

INDUSTRIAL ARCHAEOLOGY NEWS

175
WINTER
2015

THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

FREE TO MEMBERS OF AIA



**Brighton Conference Report • Dounreay • Barry Hood
Salt Pans in Sicily**



INDUSTRIAL ARCHAEOLOGY NEWS 175 Winter 2015

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COVER PICTURE

Staircase at the 1935 De La Warr Pavillion by Erich Mendelsohn and Serge Chermayeff seen on the 2015 Sussex Conference tour
Photo Chris Barney

2015 Conference Report

The 2015 AIA Conference held at the University of Sussex followed the established pattern with nearly 100 delegates.

Following the Seminar on Friday which is reported elsewhere we assembled on Saturday morning for three lectures. The first, by David Jones, described the reconstruction of the Brighton Atlantic class H2 steam locomotive 'Beachy Head'. Although described as a reconstruction this is, with the exception of the boiler, a new build. The way that the numerous problems had been tackled held us all enthralled.

Dave Morris followed with 'The life of Harry Ricardo, 1885-1974'. The name Ricardo was familiar to many of us but the extent and variety of his inventions and developments was still a surprise. Dave had retired as Senior Operations Manager of Ricardo UK and had met Harry in his early days at the firm. He has made a special study of the history of this very remarkable man and his firm which is based in nearby Shoreham.

Then came a talk by Ian Gledhill on 'Magnus Volk and his Amazing Railway'. This was the story of another extraordinary engineer and his pioneering work but the highlight of the lecture was a movie film, recently discovered and restored, of the short lived version that actually ran in the sea from 1896. The 'car' needed 23 foot legs to keep it above water at high tide and was popularly known as 'daddy long legs'. It had to comply with marine regulations, even carrying a lifeboat.

In the afternoon there was a short interesting session of members' contributions, the first speaker being Derek Barker on the Shipley (West Yorkshire) Heritage project. Mining in this area dates from the 1690s with many shallow coal pits

and a complex geology. Use of light image detection and ranging equipment (LIDAR) revealed 44 shafts, 10 probable quarrying sites, limekilns and brickkilns.

Mark Sissons spoke next about an HLF funded LIDAR survey in the North Yorkshire moors – an area that once produced 40% of the country's iron ore. This survey identified signs of over 60 drift mines, miners' cottages, calcining ovens and tramway inclines.

Then came a presentation from one of our overseas members, Jur Kingma, on the unlikely topic of the adaptive reuse of big and small cranes. This included not only the most obvious utilisation of jibs by lying them flat to create landing stages but also the conversion of a real biggie, reborn as a hotel with rooms at 600 euros a night.

Ian Mitchell gave a comprehensive description of Derbyshire IA Society's HLF funded project which investigated the Butterley gangroad, a horse drawn plateway built to take lime from Crich to the ironworks that sat atop the Cromford canal tunnel and hoisted up its coal and other supplies via a vertical shaft. The gangroad was converted to an edge railway in the 1850s. This was where Brunton's 'walking horse' engine had been demonstrated – the experiment ending in failure when the boiler exploded. The first 'normal' engine ran in 1869. The line was modernised in the 1900s but lifted for scrap in 1933. The funding paid for excavations, provision of explanatory panels etc after many community events to publicise the project.

Andy Sutton was the final contributor – on cellular communications. From this I discovered that I am 30 years behind the times (did you not



Brighton station – the 1882 train shed by HE Wallis

Photo Steve Miles

know that already Roger! ed), never having owned a mobile phone. These devices we were told progressed from TACS to GSM to GPRS to UMTS to HSPA and thence to LTE. This was totally incomprehensible to me. He also described how mobile phone masts and rooftop sites have evolved from 1985 to the present day – a curiously elastic definition of archaeology.

After tea the various AIA prize winners had an opportunity to describe their work – they are listed elsewhere in the *News*.

The conference dinner in the evening was held in Bramber House. Throughout the conference Sussex University and their contractors served us well and the dinner was no exception.

On Sunday morning the conference was first engaged with the AGM which was followed by the Rolt Lecture given by John Minnis on 'Tom Rolt's interest in early motoring'. The lecture, which was very much appreciated, will be published in the IA review in due course.

In the afternoon the conference divided into two with one group setting off on an open top Leyland double decker (ex-Southdown) for a tour of Brighton. Our route took us through Rottingdean and Kemptown and included a view of Roedean School and a gasometer. The coal for the works was originally landed on the beach and then conveyed through a tunnel now gone. The resort was heaving with cyclists and tourists out to enjoy the sunshine. We admired the cast iron columns with their lattice arches on the central promenade. We passed Blackrock and the remains of the West Pier and then the eyesore that is going up on this site – an 'Annular Rising Platform to afford 360 degree coverage of the coastal area'. After drinking our fill of the ornate 1893 lamp standards, we went on to Hove, Old Steine and then back via the Royal Pavilion. Highlight of the afternoon was an in depth investigation of the (1841) railway station for which a huge chunk of the high cliff had to be removed and, at the rear, the site of Brighton loco works.

The other group set off on an RF coach, ex Green Line, first visiting Jill, the well-known post mill on the top of the Downs which had been originally built in Brighton in 1821 and re-erected on the present site in 1852. Jill was superbly restored to working order in the 1980s with the help of the SIAS. Jill's nearby partner Jack is privately owned and for the time being inaccessible. From there the group went to the South Downs Garden Centre to see Car No 9 from the Volk's Electric Railway which is awaiting restoration.

On the way back we stopped at Stanmer Village where we were shown a remarkable Victorian rainwater catchment system now listed Grade II. Nearly a quarter of an acre had been cleared and coated with a mixture of sand and tar in the 1870s to channel water to filters and underground storage tanks said to contain a total of 120 thousand gallons.

One of Monday's tours had to be switched from Shoreham and the Ricardo works, following the tragic accident at the Air Show the previous week, to Tangmere RAF museum. En route the

President of the Sussex Industrial Archaeology Society, retired Air Vice Marshall Sir Freddie Sowers, gave us a talk on the Battle of Britain in which Tangmere had played such an important part. Later in the war Sir Freddie had flown Mustangs.

The excellent museum, which is entirely run by volunteers, has on show airspeed record planes including Neville Duke's Hunter and the Lockheed Lightning. Other hangar exhibits range from WW 1 to the Cold War. There is a very complete WW 2 exhibition, spread over three halls – inevitably of most interest to all of us who lived through it.

After lunch we were driven to the Goodwood Motor Circuit which was being prepared for the 'Goodwood Revival' to be held the following

weekend. After two laps of the circuit in our coach (at a sedate pace) we watched while a specially commissioned Rolls Royce took Sir Freddie round two laps to celebrate his 94th birthday, accompanied by three of our delegates whose names had been drawn out of a hat. The final visit of the day was to the Chichester Canal to admire (and test) the Poyntz swing bridge of 1820 which had been recommissioned by the SIAS in 1997.

The alternative tour on Monday went first to Coultershaw where there is an interesting beam pump from the late eighteenth century operated by a water wheel which pumped water to Petworth House one and a half miles away. The pump was restored by the SIAS in the 1970s. Also to be seen was the 2012 Archimedes screw



The Stanmer rainwater catchment area covering nearly a quarter of an acre. Thought to be unique and listed Grade II it was built in the 1870s. Photo Peter Stanier
The Stanmer rainwater catchment area covering nearly a quarter of an acre. Thought to be unique and listed Grade II it was built in the 1870s. Photo Peter Stanier



Waiting to view the 250 foot well at Stanmer with its donkey wheel

Photo Peter Stanier

turbine. The house itself has several features of 'industrial' interest. However, for many, the highlight of the day was access to the large artefact store at the Weald and Downland Open Air Museum. Like most museums there is a great deal of material which is not on show and the opportunity to study this and even to handle some of it was much appreciated.

Monday's evening talk was by Frank Gray who is Director of Screen Archive South East. Some of the first moving pictures were created in Brighton and Hove and examples were shown, to great delight.

On Tuesday one of the two tours set off north east, with a commentary by Ron Martin, to the 1903 Brede Water Pumping Station where we were lost in admiration at the wonderfully restored machinery. Originally built to house two triple expansion Tangye pumping engines, a Worthington Simpson engine was added in 1941 to increase the capacity to three and a half million gallons per day. One of the Tangye engines has been scrapped but the other and the Worthington Simpson can be – and were – run on compressed air. The standard of restoration of these, plus a large and varied collection of stationary engines mostly concerned with the water industry, is amazing.

In Bexhill we went to the small but very interesting Bexhill Museum which contains such weird and wonderful objects as a replica of the 1902 Serpollet 'Easter Egg' steam car which took the land speed record to 75 mph in 1902, a Sinclair C5 modified to travel at 150 mph (who would dare to drive it?) and a school built lightweight car that took the battery powered record to 106 mph in 1993.

After lunch we inspected the De La Warr Pavilion – 1930s Modernist and Grade 1 listed. And so to Hastings to sample the very steep cliff railway and a small fisherman's museum which holds a complete 1912 lugger. The museum is in an old chapel and part of the south wall was demolished to admit the boat, and then rebuilt.

This area of the town holds Victorian three story black wooden sail lofts and is where the fishing fleet is hauled up on to the beach each day, mostly using elderly bulldozers which also push them into the sea.

The alternative tour on Tuesday headed north to Gatwick airport and the 1936 Beehive circular terminal building now converted to offices. Listed grade II, it is described as the world's first fully integrated airport building with access by subway to the railway. Originally it also had covered telescopic gangways to shelter passengers while boarding.

On the way to Sheffield Park, the headquarters of the Bluebell Railway, we passed the spectacular 1841 Ouse Valley Viaduct, 96 feet high and three quarters of a mile long. We were able to visit the engine sheds and in particular the Atlantic Loco project which we had heard about in the lecture on Saturday. After a visit to the carriage works at Horsted Keynes we took the train along the newly restored line to East Grinstead and then back to Sheffield Park with a cream tea on the way.



Neville Duke's Hunter Mark 3 in which he obtained the world speed record of 727 mph in 1953 on show at the Tangmere RAF museum.
Photo Chris Barney

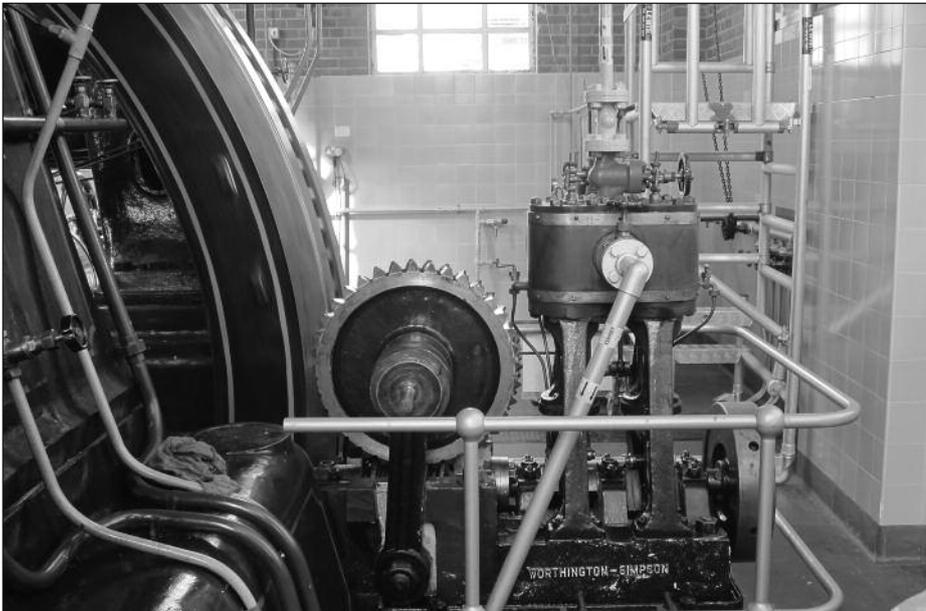
On the final day our transport was a Routemaster. We were first treated to a ride on the Volk's Electric Railway of 1884 – the first in the world but now converted to third rail operation. At the half way station there was a tour of the main storage depot and Magnus Volk's original workshops, still very much in use today. We spent the rest of the day at the Amberley Museum which ranks very much on a par with the Beamish and the Black Country museums. Occupying a huge area, 46 separate artefact accumulations cover just about every

aspect of twentieth century life. It boasts an excellent narrow gauge railway with both steam and diesel haulage (including 'Polar Bear' from Groundle Glen, Isle of Man). A free bus service enables visitors to range over the whole museum area. We were given a conducted tour of the railway workshops, a short distance from which is a Southdown bus garage with six vintage buses, all in working order. Oldest is a Tilling-Stevens petrol electric double decker of 1914 which carries a second hand 1907 body. Nearby is located a fire station containing a 1929 Dennis



The AIA at the stables at Petworth House

Photo Steve Miles



The barring engine for the 1941 Worthington Simpson engine at the Brede Water Pumping Station Photo Chris Barney

among others. The cycle collection boasts items going back to an 1819 child's hobbyhorse and an 1870 boneshaker.

