

# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 21 December 2005

PUBLISHED QUARTERLY

### THIS ISSUE

- ☉ Meeting Reports
- ☉ Cob
- ☉ Website Update
- ☉ 2006 Programme

### EDITORIAL

The value of snow for industrial archaeology in the field was not something I had considered until the snowfall around Southam at the end of November.

Out and about in the course of my job, I had to travel to Burton Dasset and then Avon Dasset. This was an interesting exercise in itself as the minor roads had not been cleared and the temperature was below freezing, but the necessary slow pace of travel gave more time to notice the countryside. What was immediately apparent was that the covering of snow, and the low winter sun, accentuated patterns in the landscape. Ridge and furrow that was normally only vaguely defined was thrown into sharp relief as a striking pattern of white and blue-grey stripes across hillsides. Previously unnoticed track ways through the field patterns were similarly visible and it was possible to make out whole field systems where usually only indistinct bumps were visible.

Similarly very distinct were old quarry pits, while vague suggestions of platforms where buildings may once have stood

also became noticeable.

Strictly these remains represent landscape archaeology, but the inference for field industrial archaeology is clear. Snowfall, low sunlight and an area of known past industrial activity may reveal more to careful inspection than might be apparent under more usual weather.

Mark W. Abbott

### SOCIETY NEWS

#### Programme.

The programme through to March 2006, is as follows:

#### January 12th

Mr. Roger Cragg: Thomas Brassey.

#### February 9th

Mr. Tim Booth: Emscote Mill.

#### March 9th

Mr. Jeromy Hassell: White and Poppe.

#### Subscriptions

Members are reminded that subscriptions for the 2005/2006 season are due. The amount payable remains as for the last season: £10.00 per person or couple with an additional meeting payment of £1.00 per person to help cover refreshment expenses. Payment should preferably be made at a meeting, but payments by post are acceptable. Please note that receipts for postal payments will not be sent out, but instead will be available for collection at a subsequent meeting. Cheques should be made payable to Warwickshire Industrial Archaeology Society please. If you are unsure of your subscription status for this season please ask the Treasurer.

Reminders for outstanding payments will be sent out after Christmas.

#### Newsletter mailing

Those members who are unable to attend meetings regularly may have noticed the absence of the usual Newsletter mailings during the latter part of this year. This is due to a computer upgrade, which has made the address databases used for this mailing inaccessible, along with the database that holds subscription records. This should be a temporary problem, albeit one of rather longer duration than was originally envisaged! In the meantime, a stock of past Newsletters is always available at meetings, so please ask if you think you have missed a copy. All being well the usual pattern of mailings should resume in the New Year and apologies for any inconvenience caused in the meantime.

#### Tom Charman memorial

As reported previously in the Newsletter, the Society has partially funded the restoration of a narrow gauge slate wagon from the Tal y Llyn Railway in memory of late member Tom Charman; a long term supporter of the Tal y Llyn Railway Preservation Society. It can now be confirmed that the wagon to be restored will be one of the original TR wagons, fleet number 101. Restoration is about to begin in the Gunpowder Store at Wharf Station. The web address [www.ngrm.org.uk/news](http://www.ngrm.org.uk/news) should yield a photograph.

\* \* \* \*

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

September 2005 Mr. Hugh Compton

## *The Oxford Canal*

The Oxford Canal, one of the most beautiful of our inland waterways, was a vital link in the great system which, in the late 18th and early 19th centuries, was constructed to join the north-west of England to the south-east, and specifically to London. Our members were fortunate to have Hugh Compton, current President of the Rail & Canal Historical Society and author of *The History of the Oxford Canal*, to relate the triumphs and the disasters which accompanied its construction.

Like many of the ambitious civil engineering schemes of that time, those who put up money to build the canal had some years to wait before they were to see a proper return on their investments, but when the profits, and then the dividends, began to arrive they did so in abundance. The delays on the road to profitability, however, must have sorely tested both the nerve and the patience of the shareholders.

There were the usual Parliamentary delays, while Bills were haggled over and passed, together with the inevitable wrangles with land owners and local authorities who were affected by, or who saw financial opportunities in, the new 'cut'. The areas of Hawkesbury Junction and Coventry were great centres of dissension and opposition and Coventry, not least, wanted its share of the spoils, and tried hard to resist any attempt to by-pass the city by building 'shortcuts'. In the end, of course, compromises were reached and Coventry got some, but not all, of its wishes.

The Oxford Canal has approximately 100 locks, and various tunnels, including the Napton, which is wide enough for two boats to pass, and has a towpath at each side. Napton brickworks was ideally placed to supply the millions of bricks required for canal bridges, tunnels, locks, etc. Braunston gradually became a very important trans-shipment area for goods being carried on the Grand Junction and Oxford canals, and Banbury soon had an important boat yard, which is still in operation.

Hugh Compton spoke about the arrival, in 1860, of the Henshaw steam tug which could pull as many as 12 boats. The railway companies protested and managed to get the speed of the tug limited to 3 ½ mph. South of Banbury on the Oxford canal, in a bid to keep costs down, many swing bridges were built instead of using traditional brick and/or stone construction. The mill at Heyford, however, eventually invested in a steam traction engine, which

proved too heavy for the wooden swing bridge over the canal. A cast iron bridge was eventually built to take its place.

Other aspects of the Oxford canal mentioned by Hugh Compton, included the building by the canal owners of pubs alongside the waterway, where canal business could also be conducted; the growth of coal yards adjacent to the canal; and the various types of dredgers used, from early versions which were largely dependent on sheer manual effort to the later more efficient steam-driven types.

## Cob

Recently noted by Peter Chater in Claverdon is an example of cob construction, in this instance a boundary wall approximately 72 feet long, 6 feet high and 2 feet wide. It has a shaped corrugated iron coping with a good overhang to keep the cob dry. The wall is next to Wheelbarrow Lane (OS Sheet 151 GR 291648).

Cob is an old Devon word for a mud wall, and Devon probably has more cob than anywhere else in Britain, with cob being Devon's traditional construction material since the fourteenth century. However, cob is not restricted to Devon and examples may be found elsewhere in the UK. In Warwickshire cob is now quite rare, although there is a fine example of a row of cob built cottages in Dunchurch.

One reason for the popularity of cob in Devon may be the quality of the Devon clay sub-soils, many of which have a consistency and low shrinkage factor that makes them ideal for cob construction.

Traditionally, straw and sometimes dung, were added to the clay subsoil to reduce cracking problems during drying. Often cattle would be used to tread the mixture, so the addition of dung was inevitable!

Once the mixture was ready to use, the walls were usually built up in layers, typically by forking lumps of wet cob onto stone plinth foundations 450–900mm wide. This was heeled together by a team of people to form a horizontal layer up to 1000 mm thick. Each layer was given time to dry, to enable placing of the next one without the walls compressing and bulging. Sometimes shuttering would be used; the exact technique varied according to the quality of the cob mixture, the weather and local tradition.

Lintels and beams were seated and openings

*Continued on page 4*

# AIA Conference Highlights

October 2005 Dr. Michael Harrison

## *Highlights of Recent Annual Conferences of the Association for Industrial Archaeology*

Our Society has long been affiliated to the Association for Industrial Archaeology but relatively few of our members manage to attend the AIA's annual conferences. WIAS is therefore deeply indebted to those who do attend, and especially for their subsequent reports on the proceedings. Such firsthand reports from members however must, of necessity, be rather short but at our October meeting, Dr Michael Harrison, past-President of the AIA, was able to take a wider view and to cover in considerable detail the proceedings at two of AIA's most recent annual events.

He dealt first with the 2003 Conference, held in Cardiff, and then with the 2004 event, held in Hertford. The annual conference is, of course, the occasion of the Association's annual general meeting, but that essential business occupies only a small part of the total event. The 'host' town or city always prepares for delegates a special programme of visits to important IA sites in its area, and it was that aspect of the 2003 and 2004 events on which Dr Harrison mainly concentrated. South Wales has a rich history in the technologies of coal and iron, and early sites for both industries were visited, described and splendidly photographed by Dr Harrison.

He took us through museums associated with both industries, also a working pit for anthracite, and traced the routes from the pits and iron works to docks and export shipping. The wealth that both these industries once produced for South Wales was boldly expressed in the architecture and grandeur of the region's municipal buildings, which reflected the success and self-confidence of the area. We were reminded, for example, that the Taff Valley iron works was founded in 1765 and less than 40 years later could proudly claim to be the largest in the world. In Wales, the links between industry and adult education were always particularly strong, and were a proud by-product of the region's wealth.

A complete change of environment and range of industrial archaeological sites met those delegates who, in 2004, attended the AIA's annual conference held in Hertford. As Dr Harrison pointed out, Hertfordshire's industrial history lies in a very wide variety of activities, ranging from paper-making to gunpowder production and from brewing to flour milling. The development, during WW2, of the computer which cracked German's Enigma codes also took place in the county, at Bletchley Park

The production of gunpowder in a works at Waltham Abbey began in 1650, by private

enterprise, but by 1787 the entire site was Crown Property. Photos of early gunpowder production buildings, with a variety of different designs of 'blow-off' roofs and walls were shown. The New River, started in the 1600s to supply water to the rapidly expanding population of London, also originates in Hertfordshire, and examples of some splendid early water-pumping stations were illustrated.

In conclusion, Dr Harrison spoke about the typical structure of an AIA annual conference. Basically, each consists of three parts, namely the Annual General Meeting, seminars, and site visits arranged over a weekend. Obviously with an eye to the future, Dr Harrison ended his presentation by commenting on the fact that Warwickshire is rich in industrial history!

### Society Website

The Society website is, as of October 2005, a member of the Industrial Archaeology and History Ring, managed by I A Recordings. This is collection of 104 vetted websites (at December 2005) all devoted to aspects of industrial archaeology and history. Membership is worldwide and not surprisingly the quality of sites varies from rather amateur looking to very professional. Each member site has a link to the main listing of sites as well as the ability to link to a random choice and previous or next links.

A quick few tries at the random link turned up sites as diverse as a business specialising in railway books to a site featuring photography of underground New York!

How useful the service is for locating sites on a particular specialist subject is debateable, but as a means of investigating the diversity of industrial history available on the Internet, it undoubtedly has some value and is recommended.

Incidentally, some excellent pictures of the old Kenilworth railway station, taken by Derek Billings, have also recently been added to the Society website. This building has long been demolished, but as these images show, it was a surprisingly imposing red brick structure with a beautiful glass roof to the main building.

Again well worth a look for members with an Internet connection, as is the News page, which is regularly updated with items of local and general IA interest.

**Mark W. Abbott.**

# Ironbridge: Recent Research Results

November 2005 Mr. David de Haan

## *Ironbridge*

There can be few 'monuments' more familiar to industrial archaeologists than Abraham Darby III's unique 100-ft span cast iron bridge over the Severn, but David de Haan's talk to the Society in November kept members enthralled for the entire meeting. Even to the point where, at the end, there was barely time for 'any other business'!

David is Programme Director of the Ironbridge Institute, also Deputy Director of the Ironbridge Gorge Museum, and his knowledge of Darby's bridge, down to the smallest detail of design and construction, must surely be unequalled. He described how the modern technique of photo-grammetry has been used to measure and 'map' the bridge and to enable rotatable computerised views of it to be created. His illustrations included fascinating examples of the latter, with the bridge being seen from a continuously moving viewpoint.

It is only in relatively recent times that the methods used to erect the bridge have been established, and what is more have been proved in practice. It was in 1997 that de Haan gave a lecture on Darby's bridge to the Newcomen Society. Among his slides on that occasion was a rather impressionistic water-colour by a Swedish artist recording a very early stage in the erection of the bridge. WIAS-member John Selby was present at that lecture and subsequently suggested to de Haan that what appeared in the painting to be rudimentary scaffolding could, in fact, be a twin-upright wooden derrick by which the five sets of semicircular castings were raised into position. In short, there might be much more to that painting than first met the eye!

The accuracy of John's theory was borne out only a few years later, in 2001, when television's *TimeWatch* programme set out to build a half-scale replica of the bridge using, as far as possible, the methods Darby had employed. A team of Royal Engineers successfully tackled the challenge, using

exactly the type of derrick seen in the water-colour.

David de Haan described how the 21st century iron castings were made using strickled moulds in the foundry floor, as were Darby's originals, and showed details of the cast dovetail joints whereby major castings were joined, without the need for bolts. He also spoke about the 'missing ribs', lower-end portions of the second and third sets of curved castings, which were originally absent but were subsequently completed by inserting individual castings.

The second and third sets of curved castings pass through slots in both vertical and horizontal members, and the slots were made large enough to allow for assembly, and to accommodate expansion and contraction. The gaps were then filled with cast-iron blocks, and molten lead was run in. The bridge originally had masonry abutments, but these proved to be too heavy for the river banks and were subsequently removed and replaced by towers.

The work carried out on this priceless bridge in recent years has also been aimed at establishing a programme of ongoing preservation and maintenance which will ensure its survival for posterity.

### **Cob continued:**

formed in the cob as it was built up. The cob needed to dry to some extent before any frames were placed in the openings since the walls shrink in height with drying. This would cause a window or door frame placed too early to be compressed and become load bearing.

A good quality cob can survive quite well without rendering, but normally it is coated with a render made from quicklime putty and coarse sand, followed by a lime wash. These traditional coatings have the important property of being breathable, so that any moisture that does get into the cob, by penetrating rain or rising damp, can evaporate out.

**Mark W. Abbott**

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

## Credits

### Design and editing:

Mark W. Abbott

### Additional material:

Arthur Astrop

Mark Abbott

Peter Chater

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# WARWICKSHIRE

## Industrial Archaeology Society

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- ☉ Meeting Reports
- ☉ From the Chairman
- ☉ Harbury Windmill
- ☉ 2006 Programme

This edition of the Newsletter sees the start of a new regular feature: *From the Chairman*. Written by Martin Green, I anticipate a series of observations and personal thoughts on the direction of the Society and industrial archaeology generally. Comments are of course welcome!

Mark W. Abbott.

### FROM THE CHAIRMAN

Ever since its inception in 1989, the Society has sought to fulfil its primary function of promoting the study and recording of the remains of our industrial past, with particular reference to the local area of Coventry and Warwickshire. The principal vehicle employed in this respect has been the regular monthly meeting which seeks to provide speakers on a range of issues (both local and beyond), and to offer a forum for discussion and the opportunity for contact between members. Attendances at these meetings now regularly exceed 50, and this is a very gratifying response by the membership to the programme laid on by the Committee. Long

may it continue!

Less fully embraced has been the more challenging task of seeking to record all the industrial sites in our area and to present these in some form of gazetteer. This has taxed the minds of the Committee for a long time, and no obvious solution offers itself which cannot avoid a considerable amount of labour from individuals in the Society.

There have, of course, been some excellent examples of individual study and recording by members which have added to our knowledge and understanding of the area's industrial past. For example, under Roger Cragg's leadership, the civil engineering heritage has been well covered – including the creation of the Warwickshire Bridges Database, whilst Arthur Astrop's research into the machine-tool industry of Coventry has improved our knowledge as well as identifying the (few) remaining sites of that once highly significant industry.

In fact, civil engineering, transport (especially canal and rail) and wind and water power have attracted considerable attention from other groups, and it is no surprise that these industries are well-documented. Part of the reason for this is, of course, that many continue to carry out their original, highly specific function (e.g. canal aqueduct; restored watermill) but this is not the case for many other sites. Many structures – though still standing – may have little link with their original function, being

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### SOCIETY NEWS

#### Programme.

The programme through to July 2006, is as follows:

#### March 9th

Mr. Jeromy Hassell: *White and Poppe*

#### April 13th

Mr. George Demidowicz: *The Soho Foundry*.

#### May 11th

Mr. Martin Green: *Aspects of the Industrial Archaeology of New Zealand*.

#### June 8th

Mr. Mel Thompson: *Woven in Kidderminster*.

#### July 13th

AGM and Members' Evening to include: *Aspects of the Industrial Archaeology of North Warwickshire*

#### Subscriptions

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# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

December 2005 Prof. Marilyn Palmer

## *Technology in the English Country House and Estate*

Largely through the efforts of the National Trust and English Heritage, the architecture, furnishings, paintings and grounds of very many of Britain's country houses and estates have been preserved and made accessible to visitors. This is sterling work, but until relatively recently it has been concerned principally with conserving what may be termed the 'upstairs' of such national treasures. But what of life 'downstairs'?

For on the other side of the 'green baize door', as it were, are to be found many hitherto neglected jewels of the industrial archaeology of our great houses. It is through the persuasion of Professor Palmer, and others, that efforts to preserve and make these treasures equally accessible to the public are increasingly bearing fruit, and it was on this aspect of IA that she addressed our December meeting

When the wealthy of the late 18th and 19th centuries, including the new industrialists, built their grand houses many chose sites deliberately distant from the 'madding crowd'. And if the site also happened to be on elevated ground, how was water to be supplied to the kitchens and bedrooms? Hence the eventual installation of different types of powered pumps and hydraulic rams to lift water from lower levels. What if, when the inconvenience of oil lamps became too irksome, the great house was remote from supplies of gas and, later on, the advent of electricity? Then, dedicated gas-producing or battery-charging facilities were needed. And when central heating became *de rigueur* then that also had to be installed.

Such equipment, visually so different from the other splendours of the great houses, was initially considered unfit to be on show to the residents, and especially to visitors. As a result, it was always installed either well 'below stairs' or in its own buildings out of sight in the grounds. Even hot water radiators were thought best concealed behind special casings in reception rooms in case they offended the eye. Much of what was once thought of as 'ironmongery' in our great houses and estates still exists and, in the nick of time, is being recorded, rescued, conserved, and in some instances even brought back to working order for brief demonstration purposes.

