

INDUSTRIAL ARCHAEOLOGY NEWS

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THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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Ironbridge weekend • Latvia • New Brindley discovery • Moving Martha
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INDUSTRIAL ARCHAEOLOGY NEWS 142 Autumn 2007

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COVER PICTURE

*Dienvidue Bridge and Riga's central market, Latvia (see
page 4)*

Photo: Barry Hood

AIA Ironbridge Weekend : Roads, Characteristics and Forms of Transport

This year's Ironbridge Weekend Conference, organised as usual by Ray Riley, was held on 14-15 April 2007 on the subject of roads. 52 people attended and they heard speakers on a wide variety of topics relating to the characteristics, forms and legislative background of the history of roads. The Saturday afternoon field visit was a car tour to see some local historic bridges.

Derek Brumhead

Introducing the weekend, Mike Bone reminded members that this was the eighth conference organised by Ray Riley. Over this period, Ray had developed a thematic approach covering a wide variety of subjects which, if the numbers attending were anything to go by, had proved very popular. However, Ray had decided to step down from this task (before being removed due to a surfeit of witticisms) and Christine Ball had kindly offered to carry on in his place.

It is useful to have a speaker who can set the scene with a general appraisal of the subject, and who better to do this than John Crompton who can always find an innovative approach. With the wonders of power point presentation, he quickly built up a framework (literally) to survey the engineering, form of locomotion, administration and effectiveness of each chronological stage of road development from pre-historic tracks to motorways and modern street trains.

This provided a convenient base for Keith Lawrence, a vet and industrial archaeologist, who spoke about the part played by developing legislation in the administration, maintenance and protection of sixteenth to eighteenth-century roads. Keith also illustrated some interesting and

unusual expensive-looking antiquarian guides to the repair of roads which impart much information about road construction and vehicles involving much fascinating industrial history not otherwise easily available. Engaged as we are in the study of the physical remains of past industry and transport, not many of us may have considered the underlying tangle of legislation and basis of law which underpins our subject. Keith tackled his theme with aplomb, that proved a hit with everyone.

He was followed by Peter Stanier who, in getting down to a case study on his home ground, surveyed the archaeology of tracks and roads on the downs of Dorset and Wiltshire, particularly looking at the character of diversions, deviations and detours which can be identified in the landscape. His use of extracts from OS 1:25000 sheets reminded us just how valuable these superb maps are for field studies, backed up with documentary sources and plans.

The programme then moved forward logically with Alan Rosevear of the Milestone Society speaking on the conservation aspect of our turnpike roads, particularly the discovery, recording and care of milestones, of which apparently an astonishing 7,600 survive, all meticulously recorded on a data base. Other visible and enduring legacies which Alan brought to our attention include tollhouses (5,200 in 1830), verges and hedges, direction posts, boundary markers, bridges, and a few pumps (for pumping water to keep the dust down). All require vigilance and conservation work made much more difficult in recent years with often onerous health and safety regulations and the crucial necessity of working closely with local authorities always worried about possible litigation.



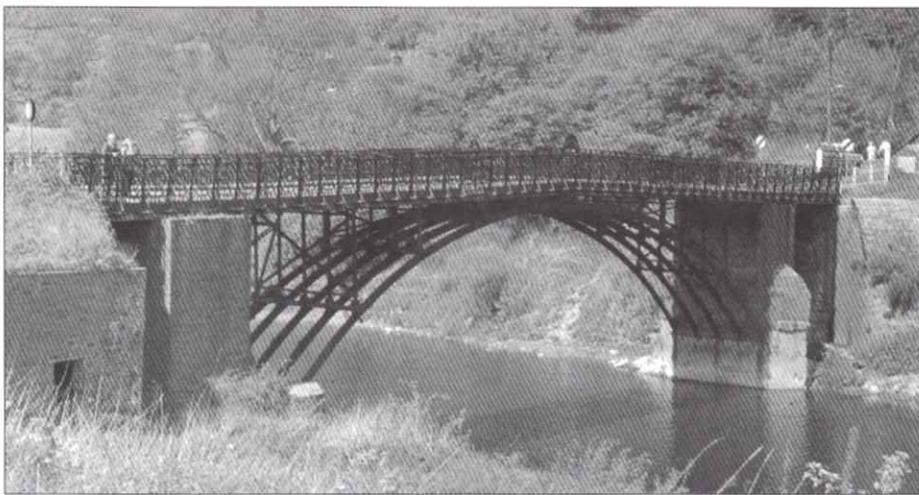
This display explains the history at Buildwas from Telford's bridge of 1796 to its replacement in 1905 and the final bridge opened by Shropshire County Council in 1992

Photo: Steve Dewhirst



On the new Jackfield Bridge

Photo: Steve Dewhirst



Coalport Bridge (1818) before its overhaul in 2005

Photo: David Brumhead

Neil Clark led the Saturday afternoon field trip, looking at roads and bridges in the Ironbridge Gorge. Travelling by cars, we visited three bridges. Buildwas, opposite the power station, is an ancient crossing point over the river Severn with a history of at least four bridges: a medieval stone bridge destroyed in a flood of 1796, a Thomas Telford cast-iron bridge (of which some evidence remains), and two later bridges of 1905 and 1992. The next stop was the site of Jackfield Free Bridge, opened in 1909, which was then an early example of a bridge in reinforced concrete. It was replaced due to wear and tear in 1993 by the present structure, an asymmetric cable stay design with overall span of 185 feet. Part of the concrete bridge is preserved on site. The last bridge was at Coalport, the site of a two-span wooden bridge opened in 1780, which was converted to an iron bridge in 1818. Overhauled in 2005, it has a weight restriction of two tons. The horrendous parking problems in the town did not allow the famous iron bridge built by the Coalbrookdale Company in 1779 to be visited.

The legendary after-dinner quiz at the Malthouse pub, conducted with restraint by Ray in the face of the usual lack of co-operation, took

the form of 25 photocopied photographs of various transport subjects. The winner was Chris Emery.

The Sunday morning session commenced with Chris Irwin, who first described his boyhood interest in trams at Crich where he later learnt to drive a tram and has maintained this interest ever since. After a brief history of the introduction of street trams in this country, he displayed an encyclopaedic knowledge of the methods of propulsion, mode of operation, maintenance and repair, seating, bodies and bogies. All such mundane detail as described by Chris is very significant in any study of the social geography of providing adequately for the travelling public in our industrial cities. All major cities and towns had their own municipal tramways (the first was in Huddersfield in 1882), the majority run by electricity but some by steam and gas, and even one by naphtha. Quite rightly, he emphasised the importance of horse trams from the 1860s (don't forget horse buses from the 1820s) in contributing to the outer suburban growth of our cities and towns. In Douglas IOM there is the one remaining public horse tramway in the UK, albeit mainly for tourists including, as Chris illustrated,

members of the AIA at their annual conference in 2006. Some relics are still to be found, such as garden sheds on wheels, and isn't there one at Port Carlisle which is a tennis pavilion? The photographs of some beautiful vehicles ('green goddesses' in Liverpool) were nostalgic for an audience generally not in the flush of youth. They (trams, not the audience) have all long gone to scrapyards, except for the anachronistic fleet in Hong Kong, and replaced in recent times by the successful street train (e.g. metrolink in Manchester and supertram in Sheffield) which has revolutionised urban travel in such cities.

Ray Riley, now some unknown number of years removed from his first interest in bridges at the age of six, presented a series of photographs illustrating the varying ages and types of bridges, and the engineering principles involved in their construction, from clapper to suspension bridges, most, if not all, representing the worldwide travels of our speaker.

The last formal contribution was from David Lowe, who described himself as a freight person or, in the vernacular, a trucker. He commenced with a brief look at the history of road haulage and moved on to legislative controls starting with the red flag Act of 1865. There were important road traffic Acts in the 1930s including the introduction of HGV licences in 1934. Such legislation played a crucial role in the character and development of road haulage, which was also influenced by the building of dual carriageways ('arterial roads') and bypasses, after 1959 by motorways and more recently European controls. David obviously had had much practical experience in owning and operating some mean machines capable of performing heavy duty road haulage. Commencing with early systems (i.e. horse and cart) he progressed through technical developments – increased weight and power, more wheels, ABS, less noisy, more fuel efficient, and computerised systems. His less than enthusiastic opinion of digital tachographs (compulsory since May 2006) was evident, and the introduction of GPS was said to be treated by drivers with suspicion (a management tool). All such controls on the transport of goods by road have influenced the development of the nation's economy, road design and infrastructure, and even design of buildings. We were reminded of Keith Lawrence's talk.

The excellent weekend ended with a good range of members' contributions: David Viner on the first six years of the Milestone Society (2000-06), Christine Arkwright on an interesting study of the interaction of geology and turnpike road construction across the Mam Tor landslip in Derbyshire, Derek Brumhead on the variety of bridges of New Mills, Gordon Knowles on road developments in Surrey, and a welcome contribution from a young PhD student, Gillian Keegan-Phipps, on the luminescence dating of buried materials (in her case a section of Roman road in the North-East) which shows up defects in a crystalline structure to give, if possible, absolute ages. This session was chaired by Christine Ball in a dry run for her organiser role next year and she ended with an appreciation again of Ray's work.

AIA visits Latvia

An AIA group of 23 delegates toured sites of industrial archaeological and other interest around Riga, Jelgava and the port of Liepaja in the Baltic state of Latvia during the week of 14- 20 May 2007. Our thanks go to Sue Hayton and Paul Saulter for the necessary research and organisation.

Roger Ford

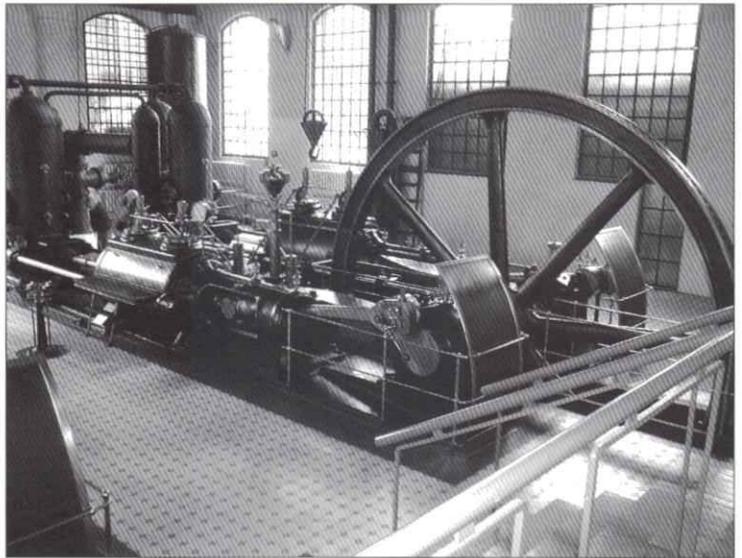
One the evening of Monday 14 May, our group assembled at the Albert Hotel in Riga for the week's activities. On the first morning Sue Hayton led a walk into the old city to admire its many curious buildings. The street in which our hotel was situated has many 'art nouveau' frontages, with all manner of statuary and decorative ornamenting, many designed by Eisenstein senior, dating from the early twentieth century. Further walking brought us to many older buildings, a lot of which are in a state of dereliction. The restored former arsenal of 1832 is now an art museum, whilst one of the few remnants of the original fortifications is a gunpowder tower, originally built in 1330, with an ancient barracks (now adaptively re-used) next to it. The rest of the fortifications were pulled down in the mid-nineteenth century. We saw many ornate churches around the central area, the most magnificent of which is the Russian Orthodox cathedral. The Crafts Guild buildings are amongst the best restored, and there is a spectacular 'Freedom Monument' dating from 1935 (a touch premature), guarded by sentries.

We were bussed to the 'Lido', a small theme park, for lunch. This establishment offers the largest variety of cooked dishes that I have ever seen. After lunch we went to the 'Museum of Water Supply', which still possesses most of its original machinery, boiler, etc, from its steam days (last used in 1963). This sees only about 500 visitors per annum. Then to the gasworks for a stroll around the huge enclosed gasholders.

On Wednesday we went to the unique and impressive Riga central market. In 1922 the City Council did a deal with the government to buy the Zeppelin hangers abandoned by the Kaiser's army in Western Latvia. Five of these were erected on brick bases, coming into full use in 1930 as the largest buildings in the whole city. One is for meat, one for fish, one for vegetables, etc. After exploring these, on to Riga railway museum for a conducted tour by Toms Altbergs, an enthusiast who gave us his services on the following morning as well. There is a roundhouse, used commercially – set up to introduce a new make of car – model railway and photographic display. The adjacent yard contains a sprinkling of Russian-built diesels, and a 2-8-0 Russian steamer, similar to a *Kriegslok*. Amongst the most interesting exhibits are a carriage for transporting prisoners, and an armour-plated saloon used by a Soviet general in WWII and which remained in service until 1980 for the C-in-C Baltic military district. There is also a very old 1880s pattern boxcar of the sort used by the Nazis to supply the extermination camps.