The very helpful tour notes were compiled by Robert Taylor and the material for the excellent gazetteer was brought together and edited by John Blackwell, Peter Holtham and Martin Snow and finally assembled by John Stenglehofen. Everything went smoothly thanks to John McGuinness, the Conference Secretary, and to Steve Miles who performs the somewhat thankless task of Booking Secretary.

All in all a most interesting conference; full marks to the organisers, particularly Malcolm Dawes and John Blackwell of the Sussex Industrial Archaeology Society and to Paul Saulter of the AIA who triumphed over this summer's weather ups and downs to give us sun blessed areas to visit every day.

We look forward to Telford in September 2016.

Roger Ford and others

Priceless but Vulnerable Asset: Valuing and Sustaining Britain's Industrial Heritage

This was the title of the seminar held at the 2015 conference.

The AIA plan to publish a summary online and on paper, in the process producing a popular manifesto for industrial heritage supported by case studies, and co-published with the organisations present at the Brighton seminar. This will also allow us to plug the two gaps in the day's presentations; industrial archaeology discovery through developer-funding (currently threatened in the UK by local government cuts to planning archaeology services and the lack of a statutory status for local HERs); and public engagement through community archaeology, much of which focusses on industrial-period sites. Hopefully, the AIA will be exploring both of these topics in the near future.

Below is a summary of the day extracted from Mike Neville's blog.
www.archaeologyuos.wordpress.com

In the morning Ben Greener of the Heritage Lottery Fund looked at the role of HLF in the last 21 years in promoting industrial heritage. In that time 17,000 buildings and monuments have received funding from the HLF, a total of £1.08 billion. HLF continues to be particularly interested in local people taking on local buildings for local benefits. Thus, Ben described the HLF Heritage Enterprise scheme, begun in 2013, aimed at community-led projects saving at-risk, under-used, buildings in economically disadvantaged areas. At the heart of this approach is the conservation deficit which is the value of a historic building, plus the cost of the project, minus the building's post-project value. Ben also

looked ahead at some future projects, since the fund will run until 2018, including the Ancoats Dispensary in Manchester and numerous sites with smaller grants.

Miles Oglethorpe of Historic Scotland talked about the new Industrial Heritage Strategy for Scotland. More a manifesto than a strategy, it looks at advocacy, sustainability, understanding, protecting and public benefits. The background is the high profile of industrial heritage in the public consciousness in Scotland. It addresses inclusiveness, the image of the discipline, its economic foundations, access to sites and collections, and the shrinking pool of expertise in traditional industries. Wayne Cocroft of Historic England looked at the protection of Industrial Heritage in England since the 1930s. In 1947 the Ministry of Works suggested that industrial archaeology sites could be worthy of scheduling. But the next head of the ministry favoured local solutions, a policy that helped to create hundreds of independent voluntary-run industrial museums. Active surveying of industrial monuments began in the mid-1960s. The Monuments Protection Programme ran from the late 1980s to 2004. Prominence from 1990s was given to the role of industrial heritage in local regeneration.

Kate Clark, Director of CADW, looked at how industry has shaped, and industrial heritage continues to shape, peoples' home and working lives. She argued that there is a gap between those of us who are passionate about these issues and the rest. We need to articulate why it matters. Kate then got the delegates to mind map this! The result was a long list of words valuing industrial heritage from architecture, associations, historical value, and rarity to

benefits to individuals such as new skills, friendships, and bringing generations together. These terms, which go beyond the usual four themes of evidential, historic, aesthetic, and communal importance, helped to identify significance, sustainability and service – the public value triangle.

Sue Seville of the Princes Regeneration Trust talked about the Trust's philosophy as shown through its involvement at the Middleport Pottery. The Trust was founded in 1996 around the themes of using regeneration and heritage to strengthen local communities. She suggested that finding a solution together through local community collaboration is key with three main ways to do this; ownership, as at Middleport which was purchased in 2011, as community advisers, and as enablers. However, the trust's aims are as much about the regeneration of people as it is about the buildings.

At the end of the morning the discussion session touched on archaeology and conservation planning. Local government funding cuts since 2010 have meant that there is a serious and growing knowledge gap in some local authorities regarding the local building stock and the requirements of planning legislation. There was a feeling that to secure the future of industrial heritage and archaeology there needs to be a radical rethink as to how voluntary organisations such as the AIA engage with local government, industrial heritage conservation and archaeology protection.

The afternoon session considered Funding and Sustaining Industrial Heritage.

Sir Neil Cossons of the AIA looked at the sustainability challenge. Author of a 2008 report on small industrial heritage museums and one of

the first generation of industrial archaeologists, he used his great experience to note the evaporation of industrial archaeology and heritage knowledge in the popular consciousness as the generations changed: this is one of the challenges of future sustainability. He suggested that the arguments used in the 1960s and 1970s to save industrial heritage are not being heard and don't have the weight they did – perhaps they are out of date themselves. Sir Neil argued that this matters in terms of the popular perception of the subject. HLF has been the best supporter of industrial heritage in the last 21 years but the adaptive reuse approach won't save everything. There will be orphans, such as the coal mines of Snibston, Clipston and Chatterley Whitfield or the Ditherington Flax Mill (too important to lose but too precious to use) and we need to address this issue. The large number of small volunteer museums might now in the face of government cuts, be seen as a strength rather than a weakness. He concluded by stating that we need connectivity, causes and campaigning.

Ian Bapty, Industrial Heritage Support Officer for the Ironbridge Gorge Museum Trust, spoke about the training support for preserved industrial sites in England. For three years Ian has been supporting the approximately 650 small charitable bodies struggling to preserve industrial heritage sites in UK. We must not forget what is already preserved and protected is at risk, just as other non-designated sites on brownfield and urban sites are under threat from redevelopment. Ian noted that there is a tension in management

between conservation (academic) and restoration for use (volunteers' aim). To build support systems, resources and resilience as a legacy of the project has been a key aim of the scheme.

Bill Ferris of the Chatham Historic Dockyard Trust talked about the challenges of preserving big industrial sites. Chatham, the most complete Georgian dockyard in Britain, closed in the early 1980s. It covers 80 acres and includes the quarter-of-a-mile-long ropery and the mould loft. Initially, the private sector did not want to invest in the site. Instead, an independent trust was set up in 1984 with the aims of preservation and education. £60 million pounds has been raised since 1984 to preserve the site through re-use. Thus the ropery is run as a business to show visitors rope making. That re-use has included workshops, specialist stores and community uses to turn the docks into a place of work and a place to visit.

Ian Morrison from the Architectural Heritage Fund looked at the growth of community enterprise through heritage. The fund was set up in 1976 and has a team of support officers advising on networking and fund raising. Loans worth £121 million have supported 870 projects, many of these being on industrial sites. The fund's aims include supporting communities to repair historic buildings, and to demonstrate the value of heritage-led conservation. This has levered in an additional £278 million from private sector as well as monies from the HLF, local and national government. Measuring impact is increasingly important as AHF moves towards more social

investment, so that social outcomes are now central.

Nigel Crowe from the Canals and Rivers Trust explained that they are the third largest owner of protected heritage sites in the UK and have a team of 10 heritage advisors working with heritage volunteers in restoration and research. This partnership approach has enabled the Trust to target sites that they would not otherwise have the resources to restore or promote. He discussed the advantages of working with volunteers but he also noted some of the problems. Nigel concluded though that volunteers add huge value to the work of the Trust.

At the end of the afternoon John Rodger talked about the European Route of Industrial Heritage and its contribution to understanding industrial heritage at an international level. ERIH was established in 2000 with European Union funding and works through promotion and networking. It now covers 13 countries with thematic routes and more than 82 anchor industrial sites. ERIH is striving to establish a quality brand for European industrial heritage that can sustain the regional routes and their partners.

Sir Neil summed up the day. He noted that there is funding available for saving and supporting industrial heritage sites, but it is increasingly competitive. Whilst volunteer renewal remains very important, we need to get our message out beyond those actively involved.



An attentive audience

Photo Trina Fitzalan Howard

VISIT THE NEW AIA WEBSITE
www.industrial-archaeology.org

The AIA in Brighton

"Call me Trina. Some years ago – never mind how long precisely – having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world."

Trina Fitzalan-Howard

So I popped down to Brighton to the AIA conference and trips.

It was most kind of a few of you to remember my renderings on the Tayside trip. A few even more concerned souls enquired if my friend Mark Watson minded being quoted so much, with vignettes of what he said, then did, and said some more. Be not 'afrit' as they say somewhere. Mark Watson has probably unfriended me and does not feature in this tome. Except for what you've just read of course. And that's over now.

Right. AIA. So, me and my friend Bev (who hasn't unfriended me as far as I know) rocked up on to campus after a very arduous journey. See, we called in at Nymans for a decent cuppa and other matters needing urgent attention after the near-death experience that is the M25 around Heathrow.

Oh yeah. The Conference. Well it kicked off for us at a 7pm roll call for reception and just in time for dinner. I have to say industrial cuisine does not often attract comment but it was better than most and lots of it. Okay, there was a surfeit of chicken options most meals but it was presented well and the staff seemed awfully nice. The staff were generous, perhaps seeing a group of people whose bodies weren't pampered to perfection by exercise and diet, or at least not recently, and might eat something. It's not fair to make us sit amongst such samples of youthful health. I might have muttered that they'll be old 'uns one day. Then more drinks. Then bedtime.

The accommodation was standard student fayre. Me and my luggage seemed to fill the place and I was only there for a few days. I did wonder how a student with books, much change of clothes and so on actually manages.

Friday was our big session day. Breakfast at 8am, registration for some at 10, and then a 10.30 kick off. Marilyn Palmer was first up. A Priceless but Vulnerable Asset. That's Britain's Industrial Heritage according to our Marilyn. Within a time span of 10 minutes came speaker No.2. Hello Ben Greener. He told us all about the Heritage Lottery Fund which so many in the audience now rely for funding their favourite places. We all wish the Heritage Lottery Fund a long and generous life. Moving on to Miles Oglethorpe and Historic Scotland – the poor man had 20 minutes to tell such an expansive story. Then Wayne Cocroft talked about Historic England and Kate Clark spoke for Cadw – and boy does she leap about with her whiteboard pen. You go girl! Straight on to the Prince's Regeneration Trust with Biljana Sarvic and a short discussion before a buffet lunch. By buffet lunch I mean humongous feast with loads of left-overs.



University of Sussex by Sir Basil Spence, site of the 2015 conference. Falmer House is listed Grade I Photo Chris Barney

The extremely well known Sir Neil Cossons talked about the Sustainability Challenges after lunch at which point I was wont to say to Bev, "Eh Bev, isn't he the bloke we were talking to outside our block of flats". Having confirmed he was said bloke, I paid even closer attention. I'll have you know that man knows his stuff.

We moved on to preserving sites, meaning Ironbridge ably presented by Ian Bapty, and followed by Bill Ferris. At that point Bev pointed out her (over) familiarity with Chatham, and despite raising quite a few questions in my mind, we hushed up and behaved almost normally because Bill is worth listening to. Add Chatham to my list. Looks fun.

Ian Morrison took us through the Architectural Heritage Fund and Nigel Crowe followed with the role of volunteers. We all know, deep down, we'd never get on to sites without them – more on that later. John Rodger then told us about the European Dimension which struck a note as several of those present seemed ready to leave for Lille, which is not in England, to another conference there. By now we needed another break.

Back to Sir Neil Cossons who led a brief discussion, then on to the reception. Yeah! Then Dinner following which John Blackwell entertained us to the hilt with treasures of Sussex. Who knew? Go on, bet most of us would say there was little industrial archaeology to be



Through Brighton on the open top bus

Photo Steve Miles

found in that part of the world. Well, we were wrong and hands up, the place is crawling with interesting bits and bats.

Saturday started at 7.30 for breakfast and about 5.30 for the seagulls. I mean, what has one seagull got to say to another at that hour? Really?

At 9am David Jones started telling us how he had acquired a boiler, from which he acquired a financially challenging obsession with rebuilding the thing into a steam locomotive. See, if his parents had bought him a train set at a timely age his obsession would be less expensive, (maybe worse, who knows). At 10am David Morrison talked about Ricardo. I know. I know. Never heard of them. Well, by the time David (2) had finished we all knew 2-stroke engines are best, but most are 4-stroke. V8 engines and cars that whizz round tracks very fast were the basis of their business. Who knew?