The installation of various types of technology in our great houses, Professor Palmer pointed out, was driven by two important societal 'forces'. The first was largely hedonistic, namely to provide greater comfort and convenience for the residents, together

with a desire to impress their visitors. By the end of the 19th C, domestic staff was already becoming more difficult to obtain, and the second driving force came immediately after the Great War of 1914-1918. Owners of the great houses then found there was no longer an apparently inexhaustible supply of manual labour, especially young maids- and men-servants. In short, they needed to use a steadily diminishing workforce much more efficiently, and turned to technology to fill the gap.

Professor Palmer's view of the industrial archaeology to be found in many of our country houses was illustrated by some splendid slides of what lies on the other side of the 'green baize door'.

### **From the Chairman *continued*:**

occupied with activities unrelated to the past. Indeed, the nature of the structures may place limitations on their adaptability to modern industrial or commercial usage. The task of the industrial archaeologist is to make sure that what remains is recorded, and, if circumstances demand it, to try to press for conversion rather than demolition.

This is not such a simple task as it sounds. The phrase 'if circumstances demand it' begs many questions. What criteria might we use to judge whether an industrial building merits inclusion in our gazetteer and deserves- if possible - to be preserved? Here are some ideas which may deserve attention:

- Date of construction
- Significant technology and/or processes remain intact
- Important building in the history of the industry in the UK
- Only example/one of few remaining in Warwickshire
- Crucial building in an local/industrial/urban landscape
- Particular features of construction
- Architectural merit

Readers of this newsletter may feel there are other criteria to consider. Feel free to make your views known!

The great danger for the future is that an 'industrial heritage walk' through an area will simply be a stroll through housing estates with the guide only able to refer to the buildings and industries that used to be there. Careful retention and sensitive conversion of industrial buildings must have a role to play in future landscapes.

**Martin Green**

# The Foremost 19th Century Railway Builder

January 2006 Mr. Roger Cragg

*Thomas Brassey*

A commemorative plaque to Thomas Brassey, the bicentenary of whose birth occurred in 2005, carries the words 'The world's foremost builder of railways in the 19th century'. This statement is undoubtedly true but it scarcely does justice to the energy, range of projects, skill and sheer genius of a man who by the time he died in his 65th year had masterminded railways (and many other related projects) in Britain and in no fewer than 14 other countries. A 36-in diameter silver gilt shield exhibited at the Great Exhibition of 1851 carried portraits of 12 of the eminent engineers with whom Brassey worked, 12 views of some of his greatest projects, and the names of 36 of his worldwide network of agents.

The son of a yeoman farmer, and born into a fairly wealthy Cheshire family, Thomas Brassey was 16 when he was apprenticed to Mr Lawton, a local land agent. He soon found himself on survey work for Telford's improvements to the Holyhead Rd in Cheshire, and by the age of 21 he was made a partner in Lawton's firm. He was sent to Birkenhead to run Lawton's business there and seeing the potential of the area as a future port he borrowed money from his father to found a brickworks to provide building materials. At that time, George Stephenson was building the Liverpool and Manchester railway and he asked Brassey to quote for supplying stone for a viaduct. That quotation was not accepted, but it led to another for the Penkrige viaduct, in which he was successful. He was also awarded a contract for a further 10 miles of railway. Brassey was 'on his way'.

From this point, Roger Cragg unfolded Brassey's astonishing career, originally in Britain but soon extending across the Channel into France. There, the 82-mile Paris to Rouen railway was one of his first overseas projects and at the same time Brassey switched from financing projects himself to working with partners. First there was William Mackenzie and later he also joined forces with Samuel Morton Peto and Edward Ladd Betts, a triumvirate which prospered for 18 years. By 1834 Brassey had 13 major contracts in England, Scotland, Wales and France and soon he was working in Norway as well. In 1852, Brassey, Peto and Betts undertook a survey of Canada, which led to the building of the Grand Trunk Route railway. And in 1855 he masterminded the construction of a 29-mile long railway in the Crimea to facilitate transport for Britain's war there. More than 20 ships ferried the materials from the UK, and in the first 10 days a huddled camp was built

and 5 miles of track was laid.

But not everything he touched was successful. He had several financial crises, losing substantial sums of money, and in 1846 the base of one of the piers on the Chappel viaduct shattered and consequently the remainder of the structure collapsed. The viaduct had to be completely rebuilt at Brassey and Mackenzie's expense. The sheer magnitude of his projects which, in addition to the 6,583 miles of railway track, included docks, bridges, waterworks, part of London's sewer system, involving work in countries from Russia to Australia and from India to South America, prompted Roger to wonder why Brassey is not as well known in the UK as another engineer whose name also starts with a B!

## Harbury Windmill

Harbury windmill is of the tower type mill; it is situated in the village and is visible from many positions.

It was erected in the first decade of the 19th century and the tower is constructed of brick and stone. Chesterton Manor house was demolished in 1802 and it is thought that the stone used, originated from there.

The walls of the two lower floors are of stone (probably limestone) and the upper four floors are of dark red brick giving a total of six floors. There is a considerable batter on the walls. The height of the tower is sixty feet and the cap is another ten feet making it the tallest in Warwickshire. It formerly had a cap in the shape of an up turned boat; this has been altered in recent years to a pitched roof type.

It was originally fitted with four common sails of about thirty feet in length; these were reached from a furling gallery, which encircled the tower. The sails ceased operating the mill before the First World War and were removed in the early 20s, but the stocks were not removed until 1934.

From 1912 different forms of engines powered the mill, the first one being a steam engine, followed by an oil engine and from the early 30s by electricity.

At different periods the mill housed two and sometimes three pairs of stones these being of millstone grit or the French burrs. These stones were on the fourth floor.

There have been about eight different millers over a period of one hundred and fifty years. Over these years two were accidentally killed, George

*Continued on page 4*

# A Vanished Landmark

February 2006 Mr. Tim Booth

## *Emscote Mill*

In the Emscote Road, Warwick, there is a modern residential development called Fleur-de-Lys Court, where a 20th century pie factory once stood. But the pie factory was in fact housed in the buildings of a 19th century flour mill. And the only trace of *that* enterprise today is one small archway or culvert in the bank of the nearby Warwick & Napton canal through which excess water was taken, for a nominal payment of £30/year *in perpetuity*, to drive the mill's water wheel. It was with that shrewd annual contract, entered into in 1803 by Charles Handley and John Tomes, that Tim Booth started his story of a milling business which flourished for over 150 years and once provided the people of Warwick and Leamington with plenty of work.

The mill (initially known as Navigation Mill) was formally opened in late 1805 with power to drive five sets of stones and with a capacity for producing 500 sacks of flour per week. The water wheel was 24 ft in diameter by 7 ft wide and was in cast iron, that material having advanced to the point where the overall weight of such a wheel was no greater than one made from wood. With the new mill placed almost precisely midway between Warwick and Leamington, and with the impending prodigious increase in population of the latter town, its future success as a supplier of high-quality flour was hardly in doubt.

By 1830, millers Kench and Cattell were operating the business, probably as lessees to Handley and Tomes, and in 1841 Cattell seems to have withdrawn and the firm traded as P. Kench & Son. Tim Booth's immaculate research then led us through the successive generations of Kench's who ran the mill, extending and updating it. In the late 1860s, for example, a steam-driven mill was added to the water mill when the latter reached its maximum output. Towards the end of the 19th century, Sheldon Kench, grandson of the founder was facing up to changing technology with the introduction of

roller milling in place of mill stones. This process produced high-quality fine flour by gradual-reduction milling through diagonally arranged chilled-iron rolls.

In 1904, Sheldon Kench employed Briddon & Fowler to remodel the Emscote Mill and a large block of additional buildings appeared on the site. In 1908, Leonard Sheldon Kench joined his father in the business, having served his apprenticeship at the Albion Flour Mills, Worcester, but Leonard fell in WW1, and his father died in 1926. The mill continued working until 1961, when in due course most of its buildings were converted for the manufacture of Fleur-de-Lys pies.

A highly detailed, illustrated history of the Emscote Mill, written by Tim Booth, appeared in Issue 22 of *Wind and Water Mills*, 2003, published by The Midlands Wind and Water Mills Group, and is still in print. Copies were on sale, price £3.00, at the February meeting and are also available from Mr A. Bonson, 14 Falmouth Rd, Congleton, Cheshire, CW12 3BH.

### **Harbury Windmill continued:**

Verney in 1890 by being caught up in the internal machinery, and another miller when out on the furling gallery being struck by a sail.

Milling ceased in 1952 and after some years it was used as an engineering workshop. In 1982 a rather larger looking pitched roof type replaced the boat shaped cap. In 1988 the lower floors became part of a home.

### REFERENCES

1. The Warwickshire Museum Publication, *Windmills in Warwickshire* by W. A. Seaby and A. C. Smith.
2. *Wind and Water Mills*, Number 10, Midland Wind and Water Mills Group.

**Peter Chater**

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M. J. Green	D. M. Crips	M. W. Abbott
<i>Argyll</i> 2(b) Union Road	27 St. Nicholas Church Street	3 Holmes Court
Leamington Spa	Warwick	Bridge Street
Warwickshire	Warwickshire	Kenilworth
CV32 5LT	CV34 4DD	CV8 1BP
( 01926 313782	( 01926 401072	( 01926 850114
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- ☉ Whittle Anniversary
- ☉ 2006 Programme

### FROM THE CHAIRMAN

The Association for Industrial Archaeology (AIA) is the UK's main national and international body for the research, study and promotion of industrial archaeology. WIAS's contact with the Association comes through the Society's group membership and individual AIA members who also belong to WIAS.

In addition, two conferences are of importance in maintaining these links. The annual conference takes place in September each year, and is well known to members, but also in April each year the AIA Societies Weekend is held in Ironbridge. This gives an opportunity for representatives from local societies to meet together, to share ideas and experiences, and to present material from their local area. This is built around a predetermined theme, and is co-ordinated by Dr. Ray Riley. This year, for example, the theme taken was brewing, and a number of talks were delivered on the subject. These included brewing processes, brewing architecture, brewing in Somerset, vinegar brewing, the refurbishment of

Southwick brewery, medieval malting and brewing, and the IA of consumption: The Pub.

The Brewery History Society also had a strong presence, and the BHS represents another organisation whose work is very much complementary to that of the AIA. Membership details can be gained from Mr. Jeff Sechiari, Manor Side East, Mill Lane, Byfleet, West Byfleet, Surrey KT14 7RS.

The final part of the Conference was made up of members' contributions, and the only disappointment was that Ms Sarka Jirouskova from the Czech Technical University, Prague (who had prepared a Powerpoint presentation on Czech breweries) could not show her material because the AIA had not laid on the necessary equipment - a surprising omission in the modern world. She also highlighted the work of the Research Centre for Industrial Heritage (founded in 2003), and the "Vestiges of Industry" Biennial Conference, with the next one being held in Prague and other industrial areas of the Czech Republic in 2007. Details are available from Pod Juliskou 4, Prague 6, 166 00, Czech Republic for anyone who fancies an overseas trip!

The Ironbridge weekend is designed to be informal and non-threatening, with talks supplemented by a local walk on the Saturday afternoon and a relaxed Dinner on the Saturday evening. John Brace and myself represented WIAS. One interesting feature was the

strength of representation of societies from the south of England - apart from one representative from Manchester, Warwickshire was the farthest north! I have been to several of these conferences and - depending on the theme chosen next year - it is probably time for the Society to make a presentation of some sort to raise our profile and that of IA in Warwickshire. When next year's theme is known, we will inform members, in the hope that this will stimulate potential input.

Martin Green

### SOCIETY NEWS

#### Programme.

The programme through to December 2006, is as follows:

#### July 13th

AGM and Members' Evening:  
*Aspects of the Industrial Archaeology of North Warwickshire*

#### September 14th

Mr. Brian Jones: *The Birmingham Pen Trade*

#### October 12th

Mr. Mike Beech: *Foxton Locks and the Foxton Inclined Plane*

#### November 9th

Mr. Anthony Coulls: *Locomotion: NMR at Shildon*

#### December 14th

Members' Evening: *Brund*

Please note that, as usual, there will be no meeting in August. September will mark the start of the new 2006/2007 season of monthly meetings and subscriptions for the season will be due. Subject to the outcome of the AGM, subscriptions will be £10.00 per person or couple.

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

March 2006 Mr. Jeromy Hassell

## *White and Poppe*

In late 1899, Alfred White, son of distinguished Coventry watchmaker Joseph White, and Norwegian-born Peter Poppe went into partnership and founded the small firm of White & Poppe. They opened a very modest workshop in Drake Street, off Lockhurst Lane, Coventry, with two employees and the intention of developing a single-cylinder engine for motor cycles. Barely had they started, however, than the demand for munitions in the Boer War secured them a substantial contract for making fuse bodies.

W & P were soon employing some 60 girls and 30 men. Fuse production was dominant, but the Company also developed machine tools for their own use and for sale. With the end of the Boer war orders for fuses ceased, so W & P returned to producing engines. Using clever design and interchangeability, W & P produced a range of one, two, three, four- and six-cylinder engines, also a novel design of carburettor of which 10,000 had been sold by 1910. Eventually, no fewer than 48 vehicle manufacturers were using White & Poppe engines, and in 1912 two of the firm's large 108-hp engines were powering the British army's Delta airship.

1912 was also the year in which the Company expanded into a new factory, fronting on to Lockhurst Lane. Here there were a drawing office, machine shops, engine erecting bays and engine and carburettor testing facilities. When William Morris sought an engine for his first car, the world-famous Bullnose Morris, he settled on White & Poppe. The car made its debut in March 1913, priced £175, and W & P received £50 for each engine. The contract with William Morris was clearly a *coup* for W & P, but the close association with him proved to be double-edged.

When a larger version of the car was proposed, William Morris went to the USA ostensibly 'to study mass production techniques', and he persuaded W & P to allow their chief designer (Hans Landstad) to accompany him. But Morris then placed orders for engines with an American supplier, and Landstad never returned to W & P. With the Great War imminent, W & P were soon back into munitions work and a new and much larger factory was built in Holbrook Lane specifically for that purpose. In 1914, W & P's workforce was 350. By 1918 that figure had risen to a peak of 12,000. The factory site on Holbrook Lane eventually extended to 141 acres, included hostels for 3,000 single women and 400 single men, together with 450 'cottages' for married

workers. On the site there were also 300 allotments, a 350-seat cinema, sports and social clubs, a full-size swimming pool and three canteens.

With the end of WW1, White & Poppe faced formidable problems. Munitions work ceased abruptly, they had lost the contract for Morris engines, and they were uncertain of their future. Should they produce their own car? Go into mass production? Buy the Holbrook Lane site? Or should they play safe by taking an offer for the Company which had already been made by Dennis Brothers of Guildford? That offer was accepted in November 1919, with Alfred White and Peter Poppe joining the Dennis board, but their firm's connection with Coventry gradually declined from then on. Today there is no evidence that it ever existed.

Jeromy Hassell is a descendant of Alfred White, has published a book on W & P, and his presentation was infused both with an intimate knowledge of his subject and an enthusiasm which made for a memorable evening.

## Frank Whittle

Sixty-nine years ago, on April 12th 1937, an event occurred in Warwickshire that eventually was to have far reaching consequences for most of the developed world. The event took place without fanfare, in an atmosphere shrouded in secrecy and was witnessed by a mere handful of somewhat intrepid observers.

On that day, on a gallery of the B. T. H. Turbine Factory, at Rugby, Flight Lieutenant Frank Whittle operated for the first time his own creation: the world's first operational gas turbine turbojet. The engine, called WU (for Whittle Unit), was mounted on a rudimentary test-bed, with the jet pipe projecting through a window, from which a suitable pane of glass had been removed! Thick metal plates surrounded the test-bed to contain flying debris in the event of an engine explosion. Under these severely cash-strapped conditions Whittle brought his new engine to life.

Virtually uncontrollable over-speeding of the turbine and large patches of red heat appearing on the combustion chamber casing attended the early test runs of the engine. Flames leapt from the jet efflux and fuel vapour from leaking joints was ignited when it came into contact with the very hot combustion chamber casing. This inferno did little

*Continued on page 3*

# The First Specialised Engine Building Works

April 2006 Mr. George Demidowicz

## *The Soho Foundry*

Between 1775, when James Watt entered into partnership with Matthew Boulton, and 1795, some 300 steam engines had been built in Boulton's Soho Manufactory in Handsworth, then on the edge of Birmingham. But by 1795 the partners recognised that Watt's patent had only five more years to run, royalties would then vanish, and the field would be open to competitors. Moreover, the Soho Manufactory, built in 1762, had been designed to make a variety of small products including jewellery, buckles, buttons, silverware etc. Not the ideal plant in which to build massive steam engines.

The partners therefore decided to build a special factory, the Soho Foundry, just a few miles from the Manufactory. This brand new plant, opened in Smethwick (now Sandwell) in 1796, was the world's first specialised engine-building facility and can justly claim historic significance as a key element in the history of the industrial revolution. In 1895, when Soho Foundry was sold to W & T Avery, it had a covered area of 220,000 sq ft and a multiplicity of buildings. Today, after a perilous period in which wholesale redevelopment of the site was threatened, it is now largely Grade II listed and much of the area has been identified as an ancient monument.

George Demidowicz has devoted many years to exhaustive investigation of the history of Soho Foundry, and is a recognized authority on the subject. He illustrated his talk with slides of many plans representing different stages in the development of the works, most of which came from the Boulton & Watt Archives now in the custody of the City of Birmingham. That archive also contains large numbers of unique photographs of the exteriors and interiors of the workshops when they were in their heyday, some of which Mr Demidowicz showed our meeting. An important feature of the Foundry was that it should be able to produce virtually all the components required to make Watt engines on site, including casting and machining the huge cylinders and flywheels.