The afternoon started at the Latvian Ethnographic Museum which has some 120 or so wooden dwellings, farm buildings, workshops, bath-houses, fishermen's settlements, etc, ranging from the start of the eighteenth century to the early twentieth century. Some are open to view, but a lot are locked, with their (very small) windows blocked out so that the interiors cannot be viewed. This museum, set in an 80-hectare pine forest, was started in 1924 and opened to the public in 1932. The day's sight-seeing concluded around what was the original (now mostly derelict) state electrical engineering complex, which closed in 1990.

On Thursday to Jelgava, an industrial town. En route it was noted that the majority of the suburban houses still have corrugated iron roofs. First stop, in beautiful sunshine, was the most impressive Russian Imperial palace which is now used by students in higher education. Next, to the railway station, where an over-zealous policeman saw our group file onto the platform with cameras poised, and ordered 'you come with me.' Having declined this invitation, we adjourned to the nearby railway museum to be hosted again by Mr Altbergs. The exhibits are mostly in a re-used railwayman's house, and reflect the narrow



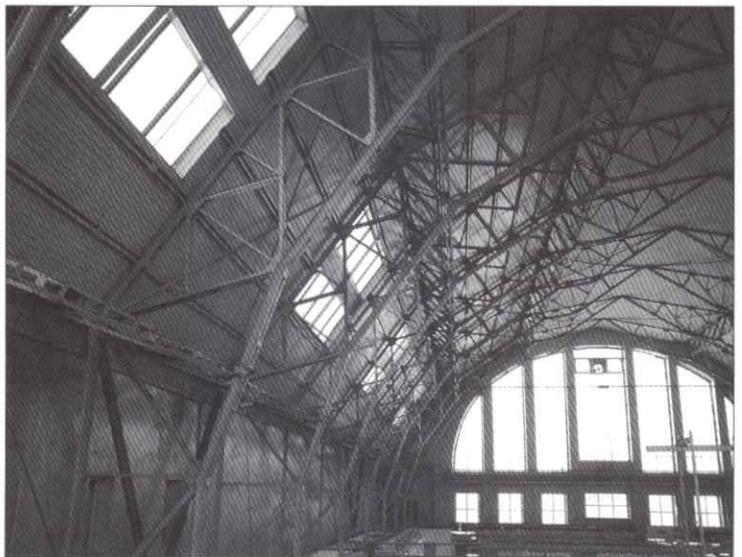
Inside the museum of water supply

Photo: Barry Hood



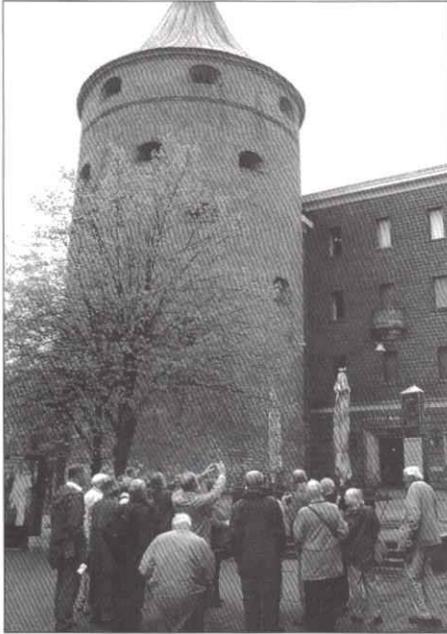
1882 enclosed gasholder in Riga

Photo: Barry Hood

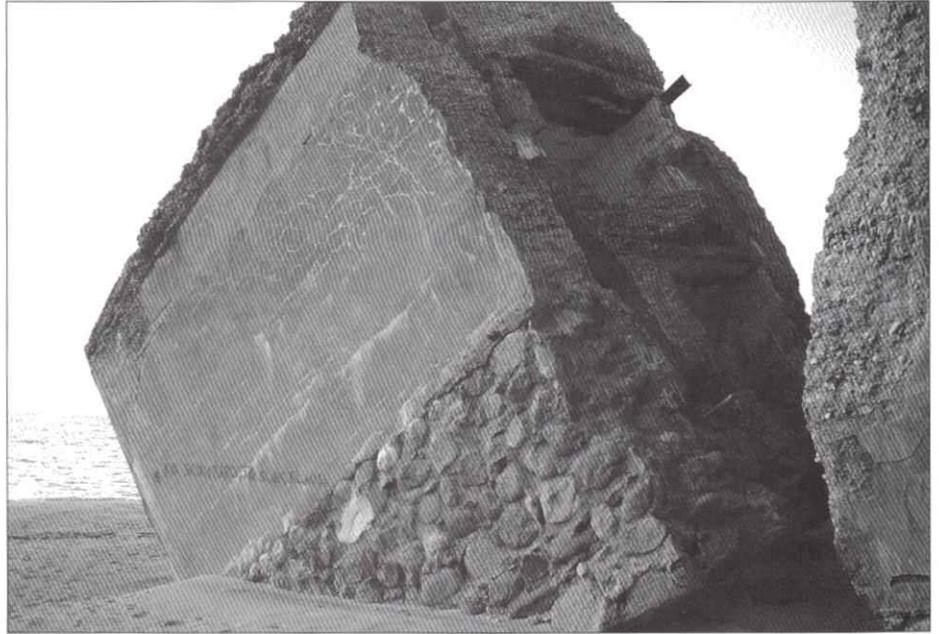


Inside a Zeppelin hangar, now part of Riga's central market

Photo: Barry Hood



Historic powder tower in Riga admired by the AIA
Photo: Barry Hood



Crumbling cold war gun emplacement on the Baltic coast

Photo: Barry Hood

gauge system, and the control. There is a diorama of the events of 23 June 1941 when the German army commandeered a train for troop transport on a single line. The Latvians built a big fire in the heaviest engine they had in steam and despatched it to crash head-on into the troop train, completely wrecking it.

From Jelgava we forayed to Liepaja, Latvia's second city. This was a long drive through very flat countryside, the fields full of millions of dandelions. These were grown by the Russians to make a type of rubber. The port of Liepaja became the base of the Soviet Baltic fleet after WWII and was a closed area where even the residents needed special permits to enter the city. In the 1960s some 26,000 Russians operated here, the last of whom departed in 1994. The area now exhibits massive dereliction and a very low standard of housing blocks in the port area. We saw huge fortifications, in various

states of decay, in places reminiscent of the Todt Atlantic wall. We also looked in on the Karosta military prison (grim).

The port has extensive railway connections but no trains were seen. The swing bridge carrying main road access to the port has been dismantled for repairs for some years; semi-derelict shipyards also feature. On then to see one of the largest Orthodox churches in Latvia, the ornate gilded St Nicholas maritime cathedral which is being restored after use by the Russians as a sports hall. Czar Nicholas II laid the foundation stone in 1900. So to our city centre hotel, which we shared with sambo (judo) teams from other countries.

Our last day commenced with a walkabout in Liepaja city centre, admiring the handsome harbour environs, including interesting wooden houses of considerable antiquity, and a modern

hotel being created by adaptive re-use of brick and stone harbourside warehouses. Peter the Great stayed nearby in a well-preserved wooden hostelry in 1697, planting a tree that still flourishes. We visited the tram depot (in 1899 Liepaja was the only town in the entire Russian empire to have a tram system), looked at the grandiose railway station and were given a guided tour of a small museum of electrical supply.

After lunch we saw the interior of the fabulous Lutheran church, containing the largest organ in Europe and a special royal 'box' next to the highly ornate altar. Our long drive back to Riga was again broken by a diversion to Jelgava, to admire the view by climbing to the top of a disused 28-metre water tower at the old pumping station. Because of the climate it is enclosed by a brick tower. So ended our Baltic odyssey, a part of the EU few people are familiar with.



Diesel locomotive at the Riga railway museum
Photo: Barry Hood



Large steam locomotive at the Riga railway museum

Photo: Barry Hood

A new 'Brindley' find at Castlefield, Manchester

Twenty years of patience and persistence has paid off with the discovery of highly significant new evidence for early industrial activity in Manchester's Castlefield area. A shaft, likely to be associated with James Brindley's innovative waterpower infrastructure for the Bridgewater Canal, has been discovered at, appropriately, Bridgewater Street. Although perhaps at first sight a fairly insignificant feature, this is in fact a key piece of a large jigsaw of evidence for Brindley's works. The shaft's location provides vital new knowledge about the likely extent of his scheme for containerised handling of coal at the canal's Castlefield terminus, from 1764.

Paul J. Sillitoe

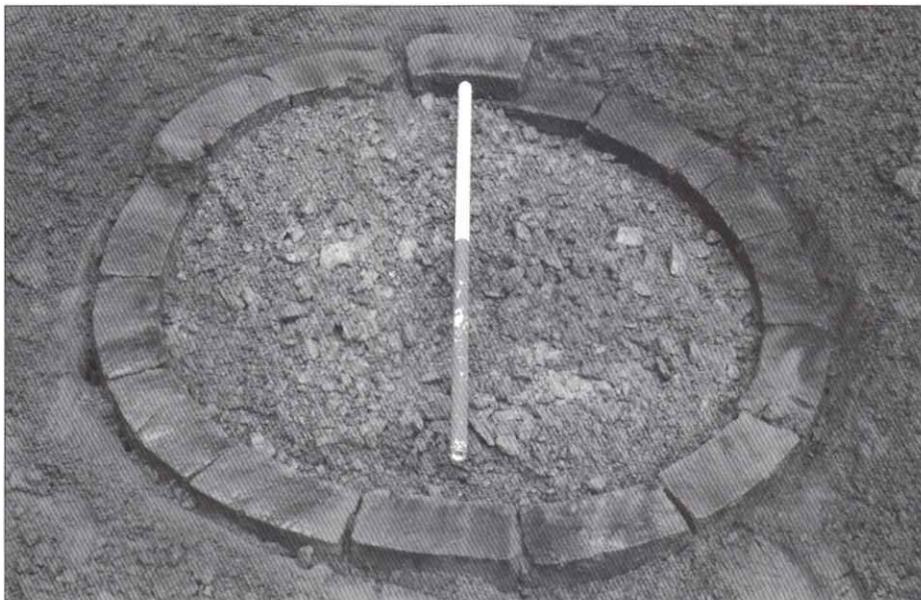
The first phases of the Bridgewater Canal were built to enable that eponymous Duke to bring his Worsley coal for sale in Manchester. Worsley has traditionally been the principal focus for investigation of the Bridgewater Canal's sub-surface engineering and technology. Equally innovative works were, however, undertaken at the opposite end of the original canal, in Manchester's Castlefield Canal Basin. While this has also received some research attention, knowledge is incomplete, and interpretations conflicting.

A casual visit to the area, in 1987, stimulated a 20-year investigation into Castlefield's sub-surface features associated with the Bridgewater Canal. Access at that time was comparatively easy in an area of decay and dereliction, pockmarked by wide-area archaeological excavation, albeit primarily with a Roman focus. Field exploration and excavation of the oldest canal features was complemented by research into a rich variety of documentary accounts, and was reported in an Industrial Archaeology Diploma dissertation, at the Ironbridge Institute.

The Bridgewater Canal's c12km route from Worsley terminated at Castlefield (named for its Roman fort) sitting upon a sandstone cliff, overlooking the River Medlock. The new navigation formed a junction with the river, below the cliff that barred the last mile to the centre of Manchester.

The first indication of work underway at Castlefield is noted in Brindley's barely legible hand, in November 1763. By the middle of the next year, he had devised a system to overcome the problem of lifting coal from the canal boats, up the 6.7m cliff to street level. This would enable coal to be carted the final mile to Manchester, more or less on a level route. Brindley engineered a large tunnel from the canal into the cliff, and excavated an adjacent waterwheel pit. These features lie within and underneath the later so-called 'Grocers' Warehouse', whose 1980s partial reconstruction now occupies the site.

Arthur Young, writing in August 1765, describes an intended 'bucket-wheel, 30 feet circumference, and four feet four inches wide, to draw up the coals brought in boxes fixed in boats,



The exposed and cleaned horizontal section across the shaft, at 3.26m below ground level, set in the uppermost natural layers of sand and sandstone

Photo: Paul J. Sillitoe



The shaft in context, with the approaching concrete slab immediately to its right

Photo: Paul J. Sillitoe

and contain about eight hundred [weight] each.' Two shafts connected this sub-surface waterwheel to ground level. One rose up from the waterwheel chamber, accommodating what Sir Joseph Banks described in 1767 as an 'endless rope' to drive a crane at street level. The coal containers were hoisted up from the boats via an adjacent second shaft. Here, then, is recorded the first effective example of containerised transshipment of cargo – some 200 years before the widespread use of modern maritime container systems.

Young says that the 'subterranean canal is extended further than the crane, with design to erect another on the same principles.' A third shaft is known to have existed a little further into

the tunnel, on the side of what is now called Pioneer Quay. That location has been identified, although nothing can be seen today. Just after Brindley's time, much was excavated away for the Rochdale Canal. Much more recently, the last vestiges have been landscaped into submission, together with the surface remains of the first shaft top. This third shaft might have employed the same waterwheel as was used for the first, although this has not been described by contemporary accounts. A horse gin was perhaps used instead, at this location.