Then how can you come to Brighton and not hear about the Volk train that still runs along the beach?

After lunch it was time for the AIA awards and presentations followed by a proper dinner with table clothes and wine glasses, and lots to fill them with. I can't fault the catering.

Sunday was our chance to see a bit of the Pavilion and other historic parts of Brighton. We went straight to Priny's beach hut which is utterly, tastelessly over-the-top. Someone with too much money to spend although there are some interesting architectural features like metal

beams in the walls. Got to say not much industrial archaeology though. We went next door to the Museum and had a lovely cup of tea, followed by a trip out to a (mostly) Edwardian house called Preston Manor. It is owned by the Brighton corporate body and is a time capsule well worth the visit. The good folk were selling lots of ghost experiences and I wish them well because whatever it takes to get visitors through the door. Bev and I were too noisy for the ghosts – apparently.

We had our 'pier' experience and I got my ice cream with a flake in it. Yeah. Holiday time.

Then back to the conference because we didn't want to miss our dinner and tales of the open-top bus and Jack and Jill windmills, and yes, railways.

Monday – breakfast at 7.30, seagulls much earlier. At 9am Bev and I went our separate ways. I think there was a dastardly plan to split us up. I took the Coultershaw/Petworth/Wheal and Downland museum. Bev took to the skies and motor sports.

What can be said? Absolutely not enough time for everything. I would have gladly given up Petworth for the Wheal open air experience but perhaps that was because we had the most wonderfully ambient weather and stunning views. Admittedly the Wheal experience would have been diminished if the weather wasn't behaving as it was for us.

One fun part was when the two tour buses were side by side hurtling down a road, with Bev

and me texting each other like two lost school kids, each on a different bus. There was a cheer when we overtook them and a groan when they overtook us. From the bus I saw my first and only view of Arundel. A few of you will realise why I sat and sighed. If only my family had behaved differently that little pile would be my address. You would sigh too but it flashed passed and Arundel remains on my list to visit one day.

Back for dinner but very little bar. Led by some very bad boys, Bev and I left the campus on foot in search of a drink and ended up at the student union. I don't think we were seeing student life or if we were, it's not very lively. Still, an early night was called for – Bev and I were leaving after breakfast.

If one experience could capture what the conference was really about it happened to Bev and me off motorway looking for a cup of tea on the way home. We eventually found the National Trust's Claydon Manor. Bev was familiar with it but I had never been. Lovely, helpful staff – volunteers every one. Unfortunately, given its location and the fact it was mid-week September, not enough volunteers had turned out and we were told the upstairs (and best bit) were not open. Someone did open it just as we were leaving but here is the thought – you can preserve buildings and items but you need people to manage visitors as Claydon will confirm. So be very nice to your volunteers, you need them.

Until next time, friends.

Preserving the Nuclear Industrial Heritage at Dounreay

Heritage management in the nuclear industry is in its infancy and Dounreay was the first in the UK to develop a heritage strategy for a whole site. Dounreay was the UK's centre of fast reactor research and development and is recognised as being of national historic importance. The challenging and unique journey in producing a heritage strategy encompassing the whole site was supported by contracting experts to initiate the task.

The continued involvement of heritage experts, via an advisory panel, to provide advice on the strategy's implementation plan, is an excellent example of successful collaboration between industry and the private and public sectors. The innovative work may provide a model of wider applicability to similarly unique and complex industrial sites throughout the UK and the world.

James Gunn, Dounreay Site Restoration Ltd
Caithness's history changed on 1 March 1954 with the government announcement that the Dounreay military airfield, on the North coast of Scotland, would be the site of the nation's fast reactor development programme. The United Kingdom Atomic Energy Authority (UKAEA) consequentially operated three reactors between 1958 and 1994. Dounreay pushed back the frontiers of science to become world leaders in fast reactor technology.

The main reasons Dounreay had been chosen were:

- the area had a sparse population, thus minimising public health issues in the event of a major nuclear incident;
- access to the sea for effluent discharges and for cooling purposes;
- access to a very large supply of fresh water;
- extensive area of flat solid ground suitable for building large facilities;
- the Dounreay airfield was already owned by the Government through the Air Ministry;
- two sizeable towns nearby with a pool of labour readily available, social amenities and scope for the new housing needed for the incoming labour;
- established transport links by road, sea, rail and air;

Construction started on the 55 hectare site in March 1955 and was essentially complete by 1959. The airfield's accommodation camp of Nissen huts was extended to accommodate around 2,000 of the construction workers and some of the early arriving scientists and engineers. The nuclear site was built on top of the airfield amongst airfield hangars, buildings of Lower Dounreay Farm and the ruinous sixteenth century Dounreay castle, a scheduled monument

on the foreshore.

Whatlings of Glasgow was the main civil engineering contractor and Motherwell Bridge & Engineering Co Ltd built the fast reactor sphere. The sphere and associated facilities cost £6m and the total cost for the site was £28.5m (in 1950s prices). Such was the national interest, the first public open day, held in May 1957, attracted around 7,500 people. Dounreay grabbed the headlines in all the national newspapers, scientific and engineering magazines and caught children's imagination owing to the Eagle comic and Meccano magazine publishing articles about the sphere, which was seen as an engineering marvel equal to the technology race to land man on the moon.

The site directly employed around 2,300 people at any one time and over the years around 12,000 people and a similar number of contractors have worked at Dounreay. This includes over 1,000 craft apprentices and 1,000 secretarial, clerical and scientific trainees who took advantage of the excellent training schemes.

Dounreay was a unique nuclear 'park' in that it had all the facilities for completing a nuclear fuel cycle for the Dounreay Fast Reactor (DFR) and the Dounreay Materials Testing Reactor (DMTR).

As well as a technological one, Dounreay was a social integration experiment and both aspects

were viewed as successful. Caithnessians were generally appreciative of what Dounreay brought to the county and embraced the vast number of 'Atomics' as they became known, so that social integration was not an issue. This was mainly due to the friendly realism of the local people, the co-operation of the local authorities and the attitude of the imported staff to their new environment.

Dounreay's (and Scotland's), first self-sustaining nuclear chain reaction, known as criticality, occurred on 13 August 1957 within a small scale, uranium solution experimental cell. The Dounreay Materials Testing Reactor (DMTR) went critical on 24 May 1958 and was Scotland's first operating nuclear reactor. This was a small, heavy water moderated thermal reactor used for investigating the behaviour of materials in radiation fields. The results were used to help with the design of all types of reactors throughout the world. It closed on 12 May 1969.

The Dounreay Fast Reactor operated from 14 November 1959 to 23 March 1977. The reactor is contained inside a 41.5m diameter steel sphere, which has become an iconic symbol for Dounreay and the nuclear industry. The core was only 0.53m in diameter and 0.53m high and yet could produce 14MW of electricity.

In 1962 it became the first fast reactor in the world to supply electricity to a national grid and was the most powerful fast reactor in the world at the time.

The success of DFR led to the building of a much larger Prototype Fast Reactor (PFR) which could produce 250MW of electricity. It operated from 3 March 1974 to 31 March 1994 and achieved a burn-up rate of 23.8% from its mixed oxide fuel, a world record for any large reactor. However, in 1988, the Government decided that the technology was not required for another 30-40 years and stopped the research funding in 1994. PFR was successful in meeting its aim of developing knowledge about the long term reliability, safety and economics of fast reactors for designing future commercial-sized fast reactors.

Dounreay's research and development programme is now complete and the equipment and materials used to gain this knowledge is being packed up and the environment restored by a new generation of staff skilled in nuclear clean-up. After four decades of research, stretching back to the earliest days in the nuclear industry, taking apart the legacy is a major undertaking.

Today Dounreay is a site of construction, demolition, waste management and land restoration, all of it designed to return the site to a safe brownfield condition by about 2029. Decommissioning Dounreay is internationally recognised as one of the most complex nuclear clean-up challenges in Europe.

As Scotland's largest nuclear clean-up and demolition project, the trailblazing journey continues into the twenty-first century with the development of cutting edge decommissioning technology and the creation of a unique heritage strategy, the first for a UK nuclear site. The aim is to preserve a distinct lasting cultural legacy for a site which has had a dominant impact on the economic, cultural and social development of the region.



Dounreay from the air

Photo: The Nuclear Decommissioning Authority and Dounreay Site Restoration Ltd.



The Dounreay Materials Testing Reactor during construction

Photo: The Nuclear Decommissioning Authority and Dounreay Site Restoration Ltd.

The strategy, published in 2010, took over 2 years to develop and brought together various national bodies to consider nuclear industrial heritage for the very first time and all found it a challenging learning experience. The approach used could act as a model for other complex industrial sites.

The experimental nature of many of its redundant facilities means the clean-up and demolition requires innovation as well as great care. Nearly two and a half thousand people work on the site and this will continue for several years.

Site closure by circa 2029 involves:

- Cleaning out and demolishing redundant nuclear and non-nuclear facilities;
- Segregating and packaging the radioactive and non-radioactive wastes in a way that makes them safe for long-term storage or disposal;
- Removing nuclear fuels that can be used again elsewhere;

- Leaving the site and its environment in a condition that is safe for future generations;

Decommissioning Dounreay is internationally recognised as one of the most complex nuclear clean-up challenges in Europe. The skills and enterprise it fosters are giving Scottish companies a platform to compete in the global decommissioning market.

Historic Scotland showed an interest in listing the DFR sphere and visited the site in 2007. Together with the National Museum of Scotland they indicated that Dounreay's heritage was of national importance and should be captured, preserved and celebrated. It was agreed that a strategy covering all heritage aspects would be produced, which would also serve to underpin any decision about the sphere.

Atkins Heritage was selected, in 2008, to help produce a strategy. Such work had never been done for a complete nuclear site before and it was a steep learning curve for everyone involved.

Working closely with local and national heritage organisations, the strategy took over two years to produce and was developed in line with best practice approaches to conservation management. The work was comprehensive and included a gazetteer, reviews of the local visitor/tourist market and existing worldwide nuclear and energy visitor attractions.

The justification for dismantling the DFR sphere is based on a number of factors:

- the prohibitive high cost of removing all of the radioactive contamination from the sphere shell;
- the high cost of painting the sphere every decade (c£0.5m) to maintain its condition and avoid turning into a rusting eyesore;
- minimising the cost burden on future generations;
- security and safety issues that will limit public access to the sphere;
- the removal of all the plant and equipment due to contamination, will leave little evidential and technological value;
- the very limited local visitor and tourism market leads to no viable self-sustaining end use;
- value for money to the taxpayer and affordability in the current state of government finances;

The strategy is available to view on the Dounreay website within the site closure section; (search – Dounreay site closure).

DSRL was already implementing a number of components of the strategy as a part of its normal business and to expand the activities and act as a focal point, DSRL appointed a Heritage Officer to manage an implementation plan.

The strategy was issued in September 2010, but some of the implementation plan actions have been a normal part of business for years. Archiving started from the very beginning in 1955 for technical records, photographs, drawings, films and videos. Project teams and the Communications department have recorded decommissioning progress via photos, video, news articles and reports for many years. There are around one million archived items and these will be transferred to the proposed National Nuclear Archive, which is due to be built in Wick, Caithness,



The Dounreay Fast Reactor sphere at the half way stage

Photo: The Nuclear Decommissioning Authority and Dounreay Site Restoration Ltd.

by late 2016. The National Archive at Kew currently holds many of Dounreay's significant records.

The Heritage Officer has collected 340 objects and many have been donated to the National Museum of Scotland (science and technology items) and Caithness Horizons (mainly social history items).

The most significant preserved objects are the complete reactor control rooms from the Dounreay Fast Reactor and the Materials Testing Reactor. The Science Museum and the National Museum of Scotland have signed a joint acquisition agreement for the DFR Control Room and it will go on public display in the future. The DMTR Control Room is a star attraction within Caithness Horizons museum.

The Heritage Officer is capturing oral history by digitally recording the memories of Dounreay workers, ex-workers and members of the public. Twenty two recordings have been completed to date. With the people involved in the construction and initial operating years now in their 80s or 90s, time is running out to capture the exciting and expectant atmosphere of the beginnings of the nuclear power era.

The Dounreay archives have an extensive collection of many hundreds of thousands of photographs and drawings of the site's buildings.

The Archives include the technical histories of all the major radioactive facilities and the building histories of the non-radioactive facilities and all of the demolished ones. There will be around 500 reports in total as the scope covers all facilities including very minor ones such as bus shelters, office portacabins and gas bottle stores.