Prominent among machine tools used in Soho Foundry were a massive cylinder boring machine and a very large-capacity lathe for turning flywheels. There were also large planing, slotting and drilling machines, and initially such equipment was designed and built by B & W for its own use. It was only in later years that machines from other makers were installed. Soho Foundry was also the first factory in Britain to be lit by gas. The system was developed by William Murdock, a brilliant Scottish engineer who

joined B & W in 1777. A row of cottages, now preserved buildings, stands in the main drive of the Foundry, and one was occupied by Murdock from 1817 onwards.

Control of the business eventually passed to the sons of Boulton and Watt, who enlarged it and increased its prosperity and importance as a centre of manufacturing excellence. Important marine engineering work carried out by B & W included the engines for Brunel's ship *SS Great Eastern*.

The remains of the Foundry came perilously close to being flattened in the late 1990s and were saved only by public protest and the unstinting efforts of those such as George Demidowicz. However, many of the original buildings which survive are in a parlous condition, and some have actually been classified as 'unsafe'. Highly specialised care and attention will be needed to preserve them for future generations.

### **Frank Whittle continued:**

for Whittle's nerves and those of his trusted assistants. The few B. T. H. observers who witnessed these early test runs usually disappeared very rapidly, some seeking the relative safety of large cast-iron steam turbine exhaust casings!

The development of the gas turbine turbojet was a long and lonely road for Whittle. Official indifference, insufficient finance, the machinations of some of Britain's technical élite, all conspired to deny for this country the considerable technical lead conferred on it by Whittle. Germany was not nearly so hampered and thus was able to claim the prize for producing the world's first turbojet powered aeroplane. At the end of the Second World War Germany's technical lead in jet aircraft was overwhelming.

Nevertheless, we must not forget that it was a Warwickshire man, working against all kinds of opposition that started the world's first successful gas-turbine turbojet engine, in Warwickshire; an event that was to change our world.

**John Willock**

### **Apologies**

Work commitments and a delay in the supply of copy because of holidays, have conspired to slightly delay production of this edition of the Newsletter. Hence it was not available at the June meeting as would be usual, so a post distribution has been undertaken to all members to ensure receipt.

# Industrial Archaeology in New Zealand

May 2006 Mr. Martin Green

## *Aspects of the Industrial Archaeology of New Zealand*

**P**opular visions of New Zealand as an agricultural country belie the diversity of industrial activity that has taken place in this small, isolated country, and our Chairman Martin Green revealed some of the remaining sites in his talk at the May Meeting.

New Zealand's first industries were associated with the exploitation of the country's natural resources. The sealing and whaling gangs that visited from Australia, America and Britain led to few permanent settlements, and it was the timber trade - particularly kauri timber in North Island - that gave the impetus to economic activity. Expanding demand for timber in the frontier economy took workers deeper into the forest and placed pressure on the methods of transportation to the coast. Bullock teams, log chutes, and driving dams were just a few of the methods utilised, before tramways and their locomotives became a familiar sight in the forests.

The kauri tree also produced a resin - kauri gum - that would ooze from the tree, solidify, and periodically fall into the undergrowth. The collection of kauri gum became commercially viable as new uses were developed, particularly in high grade varnish, and later in linoleum. Photographs of the gum-diggers and their working and living conditions emphasised the arduous nature of life on the gum-fields.

Fortunately, although only 0.3% of the forest remains, a strong conservation movement now exists for the kauri, and a Museum of the Kauri industry can be visited at Matakoho.

Gold was discovered at Gabriel's Gully in Otago in 1861 and brought a surge of prospectors. Familiar tales of a 'get-rich-quick' mentality were complemented by details of the role of the Chinese community in the Otago goldrush and the attempts to preserve their special heritage. Subsequent rushes took place on the West Coast of South Island - with many relics preserved as part of 'Shantytown' - and

on the Coromandel peninsular in North Island, with its water-powered stamping batteries.

The discovery of coal soon meant that Brunner was a hive of activity and the west coast coal communities established - and have retained - a special place in NZ industrial and labour history. One particularly impressive engineering structure was the Denniston Incline, bringing the thrills of the Big Dipper to the transport of coal!

An isolated copper mine on Kawau Island, and the Dominion Salt Works at Lake Grassmere, both provided powerful images of the way New Zealanders had sought to make the most of natural resources available. However, it was in the world of agricultural engineering that the resourcefulness and ingenuity of new arrivals found a real champion. Ernest Hayes emigrated from Warwickshire to assist with mill engineering at Rough Ridge in Otago in 1882. He discovered that agricultural implements were scarce, and began designing and manufacturing implements himself. He developed a vast range of items - from windmills to portable rabbit smokers - and his parallel wire strainer for fences became world-famous. The works are now preserved by the NZ Historic Places Trust.

The design and decoration of the white stone buildings of Oamaru indicate a thriving industrial past. This was a crucial area for the expansion of agriculture, and on the nearby Totara Estate the buildings used for the slaughter and storage of the first frozen meat to leave NZ have been preserved.

The final part of the lecture took a rapid look around some of the other sites that the Chairman had visited - the site of the first production of Portland Cement in NZ at Warkworth; the magnificent Dunedin railway station and the associated Taieri Gorge railway; the gasworks museum at Dunedin where virtually all the equipment originated in the UK; the baths at Rotorua; the steam ship T. S. S. Earnslaw on Lake Wakatipu; and the Art Deco architecture of Napier.

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

## Credits

### Design and editing:

Mark W. Abbott

### Additional material:

Arthur Astrop

Martin Green

John Willock

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# WARWICKSHIRE

## Industrial Archaeology Society

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### THIS ISSUE

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- ☉ From the Chairman
- ☉ Mine Explorer
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### FROM THE CHAIRMAN

The start of September and a new 'season' of meetings for the Society is always a time when thoughts turn to the possibilities of building one's own knowledge of the subject by attendance at courses at local colleges and universities. This process was brought particularly to mind this year when the Newsletter of the AIA - under the headline *'Where are those IA courses?'* - asked its members to send in details of courses or conferences, for there seemed to be a lack of such opportunities in comparison with previous years.

In fact, my earliest experiences of industrial archaeology began with WEA courses held locally, and I remember meeting with fellow students who were later to become stalwarts of WIAS. I was greatly impressed by both their enthusiasm and their knowledge, and showed me how much I had to learn.

Carrying out a search for courses for 2006/7 did not initially bear significant fruit. Further investigation has produced a small number of possibilities (see below), but I would be very eager to hear

details of any other courses or conferences that might be of interest to members.

Such courses and conferences are crucial in promoting the subject as well as providing possible research projects, and, of course, potential members and speakers for WIAS. They are all part of the process of preventing the subject becoming a one-generational experience, with impetus and commitment evaporating once the founders of the subject are no longer with us. It is quite a challenge to consider ways in which a wider (and younger) audience might be tempted to a study of relics of our industrial past. Perhaps WIAS should make a greater effort to spread the word. Should we have a ready-made presentation on the *'Industrial Archaeology of Warwickshire'* that could be taken around local societies and groups, and even taken into schools?

One interesting possibility is the example provided by the Bristol Industrial Archaeology Society. The University of Bristol offers a regular course on industrial archaeology and this is run by Bristol Industrial Archaeology Society who provide different speakers on a number of topics for the duration of the course (six fortnightly meetings). Could WIAS organise a similar venture via one of the local universities?

### Some local courses

Two courses on railways run by the University of Warwick Centre for Lifelong Learning and led by Martin Bloxson:

1. *'Railway to Shakespeareland' - the Stratford and Midland Junction Railway 1864-2005*. 10 sessions Tuesdays 13.30 - 15.30, starting Tuesday 3rd October at Shakespeare Birthplace Trust, The Shakespeare Centre, Stratford Upon Avon. Apply via CLL, University of Warwick, Coventry. CV4 7AL 02476 573739 Quote 1288/AU06

2. *'When the Great Central came to town 1890 - 1922'*. 10 sessions Wednesdays 19.30 - 21.30, starting Wednesday 20th September 2006. Apply direct to Percival Guildhouse, St Matthews Street, Rugby. 01788 542467. Quote 1406/AU06

*Black Country History Day*. 14th October 2006: University of Birmingham Day School: Contact Sandra Ilott, School of Public Policy, University of Birmingham, Selly Oak Campus, Weoley Park Road, Selly Oak, Birmingham B29 6LL.

Martin Green

### SOCIETY NEWS

#### Programme.

The programme through to January 2007, is as follows:

#### October 12th

Mr. Mike Beech: *Foxton Locks and the Foxton Inclined Plane*

#### November 9th

Mr. Anthony Coulls: *Locomotion: NMR at Shildon*

#### December 14th

Mr. Peter Cross-Rudkin: *I. K. Brund*

#### January 11th

Mr. Ron Speddings: *The Rolls Royce Heritage Trust, Coventry*

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

June 2006 Mr. M. Thompson and Mr. R. Pugh-Cook

## *Woven in Kidderminster*

‘**C**arpet Capital of the World’. That was once the proud claim made by Kidderminster when carpet making was the town’s single (indeed only) important manufacturing industry, and when the overwhelming majority of its citizens, male and female, depended on it for a living.

The presence of the slow-running river Stour, ideal for washing and dyeing skeins of wool, together with a climate suited for wool conditioning, initially gave Kidderminster everything it needed to become a centre of weaving. Soon, one of its principal products was ‘Kidderminster Stuff’, a heavyweight multipurpose woven material which, in 1735, led to the first manufacture of Kidderminster carpet proper, using converted hand looms. Melvyn Thompson and Richard Pugh-Cook have spent a lifetime in the carpet manufacturing industry and together, in a delightful ‘double-act’, they presented our June meeting with a history of Kidderminster’s most famous industry, from its earliest days, through its peak of prosperity, to today, when carpet making survives relatively residually.

Initially, weaving was done on an out-worker basis, families using a handloom (rented from a ‘master’), and usually installed in an upper room, not unlike the watchmakers’ top-shops in Coventry. Long hours were worked to produce the basic 25 yards of 27-inch wide carpet each week which, in those days, was the essential minimum for a family to survive financially. With the arrival of power looms, outworking gradually decreased as weavers were drawn into large mills built by ‘carpet masters’. Attempts to organise mill workers into a union were vigorously resisted by the masters, and a strike by the weavers in the 19th century against the imposition of a brutal wage cut failed, after having lasted for 21 weeks.

Successive boosts to Kidderminster’s carpet industry came from the arrival of the canal system, then from steam power to drive looms, and finally the railways. To these advances were added changes in carpet weaving technologies and the productivity of looms, so that the skyline of Kidderminster was soon transformed. Throughout the 20th century, despite wars and recessions, the industry continued to prosper, reaching its peak in terms of number of companies trading, and numbers of weavers employed, in the 1950s and ‘60s. But the 1960s also saw a major change in manufacturing technique, namely the introduction of the tufted carpet.

Initially, Kidderminster carpet makers stood aloof

from this upstart process (not proper weaving!), whereas mills in other parts of the UK, including those in Lancashire and Yorkshire, embraced it. When Kidderminster eventually accepted tufted carpet it was too late, and by the 1970s the town’s dominant position in carpet manufacture was already waning fast.

Whereas employment in its mills was once measured in very many thousands, today it stands at less than 1,200. The principal market now is for ‘contract carpeting’, for laying in buildings such as airports and casinos, also for cruise liners, and the increasing fashion for plain ‘wooden’ floors in houses has further severely cut into the demand for domestic carpeting.

The enthusiasm of Melvyn and Richard for the industry they both served was most infectious, and shows itself further in the Kidderminster Carpet Museum Trust which they have founded and is dedicated to displays of all aspects of carpet manufacture. The Museum is open every Saturday from 10.00am to 12 noon, and has an excellent website at [www.CarpetMuseum.co.uk](http://www.CarpetMuseum.co.uk)

Melvyn Thompson will return in June 2007 to continue the story of carpet manufacture in Kidderminster with *Woven in Kidderminster: Part 2*.

## AGM: Matters Arising

**A**t the Society AGM, held during the first half of the July 2006 meeting, it was agreed that the Society subscription should remain at £10.00 per person or couple for the 2006/2007 season. Members are therefore reminded that as of September 2006, the subscription for the 2006/2007 season of meetings is due. Payments may be made to the Treasurer at meetings or by post, although since I am unsure how regularly I will be able to attend meetings over the next year, the post route might be preferable. Cheques should be made payable to Warwickshire Industrial Archaeology Society.

Please also note that the budget projections presented in the Treasurers report at the AGM contained an error. The actual 2005/2006 budget column should total £1143.21, not £899.17; my apologies for this error. The significant difference between the actual and projected totals for 2005/2006 may be mainly accounted for by the variance in speakers’ expenses, which are difficult to accurately project.

**Mark W. Abbott**

# An Overview of North Warwickshire

July 2006 Members' Evening

*The Industrial Archaeology of North Warwickshire*

Following this year's AGM, at which reports on all aspects of the Society's activities were presented by Officers\*, our Chairman Martin Green introduced the subject for the remainder of the meeting as *Aspects of IA in North Warwickshire*. The northern sector of the County, Martin suggested, was probably the least well known by our members, and in terms of industrial archaeology possibly also the least well-recorded.

As a starting point he distributed copies of a large-scale OS map of the sector, which extends from Middleton in the West to Caldecote in the East; and from Newton Regis in the North to Great Packington in the South. Within those extremes lie many sites with evidence of past industries, notably mining and other extractive activities; of transport, including canals, railways and historic roads; and of various manufacturing industries, including hat-making in Atherstone. Hat-making in that town has virtually ceased and there is no museum to give evidence of a trade which once employed large numbers. But Martin had a few slides showing some the processes involved and the conditions under which some hat-makers at times had to work.

Martin also showed a number of slides of IA sites in north Warwickshire including Daw Mill colliery, which in the 1950s employed 12,000, and Pooley Hill colliery. The end of mining in many parts of the County posed the problem of what should be done with the surface remains of collieries, and aerial and ground shots illustrated how these difficulties have been overcome, and mostly to the benefit of the countryside. Other sites covered included Baggeridge Brick Works, Kingsbury Water Park (formerly a sand and gravel working), and the splendid Atherstone railway station.

Picking-up from that point, Roger Cragg then presented a Historic Civil Engineering Review of North Warwickshire, starting with the Roman road Watling Street, which sweeps across the county and a part of which is now the A5. The Coventry canal, extending over 38 miles and with 13 locks, was started in 1768 and not finished until 1790, mainly because the original estimates of cost were soon exceeded and additional cash had to be raised from somewhere. (Nothing new there then!).

Roger then moved on to the Trent Valley railway, opened in 1847, whose engineers included Robert Stephenson and George Bidder. Finally, Roger homed-in on historic bridges in north Warwickshire together with water towers at Tuttle Hill, Nuneaton and at Corley.

Roger was succeeded by Peter Chater who had a score of interesting slides, many concerned with railways and railway stations but also some showing unusual items such as 30-cwt wooden jib cranes once used in Coventry Goods Shed. The Harley tunnel had needed to be modified, by lowering the track, to pass modern rail container traffic, and other shots showed Atherstone canal wharf, Hawkshill boat repair yard, and Stockingford brick and terracotta works. Peter finished with a slide of the pillory and whipping-post at Coleshill, an early version of an ASBO!

The meeting was drawn to a close by a DVD from our Chairman of the Dunedin NZ Gas Works, the site of which is now dedicated to a museum of steam. Wonderful shots included huge stationary engines rotating slowly and majestically, and massive steam shovels working in a quarry. One felt the shade of the late Fred Dibnah would be nodding approvingly.

\* For those unable to be present at the AGM, copies of the Chairman's and the Treasurer's reports are available on application to the Society's Secretary, Denis Crips.

## *The Old Pumphouse Avon Dasset*

Close to the summit of the road between Fenny Compton and Avon Dasset, there stands a building now converted into a house called *The Old Pumphouse*. Next to it is a cottage carrying a date stone for 1852 called *Pumphouse Cottage*. This has unusually large diamond paned windows and an ornate tiled roof. Does any member know anything more of the history of these structures?

Presumably water was pumped, but to what end, and was the pump steam powered? There is no obvious reservoir or tank and Avon Dasset seems a small village to merit such a mains supply scheme. Perhaps the answer lies with one of the two large country houses in the village, *Avon Carrow*. This dates from 1889 and in architectural detail is very similar to the original portion of the pump house. Was perhaps the pump house part of an estate water supply scheme, rather than to benefit public health?

The cottage has some features in common with service buildings at the other big house, *Bitham Hall*. These and its location suggest a connection with that estate, standing as it does at the end of a long thin enclosure, parallel with the road, that leads back to the top gate to the house.

**Mark W. Abbott**

# Mine Explorer *by Mark Abbott*

## An appreciation of a web site featuring mining exploration and industrial archaeology

I have long had a fascination for underground places, born it would seem out of curiosity and a dread of the dark and unknown. Many times in Yorkshire, Wales and Cornwall, I have peered into the cold dank adits and down the shafts of some of the numerous mining remains that litter the landscape of these counties and have wondered at what lay underground beyond the light and familiarity of the landscape around.

Therefore the chance discovery of the Mine Explorer web site at [www.mine-explorer.co.uk](http://www.mine-explorer.co.uk) was a welcome find.

The aims of the site are succinctly summarised by its own home page statement:

“This website provides photographs and information on many of the disused mines found across the UK. It is intended as a comprehensive resource for not only Mine-Explorers, but cavers, historians, industrial archaeologists and professional bodies. It relies on content provided from Mine-Explorers out in the field who continually update the database.”

