an active research site, exploring as it did the research terrain around a very open invitation to academics and

practitioners. What was at once noticeable was the sheer diversity of disciplines represented at the conference indicating not only the openness of the field but the depth of interest in more or less every aspect of its main theme of transformation. Once seen solely as the preserve of a specialist academic field emanating from industrial archaeology, industrial heritage has found itself at the forefront of research into the transformation of society and understandings of the relationship between people and place. Notwithstanding practical issues, preservation of the industrial past has always faced the challenge of recognition in the face of a wider heritage agenda characterised by 'older' heritage and a more traditional aesthetic. So too has it faced the issues relating to the sheer size and technical complexity of its management and its non-industrial use.

Numerous papers at the conference addressed the issues that lie beyond protection and stabilisation and relate to matters of utility, public access and economic sustainability. How do we make industrial heritage work beyond the monument or museum approach? Of course the answer is complicated and varies with respect to country, culture and conditions, but a number of cases discussed at the conference explored possible futures for industrial heritage in a post-industrial world. In doing so they pointed to the need for more research into ways in which the legacies of the industrial past can be integrated with the structures of the present. Integral to this is an understanding of the role, not only of the material cultures of industry but also of their immaterial impacts upon identities and social

practices of communities. It is the understanding of the deep and persistent connections existing between industrial artefact and process and between these and social life that assists in shaping both policy and practice.

The conference demonstrated through a significant number of papers that industrial heritage has long shaped society in culture not merely by its physical presence but also through the ways it is represented in artistic expressions - literature, photography, music and the like. At present there still remains a gap between the scientific/technological engagement with industrial heritage focusing on the protection and preservation of sites and more creative, artistic engagement focusing on the promotion of its wider messages and meanings. The key point is that these are not mutually exclusive positions. Indeed, we need to find ways of better integrating our intangible and rooted connections with the industrial past with its material legacies.

Perhaps the most enlightened, if the most challenging, agenda to emerge from this event is the need to be truly international in the scope of our research. The IICH, the IGMT and our partners are committed to gaining an international understanding of the future of industrial heritage and a genuine exchange of knowledge, not only in relation to specific sites and monuments, but also in terms of the wider socio-cultural, economic and political contexts in which our relationships with the industrial past resides.

Republished with thanks from the TICCIH Bulletin n°. 62 (2013)

The Kirkaldy Testing Museum

A perfectly preserved Victorian workshop that changed the world, the Kirkaldy Testing Museum is one of the great, unsung museums of international importance operating in London today, offering a unique insight into Britain's industrial and scientific past.

Pride of the museum is the hydraulic tensile testing machine – the first of its kind and the last remaining which formed the heart of Kirkaldy's Testing and Experimenting Works where experiments took place on emerging industrial materials to determine their strength. Listed and still in perfect working order, the machine is housed in a beautiful and atmospheric Grade II listed building specially constructed in 1874 to accommodate it.

The machine is single-acting water hydraulic powered and has a designed load capacity of 1,000,000lb - 446 tons at 6700 psi. The actuator is 18 inch diameter with a 6 ft stroke. Samples up to 20 ft long can be tested in tension or compression, and up to 26 ft span in bending. Crushing, shear and torsion tests are also possible.

There are numerous other historic testing machines for various materials, many donated by Imperial College.

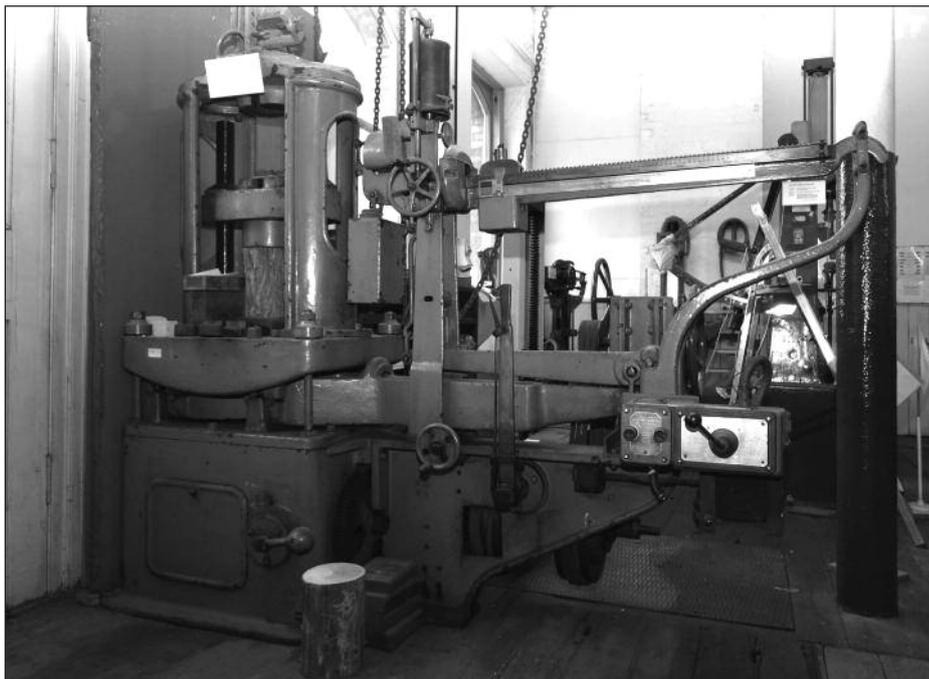
Spread over two floors, the workshop is preserved in its original state and still features the office, and even the chair, where David Kirkaldy dreamed up his world-changing inventions. It evokes a feeling similar to that of the Sir John Soane Museum in Lincoln's Inn Fields: that its founder has not left, he has just stepped out.

For the past 30 years the Kirkaldy Testing Museum has been run by a small group of dedicated volunteers who have worked tirelessly to keep it open and operable. Current resources make it possible to open once a month to the public or through special appointment for group visits.

Sited in the historic Bankside district in London the Museum is now under threat from developers who want to turn it into a themed restaurant. Help is urgently needed to save it.

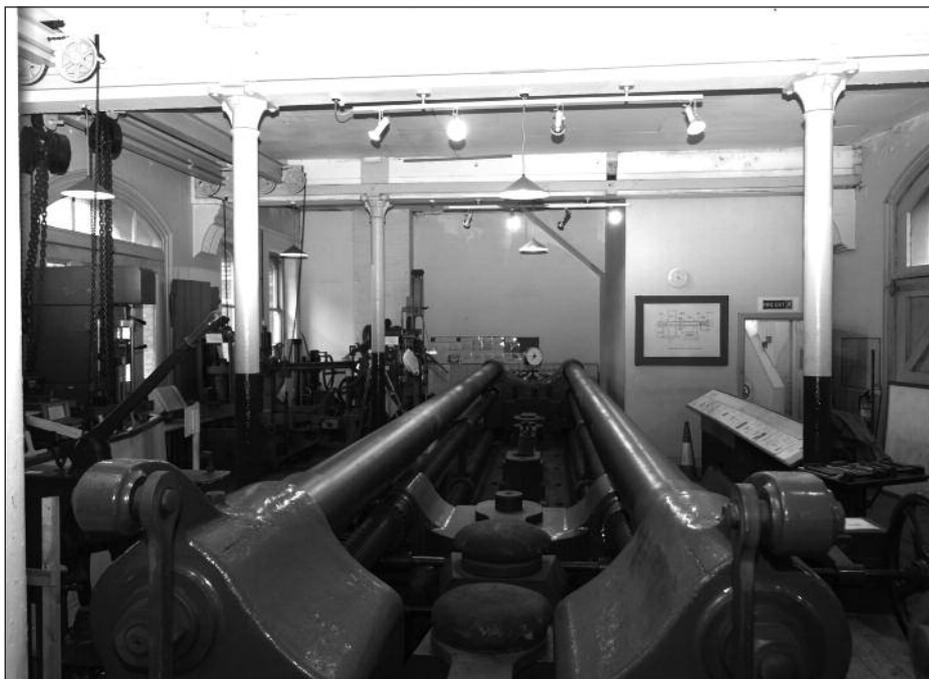
If you can provide advice or expertise to help us save this for future generations, please contact Hugh MacGillivray, Kirkaldy Testing Museum - hugh.macgillivray@btinternet.com or Una Devine e.una@unadevine.com.