A considerable coal trade was obviously envisaged by the Duke, for, as Young also notes: 'On the side of Castlefield is a large wharf, and a larger one intended to be in the centre of this

field, formerly a Roman camp.' Despite this comment, until now, no physical evidence has been found to suggest that this second, inland wharf was ever established by the Duke. Documentary sources show Brindley's tunnel extending in a northerly direction, adjacent to but not directly into the area of the Roman camp. Plans show it terminating after some 125m, at what is now Bridgewater Street. There, it crosses the line of one of Manchester's earlier sewers, although that system post-dates Brindley's works by some 70 years. What might lie beyond has been the subject of considerable research speculation, solvable only by archaeology.

Yet the full extent and purpose of this principal feature of Brindley's cargo handling system has remained stubbornly hidden. As Castlefield regenerated, exploration opportunities waned. Most troubling, there seemed little that could be done to stop the erosion of the physical evidence for Brindley's scheme, despite representations to the appropriate conservation bodies.

In recent years, development activity has increased still further, with little or no provision made for concurrent investigation of these intriguing sub-surface features. It was therefore a serendipitous visit in May this year, that discovered new developer excavations in Bridgewater Street. They lay directly across the putative line of Brindley's tunnel, if it had been driven further north, beyond Bridgewater Street.

We were advised that formal attempts to archaeologically monitor the development had

already been unsuccessful. An informal watching brief of the developers' excavation was therefore immediately undertaken. On the first day, their machine was seen to uncover a brick-lined shaft, just about on the line of the reputed tunnel. The shaft was exposed in section, a metre or so below ground level, as the machine cut back the excavation face on the north of the site. It was quickly photographed from a distance, while being equally quickly dug away, with the remains buried by spoil.

After several days of patience and tense negotiation, a very limited opportunity was given to go on site to record the feature. The developer excavation had now bottomed at some 3.26m below ground level. A horizontal section of shaft was revealed as an almost perfect circle of curved handmade bricks, with an internal diameter of 1.09m (43 inches). The feature was quickly cleaned, measured and photographed. Samples were taken of its construction components and contexts, as it was to be irretrievably buried, within hours, under a new concrete foundation slab.

The shaft was filled with what looked suspiciously like the same type of limestone chippings as were covering the site at ground level. It is surmised that the shaft void had appeared at an early stage of the current works, and it had been quickly filled. Archival evidence indicates that the tunnel lies some 1.5m below the maximum depth of the development excavation. There was no opportunity to dig out the fill, so a connection between the shaft and tunnel could not be confirmed.

However, the shaft's location, directly over where a straight-line extension of the tunnel would lie, does strongly suggest some sort of association with the tunnel, even if post-dated Brindley's original scheme. Whether it was associated with Young's 240-year-old documentary account of another wharf in somewhat conjectural. The shaft's diameter does perhaps suggest that it was some sort of access way, rather than a coal-container hoisting-shaft. Located some 15m north of Bridgewater Street, and 140m inland from the canal, it is quite likely that it would be serviced by a horse gin, similar to the arrangement suggested for the third shaft, on Pioneer Quay.

This is but one aspect of an innovative cargo-handling system that has posed significant research questions over the last 20 years. While this brief account cannot address all the issues, further analysis and a comprehensive publication is planned. What this find has done, most importantly, is to point very clearly towards the line of Brindley's tunnel at Castlefield, so that it can be protected. This is most important because further large-scale demolition and development is planned along the tunnel's line in the coming year, between this new site and the canal. If properly planned for, there will be a unique opportunity to archaeologically investigate the tunnel, for the first time. That would lead to an even better understanding than has ever been possible, or ever may be, of this almost mythical aspect of James Brindley's innovative works at Castlefield.

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The Martha Mine at Waihi on New Zealand's North Island was the richest gold mine in the country before it closed in 1952. It was re-opened in the 1970s and early 1980s but is worked from a huge opencast pit. Standing alongside remained the 'Cornish Pumphouse', a massive concrete building constructed in about 1904 to house steam-driven pumps for draining the mine. Constructed by Hathorn-Davey, the horizontal pump was the pride of the New Zealand mining industry. It had a stroke of 4 metres and continuously dewatered the mine at a rate of 7,000 litres per minute via the adjacent No. 5 shaft, which was 399 metres deep. The pump ceased work in 1913, when electric power was introduced, although it was kept in working order until 1929 when it was abandoned and later removed.

After gold mining restarted in the 1980s paths and a public viewing platform were built and the mine became a tourist attraction, but in 1999 ground subsidence and an increasingly unstable No. 5 shaft caused access to the pumphouse to be restricted. By early 2005 the pumphouse was tilting badly and it was decided that if it was to be saved it would have to be physically moved to a new location. Nothing is impossible!

The ambitious task involved inserting steel beams for internal support and then cutting off the base of the building with a diamond wire saw so that the 2,000-tonne structure could be moved on precast concrete slider beams placed on a prepared causeway. The pumphouse was first 'stepped out' 26.5 metres to the south before

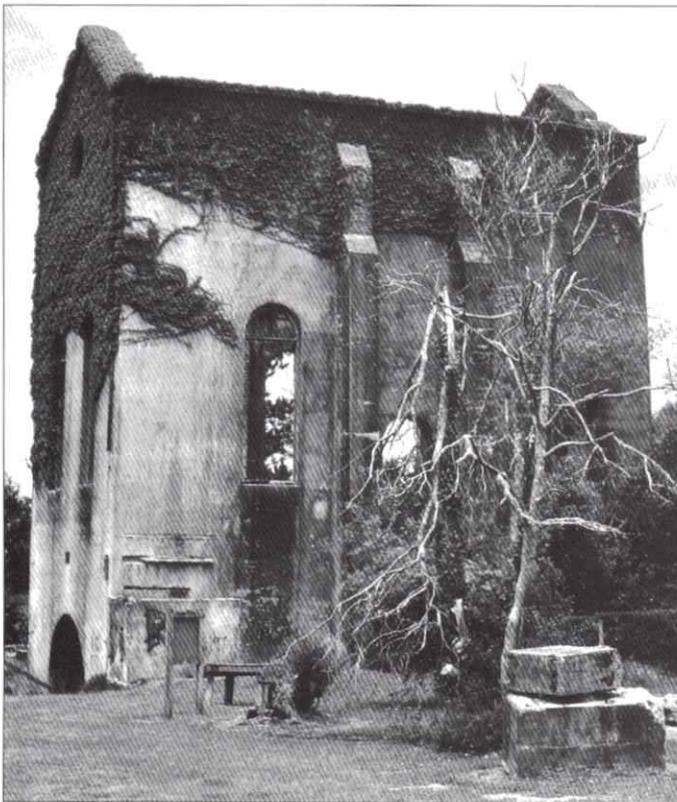


The pumphouse is about a third of the way through its journey in September 2006. This picture shows the first set of slider beams in front of the pumphouse. This process will have to be repeated another ten times

Photo: Courtesy Newmont Waihi Gold

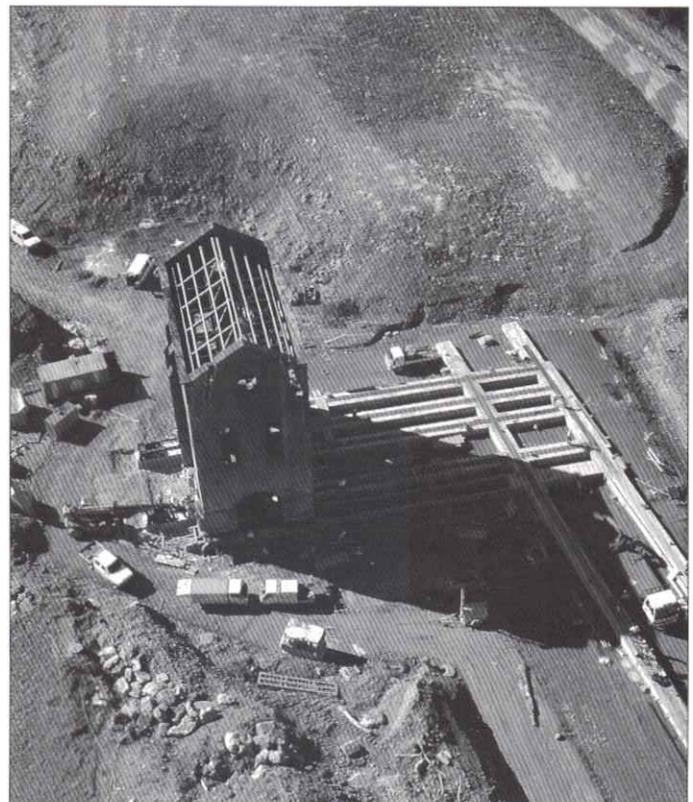
making its journey approximately 270 metres west. The slider beams had to be taken up and placed in front of the slowly moving building several times before it reached its new home in November 2006. The journey had taken around three months. In February 2007 New Zealand's Prime Minister Helen Clark and over 750 other

guests gathered on site to formally welcome the pumphouse to its new home. Mine operators Newmont Waihi Gold are producing a DVD and a book of photographs of this extraordinary project, which will soon be available for purchase. Further details about this and the mine can be found on the website www.marthamine.co.nz/.



The 'Cornish pumphouse' at Martha Mine in 1997

Photo: Peter Stanier



This aerial view clearly shows the 'step out' route and the change point where the tilt and orientation of the pumphouse will be corrected before it is jacked along the causeway

Photo: Courtesy Newmont Waihi Gold

Treasurer's Report for the year ended 31 December 2006

Normally only those attending the AGM have a chance to hear any explanations the Treasurer may have to offer on the final accounts for the year under review. As only about a fifth of the membership attend the AGM weekend I thought it appropriate to give a few explanations to a wider audience. Also it may shorten the time I take at the AGM, which always operates under time constraints. The detail of the accounts is included in the papers circulated with this issue of *IA News*.

Early in 2006 we received a legacy from the late Peter Neaverson of £39,450. The funds, plus the interest earned to date, are shown separately in the accounts and not confused with the normal operating income and expenses. Plans for the use of the legacy are being finalised and will be communicated in due course.

In July 2006 the Institution of Civil Engineers and the Newcomen Society ran a joint conference to celebrate the two hundredth anniversary of the birth of I K Brunel. The conference was an outstanding success and, being a stakeholder, your Association received valuable publicity as a result. Last year's accounts showed a contingency of £5,000 to cover our guarantee to the event, the amount provided for in these accounts is £4,000 pending final settlement.

Despite our contribution to the Brunel celebrations the deficit for the year was only £918 (versus £3,922 for the previous year). The total income for the year shows a drop of £28,086 due to the handling of the Isle of Man conference hotel bookings by the IOM Travel Services Ltd, the monies not routed through us. That the annual conference was able to show an overall surplus was due entirely to the generosity of Manx National Heritage and the Manx Government who absorbed significant costs that would normally have fallen on participants.

Other points to note are:

- A drop in interest due to our not receiving conference monies upfront from delegates.

This was more than made up for by the contribution of the Manx people.

- An increase in the amount of Gift Aid Tax we were able to reclaim.
- A decision was made to double the value of our prize awards hence the increase.
- A small loss on the Ironbridge weekend conference on brewing, probably due to its clash with the visit to Alsace.

Overall, your Association remains in a strong financial position and continues to be so in 2007.

Bruce Hedge, Hon Treasurer

Strategic Issues in the Industrial Heritage

This was the title of a Seminar held at STEAM in Swindon on 8 June. The Seminar was the result of an initiative by Mike Bone, AIA Acting Chairman, Tony Crosby of the Heritage Lottery Fund and an AIA Council member, and Keith Falconer of English Heritage. The 64 attendees came from AIA, English Heritage, Heritage Lottery Fund, The National Trust, Local Governments, Museums, Universities and others. They were all significant contributors to Industrial Heritage activity across the UK.

It was triggered by two very different things. One was the fact that the amount of money available for distribution through the Heritage Lottery Fund will be much reduced in the future, from £300 million to £180 million a year. If Industrial Heritage is to maintain its share, let alone absolute amount, it will need to put forward strong cases which fit into a clear strategy. The other thing was the possible consequences of the recent White Paper on heritage protection which will be debated in parliament, no doubt modified, and come into effect in two years time. Again, cases which are argued from within the framework of an overall strategy will be more successful.

The Seminar started with Mike Bone introducing the aim for the day, which was 'to explore the strategic priorities for the effective

stewardship of the industrial heritage.' The Seminar was to be the first stage in the process. There were then six short presentations to tell the Seminar about English Heritage's approach, the kinds of projects which have been awarded grants HLF, where Local Authority Planning fitted in, the likely changes which will result from the White Paper and The National Trust position of Industrial Heritage. These were followed by a brief question and answer period in which the dominant theme was whether there will be the staff capacity and resources to implement the proposals.

After the lunch break the attendees went into six small discussion groups which had been prearranged with the Chair and Reporter nominated. The subjects were:-

- Identification of industrial sites and structures and recording them on Historic Environment Records and other datasets.
- Research, Recording, Archiving and Dissemination.
- Preservation – Establishing significance and prioritisation.
- At Risk – Landscapes, Sites and Structures.
- At Risk – Industrial Skills and Processes.
- Funding and Promoting Preserved Sites.

The groups had over an hour to reach 'five key priorities that need to be addressed to resolve this situation'. The group reporters prepared notes and presented the conclusions. All attendees were invited to make follow-up comments, by 22 June.

