WARWICKSHIRE Industrial Archaeology Society

WIAS

Number 1 December 2000

NEWSLETTER

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WELCOME

Welcome to the first quarterly newsletter from WIAS, designed to replace 'Retort'.

The original intention behind 'Retort' was to inform members about Society matters and to publish articles with an IA slant. However with the burden of its production falling upon one person it became an annual publication and thus more of a journal than the newsletter intended. Hence the monthly meeting became the primary means of communication with the membership; all well and good for members who were able to attend meetings regularly but of little value to those who could only attend occasionally and who undoubtedly felt cut off from the activities of the Society as a consequence.

Now with 'Retort' no longer being published, the resources are available to produce a regular newsletter with the intention of keeping members informed about Society matters. Provisionally, publication dates will be December, March, June and September, but previous experience suggests this may be flexible! Content will be centred around abstracts of the past quarter's meetings, together with an up-dated programme if space permits. Other features are also planned but of necessity this will remain flexible so that each issue fits within the space constraint of four A4 pages.

Short news or information items, with an IA bias, are encouraged from members. Please submit these to the Treasurer, or e-mail to WIAS@photoshot.com. Please ensure text attachments are in RTF format to prevent file incompatibility problems.

Comments about this newsletter, constructive (or otherwise!) are welcome. Please voice your opinions to a member of the committee.

SOCIETY NEWS

After the upheavals in the programme during the latter part of last season, it was to be hoped that the new season would run more smoothly. Sadly this was not the case when once again outside events intervened: in September the fuel crisis forced the cancellation of Ian Frimston's talk on local aerodromes.

Since a number of members were particularly looking forward to this meeting and Ian is an immensely knowledgeable aviation enthusiast, as well as a noted freelance photographer of the aviation scene, it is intended the meeting be rearranged to fill the vacant May 2001 date. Confirmation will follow.

Apologies are offered to anyone who did make the journey to Warwick in September. While every effort was made to contact members to warn them of the cancellation, inevitably some people were unavailable.

Summer Walks.

The summer break saw the Society's traditional venture into the great outdoors.

Early in August, Peter Chater led a walk starting in Hockley Heath and taking in a section of the Stratford upon Avon Canal, together with some ecclesiastical architecture. Naturally there were IA connections in the form of a church with its own gasworks and elsewhere the originator of Muntz metal. A leaflet was produced to accompany the walk, unfortunately now out of print.

Later in, August John Selby led a walk along the Oxford Canal's erstwhile Fenny Compton Tunnel to the 'Tunnel Brickworks', John's current research project. Unfortunately the failing light, together with a good crop of nettles, prevented an examination of the excavations carried out by John and by Alan Flint at the Brickworks. However the results of John's thorough research into the site will soon be available to members through the AIA's 'Industrial Archaeology Review'.

Mention should also be made of Peter Chater's demonstration of how to pass a boat tow rope under a bridge....something he seemed remarkably practised at for an ex-railway man!

Meeting Reports *by Arthur Astrop*

October 2000
Clive Hester: The History of the Ordnance Survey

Next to a notebook and camera, the enthusiastic industrial archaeologist's best friend must surely be a treasured collection of large-scale OS maps. It is easy to take both the maps and their unquestioned reliability for granted and few may spare a thought for just how the masses of information they contain was accumulated, and at what cost. An explanation of both those aspects came from Clive Hester, the speaker at our October meeting. Mr Hester has served (to date) 27 years with Ordnance Survey, a career length which he wryly observed is unlikely to be repeated in the future.

He traced the history of the OS from its military origins in 1791 to the present day, and from the use of glass length-rods for measurement to today's use of global positioning satellites which can pinpoint the position of a feature to within a few centimetres. (The OS, incidentally, was one of the first UK organisations to 'go metric'!) It was the threat of invasion by Napoleon Bonaparte which first revealed Britain's lack of accurate maps and provided the impetus for the Army, and specifically the Royal Engineers, to remedy that shortcoming. Unsurprisingly, with Boney just the other side of the Channel, the County of Kent was the very first to be surveyed and in 1801 the OS went into print with maps of that area at a scale of one inch to the mile. Four years later, maps of Essex followed, by which time the OS was well established and safely ensconced in the Tower of London!

