Stuart Smith • AIA Tour of Moravia • Restoration Grants 2014
Hindley engine
Stuart Smith
OBE MSc FMA
19 August 1944 – 13 April 2014

Stuart Smith was Assistant Secretary – in effect, the executive secretary – of the AIA from 1975 to 1992 and as such was critically important to the growth and success of the Association during its formative years and thereafter. Stuart was the essential glue that held everything together; his focus, determination and reliability ensuring papers were properly circulated and that the Bulletin, as it then was, always arrived on time. When short of content, it would be Stuart who culled material from his numerous contacts and, at times, pasted up the master copy before it went to the printers. It was in recognition of his outstanding service and dedication to the Association that he was appointed an Honorary Vice President in 1992. In 2001 he delivered the Association’s Rolt Memorial Lecture at the Cambridge AGM.

Stuart Smith’s roots in industrial archaeology went back to the 1960s when, as Curator of Technology at Sunderland Museum, he became the first Secretary of the Sunderland Industrial Archaeology Group and a founder member – and Secretary – of the Ryhope Engines Trust, set up to preserve a pair of 1868 R & W Hawthorn beam water pumping engines, together with three 1908 Lancashire boilers. The pumping station, which closed in 1967, is listed Grade II* and is still in the care of the Trust. He was also a volunteer at the Beamish open air museum and an activist in ensuring a future for Monkwearmouth Station, Sunderland, closed in the same year. Also listed II*, it is now a museum.

From Sunderland Stuart went on to become, in 1972, Curator of Technology at the Ironbridge Gorge Museum and, from 1977, Deputy Director. He was appointed Director in 1983 and co-Director of the Ironbridge Institute, both positions he held until 1992. His deep knowledge of social and industrial history and an unquenchable capacity to get things done, with little tolerance of those who might put bureaucratic obstacles in his way, made him an important asset during the museum’s developmental years. His achievements were prolific, not least the building and commissioning of the ironworks at Blists Hill, based on the puddling furnaces and steam hammer from the Atlas Forge, Bolton. It was installed with great economy and practicality and still represents one of the largest and most important single investments by the museum.

In 1993 he was appointed the first Director of the Trevithick Trust, set up to manage a group of important mining sites in West Cornwall. By then he had experience of the proposals that led to Ironbridge becoming a World Heritage Site – inscribed in 1986 – and this led to his involvement in the mining sites of Cornwall and West Devon gaining World Heritage status, in 2006.

Internationally, his work over twenty-six years as Secretary of The International Committee for the Conservation of the Industrial Heritage (TICCIH) brought him into contact with many of the leading advocates in the field all over the world who found in him a friend and colleague of unswerving determination. An engaging and irrepressible personality with robust views and at times idiosyncratic tendencies, he was a collector and bibliophile whose knowledge and resolve marked him apart from others of his generation.

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shipbuilding industry, then in terminal decline. Stuart had that essential quality of sublimated kleptomania vital to good curatorship; a good nose, a good eye, a persuasive tone, a few bob when needed, and a van round the corner in case the donor might change his mind. When Ryhope was in serious need of tools it was Stuart who cleared the contents of a dispersed engineering workshop, then on offer for £150. This the Trust could not afford but, crucially, he collected all the surplus brass and copper he found lying about, which he then sold, for just £150.

Since 2002 he had been a member of an international team in Japan dedicated to securing World Heritage ranking for a group of sites that signified the emergence of Japan as an industrial nation during the Meiji era. The nomination was submitted to UNESCO in January 2014. He also encouraged industrial world heritage initiatives in Norway. A Fellow of the Museums Association from 1982, Stuart was, from 1991 to 1996, a member of the Royal Commission on the Ancient and Historical Monuments of Wales and from 1993 to 2002 of the English Heritage Industrial Archaeology Panel. From 1987 to 2011 he was a member of the ICOMOS UK Committee.

Stuart made much of his tough northern upbringing, in spite of essentially middle class Rochdale roots. His stoical and at times bluff demeanour became something of a trademark and validation for some of his more distinctive idiosyncrasies. Stuart’s immense motivation, application and capacity for hard work contrasted with his utter refusal to own or even use a computer, driving each morning to collect print-outs of all mail from his Secretary, Sarah, dictate answers and then file the hard copies. In 2004 he was appointed OBE in recognition of his contribution to industrial archaeology.

Stuart Brian Smith died of lung cancer in St Julia’s Hospice, Hayle, Cornwall on 13 April 2014. He leaves his wife, Jacqueline, two sons and a daughter and two grand-daughters.

In the death of Stuart Smith the industrial heritage has lost an indefatigable campaigner and a luminary of great character, good humour and immense knowledge.

Neil Cossons

David de Haan adds
Stuart joined Ironbridge Gorge Museum on 1 April 1972 as Curator of Technology and was to work for the Trust for two weeks short of 20 years. Stuart and Jacky lived on Madeley High Street in the group of seventeenth century houses which he then sold, for just £150.

There was a close relationship between Castleton Pumping Station and Hindleys from the early days of pumping potable water at Castleton for Sherborne’s population. In the 1840s Sherborne was described as the foulest town in Dorset because of the filth in its streets, open sewers and polluted water supply causing the death rate to rise to such an extent that in one year there were insufficient able hands to gather the harvest.

The government had set up local Boards of Health and Sherborne commissioned Robert Dymond of Exeter to prepare a detailed survey of the town prior to providing an alternative water supply. This huge map hangs in Sherborne Town Council offices; we have copies in the Sherborne Steam and Waterwheel visitor centre.

The first attempt, using water from the pond at Castleton, and driving a turbine, was unsuccessful and consequently John Lawson, an engineer from Lancashire, was engaged to design a different scheme. He had extensive experience of schemes in the UK and overseas and he

The AIA Dorothea Award winning Hindley steam engine at Sherborne

The winner of the AIA’s Dorothea Restoration Award for 2013 was the Sherborne Steam & Waterwheel Centre for the restoration of a horizontal steam engine manufactured by E.S. Hindley of Bourton, Dorset. The writer is Chairman of the Sherborne Steam & Waterwheel Centre and describes the history of the Castleton site and the work to restore the engine.

Geoff Ward

Stuart Smith in Taiwan 2010  Photo: Neil Cossons
proposed to use the Oborne Stream (River Yeo) supplemented by an additional supply from the lake at Sherborne Castle, piped under the nearby railway line, to drive a waterwheel. This proposal was accepted and started to pump water from an aquifer to a reservoir on the Bristol Road in March 1869. This wheel was made by Stothert & Pitt of Bath; it was 26 feet in diameter, had 72 triple breast-shot, ventilated, buckets, 44 inches wide. The wheel was badly damaged by a flood in 1898 and then rebuilt by Edward White of Birmingham, after which it ran until 1958 when electrical borehole pumps took over.

E.S. Hindley of the Bourton Foundry submitted a tender for the wheel of £862 (too high), but were then engaged to carry out repairs on the wheel in 1874. Later that year Hindleys successfully tendered for a steam engine and boilers which were installed in a new engine house on site and commissioned in 1876. The high cost of running the steam engine resulted in its replacement by internal combustion engines and being sold for scrap in 1928, so an important link with Hindleys was lost.

Fortunately in 1969 one of our members, Tom Stewart, bought a similar Hindley steam engine and boiler from Gillingham Pottery, Brick & Tile Co. Ltd that had driven a pug mill for many years. This engine and boiler had been kept outside at Sherborne Gas Works until it was offered to the Castleton Waterwheel Museum in 2006. The challenge was to renovate the engine, provide a building for it and a boiler, and to raise the necessary funds.

We knew that Richard Vincent was the man to renovate the engine and we struck a deal with him whereby he would buy the engine for a modest sum and set up an agreement for him to renovate the engine, provide a suitable boiler and install them at Castleton at his cost, and make the engine available to be run under steam on open days. The building design was prepared by the brother of one of our members free of charge and then funds raised from several donors: Chalk & Cheese, Headley Trust, West Dorset Council Leisure Development Fund and members of Castleton Waterwheel Group. The total cost of the project including structural calculations for the foundations and roof, building works, refurbishment, transport and installation, was approximately £100,000. The building was named the ‘Hindley Building’ in recognition of Hindleys’ contribution to engineering heritage over many years. The building was opened in 2012 by the Rt. Hon. Oliver Letwin and the Mayor of Sherborne, Councillor Marjorie Snowden (see IA News 762, Autumn 2012, pp.20-1). In 2013 we were granted the loan of a smaller Hindley steam engine by Kew Pumping Station and a Siemens electrical generator, and both are installed in the Hindley Building.

The renovation of the large Hindley steam engine revealed several interesting facets of its design. The cylinder bore is 18 inches diameter and the piston rings are made up of spring loaded segments rather than the ring acting as a spring; the valve mechanism is of the ‘Rider’ principle in which the cut-off is varied by a scroll cam, controlled by a lever on the valve chest; and there is a standard Porter governor. This engine is not listed in the 1905 Hindley catalogue.

The Hindley engine has now been run on open days and fascinates visitors by its smoothness and lack of any noise. Now that the museum features a waterwheel and steam engines it has been renamed the ‘Sherborne Steam and Waterwheel Centre’. We are delighted that the efforts of all concerned have been recognised by the Institution of Mechanical Engineers and more recently by the Association of Industrial Archaeology’s Dorothea Award. Steve Dewhirst represented the AIA when the plaque was handed over at a brief ceremony on 4 May 2014. More details of Maggs and Hindley can be read in a new book by Robert Mullins (see Publications).
Yak hair and old crushed bricks

The 2014 Ironbridge Weekend ‘Lime in Historic Landscapes and Buildings’ was based around Llanymynech lime works – partly in Shropshire and partly in Wales.

Mark Sissons

The Friday session was an introduction to the use of lime in historic buildings and also to the history of the Llanymynech site. In the morning, lectures covered the broad history of lime burning and the production of lime mortars, renders and plaster before moving on to more specific presentations on the use and properties of these materials. Lime based compounds deliver solutions with a degree of flexibility and porosity not found in modern cements but at the expense of slower curing time and a lower hardness value. Many illustrations were given showing where the use of very hard modern cement based compounds had caused damage, damp retention, and sometimes failure, in older elements of a structure due to the hardness, inflexibility and lack of porosity of modern cements. The speakers gave a concise appraisal of the varying different qualities of lime used in mortars and described differing methods of re-hydration of quick lime and the use of various sands and additives to vary the characteristics of the product. There was a clear date on the Saturday some of those attending went to the South Wales and West of England regional Industrial Archaeology conference in Kidderminster but a hardy few returned to Llanymynech for a hands on day of practical tuition in the use of lime in buildings. This covered the mixing and preparing of lime putty, lime mortar, lime render and lime plaster. We were introduced to the addition of hair as a binder. The currently most readily available type is Chinese yak hair which is now more widely available than cow or horse hair.

Demonstrations of how to vary the characteristics of mortars by the addition of crushed old brick and other porzelanic materials were also described. Then it was hands-on tuition on practical pointing and plastering. The course was supported by excellent notes on a CD and a very comprehensive bibliography of books on lime and its uses.