The Kirkaldy Testing Museum, 99 Southwark Street, London SE1 0JF, is open on the first Sunday of every month. Please check website for opening times. An online tour is available here: <http://www.testingmuseum.org.uk/tour.html>. The museum is a registered charity (No. 297557) and receives no funding other than from visitors. If you would like to donate or volunteer, please visit: www.testingmuseum.org.uk



Kirkaldy Testing Museum, Riehle machine. This tension-compression machine was made in Philadelphia by the Riehle Bros in about 1890. It has a very compact compound-lever force measurement system and a force-displacement recording drum.

Photo: Hugh MacGillivray



Main bed of Kirkaldy's 1874 machine

Photo: Hugh MacGillivray

TICCIH Lille 2015

Industrial Heritage in the Twenty-First Century, 5-14 September 2015. Save this date!

The next XVth TICCIH congress will be in northern France from 5 - 14 September 2015. This Congress is being organised by the French association CILAC and the Université Lille Nord de France (Artois), and will take place in Lille under the High Patronage of Mrs Aurélie Filippetti, the French Minister of Culture and Communication.

It will open on the evening of 6 September and finish on 11 September, and mainly take place in the Lille Palais des Congrès. Pre-congress tours will be proposed for the 5 and 6 September and Post-congress tours on the 12 to 14 September

Elgin Marbles returned to Turkey or a Weighing Machine goes home

The Glamorganshire Canal boat weighing machine which Cardiff Corporation and the National Museum of Wales would not preserve in situ in the late 1940s and which since 1963 had been on display at the Waterways Museum, Stoke Bruerne is now expertly restored and erected in working order at the Waterfront Museum, Swansea. No longer is there a special reason for visiting Northamptonshire.

Stephen Rowson

As it ceased to see itself as a national canal museum, Stoke Bruerne has been trying to get rid of the machine since at least 2000. Interpretation panels were removed and the last (1990) information leaflet has been unavailable for years. Fortunately, in order to enable painless de-listing of the structure at Northamptonshire, the National Museum of Wales has stepped in to fund its capture and 'return to Wales' albeit to Swansea and not Cardiff. And a great job they have made of it.

The project has been undertaken by trusty Penybryn Engineering and in July 2013 the machine was dismantled and removed to Penallta for refurbishment.

The machine is the sole remaining of four known to have been installed on British canals where over-measure of coal cargoes by their freighters was endemic. These were the Monmouthshire Canal (1816), the Somerset Coal Canal (1831), the Glamorganshire Canal (1834) and the Thames & Severn Canal (1845). All were based on John Wyatt's lever principle of 1744, the first at Newport having been designed by William Whitmore of Birmingham who had been advertising the machine since 1800 but of which no example before 1816 has been located. The present machine was manufactured by Brown Lenox of Ynysangharad Works who used drawings of the Newport machine but replaced Whitmore's ugly cast iron girders and supporting braces with an elegant design of six slim Doric columns supporting attractive entablature and cross members.

Brown Lenox's machine was erected over a specially built boat dock. The boat to be weighed was floated into the dock, the gate closed and the water let out through a side sluice. The boat came to rest in a suspended cradle and was then weighed



The weighing machine in Dec 2013 before fitting the rods by which the cradle hangs



Nigel Brake of Penybryn Engineering positioning the weigh pan on the lever arm

by applying a series of weights on a pan hanging from the lever. The lever system gave a mechanical advantage of 112 to 1 which meant that one pound in the pan weighed one hundred weight. At Swansea, instead of having to dig a dock with the attendant water management difficulties, Penybryn have erected the machine on six specially built brick piers. A fabricated steel replica canal boat will be placed in the cradle and a ramp will allow parties of school children to climb to the boat's level, to enter

the 'boat' and be weighed en masse (by their school teacher?).

The machine was installed at Swansea during December 2013 and it is planned for the boat to be in place in spring 2014. Is it too much to hope that this is but the first of many full scale re-erectations at Swansea of the machines that have been languishing in store at Nantgarw since the closure of the erstwhile WIMM?

A century of stainless steel

In 1913 the first practical stainless steel was invented by Harry Brearley in Sheffield, at the Brown-Firth research laboratory. There had been many attempts over the best part of a hundred years to produce a stainless steel and it was only when quite advanced scientific methods of analysis

had been developed that a true 'rustless steel' was achieved. The problem had been in reducing the carbon content which had proved really difficult. This first stainless steel was martensitic and had applications for cutlery, surgical instruments, scissors, springs, valves, shafts, ball bearings, machine components - especially turbine blades, and equipment for the petrochemical industry.

Harry Brearley, a Sheffield man, using an electric arc-furnace cast his first stainless steel on 20 August

1913. Other types of stainless steel have been developed since and these have wide applications. Nowadays stainless steels are used not just for smaller fairly precise items as above, but also in civil engineering for structural use. Stainless steel does not need painting and is quite sustainable; at present about seventy percent is recycled.

Robert Carr

The Association – let us have your thoughts and ideas!

I expressed concern at the 2012 AGM about our declining membership numbers. Fortunately numbers have stabilised in the last two years at around 520, but that is about 100 less than we have had historically. The problem is not in recruiting, we attract some 30 new members each year; our failure is in keeping members, particularly those who have belonged for less than four years. Natural causes takes care of a handful of members each year, cost obviously plays a part too, especially since 2008, but the remainder leave for reasons not altogether clear, although we do inquire of those who leave as to why.

At the Council Meeting in November it was decided to devote resources to further developing the website. However, we recognise that the Newsletter is the prime source of contact with members, and through affiliated societies to non-members, and Chris Barney, the editor, is trying out new ideas. We would like to hear from you – your ideas for making our Association more attractive to existing members and to new recruits.

Any ideas and suggestions regarding IA News should be addressed to Chris at aianewsletter@btinternet.com; other suggestions as to the Association's activities, publications, and other issues that you feel it ought to be addressing, should be sent to me at bruce.hedge@ntlworld.com.

All ideas will be acknowledged, though possibly not at length, and will be part of our discussions at future Council meetings and through IA News I will keep you informed. Your help will be appreciated.

Bruce Hedge, Membership Development.

Welcome to new members

Mr Gary White	Boston, Lincs
Dennis S Furbush	New York, USA
Simon Blackley	Huntingdon
Mr Terry Hunns	Lincoln
Clive Thomas	Merthyr Tydfil
Dr Hugh & Mrs Jenny Field	Cambridge
Nigel Grizzard	Our Northern Mills, Leeds
Allen Wheeler	Bracknell
Alan Brant	Macclesfield
I P Walker	Croydon

Industrial Archaeology Review

Issue 36.1 is in hand and will comprise a themed issue on the Industrial Archaeology of the 20th century. The papers have been selected from the work presented at the 2012 Essex Conference.

Issue 35.2 was my last issue, and I would once again like to express my regret that circumstances have prevented me from continuing the Joint Editorship. Ian West will be joining Mike Nevell as Joint Editor in my place, and I wish their partnership every success.