In practice, the database amounts to 213 mines with posted content. The majority of these are metaliferous mines (principally lead, copper and iron ore) and slate mines. In terms of content, slate mines predominate. This is perhaps not surprising as the Webmaster lives in Penmachno, and the slate mines of North Wales are amongst the most easily accessible and impressive underground workings in the UK. Not all the mines in the database are mines in the accepted sense. As an example, while the slate quarries around Blaenau Ffestiniog did undoubtedly develop as mines, sites such as Dinorwic were quarries with a limited amount of tunnelling, but are included in the database nevertheless.

The one major criticism that might be made of the site given its aims stated above is perversely its greatest strength too. Information other than photographs is distinctly lacking and the site is far from a comprehensive source. True, there are some

useful notes about access and recent collapses in important mines, but much of the other ancillary content consist of scans of information probably already available to the serious enthusiast. However, the photographic content, once beyond the obvious surface pictures, is good and for some locations superb.

The Webmaster in particular is an accomplished and developing photographer and there are many underground images, mainly from slate mines, that are quite simply excellent. To convey the huge scale of a typical slate extraction chamber, together with a sense of mystery and danger in one photograph is difficult, but a feat that is accomplished in many images. There is poignancy to some pictures too, especially those of the rather sad remnants of the closed Gloddfa Ganol mine tour in the now eviscerated Oakley Quarry.

Further excellent features of the site are the downloadable illustrated trip reports in pdf format. Again these nearly all feature slate mines, and the best are outstanding in content. That for the infamous ‘Everest’ of mine exploring, the Croesor Rhosydd through trip makes terrifying reading, worthy of the opening quote: “This trip is dangerous. In fact it’s the most dangerous thing I’ve ever done.”

It should also be noted that access to some of the posted material requires registration, seemingly to ensure only ‘responsible’ visitors can view it.

Few of us with an amateur interest in the industrial archaeology of mining will ever venture underground, and the value of this web site is the pictorial insight that it gives into just what lies in the darkness of some of the classic mining sites in the UK. It is too, an admirable advert for the digital image. Little of what the site contains would be so easily accomplished with a film camera or so easily made available to such a potentially wide audience. Altogether a highly recommended web site and one for repeated visits, as the site is updated almost daily.

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

## Credits

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Mark W. Abbott

### Additional material:

Arthur Astrop

Martin Green

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# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 25 December 2006

PUBLISHED QUARTERLY

### THIS ISSUE

- ☉ Meeting Reports
- ☉ From the Chairman
- ☉ Pump House Follow Up
- ☉ 2007 Programme

### FROM THE CHAIRMAN

Your committee is constantly monitoring ways in which services to members of WIAS might be improved and the New Year seems an appropriate time to bring some potential changes to the attention of the membership. Despite more grandiose ambitions set out in the past, we have come to realise that the monthly meeting is the mainstay of the Society and we are delighted that these are so well supported.

Increasingly, speakers for these meetings are delivering lectures with the aid of digital pictures and/or PowerPoint presentations. This requires a digital projector and laptop. Sometimes the lecturer brings their own equipment, but increasingly speakers expect venues to provide these facilities. The equipment can be provided by Warwick School as part of the room hire, but this has not been without the occasional hitch. It is infuriating when all seems to be in order, and then the actual delivery of the evening lecture is frustrated by technological problems, compounded by the Chairman's

lack of ability to rectify the situation.

There seem to be two ways around this situation. Perhaps a member of the Society might be prepared to spend some time with the Warwick School technician to develop expertise. This has time implications, not least for the Warwick School technician, and no guarantee that we would have the same equipment for every meeting.

A more radical step would be for the Society to purchase its own laptop and projector. This would be available for all meetings and, of course, would also be available for speakers from WIAS when going out to other organisations. Indeed, the Society could develop a series of presentations, stored on laptop and CD, that could be available on request. This would do much to ease the pressure of preparing individual lectures, and would support the long-term goal of spreading the IA word.

The cost implications are considerable. The Society does have funds in reserve, in the region of £1500, and purchase of equipment could take at least £1000 of this. This significant step will not be taken without full consultation with the membership, but the committee felt it should be brought to members' attention to give adequate time for thought and debate. We would seek to make a decision at the AGM in July 2007.

Given that the monthly meeting is the mainstay of the Society, any recommendations for speakers, or topics that

members would like to see covered, are vital to continuing success. You might even be willing to offer a 15-minute presentation yourself for the last part of a meeting. Furthermore, it is important that all aspects of the meeting go smoothly, and there are areas where assistance from members would certainly ease the pressure on the committee. Refreshments is one example: Is there anybody out there willing to take on responsibility for purchasing refreshments (fully reimbursed of course!) and organising the rota for refreshments? Do feel free to contact any member of the committee if you have any ideas for improvement, or would like to be more actively involved.

### SOCIETY NEWS

#### Programme.

The programme through to July 2007, is as follows:

#### January 11th

Mr. Ron Speddings: *The Rolls Royce Heritage Trust, Coventry.*

#### February 8th

Mr. Roger Cragg: *Thomas Telford.*

#### March 8th

Mr. Jeromy Hassell: *Joseph White Watchmaker.*

#### April 12th

Mr. Hugh Jones: *The Building Stones of Warwickshire.*

#### May 10th

Mr. Derek Billings: *Aspects of the Industrial Archaeology of Cornwall.*

#### June 14th

Mr. Melvyn Thompson: *Woven in Kidderminster Part 2.*

#### July 12th

AGM and Members' Evening: *The IA of Nuneaton and Bedworth.*

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

September 2006 Mr. B. Jones

## *The Birmingham Pen Trade*

*"They come as a boon and a blessing to men,  
The Pickwick, the Owl and the Waverley pen"*  
(And most of them were made in Birmingham!)

In the 19th century, when the steel pen industry was at its peak, Birmingham had very many different pen makers producing an estimated 100,000 different types. Most of the firms were small and specialised, but there were some giant companies who dominated the trade and whose names became known the world over. Today, most of them are represented only in the Birmingham Pen Museum in Frederick St, whence historian and author Brian Jones came to address our September meeting, together with his colleague collector Colin Giles.

After a brief reference to the early history of 'writing tools', Brian Jones focused in on Birmingham and on the arrival there in 1790 of Samuel Harrison. Harrison introduced steel pen manufacture to the city already famous for the production of small items in metal, and its existing workforce and their skills offered a natural home for steel pen manufacture. John Mitchell soon came down from Sheffield to join the fray, and shortly afterwards Joseph Gillot also appeared on the scene. These names, together with others which included MacNiven & Cameron (originators of the advertising jingle above), Brandauer & Petit, and Josiah Mason (destined to become the largest company making pens in the world), eventually employed many thousands of workers. Their founders were also to be numbered among Birmingham's great philanthropists.

For most of the 19th century the production of steel pens, mainly by women, was highly labour intensive. A typical pen factory, designed to maximise the entry of natural light, had multi floors and rows of long benches at which young women sat, shoulder to shoulder, operating hand presses. The work required manual dexterity, for each pen was dealt with individually, and required a number of different single-stroke operations. These included blanking, piercing, splitting, raising the form etc, and typically only two seconds were allowed for each operation. Typically also, an operator would specialise in just one type of press operation for the whole of her working life!

Male operators were used only for the heavier work, such as barrelling (deburring) and heat treatment of the pens. Brian Jones showed many slides of pen factories, externally and internally, and

together with the amazing collection of different types of pens brought to the meeting by Colin Giles, also examples of the boxes in which they were packed, they combined to bring the whole subject to life. At its peak, the industry was noted not just for its output but also for the proportion of its products which was exported, and which made their makers' names famous internationally.

The advent of the fountain pen, the first attempt to 'separate' a pen from an inkwell, was the initial wind of change to blow through the industry. But at least fountain pens still needed nibs! But it was, of course, the arrival of the ball point pen in the mid-20th century which finally saw the end of the steel pen industry as it had once been known. Pen manufacture still survives, to serve specialist needs of artists, calligraphists, map makers etc, but the days when virtually everyone, from a child at school to an OAP, needed a steel pen, a holder, and an inkwell, are long gone. The Birmingham Pen Museum, however, is devoted to preserving their memories.

### Pump House Follow Up

Thank you to both John Brace and Peter Chater who provided some information about the Old Pump House, Avon Dassett, following my query in the September 2006 Newsletter.

The pump house was built to provide water to Avon Carrow house, possibly around 1899 rather than the originally quoted date of 1889. At the pump house, water was pumped by a Ruston and Hornsby oil engine, as required, from a borehole to a header tank in the pump house and then gravitated by a feed pipe to the house. The house had several lead lined water tanks in the roof space, enough to hold a number of days water supply, although these may not have been part of the original supply scheme, but rather a response to severe water shortages experienced in the village until a mains supply was provided. Water was also supplied to other properties on or adjoining the estate. A wind pump was added to augment the oil engine some time after 1925. In 1913, the water supply was extended to Bitham Hall, but seems to have become disused fairly soon after.

The pump house is now a private dwelling although the original structure is obvious despite a not altogether sympathetic extension. Avon Carrow house has also been converted into a number of individual properties.

**Mark W. Abbott**

# Foxton Inclined Plane Progress

October 2006 Mr. M. Beech

## *Foxton Locks and the Foxton Inclined Plane*

Throughout the 19th century competition from Britain's railways as a freight carrier was hitting working boats on the country's waterways very hard. The reduction in time required to get freight from *A* to *B* was a trump card played by the railway in its competition with waterways, and a typical 'choke point' for the latter was, for example, the 10 narrow (7-ft wide) staircase locks at Foxton. These locks could accommodate one boat only at a time, and it took a boat 45 minutes to negotiate them.

So it was proposed to build an inclined plane which would transport four narrow boats at a time, two-up and two-down the 75 ft 'rise', in only 12 minutes. The plane would not only speed up passage of boats but would also save loss of water. It was not surprising, therefore, that there was considerable support for the scheme. Work on the inclined plane, designed to completely circumvent the Foxton locks, was started in 1898 and was completed in 1900, at a cost of £37,500.

Mike Beech, Museum Keeper of the Foxton Inclined Plane Trust, is a leading authority on the subject and delivered an excellent talk to our October meeting. The design of the inclined plane was innovative in that it carried each pair of boats *transversely* in a water-filled 'dock', and boats going 'down' effectively counterbalanced those going 'up'. Each wheel-mounted dock measured 80 ft by 15 ft and they were connected by steel hawsers running around large pulleys at the top and bottom of the incline. A 25-hp steam engine drove a hydraulic system, providing the extra power needed to assist movement of both sets of docks.

For a few years, the inclined plane worked well and for a time it staved off some competition from the railways. And in 1909 refurbishment work on the Foxton locks was started, aimed not least at increasing the width to allow two boats to enter side-by-side, and to allow for overnight passage. This work was completed, and the staircase was reopened in 1910. But both the Foxton ventures, that is the inclined plane and the refurbishment of the locks were, of course, too late to save competitive commercial traffic on the waterways. In 1911, the inclined plane was closed, and in 1928 it was demolished. By the time the waterways were nationalised in 1948, Nature had effectively reclaimed the entire site, and when the Foxton Inclined Plane Trust was founded in 1980 a truly mammoth task faced its volunteers.

Very many trees needed to be felled just to reveal

the foundations of the inclined plane, and many more had to be planted elsewhere to compensate for them. In 1989, the Trust opened the reconstructed boiler house, now housing a museum, and in 1998 major refurbishment work was carried out on the lock side ponds. The Trust has been successful in obtaining a grant of £1.8million from the Lottery Fund, and in addition has raised a further £1m from its own efforts. This money will enable it to undertake a number of additional restoration projects, including re-watering part of the canal, reviving the stop lock and building a bridge identical to one erected in 1900. The long-term aim, however, is to rebuild the inclined plane complete.

The Trust has a website [www.fitp.org.uk](http://www.fitp.org.uk), which organises guided tours and runs the Museum.

### Action Needed

Recently, both my personal email address, and the Society email address, have been targeted by a large number of junk emails. A certain amount of spam email is inevitable, but the majority of the emails that have caused concern, up to 70 at one time, are not unsolicited advertising, but the product of a computer virus.

The characteristics of a false address at a real domain and a subject and message body of random words, indicate the culprit is probably a mass mailing worm. However, the point that has to be made is that the unwitting source of all this email traffic is probably a computer belonging to a Society member, as only such a computer is likely to hold both email addresses.

The solution is simple. Please make sure your computer has up to date and working anti virus software. All such software must be kept up to date to detect new virus threats as they are identified. These updates normally take the form of a small download from the software suppliers web site, and recent anti virus software can usually be configured to automatically download and install updates as they are available. Typically, such updates are free for the first year and thereafter by annual subscription, or a new version of the program should be installed. Do not think that because your computer had anti virus software installed at purchase, no further intervention is required!

If need be, there are very good free anti virus programs available. Try AVG at <http://free.grisoft.com/doc/1>.

**Mark W. Abbott**

# NMR Outstation

November 2006 Mr. A. Coulls

*Locomotion: NMR at Shildon*

**A**s a schoolboy (and a one-time pupil of our Chairman), Anthony Coulls developed a great interest in industrial archaeology in general, and for 'steam' in particular. That youthful enthusiasm was, in fact, destined to determine his career path, and today he is Collections Care Manager of *Locomotion*, the National Railway Museum at Shildon, County Durham.

Opened in 2004, *Locomotion* is an £11m joint venture between the National Railway Museum at York and Sedgefield Borough Council and has three principal themes. Namely, to be custodian of vehicles which are national icons; to house vehicles of particular significance to the North-east; and to cherish vehicles in need of conservation. Its collection started with some 70 to 80 vehicles which were transferred from the National Railway Museum at York where, for lack of covered space, they stood open to the weather. Today they are under cover, far safer and their conservation is assured. The position of *Locomotion*, in Shildon, puts it at the very heart of locomotive history in the UK. Indeed, it includes refurbished buildings of Timothy Hackworth's Museum, and although it is still very young it has already logged 300,000 visitors. Its arrival can also justifiably claim to have reinvigorated Shildon, one of the world's oldest railway towns.

*Locomotion* is very much a 'live' collection and while it is designed to appeal to all ages, it has a special eye on the young (and the young at heart!). At one end of the spectrum it has a working replica of the famous *Non-Parail* loco, which took part in the 1829 Rainhill Trials, and at the other end there is a diesel-electric Deltic 50 loco, the introduction of which in 1955 was effectively to signal 'the end of steam' for UK's railways. Other 'live' attractions include demonstrations of shunting (a truly arcane art to the young!), and 'Cab It' events where, for a fiver, one can stand on the footplate alongside the driver of a steam loco.

The centre piece of *Locomotion* is undoubtedly its splendid purpose-designed Collection Hall, a very large open-span building housing seven tracks. Mr Coulls showed a series of shots of items in the collection, including such locos as an APT (tilting train), a Great Northern Atlantic, an underground train for transporting miners to a coal face beneath the North Sea, a Severn Valley line loco currently on 'exchange' for a Shildon 1901 contractor's engine, and many others. Shots of rolling stock in the collection included a flat wagon carrying a WW2 Crusader tank and an 1886 coach the reconditioning of which will be a project for apprentices from Ettington College.

There is a loco built by Hawthorne Leslie on the Tyne, to celebrate that area's contribution to railways, a 'fireless' engine, a North Eastern loco and snow plough and a Kent coast electric loco. Space in this Newsletter is insufficient to cover Mr Coull's lecture in full, for he gave members an exceptional wealth of information. Suffice perhaps to say that the content of his presentation, and the enthusiasm of his delivery, must surely have ensured that many present at our November meeting have made a note of *Locomotion* in their diaries! The museum has a website [www.locomotion.uk.com](http://www.locomotion.uk.com) which is also well worth a visit.

## Local information source?

Spotted recently in W. H. Smiths in the *Local Books* section were reproductions of old Ordnance Survey maps under the Old Maps title. Only two sheets were in stock, those for north and south Leamington Spa. These proved to be excellent reproductions of 1923 twenty-five inches to the mile maps, and contained much detail of interest, including the brickworks that stood at the end of Campion Road and the once quite complex railway network within the town.

At around £2.00 each they represent excellent value for money and are recommended.

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

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# WARWICKSHIRE

## Industrial Archaeology Society

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- ☉ Meeting Reports
- ☉ From the Chairman
- ☉ AIA Conference
- ☉ 2007 Programme

### FROM THE CHAIRMAN

Of all the industries with which Coventry and Warwickshire are most closely associated, the motor industry must take pride of place. Sadly, of course, in step with the decline of the motor manufacturing capabilities of the country as a whole, the motor industry of our region is a pale shadow of its former self. Most recently, the closure of the Ryton plant has delivered a very painful blow to the industry's presence in the area, with the loss of 2300 jobs.

The decline of an industry has many physical dimensions, with demolition the most likely outcome for many of the production facilities. However, it should be remembered that the personal element is a crucial ingredient as well, and it was interesting to note that the BBC ran a series of radio programmes on the human impact of Ryton's closure. These had the feel of earlier documentaries about the fate of other UK industries such as mining.

On a similar theme I was interested to read the obituary notices of local motor manufacturer, Harry Webster,

who sadly died in February aged 89. I was drawn to the description of the route that his life had taken and the various institutions and firms with whom he had been associated. Such a career is difficult to imagine for a young Midland engineer of today. The obituary published in *The Times* of February 12th, 2007 makes fascinating reading.

Perhaps the engineers at Aston Martin can carry the tradition forward. It was indeed gratifying to read the confirmation of the future of the Aston Martin plant at Gaydon – a real exception to the generally depressing news about developments in the motor industry.

The presence of the motor industry is also felt by way of two hugely important museums: The Museum of British Road Transport in Coventry and the Heritage Motor Centre at Gaydon. Both collections have a great deal of local interest, and deserve our full support. For example, the Heritage Motor Centre has a collection of archive photographs that provide a unique historical record of some of our most famous factories - Cowley (Morris & MG), Solihull (Rover & Land Rover), Canley (Standard-Triumph), Foleshill (Riley), Adderley Park (Wolseley) and Longbridge (Austin).