Altogether it was a fascinating and instructive course for anyone who has an interest in the history of limestone or involvement in the conservation and restoration of old buildings. Thanks are due to David de Haan and other staff from Ironbridge and the Friends of Llanymynech in putting this fascinating weekend together.

Llanymynech lime kiln

Photo: David de Haan

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In May, Northern Ireland was the destination for the third tour with this title organised by Heritage of Industry. Earlier tours had visited Devon and Cornwall and the Welsh Border.

During the late eighteenth and nineteenth centuries a variety of technological innovations were becoming available to enhance the comfort and convenience of domestic life but, far from urban centres, the great Country Houses had to be self-sufficient in the provision of gas, electricity, sanitation and water supply if they wished to make use of them.

Subsequently, the decline of many country houses, together with their being donated to the National Trust, has meant that less alteration has taken place than in other domestic property. In 2008 Professor Marilyn Palmer and Dr Ian West began studying the technology in a wide range of country houses, examining both the physical remains and the historical evidence and trying to place them in the wider context of the effects they had above and below stairs.

Chris Barney

This tour was under the guidance of Marilyn Palmer herself and 18 members and others assembled in Belfast and in the course of five days visited five grand country houses, all originally built during the end of the eighteenth century and the first half of the nineteenth. In addition we visited two other sites, a small town gasworks and a most remarkable farm. As a change from these particular interests we had time for the gardens at some of the houses; the Northern Ireland climate, together with the imagination of their owners and hard work, both past and present, had combined to our great delight.

Our first visit was to Mount Stewart where the magnificent house is currently undergoing a £6 million refurbishment after the discovery of serious structural and other shortcomings. This meant that we were unable to see much of our special subjects but being able to watch and learn about the conservation work and the enthusiasm of the staff fully made up for this.

At the other four houses we were able to see examples of water supply, sanitation, communication, heating and, particularly, lighting as it had changed since it was originally installed.

The lighting had developed from a time when there was little more than candles, through oil lamps, mostly of the Argand form to simple gas lamps, fuelled by estate generated gas, either acetylene or from coal and finally, though not in all cases, to electricity. Often the lights themselves, many of which were elaborate and handsome pieces, had been converted to the new fuel and evidence of their original technology could be seen.

Remains of the communication system from ‘upstairs’ to ‘downstairs’ by wire operated bells were evident often with handsome levers or pulls at the front end and complicated panels of the bells themselves in the basement. Some of the systems had different notes for different bells and the elaborate systems did give cause for wonder at how often ‘the bell man’ had to be called out to attend to them.

In most of the houses we were able to see the basement with the service areas and staff accommodation; another world where ‘upstairs’
rarely came and which had its own hierarchy, headed by the butler and the housekeeper.

Several of the houses had service tunnels, sometimes with cellars off them, from the basement of the house to the estate yard. These yards were splendid buildings themselves. Besides stables and coach houses, they could include the laundry with drying and ironing rooms besides other facilities and accommodation for the outdoor staff. Several examples of original equipment, including pumps and gas plants were still in place.

Castle Coole, close to Enniskillen in Fermanagh, is understandably regarded as James Wyatt’s masterpiece. Soon after the National Trust acquired it in 1951 it was realised that much of the Portland stone cladding was cracking where iron cramps were rusting beneath the surface. A £3 million restoration, begun in 1980, involved removing the entire face and replacing much of it with stone from the same quarry; the new stone is now indistinguishable from the old. The interior was equally magnificent and our particular interests well served. Unusually for the time, there were fine cast iron stoves, designed by Wyatt himself, in the first floor lobby and slightly later ones in the saloon.

Besides the grand houses we also visited Carrickfergus gasworks, on the coast just north of Belfast, where the Preservation Society works hard against the odds to maintain this fine example of a small town plant, the largest of only three still surviving in the UK. It is well presented and well explained.

Myra Castle Farm was a treat. It was the most unusual of our visits and we were shown around by the owners, David Good and his son. David’s wife’s bachelor great uncle had run the farm for many years in the nineteenth century and had been unable to resist installing every new technology and much of it remains. It included an acetylene plant, a small horizontal steam engine which had supplanted a splendid waterwheel (for which the water supply had proved totally unsatisfactory), a fine horse gin (handsomely restored by the current owners), which had been used to churn butter – probably the principal cash crop of the farm – as well as an elaborate poultry yard with accommodation above for the ‘hen woman’. Between the farm buildings and the house we negotiated a lengthy narrow tunnel just barely lit by a few small portholes in the roof. It would seem that this had little purpose except, maybe, to carry the cream to the dairy but, as it was expressed to us, the then owner felt that if grand houses could have a tunnel then so could he.

A very successful tour in every respect, not least because of the welcome and friendliness of all the local guides. Some of them, more used to visitors listening patiently to the history of the owners, were a little surprised by the attention we paid to bell wires and lamps but they all responded enthusiastically.

Needless to say Marilyn Palmer conducted the tour with her usual knowledge and good humour and Bill Barksfield’s organisation was faultless.

The South Wales & West of England 45th Industrial Archaeology Conference

The 2014 Regional Conference was hosted by the Worcestershire Industrial Archaeology & Local History Society and held at Baxter College, Kidderminster on 12 April. Roger Tapping, our recent past President, is to be congratulated in organising such a successful occasion, the conference attracting 145 delegates from all over our region and beyond.

David Attwood, Secretary, WIA&LHS

Four excellent speakers were engaged covering diverse subjects. The first, Melvyn Thompson, was very local, being the historian of the Museum of Carpets and the author of Woven in Kidderminster. Melvyn gave us an overview of the growth of carpet weaving and its importance to the town, followed by the work involved in creating a superb museum dedicated to the carpet industry of Kidderminster.

Our second speaker, Chris Taft, Head of Collections at the British Postal Museum and Archive gave an exemplary talk entitled ‘The Post Office in the First World War’, explaining how every effort was made so that the troops could receive their letters and parcels as quickly as possible - 12 million per week! Staff were transferred from the GPO to help and set up the great enterprise in, what was at the time, the largest wooden building in the world where they sorted all the letters and parcels on the way to the troops, which arrived at the Front within two days. The BPMA have set up an exhibition on the subject which is currently on display in the Coalbrookdale Gallery at the Ironbridge Gorge Museums.

After lunch David Postle took the stage and delivered his talk ‘The Kidderminster Railway Museum’, explaining how several collectors of railway ephemera, their collections becoming too large to house, came together to found the Museum in 1990, and the trials and tribulations of setting it up to become the successful museum we see today.

Lastly Dr Ian West from the AIA, spoke about ‘The Introduction of Technology to the Country House’, covering such subjects as Lighting, Heating, Cooking, Sanitation, Laundry etc., and explained how country houses were adapted and improved to take advantage of the new technologies as they emerged.

An excellent buffet lunch was provided by the College Caterers and during lunch and coffee breaks there were several book dealers and society stands where we could browse over the books, chat and exchange information. After the afternoon session delegates dispersed to attend one of the three site visits that had been arranged: the Museum of Carpets, the Kidderminster Railway Museum, and the nearby Drakelow Tunnels constructed during World War II as a shadow factory for the manufacture of aero engines.

All in all a very interesting, successful and enjoyable day, with four excellent talks and plenty of time allowed for questions, followed by three superb visits.
2014 AIA tour to Moravia and Silesia

Slup water mill 1512
Adamov blast furnace rebuilt 1840
Slup water mill, undershot wheels

Vitovice Iron Works, casting floor
Vitovice Iron Works from the top of Blast furnace No 3
Zlin – Bata factories, some now converted to apartments

Photos: Slup mill Chris Barney; all others Peter Stanier
The 2014 AIA Spring tour stepped over the old ‘iron curtain’ into one of the most important industrial regions of Europe. First class coal and iron ore has been mined in Moravia for many centuries and in the nineteenth the area was the industrial heartland of the Austro Hungarian Empire.

Clive Thomas

As a newcomer to AIA excursions, I had previously tasted the industrial delights of ‘Rambler in the Ruhr’ in Spring 2013 and had got to know a number of the members and, of course, been impressed by both the diversity and depth of knowledge some of these possessed on aspects of Industrial History/Archaeology.

I could lay claim to a reasonable knowledge of the geography and the industrial importance of the Ruhr but the same could not be said for the area chosen for the AIA spring tour 2014. I knew from a dim and distant ‘A’ level, that the region had once been part of the Austro-Hungarian Empire and that in 1919 the republic of Czechoslovakia had been created. After a half a century of Soviet domination, the two republics of Slovakia and Czech and had been formed by mutual consent in 1993. The Moravian Lowlands are relatively rich agricultural lands, but are perhaps better known as one of the main highways of movement in Europe. Linking the lowlands of Silesia with those of the Vienna Basin they afford the easiest line of movement between the great Germano-Polish plain and the plains of the middle Danube. This is an area which was convenient for the movement of great armies – indeed only a few kilometres outside Brno is the site of the Battle of Austerlitz.

Both Brno and Ostrava, our second stop, lie on the edges of separate geological basins of Carboniferous age in which was found the coal and ironstone that formed the main ingredients of their industrial development.

Brno, the first and larger of our two stopping places, is the second city of the Czech Republic and has a number of impressive churches and municipal buildings. There were trams and trolley buses for all interested. The first day of our excursion offered a broad range of interests for everyone. After a brief roadside photo opportunity at the Ruprechtov windmill which was powered by a Halladay Turbine rather than sails, we travelled to the site of the Adamov Blast Furnace where those of us from South Wales felt immediately at home. The site occupied part of a narrow, well wooded valley typical of many of those in Glamorgan and Gwent where the iron industry developed in the second half of the eighteenth century. Although there were once three blast furnaces at the site, only the restored pattern house which was being used as an interpretive centre and a much restored blast furnace are left to dominate the scene. Like those in South Wales this furnace also used the slope of the valley side to assist with assembling the raw materials at a high level to load the furnace, with molten iron tapped in the cast beds on the valley floor.

This was followed by a visit to a textile printing workshop where the family maintain the traditional methods of resist printing of cotton and linen cloth they have followed over the last two hundred years. The owner demonstrated the processes using the intricate blocks, some of which are generations old.

On our return to Brno we visited what was the day’s highlight for some of the group. Designed by Mies van der Rohe, the Villa Tugendhat had been built for a wealthy German Jewish family during the late 1920’s in a suburb of Brno. Constructed on sloping ground and offering commanding views of the city, the entry from the road to the rear of the building gave the visitor little hint of its architectural significance. An excellent English speaking guide explained the history of the house and some of the concepts and exotic materials involved in its construction.

We were conducted on a room by room tour of the building and even for the less architecturally literate of us this was obviously something very special. The surfaces were ‘lush and the lines spare’, the combination of elements mesmerising, but I wondered about the price paid to achieve the design objectives and the practicalities of living in such a dreamlike home. Given all that was happening in the Europe of the 1930s one couldn’t avoid contemplating the events which would lead to the destruction of the Tugendhats’ dream.