The Seminar was brought to a close by Sir Neil Cossons who reminded us that most of the sites we look upon as our Industrial Heritage had been 'brought to light' by the end of the 1970s. He paid tribute to all the volunteers who had carried out the majority of the work of recording and restoration. It was their enthusiasms which had brought us to the present situation. He felt its preservation is the first priority.

The organisers, Mike, Keith and Tony, will prepare a report from the Seminar and describe follow-up actions. It will become the subject of another *IA News* article, and probably not be the last on the subject. Reactions will be welcome.

Richard Hartree

AIA Awards

The AIA offers the following awards:

Essay Award: two prizes of £200 each

Publications Awards: three prizes of £200 each

Fieldwork and Recording Award: Main Award of £500, Initiative Award of £300 and Student Award of £200

Dorothea Award for Conservation: one award of £500

The awards information leaflet can be obtained from James Gardiner, AIA Liaison Officer, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH.
Telephone: 0116 252 5337. Fax: 0116 252 5005. Email: aia@le.ac.uk

AIA electronic mailing list

As some of you may be aware, the AIA is in the process of updating its electronic, web based presence. Part of this long term plan is to incorporate the creation of a free electronic mailing list for members. This will provide a means for the Association to keep you as up to date as possible with news outside the publications of *IA News* and *IA Review*, as well as providing a platform for items of related interest to members that may not be suitable for inclusion in the publications. If you would like to be included on the list, please send a blank email with 'subscribe' in the subject line to: aia@le.ac.uk

The IA debate spreads to IA Review

It was with a combination of surprise and interest that I read the article on pp53-74 of *IA Review*, Vol. XXIX: 1 – 'Historic Building Record and the Halifax Market Doors.'

Firstly I was surprised to find that it opened with a lengthy contribution to the debate about Industrial Archaeology which has been going on the Letters section of *IA News* for the last six issues. The author vehemently condemns concerns about the social, economic and historical contexts of buildings and items of industrial interest as having no place in Industrial Archaeology. He makes the claim that 'the central characteristic of Industrial Archaeology is the generation of original knowledge by the exploitation of a resource that is not primary to other disciplines.' For him that resource is the skill to make an accurate and complete drawing record of the building, machine or artefact with the skill being held by someone who understands the technological context of purpose, materials, design and manufacture within which it was created. I would like to add the business context because cost and price affect design, materials and manufacture. The doors provide an example; they were a bit of a 'cheap job'.

After this strong condemnation of context I was then surprised to find the next section of the article was a summary of the socio-economic history of covered markets and that this was followed by a history of the Halifax covered market and the decisions which led to the specification and installation of the doors, including three full page reprints of street maps. These sections read as archive based socio-economic and local history to me. My project management past gave me an interest in the story of the tensions which arose between the owner of the project, the Borough, and the perceived users, the stall holders over the specification of the project. I noticed that actual users, the shoppers who were to pass through the doors encumbered by their shopping and perambulators, were not mentioned. Was this an oversight in the reporting or a reflection on municipal attitudes or the social context?

The remainder of the article, with its associated illustrations, describes the excellent recording of the doors, based on one sample of the set of eight. I could not decide to what extent the recording was set in the context of the history of the swing door and its hinges, which is a subject of potential interest to all of us who have all done battle with such doors when passing through them, or in the context of Halifax Covered Market. Maybe the former could be a fruitful field of engineering history, or maybe not.

I find it difficult to accept the information presented in the recording drawings as 'original knowledge'. There would have been manufacturing drawings for the doors. The hinge patent drawings provide substantially the same information as the recording drawings. Recording is the putting of facts, which already exist in the

form of objects, onto paper for the archives. Where is the originality?

From this case I am concerned that detailed recording may be in danger of being driven more by PPG requirements than by a desire to understand technological history, which is seen by the author as a 'proper focus of Industrial Archaeology'. I agree it is, let's do it – in its full context.

Richard Hartree

Okham's Razor principle and industrial archaeology

I was interested to read James Douet's observations (*IA News 140*, p 17) regarding 'The three-generation paradigm', and most intrigued by his mirror-based generational self-assessment test. To further validate James' mirror methodology, members of IA's second and third generations – especially those 'real archaeologists', members of the Theoretical Archaeology Group (TAG), and delegates of Contemporary Archaeology and Historical Theory (CHAT) conferences (*IA News 138*, p8) – might stand before a mirror, say 'Ockham's Razor', and observe the effect? Ockham's Razor is a long-established principle of philosophical debate. According to Sharon Kaye, assistant professor of philosophy, John Carroll University, Cleveland, Ohio, the Ockham's Razor principle: '*...states that if you have to choose from some number of competing theories, choose the simplest theory because it is most likely to be true.*' Should a favoured theory be especially complicated the implications are severe! '*Complication is not something to take pride in because it necessarily increases the risk of error. Each and every belief is a liability insofar as it carries the possibility that it may not be true. The more assumptions you adopt, therefore, the more likely it is you have unknowingly committed yourself to a falsehood. Falsehood is the great enemy of intelligence [and valid industrial archaeological interpretation?].*'

Is it conceivable that industrial and, for that matter, field archaeologists are being bullied into accepting and adopting 'popular' theories and methodologies that are philosophically unsafe? Should this be the case, might there be serious implications for the proper investigation, interpretation and well being of the industrial heritage?

Subject-specialist industrial archaeologists who have experienced verbal and/or literary 'kickings' by especially evangelical theoreticians associated with IA's second and third generations, may take solace from the following hypothesis: when tested against the Ockham's Razor principle, many of the theories developed, promoted and imported into IA by such archaeological theoreticians may be found to incorporate fatal philosophical flaws. Such theories, especially those based upon complex, speculative, un-testable social assumptions, are probably compromised by falsehoods (see above). Be this the case, a programme of rigorous, informed interrogation of all suspect IA

research and reportage should be initiated. By engaging in such robust revisionary activities, we may restore our discipline to full academic health, improve standards in research and reporting, demonstrate the value of the IA specialist, and, hopefully, silence some of our more vociferous critics!?

As an IA graduate of that institution, I note with deep regret that Ironbridge is conspicuous by its absence from James' list of 'centres of [IA] opinion'? It is to be hoped that, given his stated commitment to the pursuit of academic excellence at Ironbridge, Steven Miller (new Chief Executive, IGMT) will take steps to encourage creative, free-thinking academic industrial archaeologists to return to East Shropshire; to restore Ironbridge's reputation as an inclusive, forward-thinking national and international centre of IA excellence; and to regain its mantle as IA disciplinary leader through engagement in groundbreaking field-investigations, and by encouraging innovative, unorthodox thinking.

Paul H. Vigor

phvigor@oxeymarsh.wanadoo.co.uk

Reuse of industrial buildings

I am a student currently writing a dissertation on the reuse of industrial buildings and I have been trying to find some statistics on the decline of industrial buildings. Are any readers able to help? I would be interested in finding out how many industrial buildings have been demolished in the last few years and how many buildings have been reused as non industrial. If anyone has any information or could point me in the right direction I would be most grateful.

Charlotte Lewis

charlottelewi21@hotmail.com

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Pontcysyllte Aqueduct and its Canal

2007 marks the 250th anniversary of the birth of Thomas Telford. It is therefore appropriate that a World Heritage Nomination Bid from Wales (supported by partners in England) is being put forward for what is described as 'the heavily engineered section of the Llangollen Canal', including the two major aqueducts at Chirk and Froncysyllte as well as the massive embankment which takes the canal to the level of the latter. This stretch of canal took ten years to build and was opened between 1802 and 1805, its stated purpose being to link with the Ellesmere Canal network to transport lime to improve the agricultural land of Shropshire, although it also carried coal, iron, slate and non-ferrous metals across the border into England with return cargoes of manufactured goods.

Chirk Aqueduct, opened in 1802, carries the Llangollen Canal (formerly the Ellesmere canal) across the 700m wide Ceiriog Valley to the south-west of Chirk. Its design was influenced by the wishes of Richard Myddleton, the owner of Chirk Castle, on the grounds that his view down the valley would be ruined (one has to remember that the Chirk railway viaduct was not there at the time!). Although Telford did intend to use a cast-iron trough here, he eventually used cast-iron plates embedded in a conventional stone trough. Opened three years later in 1805, Pontcysyllte Aqueduct stretches 1007ft across the River Dee to the south of the Trefor Basin. Here, Telford and Jessop did use cast iron without the added stone trough, as can be seen today. The aqueduct consists of 18 stone piers, reaching a height of 126ft, on which is carried a cast iron trough 11ft 10ins wide, and remains the tallest cast-iron aqueduct in the world. The towpath is cantilevered on the eastern side of the trough and walking across it requires steady nerves, while on the western side canal boats have only a couple of inches of cast iron between them and the drop to the River Dee.

The canal is rightly regarded as a masterpiece of human creative genius in the response of two engineers, William Jessop and Thomas Telford, to the technical problems of taking a canal through very difficult territory involving two

river crossings, that of the Ceiriog and the Dee. Their engineering solutions brought together for the first time a number of approaches being developed elsewhere, such as the use of cast iron for the London-on-Tern aqueduct. Additionally, the Nomination Bid argues that Jessop and Telford appreciated the attractive landscape qualities of the Vale of Llangollen and adjusted the design of the engineering structures to be consistent with the late eighteenth century passion for the Picturesque, a fashion made popular by the Rev. William Gilpin as well as the painter Joseph M.W. Turner.

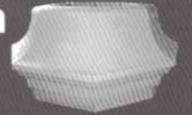
A conference organised by the United Kingdom Committee of TICCIH (which actually came into being during the conference) was held in Wrexham on 2-4 June to launch the Bid and was superbly hosted by Wrexham County Borough Council. Papers were given by members of the consultant team for the Bid, which includes people well known to AIA members such as Ron Fitzgerald, David Gwyn and Barrie Trinder, together with Christopher Pound, an international heritage consultant from Bath.

David Gwyn was able to talk about two of his favourite topics, the cultural context of the canal in terms of the Picturesque and also its railways; he and Stephen Hughes disappeared late one evening to investigate the traces of one of these in the gathering gloom! Both David and Chris Pound discussed the likely influences on Telford of his circle of friends which included Robbie Burns and Robert Southey, while Jessop himself described the Pontcysyllte Aqueduct as a romantic feature in the landscape. Barrie Trinder set the canal in the context of the engineering works which had already resulted from the Holyhead Road across North Wales.

Ron Fitzgerald's paper comparing the aqueducts at Longden-on-Tern and Pontcysyllte was an example of his meticulous research into the engineering drawings of Jessop and Telford and the structures themselves, concluding that they had first planned to build two flights of locks to link to a lower aqueduct over the River Dee but had abandoned this idea because of the difficult pumping technology needed to take water back up to the top of the flights of locks to obviate the loss of water. He suggested that they had

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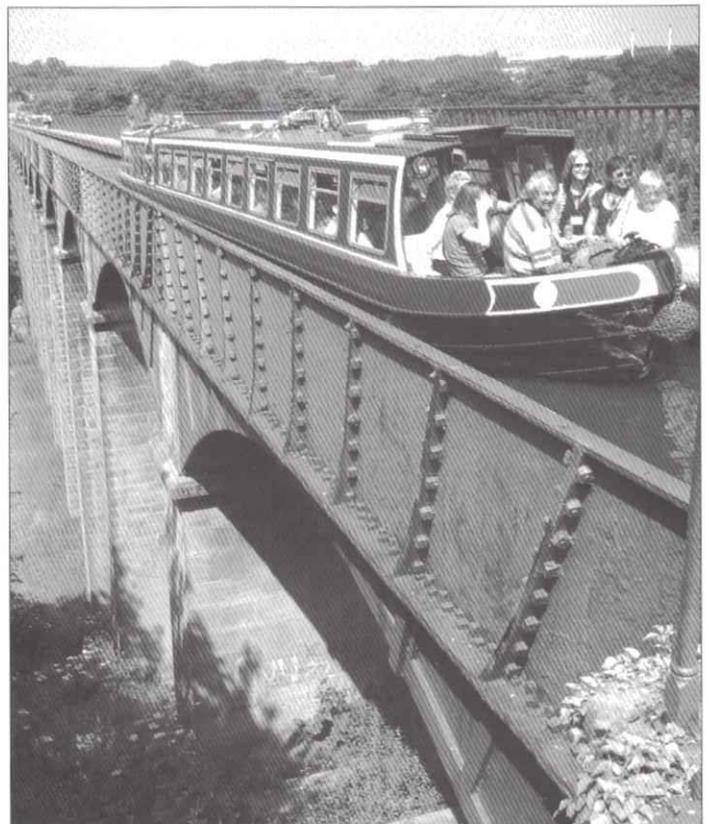
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Conference delegates crossing the Pontcysyllte Aqueduct

Photo: Miles Oglethorpe

actually started to build the piers for this lower aqueduct and so were forced to use the solution of hollow piers to reduce the loads on these previously constructed foundations. He also argued that the construction of the Longden Aqueduct had resulted in some distortion of the cast iron plates, something that was avoided at Pontcysyllte by the use of a segmental cast iron arch to support the tank.