One industrial plant that remains in Warwickshire is the Ford foundry in Leamington. The plant makes 10 million castings a year of Ford brake drums and discs for distribution in Europe, Mexico and the US. At the time of writing, local newspapers

contain worries expressed over the future of the plant - in particular whether the brakes for the new Ford Fiesta would be produced in Leamington. This is an important plant of a multinational firm and its history deserves our attention. Perhaps there are members of the Society who would like to take on the task of building up our knowledge of the plant and its history. Some of our members are working on the history of Automotive Products in Leamington Spa and this, again, is a very important task, given the virtual disappearance of any physical remains.

The motor industry was vital to the economic development of the region and any contribution we can make to the recording of that history can only be of benefit to future students of the motor industry in Coventry and Warwickshire.

Martin Green

### SOCIETY NEWS

#### Programme.

The programme through to July 2007, is as follows:

#### April 12th

Mr. Hugh Jones: *The Building Stones of Warwickshire*

#### May 10th

Mr. Derek Billings: *Aspects of the Industrial Archaeology of Cornwall*

#### June 14th

Mr. Melvyn Thompson: *Woven in Kidderminster Part 2*

#### July 12th

AGM and Members' Evening: *The IA of Nuneaton and Bedworth*

#### Subscriptions

Outstanding subscriptions for 2006/2007 are now due please.

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

December 2006 Mr. P. Cross-Rudkin  
*Isambard Kingdom Brunel*

The year 2006 was the bicentenary of the birth of Isambard Kingdom Brunel. It was fitting, therefore, that at our last meeting of that year WIAS member Peter Cross-Rudkin should help our Society to celebrate the anniversary with a splendid talk in which he took a broad view of the life, times and achievements of arguably Britain's greatest engineer. Greatest in many senses, and not least in the number of his projects which today, nearly 150 years after his premature death at the age of only 53, are still standing as testament to his genius.

IKB's father, Sir Mark Brunel, was an eminent engineer in his own right, and all too often history records that the son of a great man is destined to be overshadowed by his father. In IKB's case, however, precisely the reverse was true, and his achievements outshone those of his father, great though they were. IKB was in his early 20's when he took over the construction of the Rotherhithe-Wapping tunnel under the Thames, a project which had been started by Sir Mark. The tunnel nearly claimed the young man's life, on two occasions, but he survived and was destined for greater achievements.

The thrust of Peter Cross-Rudkin's presentation was to illustrate the astonishing, possibly unique, range of IKB's talents. Driven by an urge to innovate, and to succeed in achieving what lesser men considered 'impossible', IKB deployed those talents over a breadth of field encompassing bridges, buildings, tunnels, docks, railways, and ships. His output in terms of original designs alone was staggering, and covered virtually every known technology of the time. When to this is added his skills in management, often involving controlling several major projects simultaneously, his stature has probably never been equalled.

IKB's self belief was such that when his design for a suspension bridge over the Clifton gorge came second he arranged to meet the chairman of judges (the President of the Royal Society, no less!), and to convince him that the committee had obviously made a mistake. A correction was duly put in hand and work on IKB's design was started, although the bridge was not, in fact, completed until after Isambard's death. Using a fine set of slides (albeit exercising exemplary self-discipline in deliberately avoiding the one of IKB standing in front of ship's chains!), Peter took us through the great man's work.

A persistent thread in IKB's life was an insistence on not just 'doing things differently' to accepted practice, but in doing them in an innovatory way as well. His dogged, albeit unsuccessful, campaign to

make broad-gauge railway track a standard was a typical example, an idea which had many practical advantages, both in terms of safety and comfort of 'ride'. The many different types of IKB's bridges to be found on the GWR line, together with the associated tunnels, their striking portals, and the architectural beauty of the line's stations – both main termini and local – all reflect the towering genius of the man.

And then there were IKB's three great ships, the largest and most advanced of their time. Peter stressed the grandeur and innovatory design of these vessels which, although none of them completely fulfilled its promise, remain to this day examples of original engineering thinking well before its time, and were not to be surpassed for many years to come. With his astonishing grasp of so many different technologies and disciplines, and his ability to bend them to his command, Isambard Kingdom Brunel was possibly the last of the great polymath engineers of the western world.

## Southam Gasworks

Unlikely as it might seem, the small town of Southam once had its own gasworks. This was situated on Welsh Road East, on the far side of the River Stowe from the town. A house and a number of associated buildings remain on the site, but in recent years these have become overshadowed by new housing and now stand almost hidden on the truncated old route of Welsh Road, itself cut by the town bypass and reduced to a footpath.

Recently, the site has been advertised for sale as a development opportunity, with outline planning consent for two detached houses. It is unclear if the existing cottage will be retained.

I have one picture of the site, taken from across the Stowe from what was then the car park for the local health clinic. This in itself is a good argument for photographic recording of the everyday scene, as this view predates the Southam bypass and all the subsequent new housing on the eastern edges of the town. The view cannot now be repeated; the new health clinic stands over the original viewpoint and subsequent new housing on what is a now Pound Way, obscures the view across the Stowe valley.

If any members have photographs of the gasworks I would be pleased to see them, and possibly scan them for use on the Society web site.

**Mark W. Abbott**

# Engineering Heritage

January 2007 Mr. R. Speddings

## *The Rolls Royce Heritage Trust Coventry*

For those of us who recall the steady decline in Britain's manufacturing industry in the latter half of the 20th century, and who remember the cries (often made much too late) of "But what happened to all the photos, drawings, documents ..... etc?", the knowledge that not merely the records but also many historic products of Rolls-Royce are being lovingly preserved and maintained is good news indeed.

Indeed, for over a quarter of a century a dedicated band of volunteers has worked to promote and preserve the history and engineering excellence of Rolls-Royce. Founded in 1981, The Rolls-Royce Heritage Trust has five individual but inter-linked groups, based at Derby, Hucknall, Scotland, Bristol and Coventry. The Trust, handsomely supported by R-R in a multitude of different ways, is designed to act as a focal point for maintaining all aspects of the engineering heritage of the Company, also its corporate predecessors, and to be the guardian and authority (on behalf of R-R) of all relevant historic material. The effort and range of skills which are being employed by the Trust to that end was explained by Ron Speddings at our first meeting of the New Year.

He gave a brief summary of the work of the Trust as a whole and then concentrated on the Coventry branch, with its collection housed in premises at R-R Light Alloy Foundry, Derby. On display there are motor cars (Siddeley and Armstrong Siddeley), aero engines, rocket motors, torpedo engines, also marine and industrial products spanning almost 100 years. These items are restored and preserved by volunteers, principally retired R-R personnel but including some currently working for that Company. They use two workshops, the larger one at Derby, to which retirees are taken by coach once a week, and a smaller workshop located at Ansty.

The jewel in the crown of the Coventry branch is undoubtedly a 1904 Siddeley Autocar, but cars by that maker also include a 9-hp Stoneleigh light car, made in 1923 at Parkside, Coventry, and the last to be launched, in 1960, the Armstrong Siddeley 4.2-litre Star Sapphire. The major theme of the collection, however, is centred on aero engines of which it has very many. They include examples of the Python turboprop, all marques of Double Mambas and the Adder, and successive generations of the Viper, the first engine to celebrate 50 years of production.

The Trust also has collections of rocket engines built at Ansty, de Havilland and Rolls-Royce,

including a Stentor with its Avro Blue Steel stand-off rocket. There is a growing collection of industrial and marine engines of types used in boats, electricity generating sets and for gas pumping duties. In addition to the large quantity of historic documents which it has deposited for safe keeping with Coventry City Archives, the Branch maintains an expanding library of technical documentation, again worked on by volunteers. Transfer of drawings and other paper-based data to computer storage is in hand.

Items for preservation arrive at the Trust in a variety of conditions, some of them in a very poor state indeed. They may be corroded, damaged or dirty, but they are dismantled and restored with care and pride, often by retired R-R employees who had worked on them in the first place. Exhibits are prepared either for display in the Trust's collection, or for return to outside bodies. Membership of the Trust, Ron Speddings pointed out, is already more than 2,000, is world-wide, and is open to current and past employees as well as to enthusiasts for engineering heritage with a connection to Rolls-Royce and its ancestral Companies. The Trust has a website at [www.rolls-royce.com](http://www.rolls-royce.com)

### AIA Conference

Notice has been received of the 2007 AIA Annual Conference. This year it is to be held at the University of Central Lancashire in Preston and will feature the industrial archaeology of Lancashire and the Lune Valley. The dates are Friday 10th August to Thursday 16th August, with the main part of the conference occupying the weekend of 10th, 11th and 12th of August.

The provisional programme is varied and interesting, with emphasis on the important local industry of weaving. Other highlights include the Lancaster Canal, Preston Dock, glass making in St Helens, unusually, some aviation industrial archaeology with a visit to BAE Systems', local manufacturing sites and the history of aircraft manufacture in the Preston area, and a look at Blackpool as the first Working Class Seaside Resort.

Full details and a booking form are available from the Treasurer. Any WIAS member, whether an individual AIA member or not, can attend the conference, as the Society is affiliated to the AIA. The full residential package costs £500, with discounts for AIA members (£5) and first time attendees (£25 weekend, £50 full conference)

# Thomas Telford

February 2007 Mr. R. Cragg

*Thomas Telford*

Roger Cragg, giving his tenth talk to the Society, spoke on the subject of Thomas Telford, the Civil Engineer. This year was an appropriate time to be looking at the great man's life and works as he was born on 9th August 1757, making 2007 the 250th anniversary of his birth.

Roger began by describing Telford's humble origins as the son of a shepherd in the remote Eskdale valley in the Scottish Border country. Sadly his father died in the autumn of the year of Thomas's birth. Following schooling, young Thomas was apprenticed to a stonemason in nearby Langholm where he was put to work on the construction of Langholm Bridge, which still stands today. After a short period in Edinburgh Telford moved to London where he worked on the construction of Somerset House. Shortly afterwards he moved to Portsmouth to oversee the construction of new dockyard buildings. In 1786 he travelled to Shrewsbury to superintend alterations to Shrewsbury Castle for William Pulteney, then MP for Shrewsbury and the owner of the Castle. Soon Telford had secured several appointments in the area including Surveyor of Public Works for Shropshire and as an engineer on the construction of two local canals – the Ellesmere Canal and the Shrewsbury Canal. He was also engaged in the design of new churches at Bridgnorth and Madeley.

Roger showed slides of several of the bridges built by Telford in Shropshire including his first, Montford Bridge. Telford was also engaged on the rebuilding of many of the bridges on the River Severn following the devastating flood of 1795. For the Shrewsbury Canal Telford designed the Longdon upon Tern Aqueduct in a new material, cast iron, in 1795, quickly followed by high level aqueducts on the Ellesmere Canal at Chirk and over the Vale of Llangollen.

Lack of time prevented a detail review of all Telford's many civil engineering works but brief mention was made of his work in Scotland,

including many miles of roads, harbours and the Caledonian Canal. Turning to the Holyhead Road, Roger discussed Telford's rôle in the improvement of this important route during the 1820s.

Next in his talk Roger detailed Telford's works on the improvement of the Birmingham Canal including the deep cutting at Smethwick with its fine bridges and aqueducts.

Finally, in his long career, Telford returned to Shropshire and to canal building for the construction of the Birmingham and Liverpool Junction Canal. This canal was built in a bold style, with deep cuttings and high embankments. Among the many engineering challenges the most difficult was the construction of Shelmore Bank, up to 60 feet high and this was not finally completed until 1835, one year after Telford's death at his house in Abingdon Street, Westminster at the age of 77.

He was buried in Westminster Abbey, one of only two Engineers to be so honoured, and Roger's final slide was of the portrait of Telford, which hangs in the Institution of Civil Engineers of which Thomas Telford was the first president.

## From The Chairman: Footnote

Since the writing of this edition's *From The Chairman* Ford have announced that their Leamington Foundry will close on 21st July 2007 with the loss of 387 jobs. Ironically, and allegedly, this is because of the plants failure to win the contract for casting brake drums for the new Fiesta model due in 2008.

If there was one vehicle component that was once synonymous with Leamington, it was brakes, thanks to the presence of the now defunct Lockheed, later Automotive Products factory. This is reflected in the local football team's nickname of *The Brakes*. If current trends continue this will soon become the only tangible reminder that Leamington once had an automotive manufacturing industry.

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 27 June 2007

PUBLISHED QUARTERLY

### THIS ISSUE

- ☉ Meeting Reports
- ☉ From the Chairman
- ☉ Driving On
- ☉ 2007 Programme

### FROM THE CHAIRMAN

It is very reassuring to know that at least one member of the Society reads the Newsletter, and we publish a response by one of our members, Richard Storey, to the Chairman's notes of the last edition.

#### Mark Abbott

I am sorry to report that Mark Abbott wishes to hand over the responsibilities of Treasurer and Membership Secretary of the Society after many years in the dual posts. Mark does a tremendous amount of unseen work, and has been a crucial cog in the smooth operation of the Society. He has done everything in a quiet, unassuming but highly effective manner and the Society has benefited enormously from his diligence and efficiency. The good news is that he is willing to carry on as editor of this Newsletter!

**Martin Green**

### DRIVING ON

The Chairman's elegiac survey of our local motor industry in the last Newsletter has prompted me to submit these few extra thoughts.

Shortly before the bad news

about the Ford Foundry broke, some good news appeared when David Cameron opened a new factory at Binley in March for the production of the Modec electric van, which was previewed in 2006. With a payload of two tonnes and a range of 100 miles on a single charge, it had attracted orders for over 100 vehicles by March, including 15 for Tesco. Glimpse of a prototype in Coventry last summer indicates that it is a handsome machine.

Amongst the commercial vehicles which can now be displayed in the Coventry Transport Museum (as we must now remember to call the former MBRT) following its makeover is the one-off 'Ecomobile', a utility van prototype of 1937, the brainchild of Alfred Wild of Leamington. This was apparently offered, without success, to both Austin and Morris; 'Eco' referred to its alleged economy, rather than to our current ecological preoccupations.

It is a sad, but unavoidable, fact that few physical remains of motor manufacturing survive (P. Collins & M. Stratton, *British Car Factories from 1896*, 1993). This makes archive collections, especially those in the public domain, of even greater importance. As well as the archive collections in Coventry and Gaydon, it is worth remembering Warwickshire County Record Office, with such sources as the excellent series of vehicle licensing registers and the records of Eagle Engineering, and the Modern Records Centre of the University of Warwick Library.

Amongst the Centre's holdings is a very large sequence of records of the Standard Motor Co. (MSS.226/ST), which are perhaps unique in their detail on post-war operations. At the other end of the scale, the present writer's modest collection in the Centre includes a fine 1938 catalogue of Midland Vehicles of Leamington, electric van makers, and a scrapbook of collected material relating to Buckingham of Kenilworth, tanker makers (MSS.457). Outside the geographical remit of WIAS, but central to any study of the UK motor industry, were Rubery Owen of Darlaston, suppliers of chassis frames and numerous pressings to many vehicle manufacturers. It awaits a business historian to take up the major task of producing a company history, but in the meantime its records are held in the Centre (MSS.338) and are described in the Sources Booklet on sale on our monthly bookstall. Next door to the Modern Records Centre is the BP Archive, which is, of course, world-wide rather than just Warwickshire-oriented.

**Richard Storey**

### SOCIETY NEWS

#### Meeting Location

The consistently high attendance at recent Society meetings, typically around 50 people, has been difficult to accommodate comfortably in the original meeting room in Warwick School's Sixth Form Centre. This, coupled with the proximity

*Continued on page 2*

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

March 2007 Mr. J Hassell

*Joseph White, Coventry Watchmaker and Business Man*

When Britain's clock and watchmaking industry was at its peak, in the 19th and early 20th centuries, the main centres of the craft were to be found in the north-west (Prescot and Liverpool), in London (Clerkenwell) and midway between, in Coventry. In Coventry its practitioners were clustered in the Spon Street/Spon End area, in Chapelfields and in Earlsdon. At its peak, several thousand were employed, some by relatively small firms in equally small premises and others in much larger numbers by one or two dominant companies, among whom Rotherhams was possibly the best known.

In his address to our March meeting, Mr Hassell spoke vividly about the life and career of his ancestor Joseph White, born in 1835 the son of weavers and who, in 1851, was set to an apprenticeship with watchmaker Nathaniel Hill in Chapelfields. His apprenticeship was for seven years during which he worked a 12-hour day, six days per week. In 1860, two years after his apprenticeship ended, Joseph married, moved to a small house in Mount Street, Chapelfields, and started his own business. He was thus on his way to a notable career in the manufacture of high-quality high-precision timepieces, and subsequently to remarkable achievements in other areas as well, including bicycle production, land development and (through one of his sons), engine manufacture (White & Poppe).

His watchmaking business prospered and after a series of house moves, each one 'upwards', he eventually bought Earlsdon House, Earlsdon, together with a row of workers' cottages. The British watchmaking industry was now nearing its peak, and by the 1870s Coventry was producing two-thirds of all timepieces made in Britain. Joseph White was specialising in the higher quality sector of the market, striving always to meet the most exacting demands. His company regularly entered watches and chronometers for the rigorous timekeeping trials organised by the Greenwich Royal Observatory and the Admiralty, and consistently featured high in the tables of performance published by both. In 1911, in fact, a White watch was placed first in trials by the Admiralty. The highest quality watches made by White incorporated the famous *tourbillon* device developed by Breguet and designed to compensate for variations in timekeeping which occurred when a watch changed its position from vertical to horizontal.