After the visit to the Starobrno Brewery in the morning it was a welcome relief to get away from the city and out into the countryside. The next port of call was to be one of contrast. While the brewery represented the modern and somewhat hidden face of technology, Slup mill exhibited that which was simple and obvious. Although not having developed any special interest in the use of waterpower I found the mill one of the highlights of the week. It was a beautiful afternoon as the coach driver negotiated the narrow roads through kilometres of Moravian farmland to the small village where the mill was located. Many on the coach might however have missed the charms of the landscape as for some, a very good lunch was inevitably followed by a gentle siesta.

On our arrival the bright sunshine emphasized the mill’s setting. Located alongside a leat of over twenty kilometres in length, the four undershot waterwheels powered machinery housed in the mill building which dated from 1512. If the mill’s Renaissance exterior was something of great beauty the interior too was spectacular. Although the mill has seen many changes and is much restored, the grand scale of the internal timber construction retained many fine areas of detailed decorative carving which gave more than a hint of its original beauty.

The highlight of Thursday as far as I was concerned was the visit to the coal mine of Důl Michal. During this excursion we were in the hands of a young guide who spoke very good English, aided by an ex-colliery worker who obviously knew every detail of the buildings. We followed the course an underground worker would have taken, from the collection of his identity checks, through the changing rooms, where the collier would bath after his work on his return to the surface. There was no locker system here but clothes were suspended by individual chains from the ceiling of the room. These presented a strange and evocative image, one representing the filth, danger and hardship which was very much part of the coalminer’s daily work. This building, adjacent to the colliery shaft, had been constructed in 1913 and also contained the medical room. Here, an accident book made us aware of how regularly accidents, some fatal, occurred. Those of us from coal mining areas or with a particular interest in the industry might have reflected on the contrast with some areas of the British coalfield where pit head baths were not provided until after nationalisation. I also found the enclosed passage by which the men made their way to the pit top very different from that of most South Wales collieries, where colliers waited, usually in the open, exposed to the elements, before their descent to work.

Like the first day of our tour the organisers had ensured that Friday had interest for all. Again, our group was fortunate to be led by a guide with excellent English who did his best to explain how the Ostrava Tebrovice Power Station served the locality. He dealt with some of the more basic and fundamental operations of the plant and even answered much more technical questions. He was anxious to emphasise the efforts that are being made to bring operations of the coal fired station up to date and restrict emissions to EU targets. I found this both understandable and predictable, as a cursory Google of Ostrava before leaving home, revealed it to ‘enjoy’ one of the most polluted atmospheres of any European city.

We all enjoyed the jolly ride on the tram at the city’s tram museum while Landek Park, the mining museum, had much to offer in terms of its collection of relatively modern shearers, trepanners, continuous miners and roadway driving machines.

I think all of us were most impressed by our final visit to the Vitkovice Blast Furnace. Once part of a huge iron and steel making complex which dated from 1828, and near to the end of World War II employed over 33,000 people, the life of this relatively modern iron smelting giant eventually came to an end in 1998. Even from ground level its massive structure inspired and intimidated, with the late afternoon sunshine highlighting every detail of its complicated steelwork. A glass fronted lift did most of the hard work, taking us two-thirds of the way to the top of the furnace where we were able to enjoy wonderfully clear 360 degree views across the city of Ostrava and the surrounding countryside.

At this level we had time to look at some of the details of the structure with its complicated network of girders and pipes. On a bright afternoon when all was quiet around us, it was very difficult to imagine the vision of absolute hell that would have prevailed here when the furnace was in production. W.B. Yeats’ line of a ‘terrible beauty’ always comes to mind and those of us who had seen plants at Ebbw Vale and Port Talbot
working flat out in the 1960s and 70s found it difficult to reconcile those memories with the newly revealed brutal serenity of this blast furnace. Although at present it is obviously regarded as a much prized and iconic symbol of the area’s industrial past, one wonders for how many more years the maintenance costs of such a huge construction can be sustained. Stripped of the sheets of flame, the clouds of smoke and dust and infernal noise which were vital constituents of the process of iron production, the furnace stands to be wondered at. Hopefully, demolition is many years in the future and this I think was a fitting location to end an extremely well organised, interesting and enjoyable Spring Tour.

Some thoughts on Czech engineering

Brno Technical Museum showed extremely well the design and manufacturing competence of Czechoslovakia (as it was). The displays of (mostly) water-turbine development were first-rate and the communications systems that were shown demonstrated that the nation was up-to-date throughout. Outside were the Czech-built military aircraft - how exciting it was to compare the Mig 19S with the Mach 2.2 Mig 21M, not to mention the terrifying Sukhoi 25. All were milestones in aeronautical development as was the accompanying Aero L-29 Dolphin, and these aircraft sold in thousands or tens of thousands (Mig 21). The museum caused one to compare the techniques and regulations found in Western Europe and the USA, a theme which carried through the remaining visits.

The century-old application of German integration of colliery layouts and the use of electricity put the UK to shame. An obvious example is the intriguing change from reciprocating compressors to rotary turbine-driven machines years before anywhere in the UK. These thoughts persisted when one looked at current activity around Ostrava. Emphasis must be given to how large and modern the remaining industry is. The Trinecke Zclezarno* steel works immediately outside Ostrava is truly state of the art and the black coal produced by the trio of OKD deep mines on the Polish Border is high-grade and is also used by Austrian steel makers and by other EU and Swiss metallurgical businesses. Investment in production until 2028 is proceeding and one of the mines raises 2.3Mt a year. This activity, although not seen by the tour, indicates that the Ostrava region is not finished.

The group were fortunate to see the Koepe winding tower of the Jindrich II colliery. This was adjacent to the Zbýšov Industrial Railway Museum and readily photographable, its demolition being scheduled for three weeks later. As the shaft was an unbelievable 1550m deep, to see this was luck indeed.

* See the excellent video on YouTube.

Terry Evans

Zbýšov Industrial Railway Museum

Private museums and conservation projects are unusual in eastern Europe. The AIA spring tour was fortunate in being able to visit the Industrial Railway Museum at Zbýšov where a group of enthusiasts have collected an extraordinary number of narrow gauge locomotives and other railway material mostly from the mines and forests in Moravia. The museum was specially opened for the AIA and explained by one of the staff who gave us an account of how the museum came to be. The collection was started in 1991 but after 14 years it was obliged to move and was fortunate in finding an alternative site at Zbýšov, some 20km west of Brno.

Here there was a branch line from Zastávka u Brna which had served the Jindrich colliery close by until the mines were closed in 1992. The standard gauge track has been relaid to 600mm and a series of sidings and sheds built at the old station. The collection includes 30 diesel locomotives built between 1940 and 1989 and four steam locomotives of which the oldest is from 1913. There are also four 200v DC electric locomotives including one built by Siemens in 1908, the oldest in service in the Czech Republic. About half of the locomotives are listed as operating and some of these have been superbly restored while others are in original condition awaiting attention.

Four are currently being worked on while others ‘ambulance’.

Besides the restoration work the, entirely voluntary, staff are busy in the summer running trips from the museum north towards Zastávka. They have a variety of surface waggons to choose from and the collection also numbers several underground trucks including a special ‘ambulance’.

We were warmly received and able to explore anywhere around the site. This was not the most spectacular of our visits but one that many of the party, used to private restoration, could relate to and we wish the enterprise the very best for the future.

Terry Evans

Pelton turbine at the Brno Technical Museum Photo: Peter Stanier

Mining locomotives at the Zbýšov Railway Museum Photo: Chris Barney

Minerals produced from the mines – from dolomite and limestone to coal and iron – were vital constituents of the nation’s industrial growth. The exhibits are particularly good on iron production and its processes. The sheet of flame, the clouds of smoke and dust and infernal noise which were vital constituents of the process of iron production, the furnace stands to be wondered at. Hopefully, demolition is many years in the future and this I think was a fitting location to end an extremely well organised, interesting and enjoyable Spring Tour.
EMIAC87 – ‘Chesterfield- the Centre of Industrial England’

The North East Derbyshire Industrial Archaeology Society (NEDIAS) was host on 10 May to EMIAC 87 – the latest East Midlands Industrial Archaeology Conference. The title and theme was a tongue-in-cheek ‘Chesterfield – the Centre of Industrial England’ – the strap line which confronted visitors to this area of Derbyshire until about 40 years ago.

Cliff Lea

The Chesterfield region is at the western edge of the coal measures. To the west, a network of pack horse roads led across the Peak District, and Chesterfield developed both as a market town and a centre of entrepôt trade in millstones, salt, coal, charcoal, corn and lead. Transport improved with the opening of the Chesterfield Canal in 1777, which joined the river Trent at Stockwith. The River Hipper runs into the town from the west, and it was the industry that developed particularly along the Hipper corridor that was the main focus for the conference.

Tongue-in-cheek the conference title may have been, but this 2 mile River Hipper corridor running into the town from the West has layers of industrial activity stretching back to the 1600s. NEDIAS attracted a capacity 100 delegates to this EMIAC 87, to hear about the rich industrial heritage of the area, and about the industries, almost all of which are long gone, but which played such an important part in the growth of the town and of the north east Derbyshire area.

Following a morning of talks, the visitors were led in six groups on a short walk in the Brampton area, highlighting the sites of mills, foundries, potteries, pits, even a hat factory and chemical works, all within sight of Chesterfield’s famous crooked spire.

Keynote address was given by Philip Riden, county editor of the Victoria County History for Derbyshire, who spoke of the development of Chesterfield before the railway age. The conference itself particularly highlighted two sites. The first was John and Ebenezer Smith’s Griffin Foundry of 1775-1833, which, inter alia, is known to have produced iron for some of the early fire-proof mill buildings. The second was Walton Mill, sited less than a mile from the Griffin Foundry, one of the early cotton mill buildings to use iron beams when it was rebuilt following a fire in about 1804. The second speaker, Dr. Patrick Strange, placed the fire resistant structure of Walton Mill in context with Britain’s other early fire resistant buildings. The Derwent Valley Mills World Heritage Site is just 10 miles away, and this was about the same time that the Strutts were also using iron beams from the Griffin Foundry.

The two mills are listed by English Heritage for their historical significance, and their owners opened the buildings for visitors to enter and to view from the inside. They were able to see the nationally important fire proofed construction of Walton Bump Mill. They then went on past early pottery and pit sites to view the listed Cannon Mill, the last surviving building to date back to the Smith’s Griffin Foundry which had cast cannon and ball for the Napoleonic Wars, and for the American War of Independence. The third speaker was Peter Hawkins, who spoke passionately about the history of the Griffin Foundry. NEDIAS members had spent many days clearing this site, particularly to reveal the last surviving water wheel on the Hipper, and Peter himself had marked on the ground the sites of the early iron furnaces, so that delegates could picture the site more clearly as they visited during the afternoon.

From the late nineteenth century, this whole area bordering the River Hipper and running for two miles almost into the centre of Chesterfield had been owned by the town’s largest single employer, Robinson & Sons Ltd, founded by John Bradbury Robinson in 1839. He had started by manufacturing pill boxes, then spreading into spinning, weaving, bleaching and dying cotton for production of surgical dressings, bandages, lint and gauze. Weaving surgical dressings became such a major operation that after WWI they constructed what has been described as ‘the first large modern textile weaving shed to be built in the UK after WWI’, at a time when for other cotton mills the writing was on the wall. However Robinsons were an innovative company, taking out many patents to protect their product range, and even boasted a Nobel Prize winning chemist within the family, Sir Robert Robinson. One of Robinson & Son’s many inventions was the disposable nappy, a success story that went through Britain and around the world. The company is still active in the Chesterfield area but now slimmed down to concentrate particularly on packaging, producing billions of small plastic injection moulded parts for a variety of applications including medicinal inhalers for asthmatics.