The Dounreay website (www.dounreay.com) is the main communication tool to inform the public of all aspects of the site's work. A section of the website is dedicated to the site's history and cultural heritage. It also has an image library where the public can register to access and download over 1,000 historic and current images. There is also a Dounreay TV section which has a library of historic films and current videos.

Heritage management in the nuclear industry is in its infancy and Dounreay was the first in the UK to develop a heritage strategy for a whole site. The continued involvement of heritage experts, via an advisory panel, to provide advice on the strategy's implementation plan, is an excellent example of successful collaboration between industry and the private and public sectors. The innovative work may provide a model of wider applicability to similarly unique and complex industrial sites throughout the UK and the world.

FIFTY YEARS OF THE LANDMARK TRUST

2015 is the fiftieth anniversary of the Landmark Trust. Established and financed by Sir John Smith to 'rescue buildings in distress', restore them and make them available to let for short stays, the Trust now has some 200 buildings in its care. Many of these have always been domestic, the oldest is Purton Green, a Suffolk farmhouse house built in about 1250. However, Sir John, a great friend of Tom Rolt, was always interested in industrial buildings and listed in the handbook are several mills among the castles, towers and follies.

Brinkburn Mill near Rothbury has two pairs of stones in one of the rooms but Tangy Mill on the Mull of Kintyre still has all its dressing, drying, hoisting and grinding machinery in position and visitors live and sleep amongst it. One of the bedrooms is in the original kiln.

At Cromford the Landmark Trust was able to take on the entire terrace in North Street. Built in 1771, this is the earliest planned industrial housing in the world. Most of the three story houses are let but one is available for short breaks.

Two lock cottages are on the list, one on the Stratford Canal and one on the Birmingham and Worcester. The engine house at Danescombe mine in Cornwall will accommodate four people.

You can stay in a flat over the top of the Ironbridge Gorge Museum Trust shop overlooking the bridge itself or, if you prefer railways, there is Alton Station in Staffordshire. Here the kitchen is in the private waiting room and a double bedroom in the ticket office with most of the accommodation in the station master's house. You can go out on to the platform but, sadly, a train will never come.

Their handbook is a delight and provides hours of happy contemplation.

The Salt Pans of Sicily

On holiday this year in Sicily I was very pleased, in amongst the baroque architecture, vineyards, olive groves and Inspector Montalbano locations, to have visited two sites of the salt industry of Sicily. These are on the west coast, at Nubia, just south of Trapani, and Stagnone, north of Marsala, where the shallow coastal waters and long, warm summers are ideal conditions for salt-making.

Tony Crosby

The industry dates back some 2,700 years, to the Phoenicians, who traded salt around the Mediterranean as a preservative, and its importance economically is well recorded from the twelfth century onwards. Windmills were introduced in the fifteenth century for pumping the brine around the individual evaporation basins, and in 1583 sixteen salt pans were recorded, producing 3,000 tons annually. Although in 1600 production was about 11,000 tons, it fluctuated greatly for the rest of the century, until after 1730 when the industry flourished again. It was at this time that the windmills were first used in the process of grinding the salt crystals as well as pumping the brine. By the end of the nineteenth century there were 39 salt pans producing 186,000 tons. The twentieth century saw many fluctuations in production, but the industry survives today, using natural and traditional processes.

The process involves sea water going through a number of gradual concentration stages in evaporation basins until other elements have precipitated out and the salt crystals have formed. The salt pans, therefore, consist of a number of evaporation basins, the depth of which decreases: the deepest being near the sea, those furthest from the sea and used in the final stage being the shallowest. The brine traditionally was moved from one basin to the next by an Archimedes screw powered by the windmills, now the water levels are controlled by sluices. The windmills were of two types – one readily recognisable to us, having six cloth covered sails, the other being operated by metal vanes.

The process begins in the spring with the filling of the first basin with sea water. The first crystals are ready by the end of June when the collection of the salt begins, there being four collection periods, the final one in the second half of October. The crust of salt crystals in the final basin is broken by seasonal workers and gathered into small heaps by the side of the basin where it



Windmills and salt ponds at Stagnone

Photo Tony Crosby



Gathering the salt at Stagnone

Photo Tony Crosby

drains for a day. It is then transferred into larger heaps by men shovelling it into barrows and tipping these on to a conveyor. These heaps are covered with terracotta tiles to protect the salt from the weather.

Another feature of the salt pans is the canals around the basins which are used for directing

the water into the basins and also were used by the boats to transport the salt to local markets.

Both areas of salt pans are now nature reserves, the one at Trapani being managed by the World Wildlife Fund. Both sites also have museums explaining the development of the industry and the process of salt-making.

ADVERTISE IN IA NEWS

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For further details, contact the Editor.

REVIVING PLACES BY REUSING INDUSTRIAL HERITAGE

1 and 2 December 2015

Museum of Science and Industry Manchester

Alongside our partners Historic England and The Prince's Regeneration Trust, the Heritage Lottery Fund are co-organising an event to tie in with the European Industrial and Technical Heritage Year 2015.

The conference will explore the theme of re-use of industrial heritage. It will be split into two days, each with a slightly different focus:

Day One will explore the role of the public sector in encouraging the creative reuse of industrial heritage and the commercial opportunities presented by historic buildings, with a focus on creative industries, development and regeneration uses. It aims to connect with businesses, investors and local/national decision makers (drinks reception at end of day one).

Day Two will explore opportunities to develop new uses and engage with commercial partners to leverage investment and funding with a focus on not-for-profit groups, community organisations, heritage sector partners and historic building owners.

The central theme is re-use, with a focus on developing new uses for vacant, at-risk industrial buildings by connecting them to creative industries businesses, developers, investors, other commercial opportunities and community-led/not-for-profit organisations.

Sir Howard Bernstein - Chief Executive, Manchester City Council

The chief executives of HLF, Historic England and Prince's Regeneration Trust

Rohan Silva – Former special adviser to David Cameron and architect of the Tech City initiative

Jonathan Robinson - Journalist at The Guardian and former global director of Impact Hub

Tom Walker - Director of Cities & Local Growth Unit, DCLG

Michael Schwarze-Rodrian - Director of Networks, Ruhr region, Germany

Tom Bloxham, MBE - Chairman and Co-Founder Urban Splash developers

Rowan Moore - Architecture Critic, The Observer

The full programme, booking details and more information is available online <http://ih2015.org.uk/>

CALL FOR PAPERS

ICOHTEC Symposium 2016 : Porto : Portugal :
26-30 July

**Technology, Innovation, and Sustainability:
Historical and Contemporary Narratives**

Innovation and sustainability have become key words in our everyday life, extending from political and economic discourse to teaching curricula and from the lay public to academia. However, the use of these terms is often abstract and simplistic, ignoring the density of their interrelationships in different geographic, historical and civilizational contexts, and the boomerang character of today's world.

The 43rd ICOHTEC meeting aims at addressing this complex relationship by encouraging papers that contribute to a deeper understanding of the multilayer cultural and material built meaning of innovation and sustainability and on the various roles played by technology in enabling or preventing such interplay.

All proposals must be in English, and should be submitted electronically by 25 January 2016 via our website icohtec.org/annual-meeting-2016 For suggestions about preparing your submission and the conference presentation, please consult the guidelines on icohtec.org/proposal-guidelines

Correction and Apology

Readers of the *IA News* 174 will have noticed on page 10, accompanying the article on 'Cellular Mobile Communications', that the set of three pictures labelled Figure 1 was repeated as Figure 2 and as Figure 3. To see the pictures that should have been there please go to the AIA website and you will find the correct pictures (in colour as a bonus).

Adhuc mea culpa – it seems that insects have antennae, radios have antennas, but then insects have been around rather longer than radios (and will no doubt be around when radios have long gone) – parum cognito periculosum est.

Apologies to Andy Sutton, the author of the article.

AIA IRONBRIDGE PRACTICAL WEEKEND – SPEAKING UP FOR INDUSTRIAL ARCHAEOLOGY

Ironbridge Institute 23 April 2016

In the current economic climate of heritage funding cuts and cuts to local authority archaeology and conservation services, historic industrial sites, buildings and collections are arguably more at risk than they have been since the 1970s. At the same time there is an increasing focus on local decision-making through local plans and new community powers. The AIA is therefore holding a one day workshop at the Ironbridge Institute on 23 April 2016 on speaking up for industrial archaeology on a local scale.

This workshop will discuss why is it now more important than ever that local groups speak up for industrial archaeology, and what groups and societies can do practically to help support and protect industrial archaeology in their local areas.

The workshops will include contributions from national organisations that support local advocacy, including the Council for British Archaeology (CBA), Civic Voice and the Industrial Heritage Support Programme, as well as a number of local case studies from voluntary groups who are working to protect a range of different industrial sites, including archaeological sites, industrial buildings and museums. There will be practical sessions in the afternoon, and a feedback and discussion session to look at issues such as the challenges of speaking up for industrial archaeology and what support currently exists for groups who want to help to protect and raise awareness of industrial archaeology in their local area.

Tickets for the event will be £18 with a discounted rate of £15 for AIA members (including affiliated groups) and students. This will include lunch and refreshments. More details and a booking form will be available on the AIA website shortly. Updates will also be posted on the AIA facebook and twitter feeds.

Local Heritage Lists

The importance of Local Heritage lists cannot be overemphasised. This account of the procedure of setting up a list for Braintree in Essex is a case study of the why and how.

Tony Crosby

The National Planning Policy Framework advises Local Planning Authorities on the conservation and enjoyment of the local historic environment, including the role of Local Heritage Lists (LHLs). *'Local heritage listing is a means for a community and a local authority to jointly identify heritage assets that are valued as distinctive elements of the local historic environment, especially buildings and structures which are not Listed Buildings. It provides clarity on the location of assets and what it is about them that is significant, guaranteeing that strategic local planning properly takes account of the desirability of their conservation.'* (*Historic England's Good Practice Guide for Local Heritage Listing, 2012*, (search – Local Heritage Lists).

LHLs, therefore, play an important part in building and reinforcing a sense of local identity and distinctiveness in the historic environment, helping to conserve and enhance local character. The process of listing in this way provides an opportunity for communities, in partnership with local authorities, to identify valued heritage assets which they wish to protect at a local level, supporting both the National Heritage List (Listed Buildings) and enhancing the local Historic Environment Record (HER). LHLs provide additional protection alongside Listed Buildings, have no extra consent requirements but do help to influence planning decisions. As there are many buildings associated with industry which are not nationally listed, securing local listing for them will ensure greater protection for them within the planning system.

Members of the local community in Braintree, Essex, were concerned about the loss of some buildings associated with the Courtauld business and family within Braintree District, which covers the market towns of Braintree and Halstead, and



Factory Terrace, staff housing at Halstead

Photo Tony Crosby

villages in between. Although a number of local Councils in Essex have LHLs of varying detail and comprehensiveness, Braintree District Council (BDC) was not one of them. Braintree & Bocking Civic Society (B&BCS), therefore, worked in partnership with BDC on creating an LHL for that Council area and compiled an initial nomination list of all buildings and structures in the District associated with the Courtauld family and business. All types of heritage assets can be considered for inclusion in an LHL and hence these nominated assets include not only buildings such as factories, a workmen's hall, village halls, a mechanics institute, schools, churches, Braintree Town Hall, hospitals, and dozens of staff houses across the District, but also public gardens, drinking fountains, and air raid shelters. (The full list can be viewed on the B&BCS website (Google – Braintree and Bocking Civic Society).

BDC launched their LHL in August and are now consulting with the owners of those buildings and structures in Braintree and Bocking

only, initially, as the first step towards compiling their LHL. The nominated assets will be checked to ensure they meet the criteria for inclusion on the LHL and after consultation the nominations will be reviewed by a Local List Selection Panel which is currently being established. This Panel will then make recommendations to the Planning Committee regarding which assets to include on the LHL and owners will be informed. The criteria for inclusion on the LHL are: Age & Integrity; Historic Associations & Social Value; Architectural & Aesthetic Value; and Group Value.

The Courtauld business and family had a major impact on the landscape of this part of Essex, and it is hoped that by having the associated heritage assets locally listed, it will ensure a greater degree of protection of these buildings and monuments, which are valued by the local community. Having established the LHL for the District, further buildings of industrial interest, which are not nationally Listed Buildings, will hopefully be added to the Local Heritage List.

The end of permanence: Are museums still for ever?

Extract from the blog, 12 February 2015, of Maurice Davies of The Museum Consultancy, previously Deputy Director of the Museums Association.