But the British watchmaking industry was coming

under increasing competition from abroad. Import tariffs were being abolished, and the USA in particular was 'automating' watch production, introducing interchangeability of components, and by launching the 'dollar watch', for example, was bringing a pocket timepiece within the reach of all. White continued to produce the highest quality watches but his business acumen also made sure his Company diversified, firstly by taking an interest in Coventry Machinists Works (later Swift Cycles), and then by buying land in Earlsdon and developing it for upmarket houses.

In 1899, one of his sons, Alfred James White, went into partnership with Peter August Poppe, to found White & Poppe, and Joseph was involved in that venture as well. As Jeromy Hassell explained in his talk to our Society in March 2006, W & P went on to prosper mightily. At its peak, that Company was producing petrol engines in very large numbers for use by a number of world-famous car makers. After WW1, White & Poppe was bought by Dennis Brothers, Guildford, and in 1926 Harry Harley (later Sir Harry) bought Joseph White & Son and with it Earlsdon House. Harley eventually discontinued watch manufacture, and Earlsdon House became the HQ of his own company, Coventry Gauge & Tool Ltd.

## **Society News *continued:***

of the refreshment facilities giving unacceptable levels of background noise, has prompted a search for a better location. Recent use of the Pyne Room has proved quite successful and will continue for the time being, but with some effort to overcome the poor audibility of speakers. Use of the Society's existing radio microphone, or the purchase of a new portable radio microphone and amplifier system are being investigated.

## **Programme.**

The programme through to December 2007, is as follows:

### **September 13th**

Mr. Ron Moss: *Chain-making in the Black Country.*

### **October 11th**

Mr. Martin Bloxson: *Stratford and Midland Junction Railway.*

### **November 8th**

Mr. David Bright: *The Mill and Engine House at Warwick Castle*

### **December 13th**

Mr. John Frearson: *The Lime and Cement Industry of North Warwickshire*

# Warwickshire Building Stones

April 2007 Mr Hugh Jones

## *The Building Stones of Warwickshire*

**O**ur County was blessed with both an abundance and a variety of different types of naturally occurring stone, all of it laid down many millennia ago, and most of it suitable for building purposes. But little of it is immediately visible to the eye, since there were only small outcrops to give a clue to the presence of seams potentially suitable for quarrying. And of course, well below even the deepest of our seams of stone lie even more valuable seams of coal, some of the richest deposits of which are at depths which make mining both difficult and economically doubtful. Nevertheless, economically viable or not, many of us will recall the time, a few years ago, when the prospect of deep mining the Warwickshire part of this coal seam was real enough to cause considerable anxiety among residents.

Hugh Jones is not just an accomplished geologist. He is a geologist with such an engaging passion for his subject that he kept our meeting spellbound for an hour and a half, followed by questions. Starting by displaying a map of our County with its many and various stone deposits shown in different colours, Hugh then showed diagrams of the seams in cross-section, revealing how they stack one on top of the other, curving gently down from visible surface outcrops to considerable hidden depths.

Our County has basically sandstone and limestone, and a number of different variations on each, producing typically distinctions such as a blue and white lias, etc. Some are soft, and suitable mainly for facing, other are hard and can do service in supporting buildings. However, for a comprehensive view of what our County can offer in varieties of stone, the real evidence is clearly on show in its use externally and internally in our historic buildings. And it was that approach to his subject which Hugh predominantly took.

By concentrating on the exteriors, and to a lesser extent the interiors, of Warwickshire churches, mansions, stately homes and other types of public buildings, he was able to show both the diversity of Warwickshire stone employed and the different ways in which it was exploited architecturally. Many of the examples shown were familiar to his audience, but familiar or not it is doubtful if the significance of the stone used to build them had been adequately appreciated before Hugh pointed it out.

First the Romans and then the Normans exploited Warwickshire's stone for their buildings, and many Norman churches proudly display it to this day. Stoneleigh Abbey, parts of which date

from 1500, is built principally in red sandstone, and Haseley church shows three different types of Warwickshire stone side-by-side. Warwick Castle is an example of the use of stone cut to blocks and surface dressed, as is Mancetter church. Wootton Wawen church has a Saxon stone tower and Loxley church is, in Hugh's words, 'a positive museum of stone'. The quarry at Southam provided blue and white lias, clay and limestone used principally for the manufacture of Portland cement.

It is fair to say that, following Hugh's talk, many WIAS members will probably take a fresh look at many of our County's historic buildings, seeing their exteriors in a new light.

### Southam Gasworks Addendum

**F**rom the Warwick Advertiser of 8th November 1856 comes the following piece: 'Southam Gas Company. We find that the report of this Company, lately published by the Directors is very favourable in its results, and there appears every reason to anticipate that ere long it will be a very lucrative undertaking. Southam is a small parish in Warwickshire, containing only 2,770 acres, and numbering no more than 1,711 inhabitants; yet it has an established gasworks which pay four per cent on the outlay. The accounts are small in amount, but rigidly correct, with the right figures in the right place. The works were commenced in September, 1853. The drawings being furnished by Mr. T. A. Hedley, engineer of the gasworks, Banbury. The Company's engineer being Mr. Alfred Penny, of London. The total cost, including the buildings, apparatus, and mains was £1,380. The capital being £2,000 in 400 shares of £5 each. The buildings were executed by Messrs. Taft and Reynolds, builders, of Southam, and the apparatus was constructed and erected by Mr. G. E. Deeley, engineer of London. The total length of the main is 3,000 yards; the trunk main being four inches in diameter. The works commenced working in February, 1854, and have now been in operation two and a-half years; during that period no renovations whatever have taken place. The retorts, which are 12 inches by 7 feet six inches D.'s, cast and supplied by Messrs. Cochrane and Co. of Woodside, Dudley, are up to this time in working condition. The works are compact, and every credit continues to be accorded to Mr. Hedley for his design, and to Mr. Deedley for the efficient manner in which he executed his contract.'

**With thanks to Roger King.**

# Cornish Industrial Archaeology

May 2007 Mr. D. Billings

## *Aspects of the Industrial Archaeology of Cornwall*

If the English counties were to be rated according to the density of their industrial archaeological sites per square mile then Cornwall would surely come very close to the top of the list. That much was evident from WIAS member Derek Billings's talk to our Society in May when he took a sweep through our westernmost region, during which the accompanying slides illustrated his expertise with a camera.

He started his talk by entering the county from Devon, over Brunel's Saltash bridge, and left it with a shot of a typical Cornwall sunset. In between, he visited a multitude of sites representing the many different industries of the county. Shots of a Peerless lorry built in the USA in 1917, used first in WW1 and subsequently in Cornwall's china clay industry were followed by a slurry pumping engine originally installed in 1852 and now restored and driven by compressed air. The Calstock viaduct, opened in 1908 he explained, was built from cast concrete blocks delivered to site by a then unique overhead wire-rope system.

The Delabole slate quarry, first worked in the reign of Elizabeth 1, is now 1.5 miles in circumference and 425 ft deep, and using modern technology still delivers an average of 120 tonnes of slate per day. Slides of the Sennen Cove capstan house, used to haul boats up a slipway, were followed by views of the iron girder bridge crossing Petherick Creek, and a shot of the Marconi Memorial at Poldhu Cove. Many slides of Cornish tin and copper mines followed, including one of the ill-fated Levant Man Engine which, in 1919, failed when carrying a full load of miners and 31 men fell helplessly to their deaths.

Richard Trevithick was a Cornishman and Derek showed several shots of the events which are staged annually in his honour on Trevithick Day, always held in Camborne on the last Saturday in April. Slides of the impressive 92-ft high, 21-span, 443-yard long GWR Truro rail viaduct, built in 1904

to replace Brunel's wooden version, were followed by views of Devoran where tin-smelting works, railway repair shops, and boat yards once flourished.

A splendid example of a late 18th C industrial harbour is seen at Charlestown, from which copper ore was once shipped to smelters and china clay to potteries. At Calstock again, the remains of some 20 lime kilns can be seen and in nearby Danescombe Valley there are remains of a saw mill. Perran Foundry was one of Cornwall's earliest engine works and in it were cast, for example, many great beams for steam engines. Later, the partnership of Hayle and Perran built the massive engines used to drain Dutch dykes. Derek showed many examples of tin mines in Cornwall, also the Basset Mines from which ore was taken to feed no fewer than 96 crushers driven by two connected steam engines.

The St Just area is one of the oldest mining areas in Cornwall, and is believed to be the home of cliff and coastal mining. Derek's pictures of engine houses, perched perilously on the rocks with their shafts (especially at Botallack), leading miles out under the sea, were as impressive as they were frightening. Space in our Newsletter is unfortunately insufficient to do proper justice to the full scope of Derek's record of industrial archaeology in Cornwall, which is really deserving of publication as a booklet.

### Disposals

#### **Model Railway Journal. Issues 0 - 76.**

The Treasurer has for sale an almost complete unbound run of the *Model Railway Journal*, from issue 0 to issue 76 (numbers 69 and 74 are missing), including the two additional compendium specials published within that period. It is preferred that this collection goes as one lot to a good home, so any realistic offer will be considered. A figure based on the original cover price of £1.50 to £2.00 each would probably be acceptable for the magazines.

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[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

#### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

#### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

#### TREASURER

M. W. Abbott

3 Holmes Court

Bridge Street

Kenilworth

CV8 1BP

( 01926 850114

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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Mark W. Abbott

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# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 28 September 2007

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### THIS ISSUE

- ☉ Meeting Reports
- ☉ AGM Report
- ☉ Railway Memories
- ☉ Meetings Programme

### SOCIETY NEWS

#### Programme.

The programme through to December 2007, is as follows:

#### October 11th

Mr. Martin Bloxson: *Stratford and Midland Junction Railway.*

#### November 8th

Mr. David Bright: *The Mill and Engine House at Warwick Castle.*

#### December 13th

Mr. John Frearson: *The Lime and Cement Industry of North Warwickshire.*

At the Society AGM (see below) it was agreed that the Society subscription should remain at £10.00 per person or couple for the 2007/2008 season. Members are reminded that as of September 2007, subscriptions for the 2007/2008 season of meetings are due. Until members are advised otherwise, Mark Abbott will continue as Treasurer and payment may be made to the Treasurer at meetings, or by post. Cheques should be made payable to Warwickshire Industrial Archaeology Society please.

#### AGM.

A well-attended annual general meeting heard our Chairman,

Martin Green, describe the year under review as 'a buoyant period for our Society' during which average attendance at meetings had been such that it had been necessary to negotiate with Warwick School for larger accommodation. The venue for recent meetings, therefore, had been transferred from the V1th Form Centre to the Pyne Room. A projector had been bought by the Society for use by WIAS members and visiting speakers. Martin had spoken on the activities of WIAS to a number of organisations in the past year, and in addition had appeared on BBC 1's Countryfile programme.

In thanking the Society's committee for its work during the past year, Martin paid special tribute to the contribution of Mark Abbott. Mark had for many years served as Treasurer, Membership Secretary, and as Editor of the Society's quarterly newsletter but now wished to relinquish the first two areas of responsibility. Our chairman acknowledged the 'tremendous amount of unseen work' undertaken by Mark over the years, always in a 'quiet and unassuming manner', and spoke of the extent to which the Society had benefited from 'his diligence and efficiency'. Our profound thanks were extended to him, and it was indeed good news for WIAS, Martin said, that Mark had agreed to continue as Editor of the Newsletter.

The programme of speakers in WIAS's 2007/2008 session is almost in place, Martin reported, and it was hoped that a small

number of site visits, possibly follow-ups to some of the talks delivered in the past, might be arranged.

Presenting his final Treasurer's report, Mark Abbott said that at the end of the 2006/2007 session the Society's financial position was excellent. The year's expenses had been comfortably covered, despite the expenditure of £100.00 on a second-hand digital projector, and the Society's cash reserves had increased by almost £90.00. The annual subscriptions for membership would be held at the current figure, as would the contributions per meeting for members and for guests.

For WIAS members who were unable to attend the AGM, full copies of the Chairman's and Treasurer's reports, complete with annual accounts and budget, can be obtained on application to Mark Abbott, 3 Holmes Court, Bridge Street, Kenilworth, CV8 1BP, [WIAS@photoshot.com](mailto:WIAS@photoshot.com).

#### David Gee

It is with regret that the Society notes the death on 18th July 2007 of David Gee. Residents of Broadwell, both David and his wife Thelma were loyal supporters of the Society almost from its inception; their recent absence from meetings being due to David suffering from Parkinson's Disease. Belated condolences are offered to Thelma and their son Stephen. The Society has made a donation of £25.00 to the Parkinson's Disease Society in memory of David.

# NEWSLETTER

# Railway Memories *by Peter Chater*

## Recollections of Working as a Booking Clerk at Leamington Avenue Station

**D**ue to health reasons I was strongly advised by my doctor to change my occupation from the footplate to something lighter, and providing more regular hours. After being on the footplate for nearly 12 years, giving up a job I liked was rather upsetting.

A vacancy appeared in the local press advertising for a booking clerk at Leamington Avenue station, so I went to see Station Master W. Bland, and he said he would be pleased to have me if I could pass the clerical entrance examination. I took this examination at Worcester Shrub Hill station and passed. As there was no line of promotion from the Locomotive Department to the Clerical Department I had some difficulty in making the change, but eventually I was told to report to Mr. Bland in February 1954.

I met Mr. Bland at his office, and we walked from the General station to the Avenue station where he introduced me to Alan Vaughan the chief clerk. His parting words to me were, "The money in your pocket is yours, and the money in the booking office is the railways".

Alan was about my age of 28, and he worked a middle turn of duty, the other two clerks worked 06.00 to 13.00 and 14.00 to 21.00 Monday to Saturday alternate weeks.

I commenced with six weeks training before taking up my duties. I found it a vastly different life working indoors and in one location.

The booking office was quite large, approximately 20` square with a high ceiling. Lighting was by gas, and it had an open coal fire for heating. The main desk was high with a sloping surface where you would stand to work or sit on a high stool. There were no mechanical aids such as adding machines.

There were three ticket cases; two held Edmondson type card tickets and there was a smaller one for the season tickets. Probably about 500 different tickets in all.

These tickets comprised of single tickets and ordinary returns at full fare. Workmen's tickets issued where you must reach your destination before 08.00. Day return tickets were issued, Coventry being the busiest destination. Commercial travellers tickets which allowed the traveller to carry extra luggage/equipment. Forces on leave tickets, which were at a reduced rate, Government tickets permitting Forces to travel free. Reduced rate tickets for rail staff. Tickets for dogs, bikes and prams. One higher fare dog ticket used to be in the form of an

envelope where a pull-out slip advertised Spratts dog biscuits.

Season tickets, which could be issued for a period of a week, one month, three months or months and odd days up to one year.

Most tickets issued were third class but where demand justified a few first class were held.

The bookings were varied, many tickets were issued via Holyhead to Dun Laoghaire and interior Irish stations, also Liverpool and Belfast, and Heysham / Belfast.

Sleeping berths were arranged and booked to Scottish destinations for passengers joining at Rugby, Birmingham or Crewe.

A certain amount of accountancy work was done here, and then totals transferred to the Leamington General station.

The parcels traffic received was considerable and livestock of one form or other were dealt with daily. Day old chicks arrived in biggish numbers, mainly from Mytholmroyd.

Guide dogs arrived for the Blind Association Training School, which was at Leamington and young sheep dogs, often collies, arrived for local farmers. Many farmers were not on the telephone and a telegram was sent to advise them to collect.

Racing pigeons in baskets arrived to be released as part of their training.

Once a year, a train load (probably a dozen vehicles) of pigeons in baskets consigned from stations in the Erewash Valley arrived in the early hours of the morning accompanied by many helpers. During the morning these helpers would unload the pigeons and stack the baskets about five high along the unloading dock. The pigeons were fed and watered and at 13.00 if the weather was fair, all would be released in the space of a very few minutes. The pigeons did one circle above the station then headed in a northerly direction, and for a few moments the sky was full of birds.

The forwarded traffic at passenger rates was quite varied, from small packages to machine parts weighing several hundred weights. Live stock (from pigeons to prize cattle) were regularly dealt with, also the occasional corpse, which was charged at three shillings a mile on the journey made.

One incident I remember where a very small package was in transit to an address at Daventry. This package was only the size of a matchbox and clearly marked with a live stock label. A live stock label measured about four inches by two and this

*Continued on page 3*

## Meeting Reports *by Arthur Astrop*

June 2007 Mr. M. Thompson and Mr. R. Pugh-Cook

### *Woven in Kidderminster Part 2*

**T**welve months after their first presentation\* of *Woven in Kidderminster*, Melvyn Thompson and Richard Pugh-Cook returned to WIAS to give an update on events in the life of the Kidderminster Carpet Museum Trust, and to continue the story of the rise and fall of carpet manufacture in their town. Their presentation this time picked up the story at the point where carpet manufacture in Kidderminster was now firmly established on a factory basis, with the town dominated by mills located cheek by jowl, and with its skyline punctuated by scores of tall chimneys. The carpet weaving industry at that time was providing employment for many thousands of men and women, and the early 20th century pattern of sons and daughters following their fathers into the mills was commonplace.

The story of the development of Kidderminster's carpet factories, their design, their architecture, and the care which was taken to make them attractive to the eye – including the widespread use of polychromatic facing brickwork – was splendidly illustrated by a series of slides, many of which showed the mills at the height of their prosperity in the early decades of the 20th century. These slides demonstrated vividly the crucial importance of recording by photography, and other means, the buildings and equipment of any industry when it is at its peak. Indeed, Melvyn Thompson's talk pointed this lesson very strongly, because time and time again he needed to add, as a dismal postscript, "this factory, of course, is now demolished and on its site stands a massive supermarket" (or a DIY store, or a multi-storey car-park, or a retail park, or whatever).