Delegates were amazed to hear that in July 1939 Robinsons had funded a works outing to London to celebrate the Company’s centenary. Eight specially chartered trains had left from Chesterfield, carrying 3,700 Robinsons staff for a ‘capital’ day out – lunch was followed by a variety show headed by Tommy Trinder at the Royal Albert Hall, and dinner on the return.

Over the last two decades they have reduced activities along the Hipper and the two listed buildings, Walton Mill and Cannon Mill, now await a sympathetic development plan for the future, a story that will resonate with many members of AIA. What better subject therefore for the EMIAC conference than to highlight this subject.

David Palmer who led the sub-committee which organised the conference and NEDIAS chairman Cliff Lea said that they hoped that NEDIAS might be able to organise similar events in the future, highlighting some of the area’s other rich industrial heritage, famous names and entrepreneurs.
**Stockfish and boat engines**

In the village of Sund on the island of Flakstadøya in Lofoten, Norway over 100 miles inside the Arctic Circle, is what must surely be the most northerly museum of engineering industry anywhere.

Chris Barney

Cod fishing has been the staple industry of Lofoten for a thousand years and indeed, until the discovery of oil, it was the main export of Norway. The fishing season is from January to March and the cod are split and dried on wooden racks in the cold wind until May. During this process they lose eighty percent of their weight and, kept dry, they will be good for as much as five years. No salt is involved - just air drying – it is a form of fermentation where cold-adapted bacteria mature the fish, in a process similar to the maturing process of cheese. The stockfish, as they are called, are then exported all over Europe and particularly to Mediterranean countries in a trade once strictly controlled by the Hanseatic League. Now one of the principal markets is Nigeria.

Until the twentieth century the fishermen worked from sail or oared boats. With the development of small engines the fishermen were only too pleased to install them and this led to numerous Scandinavian firms designing and building such engines. The best known example in Britain is the Swedish made Bollinder’s as they were fitted to British canal boats by Fellows, Morton and Clayton and others from 1912 onwards. This was a two stroke ‘semi-diesel’ with a separate initial combustion chamber which needed to be preheated to start. It had a ‘hit or miss’ governor and, being a two stroke would run in either direction. Reverse was achieved by suspending the normal injection and using a separate fuel pump to inject a single pulse during the compression stroke as the engine nearly stopped; the engine reversed and the normal injection pump took over again.

The blacksmith in Sund appears to have been collecting engines for many years and every shed in his rambling premises, except his forge, is full of them. Many are nicely preserved and some of them can be run; one was chugging away on a recent visit. Unfortunately there is little information and that is in Norwegian. They are mostly single or twin cylinder and, as seen on a short tour, the products of the different manufacturers appeared very similar. Large pieces of cast iron well bolted together with the necessary plumbing for fuel, cooling and lubrication. There may have been subtle differences but if so these were not evident in the time available.

In his ‘day job’ the blacksmith made very attractive small models of birds and other creatures with great deftness. His ingenuity could be assessed by his repair of one of his power hammers with lorry springs.
Restoration Grants awarded
2014

The judging panel were this year faced with a substantial number of submissions for this year’s round of new restoration grants which continues to be so generously funded by our anonymous member.

There were 17 applications with a total value which came to over 3 times the available funding. Assessing the relative merits of the various submissions was difficult but eventually we recommended 5 to our anonymous donor for grant funding.

The successful applicants for funding for 2014 were –

**Verdant Works Dundee** has been awarded a grant of £20,000. Many members will remember Verdant Works from our excellent 2013 Dundee conference. The grant is towards a project which will provide a site within the works for the reerection of the Boulton and Watt engine of 1801. This was removed from Sandeman’s Douglasfield Bleach-works in 1897, and has been in store ever since. The Douglasfield Engine is one of only four surviving rotative engines by Boulton and Watt in the UK and one of only five UK B&W beam engines in total. It will potentially be the only one to be restored to a mill location with all of the others being in museums.

**The Kennet & Avon Canal Trust** have been given a grant of £7000 towards the cost of rebuilding the boiler header pond at the Crofton Beam engines on the Kennet and Avon Canal at Great Bedwyn. The header pond is an original feature of the pumping station and, in its current form, is thought to be contemporary with the 1812 Boulton & Watt engine. When originally built, the Boulton and Watt engines operated at about 5psi and the height difference between the header pond and the boiler gave sufficient pressure to allow the water level in the wagon boilers to be maintained from the pond against the steam pressure. Since 1844 the engines have operated at 20psi and the Pond provided a reservoir for surplus boiler feed water. Restoration of the Header Pond will enable it to be used for refilling the boiler and will retain some of the chemicals used in the boiler, avoiding these being wasted to the canal.

**The Newport Canal Trust** is restoring the warehouses at Wappenshall Wharf. £20,000 has been awarded towards the costs of first stage of restoration. A canal hamlet developed at Wappenshall after 1834 when the Newport branch of Telford’s Birmingham and Liverpool Junction Canal connected here with the Shrewsbury Canal, which he engineered in the 1790s. The Wharf was built in 1836 to 1838 as a loading point for goods transported down the canal. It also acted as a ‘half way house’ for barges travelling down the canal between Norbury Junction and Shrewsbury. It was owned by the Duke of Sutherland until local canal transportation became obsolete.

Until the Wharf was bought by the S&N trust and Telford & Wrekin council in 2009, the Wharf was owned by a haulage firm, B J Waters Ltd, who took over the yard in the late 1960s as a depot for coal transport. Waters have now moved to more modern premises.

On the **Hebridean Island of Colonsay** the local heritage trust have been offered a grant of £4,300 towards the cost of restoring the light chamber from the old Stevenson light that formed the Scalasaig minor light on the island. Scalasaig is the main harbour and ferry terminal for the island. The original light was designed in 1903 by David A Stevenson, one of the many members of the Stevenson family who worked as engineers to the Northern Lighthouse Board. In 1957 it was superseded by a gas light positioned adjacent to it. This in turn was demolished and replaced in 2003 by a modern solar powered structure which remains in current use. At the time of demolition the original Stevenson light chamber was dismantled and placed in safe storage in the pier shed on the island, recognising that it might be of historical interest in the future. This project will see the light chamber restored and re-installed in a location in Scallasaig. This is surely a project that the late Douglas Hague would have approved of!

The final award of £20,000 was made to the **Lion Salt Works Trust** near Northwich for the restoration of a salt railway wagon. The salt wagon is a significant artefact connected to both the history of the Cheshire salt industry and its transport. It is one of only 4 surviving salt wagons in the country.

The wagon consists of a ferrous metal undercarriage, with wooden sides and a pitched roof, with felt on top. It dates from about 1900-1910. The pitched roof was covered in order to keep the salt dry.

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*Wappensall Wharf warehouses*  
*Photo: Richard Knisely-Marpole*
The Lion Salt Works relied on the rail network in parallel with the canal. Salt was transported from the works to the main rail network via a series of tramways that ran into the centre of the works. From here the tramway snaked around and joined sidings in Northwich on the main Chester to Manchester rail line.

The salt wagon is not original to the works but was brought to the site by the Lion Salt Works Trust in the 1990s. The remains of painted lettering on its side show that it was originally part of a fleet owned by Chance and Hunt Ltd of Oldbury, Wednesbury and Stafford. The company was absorbed by the Cheshire based Brunner Mond and Co Ltd in 1917 before being taken over byICI Ltd in 1927.

The evidence suggests it was either an open roofed wagon for the first 40 years or had the roof repaired or replaced in the 1940s. Chance and Hunt were not salt producers so the wagon was originally designed for the chemical industry, but that would not preclude the addition of a roof. Brunner Mond and ICI Ltd had a broad range of interests including salt and chemicals and it is likely that it was used as a salt wagon at this time.

**Endangered Sites Officer’s Report**

The AIA continues to monitor the CBA’s (Council for British Archaeology) data base for planning and listed building applications in respect of industrial sites. Recently comments have been made on two sites of particular note: the pit head baths at Lynemouth, Morpeth, Northumberland – listed grade II* and Kirk Mill – listed grade II. On both these cases we liaised with the CBA in our response. The former has been refused but no doubt there will be a further application to demolish. Other sites upon which comment was made include the Thanet Press at Margate – a re-referral, and Brierfield signal box – another re-referral and in this case the application to demolish has been allowed. The demolition of the 25 bay, single storey weaving shed at Hollin’s Mill, Rochdale Road, Todmorden, Calderdale was refused but a further application for demolition has been made.

The AIA is also involved with Clipstone colliery and its Koepe winder headstocks, having objected to an application to demolish in 2011. There is a Clipstone Colliery Regeneration Group and they have resurrected the Clipstone mining gala which is at the Miner’s Welfare on the 19 July. There are also displays in the main library at Mansfield and they are actively looking to bolster their ranks with some additional volunteers and directors for the community interest company.

**Peter Neaverson Awards**

Award for outstanding scholarship

The judges for the Peter Neaverson Award for Outstanding Scholarship in Industrial Archaeology were faced with two outstanding nominations this year: Textile Mills of South-West England by Mike Williams and Support for the Fleet by Jonathan Coad. Both books, which will be reviewed in *Industrial Archaeology Review*, are the work of many years of research and are destined to be regarded as the definitive publications in their fields for decades to come. The judges felt it was invidious to have to choose between them and, after some debate, decided to make two awards this year. We are hoping that Jonathan Coad will be able to receive his award in person at the Chester conference but Mike Williams is unable to attend, so alternative arrangements will be made to present him with his award.

The authors of last year’s winner, *Cascapes* — Kathryn Morrison and John Minnis — were unable to attend last year’s conference and are also unable to come to Chester, so AIA’s President, Marilyn Palmer, presented them with their certificates and cheques at the English Heritage offices in Cambridge in June.

Earlier this year, AIA’s Council agreed to expand the scope of the Peter Neaverson Travel Bursary, which had previously been restricted to students, to include employees and volunteers whose work is related to industrial heritage. As a result, the bursary was able to support one person’s attendance at the Ironbridge event in April. If you, or anyone you know, works in a paid or voluntary capacity in this field and would benefit from some financial support to attend a conference, training course or other activity, please have a look at the details of this bursary on the AIA website.

**Award for Digital Initiative and Innovation**

This year we received four very interesting and diverse applications for the Peter Neaverson Award for Digital Initiative and Innovation. These were:-

- The Archaeological Data Service (http://archaeologydataservice.ac.uk/) has been nominated for its efforts in building access to industrial heritage resources.

- Investigations at the Ynsfach Ironworks (http://www.ggat.org.uk/ynsfach_excav/index.html) nominated for site-specific website, reconstruction drawings and 3D CG animation of the Ynsfach Ironworks produced by GGAT and iDEA.