Leicestershire County Council has confirmed it intends to close Snibston, its largest museum, on 31 July; it will be demolished, replaced with housing and, possibly, a small museum on the mining history of the site. The closure plans have been met with energetic local protest, and professional condemnation. Unless the council has a rethink, Snibston will be the most significant museum closure from public-spending cuts. So far, closures have been limited to far smaller museums, such as ones in London

boroughs. And museums have been surviving far better than libraries – over a hundred of them have gone.

So what does it mean when a major museum closes? It demonstrates that museums are not always, in the words of the ICOM definition, 'a permanent institution'. That might not be a bad thing. Aiming to exist for ever is quite a burden; it can lead museums to respond too slowly to changing demands as they perhaps think a little too much about the supposed needs of the future as opposed to the needs of today. And perhaps collections are becoming a little less permanent. Back in the early 1990s when Snibston opened, disposal was unusual, even frowned upon. Now, it's standard practice to review collections and

remove the less significant material. Sale of collections is also becoming slightly more common. While controversial, when done responsibly it is perhaps less damaging to museums than once anticipated.

The long-term fate of Snibston's substantial collection is not yet clear and the costs of dealing with it properly will be substantial. Perhaps, eventually, some will be sold. That may shock some people, but it may be better than keeping things in store for decades, unseen and unused.

Snibston's closure is sad, and will be a substantial loss to the local area. It should make us think about whether museums are becoming less than permanent and whether that might be a good or a bad thing.

Surprises under the Houses of Parliament

Two letters followed Bob Carr's reference to an engine in the basement of the Houses of Parliament in the last edition. They are reproduced below together with John Porter's summary of it all. It's nice to know that someone reads IANews.

From Henry Dawson, 21 August:

An article in IA News 174 written by Robert Carr mentions a Marshall and Co Ltd of Gainsborough stationary steam engine that used to be in the basement of the Houses of Parliament. At Crossness Pumping Station we have a Henry Watson Pump that used to be in the basement of the House. It was presented to us by the Kew Bridge Steam Museum in 2002. It has been restored and is run on air on steaming days.

The thought crossed my mind that maybe the Marshall engine was also presented to Kew at the same time and may still be there. I enclose a photograph of the Henry Watson pump with details.

From John Porter, on 29 August:

Robert Carr, in his piece 'A London Miscellany' on page 15, speculates whether the steam engine in

the basement of the Houses of Parliament is still there. I am assured that it is.

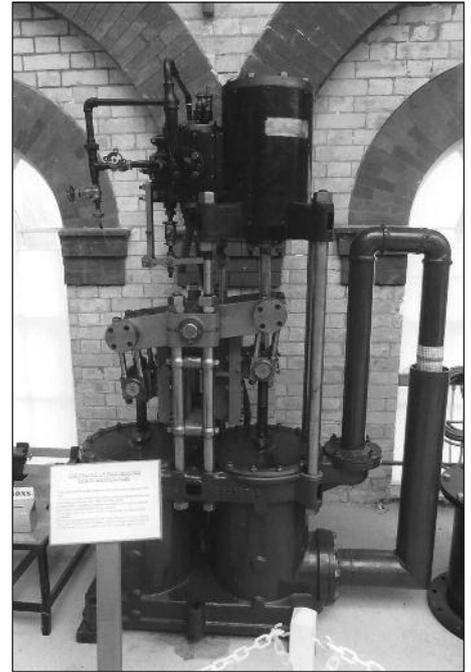
In fact, it would be a surprise if it had gone, there apparently being no practical way of getting it out!

By 11 September John had got it all straight:

Steam Driven Pumps in the Palace of Westminster
The two Henry Watson units were taken out some 15 years ago and it is one of these that is now at Crossness. They were, in fact, newer than the Marshall unit which is still in place in the bowels of the palace.

Owing to its size, the Marshall two cylinder engine driving a single compressor through a common crankshaft is likely to remain where it is, unless the proposed major rebuild creates an exit route.

For a period in the 1980s, the professional staff at Kew Bridge Steam Museum, now the London Museum of Water and Steam, had a contract to maintain these steam driven pumps. The Marshall was operational as recently as 2006. The CIBSE Heritage Group website has a very steamy picture of the engine in action.



Pump ex Houses of Parliament now on show at Crossness Pumping Station

Is Coventry to be demolished?

A general blitz is taking place around Coventry railway station. The 1962, 18 storey Station Tower is to be demolished as part of a substantial redevelopment to create a new business quarter just north of the station, to be called the Friargate.

Robert Carr

To the west of this tower, the Rocket public house is also to go; it has been boarded up for some time. The pub is quite historic and may date back to the 1860s. Many of the 1960s buildings in the area have already been demolished. Current google street views show the area as it was. By the time you read this the area will probably be totally cleared.

It is interesting to note that in the 1960s Victorian public houses were often retained in an attempt to preserve a sense of locality but in the present redevelopment this will not be the case. Presumably' glossy wine bars and the like will replace the Rocket. The railway station itself was also completed in 1962 and this grade II listed

'bahnhof' is to survive – but all the other buildings of this era are being swept away.

This quite major event is taking place almost wholly without comment. These Coventry buildings formed a unity of style, a noteworthy English example of the architecture of its age and only the odd person, perhaps a young architect or a foolhardy urban explorer of abandoned and dangerous buildings appears to have noticed.

General public distaste for this kind of 1960s planned development seems almost universal, but this was a model of its period and for the visitor of 50 years ago a striking introduction to the postwar City of Coventry which had risen from the ashes of war. A half century ago this would have been heralded as the dynamic new young Britain, fully capable of taking on the rest of the world on its own terms. The newspapers of the time would make interesting reading.

A business quarter quite likely similar to the one being redeveloped around Bristol Temple Meads station will probably be the outcome. This new Coventry business quarter will probably be eclectic in style – along the lines of Canary Wharf.

One wonders how many paid archaeologists or amateur enthusiasts took note of this Coventry clearance. The buildings of ancient Rome are considered worthy of study, so why not the buildings of postwar Coventry? The industrial period was still very much in full swing, certainly locally, when the buildings near Coventry station were put up.

Industrial Archaeology Review led the way in 2004 with the article by Julian Lamb on Mell Square in Solihull. When this shopping area was built about 1967 Solihull was attempting to catch up with and emulate Coventry modernity. Michael Stratton, now sadly deceased, took an interest in Coventry's car factories and these industrial buildings, many not far from its main railway station, were part of the same story. The then burgeoning British motor industry provided substantial funds for Coventry's postwar rebuilding.

In 1950 the UK exported more motor vehicles than the rest of the world put together.

THE AIA ON TWITTER

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

Barry Hood, MSc, MBA, ARSM, DIC.

1947 – 2015

Barry Hood, the Association's secretary from 2003 to 2010, died in August after a lengthy battle with leukaemia. Those who attended any AGM during that period will remember the new level to which Barry took his Annual Report of Council. Lavishly illustrated with both still and video photography, I, as treasurer, and the next person to present a report, felt a little uneasy with my pedestrian presentation. Barry's were much more fun! Barry also brought his business and IT skills to bear on the Association's operations.

Born in London in 1947, Barry was educated at Bexley Grammar School, Kent, going on to Imperial College, London, gaining an MSc and later an MBA at Henley Management College. As a petroleum engineer he co-founded Nova Technology Management Ltd in 2002. He retired from the oil and gas industry in December 2012 and, 'rode off into the sunset without looking back', saying that it was time for younger folk to continue.

Following a recurrence of leukaemia in 2014 he returned to playing golf and cycling 20 miles a day in order to get himself fit again. The latter nearly cost him his life in June last year when he failed to notice a chain stretched across the cycling track causing him, in his words, to, 'take off like a rocket but, unlike Superman, did not fly', crashing to earth, his face a bloody mess. Notwithstanding his injuries he remounted his bicycle to cycle a few miles to a friend's house. Later in hospital it was discovered that he had broken his neck; a consultant surgeon told him he should be dead twice over – once when he came off his bike and the second time when he got back on it. A week later, a team of surgeons took five hours to reattach his skull to his neck.

Barry, after his operation last year was hoping to attend the Brighton conference and no doubt the Edinburgh Festival too; he was a regular at both, but sadly this did not happen. He will be missed by all his AIA colleagues, especially by me to whom he was a great help both during his tenure as secretary and afterwards.

Bruce Hedge.



Barry Hood

Maney Publishing

As you may be aware, Maney Publishing has recently been acquired by Taylor and Francis, who will also be taking over the administration of the AIA membership on behalf of The Association and will manage the publication and despatch of **Industrial Archaeology Review** that is included as part of your membership. **There have been no other changes to the membership including subscriptions for 2016, so your annual membership will remain the same as previously.**

About Taylor & Francis

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You will receive renewal notifications for the renewal of your 2016 membership from Taylor and Francis, which will include a new Direct Debit form to complete.

AIA Council business

At the AGM Kate Dickson was elected to the Council. Kate runs a heritage consultancy from Buxton and specialises in historic building regeneration, including rescuing the cotton mills of Ancoats and working as project manager on the Birmingham Coffin Factory.

Mark Sissons (who heads the Restoration Grants group) and Mark Watson (our representative as national rep on TICCIH-GB) have joined the Council. Mark Watson was previously co-opted and Mark Sissons spent a year being co-opted after he completed his term as Chairman.

2016 Conference – 10 to 14 September

This will be in Shropshire, last visited in 1979. It will be held at the Telford campus of the University of Wolverhampton, Priorslee, within easy reach of Telford Central station and the M54

motorway. The Friday Seminar (9 September) will be on 'Britain's Industrial Heritage – What has World Heritage Site inscription done for it?'

During the main Conference our guest speakers include Barrie Trinder, John Yates (the Rolt Lecturer) and Simon Buteux (Birmingham Building Preservation Trust). We will be launching a new revised edition of Barrie Trinder's 'Industrial Archaeology of Shropshire' and visits will include Thomas Telford's Wappenshall Canal Basin, Ditherington Flax Mill in Shrewsbury, Middleport Pottery in Stoke, Evans Silver Works and the Coffin Works in Birmingham, Snailbeach and Tankerville lead mining sites, Telford's road and canals in North Wales, and the Clee Hills.

David de Haan

The All-Party Parliamentary Group on the Industrial Heritage

Following the change of Government this Group has been re-formed, but many of the previous key players are no longer MPs. Do let us know if your local MP is an industrial heritage champion who we could encourage to attend the meetings.

A Plea for Help

This is addressed both to individual members but most of all to Affiliated Societies. If you know of an industrial building or structure under threat from a planning decision please let Amber Patrick, the AIA Endangered Sites Officer, know as soon as you can.

Some planning applications are notified to her but many, even important ones, fail to come to her attention and the time allowed for objections is very limited.

She may be able to help but can do nothing if she does not know about it.

New Members

A warm welcome to:
Martin Conlon of Glasgow (student member)
Kate Dickson of Buxton
Alan Telford of Langley Park, Co Durham
William Pickering of Burnopfield, Newcastle upon Tyne (student member)
Jennifer Brown of Aberdeen
Robert Jones of Wallasey.

The new AIA Website is live

Go to industrial-archaeology.org to see the new AIA website (no change to the address) and to find our new and up to date version with many new features.

Bill Barksfield has taken over the job of webmaster from Michael Messenger who has looked after our website for many years. Thanks Michael – you thoroughly deserve your retirement from this onerous task.

Please contact Bill on webmaster@industrial-archaeology.org if you spot any problems, errors or omissions. He will be particularly pleased to receive any additions to Events, News and Features together with relevant images now and at any time in the future.



2015 Award Winners

Left to right: Lynne Pearson (*Peter Neaverson Award for Outstanding Scholarship in Industrial Archaeology*); Caroline Malim, SLR Consulting (*Commercial Publications Award*); Laurence Hayes, SLR Consulting (*Commercial Publications Award*); Marilyn Palmer, President, AIA; Penny Middleton, Northern Archaeological Associates (*Archaeological Report Award*); Matthew Town, Northern Archaeological Associates (*Peter Neaverson Award for Digital Initiative and Innovation and highly commended for Archaeological Report Award*); Peter Daniel, Somerset Industrial Archaeology Society (*Voluntary Societies Publications Award*);

NEWS

Keeping our boilers safe

The Boiler and Engineering Skills Training Trust (BESTT), which represents all steam sectors, is dedicated to providing a training programme to address the shortage of skilled craftsmen who can repair and maintain heritage steam boilers. BESTT has secured a £469,000 Heritage Lottery Fund grant towards a two year national programme, believed to be the first of its type since the end of steam on British Rail in 1968.