Helen Gomersall for the Joint Editors IAR

English Heritage review

A sub-group of EH's Industrial Archaeology Panel consisting of Marilyn Palmer, Gill Chitty, Mike Bone and Tony Crosby are working on reviewing the 2008-13 Strategic Vision for the Effective Stewardship of Industrial Heritage.

They will be taking into account the Heritage at Risk project and also comments from Miles Oglethorpe's Rolt lecture, especially aspects on valuing industrial heritage. The funding environment has changed considerably in the meantime, though much has been achieved in the outcomes in each of the 2008 priority areas and these can be built on. The Industrial Archaeology Handbook has been published and the 2011 Heritage at Risk programme was an important element which resulted in the 3-year funded IHSO project, whose work needs to continue beyond its deadline.

Correction

On page 3 of the last edition, No 167, for some inexplicable reason it states that the Falcon Hildred archive had been acquired by Cafod which is the Catholic Agency for Overseas Development, a worthy body but not one particularly interested in industrial archaeology. It has actually been acquired by the Royal Commission on the Ancient and Historical Monuments of Wales. (RCAHMW) with Heritage Lottery Fundng in partnership with the Ironbridge Gorge Museum Trust (IGMT)

LETTERS

A door full of holes

In Stapleton Hall Road in North London at the back of a public house, there is a puzzling small door full of holes. The holes are apparently deliberately drilled – perhaps to facilitate ventilation.

Have readers seen anything like this before? Drilling the holes individually by hand would have been prohibitively laborious – but surely this is not worm action, *Teredo Navalis* for instance? The concentration of small holes in the door's bottom left hand corner round a knot is reminiscent of infestation but elsewhere the holes look too regular for that. Would one drill through a knot in the wood though? Perhaps it had been intended to drill the knot out. Tropical infestation would be more likely in hardwood, which this is not.

After World War II materials were in very short supply and this might just be an ingenious example of adaptive reuse. One still sees many instances of this. Timber was especially scarce after the war; older readers may remember the running joke 'you can't get the wood you know'.

One suggestion is that this wood – it looks like deal – was at one time the backing for a target used in shooting? Say wartime rifle or more likely machine gun practice? However, the spacing is really too regular for this to be target practice.

It appears that the holes were drilled, if they were drilled, from the back. You can see where

the drills came out and tore the wood. Three sizes of drill bit were used, each just over ¼", 3/8" and ½" in diameter. A smaller number of larger holes might have been a better way of promoting ventilation but larger drills were probably unavailable. This small door, at about head height when standing on the pavement, is approximately 3' 3" high.

It is difficult to believe that this was all drilled by hand just to make a ventilated door, but perhaps old wood was being reused at a time of scarcity. The timber might have been in use on say a vertical drill stand as a support or backing for workpieces, perhaps sheet metal, being drilled through. Some of this work might have been done with the aid of a jig giving a relatively regular spacing for the holes. This holey door is possibly the work of a young apprentice making use of scrap wood and perhaps adding a few extra holes manually to make a tidier job?

Now, why expose the side with rough, torn holes? Wouldn't the other side with neater holes be better for public view? But perhaps that side might be soiled, say oil stained. Or it might have far more holes if the wood had been used as a backing for drilling – many holes having not penetrated right through the wood. The other side could be a real mess, something you would definitely want hidden. If so, wouldn't you drill the tidying up holes from the front? Are any holes not torn and probably drilled the other way, that

is from the outside inwards? A few might have been, but almost all the holes especially those of larger diameter show signs of tearing.

The door is un-painted; it was probably painted once – perhaps white. It would take about 70 years or so for all the paint to weather away if lead paint had been used which gives an indication of age. Of course an inferior painting job would all come off much quicker.

Standing back you would see that there is a



A door full of holes

Photo: Robert Carr

steel door beneath the door with holes. This is almost certainly where the beer for the pub is delivered. At the front of the public house there is no trapdoor or hatch in the pavement for delivery. The premises were originally a shop, converted for pub use later.

The holes in the door are, or probably were, to cool ventilation or refrigeration machinery used to keep the beer cool. Ice cold keg beer is pretty standard nowadays. Two extra heat exchange units have been added over the door.

This door might be an almost unique artefact, or someone may recognise a relatively familiar object. The above suggestions are probably full of holes. Has anyone seen a door like this before?

Robert Carr

An unusual swing bridge

The Somerset Industrial Archaeological Society is attempting to assess the significance of an iron footbridge in Langport of unusual construction which spans a roadway between the A378 and the entrance to the former Railway Hotel. It comprises two sections which swing and close together and the operating mechanism consists of a manual winch with primitive gearing. There is no discernable foundry mark. The photographs show the bridge in the open and closed positions.

Historically, the roadway over which it crosses was the original turnpike road leading into the town. The Bristol & Exeter Railway Company's civil engineering works for its line from Taunton to Yeovil resulted in a road realignment in the early 1850s. At that time one of the buildings along the former main road was a thatched public house frequented by barge handlers employed on the navigable river Parrett nearby. When the pub was destroyed by fire c.1906 a decision was made to replace it by a three storey building with its main entrance at first floor level. The intention was to have a fixed bridge but the lack of clearance for traffic on the old road ruled out this solution. Despite the



Langport Railway Hotel, swing bridge open 1976

hotel's name, the lattice work design of the bridge parapets and the location close to the station, there is no evidence as yet for a direct association between the site and the (GWR) railway company.

Both the bridge and the building suffered a chequered history during the second half of the twentieth century. The hotel closed in 1964 and the property remained empty for fourteen years during which time the bridge, though in the open position, received impact damage from a lorry. New owners, in 1978, restored the bridge to working order but in 1984 the district council's planning committee decided that the hotel and its restaurant were not viable, reasoning that the access on to the main road across the bridge was considered too dangerous. In 1986 the Railway Hotel was sold to its present owner. The bridge is registered with the county authority as being private although supported by the retaining wall

of the A378.

As the swing bridge is over 100 years old and not listed, SIAS contacted a national authority on moveable bridges. He had not encountered similar examples but suggested that should others exist then they are likely to be found within industrial works or inside warehouses. The Society would like to appeal to IA News readers for any relevant information on this type of footbridge. SIAS officers can be contacted via email addresses on the website www.sias.me.uk

Brian Murlless, SIAS Archivist

Water Condensers in Chile

Good morning. I am writing to you to making the following enquiry.

The IANS in Santiago (Institute of Nautical and Underwater Archaeology) is a Chilean non-profit scientific foundation for the study, preservation, conservation and diffusion of the underwater and marine heritage in Chile and Latin America. www.facebook.com/ians.chile

As part of our current archaeological project 'Historical Heritage in Caleta Robles (Mejillones, II Region of Atacama). Technical assessment for the site protection', we have undertaken a full investigation of this little cove in the western bay of Mejillones del Sur, region of Antofagasta, currently in Chile, but in Bolivia before 1879. In this little cove, between 1860 and 1880, there was a settlement for the exploitation of red guano, one of the most important resources for European and American agriculture in the late nineteenth century, and whose remains lie on the eastern slopes of the peninsula, facing the bay. This exploitation, is a site of great historical and archaeological importance here in Chile, remains of which we will try to legally protect within our current project, funded by the Chilean Council for Culture.

We have just returned from the site after two months surveying the pattern of the settlement and identifying its different functional areas.

As Mejillones is on the coastal desert of



Langport Railway Hotel, swing bridge closed 1984

LETTERS

Atacama, the very common issue for all people living there since Holocene times was water supply. As you may know, in the second half of the nineteenth century, the Atacama province was the mining heart of the central Andes, shared between Peru-Bolivia and Chile.