- The Unsong Antiquarium — a music, sound and heritage project (http://theunsungantiquarium.com/) produced and developed by Andy Garbi.


The judges have decided to award the prize to the Ynsfach Ironworks project. It was felt that this represented a fantastic resource for those who were familiar and unfamiliar with the Ynsfach Ironworks and had the capacity to engage non-traditional audiences with industrial heritage. We have also decided to present a highly commendable certificate to both the Rockley Furnace project and the Archaeological Data Service.

*Ian West*

### All Party Parliamentary Group (APPG) on the Industrial Heritage

I represented the AIA at the second meeting of the APPG on The Industrial Heritage held at the Houses of Parliament on Tuesday 10 June 2014. Again it was chaired, in the absence of the Chairman David Anderson, by one of the Vice-Chairs, David Wright, MP for Telford. Margaret Faull from the National Coal Mining Museum at Caphouse Colliery was again in attendance. It was a mixed meeting of disappointment, but also some encouragement. Only three MPs, no Lords, attended and only one of them (the Chair) for the whole meeting – there were no major debates or votes scheduled for that date so most MPs were in their constituencies. Other IA organisations represented included Crossness Pumping Station, ABTEM / London Transport Museum and the Black Country Museum, plus Ian Bapty.

*Amber Patrick*

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*Amber Patrick*
The planned visit to Betteshanger Colliery and other sites in Kent has had to be postponed from 10 July until the autumn because of lack of interest shown in attending on that date. The next two meetings of the APPG are, as previously reported, but the speakers have changed, so the new details are:

14 October 2014 – Keith Merrin, Director, Woodhorn Museum to speak about IH in the North East.

9 December 2014 – Peter Wakelin to speak on IH in Wales.

For the four meetings in 2015, dates for which are still to be arranged, they hope to have speakers from English Heritage, Northern Ireland, the AIA and HLF.

Miles Oglethorpe was then invited to address the meeting. As ever, he was encouraging of the value and benefits of Industrial Heritage, knowledgeable, as well as entertaining and easy to listen to. He re-iterated what Sir Neil said last time about the worldwide recognition of the importance of the UK’s Industrial Heritage, the development of industrial World Heritage Sites in the UK, culminating in the Forth Rail Bridge nomination this year. In asking the question, ‘What did industry ever do for us’ he mentioned in the Scotland context the chemical industry and Nobel; coal as the basis of the industrial revolution; textiles and brought it up-to-date by mentioning the Falkirk Wheel. He spoke of successful regeneration schemes such as Hawick Tower Mill and James Watt Dock Greenock. He also drew out the value of industrial heritage in education and training – apprentices, keeping skills alive and linking with live industries, such as the hydro-electric power industry which need these skills. He felt this to be a critical time for Industrial Heritage when successes could be lost if there is not a positive, active attitude towards this sector. He ended by pointing out that 2015 is European Industrial Heritage Year and 2019 marks two anniversaries relating to James Watt – 250 years since the separate condenser and 200 years since his death.

Miles was followed by Rowan Brown, Director of the National Mining Museum of Scotland, who showed a short animated film on coal mining which highlighted the multi-disciplinary and intergenerational nature of preserving and interpreting Industrial Heritage.

The meeting concluded with two suggestions:

That the APPG members be invited to the seminar on the Friday of the AIA Conference 2015.

That the MPs attempt to arrange a Westminster Hall Debate on the value and benefits of Industrial Heritage. If this happens it may require some briefing notes and advice to the MPs.

Tony Crosby

Maney to continue to serve the AIA

The AIA has contracted with Maney to continue the arrangement by which Maney publishes the Industrial Archaeology Review as well as handle membership arrangements for a further five years.

Welcome to new members

Jan Spencer

Peter Burnett

Brian Roberts

Graham Bell

Geoff Ward

Tim Martin

John Bigelow

Elaine and William Austin

Peter Flicek

Dr John Beckerson

Tim Cambray

Stephen Broadhead

Leatherhead

Yeovil

Cambridge

Chicago

Sherborne

Taighar, Brecon

Seattle

Northmoor

Dorking

Leicester

Cirencester

Macclesfield

LETTERS

Further development at Blaenau Ffestiniog

Further to the letter from Falcon Hildred in IA News 169 I have just had to inform him of another potential threat to the industrial heritage of the Blaenau Ffestiniog area. Many members will have walked and explored the Rhiw-Bach Tramway and its associated quarries high above Blaenau at about 1600ft. Substantial quarry remains with buildings, inclines and engine houses, together with the cuttings and embankments of the tramway, survive as a cohesive remote tableau of what Blaenau itself may have looked like in the earliest days of slate quarrying on an industrial scale.

The whole process of slate production can be seen here from the quarry faces and caverns from which the rock was quarried to the long inclines down into Blaenau at the other end of the tramway from whence the slate began its journey round the world on the Ffestiniog Railway or one of the two main line railways. The absence of any development at all around this area provides a time capsule for the walker and researcher.

However, there was recently published in the Snowdonia Society Magazine an article referring to a project to use the ‘old quarry tram-line past Cwt y Bugail and down through Rhiwbach’ as part of a cross country course to be built by Antur Stiniog (a not for profit social enterprise formed ‘To develop the potential of the Outdoor Sector in the Ffestiniog area in a sustainable and innovative way for the benefit of the local residents and economy’. 

My concerns were dealt with by Ceri Cunnington of Antur Stiniog who said ‘At the moment there are no definite plans to open a cross country course using the old rhiw-bach (sic) tramway, and obviously any development like this would need serious consideration, consultation with the local community and other relevant agencies and societies. Strict processes we have followed in the past when developing MTB trails and other schemes.’ However, it was pointed out that ‘In the same breath we have to
move forward and unfortunately the industry and 'romance' of the past does not put bread on the table.'

Clearly Blaenau is an area very short of jobs, and tourism and sporting activity has long overtaken the traditional industries. However, I do worry that the most important parts of the landscape of Outstanding Historic Interest (Cadw) are likely to be sacrificed for short term employment gains and hope that AIA members will keep themselves aware of what may be going on through the two websites www.anturstiniog.com and www.llechwedd-slate-caverns.co.uk/adrenaline.php and make appropriate representations where they can.

John L. Townsend

Acetone from conkers

I was interested to read the letter from John McGuinness about British Industrial Development in World War I in IA News 169. In it he mentions the acetone process and asks whether anyone knows details of the distillery or the process.

The distillery was Nicholson's at Three Mills, Bromley by Bow (the east London Bromley rather than the one in south London) and adjacent to the well-known tide mills on the River Lea. In 1915 it was used as a pilot plant for scaling up a bacterial fermentation process which had been developed by Weizmann to produce acetone. Acetone was used as a solvent in the production of the smokeless propellant cordite. His was not the first attempt to do this by fermentation but Weizmann’s process proved superior to its predecessor in a number of respects. It was also at Nicholson’s that Weizmann conducted trials on the use of horse chestnuts as an alternative raw material to maize and the distillery’s plant was used to dry horse chestnuts that were collected as part of a national campaign in 1916.

The acetone process was rapidly expanded to a number of sites and at one stage Lloyd George threatened to convert all UK distilleries to this purpose. However the need to import maize during the German submarine campaign against shipping meant that it proved more cost effective to move the process to where the maize was produced in North America and transport the acetone.

The acetone fermentation process and the role of the Three Mills distillery will be the subject of an article in the next issue of the GLIAS journal, London’s Industrial Archaeology, based in part on some recently discovered files from the period. Sadly the distillery is no longer operational but the buildings are still there and are now used as film/TV studios and rehearsal space.

Martin Adams

Early Railways 5

The Fifth International Early Railways Conference was held at Caernarfon in 2012 and was a notable success.

The Proceedings are to be published by subscription as Early Railways 5 and the list is now open. The volume is, for the first time, in colour with an editorial by Dr David Gwyn and 21 peer-reviewed papers of new researches.

The subscription price is £39 including post and packing worldwide, with the order forms and full details available at: www.earlyrailways.org.uk. After 1 September 2014 the full publication price will be £55.

For further information, please contact: early.railways-conference@gmail.com.

Andy Guy
(on behalf of the organising committee)

Support for Clipstone Colliery

Falcon Hildred makes some interesting points in IA News 169 about the cost of 'artifying' Blaenau, and the ignoring of the existing dramatic industrial sculptures of the area. Every now and again we hear of new proposals to add more gigantic sculptures to the landscape, each at enormous cost. Here in the East Midlands we already have two magnificent industrial sculptures, nicely arranged to complement each other and providing a striking skyline above Sherwood Forest, yet the private owner wants to pull them down and sell the land. The very tall, listed, twin headgears of the closed Clipstone Colliery, with their Koepe winders uniquely arranged back to back between them are an important record from the area’s once dominant industry. They are every bit as striking visually as the Angel of the North or the Falkirk Kelpies, are in sound condition and require relatively little expenditure to save them for the nation.

The recently formed Clipstone Colliery Regeneration Group is developing plans to preserve the structures and find uses for the headgears in the adventure sports area. Perhaps not as ambitious as some of the industrial parks in Germany and the Czech Republic, but a possible beneficial use. However, they are still very much under threat of demolition, and the Group has set up an e-petition opposing demolition and requesting better government protection. This can be found at petitions.direct.gov.uk/petitions/61497. It deserves more support and members are strongly encouraged to sign without delay.

John Boucher

John Penn and Sons engine

I am currently making engineering drawings for the Museum of Western Australia of the SS Xanths engine, originally installed in a Crimean War era gunboat.

The engine is of considerable significance in the history of manufacturing technology and this is the first time a virtual reconstruction has been attempted of it. It is also the only surviving genuine example of a John Penn & Sons trunk engine, which was one of the most common type of Royal Navy warship engines between 1850-75, eg HMS Warrior and I don’t suppose there are many surviving nineteenth century warship engines of any type still extant.

Many of the wrought iron and steel parts are quite badly corroded, though the cast iron has survived fairly well, and of course copper and yellow metal parts are good.

Does your Association know of anyone who could advise on a few points of detail that have arisen? I have read a paper by one of your members, Richard Hartree, on Penn’s.

The questions are of a technical nature so ideally we are looking for research on nineteenth century steam engines. The Science Museum has a number of models of the general type in question, but doesn’t seem too keen.

My immediate concern is that I would like to know what Whitworth’s early standard(1) for hexagonal nuts were. The surviving yellow metal nuts indicate [1.25D+1/8"] but there are too few sizes to be certain. The available clearance in places indicate a smaller dimension than either BS or Whit.

Your help would be much appreciated, since what used to be common knowledge is now almost entirely forgotten, even by organisations that one would expect to know.

Jonathan Heppel
Essex Industrial Archaeology Group

The Essex Industrial Archaeology Group (EIAG) was launched in July 2013 as a sub-group of the long established Essex Society for Archaeology and History (ESAH). The formation of this new IA group was stimulated by the very successful AIA Annual Conference in Essex in 2012. EIAG had its inaugural meeting in November 2013 at which a Committee was formed to take the Group forward and Tony Crosby (a former AIA Chairman) was elected as Chairman. As well as beginning to put together a programme of visits and talks for the coming 18 months, the Group has already been active in making representations for the conservation of Essex’s industrial heritage including the 16 air raid shelters built by Courtaulds for the workers at their Halstead weaving mill (see IA News 167). It has affiliated to the AIA and will become a Friend of the European Route for Industrial Heritage (ERIH) which has a regional route in East Anglia called The Industrious East.