For normal commercial use the steam locomotive boiler is obsolete. Until the 1960s, huge numbers were in use on railway locomotives, ships, traction engines and elsewhere. However, it is crucial to the continued operation of hundreds of heritage visitor attractions that proper maintenance is available. There are several thousand privately owned steam engines – traction engines, privately owned locomotives as well as a smaller number of ships and stationary engines. It is becoming increasingly difficult for the few remaining boilershops to keep up with the needs of operating these and as the boilers themselves get older increasing skill is needed to keep them in good repair.

Operating at pressures sometimes exceeding 250 psi (18 Bar) and at very high temperatures, locomotive boilers are safety critical components. They can be kept in operation only through the application of specialist skills and equipment.

Around 50 skilled boilermasters are at work in this country, together with less qualified assistants and supported by specialist boiler inspectors. However, many skilled specialists are now retiring and there is an increasing shortage of young people entering the industry and gaining appropriate experience. There is also an absence of the appropriate qualification structure which can provide the transferable skills to create a healthy job market.

New Guidance for Museum Archive Management

The Association of Independent Museums (AIM) has just launched a new online publication: - *Successfully Managing Archives in Museums*. Written by Emma Chaplin and Janice Tullock, this new guide has been created to help museum staff and volunteers understand archive collections management and to support them in making decisions on how and when it might best be applied to their collections.

As well as offering practical advice, the guide also introduces some of the theory behind managing archives and providing access to them with case studies and examples of best practice throughout. With proper cataloguing and care, museum archives can be an engaging element of a museum’s collection and the guide is intended to make sure that archive collections in museums do not get overlooked.

It can be downloaded from the AIM website: AIM Success Guides

Two Centuries of Technology at Crofton Pumping Station

A unique project to investigate how modern technology can improve our knowledge of two hundred year old technology has been completed by Bath University Students for Crofton Beam Engines.

Crofton Pumping Station has linked up with Bath University Mechanical Engineering students to investigate how a ‘mechatronics’ system, using modern remote sensing devices, could help improve our understanding of the working of such important early industrial machines.

Remote measurements and recording of parameters such as temperature, pressure, stresses, vibration etc. could:

- a) better inform us on how we care for such engines and on whether we are doing any damage by continuing to operate the engines at full power;
- b) provide real time information on hand held or fixed devices, to enhance the visitor experience or for those unable to access all parts of the five storey building;
- c) provide data for off site analysis by students at all levels to explore in detail how such machines work and perform.



Enderby Wharf looking north last October. The white building is Enderby House and the preserved cable loading gear can be seen to the left.

Photo R Carr

News from Enderby Wharf

Members of the Enderby Group are still hard at work trying to secure ongoing recognitions of our heritage in whatever the future holds for Enderby House. The developer is required to put the house back into a decent condition under the terms of the Planning Consent – but what then? One group of our members has been talking to various developers and interested parties but, as many people will be aware, a lot has been going on with proposals for the Enderby site itself and some of its neighbours.

Meanwhile, members have been working hard on getting over the Enderby heritage message. Stewart Ash has written a series of pieces on the history of the site. The whole text for these is on the Atlantic Cable Web site – this is a vast and very interesting American site run by the English enthusiast, Bill Burns – thank you Bill for doing this: search – atlantic-cable.com

In addition Stewart has written three articles which are on the Ballast Quay website: search – ballastquay.com industry

Mary Mills

Robert Carr adds:

At Enderby Wharf on the Thames in London the situation has been relatively static of late. Building on a large scale is going ahead on part of the site but the time scale for construction of the remainder is not yet known.

North of England Report

The Grade II Warwick Bridge corn mill on the English Heritage monuments at risk register has been taken over by the North of England Civic Trust which have received a £1.4 million grant to help restore this mill to working condition. The present mill building dates to 1840, although the site dates back to medieval times.

The Nenthead Mines Conservation Society have completed the repair of the external walls of the north powder store at the end of the tips at Hodgson's mine. A new stone flag roof has been erected and by the time you read this the inside should have been lined out in wood in the original manner and doors fitted.

Haig Pit Museum at Whitehaven has reopened after a major overall with new entrance facilities.

The National Trust house Acorn Bank near Temple Sowerby is usually visited for its gardens, but the grounds also contain a water mill. The mill building and machinery itself was restored a number of years ago. Over the summer the corn drying kiln has been rebuilt.

Graham Brooks

The Thames Barge Match

Owing to the death of the organiser, Captain Mark Boyle, the traditional annual barge match did not take place in 2014. However, the situation was rectified this summer and the event took place again as usual. This year's race was held on Saturday 22 August, a really warm and sunny day. The barges were accompanied by the steam tug Portwey – see IA News 142 page 17. This has become a regular feature of the match in recent years.

This year the course was shortened as there was insufficient wind. However, sailing back up-

river the wind appeared relatively brisk and some of the faster barges could easily travel at 10 mph.

The photograph shows a group of Thames barges off Gravesend with their sails brailed up after the race. A sight like this but with working barges was commonplace eighty years ago and characteristic of the Thames.

Robert Carr

Blackfell Hauler House and the Newman Coffin Works win the 2015 Angels Awards

The Blackfell Hauler House on the Bowes Railway won the 'Best rescue of an historic industrial building' at Andrew Lloyd Webber Angel Awards, while the Newman Brothers. Coffin Works was the 'Peoples' Choice as best project overall'.

Black Fell Hauler House on the Bowes Railway was part of a system of rope haulage taking wagons of coal from collieries to the Tyne. Since the railway ceased carrying coal in the 1970s, the building and its surviving machinery had been unused and had fallen into disrepair.



Sails brailed up after the match

photo R Carr

Metal theft and vandalism had wrecked the machinery and the building became a location for alcohol, drugs and graffiti abuse.

Work began in May 2014 and consisted of a restored roof, 100% external re-pointing, consolidation of steelwork and new windows and doors to enable the building to be re-used.

Newman Brothers works was completed in 1894, a purpose-built manufactory for small metal goods in the Jewellery Quarter in Birmingham. The family ran their coffin fittings business through almost the whole of the twentieth century until it became unprofitable and finally closed its doors in 1998. The factory and offices were left complete with contents and stock as if the workers were taking a tea break. It fell into disrepair, putting the buildings and the contents at risk. The regional development agency, Advantage West Midlands (AWM), bought the building in 2003 on the understanding that plans for its sustainable future were developed by Birmingham Conservation Trust (BCT).

Building works started in 2013 and the Coffin Works opened in October 2014. It is now home to Birmingham's newest museum, 'Newman Brothers at the Coffin Works', where visitors step back in time to experience the factory as it was in its heyday, and volunteer tour guides demonstrate the historic machinery brought back into working order. The remainder of the factory has been converted to workshops and offices, all fully let, and both the Birmingham Conservation Trust and the UK Association of Building Preservation Trusts have relocated their offices there.

The Dukesfield Smelters and Carriers Project and the Friends of Portland Works were also shortlisted for the Industrial Buildings Award.

The Andrew Lloyd Webber Foundation has renewed and increased its funding for the Angels Awards. Next year they will be expanding the categories to celebrate inspirational community action groups; leading pieces of heritage research and education; and of course, ambitious rescues of our most important historic buildings and places.

Butterley Spillway still under threat

Butterley Spillway was designed by the country's foremost reservoir engineer of his time, Thomas Hawksley.

In 2012, Yorkshire Water announced plans to demolish and replace large parts of this grade II listed Victorian water structure. Local villagers formed a group to protest against the plans – Save Butterley Spillway. The group's campaign, supported by the CBA and the Victorian Society, led to the unanimous refusal by Kirklees Council of the planning application. Yorkshire Water then appealed against the decision. The subsequent public inquiry resulted in the Secretary of State granting their appeal and placing the Spillway in danger once more.

Colin Anderson, a retired civil engineer spoke at the public inquiry urging that the planning

refusal be upheld. The inquiry refused to permit his evidence relating to the other options to bring the reservoir to modern standards whilst causing the spillway less harm. Consequently, Colin has filed a statutory appeal seeking to quash the Secretary of State's decision. At a High Court hearing on 7 October at which his challenge of the Government's decision was heard a decision was reserved and will be announced later.

Colin's defence of the Spillway leaves him exposed to £12,000 costs if this appeal fails, so he is asking for pledges to help support his campaign. If you would like to make a pledge to support this appeal or would like further information visit the Beautiful Butterley appeals webpage.

Railway Goods Sheds.

John Minns, the 2015 Rolt lecturer, is working with Historic England on establishing how many railway goods sheds survive. This is a once common building type which has suffered heavily through both railway closures and redevelopment of sites. Mike Nevell's article in 2010 on 'The Archaeology of the Rural Railway Warehouse in North-West England' in *Industrial Archaeology Review*, 32:2, 103-15 provided the stimulus for this work.

Few people under the age of 60 can remember when individual railway wagons were unloaded by hand or by the use of a simple timber rotating crane in a country goods shed. Equally unfamiliar is the massive warehouse, within which wagons were moved about on ropes turned by hydraulic capstans, their contents winched aloft through trap doors to floors filled

with sacks of produce. Yet, until about 50 years ago, such scenes were commonplace throughout Britain.

Goods traffic was actually more important for the railways than passenger traffic, yet both it and the buildings that were associated with it tend to be neglected. This is partly because goods trains lack the glamour of express trains, and partly because loading and unloading took place where few people saw them. Many goods trains ran at night, especially the long distance freight services which linked the great cities. Freight terminals were, like docks, concealed behind high walls: they were places where outsiders were not welcome unless they were there on business.

Although the buildings associated with goods traffic have not, in most cases, been used for their intended purpose for many years, it does not mean that they are of negligible importance. They played a fundamental role in the economic infrastructure of the 19th and earlier 20th centuries. The goods shed was the hub through which raw materials arrived and finished goods were forwarded. It was essential to the development of modern retailing, making possible the distribution of national brands to shops in cities, towns, and villages. As late as the 1960s, most of the products sold by Woolworths were distributed to their shops by rail. A goods shed was, in effect, the predecessor of the 'big shed' distribution warehouse of today and played just as significant a part in the economy. It deserves study on the same basis as the textile mills, ironworks, potteries, and other industrial plant that played such a vital role in making possible Britain's dominant nineteenth century economic position.



Interior view of the goods shed at Forth Banks goods station, Tyne and Wear, North Eastern Railway Company.
Photo Bedford Lemer, 12500_003 © Historic England

The Davy Lamp

November 2015 is the 200th anniversary of the Davy lamp. The best known and most successful of the safety lamps that made a huge difference to working in the mines.

Cranes at Salford Docks

Despite much local opposition two iconic dockside cranes at Salford Docks have recently been dismantled. The City Council declared that over £1million would be required to make the cranes safe. This figure was hotly disputed by the Salford Dockland Heritage Trust which obtained over 1000 signatures in a petition to save the cranes.

The cranes were built in 1966 and installed in South Dock 6 and were decommissioned in 1988 and installed in the site as pictured.

A valuable piece of industrial archaeology and a prominent feature of the landmark as well as a memorial to the many dock workers who lost their lives in the hazardous occupations facing dockworkers has been lost. However, the opinion of Luke Roach, chief executive of the contractor Anthony O'Connor & Sons Ltd who demolished the structures was that the cranes were, "badly degraded. They are structurally unsound and have gone past the point of restoration". Clearly a matter of opinion.

Roy Murphy

Middleport Pottery engine

The final £18,000 needed to restore the engine at the pottery was raised with a 100-day crowdfunding appeal ending in September. This completed the £167,000 needed to get the engine running again.

Built in 1888 by William Boulton of Burslem, the engine developed 100hp.

Historic Cranes

At a conference held in Antwerp on 13 November 2015 Jur Kingma, who spoke at the AIA 2015 conference about crane heritage in the Netherlands, proposed an international network for crane heritage.

For centuries harbour cranes have played a key role in the growing efficiency of seaports, certainly since the breakthrough of steam technology.

Suggestions include:

- A database of historic cranes with technical information.

- Clickable map with sites of historic cranes.

- International typology of historic cranes and crane heritage.

- Annual crane meeting on site.

- An electronic newsletter.