Historical sources suggest water was provided by condensers or desalination plants. In Mejillones, our sources state there were water machines, or water condensers, but without identifying them geographically.

Now, among the various archaeological structures we were able to evidence in situ, there are some clues that may indicate there was some activity related to some condensation system, as there are little brick-built cisterns internally

cemented -so we think it might be related to some liquid collection activity – together with many fire bricks (British COWEN fire bricks) and huge amounts of coal and scorias, which makes us think the structure was bound with some condensing activity. All of this is still covered with a large quantity of sand, which initially prevented us from seeing clearly what happens there and confirming our hypothesis.

We have been searching some archaeological and historical background for this type of structure, but unfortunately, it seems there is very little, at least in our available specialized literature in Chile. We have not been able to find any similar archaeological find either in Chile or elsewhere.

As industrial archaeology investigation relating to the 1860-1870 period is very scarce here, we would need to investigate more information elsewhere.

Here is my enquiry. Would anybody in the AIA be so kind as to advise us and give us some clues for our understanding about water condenser engineering?

I would be pleased to give more details about our investigations if necessary,

Hoping I could put your attention on our point, and hoping we can make any contact too,

*Christophe Pollet – christophe.pollet@ians.cl
Instituto de Arqueología Náutica y Subacuática*

NEWS

Saracen Foundry litho plates

A series of designs for elaborate Victorian ironworks preserved on 60 stone slabs, which were unearthed by a man when he dug up his garden patio went to auction and have been bought on behalf of the Scottish Ironwork Foundation.

Mr Reilly of Garrowhill Glasgow was lifting old paving slabs and was amazed to find them covered in pictures. They were later revealed to be original litho plates used to make catalogue prints for Walter Macfarlane & Co, Glasgow, proprietors of the Saracen Foundry, a firm that made architectural ironwork and exported around the world.

Just after the auction, David Mitchell, one of the group leading the appeal and purchase, said 'First up – they are just incredible – they are in varying condition and total around 60 in number. A few look as if they were made yesterday which is just amazing given they were face down in the earth until recently. We raised £9000 in pledges and the auction costs were just over £2432. Over the coming weeks we will be establishing the costs associated with conserving, storing and displaying the collection. We propose to build a fund specifically for this project to enable us to share them as widely as possible. What we are able to do with the collection really depends on the funding we can generate and, whilst securing the collection for the nation was our prime motive, it also feels very much the start of a journey. We have some interesting ideas of projects we can build around the objects – using them as tangible symbols of a once world leading Scottish industry and a firm which might be considered to be the best in the world.'

The Scottish Ironwork Foundation has existed since 2002 to promote historic architectural ironwork made or found in Scotland. It is about to start the process of becoming a registered charity in Scotland. It has six Trustees from a variety of backgrounds within the heritage, professional and craft sector. They plan to get some expert advice on the objects as printing plates and also to ensure they maintain or improve their condition.



Saracen Foundry Litho plates ready for inspection

Industrial heritage in Yorkshire benefits from recent HLF landscape grants

The North York Moors National Park Authority has achieved a successful stage 1 pass for £3m from the Heritage Lottery Fund Landscape Partnership Scheme for a project entitled 'This exploited Land'. With partnership and match funding this will potentially produce a total budget of around £5m.

The project covers an area of about 200 sq km in the National Park which runs from Goathland, through Grosmont and up the Esk Valley as far as Battersby and then along the line of the former Rosedale railway into Rosedale itself.

The project aims to conserve, interpret and improve access to the extensive remains of the ironstone mining and iron industry in this area along with the remains of other extractive industries. In the late nineteenth century the Cleveland area was producing 40% of the UK output of iron ore at a time when the UK was amongst the world's largest iron and steel

producers. This once extensive industry is largely forgotten today in what most visitors perceive to be an area of beautiful and unspoilt countryside. There are also many environmental enhancement aspects included in the project.

The Authority and its community partners were one of three successful Yorkshire bids for Landscape funding. The HLF also awarded grants to the rare, internationally important wetland at Humberhead Levels in North Lincolnshire and East and South Yorkshire (£1.9m), and to the Ingleborough Dales (£2.1m) for a limestone landscape in the Craven district of the Yorkshire Dales National Park.

The AIA has been involved in the scheme through our chairman, Mark Sissons, who sits on the Park Authority's executive steering group for the project.

26 Signal boxes listed

Twenty six of England's rarest and best preserved railway signal boxes have been grade II listed. Some of the boxes date from the late Victorian era.

In the 1940s, there were as many as 10,000 signal boxes, but today fewer than 500 are in use by Network Rail, which has joined English Heritage in seeking out the best examples of historic boxes.

John Minnis, senior investigator at English Heritage, said: 'These are very special buildings, at one time a familiar sight on our railway system. Today's listings will ensure that many of these highly distinctive designs, which were full of character, are protected for years to come, providing a window into how railways were operated in the past.'

Network Rail is decommissioning many mechanical signal boxes to consolidate signalling into 12 regional centres as part of a 30 year plan to modernise the system. There will be a marked acceleration in the number of signal boxes decommissioned each year.

English Heritage suggested that some of the listed buildings could be 'rejuvenated' as cafes or museums, such as the 1923 signal box in Totnes, Devon.

Hebden Bridge signal box, which was built in 1891, will be preserved as it has a 'time warp quality' and has retained its original 1914 signage.

Signal platforms were first introduced in the 1840s, but British engineer John Saxby first created a building for housing the levers in 1857.

Stow Maries Aerodrome secures grant

Stow Maries was a popular visit for the AIA Essex conference in 2012 and we heard then that it was under threat so it is good news that the site has been secured by a £1.5m grant from the National Heritage Memorial Fund (NHMF). Additional support was obtained from Essex County Council, Maldon District Council and English Heritage.

Stow Maries is a unique survival. Of the 250 aerodromes built during the First World War, just ten still exist of which Stow Maries is the only one to have remained almost untouched since the war ended in 1918. There are over 24 original Grade II* Royal Flying Corps operation buildings remaining including the original officers' mess, other ranks' mess, pilots' ready room, blacksmith's, ambulance station and morgue, motor transport sheds and the aircraft workshop and radio room.

Dame Jenny Abramsky, Chair of NHMF, said: 'Stow Maries gives us fresh insight into the pivotal new role that aviation played in the First World War. The National Heritage Memorial Fund was set up as a memorial to those that gave their lives for this country and so with the Centenary starting next year, our Trustees felt Stow Maries had to be secured now for future generations.'

Stow Maries was built in 1916 as a direct response to increased attacks by German Zeppelin airships and later Gotha fixed wing bombers on British mainland. An integral part of the UK's Home Front defence, it was home to the newly formed 37 Squadron, Royal Flying Corps led by 19 year old Captain Ridley.

The purchase of the site, which was under threat of redevelopment, not only secures the long-term future of the aerodrome as it currently exists, but also paves the way towards the phased restoration of Stow Maries back to its former state with permanent hangars and original First World War aircraft on display. An essential part of the project will be an apprenticeship scheme to keep the heritage aviation skills alive.

Securing skills for the future

Heritage Counts is an annual survey on the state of the historic environment. It collects data and information on funding, participation and the number and type of listed buildings. It also summarises the key policy developments in each year.

Alongside *Heritage Counts*, England's leading heritage organisations announced their intention to develop a more strategic approach to training delivery. By offering more targeted training for the heritage sector they hope to reduce some of the most common skills gaps. They will work towards providing training that allows for non-traditional entry routes, for example, people without academic qualifications, and has stronger links between vocational and academic training.