In anticipation of the formation of EIAG, its parent organisation, ESAH, had already included in its 2014 programme three visits to places of industrial interest. The first was to the Upminster Windmill in April, a grade II* listed early nineteenth century smock mill, and in June EIAG and ESAH members enjoyed a visit to Coggeshall Abbey and Mill. The twelfth century Cistercian Abbey had a corn mill on the site of which, Flemish refugees built a fulling mill in the seventeenth century to serve the Coggeshall woollen cloth industry. The present mill was built in the mid eighteenth century as a weaving mill, but was converted to a silk throwing mill around 1820 when the Essex textile industry switched from wool to silk. In 1839 it was converted to a corn mill and remained in commercial use until 1960. It had been adapted to steam power in the mid nineteenth century and the engine house with the chimney survive although the machinery has been removed and the square based, round flued chimney reduced in height. It is a timber-framed and white painted, weather-boarded mill with a roof of plain handmade tiles. The windows of small panes on the upper storey extend for much of its length as is characteristic of weaving premises. Much equipment remains including the cast-iron breast-shot water wheel, four pairs of stones, much of the drive mechanism, and a grain elevator. It survives as one of only a few unconverted watermills in Essex retaining much of its original historic technology with the potential to be brought back to working condition.

Later in the year members will be visiting a twentieth century water pumping station, and the British Postal Museum and Archive store near Loughton. In November the EIAG Annual Meeting will be addressed by Marilyn Palmer speaking about country house technology, with particular reference to Audley End House near Saffron Walden. If any AIA members have questions about membership or the activities of the EIAG please contact Tony Crosby at tcrosby.iah@outlook.com.

SECOND CALL FOR PROPOSALS, TICCIH 2015 Congress in Lille

We are happy to announce a second call for papers and posters until the date of September 15, 2014. Consult the congress website for conference details, and submit a proposal at http://ticcih-2015.sciencesconf.org

Dr Florence Hachez-Leroy

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**National Heritage Protection Plan**

Over 900 responses were received in reply to English Heritage’s most recent major consultation on the National Heritage Protection Plan (NHPP), originally devised by English Heritage as a framework for co-ordinating the work of the heritage sector to protect England’s tangible historic environment. Views were sought on the strengths and weaknesses of this first Plan and on the future content and nature of its successor.

The most pressing threats to heritage were identified as:

- Diminishing resources both financial and in personnel as a result of budget cuts
- Skills shortages and loss of expertise within the sector
- Changes to the planning framework which are perceived to disadvantage the protection of heritage
- Perceived conflict between the growth agenda and heritage protection
- Climate change

The key priorities for the sector were identified as:

- Protection, conservation and preservation of heritage
- Increased resources, both financial and personnel, to address the needs of the sector
- Extend the reach of the NHPP beyond the heritage sector and specifically to engage the community
- To focus on heritage at risk
- To address the skills needs of the sector at all levels from the community to professionals
- To influence the planning regime
- To influence the tax regime

Under opportunities, the recurring and consistent theme was the importance of engaging and empowering geographic communities and communities of interest in heritage protection. The report concludes that while many respondents recognise that the NHPP was designed as an English Heritage Plan which was then revised to be presented as a plan for the sector, there is still a strong perception that the NHPP is an English Heritage plan for English Heritage to deliver. From the research conducted, there is a view that the community and the public need to feature more strongly in the Plan and that skills and capacity building across the sector is an important area for future emphasis.

The full report can be downloaded from the English Heritage website

**World Monuments Watch**

Published every two years since 1996, the World Monuments Watch is a call to action for cultural heritage around the globe that is at risk from the forces of nature and the impact of social, political, and economic change. Four sites in the UK are highlighted. Besides Salve Manor in Northamptonshire, they are:

- Battersea Power Station
- Deptford Dockyard and Sayes Court Garden
- Grimsby Ice Factory and Kasbah.

All of which have featured in IA News recently.

In contrast, Germany and France have just one each.

**Update on Historic England**

Government approval is expected shortly to confirm the proposal to split English Heritage into two parts – a new charity ‘English Heritage’ to manage the National Heritage Collection, and the renaming of the heritage protection services as ‘Historic England’.

Meanwhile, plans for engagement and consultation on Historic England’s corporate plan are going ahead. Sector workshops during July and August 2014 will take place to discuss what should be contained in the Historic England corporate plan. Once completed, it is expected that English Heritage will then produce a draft Historic England corporate plan and Historic England’s Action Plan which will be published for public consultation in November 2014.

Both bodies ‘English Heritage’ and ‘Historic England’ are expected to come into being in April 2015.

The Department for Culture Media and Sport consultation on the English Heritage New Model closed on 7 February 2014, with over 600 replies of which 218 were from organisations. The former Secretary of State, Maria Miller, wrote to all respondents in March 2014 to say that “nearly two thirds of those who responded agreed or strongly agreed with our proposals”. DCMS also made a preliminary analysis of consultation responses available in March 2014. You can view consultation responses from The Heritage Alliance, its members and others on their website.

**Heritage in a cold climate**

Prospect, ‘the trade union for professionals’, has published the report Heritage in a Cold Climate, which compiles evidence from its members on the impact of the UK Government’s fiscal consolidation on the heritage sector. The Report forms part of the broader campaign by the Union to ensure that heritage bodies are properly funded by government.

Through a survey of 6,000 of its members who work throughout the heritage sector, the Union examines the impact of the cuts to the Department for Culture Media and Sport, alongside the 15% cut to national museum funding in 2010, and the 32% funding cut over four years to English Heritage. The survey found that the cuts are affecting the retention of key skills across heritage areas, that many arts and heritage-based organisations have closed, and that job reductions are affecting the provision of services.

The report also considers concerns from members working in key institutions including the British Library, Imperial War Museum, English Heritage, Museum of London, National Gallery, National Galleries of Scotland, National Museums Liverpool, National Trust, Royal Museums Greenwich, and the Victoria and Albert Museum.

**Shrewsbury’s Manufacturing Heritage**

Items ‘Made in Shrewsbury’ over the last 100 years are on display in Shrewsbury’s new museum. The exhibition includes photographs and products from a number of local manufactories. The exhibition is a result of the work done by an informal group of local history enthusiasts who have researched the companies and have come together under the banner of ‘Made in Shrewsbury’, a web based research project.

The project was started in 2006 by Nigel Hinton who worked at Shrewsbury Electronic Engineers Ltd in the 1970s. “When I joined the Company I was really interested to hear the history of the former Hurtley Electro motive which in 1955 took over Baird Television, and TVs were made in the factory on Monkmoor Road. The take-over included an original Baird Drum Televisor and the dummy’s head that John Logie Baird had used in his early experiments.” Nigel added, “The company also made electrical wiring kits for use in electric milk floats made by Wales and Edwards. Some of Hartley’s products from the 1950s and 1960s are on display including a portable radio, tape recorders, and a mini record player, the Wondergram. The Taperizer system features an early steel cassette and from the 1970s there is a Microsce microfiche reader that was made for Barclays Bank.”

Other researchers have worked with companies such as Sentinel who manufactured steam vehicles, trains, buses and lorries. In WWII they made a small tank and Bren gun carriers. The successor company, Rolls Royce, made commercial diesel engines and today, CAT re-engineers plant and equipment.

Morriss’s Lubricants has been manufacturing oils for over 100 years and took over the factory built by Thomas Corbett and the perseverance Iron Works, manufacturers of agricultural engineering products in the nineteenth and early twentieth century.

**The Heritage Alliance Heroes awards 2014 is open for applications.**

The Heritage Alliance Heroes award scheme was established to celebrate the outstanding contribution to society made by heritage volunteers in England. Now in its fifth year, previous recipients include Portland Works, Bluebell Heritage Railway, Gorton Monastery in Manchester, and the SS Shieldhall in Southampton.

The Award scheme is open to all Alliance member organisations and their members. Entries should demonstrate a distinctive achievement in the past 12 months by a voluntary individual or team. Applying or nominating couldn’t be easier – please submit a short nomination form and send to Alliance Trustee, Denis Dunstone, denis.dunstone@talktalk.net. The deadline for applications is 15 September 2014.
The winner will be asked to present a five minute video showcasing the achievement for presentation at The Heritage Alliance’s AGM & Heritage Day on 4 December 2014. The winner will also receive a memento of the event.

The Heritage Alliance Heroes Award 2014 is kindly sponsored by Ecclesiastical Insurance Group.

Ballochmyle Viaduct

Ballochmyle Viaduct, the UK’s highest railway bridge has won a major award from the Institution of Civil Engineers.

The 177ft (54m) high Ayrshire crossing, whose track is higher than that of the Forth Bridge, has been designated a National Historic Civil Engineering Landmark after being upgraded to carry heavier coal trains.

The viaduct, which crosses the River Ayr between Mauchline and Catrine on the Glasgow-Dumfries line, also has the UK’s largest masonry arch with a span of 181ft (55m).

A ceremonial plaque was unveiled at the base of the viaduct by ICE president Geoff French and East Ayrshire Provost Jim Todd.

Heritage Activism – a force for good?

In a talk organised by Archiboo in London on 25 June 2014, Loyd Grossman, Chairman of The Heritage Alliance, has explored in ‘Heritage Activism – a force for good?’ how ‘heritage activists’ have adapted recent social media techniques to protect local historic assets.

Loyd Grossman argued that the historical roots of the sector, through social activists including William Morris and Octavia Hill (founder of the National Trust), demonstrates how the heritage sector has a well-rooted relationship with the radical pioneers of social change, therefore challenging the common misconception that heritage is a sector unable and unwilling to embrace change. Using the case studies of the proposed redevelopment of Preston Bus Station, the Southbank Centre’s £120m redevelopment plan, alongside the proposed demolition of a Victorian Pub at the Geffrye Museum, Loyd Grossman demonstrated how heritage activism through local engagement can challenge local government and developers’ plans to demolish historic assets of local significance.

Preston Bus Station, built in the Brutalist architectural style and opened in 1969, was threatened with demolition as part of the City Council’s £700 million Tithebarn redevelopment project. Although English Heritage, The Twentieth Century Society and World Monument Fund were involved, Loyd Grossman demonstrated how it was local individuals through the Save Preston Bus Station campaign, who utilised social media and local networks to ensure that the building received its Grade II listing. Loyd Grossman said Preston Bus Station represented the power and desire of the people of Preston to take control of their environment away from local government and developers, demonstrating how “the defence of Preston Bus Station can almost be seen as a significant turning point, maybe as significant as the outcry that followed the demolition of the Euston Arch in the 1960s.”.

To view the debate online please visit the Archiboo website. Archiboo, founded in 2014, helps architects become more creative in how they run and grow their practices through new thinking and new connections. You can find out more about the organisation and its upcoming events on its website. The Heritage Alliance is a coordinating body comprising 91 organisations; the AIA is a member. The Alliance publishes Heritage Update from which this report is taken.