Once the threat of invasion from France had passed however, the work of the OS slowed down somewhat and it was not until 1873 that the whole of England and Wales had been surveyed. Scotland had to wait a further 15 years before its OS maps appeared. Mr Hester explained how the earliest OS maps were laboriously engraved by hand on copper plates, and he also showed some splendid slides of early measuring equipment, including a massive brass and mahogany theodolite with a 36-in diameter base ring. This giant instrument must have required at least two men to lift it, and the problems of setting it up in all weathers in open country can only be imagined. Another slide showed an early theodolite mounted on the dome of St Paul's Cathedral and reached by a series of perilous ladders. Surveyors in those days were clearly a fearless bunch. The introduction by the OS of the first triangulation survey of the UK, and then the grid, were also covered in detail by the speaker.

Today, of course, in addition to GPS, the Ordnance Survey uses laser and infra-red measuring equipment, powerful computers, digitisers and aerial photography, although in dense urban environments the use of the human eye and measuring tapes seemingly still have a part to play. The OS is now a commercial organisation (with all that implies), and offers an extremely wide range of services tailored to meet specialist needs. However, as Mr Hester frankly admitted, these days the OS increasingly has its competitors, not least on the Internet. But for many, and especially enthusiastic industrial archaeologists, its superb and beautifully printed maps must surely still reign supreme.

All the w's..... Maps on the Internet

As a valuable source of landscape information in many fields of study, OS maps are an unparalleled resource. However the number of sheets required to cover the UK can often mean a specific sheet is not immediately available, especially to the private individual.

Enter www.multimap.com. With a PC and an Internet connection, a simple search procedure will display a map extract centred on the chosen location. The UK map resource is based upon OS data and is available to view at a number of scales from 1:4 000 000 to 1:10 000. At 1:50 000 the familiar OS Landranger data is presented, while at 1:10 000 individual named streets may be located in urban areas.

Rather less impressive is the time taken for the map extracts to download, an inevitable result of sending graphics data down a phone line and each scroll of the on-screen map requires a new download, so it pays to be precise about the location of interest. Also the extracts are quite small, presumably to keep download times as short as possible, whilst visited pages are not available off-line unless specifically saved, probably in the interests of copyright protection.

Nevertheless for a quick survey of a particular IA site this is a valuable service. Usual OS reproduction criteria apply: only a single screen dump of a map for personal use is permitted.

Also worth a look is www.streetmap.co.uk, essentially the same idea under a different name, and of course the OS web site at www.ordsvy.gov.uk, who also have a help line covering copyright and licensing issues. Phone: 023 80 792913. For aerial photographs try www.getmapping.com, although whole UK coverage is not yet available.

Gas Turbines and Horsehair

November 2000
Mark Barnard: The Development of the Rover Gas Turbine Car

The sight, on video, of a sleek Rover-BRM car 'whispering' its way through the Le Mans 24-hour races transported many members at the November meeting back to those heady days in the 1950s and 60s when Rover was leading the way for Britain with a gas turbine engined car. WIAS member Mark Barnard started his talk by briefly sketching Rover's initial involvement with Frank Whittle in the early 1940s, when the latter was struggling to get his ideas accepted, and he then took up the story at first-hand from the point where in 1953, as a young graduate, he himself joined the famous car company. In his career with Rover, Mark was subsequently destined to become Chief Engineer of its Turbine Department.

When Mark joined Rover, the Company was being led by the Wilks brothers, Maurice and Bernard, two men with the vision and the courage to get involved with gas turbines, a project which involved pushing engineering to the very extremes of available technology. A time, moreover, when the advanced alloy steels which would subsequently make them a feasible and reliable proposition had yet to be developed. As Mark Barnard said, "In those days we had mild steel, or alternatively we could use.....mild steel!" In his talk, Mark managed vividly to recapture the excitement of those early days; the triumphs, the disappointments, and the faith which he and his colleagues had in the project.

Early versions of the engine had no heat exchanger, and fuel consumption was also horrendously high. When a heat exchanger was developed, made principally from stainless steel, it sometimes had the habit of disintegrating only to re-appear from the exhaust 'like cigarette ash'! A 'glass' material from Corning USA ultimately replaced stainless steel and represented a major advance in heat exchanger design. Successive versions of the engine saw fuel consumption gradually improved, but it was principally this factor, among others, which eventually spelled the end of the gas turbine for car propulsion. Rover finally withdrew from the field in the mid 1960s.