Steps to deal with the skills gaps highlighted by *Heritage Counts* are already underway. English Heritage announced *Heritage Practice*, a new programme from January 2014 bringing together 22 courses offering 400 specialist training places with Oxford University Department for continuing education. English Heritage will also make over 300 new training places available free to Local Authority staff as part of its Historic Environment Local Management (HELM) programme of short courses. More information on English Heritage training can be found on their website. Heritage Lottery Fund's Skills for the Future programme also offers high quality work based training in vital skills to look after our heritage, and was expanded in 2013 to include business skills.

East Midlands news

The 86th East Midlands Industrial Archaeology Conference was held near Newark on 26 October. The main subject was the East Midlands Oil industry. The East Midlands oil field is little known in most of the rest of the country. Cliff Lea described the commercial beginnings of this oil field which took place with an oil strike at Hardstoft, near Tibshelf in North East Derbyshire where oil was found by S Pearson and Sons in 1919. Production began in the same year from what must be the UK's first deep oil well. Production ceased in 1945. Kevin Topham described the expansion of oil production in the Eakring area with particular emphasis on the work done by American drilling teams in the second world war who dramatically expanded production using North American rigs and techniques which proved to be far faster than the UK equivalent. Les Reid described, from personal experience the once substantial oil traffic in barges on the River Trent. The principal flow was

from from Salt End in Hull to Colwick near Nottingham. The up to date picture of the industry was given by Julie Barlow, the Managing Director of IGas, the leading UK onshore hydrocarbon producer who operate 30 fields with 117 producing wells in the UK. Much of this is in the East Midlands with fields near Welton in Lincolnshire and Gainsborough and Eakring in Nottinghamshire. Those attending visited the Oil Museum in Dukes wood near Eakring where several disused 'nodding donkey' pumps survive.

In Northamptonshire the former tramshed/bus depot in St James, Northampton has been vacated by First Bus and is due to be taken over by Church's Shoes who plan to use the building, in addition to their premises next door, to expand their production of high class welted footwear.

The name of Phipps was associated with brewing in Northamptonshire for over 150 years until the company was absorbed by Watney Mann in the 1960s. In 2004 the name was resurrected by brothers Quentin & Alaric Neville who are now planning to convert the former Albion Steam Brewery buildings in Kingswell Street Northampton to once again brew Phipps beer. Originally built for Ratcliffe & Jeffery in 1883, the brewery was taken over by Phipps in 1899 but closed in about 1903.

The Grade II former Midland Railway loco-shed built in 1873 adjacent to the Northampton to Bedford line has been languishing for several years in an area of wilderness behind the Avon Cosmetics complex near the River Nene in Northampton. The building will become part of the University of Northampton's new campus and it is planned to convert the fire-damaged building into a gymnasium.

The Leicestershire Industrial History Society succeeded in opening the Grade II Glenfield Tunnel for public access as one of the Heritage Open Day attractions. This is one of the world's first long steam railway tunnels. Built by the Stephensons in 1830-32 and actually owned by the City Council. The 1,796 yard brick built tunnel has been infilled at the Leicester City end, thus only giving access at Glenfield, behind 3 locked gates! For four days parties were escorted along the first 100 metres of the tunnel, not open to the public since the 1960s. We had 140 visitors and a waiting list of 80.

At the West Bridge site in the City following the fire which all but destroyed the early Friars Mill on the banks of the River Soar often noted as Donisthorpes, with its golden ibex on the cupola roof, it is pleasing to report that plans have just been submitted for a complete rebuild with all the original features retained, as a project by the City Council. This sets a superb example to other developers for the preservation and conservation of heritage buildings in the city.

Many local societies are continuing to fight plans to shut down the Snibston Discovery Park and Museum to help balance the County and District Council budgets.

In Lincolnshire survey work continues on water supply. The surviving remains of the system

for pumping and supplying water to Gunby Hall, have recently been surveyed for the National Trust. There is still further documentary research to be done before publication.

In Derbyshire the Lottery funded community archaeology project to research and interpret the remains of the Butterley Gangroad has completed the investigation of the cut and cover tunnel on the route at Fritchley. This involved excavating away spoil that had buried the northern entrance to the tunnel and commissioning Wessex Archaeology to make a 3D laser survey of the interior. The tunnel was found to be intact and in excellent condition, and the survey confirms that the northern end of the tunnel dates from the construction of the line in 1793, whilst the southern end was rebuilt on a slightly different alignment when the original horse drawn plateway was replaced with a conventional locomotive worked narrow gauge railway about 1850. Volunteers working for the project are undertaking a survey of the route, documentary research at the Derbyshire Record Office and the National Archives, and oral history recording from local people who remember the line in its final days of operation in the 1930s.

The 87th East Midlands Industrial Archaeology Conference will be held in Chesterfield, the Centre of Industrial England, on Saturday 10 May 10.

Mark Sissons

King Edward Mine

Further to my notes on King Edward Mine in the last issue of IA News, I can report that Cornwall Council has been awarded £1.2 million from the European Regional Development Fund for the conversion of the Count House and Carpenter's blocks at the mine. Match funding will bring that figure up to £1.8 million.

In addition, the Heritage Lottery Fund has made a £55,100 development grant to progress plans for an £800,000 submission to renovate the Boiler House as museum space and create a café for the Great Flat Lode trail in the derelict Assay Office.

Graham Thorne

Bermondsey bridge restored

On 11 October Sir William McAlpine, Chairman of the Railway Heritage Trust, handed a cheque for £150,000 to London Borough of Southwark Councillors Fiona Colley and Barrie Hargrove to mark completion of the restoration of the Abbey Street underbridge in Bermondsey.

Designed by Colonel George Thomas Landmann and completed in 1836 the bridge carried the London & Greenwich Railway, London's first passenger railway line. The original 24 cast-iron doric columns have been cleaned and painted bright blue.

The completion of this project means that the Railway Heritage Trust has now sponsored work to the value of over £100 million since it started work in 1985.

Former AIA president now heads RCAHMW

Former President of the AIA, Hilary Malaws, has been appointed Acting Secretary of the Royal Commission on the Ancient and Historical Monuments of Wales. Hilary is a long-standing member of staff with extensive experience in the library, archives and information management fields and in recent years has held the post of Director of Services.

Hilary succeeds AIA member, Dr Peter Wakelin, who leaves after eight years to take up the position of Director of Collections & Research at Amgueddfa Cymru – National Museum Wales.

Sandfields pumping station

Ahead slow, steady as she goes. Since the formation of the Friends of Sandfields Pumping Station, things have started to move slowly, but in the right direction. Most importantly, people are talking to us.

We have made an application to English Heritage to amend the listing status of the engine and building to include better and fuller details of the unique 190 horse power Cornish beam engine. English Heritage have been in touch and confirmed that they are now reviewing the listing status.

Lichfield District Council has also confirmed that they have served an 'informant notice' to complete some roof and security repair work on the building.

We have been told that the options appraisal or heritage assessment is now completed and is awaiting publication. We are a little concerned that we have not seen any evidence of any community consultation. Our core values are to ensure the safety, conservation, security and accessibility of Sandfields Pumping Station to a wider community. We have therefore written to the Staffordshire Historic Building Trust and



Hilary Malaws

requested we meet with them, prior to publication of the heritage assessment so that the local community can be represented. Staffordshire Historic Building Trust has confirmed that they will do so.

David Moore

Commemorative Panel for Pontecysyllte

In September a new commemorative panel was presented to the Canal and River Trust by the Institution of Civil Engineers to celebrate the contributions of the ICE's first President, Thomas Telford, and his colleagues William Hazeldine and William Jessop. The panel describes the work of the three men and their contributions to the iconic structure.