Those interested should contact Jur on jkkingma_1@kpnmail.nl

French Site Mystery Solved

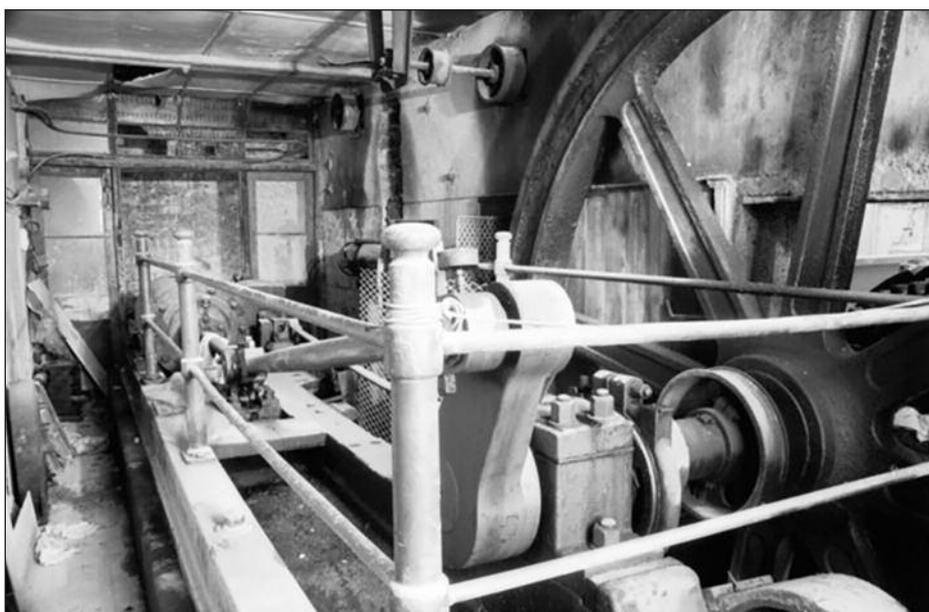
The industrial buildings (*IA News 174* p17 'What was I looking at?') are the ironworks beside the Doubs river at Rans, about 10 km north of Arc-et-



Salford Docks 1970



Salford docks 2012



Middleport Pottery engine

photo Chris Allen and licensed for reuse under this Creative Commons Licence

Senans. Thanks are due to Gerry Bannister, who was able to identify the site from an illustration in Maurice Daumas's *L'Archaeologie Industrielle en France*, 1980. The works started in 1705, but the remains must largely date from a reconstruction of 1854-7, following its integration with other works to form the Société Anonyme des Hauts Fourneaux, Fonderies et Forges de Franche-Comté. There were three charcoal-fired blast furnaces in the large building in front and two coke-fired furnaces in the taller building to the rear, and two 100 hp steam engines driving blowers. These provided the company's main source of pig iron. However, the company seems to have been relatively short-lived; the charcoal furnaces had stopped production (and were possibly demolished) by 1877, and all ironmaking ceased in 1891. In the period 1938-1976 another company was manufacturing charcoal on the site, and a hydro-electric plant (possibly still operative) was installed in 1920.

(This information comes from some typescript notes on French ironmaking sites – kindly provided by Peter Neaverson some years ago; and a French Ministry of Culture website.)

Colin Bowden

Hilla Becher

In June 1966, the German artist Hilla Becher, who died in October aged 81, set off, together with her husband Bernd and their two-year-old son Max, to South Wales in a VW camper, towing an old caravan fitted out as a darkroom. They were there on a six-month British Council bursary to photograph the coalmines' winding towers and processing plants. Whatever initial reservations the Welsh miners may have had about this unusual German family were overcome when they saw how determined and thorough Hilla and Bernd were with their photography. They used large-format plate cameras and, where necessary, ladders or even scaffolding to construct suitable vantage points from which to photograph.

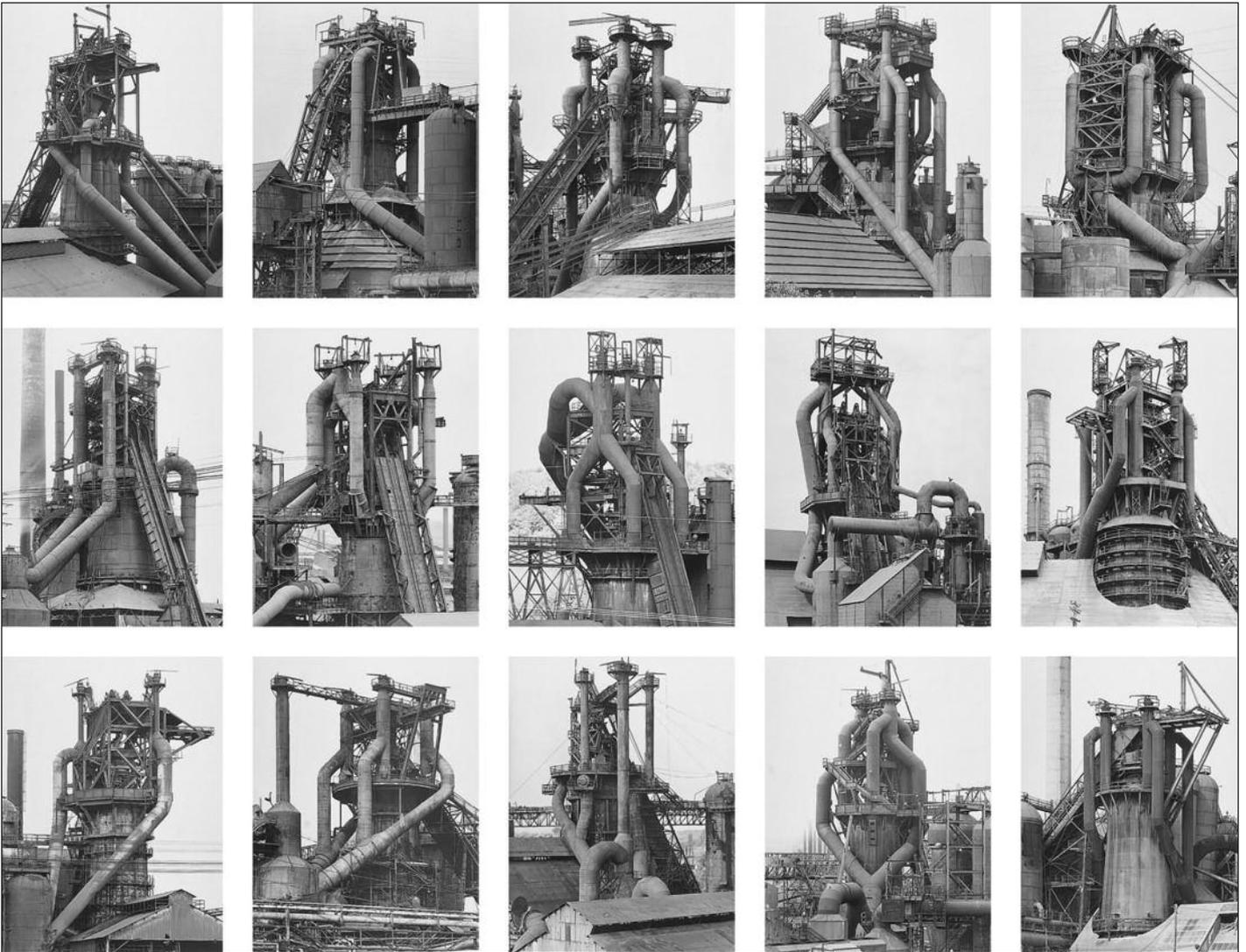
What Hilla and her husband produced in a career spanning more than 50 years was not only the most scrupulously photographed, encyclopaedic documentation of industrial structures in the western world – a huge feat in itself – but also arguably the most extraordinarily beautiful photography of our times.

The Bechers exhibited and published their work, grouped by subject, in a grid of six, nine, or

fifteen. By the mid-1960s the Bechers had settled on a preferred presentational mode: the images of structures with similar functions are displayed side by side to invite viewers to compare their forms and designs based on function, regional idiosyncrasies, or their age.

As Hilla said, "By placing several cooling towers side by side something happened, something like tonal music; you don't see what makes the objects different until you bring them together, so subtle are their differences."

In drawing attention to the cultural dimension of industrial architecture, their work also highlighted the need for preservation of these buildings. On the couple's initiative, for example, the Zollern coal mine at Dortmund-Bovinghausen in the Ruhr, for the most part an art-deco structure, was designated a protected landmark.



Blast Furnaces, 1978-1986

Photograph: Bernd and Hilla Becher/Schirmer/Mosel

Post Industrial Archaeology?

When discussing buildings put up after about 1970, the following question might arise. Is there a cut off date for industrial archaeology? In the UK industry was petering out from the 1970s and it can certainly be argued that a building dating from the twenty-first century is beyond the remit of the Association for Industrial Archaeology. Anything post 2000 could be classified as post industrial. By about 1980 central government had shifted its interest away from manufacturing and was concentrating on finance. Even small family-owned manufacturing businesses struggled to survive and only those most resolutely determined not to be taken over are still with us. If we consider an office building about 30 years old, its occupants might have been managing industry but almost all the actual manufacturing would have taken place in the Far East. Does this count?

So, time-wise, when does industrial archaeology end? Should industrial archaeology include topics such as the Brynmawr rubber factory and Hafodyrnyys Colliery coal washery? Park Hill flats in Sheffield built 1957-61 and listed grade II* in 1998 are certainly industrial – workers housing in fact. In the early period of their habitation there was still much old industry in the Sheaf Valley below and the sound of steelworkers boots resounded along the Streets in the Sky. Judging from the internet, topics of this kind should attract younger members to the Association. Imagine an AIA meeting held in the Spring to consider industry and buildings post 1945.

Robert Carr

Why I have joined the AIA

This letter was received by our secretary, David de Haan on 13 August.

Thank you for the welcome pack for the AIA I received after recently joining. I have wanted to email you and explain my reason for joining but have been very busy at work.

We have a family textile company based in a hamlet called Rakewood near the village of Littleborough about 25 miles north east of Manchester in the foothills of the Pennines and in the shadow of the M62 motorway as it climbs to its highest point and enters Yorkshire. We have always been a textile finishing mill rather than spinners/weavers and over the years have gone through dyeing woollens, bleaching fabric, making blankets, raising interlinings, transfer printing and latterly technical lamination.

We have been at our current site since 1859 when we moved down the valley from a mill further up which we had outgrown. The mill we are in now was originally built in 1800 as a spinning mill but that company moved on and we moved in. Since 1859 the mill has grown or sprawled on the site as processes came and went and we now find ourselves using a small fraction of the site having downsized following the

decline of the textile industry in the UK.

Unfortunately, over time the mill buildings have decayed, are in a poor state of repair and in need of urgent renovation and restoration. Owing to this and the decline in the textile business, my late father, who sadly passed away very, very suddenly only eight weeks ago, embarked on a scheme to breathe new life into the business and over the past five years has fought local opposition and planning hurdles to gain planning permission to re-develop the mill, not into housing as befalls so many, but into a 'renewable energy centre' which would contain renewable power sources including a wind turbine, solar panels, ground source heat pumps and a water turbine. Not only would these provide power for the site and local area, the site would also be used as an educational facility to teach both young and old about renewable energy sources and their place in power production.

We will also have the current textile operation still running; some units will be for small rural businesses to operate from, for instance a glass blower and blacksmith, and a textile museum will show the history of the site and the importance of textiles for Lancashire and the north west. We also aim to reinstate both the undershot waterwheel and eventually the beam engine and line shafts.

So the reason I joined your Association was to see if, firstly, our situation is of interest to you and your members, and secondly to see if membership will open up any channels to advice, help, experience, finance etc as this will be a challenging project. With the tragic loss of my father I am picking it up without his mind which was full of knowledge and ideas of ways to succeed in this. I am, however, keen to push this project forward, and as the tenth generation on site I feel a need to succeed.

Hopefully, this gives you an insight into ourselves and my reason for joining and hopefully maybe spikes your interest in the project.

Peter Clegg – pjc580@btinternet.com

Jacquard looms

The author of the account of the Rhone trip has misunderstood the way in which the loom works in writing, "The Jacquard loom uses punch cards to control bobbins linked to the flying shuttle and so produces a variety of intricate silk pattern designs." The pattern does not come from the weft yarns in the shuttle but from the warp yarns running along the length of the fabric. Each warp yarn passes through an eye connected by a wire to a mechanism that allows the yarn to be raised or lowered, so that its characteristic colour appears on the front or back of the fabric. 'Up or down' is controlled by whether or not there is a hole in the card. This enables complicated repeats to be woven in decorative fabrics or to produce individual pictures. The London Science Museum has a portrait of Jacquard woven in 1839 using 26,000 punched cards. The picture was produced to order and the one in the Museum was acquired by Charles Babbage.