Horsehair and its Uses

The November meeting concluded with a short talk by WIAS member John Brace on the esoteric subject of 'Horsehair and its Uses'. As always, John managed to combine information with a delightfully wry wit. He explained that once the hair had been removed from the horse's tail (with or without its permission), it could be found in many disparate places, from builders' plaster to Judges' wigs, from violin bows to mattresses, and from bearskins to sporrans. It can also be woven into a material for making ladies handbags, and at one time was used in the manufacture of crinolines. The only limitation of this wondrous mono-filament material, it seems, is its maximum length of approximately 28 inches! But will genetic manipulation, one wonders, result in the breeding of horses with 48-inch long tails?

A Second Look

The High Street Railway Bridge
Leamington Spa
WIAS Database Record No. 146

Many members of the Society must have waited at the traffic lights under this bridge, but probably few have given the structure a second glance. Setting aside the recent inappropriate repaint in 'Great Western' colours, this bridge is a remarkable structure of asymmetrical design, perhaps best appreciated from the platforms of the nearby station. It is probably the second bridge on this site.

McDermot (History of the Great Western Railway Vol. 1) states that the construction of the Birmingham to Oxford Railway started in early 1847. Completion was delayed by financial economies and negotiations with the LNWR for a joint viaduct through Leamington and a common station in Birmingham; this following the decision to alter the intended route from a line west of Leamington to a line into the town.

By September 1852 the line was ready for inspection and there is mention of the Leamington viaduct and a bridge of 105 ft span over High Street. The line opened as mixed gauge on 1st October 1852 and the gauge was narrowed on 1st April 1896.

The 1852 1/500 OS plan indicates that the configuration of the bridge was the same as the present bridge but clearly shows columns, sited on the kerb lines of the roads under the structure, propping all the girders. There is no sign of these props now, so it is likely that at some time the bridge was rebuilt. Indeed, member Peter Chater has some slides of photographs apparently taken during this rebuilding work and the caption to a picture in the Warwickshire Image Bank resource, dated '1930s', refers to the extant bridge as the 'new bridge'.

If any member can provide further information please contact Roger Cragg.

Programme 2000 / 2001

PROGRAMME

2000

Thursday 14th September
Ian Frimston: "Three Local Aerodromes: Wellesbourne, Gaydon and Shenington."

Thursday 12th October
Clive Hester of the Ordnance Survey: "The History of the Ordnance Survey."

Thursday 9th November
Mark Barnard: "The Development of the Rover Gas Turbine Car."

Thursday 14th December
Keith Draper of the Coventry Evening Telegraph: "Aspects of Coventry's Industry."

The majority of time at these meetings is occupied by our speaker, followed by refreshments and a subsequent period for questions and follow up material. The final part of the meeting is then usually taken up with a brief contribution from one of our members, often concentrating on an aspect of the industrial archaeology of Warwickshire. We are always keen to have contributions from members or visitors ~ do not be afraid to put yourself forward for one of these presentations. Occasional additional events will also take place during the year, and members will be duly notified of these.

2001

Thursday 11th January
Maureen Bourne: "Francis Skidmore of Coventry, the Famous Nineteenth Century Metalworker."

Thursday 8th February
David Kennet of the British Brick Society: "The Development of Brickmaking in the British Isles."

Thursday 8th March
M. T. Sharman: "Warwickshire Bridges: How the County Council Looks After Our Local Bridges."

Thursday 12th April
Barrie Trinder: "The Industrial Archaeology of Two World Wars: Manufacturing Industries and their Problems."

Thursday 10th May
To Be Arranged.

Thursday 14th June
Annual General Meeting and Members' Evening.

Thursday 12th July
Members' Research Evening.

Please note this programme may be subject to changes due to circumstances beyond the control of the Society.

WIAS Meetings

Meetings of the Society are held on the second Thursday of each month in the Sixth Form Centre at Warwick School, Myton Road, Warwick, starting at 7.30pm. A map of how to find the Sixth Form Centre at Warwick School is available from the Secretary. Visitors should park in the Junior School / Sports Hall car park. The Sixth Form Centre is adjacent to the car park.

Subscriptions 2000 / 2001

£10.00 per person (or couple).

Cheques payable to Warwickshire Industrial Archaeology Society please.

An additional payment of £1.00 per person is due at each meeting to meet the cost of refreshments.

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