Sessions were chaired by Dr Peter Wakelin, Secretary of RCAHMW; Eusebi Casanelles, President of TICCIH; Stuart Smith, Secretary of TICCIH; and Sir Neil Cossons, who is the Honorary President of TICCIH in addition to his many other roles. Since Professor John Hume also gave a well-illustrated paper on the Telford/Jessop influence on the building of the Union Canal Aqueducts and the Caledonian Canal in Scotland, all three of AIA's Vice-Presidents were involved in the Conference. The Conference also included the signing of the Concordat between the various Welsh and English partners to the Bid, for which the public consultation begins very shortly. Delegates were also able to explore the canal either by boat or on foot all the way from the Horseshoe Falls in Llangollen to the Chirk Aqueduct and were entertained to a BBQ adjacent to the Pontcysyllte Aqueduct. Perhaps we also all learnt to say 'Pontcysyllte' correctly!

The Nomination Bid argues that all of the features that were to become characteristic of heavily engineered routes can be seen in this stretch of the Llangollen Canal, including tunnels, cuttings, bridges, aqueducts and embankments, many of them technically innovative or of monumental scale, which were used later on other stretches of canal in the UK. The aqueducts were also pioneers in cast iron construction, heavily influenced by the work of William Reynolds of Coalbrookdale, while the contract for the trough at Pontcysyllte was given to William Hazeldine who owned the nearby Plas Kynaston foundry.

Marilyn Palmer

South Wales & West of England 38th I A Conference

This year's conference was held on Saturday 19 May at Wellington in

Somerset. After the formal opening of the Conference by a local councillor, Andrew Govier, the first illustrated talk was by John Willows about the history of water supply in Wessex. After outlining the historic reasons for requiring a clean water supply, mainly to eliminate disease, and a review of the early personalities involved, he looked at the various buildings connected with the water supply industry in Dorset, Somerset and Wiltshire including those buildings connected with the Sutton Poyntz Waterworks where the Wessex Water Museum is situated. John's talk emphasised how much we owe to the Victorian and Edwardian water engineers whose buildings and structures are still used in many cases by the modern water industry. He also told us the story of the adapting of the funnel of the *Great Eastern* to become a filter at Sutton Poyntz until 2005 when it was removed and placed on exhibition at the *SS Great Britain* in Bristol.

Mary Miles followed with a talk about breweries in Somerset, and her book *Perfectly Pure: A Directory of Somerset Brewers* based on her research was on sale at the Conference. Mary had prepared distribution maps based on nineteenth-century sales records to illustrate the influence of several breweries in their area. She had found that their influence in many cases ranged further than might have been expected given the difficulties of transport of the day until the coming of railways. The large number of breweries, and brewers, was well described and it was interesting to see how the merger of many small local breweries had resulted in the larger breweries well known during the twentieth century. After a dramatic decline we are now finding today that the number of breweries is increasing with the advent of microbreweries and the increasing demand for real ale.

After a short break Henry Gunston talked about 'Clyses, sluices and weirs – aspects of river engineering'. With the help of diagrams and slides Henry defined the types of engineering mentioned in the title of his talk. A clyse uses self-opening gates hinged to ensure that the flow can be one way only – for example, from a river to the tidal part of that river. A sluice is a sliding gate for controlling the volume or

flow of water, and a weir is a dam across a river to raise the level of water upstream or to regulate the flow. Henry showed us examples of each type of structure including Highbridge Clyse, Denver Sluice and weirs in the Thames.

Lunch was then taken following which Alan Strickland described 'Gloucestershire Twentieth-Century wartime structures' although he did make a few excursions outside that county. With slides he showed us the diversity of military remains but warned that many are disappearing quickly, although there is a greater realisation amongst the planning authorities of the historic importance of these structures. We saw not only pill-boxes but also many buildings such as bomb shelters, a parachute drying room, and a balloon hanger from Pawlett in Somerset.

Tony Jukes talk was on 'Coal shipping facilities in South Wales', and his slides showed us the changes that had taken place during the last 200 years in the ports of South Wales including Newport, Cardiff and Swansea. His slides of the busy activity in the nineteenth and early twentieth century were especially interesting when compared with the situation now where there is no industrial activity and the once extensive docks are now either built over or used as marinas etc. It also gave food for thought that only one deep-mine pit from the many in South Wales now remains at Tower Colliery near Dowlais. How things have changed even in recent years!

Two representatives of the Kelly Mine Preservation Society gave the final talk. This haematite (an oxide of iron) mine is situated on the A382 between Bovey Tracey and Moretonhampstead, Devon, and was taken over by the Society in 1984 following closure of the mine in 1951. Luckily, a legal dispute left the site untouched for many years, resulting in a unique collection of mining machinery still remaining on its original site. The mine has been refurbished by the Society, and the processing plant restored to working order. The mill contains a Blackstone oil engine and a water turbine, and either can be used to power a set of stamps, a compressor, and a haulage winch. A stone building contains a working waterwheel, the drying furnace and a blacksmith's shop. Also on the site

are a miners' dry, tramways, settling tanks and a jigger. The site is open on most Wednesdays and Sundays, and all visitors are welcome.

Following the closing of the Conference there was a choice of visits to Westford Pumping Station, the lift and aqueducts at Nynehead on the Grand Western Canal, or a walk around Wellington ending at the local museum. This was an excellent Conference, and well organised by the Somerset Industrial Archaeological Society.

John Brown

Aerofilms images bought for the nation

A fragile and important collection of 800,000 aerial photographs of Britain has been acquired by English Heritage, the Royal Commission on the Ancient and Historical Monuments of Scotland and the Royal Commission on the Ancient and Historical Monuments of Wales. The purchase of the Aerofilms Historic Collection from Blom Aerofilms has been made possible by financial support from English Heritage's donors and supporters, the National Heritage Memorial Fund, and the Friends of National Libraries.

The Aerofilms Historic Collection is the best and most significant collection of oblique aerial photography of the UK remaining in private hands. Its chronological and geographical coverage is superb and documents the face of Britain dating from 1919 to recent years, providing unique evidence of a period of intense and unparalleled change. It covers the countryside, industrial and urban landscapes, archaeological sites and historic buildings and charts the growth of new towns and the spread of motorways across the landscape. Almost every community is represented, many with a series of views taken over the decades. Mike Evans, Head of Archives at the National Monuments Record, said: 'The collection will be of immense value to a wide range of people including researchers, teachers, local and family history historians, geographers, archaeologists, architects, planners, landscape historians and all those interested in how the face of Britain has changed over the last century.'

The fragile prints, negatives and documentation will be transferred to the specialist archival storage

provided by English Heritage and its partners. This will ensure not only that the collection can be used and enjoyed by the public, but also that it is preserved for future generations of researchers.

Aerofilms was formed by F. L. Wills and Claude Grahame White in 1919 and was the world's first commercial aerial photographic business. Wills had flown during the First World War with the Royal Naval Air Service, and was the driving force behind the expansion of the company from an office and a bathroom (for developing films) in Hendon to a business with major contracts in Africa and Asia as well as in the UK. In 1942 the company became part of the Hunting Group, and subsequently passed in 1997 to Simmons Aerofilms, who developed the use of modern technology within the company. In 2005 Simmons Aerofilms in turn became a subsidiary of the current owners, Blom ASA. The archive was expanded by the purchase of the holdings of two smaller collections of aerial photography: Aero Pictorial in the early 1960s and Airviews in 1979.

English Heritage NMR

Brian Lamb: obituary

Brian died at Grimsby, Lincolnshire, on the 8 February 2007, aged 76 years. He was born in the Barton upon Irwell district of Lancashire in 1931 and for a large part of his life he lived in Stretford.

Although the Peak Forest Canal and Tramway formed the core of his interest in industrial archaeology, his depth of knowledge of the industrial archaeology of the Manchester area was immense. He was the first to write a description of Bugsworth Basin and his paper significantly enhanced the outstanding work then being done by Bessie Bunker, the Secretary of the Inland Waterways Protection Society, in saving it from destruction. By the 1960s the basin was totally derelict and overgrown. He drew a detailed diagram showing all the features as well as the layout of the tramway. He entitled it 'The Bugsworth Complex' and today this term is still in use.

Many researchers refer to Brian's work, especially on the Peak Forest Canal and Tramway, and there are many acknowledgements to him in publications, including *The Canals of North West England*

written by Charles Hadfield and Gordon Biddle. Moreover, British Waterways and Local Authorities regularly consult his work. Unquestionably, Brian was a widely respected authority on this canal and tramway.

Brian amassed a substantial collection of archive photographs, notably of the Ashton Canal and the Peak Forest Canal and Tramway. Included among his many sources were the late Phillip Murray, a personal friend from Chinley, and the late Bertram Baxter, a respected authority on tramways. He also photographically recorded many industrial scenes around the Manchester area. The number of photographs he took was several tens of thousands. Today, most of the scenes he recorded have disappeared, making his personal collection a unique record of Manchester's rich industrial heritage.

Brian was a member of the AIA and in 2000 he received the Fieldwork Initiative Award at the Manchester Conference for his outstanding work on the Bugsworth Basin. He has deposited a number of survey Sheets with the Index Records for Industrial Sites (IRIS), the recording initiative co-ordinated by the AIA to encourage local archaeological societies and individuals to contribute. Brian deposited papers with the Manchester Regional Archaeology Society, and it is earnestly hoped that the rest of his vital record collection can be kept together and deposited in a secure place. One of Brian's last works was to prepare a book about the history of the Peak Forest Canal and it is hoped that this can be published soon.

Peter Whitehead

Sir Neil steps down

Sir Neil Cossons completed his final term as Chair of English Heritage at the end of July, with Sandy Bruce-Lockhart taking take up the position on 1 August 2007. Announcing the appointment of Lord Bruce-Lockhart recently, Culture Secretary Tessa Jowell paid tribute to Sir Neil Cossons for the work he has led during his term as English Heritage Chair: setting the policy framework through 'Power of Place' and bringing about the transformation of English Heritage through the modernisation programme. He remains an Honorary Vice-President of the AIA!

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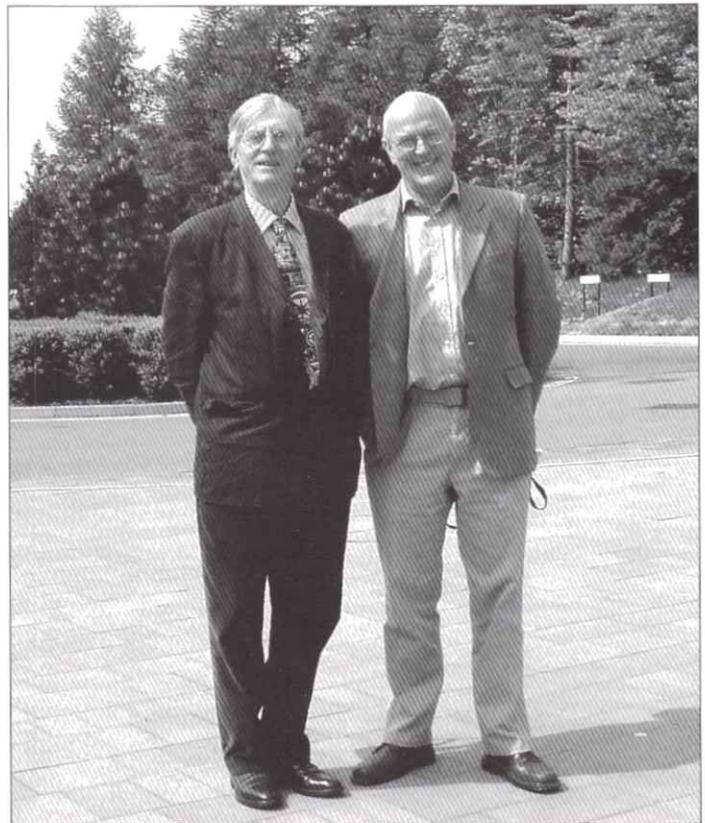
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Angus and Neil: Our President, Professor Angus Buchanan, welcoming Sir Neil Cossons, the retiring Chairman of English Heritage, at the University of Bath on 28 April. Sir Neil addressed a lively meeting to celebrate the 40th anniversary of the foundation of the Bristol Industrial Archaeological Society
Photo: Brenda Buchanan

Evacuee camps

Following my appeal for information on evacuee camps in *IA News 141*, page 14, I had an email from an archaeologist who works in the Dales who has passed my huts many times and didn't know what they were!! I also had a letter from a Richard Taylor from Chelmsford who went to Kennylands School Camp near Reading. When I put this name into my computer four other camps came up. I now think I know of 19 of the 34. I am going to Ogston Sailing Club where their HQ is the last remaining hut on site. I hope to meet 20 old boys of Derby Grammar School who were evacuated there in the war and they have an annual reunion so I should like some personal stories.

Clifford Morris

Forth Bridge beaten by Antonine Wall

The Forth Bridge in Scotland was a pioneer in steel construction and one of the most renowned civil engineering feats of all time. It was on the 1998 DCMS Tentative List for the United Kingdom, but has been superseded this year by the nomination of the Antonine Wall as a world heritage site. UNESCO has accepted the bid and a final decision will be made next July. This Roman frontier north of Hadrian's Wall is being put forward by the UK as part of a joint bid with Austria, Germany and Slovakia for other sections of Roman frontiers. While acknowledging the importance of a trans-national bid, let us not lose sight of the international importance of the Forth Bridge and campaign for its position on the

next Tentative List for the UK which will soon be on the political agenda.