Without the photographic records held by Melvyn and the Kidderminster Carpet Museum future generations would have little idea of what the town looked like when it was recognised as being 'the carpet capital of the world'. It was in the 1960s and 70s that the industrial heart was torn out of Kidderminster, much as was the case in Coventry. 'Redevelopment' was the thing and historic buildings including most (but mercifully not all) Kidderminster's carpet factories were torn down, often willy-nilly, in the drive to build ring-roads, shopping precincts, pedestrianised areas, multi-storey car parks, and the like.

Melvyn's pictures covered most of the stages in the manufacture of carpets, from the shearing of sheep, through skeining, dyeing, bobbin winding, weaving, and finishing. Finally he included pictures of the showrooms in which they were displayed, one

of which he explained escaped the bulldozers and is now a nightclub! In the 1920s, when most of Melvyn's photographs were taken, there were large numbers of women employed in the mills, the objections to their presence which had caused serious rioting 20 years or so earlier having been overcome. Machinery was driven by scores of belts from overhead shafting, the noise was overwhelming, and the conditions in which the weavers worked would today be a safety inspector's worst nightmare. Mercifully, not all of Kidderminster's carpet-weaving buildings succumbed to the demolition ball, and in the nick of time a few have been listed and preserved. In one of these, in fact, the Kidderminster Carpet Museum ([www.carpetmuseum.co.uk](http://www.carpetmuseum.co.uk)) will almost certainly soon find a permanent home.

\* Reviewed in WIAS Newsletter No 24, September 2006

Note that back copies of Society Newsletters are available on the Society web site ([www.warwickshireias.org](http://www.warwickshireias.org)) in pdf format and may be downloaded and printed if required. Back copies are also available from Mark Abbott at the address given overleaf, although some editions are now out of print. No 24 is still available at present.

\* \* \* \*

#### **Railway Memories *continued*:**

wrapped completely around it. Bert Jarrett the parcels porter brought it into the office during the morning and placed it on the office desk in a conspicuous place ready to be put on the only train of the day to Daventry at 14.43. Everybody who came into the office tried to guess what was in it as a buzzing noise could be heard from inside. The favourite suggestion was a queen bee. Station Master Bland always visited the station about 11.30 and he also examined this package. The 14.43 train regularly stood in the platform for about ten minutes and some member of the staff was calling out, "Anymore for the sunshine line," and the next moment the train departed without this package. The next service was in twenty-four hours time.

Mr. Bland came at his usual time the next day and instantly saw this little box. He addressed Jarrett and said, "What's this still doing here?" and Jarrett instantly said, "Its another one sir".

**Peter Chater.**

# Industrial Archaeology Miscellany

## July 2007 Members' Evening

### *The Industrial Archaeology of Nuneaton and Bedworth*

As is customary, the Society's AGM was followed by the annual members' evening, when those who normally 'sit and listen' are encouraged to 'stand and deliver'! This year, Richard King started the evening by offering an interesting miscellany of items of archaeological and general historic interest in our County which, over the years, he has seen, photographed and recorded. Some of them might come under the heading 'unconsidered trifles' but, as Richard said, they illustrated the truth behind Sherlock Holmes's gentle reproof that all too often 'people see but they do not necessarily observe'.

In Barford, for example, there is preserved a simple cast iron water pump made in the mid 19th C by T. Roberts & Son of Warwick, one of many such pumps originally used to lay dust on our roads. Built over a century later, a graceful footbridge spanning the M42 nevertheless today carries part of an ancient route whereby salt was once transported from Cheshire to Leicestershire. Near this bridge there is a tower erected in the 1950s for microwave communication in the Cold War period, and at Pailton there are radio masts originally used in WW2 but still in operation today.

From microwaves to canals, where Richard found an unusual boat, the Laplander, with a BCN (Birmingham Canal Navigation) plaque. Thought to be an icebreaker it has a 'bow' at each end. An abandoned section of the Oxford Canal at Newbold on Avon once looped through the village, and passed through a tunnel *underneath* the churchyard. A long-forgotten disused cutting near Willey, north of Rugby, once carried part of the only rail route from London to Yorkshire.

In WW1, the massive 980ft long by 200ft wide Ordnance Factory in Coventry manufactured 15-inch naval guns for the dreadnoughts of that age. They left the Works on specially built bogies by a railway line (still visible), which was laid to connect the Works to the Foleshill line, thence to a junction with the Coventry and Nuneaton line. In the back

streets of Leamington, Richard found a bridge on the former GWR line with a strangely complex arch-construction, and he concluded his talk with slides of a variety of different items which many of us may have 'seen' in our travels, but not necessarily 'have observed'.

Following Richard's presentation, Roger Cragg showed a 10-minute DVD, issued by the Institute of Civil Engineers, on Thomas Telford, its illustrious first president. A very professional production, the DVD covered the life, projects and legacy of this remarkable man, possibly the world's greatest civil engineer, many of whose works are still with us today.

The evening was rounded-off by an address from our Chairman, Martin Green, in which he took an overall view of the future of our Society. While our field of activity is Warwickshire as a whole it must be recognized, Martin said, that our records show we know a great deal more about IA in Warwick and Stratford districts than we do about it in Rugby, north Warwickshire, Nuneaton and Bedworth. Yet those areas once had many diverse industries which, even though the demolition men have wrought their usual havoc over the years, should still be potentially rich fields for us to plough.

Martin's plea was for greater attention to be paid by members to the former coalmining and stone quarrying industries of Nuneaton and Bedworth, to the railways and canal systems of those areas, and to such once massively productive firms as the brick-making companies founded by Reginald Stanley and James Knox. Textile related industries also once flourished in north Warwickshire, as did brewing, engineering and boot and shoe manufacture. Little remains to be seen of many of these enterprises, but there is still some evidence to be had for those diligent enough to find it. Only when we have recorded, however minimally, more of the IA of that part of our County, Martin suggested, can we really live up to our name as the *Warwickshire* Industrial Archaeology Society.

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

<b>CHAIRMAN</b>	<b>SECRETARY</b>	<b>TREASURER</b>
M. J. Green	D. M. Crips	M. W. Abbott
<i>Argyll</i> 2(b) Union Road	27 St. Nicholas Church Street	3 Holmes Court
Leamington Spa	Warwick	Bridge Street
Warwickshire	Warwickshire	Kenilworth
CV32 5LT	CV34 4DD	CV8 1BP
( 01926 313782	( 01926 401072	( 01926 850114
AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY		

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Mark W. Abbott

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# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 29 December 2007

PUBLISHED QUARTERLY

### THIS ISSUE

- ☉ Meeting Reports
- ☉ From The Chairman
- ☉ WCC IA Resource
- ☉ Meetings Programme

### FROM THE CHAIRMAN

One of the great pleasures of my involvement in industrial archaeology has been to act as enthusiastic amateur. There has been nothing better than hearing about or discovering a site and then setting off to investigate, interpret and record that site in whatever way seemed appropriate at the time. I know many members of the society have shared this approach, and continue to do so. This amateur, individual type of assessment by our members may not have been very systematic but it has produced a great collection of material, particularly an excellent photographic record, some of which has been shown regularly at Society meetings.

I recently attended the Day School of the Council for British Archaeology at Worcester. My main reason for going was to hear a presentation on the Worcester Porcelain Works by professional industrial archaeologists John van Laun (of John van Laun Associates) and Alvaro Mora-Ottomano (of Archenfield Archaeology). This was the only 'industrial' talk of the day, and

they had trouble squeezing all that they wanted to say in the time allocation. It did make me realise how important these professional bodies are in recording industrial sites, particularly with the rigours of Health and Safety legislation making it very difficult for the amateur to engage in such activity on the larger sites. When does enthusiastic investigation (a.k.a. snooping around) become unlawful trespass?

Being part of that Day School also made me reflect on the differences and similarities that exist between archaeologists of a more traditional variety (no offence intended) and the merry band of industrial archaeologists that make up WIAS. This in turn reminded me of the Conference to be held at the University of Leicester April 4th.-6th. 2008 'Crossing Paths or Sharing Tracks: future directions for the archaeological study of post-1550 Britain & Ireland'. This aims to bring together representatives of the AIA, and the Society for Post-Medieval Archaeology, (together with representatives from similar organisations in Ireland), to explore commonalities between approaches as well as unique contributions made by each organisation to study of the material heritage of the post-1550 period. I shall ensure that the Society is represented at this conference.

Whatever future direction the subject takes, it really is vital that all of us continue to investigate, interpret and record any sites that come to our notice. It has been

the essential ingredient of what we have done over many years, and needs to remain at the heart of the Society's activities.

In a previous issue I bemoaned the absence of local courses on industrial archaeology that might be of interest and benefit to the amateur industrial archaeologist. One course that is being offered on a related issue – industrial architecture – is available in Oxford in April 2008, and details are included below.

**Oxford University Department of Continuing Education**

**Course on Industrial Architecture**

Thursday 17th. April to Thursday 26 June 2008

2.00 p.m. to 4.00 p.m.

10 Meetings

Course fee: £85

Course tutor: Hubert Pragnell

To be held at: Ewert House, Ewert Place, Summertown, Oxford

Course code: O07P659HCW

[www.conted.ox.ac.uk/courses](http://www.conted.ox.ac.uk/courses)

### PROGRAMME

**Programme.**

The programme through to April 2008 is as follows:

**January 10th**

Anna Stocks: *Listing and Planning Issues for the Industrial Archaeologist*

**February 14th**

Mr. Chris Holland: *Forgotten Hero: Joseph Elkington Agricultural Pioneer 1739-1806*

**March 13th**

Mr. Tony Green: *Mapmaking Past Present and Future*

**April 10th**

Mr. Michael Derby: *Coke Quakers and Charcoal*

*Continued on page 2*

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

September 2007 Alison Clague

## *Working Lives: Memories of Work and Industry in Nuneaton and Bedworth*

The 'oral history' approach to recording past local and regional activities is growing in popularity among archivists and industrial archaeologists. One such project is currently in hand in Coventry, in respect of the former engineering industries in that City, and at our September meeting Alison Clague outlined the project she is heading which aims to capture, often in the nick of time, essences of the many trades once practised in Nuneaton and Bedworth.

Entitled *Working Lives*, the project is designed to collect, preserve and make accessible memories, images and information relating to the people who worked in the brick and tile making, quarrying, engineering and textile industries of those areas. The final 'product' of the project, which has been commissioned by the Nuneaton and Bedworth Arts Committee, and is financed by Warwickshire County Council's Well Being Fund, will be a collection of tape recordings, photographs and written work that can be preserved for posterity.

Alison, who is based at Nuneaton Library, showed a Powerpoint presentation which included many short 'clips' from lengthier sound recordings made by those who once worked in the relevant industries. Her idea was to give a summary of the scope and quality of the project, its aims, the progress so far, and the work which is scheduled for the future. Many of the industries and their buildings in Nuneaton and Bedworth have now disappeared, and there is an urgency in the project to capture the memories of the people who worked in them before they too, disappear.

An appeal was therefore made to local history groups and to residents of Nuneaton and district to volunteer to share their memories of working days. There was a gratifying response to the appeal, and almost invariably a by-product of most interviews, along with the sound recordings, was the production by the interviewee of a few photographs. These showed records of work places, working conditions, and working processes, which might otherwise never have been seen. Permission for Alison to include these priceless images was rarely refused.

The oral side of the project not only brings 'history to life', but also records local accents and dialects, technical phrases and terms which might otherwise have been lost, together with some of the emotions felt by workers at the time. Alison started her talk with the textile industry, and the works of major employers such as Courtaulds, Listers, Lester & Harris, Abbey Hosiery and Toye, Kenning &

Spencer (incidentally, still trading in Bedworth), featured prominently. In many instances, a photo of an interviewee and a brief sound recording recalled some aspect of his or her working and social life.

Turning to the brick and tile industries, Alison showed photos of Stockingford, for example, when its skyline was dominated by tall chimneys and brick kilns. Haunchwood Brick & Tile also specialised in making the very tall heavily ornamented chimney pots often seen to this day on stately homes. In the engineering field, Sterling Metals and Clarkson were prominent in Nuneaton, and the former with its works covering 26 acres was once the town's largest employer. Finally, Alison turned to the stone quarrying industry of Nuneaton and district. Judkins quarry started in 1840, and a worker who served as a driver and driller with various companies shared his memories of blasting and crushing procedures.

When the oral-history project is complete it will represent a comprehensive record in pictures, documentation and in sound of industries and companies long gone from Nuneaton and Bedworth, their buildings demolished and (in the case of quarries), with their sites filled-in and landscaped.

Some WIAS members may feel they have something to contribute to this project, and if so Alison Clague can be contacted on 02476 384027, or by e-mail on [alisonclague@warwickshire.gov.uk](mailto:alisonclague@warwickshire.gov.uk)

### **Society News *continued***

#### **New Treasurer**

Mr. Richard Hartree has agreed to become the Society's new treasurer, and our thanks are due to him for taking on this task. Richard has, amongst many other things, been the treasurer of the AIA in the past, so we are lucky to have such an experienced person to take on the job. It is intended that he will assume responsibility for the Society's finances from the New Year and contact details may be found at the end of the Newsletter.

#### **Subscriptions**

Members are reminded that subscriptions for the 2007/2008 season are due. The amount remains at £10.00 per person or couple and should be paid to Martin Green, acting Membership Secretary. Cheques should be made payable to Warwickshire Industrial Archaeology Society please.

#### **Membership Secretary**

The post of Membership Secretary remains vacant, but it is hoped to announce the name of the new nominee shortly.

# Railway History

October 2007 Mr. Martin Bloxham

## *The Stratford & Midland Junction Railway*

The Stratford-upon-Avon & Midland Junction Railway ambled its way cross-country, up hill and down dale, broadly from Towcester in the East to Shakespeare's home town in the West. Some cynics said that the initials (SMJ) of this 65-mile line stood for 'slow, miserable and jolty'. As lovingly described by Martin Bloxham, however, the line seems to have been more the potential subject for a poem by John Betjeman which he never got round to writing.

The name Stratford & Midland Junction Railway amalgamated four others, each with a name longer than the next, with the E. N. M. & T. R. & O. Junction Railway (sic!) triumphantly claiming to be the longest. The arrival of the initials SMJ, therefore, must have come as a great relief to passengers of the line, few though they were. Envisaged initially to carry iron ore, principally destined for South Wales, and only secondarily for carrying passengers, the line never had more than 15 coaches at its disposal for the latter, usually coupled in threes. The first section, opened in 1866, joined Blisworth to Towcester, and five years later Fenny Compton was joined to Kineton. Thus, bit by bit the line gradually inched its way westward to Stratford-upon-Avon, and the final section eventually linked that town to Bidford-on-Avon, at Broom Junction.

The single-track line passed through predominantly rural parts of the Midlands, calling at stations with such Olde-English names as Blakesley, Moreton Pinkney, Byfield, Fenny Compton and Ettington. Sometimes, *en route*, distinguished passengers like Lord Willoughby de Broke and the novelist Marie Corelli would leave their country houses to be welcomed aboard its coaches, but passenger-carrying business never paid for itself. Indeed, the whole venture, from laying the very first sleeper, seems to have been based much more on optimism than on hard-headed business acumen. For a start, the line ran 'against the grain', that is, it travelled east-west across the land when the real thrust of Britain's railways in the 19th and early 20th centuries, not to mention virtually all the serious financial backing, was focussed on developing the more profitable north-south routes. The SMJ always had powerful, and at times threatening, neighbours.

The traffic it found in iron-ore freight varied erratically, as sources beyond the reach of the line were exploited, and SMJ shareholders waited in vain for the dividends they had once been confidently promised. Instead, they were all too often appealed to for further 'investment', and at one time the line

went into receivership and passenger-carrying was suspended. When, some years later, passenger traffic was introduced once more, yet further substantial investment was needed in order for SMJ to bring its coaches up to the standards then set by the Board of Trade.

The two world wars saw periods of increased activity for the line, when it was called upon to carry troops and ammunition, and in WW2 it played its part in the build up to D-day. At one time, business was also found in carrying bulk supplies of bananas destined mainly for London, and spare heat from its steam locos was ingeniously diverted to the trucks to encourage ripening of the fruit, from green to yellow, during its journey.

But the SMJ was simply a sitting duck for Beeching. It stood no chance of survival, by 1965 it was gone, and all that survives today is a short section connecting Fenny Compton with the MOD's Ordnance Depot at Burton Dassett. As Martin Bloxham said, "The SMJ was good for views but bad for shareholders!"

[www.windowsonwarwickshire.org.uk](http://www.windowsonwarwickshire.org.uk)

The number of WIAS members who are 'on-line' is increasing. In light of our Society's special interest, perhaps one of the most rewarding for random surfing is Warwickshire County Council's *Windows on Warwickshire* site.

The site divides the County into five areas, named North Warwickshire, Nuneaton & Bedworth, Rugby, Warwick and Stratford-upon-Avon. It can then be explored by way of four main categories, namely Theme Viewer, Maps Explorer, Advanced Search and Spotlights. Clicking on Theme Viewer will open a list of towns in the County, and in turn a town can then be opened to show a list of streets. Thus, by clicking on Leamington Spa and then on Bath Street, pages of photos of premises in that street are displayed including, for example, some fascinating interior views of various departments in E Francis & Son taken in the year 1900!

The section of the site entitled Maps Explorer explains itself, and that labelled Advanced Search enables one to seek a specific photo by keyword, date or type. The Spotlights section offers a number of self-contained interactive web sites. Warwickshire County Council is to be congratulated on providing this site and on-line WIAS members are recommended to visit it.

Arthur Astrop

# Industrial Archaeology at Warwick Castle

November 2007: Mr David Bright

## *The Mill and Engine House at Warwick Castle*

In 1894, to celebrate the thirty-third birthday of his wife Daisy, Countess of Warwick, the Earl of Warwick laid on a rather special present. That evening, a massive switch was closed, and some 500 electric light bulbs throughout the Castle came on. Closing that switch meant that countless candles, oil lamps and gas mantles hitherto used to illuminate the noble pile, were on their way out, and there was doubtless much rejoicing 'below stairs'!