Plaque to note the origin of the Abbey Street Bridge, Bermondsey

Medway Queen back to Gillingham

The *Medway Queen* arrived at Gillingham on November 19 after being towed from Bristol by the tug *Christine* over four days. The totally rebuilt vessel was greeted with enthusiasm which quickly turned to dismay when it was learned that funding shortage meant that 12 of the 14 staff involved in the fitting out would have to be laid off. However, on 18 December the Medway Queen Preservation Society announced it was able to retain two of its instructors and a total of four apprentices and one trainee following Medway Council and the GMB Union offering to sponsor an apprentice.

Training boatbuilders

Portsmouth Naval Base Property Trust has received a grant of £3.75m from the Heritage Lottery Fund for its Boatbuilding & Heritage Skills Training Centre project. The Centre will open its doors to the public and begin training in April 2015.

Boathouse 4, constructed during the massive 1930s rearmament period, will be restored and opened to the public as the Boatbuilding & Heritage Skills Training Centre. The Boathouse will become a Centre of Excellence for boatbuilding training, with IBTC Portsmouth and Highbury College delivering practical, intensive courses in traditional boatbuilding and related skills.

Visitors will be able to watch traditional boatbuilding in action as well as visiting exhibitions on the building of small boats in the British Navy, including the display of several small craft from the Trust's own collection. The Centre, based in the boathouse used during World War II to construct the secret three man midget X-Craft submarines, will be the perfect setting for visitors to discover the astonishing history of small boats in the Navy, from Captain Bligh cast off the *Bounty* in a 23ft launch to Ernest Shackleton's legendary voyage to South Georgia in the *James Caird*.

As well as securing the future of Boathouse 4, the skills training opportunities delivered within this project will help to create the next generation of craftsmen to preserve iconic ships such as *HMS Victory* and *HMS Warrior*. Students will spend part of their course at the Shipwright's School to be established at the historic shipbuilding village of Buckler's Hard on the Beaulieu River, enabling them to further develop the skills required for the construction and restoration of larger vessels.

Diving platform listed

Grade II status has been awarded to a concrete diving platform at Coate Water, Swindon. The 10m (33ft) platform was designed in the Art Deco style by the architect J.B.L. Thompson, and officially opened in June 1935. It is said to be one of only four concrete diving platforms surviving from the inter-war period. It has not been used, officially, since at least 1958. And the IA



Medway Queen arriving at Gillingham

connection? Apart from the concrete structure, it stands in the former Coate Reservoir which was built to supply water to the Wilts & Berks Canal. Upon the canal's demise, Swindon Corporation purchased the reservoir and opened it as a park in 1935. The remains a popular attraction on the southern edge of the town.

Peter Stanier

Kings Cross

The Railway Heritage Trust has awarded a grant of £34,341 to Network Rail to help restore the listed platform canopy that extends beyond the main station between Platforms 8 and 9.

This short canopy was an unhappy example of Victorian engineering, with a large cantilever on the Platform 9 side, initially supported by wrought iron tension ties, but more recently held up by props. Network Rail agreed with English Heritage that as part of its £770,000 restoration of this canopy it could move the existing columns across towards Platform 9 so that they would hold up the canopy without propping.

Unfortunately, at some stage, two of the original cast-iron columns had been replaced with steel girders, which, whilst functional, did not replicate the appearance of the original structure. The Railway Heritage Trust granted £34,341 to cover the additional cost of replacing these steel columns with new cast iron columns and spandrels, and also to fund four additional cast iron spandrels where they can now be installed in the increased space between the two rows of columns.

At the front of the station things are not so happy. Robert Carr notes; 'Hopes that the south frontage of Lewis Cubitt's fine station would finally be revealed completely uncluttered (IA News 167 page 20) have unfortunately not been realised. New clutter has recently been added in the shape of stone slab seats, display boards and three massive and obtrusive stainless-steel lighting poles. Building work continues behind hoardings and it now looks as if two or three fair-sized structures will remain on completion. Two of these are buildings housing ventilators for the underground.



Kings Cross 'Platform 8½' before work started

The two grade 1 listed main line termini, Kings Cross and St Pancras, looked set for dignified surroundings in some sort of appropriate conservation area but this is no longer the case. Obtrusive new stainless steel street furniture is, in places, more eye catching than the listed buildings themselves.'

Heritage Day

The Heritage Alliance's Heritage Day on 5 December was a resounding success, with change at the top of the agenda for the 160 delegates in attendance. Proceedings started with a lively but speculative discussion amongst Alliance members on the proposed new model for English Heritage. The afternoon saw keynote speeches by Alliance Chair, Loyd Grossman and HLF Chair, Dame Jenny Abramsky, followed by the announcement of the Heritage Heroes Awards 2013.

In his address, Loyd called on the sector to 'turn up the volume' and mobilise its millions of members to reassert the power of heritage as, 'the theatre of emotion, enterprise and education.' He said, 'We must remind Government that the golden goose of heritage cannot continue to lay golden eggs if it is not fed...Government cannot reap the benefits without more sympathetic and supportive policies.' He called for an escape from the short termism of electoral cycles to a generational vision of what our heritage should be like.

Dame Jenny's headline message was that the status quo is not an option. Acknowledging that cuts in public funding were the greatest challenge facing the sector, she called on the heritage community to embrace change, be more creative with fundraising, more enterprising with business models and work in partnership. She said that HLF will use the carrot of funding to encourage councils to invest in their historic assets and look at applicants' track records when considering applications. She concluded with optimism that with the public appetite for heritage never greater, the sector can face the future with confidence.

Current Archaeology awards 2013

As well as the biennial British Archaeological Awards which were founded in 1976, there are also the annual Current Archaeology Awards sponsored by the periodical Current Archaeology. These awards were started in 2009.

For 2013 there were four Current Archaeology Awards and for these Awards readers of Current Archaeology and people in general could vote online for their choice from a shortlist. Unlike the British Archaeological Awards there are no panels of judges. This year nearly 12,000 votes were cast.

The Current Archaeology Awards ceremony for 2013 was held on 1 March at the University of London's Senate House in Bloomsbury as part of the Current Archaeology Live! conference. Phil Harding, well known from the television series

Time Team, received the Archaeologist of the Year award. Phil, often in a trench, speaks with a broad West Country accent and wears a broad-brimmed hat with a feather in it. Not surprisingly the University of Leicester's Richard Buckley received the award for the Research Project of the Year – for the search for King Richard III.

Rebecca Jones received the Book of the Year Award for Roman Camps in Britain and the Rescue Dig of the Year Award went to Canterbury Archaeological Trust for their work at Folkestone – 'Roman villa or Iron Age oppidum?' The villa overlays a major Iron Age port which received large quantities of high status goods from the Continent.

Robert Carr

Heroic contribution of volunteers celebrated

Derek Morton from the Portland Works in Sheffield and Chris White from the Bluebell Railway in Sussex were both celebrated as outstanding volunteers at The Heritage Alliance Heroes Awards 2013 ceremony. This is the fourth year of the Alliance's award scheme, sponsored by Ecclesiastical as part of the Heritage Day programme.

Derek Morton took first prize at this year's awards thanks to his work rescuing Portland Works, a grade II building, site of the world's first stainless steel cutlery manufacture. He led fellow volunteers in a campaign to block the works conversion into flats and fundraise over £250,000 to buy, manage and conserve the building.

Chris White was named runner up for his contribution as Infrastructure Director to the Bluebell Railway and his role in its expansion from Sheffield Park to East Grinstead. The four year, £3.5 million project was delivered by volunteers.