Early American Industries Association

For almost 75 years the EAIA has had the mission of collecting, preserving and publishing information on early American tools and industries, whether in the home, the shop, on the farm or on the sea. It has also provided opportunities for like-minded people to get together to share their interests in this broad field. The Association believes this a worthwhile mission for the long-term preservation of knowledge of an important aspect of American material culture, and also there are a great many people who share these interests and yet have never heard of the EAIA. This year the Association is trying to encourage new membership. Through its quarterly journal *The Chronicle*, a bi-monthly newsletter and other publications and programs, the EAIA provides information to those who collect, use, display or sell early tools, and to those who research or teach about early tool makers, trades and industries. For detail about membership please write to the Early American Industries Association, 167 Bakerville Road, South Dartmouth, MA 02748, USA.

TICCIH UK

June's Wrexham conference on the Pontcysyllte Aqueduct and its Canal (reported elsewhere in this issue) ended with the first meeting of TICCIH UK which set up the role and structure of the new committee. It was organised, as was a lot of

publicity for the Conference, by Dr Miles Oglethorpe, currently the UK TICCIH representative and a TICCIH Board member. The new committee is to consist of all paid-up members of TICCIH, although TICCIH continues to support the AIA as the national body representing industrial archaeology in the UK: AIA currently pays the national TICCIH subscription. It is hoped that there will be a regular contribution in *IA News* about TICCIH activities, which will then become better known by AIA members. To join TICCIH as an individual member, you need to consult the TICCIH website which is hosted by the Museu de la Ciència i de la Tècnica de Catalunya: URL is www.mnactec.com/TICCIH/. The current annual subscription is £20 and to join you send a sterling cheque to Stuart B. Smith, Chygarth, 5 Beacon Terrace, Camborne, Cornwall, TR14 7BW.

Identifying a water pipe

Calling all pipe specialists! The cast-iron pipe of 20 inch (nominal) internal diameter shown below was the suction main feeding the water pumping station at Sutton Poyntz near Weymouth in Dorset. It was laid in the bank of a former mill leat and fed the 1856 the 1857 turbine-driven ram pumps built at the station by the Weymouth Water Co. It was removed recently after a crack in the main was causing leakage. When was it originally laid? If it is the original pipe, then it was laid by the contractor John Towlerton Leather in 1856 when Thomas Hawksley's scheme was constructed. However, plans of a later scheme around 1896, show that the main was to be relaid but

this has never been established.

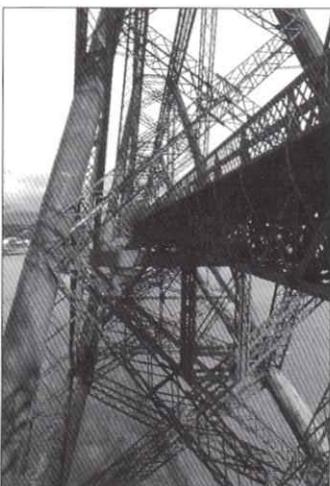
I am still looking at various sources but it would be useful if someone somewhere could throw light on the casting marks. Shown here is the cast mark 'RB', and closer inspection has also revealed on the other sockets of the adjoining pipe 'C & C' and what look like 'WW'.

*John Willows, Curator
Water Supply Museum
Sutton Poyntz Pumping Station
Weymouth DT3 6LT*

Otto Mönsted and Van Den Burgh – London margarine

Otto Mönsted from Denmark established a margarine factory in Southall 1893-5. Situated in Margarine Road, later Bridge Road, it was very large for its time, the largest in Europe, and was served by new railway sidings and a canal branch. The business became the Maypole Company in the 1920s with a chain of Maypole Dairy shops. It also became part of the Unilever Group and from 1961 part of the factory at Southall was used by Thomas Wall for storage. Thomas Wall's had become part of Unilever in 1922 – sausages and ice cream. Sunrise Radio occupies/occupied another part of the factory. At Purfleet by the river a plant was established in 1921 by Van den Burgh's, now also a member of the Unilever Group. Here Burgh's operate the world's largest margarine factory where Flora and Bertolli are among the products; another example of Greater London's diverse food processing industry.

Robert Carr



*Aloft on the Forth Bridge
Photo: Crown Copyright: RCAHMS*



Scotland

As always, this has been a very busy year north of the Border, with no let-up in the pressure on industrial heritage. Whilst there has been some good news, such as the re-erection of Gourlay's Dundee Foundry, much of the change has been destructive. Most of what survives in the Tradeston area of Glasgow is to be erased to make way for a major waterfront development, and a number of important industrial monuments not far away, such as Falfield Mill, are likely to be demolished to make way for the extension of the M74 motorway. To the north of the city centre, Springburn College are moving out of the splendid offices of the former North British Locomotive Works, and on the southside, Weirs of Cathcart plan to move out from their historic factory. In most of these cases, RCAHMS is already involved in recording programmes, and the Business Archives Council of Scotland is tackling the issue of historic archives and business records.

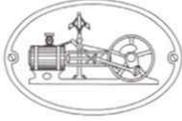
Scotland's explosives industries are also now reaching the end of the line, with further closures at Nobel's Ardeer factory complex, and plans for the decontamination and re-development of the former Royal Ordnance explosives factory at Bishopton in Renfrewshire are well advanced. The extent to which this enormous site is to be recorded before its destruction has yet to be resolved.

Following the demolition of John Brown's shipyard at Clydebank last year, the only significant part of

the site to be preserved as a landmark was the Sir William Arrol giant-cantilever crane. Built in 1907, this is the earliest of its type, and is celebrating its centenary this year. Further upstream on Clydeside, the news is less good. BAe Govan, formerly the Fairfield Shipyard, also has an Arrol giant cantilever crane, but despite the structure's 'A'-listed status, the company has received planning consent for its demolition in anticipation of winning a contract to build a section of the Royal Navy's proposed new aircraft carrier. Its destruction is anticipated in the next few weeks, and should encourage more care to be taken of the other two surviving examples on the Clyde at Whiteinch (the North British Diesel Engine Works) and Greenock. Immediately adjacent to the crane is the spectacular raw sugar warehouse at James Watt Dock, the central portion of which was badly damaged in a fire during the summer of 2006.

Further east, on the western fringes of Edinburgh, one of Scotland's more historic distilleries suddenly met a grisly end when demolition crews moved in without warning. Kirkliston Distillery had been an important player in the evolution of the Distillers Company Ltd (DCL), but after a fire in the early twentieth century damaged the still house, had converted to the manufacture of malt, maintaining a substantial salad-box maltings until recently. This and other parts of the site were photographically recorded by RCAHMS in 2003.

In recent decades, the site had specialised in the manufacture of



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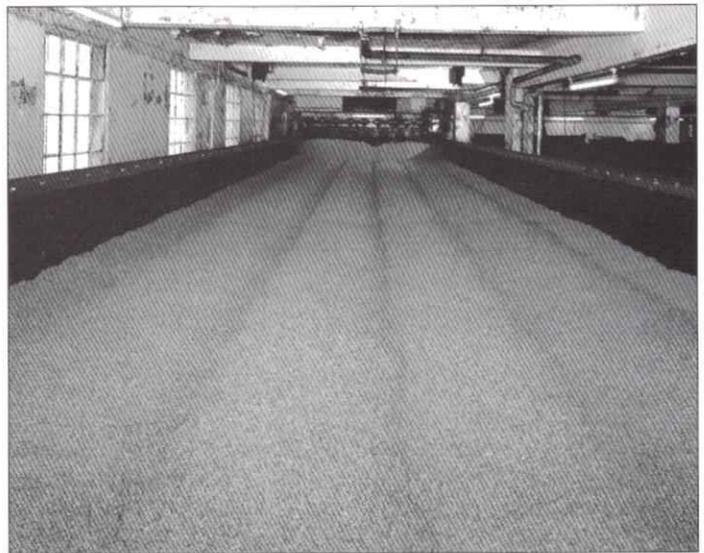
malt extract, and in particular, home-brew kits which, with the assistance of ambiguous packaging, were especially popular in the Middle East. Fortunately, the archaeology unit AOC Scotland was on hand to intervene when demolition commenced, and was able to record many of the buildings using a recently acquired laser scanner, the results of which are

very impressive, showing that this technology can be applied to other complex industrial sites. AOC Scotland were also able to rescue a large quantity of archive and are currently in the process of examining this material to assess its historical value.

Perhaps the greatest pressures on the industrial heritage are being felt around waterfront areas, as has



Aerial view of the raw sugar warehouse at Greenock's James Watt Dock shortly after the fire in the summer of 2006
Photo: Crown Copyright: RCAHMS 06120062



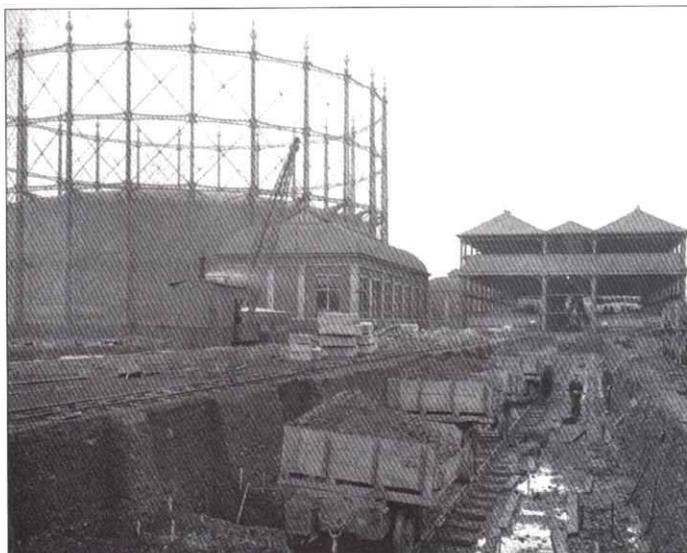
Inside the Kirkliston Distillery salad box maltings, 2001
Photo: Crown Copyright: RCAHMS SC 656462

already been mentioned in Glasgow. In Edinburgh, the relentless development of Leith Docks continues, as does the transformation of other areas of waterfront along the city's north shore. In this context, it was disappointing to hear that the last of the three gas holders at Granton Gas Works may have to be demolished, although no final decision has yet been made.

Moving south towards the centre of the city, major developments are occurring around the Lochrin Basin on the Union Canal. The plans will as usual involve the building of apartments and a car park. Ultimately, if executed well, these developments and the loss last year of the adjacent Fountain Brewery, which was not the most attractive of complexes, should assist with the rehabilitation of the canal, but it is sad to see the industrial roots of the city disappear so thoroughly.

Whilst in a melancholic groove, it is also sad to report the demise of Heritage Engineering, which has gone into receivership. In recent decades, the Glasgow-based company has been responsible for excellent restoration work at some of the most important industrial heritage sites in the UK, and was regarded as something of a beacon within the sector. It is, however, rumoured that a buyer has been found, and it is therefore possible that the business can continue in some form. In the meantime, the Business Archives Council of Scotland has been monitoring the situation because the records of the company are likely to contain important information relating to several of our most significant industrial monuments.

There is, meanwhile, positive news from elsewhere. Following the launch of *Capturing the Energy* last year in Aberdeen, the project has continued to strengthen. With the assistance of funding from TOTAL Exploration & Production UK plc, an archivist at the University of Aberdeen has been appointed to work on part of the UK portion of the Frigg Gas Field, the remainder of the field being covered by a similar but larger project based at the Norwegian Petroleum Museum in Stavanger. In the meantime, funding is being acquired for a project to scope the UK offshore oil and gas industries as a whole with the



*Granton Gas Works under construction in 1903. The works were designed by WR Herring
Photo: Crown Copyright: RCAHMS SC 583518*

purpose of prioritising future recording and documentation activity. The aim is to take advantage of the industry's unique records whilst it is at its peak, and to avoid the loss of valuable record material when decommissioning gathers pace, and when fields are sold off to new owners.

Another important initiative has been the establishment of the Scottish Technology and Industrial Collections Knowledge network (STICK). This differs from other subject specialist networks in the museums world in that it explicitly also involves non-museum collections, and in the Scottish case, has already encouraged collaboration between other National Collections, notably with RCAHMS. Led by the National Museums of Scotland, the aim is to share knowledge and expertise as widely as possible, and it is already working closely with the Scottish Industrial Archaeology Panel.

There has also been a spate of anniversaries that are worthy of note. In addition to the Clydebank crane, Dundee Industrial Heritage is now ten years old, and its flagship site, Verdant Works remains a unique and excellent visitor attraction in the city. The 250th anniversary celebrations of Scottish civil engineer Thomas Telford are also well in hand. Meanwhile, preparations are already underway for the bi-centenary of the Bell Rock Lighthouse (built 1807-11), which will involve collaboration between all of Scotland's National Collections.