For nearly 150 years the design had to be transposed to a set of instructions for an operative who would manually produce the cards on a punching machine. The Silk Museum in Macclesfield has a demonstration of this operation. There was a brief interlude when punching machines were computer controlled. Then Bonas in England and Staubli in Switzerland developed an electronic Jacquard in which electrical actuators raised or lowered the warp yarns. Until fairly recently, the designer's drawing had to be converted to a weave design on point paper in which black and white squares indicated whether the warp or the weft yarn was on top. This was provided to the weaver to set up the loom. Now computer aided design (CAD) is almost universally used by designers. Software allows the CAD file to be automatically linked to the computer controlling the weaving machine.

John W S Hearle

The use of metric measurements

The use of metric measurements is a topic which raises many issues and has been the subject of much debate. However, the recently published book 'Welsh Slate – Archaeology and History of an Industry' has raised many of these issues and led me to open this subject again.

Where survey and/or recording work is carried out in metric measurements, those are the units to be used and where it is considered necessary to provide imperial dimensions as well, these should be in brackets.

However where a historian is referring to the dimensions used in the past then, in my view, those dimensions should be the main feature with any metric conversion being in brackets.

To my mind the book is inconsistent, as when referring to Welsh names or phrases it puts the English translation in brackets for the benefit of us non-welsh speakers; for example *Straeon y Chwarel* (Quarry Tales) but conversely, when quoting dimensions puts the metric equivalent first and the true dimension in brackets. Table 3, for example, which gives the dimensions of the various slate sizes, gives the size of an empress slate as 660.4 mm x 406.4 mm (26 in x 16 in).

The quarrymen produced slates sized 26 in x 16 in not to any metric size and certainly not to 666.4 x 406.4 mm. This theoretical conversion of an imperial size to a metric dimension takes no account of production tolerances. At best, considering the method of cutting a slate the width would have varied by $\pm 1/8$ in. from the nominal size. On this basis the metric equivalent of an empress slate was 665 x 405 mm.

Further, I doubt anyone has ever measured a slate to a 1/10 of a millimetre, so to give sizes to this degree of accuracy is absurd and misleading.

The book is further inconsistent when it refers to the use of slate for damp courses and changes to 100ths of a metre, by saying, '0.23 metre (9 inches) or 0.11 metre (4½ inches) wide (to match double brick walls...)'. Here it is taking the nominal size to the nearest 10 mm, one hundredth as precise as for slate sizes. What it

does not take into consideration is that imperial bricks were not 9ins. in length – that was the nominal length of a brick and its mortar joint so even to the nearest 100th of a metre a 9 in. brick is only 0.22 meters in length.

Further, he refers to 'double brick walls'. In the trade a wall built of stretchers is a 'half brick wall', one twice the thickness a 'one brick wall', not a 'double brick wall'.

This is not a new problem. I had an architect who detailed sawn bricks to 3 decimal places of a millimetre. How fatuous can you get!

Figure 52 shows 'the varieties of jumper used in mines and quarries'. These tools would have been hand forged to a nominal length and in use would have been sharpened and repointed, reducing the length each time. Again the nominal length would have been an imperial length e.g. 8 ft. not 2.44 m. Had the smiths used the metric units of measurement the nominal length would probably have been 2.5 m.

Buildings and other things were made to the units of the time – please use these as the main dimensions in historic reports. If true dimensions are to be converted to satisfy the metric world, then please take into consideration tolerances and do not give absurd figures.

The section on mechanisation is interesting but again is inconsistent. Referring to use of hand-operated drills in 1854, it states that it 'bored a hole 11.5 centimetres in diameter, at an average rate of 0.9 metres per hour, 4.6 to 7.6 metres deep'. There is reference to the Proceedings of the Institution of Civil Engineers 1864. It would be interesting to know if these are the actual units of measure used by them at that

date or are these, a conversion, without giving the units as actually recorded.

One further comment: the size of metric units is often unrelated to our experience. I was involved in a discussion as to an allowable tolerance for casting a concrete slab. We claimed that ± 12 mm was reasonable. After much discussion I asked the architect what he considered to be reasonable and without hesitation he said 5/8 in. There is a lot to be said for imperial measurements and fractions.

John McGuinness

Recording transience – should we treat it as embryonic heritage?

This question came to mind recently when I was visiting Norway and came across a rather mysterious industrial building which only displayed what turned out to be the name of the supplier of the 'building'. The building appeared to be new and clad in a rather nice grey plastic material. We had come across a large temporary industrial building which was supplied as such and which will presumably disappear eventually, leaving no trace beyond the concrete base.

Enquiries identified the use of the building – it houses a facility for breeding the small fish that are being introduced into salmon fish farms to eat the lice that infest the salmon and cause damage. The objective is to minimise the dependence on chemicals to reduce damage to the farmed product.

We are often concerned about the destruction of heritage objects, for whatever

reason, but are we doing enough to record the life of temporary industrial premises, and indeed processes, for posterity?

Vaughan Pomeroy

What is this?

Found at the Mill House at the Stream Furnace, Chiddingly, East Sussex, TQ555 155 by the Wealden Iron Research Group. A cast iron plate with approx dimensions 36in x 24in (940 x 600mm) with an inner square flange 16in x 16in (400 x 400mm) and two square ports each 6in x 6in with traces of brick adhering to the corners. Estimated weight – 150kg.

The reverse side is cast with 0.4in (10mm) lip around the edge of the plate. The plate is 1.4in (35mm) thick but bevels out (on reverse of plate shown) to a greater thickness across the whole width as the two ports are approached.

The site is first recorded as a forge in 1548. This was followed by the building of a blast furnace and cannon boring mill. The forge and furnace are mentioned in 1653 and 1667. There is a record of guns cast there in 1692/3. The furnace is marked on Budgen's map of 1724 but not listed in 1717.

A water powered corn mill postdates the furnace period and was present on the site in the nineteenth and twentieth centuries, probably using the furnace head and tail race.

The OS map of 1875 shows a nearby kiln – for bricks judging by the remaining debris.

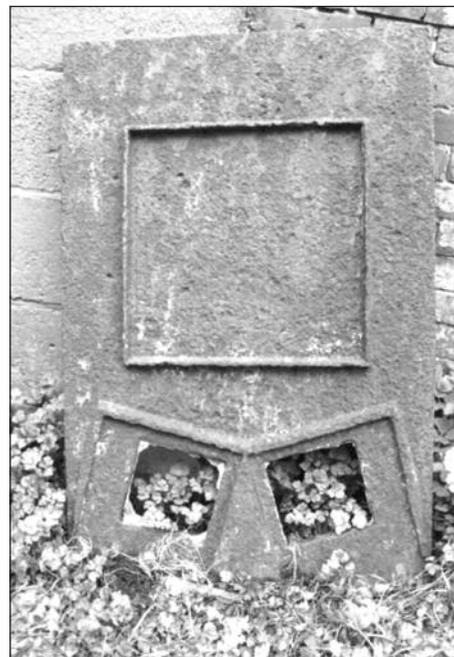
Any suggestions?

*Tim Smith, Chairman
Wealden Iron Research Group*



Building at Sunnkjorin, north of Afjord

Photo Vaughan Pomeroy



Cast iron plate – what is it?

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

Cumbria Industrial History Society Bulletin, 92, August 2015

Dorset Industrial Archaeology Society Bulletin 43, September 2015

Histelec News: Newsletter of the South Western Electricity Historical Society, 60, August 2015

Historic Gas Times, 84, September 2015

ICE Panel for Historical Engineering Works Newsletter, 146, June 2015

Industrial Heritage Association of Ireland Newsletter, 46, June 2015

Manchester Region Industrial Archaeology Society Newsletter, 150, Summer 2015

Midland Wind and Watermills Group Newsletter, 112, August 2015

National Association of Mining History Organisations Newsletter, 73, September 2015

Norfolk Industrial Archaeology Society Journal, September 2015

North East Derbyshire Industrial Archaeology Society Newsletter, 59, August 2015

Northamptonshire Industrial Archaeology Group Newsletter, 135, Summer 2015

Piers: the Journal of the National Piers Society, 116, Summer 2015

Scottish Industrial Heritage Society Bulletin, 75, July 2015; 76, September 2015

Search: the Bulletin of the South Wiltshire Industrial Archaeology Society, 102, September 2015

Somerset Industrial Archaeological Society Bulletin, 129, August 2015

South West Wales Industrial Archaeology Society Bulletin, 123, June 2015

Suffolk Industrial Archaeology Society Newsletter, 130, August 2015

Surrey Industrial History Group Newsletter, 206, July 2015; 207, September 2015

Sussex Industrial Archaeology Society Newsletter, 167, July 2015

Sussex Mills Group Newsletter, 167, July 2015

Trevithick Society Newsletter, 168, Summer 2015

Books

Great Wheal Vor by Tony Bennett, 600pp, large format paperback at £27.00, ISBN 978-0-9575660-7-1, a limited edition of 100 hardback copies at £47.00, 978-0-9575660-6-4.

Available from Graham Thorne, Publications Secretary, The Trevithick Society 01621 892896, thornes@totham22.freemove.co.uk.

Published to celebrate the Society's 80th Anniversary Year, the definitive history, long awaited, of Great Wheal Vor. This was Cornwall's greatest tin producer at one time, renowned way beyond the county and yet it is relatively unknown today. Wheal Vor was so productive that it justified the smelting of its own tin. Tony Bennett has great knowledge and experience of Cornish Mining, not least through his involvement in the Rosevale Mine at Zennor. It contains a detailed history of the mine, including a prolonged court case which may have inspired Charles Dickens, as well as information on the way the mine was worked, its engines, its geology and what remains on the ground. Sir Tim Smit of the Eden Project has contributed an Introduction.

The book has been generously sponsored by the Cornish Mining World Heritage Site Office.

Innovation, Enterprise and Change on the Greenwich Peninsula by Mary Mills, A4, 48pp, available from M.Wright Publications, 24 Humber Road, SE3 7LT marymillsmmmm@aol.com £8 +£2 p&p. a snapshot of the Greenwich Peninsula showing how it was home to industries which brought change both in Greenwich and worldwide. Information about Enderby and telecommunications, gas works, ship and barge building, steel works and the Blackwall Tunnel

AIA SALES

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Roger Ford, AIA Sales Officer, Barn Cottage, Bridge Street, Bridgnorth, Shropshire WV15 6AF

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2015 EUROPEAN INDUSTRIAL AND TECHNOLOGICAL HERITAGE YEAR

27 November – 3 December 2015

NEW SOUTH WALES

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

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

1 – 2 December 2015 REVIVING PLACES BY REUSING INDUSTRIAL HERITAGE

in Manchester. The central theme is re-use, with a focus on developing new uses for vacant, at-risk industrial buildings by connecting them to creative industries businesses, developers, investors, other commercial opportunities and community-led/not-for-profit organisations. Full details at <http://ih2015.org.uk/>. See page 12.

16 April 2016 SOUTH WEST & WALES REGIONAL IA CONFERENCE

hosted by the Gloucestershire IA Society at Dursley.

23 April 2016 IRONBRIDGE PRACTICAL WEEKEND

Speaking Up For Industrial Heritage
See page 12 and AIA website for details

6 – 11 May 2016 A CELEBRATION OF THE TIN WORKING LANDSCAPE OF DARTMOOR IN ITS EUROPEAN CONTEXT PREHISTORY TO THE 20TH CENTURY

In Tavistock. The conference will celebrate the diversity of Dartmoor's unrivalled industrial landscape, and will compare its features and technologies with those of contemporary tinworking areas of continental Europe — Czech Republic, Germany, France and Spain, as well as that of Cornwall.

A detailed programme for the conference, and booking/payment details, is available on the website of the Dartmoor Tinworking Research Group (www.dtrg.org.uk).

16 – 22 May 2016 AIA SPRING TOUR TO ROMANIA

Details from Heritage of Industry info@heritageofindustry.co.uk

26 – 30 July 2016 ICOHTEC SYMPOSIUM 2016 TECHNOLOGY, INNOVATION, AND SUSTAINABILITY: HISTORICAL AND CONTEMPORARY NARRATIVES

in Porto, Portugal. CALL FOR PAPERS. For suggestions about preparing your submission and the conference presentation, please consult the guidelines on www.icohtec.org/proposal-guidelines.html. See page 12.

6 – 11 September 2016 INTERNATIONAL MINING HISTORY CONFERENCE

in Linares, Spain. Details are now available on the Web. <http://www.mining2016linares.com/> ><http://www.mining2016linares.com/>

9 – 14 September 2016 AIA ANNUAL CONFERENCE, TELFORD

The Association's AGM and annual conference in 2016 will be in Telford. Full details and a booking form will be these pages in due course.

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

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



INDUSTRIAL ARCHAEOLOGY NEWS (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: 01325 359846.

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



The AIA examining the Poyntz Bridge over the Chichester Canal restored and recommissioned by the SIAS in 1997

Photo Chris Barney