Heritage Alliance Chair, Loyd Grossman, who presented the Awards said, "We want to celebrate our magnificent heritage volunteers. They are the lifeblood of our sector."

HLF update on local authority funding

Since 2010, the Heritage Lottery Fund has looked at the pattern of local authority spending. As before, the latest report Local Authority Funding for Heritage: 2013 update (England and Scotland) also reviews six local authorities in more detail.

For England, it finds that spending by Local Authorities (LAs) on combined heritage (archives, heritage, museums and galleries, and conservation and listed building planning policy) fell from 2010/11 to 2011/12 from £461m to £419m in nominal terms. The biggest drop lay in the conservation and listed building policy subsector – from £44m to £36m. Income generation for combined heritage also fell from £120m in 2010/11 to £107m in 2011/12. The report also analyses expenditure and revenues in the 20 largest (heritage) spending local authorities. In this table Manchester tops the list with a reported current expenditure (2011/12) of just over £15m followed by the City of London with over £12m.

Analysing the case studies, the HLF finds that a sense of fragility persists. The cuts inevitably reduce LA capacity, although some officers feel this is compensated for by more efficient structures and new partnerships. Less strong LAs remain nervous about the future, and even in stronger LAs officers warn that further cuts would inflict real damage.

Daw Mill Colliery

The Staffordshire – Warwickshire Thick Coal Seam which in places can be 30 to 45 feet thick is prone to spontaneous combustion as is similar coal in Germany. There has been concern regarding the future of Daw Mill Colliery in Warwickshire because of the projected route of HS2 but the pit has been closed finally because of underground fires which seem to have been too difficult to put out. The two shafts at Daw Mill have been backfilled with limestone and sealed with a clay plug. The shafts will be capped with concrete.



Derek Morton and Chris White with Loyd Grossman

Daw Mill has an inclined drift as well as two shafts. Last autumn a rise in the level of carbon monoxide was detected in the colliery drift and when the drift terminal building was opened smoke issued from the entrance. Work was suspended and air sampling undertaken. Analysis identified that there had been a further spontaneous combustion most probably in the pit bottom. Additional controls have been implemented to allow work to recommence and further measures have been taken to disperse the smoke flowing from the drift. It is expected that the smoke will become darker in time but there will be no impact on the local environment. Work to eliminate the flow of air into the mine and starve the fire of oxygen was expected to take two weeks to complete.

In 2008 Daw Mill working the thickest coal seam in the country was producing a third of the total UK output. An estimated 56 million tons of coal remain.

Robert Carr

Crane accidents

The commonest accident involving mobile cranes occurs when ground under the outriggers or stabilisers gives way as the load is slewed or jibbed out. There have been several instances of cranes toppling into rivers and canals when lifting boats. In most cases investigations have shown that the ground that the crane was standing on did not have sufficient load bearing capacity for the crane plus an off centre load, so the jacks pushed into the ground causing the crane and its load to fall over. The well publicised accident last February when a 90 ton crane overturned into the Leeds and Liverpool canal has led to new guidelines requiring an assessment of the load bearing capacity of the ground and an assessment of the peak load plus a risk assessment.

The upturned crane became something of a tourist attraction; fortunately no one was hurt.



Demolition of the world's longest cableway

The Forsby-Köping limestone cableway, was a 42 km aerial tramway running from Forsby in Vingåker, about 100 miles west of Stockholm, to Köping, where cement was manufactured until 1978, and later various limestone derivatives. It was taken out of service in 1997 but kept in working order. By that time all longer industrial cableways had been demolished making it the world's longest cableway in working order.

Demolition started on 26 June. The fully functioning cableway was run one last time as cars were removed from the track and sold for scrap.

The cableway was built in 1939 by AB Nordströms Linbanor for Skånska Cement AB to supply the new cement factory in Köping.

Limestone from the Forsby quarry was coarsely crushed and sorted by hand. Passing cableway cars were automatically loaded from a storage silo. After the passage to Köping, cars were automatically unloaded and the limestone was fine-ground for cement production. The cableway was supported by 235 concrete trestles and the limestone was transported in 750 bucket-shaped cars, each carrying 1200 kg, a total capacity of 90 metric tons per hour.

In June 1997 the track was taken out of service and Forsby limestone has since been transported by road. By then, the cableway had transported a total of 25 million tons of rock and been in operation for 56 years. Since then the cableway has been preserved as industrial heritage, test run each year and subjected to some degree of maintenance.

In November 2009, the current owner Nordkalk announced that demolition was being planned, following unsuccessful attempts to transfer it to a suitable caretaker. In December 2011, evaluation for classification as cultural or world heritage was proposed, but this was not successful.

The International Committee for the Conservation of the Industrial Heritage – TICCIH –

was alerted of the urgent situation and wrote an open letter in February 2013 addressed to key organizations including the Swedish national heritage board. This letter reinforced the singular importance of the Forsby-Köping cableway as transportation heritage, urging the authorities involved to avert demolition and assure its preservation.

Little Willie tank honoured at Bovington

An Engineering Heritage Award was given in December by the Institution of Mechanical Engineers to what is said to be the world's first tank, which is on display at the Tank Museum in Bovington, Dorset. The 18 ton prototype tank, known as Little Willie, was built in 1915 by William Foster & Co but it never saw action because it was superseded by a new, improved design. John Wood, Chairman of the Institution's Engineering Heritage Committee, described it as 'British engineering at its finest. Despite it never seeing combat, Little Willie's design was hugely innovative and designers and engineers used it as a starting point for many of the tanks which followed later. It really did change the face of modern warfare.'

Peter Stanier

Historic canal notices

A collection of notices from the Trent & Mersey Canal have been donated to Canal & River Trust's Waterways Archive at Ellesmere Port.

The notices, which mostly cover the period of 1785 to 1813, cover rates and charges, instructions to employees and to boaters, byelaws, crime and crime prevention, and 'public relations'.

Donated to the archive by the Railway & Canal Historical Society – who, when they heard that someone wished to dispose of some Trent & Mersey Canal notices which they had inherited, decided to buy them in order that they could become available to anyone interested in canal history.

Archivist Linda Barley said; 'This is a remarkable collection which will deepen our knowledge of the rules and regulations which governed every aspect of canal life during these years. The collection is currently being digitised and will be available to view online when our new image website goes live at the end of the year.'

In total there are 115 notices, of which nine are duplicates, ranging in size from 7½x6 inches up to 22x17½ inches. They are glued on hand-numbered pages bound in a cloth cover, but this must have been an official compilation because the last page contains a printed index.

VISIT THE AIA WEBSITE
www.industrial-archaeology.org

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

Bristol Industrial Archaeological Society Bulletin, 140, Winter 2013

Cumbria Industrial History Society Bulletin, 87, December 2013

Greater London Industrial Archaeology Society Newsletter, 269, December 2013

Histelec News: Newsletter of the South Western Electricity Historical Society, 55, December 2013

ICE Panel for Historical Engineering Works Newsletter, 140, December 2013

Manchester Region Industrial Archaeology Society Newsletter, 145, November 2013

Merseyside Industrial Heritage Society Newsletter, 328, November 2013; 329, December 2013

Midland Wind and Watermills Group Newsletter, 106, August 2013

Piers: the Journal of the National Piers Society, 108, Summer 2013; 109, Autumn 2013

Surrey Industrial History Group Newsletter, 195, September 2013; 196, November 2013

Sussex Industrial Archaeology Society Newsletter, 160, October 2013

Sussex Mills Group Newsletter, 160, October 2013

Trevithick Society Journal, 40, 2013

Trevithick Society Newsletter, 161 Autumn 2013

War Memorials Trust Bulletin, 59, November 2013

WaterWords: News from the Waterworks Museum, Hereford, Autumn 2013

Welsh Mines Society Newsletter, 69, Autumn 2013

Worcestershire Industrial Archaeology and History Society Newsletter, November 2013

Publications received electronically

TICCIH Bulletin, 62, 4th Quarter 2013

Hampshire Mills Group, 103 Winter 2013

Society for Industrial Archaeology Newsletter, Vol 42, No4 2013

BOOKS

Bromyard Road, A Study of Urban Development, by David Attwood, Occasional Paper No 2, Worcestershire Industrial Archaeology and Local History Society. 2013. 84pp Numerous illus, plans and maps.