European Industrial Heritage Year 2015

Some years ago associations from different European countries, united in E-FAITH (European Federation of Associations of Industrial and Technical Heritage) decided to launch actions in as many countries as possible in the course of one specific year and to set this heritage in the spotlight. This idea was taken up in a report adopted by the Council of Europe. At present more than 150 organisations and institutions from 19 European countries have endorsed the initiative, and in many places volunteers and NGOs as well as public authorities and institutions are devising projects and programmes to take place in 2015.

E-FAITH is promoting the establishment of transnational thematic steering groups – to reach and develop a common approach to common problems or to prepare gazetteers and record specific types of industrial and technical heritage. The initiative for a steering group is taken by an association in one country (the leader), which involves at least two other associations (partners) from two other countries. The intention is that these steering groups will start in 2015 but continue their work beyond that year. Already three steering groups have been established and have started their activities, namely:
• dangerous industrial heritage (heritage which is polluted or installations and machinery which are not compliant with the health and safety regulations)
• factory chimneys as symbols and landmarks in the landscape
• conservation and new uses for harbour cranes

Other steering groups will soon be launched, one of them being M3 – May Month of the Mills.

If your association or institute does have ideas or plans special activities for 2015, or if you are looking for contacts and co-operation with colleagues or similar organisations in other European countries, then get in touch with the European campaign secretariat E-FAITH European Federation of Associations of Industrial and Technical Heritage c/o Vredelaan 72, B-8500 Kortrijk (Belgium) email 2015@e-faith.org or see the websites – e-faith.org/home or industrialheritage2015.eu (now ‘under construction’, to be launched in September).

Four beam engines in steam at once

Over the weekend of 29 and 30 June, steam enthusiasts and local people crowded into Abbey Pumping Station, Leicester, to view the unique occasion of the four beam engines being steamed all together. It is not known how often this was ever done before as one or two of the engines were normally on standby. Opened in 1891, the Abbey Pumping Station was built to pump sewage to treatment works outside the city at a time when the population of Leicester was expanding rapidly. The grand Victorian building and beautifully decorated engines were a cause of great civic pride. The beam engines themselves were built in Leicester by Gimsons and are rare examples of 200 hp Woolf compound rotative beam engines. These became redundant in 1964 and the current celebrations mark fifty years of restoration work by museum staff and the Leicester Museum of Technology Association, a group of volunteers who have worked on the engines since 1972. All credit to them for an event thought to be unique in the British Isles – four Victorian beam engines in their original setting all being steamed at once.

Marilyn Palmer

Tame Past Present Future

This is a Heritage Lottery funded project to identify, promote and celebrate the industrial heritage of the River Tame. The Tame, flows past 1.77 million people on its way from the Black Country, through North Birmingham towards its confluence with the River Trent.

We are seeking people who would like to work with us to explore the part industry played in their local area along the river.

This is an opportunity to receive training in research, oral history and archiving from the Library of Birmingham, and be part of a wider project celebrating the river and its industrial heritage.

For more information go to tameppf.blogspot.co.uk or contact Jenni Dixon tameppf@gmail.com, 07539 782841 or Sally Robertshaw 0121 348 7980

Inverness to hold World Canals Conference 2016

Following a successful bid, the World Canals Conference will be held in Inverness in September 2016.

As the biggest event in the international waterways calendar, Inverness joins an illustrious list of past hosts including the Grand Canal in China, Montreal in Canada and New York in the USA.

More than 150 canal enthusiasts, professionals and operators are expected for the five-day event with a theme of ‘partnership working’.

Europe’s largest energy-making waterwheel

The giant steel waterwheel at Aberdulais tin works and waterfall in Neath, which is looked after by the National Trust, had been out of action for several months while it was being refurbished. Now the wheel, which weighs 16 tonnes and measures more than eight metres across, is turning again.

Powered by water from the River Dulais at the Aberdulais Falls, the waterwheel will generate all the energy needed to provide heat and electricity for the National Trust attraction, including a tea room, visitor centre, cinema and education centre. A second hidden hydro turbine at Aberdulais, called ‘Edward’, will generate around 400,000kwh a year.

Set in a steep gorge, the waterfall at Aberdulais has driven various industries since 1580 when a copper smelting furnace was established there. Flour milling and tin industries ensured the site continued to be at the centre of the community, and in the nineteenth century a new waterwheel was installed.

Its industrial history and beauty has inspired several famous artists, including JMW Turner, who painted a watercolour of it after a visit to South Wales.

Kirkaldy Testing Museum

This ‘perfectly preserved Victorian workshop’ has been under threat from the landlord who had plans to turn the Kirkaldy Testing Museum into a restaurant (see IA News168).

Thanks to speedy action by Professor David Perrett, Chairman of GIUAS, and his committee, who applied to English Heritage on the museum’s behalf, the testing machinery has been up-graded from 2 to 2*. The listing, which is considerably more detailed than the previous one, refers to the testing machine which runs the length of the building. The machine, 47 feet, 7 inches (14.5m) in length and weighing some 116 tons, works by applying horizontal compression or tension to the sample, by means of a hydraulic cylinder and ram (originally steam powered but from 1905 electrically powered). It also refers to the fitted shelves for tools, the overhead crane, the removable timbers in the floor to facilitate testing, and to the chain testing machine in the basement.

As a result, the landlord appears to have abandoned plans for a restaurant but future intentions remain unclear. The museum has been given notice that the landlord is seeking a rent of £40,000 a year and, although this has been reduced verbally to £20,000, this is still a sum that the museum cannot afford. It currently enjoys a peppercorn rent and under the terms offered is faced with this stiff increase from day one.

The museum has until 24 August to agree terms or face going to court. That could cost thousands and is, as things stand, out of the question.

Aberdulais Falls

Photo: National Trust
The London surveyor negotiating on behalf of the museum remains hopeful that a better deal can be obtained from the landlord but this might still not be enough. The museum also has sources of expert legal advice.

What could the future otherwise hold if the present team running the museum cannot afford to continue? One interesting possibility is for the landlord to take over the responsibility for maintaining the machine in working order, as English Heritage require, and invest money in the museum to bring it up to modern standards. Suitably qualified people to maintain and run the machine and guides and stewards for open days would need to be found. Would the volunteers be prepared to work for a commercial organisation?

Were this the case, the vision of the present team to preserve the machine in working order will have been realised but whether or not in the Victorian workshop atmosphere everyone who visits the museum loves, is open to some doubt.

The museum has been successful in recent weeks in attracting wide support, not least from Government ministers. This support could help ensure that the museum has a bright future.

Hemifield colliery
The Friends of Hemifield Colliery (FOHC) have finally completed the acquisition of the site.

When ITV were looking for visible remains of South Yorkshire’s mining industry to illustrate a recent feature on the 1984 Miners Strike, this site with its twin headgear and engine houses, was the only one they could find.

The FOHC is a company limited by guarantee with the purpose of establishing and operating the Hemifield Colliery site, with and for the community, focusing on celebrating local mining and related heritage.

As would be expected there is much to do to repair the ravages of time and vandalism and it will be some time before the site can opened to the public.

Retail Industry – the first purpose-built supermarket to achieve listed status?

The Twentieth Century Society is campaigning for a Sainsbury’s supermarket in South East London to be listed grade II*. It is claimed that if this were to happen it would be the first purpose-built supermarket to achieve listed status. This might not be strictly true, however, as the shopping centre in Milton Keynes is already listed grade II. Paul Hinkin, the architect of the eco-friendly centre in Milton Keynes is already listed grade II.

Winning the 1999 RIBA Sustainability Award for its five-metre high surrounding earth banks, the store is said to use about half the energy of a conventional supermarket. Insulated by surrounding earth banks five meters high, the store is ventilated rather than air-conditioned and the toilets are flushed with rain water, previously filtered through a reedbed outside at the back of the building where there is a small nature reserve. Michael Evamy writing in The Independent described it as ‘the most carefully designed supermarket in the world, ever’ – the building was shortlisted for the Stirling prize in 2000 and won a RIBA Sustainability Award.

The RIBA Stirling Prize proceedings were broadcast on Channel 4 television in the year 2000. As well as the official judging panel which included Tracey Emin, there was a People’s Choice section of the Award and the public gave first place to the Sainsbury’s supermarket – five thousand people voted.

However, the Stirling prize that year was won by the Peckham Library and Media Centre, by Alsop and Stormer, also in South East London. The Peckham Library came tenth in the popular vote. In the current deliberations regarding the possible listing of Sainsbury’s Greenwich, this popular vote may count against the building. Popular taste does not find favour in high-minded architectural circles.

Robert Carr

National Congress on Industrial Heritage – Tokyo 14/15 July 2014

Monday 14 July 2014. The Prime Minister of Japan, Shinzo Abe, accompanied by five members of his cabinet, launched the first meeting of Japan’s National Congress on Industrial Heritage (NCHI), held in Tokyo on 14/15 July. Prime Minister Abe emphasised the importance of Japan’s industrial heritage in marking the history of the nation, with its roots in the Meiji era and the long tradition of craftsmanship that preceded it. He expressed particular pleasure at the recent inscription [at the UNESCO World Heritage Assembly in Doha in June 2014] of the Tomioka Silk MiAll on UNESCO’s World Heritage List and commended forthcoming nominations of historically important industrial sites.

He was fulsomely generous in recording the role played by Great Britain in Japan’s Industrial Revolution, noting her global importance as the first industrial nation, and the clandestine voyage in 1863 of the five young men – the Choshu Five – to study at University College London, their subsequent determination to take Japan into the modern world, and their success in achieving that. He saw proper recognition of the industrial heritage as critically important to an industrial nation like Japan and wished to see it as a central element of education and of economic stimulus. In doing so he announced property tax concessions to industrial enterprises that owned historically important industrial sites in order to encourage and assist in their preservation.

In responding, Sir Neil Cossons, congratulated the Prime Minister and the Government of Japan on their outstanding initiative in inaugurating the new Congress, and
especially for applying it as a platform for the engagement of both public and corporate sectors in support of the common cause of industrial heritage conservation. On behalf of the overseas delegates, he also thanked the Prime Minister for the generosity of the reception delegates had received, and for what was a uniquely important event in recognising the importance of historic industrial sites not only in Japan but in the wider world. The National Congress provided a forum for exchanges on policy and practice in industrial heritage conservation which he was confident would have far-reaching benefits.

There were some 300 delegates at the Congress including representatives from Australia, Canada, France, Germany, India, Italy, Poland, the United Kingdom and the United States. Especially significant was the presence of senior representatives from Japanese industry, many of whom were sponsors of the Congress.

**Underfall Yard to receive £3m from HLF**

After a successful bid to the Heritage Lottery Fund Bristol City Council is preparing to pass the Scheduled Monument and associated structures to the Underfall Yard Trust for repair, maintenance, boatbuilding and maritime industry – and public access and benefit. The Trust is now moving ahead with plans for repairing the structures and making adaptations for a sustainable future. The total project is expected to cost nearly £4 million.