Next year will, in addition, mark the centenary of the Royal Commission on the Ancient and Historical Monuments of Scotland. Political uncertainty continues to shroud the issue of a potential new name and subsequent potential re-branding exercise, but there are plans to celebrate the centenary by launching a 'Treasured Places' campaign, the purpose of which will be to get the general public to vote for their favourite Scottish place. Obviously, this must be industrial, so your correspondent is relying on the industrial leanings of IA News readers to engineer an appropriate result. Please therefore keep a watchful eye on rcahms.gov.uk.

The management at RCAHMS was also relieved to see that, after a period of incredibly slow 'geological' progress, its Scottish Collieries book was finally published last summer, and can be acquired for the modest sum of £15 (including postage and packing) from RCAHMS, or for a hugely discounted price of £10 from the Scottish Mining Museum, should you be passing along the A7 between the Borders and Edinburgh. The book, which was sponsored by the Coal Authority, the NUM, the Scottish Coal Industry Special Welfare Fund and the Mining Institute of Scotland Trust, is hardback and 334 pages long, and would not have been possible without our partnership with the Museum. It is therefore pleasing to be able to report that Lady Victoria Colliery has had a good year, and continues to attract a healthy stream of visitors.

Finally, just when you thought there cannot possibly be any more space in the calendar for another industrial conference, we can offer you two. Both are one-day events and are to take place in Edinburgh, the first being part of the Telford 250th anniversary celebrations. This is to occur on Monday 2 July, and is being organised by the Royal Society of Edinburgh (see www.royalsoced.org.uk). The second is to occur at the National Museums of Scotland on Saturday 20 October, and is being organised by the Society of Antiquaries of Scotland (see www.socantscot.org/ActivitiesProgrammes.html). We look forward to seeing you at either or both!

Miles Oglethorpe

Greater London

In China, where 'people are not sentimental about the past', heritage is being destroyed for the 2008 Olympic Games, and for the 2012 Olympics we are likely to see a similar trend in East London as far as industrial archaeology is concerned. It is unclear just how much we are to lose but to be taken forward in time ten years would undoubtedly induce major future shock.

The four London pumping station museums seem to be surviving quite well and doing at least modest business with a considerable programme of open days. In March Lesley Bossine retired from Kew Bridge Steam Museum as Director and has been replaced by U. Ernest Buchner, who comes from Toronto. Lesley's 21 years at Kew Bridge have been particularly noteworthy. We wish Mr Buchner every success in his new appointment and hope that he can raise Kew Bridge to even greater heights of achievement. Readers are particularly recommended to visit this exciting location which incidentally has a very useful bookshop near the entrance. Test steamings of the Bull engine have been taking place.

The coaster *SS Robin* is still in existence and modest progress is being made here. The twin-screw tug *Portwey* has been in steam (see photograph) and is likely to undertake a voyage to Lowestoft to visit the shipyard of Small & Co there. *Portwey's* hull plates will be subject to ultrasonic examination when out of the water.

At 4.45 am on Monday 21 May a tragic fire broke out on board the sailing ship *Cutty Sark* in her dry dock at Greenwich. She is currently undergoing a major refit costing £25 million, due for completion in 2008. About half the fabric of the ship including the masts and spars, about half the deck planks, figurehead, wheel and also the artefacts which have been on display aboard her are fortunately safely in store at Chatham and elsewhere. Following examination after the fire it was found that the bow and stern of the ship survived quite well. Most of the fire was concentrated amidships.

Inspector Bruce Middlemiss of Greenwich Borough Police is reported as saying, 'We are treating this as a suspicious incident. We have no intelligence about suspects. We are aware that there were a number of people in the area at the time. We would urge anyone with information to contact the Police immediately.' At the time of the fire a silver car was said to be in the vicinity of the ship. There were at least three CCTV cameras and a security guard was on the site. Twenty people had to be evacuated from nearby homes.

HRH Prince Philip, Duke of Edinburgh, has been a member of the *Cutty Sark* Society since 1951 and visited the charred remains of the vessel the day after the blaze. Richard Doughty, Chief Executive of the *Cutty Sark* Trust, is confident that the ship, a Grade I listed monument, can be restored, but an extra £ 5-10 million will be needed. A major fund raising campaign has

been launched and you can make a donation by visiting the websites www.cuttytsark.org.uk or www.justgiving.com/cuttytsarkfire.

The near destruction of the *Cutty Sark* is a national calamity. Compared with the perhaps matter of fact reporting of the fire by the English media, the immediate strong reaction of the Scottish press is noteworthy and demonstrates just how important a British monument *Cutty Sark* is. North of the Border the attitude was almost that the English could not look after their ship properly and that along with *RRS Discovery*, which was moved from London to Dundee in 1986, she might be better off in the country that built her.

Cutty Sark was launched on the Clyde in November 1869 from the Scott and Linton yard, Dumbarton. She was the last tea clipper to be built and together with the Thermopylae was the fastest sailing ship afloat. Her sail plan gave her 32,000 square feet of canvas and a top speed of over 17 knots, equivalent to an engine of 3,000 horsepower. The ship was built for John Willis, a Scotsman, but *Cutty Sark* was registered in London as John Willis's father had settled here.

Cutty Sark was launched a week after the Suez Canal was opened and from then on sailing ships could no longer compete with steam in the Tea Race to bring the first tea of the year from Woosung to London. She was later engaged in the wool trade from Australia and in 1891 sailed from Sydney to the Lizard in a record 85 days. Her best daily run

was 360 nautical miles in 24 hours, an average of 15 knots. Readers wishing to learn more of *Cutty Sark's* legendary exploits should consult 'The *Cutty Sark* and the Days of Sail' by Frank G. G. Carr.

In 1895 Willis sold *Cutty Sark* to the Portuguese firm Ferreira and she was renamed Ferreira, registered in Lisbon. As such she continued to trade worldwide for the next 26 years. Despite the Ferreira name, the crew referred to her as Pequena Camisola – little shirt. By 1922 she had become the last clipper in the world and was bought by Captain Wilfred Dowman. *Cutty Sark* when restored to her original appearance was later used as a stationary training ship. In 1951 she was on public view during the Festival of Britain and in 1954 was moved to her present dry dock in Greenwich.

Cutty Sark is one of only three surviving ships of composite construction, having a wrought-iron frame with timber planking. Teak and rock elm strakes are fastened to the frame by Muntz metal bolts. Muntz metal is an alloy of copper and zinc in the ratio 3:2. To inhibit marine growths the hull was sheathed below the waterline, Muntz metal sheets being laid on felt and bitumen and fastened to the strakes by copper nails. When launched *Cutty Sark* was expected to last about 30 years.

Examination of the ship's structure in the 1990s revealed that the wrought iron was corroding; in places there was none at all. Bi-metallic action between the wrought iron and Muntz metal bolts was a particular problem. It was realised that the hull would only survive about ten more years, hence the major rebuilding currently in progress. In preserving old ships there is always the 'sailor's knife' problem but before the fire *Cutty Sark* retained 90-95 per cent of her original hull fabric.

The £30 million needed to fully restore *Cutty Sark* is from the viewpoint of Greenwich, a poor London Borough, an essential investment. With the ongoing restoration work *Cutty Sark* has already been closed to visitors long enough for local businesses to feel the loss of trade usually brought by tourists. If *Cutty Sark* remains out of action as an international tourist magnet the plight of Greenwich will be severe. Heritage is not just about 'history', it is also about economics

and Britain's tourist industry is indirectly an important source of wealth, although quite difficult to quantify. In deciding how much we can afford to spend on *Cutty Sark* the wider implications must be taken into account, bearing in mind that we are only five years away from the London Olympics.

It is claimed that information from questionnaires indicates that about 80-85 per cent of British people are interested in visiting museums, heritage sites, and related attractions. A large proportion of overseas visitors to London go to Greenwich and see *Cutty Sark*. The Thames as a tourist attraction could be enticing far more people to visit London than we realise.

The old established firm of J. J. Prior Ltd operate a fleet of small ships which carry sand and gravel into Greater London. This is very much in accordance with the Mayor's policy of encouraging water transport to relieve heavy traffic on the roads. Prior's used to have a depot on Bow Creek near Orchard Place with ship repairing facilities but pressure from newly arrived residents forced them out; the residents in newly built property did not like living near something industrial. Prior's no longer have a yard like the Bow Creek one in London.

Prior's also make use of a berth on Deptford Creek, now generally known as Brewery Wharf, just above the movable bridge which carries the A200, Creek Road, from East to West across the water. Driving over this bridge one regularly sees a J. J. Prior's ship at Brewery Wharf which is on the east bank. A newer PLA type dock crane has recently replaced an ancient one by Stothert & Pitt and a good deal of work appears to be going on here. The great amount of new building in London generates plenty of business.

However, a large new quite high-rise housing development opposite Brewery Wharf is likely to threaten the use of the Wharf for unloading sand and aggregate. Ships work according to tides and this means unloading may take place at night. At least in the longer term if the proposed development goes ahead Brewery Wharf, although protected, is likely to suffer a similar fate to Prior's Bow Creek depot.

Robert Carr



Tug Portwey and SS Robin at West India Quay, May 2007

Photo: P Carr

North West England

One hundred years ago Lancashire was in the middle of its last great cotton mill building boom, which increased the number of spindles from 42.6 million in 1900 to 59.4 million in 1914, representing well over 100 new mills, no fewer than 27 new mill building companies were registered in 1907. Now none of these mills are still spinning, many have already been demolished. Dawn Mill, Shaw, near Oldham, built in 1901, ceased spinning in 1965 and was subsequently used for warehousing. Its demolition has been rumoured for some years and this became a reality on 27 June 2006 when demolition contractors started work on the site and was completed on 5 March 2007. The site is to be occupied by an Asda superstore. To record the demolition a website was set up, www.sunsetonthedawn.co.uk, complete with web-cams so demolition could be watched in real-time. This website should still be accessible with many pictures of the demolition.

Another mill of this era is Trencherfield Mill at Wigan, which will be familiar to readers of *IA News* because of its J. & E. Woods of Bolton steam engine. As reported in *IA News 131* (Winter 2004) the engine underwent extensive restoration between October 2003 and September 2004 to ensure its continued operation. However, it is now inaccessible again as the mill is converted into 52 residential apartments, with further residential, office and leisure developments adjacent to the mill. Surely this must be the dream home for readers of *IA News*, to live in a mill complete with its steam engine? However, the developer's proclaimed 'stunning waterside setting' is rather marred by the current state of Eckersley's three Western Mills opposite which, despite being listed since 1994, have been allowed to deteriorate over the years. Two chimneys on site have been reduced to stumps and the roof of the No.2 Mill collapsed last October, leading to removal of its upper storey. They have been occupied by a number of small businesses, many apparently of a marginal nature, one of the more dubious being a cannabis factory discovered by the police last November. However, the owners have now agreed to invest £1.6 million into the site together with a

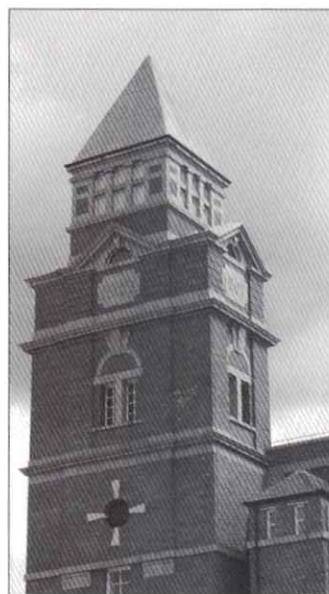
£700,000 lottery grant.

Because of their great size, of the order of 140 feet in width, there has been less willingness to tackle the conversion of these late mills than earlier, smaller, ones. Suggestions have been made for converting the Grade II listed Hartford Mill at Oldham into apartments by cutting an atrium into the centre of the mill but nothing has come of these plans. The mill has stood empty since Littlewoods departed in the 1990s and has been the subject of regular fires, the latest in February 2007. Perhaps the fact that it still stands demonstrates its fire-proof properties but the nearby Rose Mill dating from 1885, also of fire-proof construction, was completely destroyed by fire on 12 February 2007. The difference is probably that Hartford Mill is completely empty while Rose Mill was full of combustible materials. Still in this area of Oldham, Zetex Semiconductors moved out of Gem Mill in 2005 and it seems that this will be demolished for housing to be built on the site.

Of course the mill building boom did not just affect spinning but also weaving, the number of looms installed in Lancashire increasing from 649,000 in 1900 to 805,000 in 1914, again representing something over 100 new mills. Glen Mill, Colne, passed its centenary in 2006 but in October BSN Medical announced that they would be ceasing operations there by July 2007, a firm of developers having already put in an application to redevelop the site. Glen Mill was unusual in that it was a combined weaving mill and dye works for the purpose of yarn, rather than cloth, dyeing. Colne's speciality as a weaving town was the production of coloured cloths which used dyed yarn. Weaving ceased at Glen Mill in 1993 and it had latterly been used for finishing operations, but BSN Medical also announced cessation of weaving at their Brierfield Mills, Brierfield, although these remain in use for other purposes.