The bare wires carrying current (DC) to the bulbs could be traced back, through wooden (sic) twin-channel conduits, down to the mill house just outside the southern wall of the castle, and it was this structure which was the starting point for David Bright's talk to our November meeting. The first record of a mill on the Avon close to Warwick Castle locates it about 100 yards farther downstream, but at the end of the 14th century it was moved to its present location. Sketches and paintings of the castle, including some by Canaletto, show the mill house clearly and David had maps and drawings revealing how, over the years, various changes were made to the weir and mill race.

Up to the mid-1800s, paintings and sketches of the mill house were the only records, and 'artists' licence' aimed at showing the castle in its best light was always present to some extent. By 1860, however, the first photographs of the mill house appeared, and there was thus more certainty about its design. But in 1880 a fire destroyed the building. The building which replaced it, however, became known henceforth as the 'mill and engine house', because the water-wheel(s) were used firstly to work pumps to lift water to the castle and, ultimately, to drive the dynamos and charge the batteries which provided its electricity. Warwick Castle was embracing the latest technology.

Each day, the mill and engine house was busy charging the banks of batteries in readiness for the demand for electricity which would come from the castle when dusk fell. If distinguished company was

being entertained 'up above', then great was the responsibility on the Superintendent of the mill and engine house to have all the batteries fully charged. And there were also the batteries in the castle's Peugeot electric car to be kept ready for whenever the Countess wanted 'a spin' in the castle grounds. Soon, the demand for a totally reliable supply of electricity meant that the variability of water flow in the Avon was a problem, and even the dynamo driven by an underwater turbine was insufficient. Oil and gas engines were therefore installed and state of the art electrical switch- and control-gear was fitted to monitor the dynamos.

The final part of David's talk concentrated on the many year's work involved in the restoration of the mill and engine house, bringing it 'back to life' and ultimately to the condition where today it provides a permanent exhibition of how it once looked and operated. David played a leading part in that project, including working out how the complex circuits and electrical switchgear were arranged. Among the many impressive sights are: the restored waterwheel; the double-helical cast-iron gears which originally transmitted its power; a few of the original lead batteries; and the remains of the Thomson Vortex underwater turbine. A visit is strongly recommended.

## Southam Gasworks Addendum

Redevelopment work has now started on the site of Southam Gasworks. The house has apparently been refurbished, at least externally, and has acquired some slightly inappropriate looking new guttering, together with a fresh coat of white paint on the rendering. Elsewhere, all other buildings have been demolished, although it is not known which, if any, of these related to gas production. The size of the site would suggest that further new houses may yet be built.

Mark Abbott

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll* 2(b) Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

R. Hartree

Stables Cottage

Sibford Ferris

Banbury

OX15 5RE

( 01295 788215

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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Mark W. Abbott

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Martin Green

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# WARWICKSHIRE

## Industrial Archaeology Society

NUMBER 30 March 2008

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### THIS ISSUE

- ☉ Meeting Reports
- ☉ From The Editor
- ☉ *Link-up* Extracts
- ☉ Meetings Programme

### FROM THE EDITOR

First, I must offer an apology for the absence of the December 2007 meeting abstract from this Newsletter. Normally, Arthur Astrop ably undertakes the role of Meeting Secretary and provides a written abstract of each meeting for the Newsletter. Unfortunately, Arthur was unable to attend the December 2007 meeting and so no abstract is available for publication. If it is possible to provide an account of the meeting later, this will be done. I hope this does not inconvenience members unduly. Meanwhile, if there is another member who would like to act as an occasional Meetings Secretary, I would be delighted to hear from them.

To replace the meeting abstract, I have elected to use some extracts from the Warwickshire Steam Engine Society's newsletter *The Link-up*. These appear courtesy of Peter Coulls, one time Chairman of that Society and its newsletter editor. Whilst I appreciate that the material may be familiar to some members, I also hope it will be of interest to the wider Society

membership and perhaps generate some comments that may be published in the future. Further similar material is available and will appear as space permits.

Another matter raised recently, and coincidentally, by Arthur Astrop, was the possibility of including illustrations in the Newsletter. This is something I have always hoped might become possible, especially given my personal interest in photographing industrial archaeology, and something that I raised in an editorial in September 2004. The reason I have not pursued the matter further is one of cost. Currently, the newsletter is photocopied to double-sided A3 from high quality A4 masters. This gives acceptable, if slightly variable, quality. However, photographs do not reproduce well using photocopying, so their use would mean having to publish the Newsletter by laser printing as a minimum standard. Whilst the software required to layout the publication, and to generate the required file type (pdf), is not a problem, Southam Office Supplies would charge £50.00 just to open the disc containing the file, before charging the cost of printing. This cost is typical, regardless of the company undertaking the printing. One hundred double-sided photocopies on A3, the current Newsletter print run, cost £22.00.

I have researched the cost of laser printers so the Society could be self sufficient in printing, but again the barrier is cost. A4 laser printers are considered home

office technology, and A4 machines for black and white reproduction cost from as little £100.00. However, A3 laser printers are professional level reprographic equipment and consequently much more expensive, typically £1000.00 or more just for black and white printing.

There is also a time element to consider. Using illustrations of any type in the Newsletter would require some document redesign, which would to advantage be better undertaken in a more recent and mainstream software package than I use at the moment, e.g., MS Publisher. Additionally, the preparation of images for reproduction would be a further time consuming task, above the considerable time already taken up in producing a text only edition. Unfortunately, I do not at the moment have the time available for the necessary extra work, but would not rule out being able to do the work in the future, subject to the cost problems being overcome.

Perhaps, if there is a need for a higher quality Newsletter, there is a case for a team of two to be responsible for the production: one person to co-ordinate and edit copy and one to prepare images and layout the publication? I would welcome the views of members on this matter.

Mark Abbott

See Page 2 for Society  
News and Meeting  
Programme

# NEWSLETTER

# Meeting Reports *by Arthur Astrop*

**January 2008: Anna Stocks**

## *Listing and Planning Issues for the Industrial Archaeologist*

**T**he need to preserve evidence of the 'past' cannot always assume it has the right to block progress in the present. Similarly, of course, neither has the needs of the 'present' the right to be insensitive to remains of the past. Finding a just and equitable balance between these two often conflicting forces is the delicate task of today's Planning Archaeologist.

Anna Stocks, who holds that exacting post with Warwickshire County Council, feared she might bore us with 'local and national planning laws and procedures'. She need not have worried. It quickly became clear that she was actively seeking the help and co-operation of archaeologists, professional and amateur, in our County and from that moment she had the meeting's attention.

Every planning application in Warwickshire these days not only goes before the relevant Planning Committee but is also automatically passed to Anna Stocks's Department as well. By simply tapping a grid reference of the proposed development into a computer, the relevant site is displayed on-screen, and all known (or suspected) items of archaeological interest (general or industrial) in the immediate area are shown at the same time. Such computerised data is, of course, largely the digitised equivalent of the multitudes of records once held only on paper and in voluminous files. And some items of obvious historical interest, such as monuments, abandoned quarries and what Anna called 'upstanding' structures, could hardly be missed.

But what of the archaeological evidence, some of relatively recent origin which, if not already overgrown, overwhelmed, or otherwise 'lost' to records, is in imminent danger of becoming so? Such evidence can often come only from the personal knowledge and memories of individuals, and it must not be lost to record. How long will it be, for example, before most if not all recollection of what once stood on the site of Ford's Foundry in Leamington has faded? Likewise Potterton's factory in Warwick? Or GEC Alstrom at Rugby, where Frank Whittle's early jet engines were run? Or the former car plants in Coventry? Anna touched a WIAS nerve when she showed shots of the Warwick Gas Works building, unaware (we suspect) that it is our logo. Fortunately digitised drawings of that site and of the remaining building, externally and internally, are on record, and judging from the decaying state of the frontage today it's just as well.

Other examples which Anna gave of her work

included recording the remains of a WW2 anti-aircraft battery site at Fillongley, for which plans for erection of stables had been made; and the foundations of brick kilns in New St, Bedworth, uncovered and recorded before site development was allowed. The final part of Anna's talk covered the type of delicate negotiations which are frequently required to achieve a fair balance between the needs of the archaeologist to record, and sometimes to preserve, and the reasonable expectations of the developer to build anew and to serve the needs of the community.

In maintaining the balance between the two the maximum amount of evidence on the history of a given site must be available if a fair decision is to be arrived at. Societies such as WIAS can play a vital part in accumulating that evidence, Anna said, and she urged us to be ever mindful of that fact. She may be contacted by e-mail at [annastocks@warwickshire.gov.uk](mailto:annastocks@warwickshire.gov.uk), by 'phone on (01926) 412734, or by post at Warwickshire Museum Field Services, The Butts, Warwick CV34 4SS.

## Society News

### Programme.

The programme through to July 2008 is as follows:

#### April 10th

Mr. Michael Derby: *Coke Quakers and Charcoal.*

#### May 8th

Mr. Peter Leather: *Industrial Birmingham 1760-1840*

#### June 12th

Mr. John Burton: *Nineteenth Century Industry in the Bedworth Area*

#### July 10th

AGM and Chairman's Lecture

### Subscriptions

Members are reminded that subscriptions for the 2007/2008 season are now overdue. The amount remains at £10.00 per person or couple and should be paid to Martin Green, acting Membership Secretary, or treasurer Richard Hartree. Please make cheques payable to Warwickshire Industrial Archaeology Society.

### Speakers

The selection and booking of speakers is an ongoing and sometimes difficult task. Most come from member's personal recommendation and Martin Green would welcome any suggestions of speakers with an IA subject bias for future bookings.

# Agricultural History

February 2008: Mr. Chris Holland

## *Forgotten Hero: Joseph Elkington Agricultural Pioneer*

For many people, the name Elkington most readily calls to mind the electro-plating process widely used for domestic items, including cutlery. But that mid-19th century technology was the brain child of Birmingham-based George and Henry Elkington and it was the work of their largely forgotten 18th century ancestor Joseph Elkington which was the subject of Chris Holland's talk to our February meeting.

Joseph Elkington (1739-1806) is buried in Staffordshire, but there is a monument to him in the churchyard at Stretton-on-Dunsmore, for it was in that village, and in nearby Princethorpe, that the Elkington family settled and farmed. On the monument, which is to the memory of Joseph, his wife and 11 children, he is described as a 'pioneer of land drainage'. Not, as Chris Holland admitted, a description to set the pulses racing; nor does it do proper justice to the important contribution he made in his lifetime to increasing the efficiency of land use not just in Britain but world wide.

On his father's death, Joseph inherited his land and on one portion, known as Long Harol Pits, he wanted to run sheep. But the land, which sloped fairly steeply, was poorly drained and really unfit for that purpose. Joseph's first attempt to drain it by having a deep ditch dug along the spring line was not wholly successful. Accepting this as a challenge, Joseph had bore holes driven deeper in the ditch. Soon water was flowing freely, could be diverted by ditches to the edge of the field, and the sheep were installed. This first attempt at land drainage in fact set Joseph on a career which was to bring him a considerable reputation.

It was remarked of Joseph that he 'had an intuitive feel for how to control water', either diverting it from where it was unwelcome or bringing it to the service of man. He developed theories on the strata beneath land surface, and how they affected the flow of water. He could also, it was recorded, 'read' the topography of land, thereby knowing where best to dig ditches, and at what depths. Joseph's advice was soon in demand as water was increasingly used to drive early machinery, and it is believed his skills were also sought by eminent landscape gardeners, including 'Capability' Brown.

Joseph's method of controlling water, known as 'spring-line interception', was the latest step in a series of man's efforts to drain land, and at the time (when clay drainage pipes were rare and expensive),

it proved to be the cheapest and the most effective. As his work developed so did his fame, and in 1797 a Mr John Johnstone wrote a treatise on Elkington's theory and practice in land drainage. At one point, the House of Commons even voted the sum of £1,000 'to be awarded to Mr Joseph Elkington to encourage him in his work'. There is some doubt, however, whether that money ever reached Joseph's pocket!

In due course, the mass manufacture of clay drainage pipes made the 'intuitive skills' of a man like Elkington no longer necessary, and by the end of the 19th century he was all but forgotten, save by those who erected the memorial in Stretton-on-Dunsmore churchyard.

To round-off Chris Holland's talk, WIAS member Trevor Daw displayed a number of items associated with the days when land drainage was predominantly a manual task, including special narrow-bladed spades (chads) and similar implements, an iron plate which could be strapped to a boot to protect its sole during heavy digging, and a variety of different types of hand-moulded clay drainage pipes.

[www.warwickshireias.org](http://www.warwickshireias.org)

Members who have access to the Internet are reminded that the Society has a web site at [www.warwickshireias.org](http://www.warwickshireias.org). This is maintained by Peter Riley and is updated regularly, so is always worth checking to see what is new.

Amongst the content is an almost complete archive of Society Newsletters, which is updated, as each new edition is available to members. The majority of these are posted in pdf format, which means the pages on screen appear exactly as the printed edition and can be printed in the same style. All but the most recent Newsletters are out of print, so this is the ideal resource to consult if reference to a back copy is required or if a copy has been missed.

Newsletters also contain a quarterly meetings programme, so a check of the most recent Newsletter in the archive will reveal details of a forthcoming meeting. Also the home page always has details of the next meeting.

Another recent innovation is a photo gallery page, which contains a varied selection of Warwickshire IA related images. More are sought, so members who have digital images of local industrial archaeology are encouraged to seek advice about submitting them for inclusion from Peter Riley.

# Local Steam Plant

Extracts from Warwickshire Steam Engine Society's Newsletter *The Link-Up*

Courtesy of Peter Coulls

**T**he now defunct Warwickshire Steam Engine Society used to produce a regular newsletter known as *The Link-up*. The one time editor and Chairman, Peter Coulls thought some of the articles previously appearing in that newsletter may be of interest to WIAS members. These jottings were written in 1972 by the late Jim Durant, at a time when industrial steam was well in decline. The text remains unchanged, however where additional information is included, this appears in italics.

## Assorted Steamery

Late March I must have had a dose of "Spring Fever" and decided to find out how much, if any, live steam was in use around Leamington Spa. I started by looking for smoking chimneys, found engines, managers were most helpful when approached, some results are listed below.

### Leamington Pump Room & Baths.

Cochran Chieftan automatic oil fired boiler, 65 psi usually 100 psi used for heating. Weir pumps replaced approximately 4 years previously.

### Leamington Spa Laundry, Hitchman Road.

Paxman Economic chain grate boiler on anthracite, 80-110 psi evaporating up to 8000 lbs per hour. One weir and one electric pump, both on HILO system. Ex GWR. engineer / stoker.

### Heathcote Isolation Hospital.

Mercury automatic gas fired boiler 65 psi for laundry process and sterilizers. New in 1970 replacing coal fired boiler and weir pumps.

### Warneford Hospital, Leamington Spa.

Three Danks Lancashire boilers, oil fired, fed by two weir pumps, electric pumps as stand by. Used for heating, laundry process and sterilizing. Enormous system of piping and calorifiers (heat exchangers). Steam condensed and returned to system.

### Midland Counties Home for Incurables, Tachbrook Street.

Two Danks Lancashire boilers fed by two weir pumps, anthracite fired, chain grates. One set on and

one on standby. Steam used for heating and laundry, shift system – one engineer / stoker Ex - GWR.

These were visited at about one per fortnight – further travels as and when gardening, car repairs, etc. permit.

### Napton Brickworks.

Sale of surplus machinery, Saturday, May 20th. Included in this sale was a steam engine by Pelham of Walsall. This was on a 20ft. bed, so a bit large for the majority of would be preservationists. Mr. Morton of Blists Hill Museum was notified, it is not known whether he was able to save it or if the torch and hammer squad moved in.

Postscript: Tuesday, 13th June. The engine is unsold. The owner Mr. Sheasby put a reserve on of £1000! There are two boilers, one now converted to a storage tank. The engine was used until about fifteen years ago and drove all the machinery, including the clay tubs by chain, the conveyors and the crushing pan. The exhaust steam was used for drying the 'green' bricks. Nothing wasted here.

*According to George Watkins the engine was built by J. Wilkes of Pelsall Foundry, near Walsall, c1885? It was a non-condensing horizontal single cylinder engine operating at 80 psi. He suggests that the works were started in 1885 by Nelson, Watson and Co. producing traditional bricks and tiles. The engine was well built and was overloaded for many years, needing little but running repairs.*

*Twenty six years on the site remains largely derelict, despite several attempts to develop it. Most recently, it has been the subject of a locally contentious planning application for a craft village. This sought permission for a number of detached houses with adjacent craft workshops, the idea being to attract a community of self employed crafts people. However, general local opinion was that this was an underhand attempt to develop a housing estate in an inappropriate location, and nothing seems to have come of the proposal.*

*Meanwhile, fragments of the sites industrial past remain evident, most notably the day extraction quarry on Napton Hill, now a fishery, and the house style office building at the site entrance*

## WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

[www.warwickshireias.org](http://www.warwickshireias.org) email: [WIAS@photoshot.com](mailto:WIAS@photoshot.com)

### CHAIRMAN

M. J. Green

*Argyll 2(b)* Union Road

Leamington Spa

Warwickshire

CV32 5LT

( 01926 313782

### SECRETARY

D. M. Crips

27 St. Nicholas Church Street

Warwick

Warwickshire

CV34 4DD

( 01926 401072

### TREASURER

R. Hartree

Stables Cottage

Sibford Ferris

Banbury

OX15 5RE

( 01295 788215

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

## Credits

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Mark W. Abbott

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Arthur Astrop

Martin Green

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