Bristol’s maritime trade expanded rapidly in the early years of the nineteenth century. The extreme tidal range of the Avon and limited quay space, however, posed a major limitation on the development of the port. In response to this the Port Authority decided to embark on the construction of a ‘Floating Harbour’ linked by lock systems to the tidal Avon and a feeder canal to maintain the dock level and provide a connection for barges to the River Avon, Bath and the Kennet and Avon Canal. The bulk of this huge engineering project still exists today.

A weir with sluices to help control the build-up of silt was built at the western end of the Floating Harbour. In the 1830s, IK Brunel advised on improvements and introduced a drag boat dredging system. Over time the sluices, or Underfalls, became the principal means of controlling the water level, and land around them was reclaimed to create the Underfall Yard. They also play a vital role in preventing floods in the City centre.

In 1975 the harbour was closed to commercial traffic and a long process of refocusing on recreational use ensued. Over the last 35 years, the Underfall Area has seen a gradual change in its role from Harbour maintenance towards leisure activity.

The Underfall Yard complex was developed between 1880 and 1890 for the maintenance of Bristol Docks and to service the dock machinery. It includes the dock sluices, a hydraulic system for operating the lock systems together with a pump house, a vessel slipway and a complex of late Victorian dock buildings. The Pump House and workshops have largely survived unaltered, together with much of the original machinery that was built for the yard. The workshops are unique and include a largely intact Victorian engineering workshop.

Its historic importance has been recognised in its designation as a Scheduled Ancient Monument. It is one of the only survivors of Victorian dock workshops in the world and its completeness is unique. Water hydraulic power was once common throughout the country, and was exported all over the world by British firms. The system and some of what it operated is intact and in working order, again we do not know of any other examples of this. The patent slipway, rebuilt to its 1880’s design and still in daily use is another important part of the heritage.

The Yard continues to serve its original purpose and is currently occupied by two organisations – Bristol City Council’s Harbour Management which combines docks maintenance and operation with management of the harbour area, and the Underfall Yard Trust, set up in the 1990s to develop sustainable uses for parts of the Yard which had already fallen into disuse. This part of the area is now a thriving boat yard run by the Trust.

**Transport Book Awards 2014**

At the Society’s 60th anniversary dinner in Newcastle recently the Railway & Canal Historical Society, an affiliated society of the AIA, made their railway and transport book awards for 2014.

The Railway Book of the Year Award went to *The Bodmin & Wadebridge Railway 1834-1983* by Michael Messenger, (AIA’s website manager) and published by Twelvehands Press. The story of a unique early steam railway was described by the judges as ‘a model of how the history of a railway should be written’.

The 2014 Popular Transport Book of the Year Award was given to *Holding the Line: how Britain’s railways were saved* written by Richard Faulkner and Chris Austin and published by OPC. This engaging account of a crucial aspect of the modern political history of Britain’s railways was both highly readable and thought-provoking.

The other shortlisted titles were *The Scottish Shale Oil Industry & Mineral Railway Lines* by Harry Knox and published by Lightmoon Press, and *Rope & Chain Haulage: the forgotten element of railway history* by Colin E. Mountford published by the Industrial Railway Society. All were considered to be excellent histories, well produced and good value.

An additional prize was awarded to a book that did not fit in the conventional categories; Michael Quick’s *The Wrong Sort of Fish Oil: the trials, tribulations (and triumphs) of the early railway passenger*, which gives serious consideration to the early passenger, an often neglected figure in railway history.

Unfortunately no canal or waterway book was available for consideration but three books were in contention for the Road Transport Award. *Bristol’s Stage Coaches* by Dorian Gerhold is published by the Hobnob Press and is a thorough review of stage coach services centred on Bristol. Extremely well written from wide-ranging and well referenced researches. *Travels in the Valleys* by Robert McCloy, published by The Historical Association, Swansea Branch, charts the rise and decline of the motor bus in four South Wales county boroughs in successive periods following the Great War. The winner in this category was *CarScapes* by Kathryn A. Morrison and John Minnis, published by Yale University Press for The Paul Mellon Centre for Studies in British Art, in association with English Heritage. Its subject is the impact of the motor car on architecture and landscape in England and is packed full of insight with very high production values. This book won the 2015 AIA Portrait Neaveanson award for outstanding scholarship.

All winners received a certificate from the society and a cash prize from the David St John Thomas Charitable Trust. *CarScapes* was also the overall winner of the David St John Thomas silver cup and prize, for 2014 Transport Book of the Year.

**Milestones book receives award**

*Cornish Milestones*, by Ian Thompson and published by Twelveheads Press, reviewed in the recent *Industrial Archaeology Review*, has won the Holey an Gof Trophy of the Cornish Gorseth for the most outstanding entry in this year’s competition. It was also the overall winner of the non-fiction section.

The Holey an Gof Publishers’ Awards were launched in 1996 to raise the standard and profile of publishing in Cornwall.

Beer has been brewed in England since Neolithic times, and this book combines a thoroughly enjoyable exploration of beer’s history and built heritage with new in-depth research into the nuts and bolts of its production. Based around England’s breweries, but occasionally ranging further afield, it tells the intriguing story of the growth of this significant industry. From Georgian brewing magnates who became household names – and their brewhouses notable tourist attractions – through magnificently ornate Victorian towers to the contemporary resurgence of microbreweries, the text throws new light on brewers and the distinctive architecture of their buildings. Detailed chapters explain what makes a brewery work, revealing the functions of sometimes enormous brewing vessels, the astonishing skills of cobbersmiths and engineers, the work of heroic mill horses and the innovative steam engines which replaced them. The wider context of the brewing industry is also investigated, bringing out the breadth of the ‘beerscape’, including those buildings put up with brewing profits such as the original Shakespeare Memorial Theatre in Stratford-upon-Avon. A brewery index allows readers to find which sites are extant and can still be visited. Traditional working breweries are to be treasured and celebrated, but complementing these, the book looks to the future, considering constructive redevelopment as part of our national brewing heritage.

English Heritage is delighted to offer AIA members 20% discount and free post and packing (UK only) on this book. Please telephone 01235 465577 or email direct.orders@marston.co.uk and quote reference number 7220140021 to take advantage of this offer and get your copy for £20.00. Offer expires 31 December 2014.

Cheddar in the Industrial Age, by Peter Daniel, Somerset IA Society, 2014. 100pp, 56 illus. ISBN 978 0 9558742 2 2, £5.70 post free from SIAS Hon Sec, Giles Cottage, Hill Lane, Brent Knoll, TA9 4DF.

SIAS Survey No.20 describes a Somerset village which is more than just cheese, a rocky gorge and tourists. A walk-about guide to the village describes the history and what survives of corn mills, paper mills and shirt factories, water supply for Bristol, and the railway’s ornate station building (now closed), which helped the development of tourism based around the famous gorge and its show caves. In the wider parish were extractive industries such as limestone quarrying, lime burning and the mining and processing of ochre.

The Phoenix Works, Chard, by Derrick Warren, Somerset IA Society, 2013. 68pp, 116 illus. ISBN 978 0 9558742 1 5, £6.95 post free from SIAS Hon Sec, Giles Cottage, Hill Lane, Brent Knoll, TA9 4DF.

SIAS Survey No.19 is concerned with John Smith’s agricultural engineers and iron foundry, 1838-89, later becoming the Phoenix ironworks of the Pownall and Jennings families and still ‘the oldest active business in Chard.’ The firm made pumps and water carts, but came to specialise in the design and manufacture of asphalt spreading machines, many of which have been exported. This vital part of road-making is described through a succession of new machines often developed for specific purposes. There are photographs of the machines at work down to the present day and illustrations of products from older trade catalogues.

Maggs and Hindley: Two Families, Two hundred years, An industrial heritage at Bourton, Dorset by Robert Mullins, 2014. 129pp, 71 illus. ISBN 978-0-9572611-3-6, £12.00 incl p + p from R. Mullins, 36 The Venn, Shaftesbury Dorset SP7 8EB.

The history of flax and iron foundry industries of the Maggs and then Hindley families in a small village. The flax factory had a notable 60tp waterwheel, while the iron foundry produced waterwheels, cheese presses, threshing machines and steam engines, often exhibited at the Royal and other agricultural shows around the country. Steam wagons were supplied, e.g. to Pickfords removals, and some steam engines continued to be made alongside new gas engines in the early twentieth century. The site closed in 1930 when manufacturing was transferred to Alfred Dodman & Co. of Kings Lynn. E.S. Hindley is a name well known among steam engine enthusiasts at home and abroad. This is a timely publication, for it was Hindley who made the 30HP horizontal steam engine for Gillingham brickworks 1865-1934, later rescued and restored for the Castleton Steam & Waterwheel Centre, Sherborne, where it was the winner of the AIA Dorothea Restoration Award for 2013 (see report, page 3).
**DIARY**

5-10 September 2014
AIA ANNUAL CONFERENCE, CHESTER

8 September 2014
‘BY AIR SEA AND LAND’, STUDY DAY
Public Records Office, Belfast

16 September 2014
GASHOLDERS ‘RECORDING THE END OF AN ERA’
The British Library Conference Centre. Google above

2 October 2014
ERIH CONFERENCE AND GENERAL ASSEMBLY
“Networks of Industrial Heritage. Founding – Managing – Funding – Marketing”. Visits arranged for 1 and 3 October
Cromford Mills www.erih.net

13 October 2014
50TH ANNIVERSARY MEETING
Merseyside Industrial Heritage Society
Speaker Sir Neil Cossons
Tel 01928 724804
www.milhs.org.uk

22 November 2014
CELEBRATING STEAM SYMPOSIUM.
Wiltshire Archaeological and Natural History Society, Devizes
Town Hall. Tel 01380 727369
wahns@wiltshireheritage.org.uk

25 April 2015
SERIAC
The Hub, City College, Chapel Road, Southampton S014 5GL.
Hosted by Hampshire I.A Society

23-25 October 2014
III Andalusian Conference on Industrial Heritage and Public Works)
Organized by the Foundation for Andalusian Industrial Heritage and to be held in Malaga (Spain). Details
fupia@coiiaoc.com

4-9 September 2015
AIA CONFERENCE SUSSEX

24-26 October 2014
E FAITH WEEKEND
Lyon (France)

10 October 2014
INFORMATION FOR THE DIARY

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

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

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**IA on Radio 4**

For those who missed the Radio 4 programme on 8 July ‘Making History’ when they considered ‘A Crisis in Industrial Heritage?’ It is available for the next twelve months on the BBC website. Featuring Ian Bapty and Geraint Coles amongst others, it is the first item on the programme and lasts about 10 mins.

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**Well worth a look**

Go to YouTube and enter ‘Stamp of Character (1995)’ for an extraordinary 23 minute film made in the 20s by the Missouri Dept. of Conservation. It illustrates the production of railway ties (sleepers), including scenes of hewing ties by hand, sawmill operations, loading and creosoting as well as transporting them by floating them down the Black River. The T.J. Moss Tie Co. of St. Louis made them by the million.

Thanks to the SIA for this link – I opened it to check and was mesmerised. Ed

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**Snowmobile at the Tatra Museum, Koprivnice**

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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 7DQ. Tel: 01225 359846.

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