A detailed study of the development alongside a single road leading out of Worcester between 1876 and 1904 based on the plans deposited. A 1997 photographic survey alongside the plans gives an interesting picture of the way a late Victorian middle class area has matured. For copies contact the society.

MISCELLANY

Which way now?

In 1924, the US Federal Government funded 70 foot long concrete arrows to be built every 10 miles or so along established airmail routes from coast to coast to help the pilots trace their way across America. Painted bright yellow, they were each built alongside a 50 foot tall tower with a rotating gas-powered light and a little rest house for the folks who maintained the generators and lights. In remote areas some can still be found.



The 2014 British Archaeological Awards

The 2014 British Archaeological Awards will take place on Monday 14 July 2014 at the British Museum and is one of the key events of the CBA's Festival of British Archaeology, a huge UK wide celebration of archaeology with over 650 events, attended by more than 250,000 people. Every year, the Festival gains huge national TV, radio, newspaper and magazine coverage.

Nominations are being invited in the following categories:

- Best Archaeological Project
- Best Community-engagement Archaeology Project
- Best Archaeological Book
- Best Public Presentation of Archaeology
- Best Archaeological Innovation

Please visit the new website for the British Archaeological Awards, where you can find full details on the criteria for each award, along with a downloadable nomination form. This year there is also the facility to complete the nomination form on-line. Nominations will close on Friday 28 February 2014.

Too late for Christmas

Expressions of interest were invited for a number of cast iron columns similar to those in the attached photograph that are available from a redundant overbridge at Dundee Station. These cast iron columns were probably manufactured at Wormit on the south side of the river Tay at the same time as the original Tay Railway Bridge, 1875. The columns are about 4.5m long and probably weigh in the region of 4-5 tons. Those with small gardens and easily tempted will be relieved to know that the closing date was 24 December 2013. Jerry Swift of Network Rail would have been the man to contact.



11-12 April 2014
THE IRONBRIDGE WEEKEND
 Lime in Historic landscapes and buildings. Contact:
 aia.liaisonoffice@virginmedia.com

12 April 2014
SOUTH WALES AND WEST OF ENGLAND IA CONFERENCE
 Baxter College Kidderminster
 Booking forms and programme
 Christine Sylvester 12 Upper Park Street Worcester WR5 1EX SAE please 01905 354 679

12 April 2014
SOUTH EAST REGIONAL IA CONFERENCE
 Russell School, Croydon. *Bricks, Bugs and Computers*. For details
 www.glias.org.uk or 0208 658 8666

10 May 2014
87TH EAST MIDLANDS INDUSTRIAL ARCHAEOLOGY CONFERENCE
 Chesterfield, the Centre of Industrial England. Details at:
 www.nedias.co.uk

15 - 18 May 2014
SIA ANNUAL CONFERENCE, PORTLAND, MAINE, USA
 Details: www.siahq.org

2-7 June 2014
AIA SPRING TOUR 2014, MORAVIA (EASTERN CZECH REPUBLIC),
 16th Century Watermill, 18th Century Blast Furnace and many other historic sites. Details:
 industrial-archaeology.org/aoverseas.htm

19-22 June 2014
FIRST INTERNATIONAL CONFERENCE ON EARLY MAIN LINE RAILWAYS
 Caernarfon, North Wales
 www.earlymainlinerailways.org.uk

5-10 September 2014
AIA ANNUAL CONFERENCE, CHESTER
 For details go to:
 industrial-archaeology.org

September 2014
SIA FALL TOUR, COLUMBUS, INDIANA
 A city noted for both its top-name architecture and its production of diesel motors
 Details www.siahq.org

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Information for the diary should be sent directly to the Editor as soon as it is available. Items will normally appear in successive issues up to the date of the event.

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



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

Editor: Chris Barney

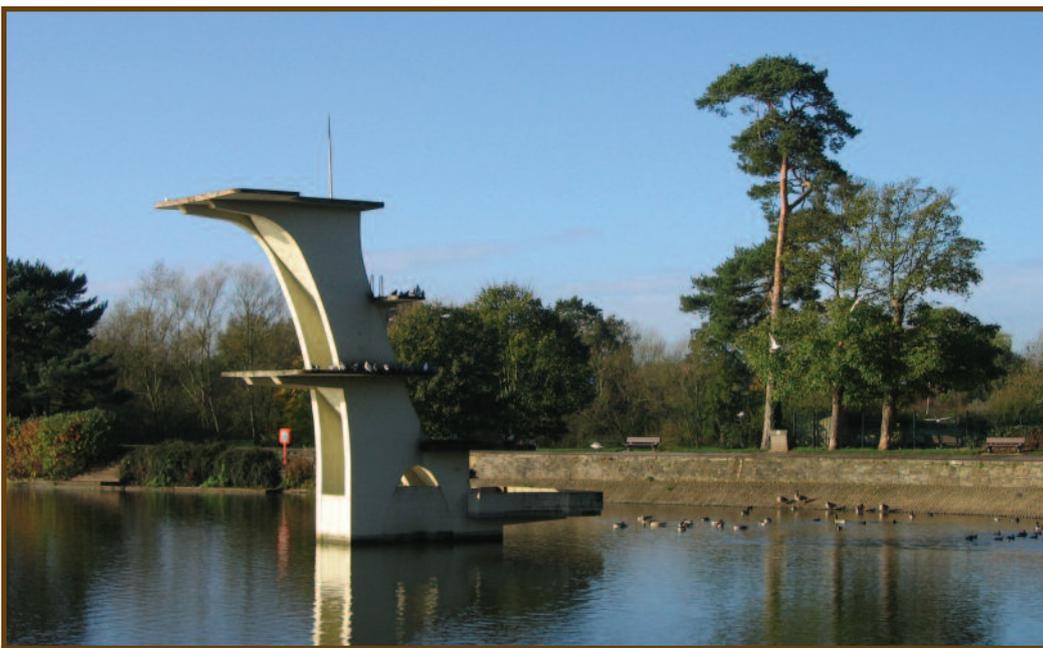
Published by the Association for Industrial Archaeology. Contributions should be sent to the Editor, Chris Barney, The Barn, Back Lane, Birdingbury, Rugby CV23 8EN. News and press releases may be sent to the Editor or the appropriate AIA Regional Correspondents. The Editor may be telephoned on 01926 632094 or e-mail: aianewsletter@btinternet.com

Final copy dates are as follows:

- 1 January for February mailing
- 1 April for May mailing
- 1 July for August mailing
- 1 October for November mailing

The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to assist and support regional and specialist survey groups and bodies involved in the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. The AIA publishes an annual Review and quarterly News bulletin. Further details may be obtained from the Liaison Officer, AIA Liaison Office, The Ironbridge Institute, Ironbridge Gorge Museum, Coalbrookdale, Telford TF8 7DX. Tel: 01740 656280.

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



Coate Water diving platform, Swindon – see page 16

Photo: Peter Stanier