The whole of the textile finishing industry in Lancashire has never been adequately researched, from either a technical or economic viewpoint – anybody looking for a research topic? The felling of the chimney at Strines Printworks, near Marple, Cheshire, in January is perhaps a timely reminder that the

archaeological resource for studying this section of the industry is ever-dwindling. The Strines Printworks site is being cleared to make way for the inevitable housing. However, at Wallsuches Bleachworks, Horwich, near Bolton, founded 1777, the Grade II listed buildings are being converted into apartments. Textile finishers were amongst the largest and most heavily capitalized firms in the cotton industry, this no doubt helps to explain the existence of commissioned paintings of finishing works. Three of these from around 1830 showing Broad Oak Print



The water tower of Trencherfield Mill, Wigan, Lancashire, which is currently being converted into apartments but the steam engine and machinery hall will remain
Photo: Roger N Holden



The Park Road Railway Warehouse, Oldham, Lancashire. Still standing derelict
Photo: Roger N Holden

Works, Accrington; Eagle Bleach Works, Bury, and Lowerhouse Print Works, Burnley, appeared on display in the exhibition *Millscapes: Art of the Industrial Landscape* at the Touchstones Gallery in Rochdale from 31 March to 24 June 2007. The exhibition brought together paintings from a number of collections in the North West, together with several very interesting models of mills. For those who missed it first time round, it will be displayed again at the Gallery Oldham from 17 November 2007 to 2 February 2008, in parallel with an exhibition *Cops and Bobbins* on the history of the textile industry in Oldham.

Still in Oldham, we reported two years ago (*IA News 134*, Autumn 2005) on possible developments at the Park Road Railway Warehouse, but nothing further has come of these plans and it still stands derelict. But we can report happier news at Nelson where Pendle Borough Council has now abandoned plans for wide scale demolition in favour of retaining the existing layout of this mill town.

Mark Fletcher of Matrix Archaeology reports that they undertook a survey of the Royal Oak Brewery, Higher Hillgate, Stockport, in advance of redevelopment of the site for housing which will retain only the brewery tower as centre piece of the new development, the rest, including the 'Mineral Water Manufactory' facing Cooper Street, being demolished. This site was originally occupied by a cotton spinning mill, some parts of which were incorporated into the brewery when it was constructed in around 1880. The closure of Boddingtons' Strangeways Brewery in Manchester was reported in *IA News 133* (Summer 2005) and demolition started early this year, the very fine chimney which still stood being left till last. Nearby, Architectural History Practice Ltd and Matrix Archaeology conducted an archaeological survey of Chetham's College, Long Millgate, Manchester, which revealed significant above and below ground remains of the Phoenix Corn Mill, a steam-powered corn mill built around 1825 as an addition to the late-medieval water-powered School Mill.

Lancashire has never been thought of as a county of windmills but there were some, particularly on the Fylde. The one at Lytham

survives as something of a local landmark but is sadly of little interest because it is only a shell, burnt out in 1919. Since then it has been renovated several times and was reopened in April after its latest renovation; it now houses an exhibition of Lytham life over the last 100 years. However, one of the more interesting paintings in the *Millscales* exhibition mentioned above is a view of Preston from the south in 1821 which shows quite a remarkable number of windmills. Some of these survived long enough to appear on the 60 inch to the mile Ordnance Survey plans surveyed in 1846-47 but all had gone by the end of the century. So members of the AIA will not find any when they convene in Preston this August!

Roger N. Holden

South East England

The 100th anniversary of the opening of the Brooklands motor racing track was celebrated over the weekend of 16 and 17 June. The course was built by Hugh Locke King at a cost of £150,000 and was the first purpose-built motor racing circuit in the world. Many of the conventions and practices of motor racing in later years were first developed there. The opening parade in 1907, led by Mrs Locke King, was commemorated by a parade of cars of the period on the same time and day in 2007. Apart from displaying and operating historic vehicles from the collection at the Brooklands Museum and

elsewhere, motor cycles and bicycles were also shown and demonstrated.

The area within the old track contains the Brooklands Museum, established in the motor-racing clubhouse and various buildings of early days. The site has recently been enhanced by the building of 'Mercedes-Benz World' for the display of that company's vehicles, together with five driving tracks for instruction in driving on a variety of terrain and weather conditions.

The site also played an important role in aviation from the beginning, an airfield having been established there in 1909. The first flight by a British-made aircraft, made by A. V. Roe, took place in 1908. Assembly sheds for aircraft for Sopwith (later Hawker) and other manufacturers were quickly established. In 1915 Vickers started production on a large scale. Their factory closed in the late 1980s, and the Brooklands Museum was opened in 1991 to cover both motor and aviation history. Flying displays of pre-1939 aircraft were held on both days of the centenary celebration, led by the reproduction of the Vickers Vimy which first flew the Atlantic in 1919.

The 100th anniversary of the first flight by Samuel F. Cody falls in 2008, and to commemorate this the Farnborough Air Sciences Trust is currently building a non-flying replica of the aircraft, BAA No. 1A. A flying replica of the later version, BAA No. 1B, is to be built under the auspices of Southampton's Solent Sky museum. Solent Sky is

appealing for funds to restore Supermarine Walrus G-RNLI to flying condition, the fuselage of which was purchased in 2006. Support from the HLF is not available because of the plan to make it airworthy, and public subscriptions are needed.

The George V dry dock in Southampton, constructed to accommodate the largest ships of the 1930s, has gained Grade II listing, together with the sole remaining crane and the pumping station. The caisson gate has been removed and is unlikely to be replaced. The dock will be used to provide extra quayside space.

The Hampshire Narrow Gauge Railway Trust was formed in October 2006 to incorporate the Society of the same name and to continue to provide a volunteer workforce and locomotive power from its base at Bursledon Brickworks near Southampton to support the steam railway at the Kew Bridge Steam Museum and the narrow gauge railway collection at the Amberley Working Museum.

The Isle of Wight IA Society has carried out a number of surveys, including the Golden Hill Fort in Freshwater, various minor fortifications, a hydraulic ram and other water-engineering features and pumps, and a previously unknown tide-mill in Newport.

The Sussex IA Society continues to survey, uncover and restore features of the Portsmouth and Arundel Canal. A recent find was of two cast-iron girders, dating from 1820, which were part of a swing

bridge on the Barnham section of the canal. Six sites showing various canal features can be seen by the public from a highway or public footpath. A recent addition to the Amberley Working Museum is the Bodger's camp for the use and demonstration of traditional woodworking tools and methods, covering not only pole-lathe turning but the making of hurdles, besom brooms and rakes.

The Wey and Arun Canal Trust has received a report of a study of the possibility of making the whole canal, 23 miles long from Guildford to the Arun, fully navigable again. The cost is estimated at £93m, but it is said that for every £1 invested, £1.78 would be generated for communities along the banks of the canal.

In Kent, the project for restoring the paddle steamer *Medway Queen* has received an HLF grant of £1.8m for work on the hull and superstructure. It sank again at its mooring at Damhead Creek on the Medway estuary in February 2006, and as the hull is too weak to be towed to a shipyard or placed on a pontoon, the ship has been dismantled and the parts cleaned, tagged and stored ready for reassembly. The rebuilding will be carried out at Hebburn on Tyneside. The *Medway Queen* served as a minesweeper in WWII and carried 7,000 soldiers from Dunkirk in seven trips (the normal passenger load was only about 800).

Alan Thomas

PUBLICATIONS

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review*.

Bristol Industrial Archaeological Society Bulletin, 121, Summer 2007
Bristol Industrial Archaeological Society Journal, 39, 2006
Conservation Bulletin, 53, Autumn 2006; 54, Spring 2007
Cumbria Industrial History Society Bulletin, 67, April 2007
Greater London Industrial Archaeology Society Newsletter, 228, February 2007; 229, April 2007; 230, June 2007
Focus on Industrial Archaeology (Hampshire IA Soc), 68, June 2007
Hampshire Industrial Archaeology Society Journal, No.15, 2007
Hampshire Mills Group Newsletter, 76, Spring 2007
Industrial Heritage Association of Ireland Newsletter, 29, March 2007
Manchester Region Industrial Archaeology Society Newsletter, 120, May 2007

Merseyside Industrial Heritage Society Newsletter, 273, March 2007; 274, April 2007; 275, May 2007
Milestones & Waymarkers: The Journal of the Milestone Society, Vol.2, 2006
On the Ground: The Milestone Society Annual Review, No.3, September 2006 New Year 2007
Piers: the Journal of the National Piers Society, 83, Spring 2007
Somerset Industrial Archaeological Society Bulletin, 104, April 2007
Suffolk Industrial Archaeology Society Newsletter, 97, May 2007
Surrey Industrial History Group Newsletter, 157, May 2007
Sussex Industrial Archaeology Society Newsletter, 134, April 2007
Sussex Industrial History, 37, 2007
Sussex Mills Group Newsletter, 134, April 2007
Welsh Mines Society Newsletter, 56, Spring 2007
Wind and Water Mills (The Journal of the Midland Wind and Water Mills Group), 26, 2007
Yorkshire Archaeological Society Industrial History Section Newsletter, 70, Late Spring 2007

10-16 AUGUST 2007

AIA PRESTON CONFERENCE

at the University of Central Lancashire, Preston, the AIA annual conference. Application forms were mailed in February, but for further details please contact James Gardiner, AIA Liaison Officer, School of Archaeology and Ancient History, University of Leicester, Leicester LE1 7RH, Tel: 0116 252 5337, Email: AIA@le.ac.uk

11-14 SEPTEMBER 2007

BIG STUFF 2007: PRESERVATION OF LARGE INDUSTRIAL HERITAGE OBJECTS

at Bochum, Germany. Call for papers. Following the very successful conference BigStuff 2004

in Australia, this sequel will be given in the Ruhr Basin, a classic, highly-industrialized coal and steel region, organised by the German Mining Museum, Bochum, in partnership with the Westphalian Museum of Industry, Dortmund. Contact: bigstuff07@bergbaumuseum.de, or see website www.bigstuff07.net

13 OCTOBER 2007 INDUSTRIAL ARCHAEOLOGY SYMPOSIUM 2007

at the Wharf Theatre, Deveses, the biennial symposium hosted by Wiltshire Archaeological & Natural History Society, with speakers on the Wilts & Berks Canal, Avoncliffe, Food factories in Chippenham, Greek island IA, and the coaching era. For

information and booking form, send SAE to Doug Roseaman, c/o WANHS, 41 Long Street, Deveses, SN10 1NS.

13 OCTOBER 2007 EMIAC 74: FOXTON HERITAGE DAY

at Foxton, Market Harborough, Leicestershire, the 74th East Midlands IA Conference, hosted by the Leicestershire Industrial History Society, with speakers on the canal, history of the locks and inclined plane, and restoring and managing the historic environment at Foxton, followed by guided tours around Foxton and Market Harborough. For details and booking form, send SAE to Alan Brittan, 18 Westbourne Road, Underwood, Notts, NG16 5EG.

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.

THE AIA WEBSITE'S DIARY SECTION GIVES FULLER DETAILS OF THE LATEST NOTICES OF CONFERENCES AND MEETINGS

www.industrial-archaeology.org.uk



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- 1 October for November mailing

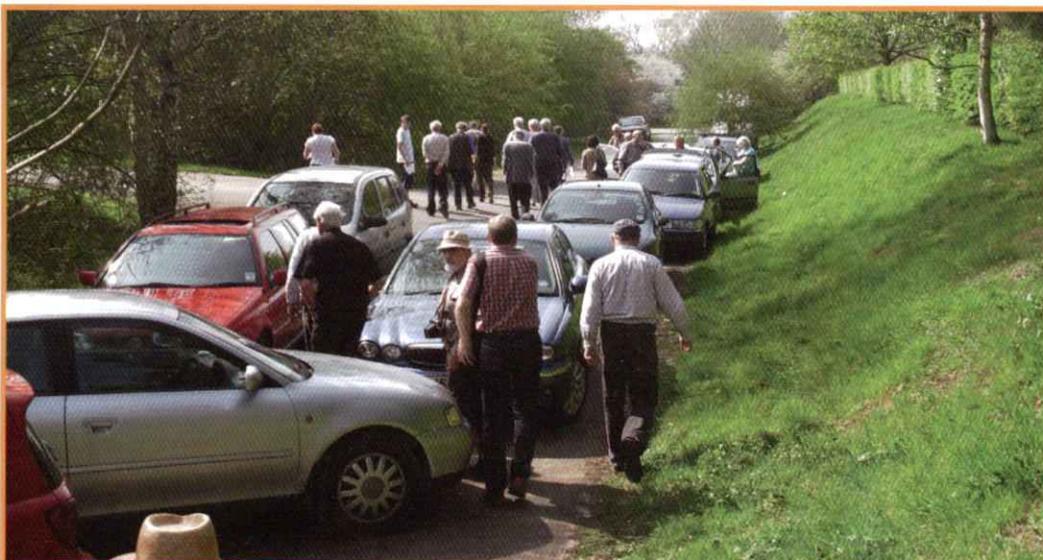
The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to assist and support regional and specialist survey groups and bodies involved in the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. The AIA publishes an annual Review and quarterly News bulletin. Further details may be obtained from the Liaison Officer, AIA Office, School of Archaeological Studies, University of Leicester, Leicester LE1 7RH. Tel: 0116 252 5337 Fax: 0116 252 5005.

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



Whatever can these AIA sightseers be looking at? (see page 4)

Photo: Barry Hood



Why did the AIA cause traffic chaos at Buildwas? (see page 3)

Photo: Steve Dewhirst