WARWICKSHIRE Industrial Archaeology Society

WIAS

NEWSLETTER

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FROM THE CHAIRMAN

It was a pleasure to launch the new season of meetings at the WIAS AGM on 12 September 2019, and to be able to report that the Society was in good shape, with a series of successful, well-attended meetings over the 2018-19 season. Sadly we had lost a number of long-standing members during the course of the year, and membership numbers were slightly down, but the finances were in good health (under the prudent stewardship of treasurer Victor Lobb), and the members of the committee continue to carry out their various responsibilities in a highly effective way. WIAS is indeed fortunate to have such a hard-working group at the heart of the Society.

Thanks were also expressed to the membership for their continued support at meetings. Our attendances continue to be the envy of other industrial history/archaeology societies. We believe that the essence is to try to provide a range of topics, some more technical, others of a more general interest, and to utilise the expertise of external speakers and members of the Society. Should you hear a speaker who you feel would be suitable for a WIAS evening, never be afraid to pass on details to myself or other members of the Committee. Similarly, you may have something that you would like to convey to the Society, either in the 'final quarter' of a meeting, or as part of the Members' Evening 'Twenty's Plenty' in February 2020.

WIAS stalwarts; Chris Barney, Roger Cragg, Peter Riley and Richard King. (photos: Margaret Rushton)

One of the decisions recently taken in Committee has been to try and take WIAS's industrial heritage message to a wider audience, and as part of this process, the Committee designed a roller banner to act as a focus of any stand we might be manning at a history fair or festival. Its first outing came at the Leamington History Day held on 28 September at the Parish Church, Leamington Spa. The event was organised by the Leamington History Group, with Margaret Rushton at the helm. Margaret is, of course, a WIAS member, and a member of the (greatly valued) refreshments team at WIAS meetings. Sadly, due to a hip replacement operation, I was unable to attend but Peter Riley, ably supported by Roger Cragg, John and Janet Willock and Chris Barney, together with an early-morning delivery of books for the bookstall by Mike Hurn and Victor Lobb, all stepped in to assist. It proved to be a very successful day.

Below: The WIAS Stand at the recent Leamington Local History Day. Note the new freestanding WIAS display banner in the foreground .

My immobility has given plenty of time to catch up on a variety of WIAS matters. To improve my e-mail connection with the membership I have adopted a new e-mail address wiaschairman@gmail.com. Should anybody reading this wish to be included in the WIAS circulation list please contact me on that address. I was also fortunate to be lent a number of DVDs and booklets by Derek Billings, including one on an Open Day at Southam Cement Works with valuable footage of the plant in operation. It is members such as Derek who have been at the core of the membership for many years, and long may this continue.

As well as the programme of meetings, Alain Foote is also planning a number of visits for the Society, following last year's successful programme which included sites as varied as Taylors Bell Foundry in Loughborough; the unique Fawley Hill Railway Museum; and Crossness Pumping Station.

I very much look forward to another successful year for the Warwickshire Industrial Archaeology Society.

PROGRAMME

12 December 2019: Ian Pogson
The Life and Engineering Achievements of Dr. Frederick Lanchester.

9 January 2020: David Skillen
Giants in the Sky - the Zeppelin in WW1.

13 February 2020: Members' Evening
Twenty's Plenty.

12 March 2020: Ian Whittle
The Life and Work of Sir Frank Whittle.

9 April 2020: Paul Rabbitts
Bandstands - History, Decline and Revival.

14 May 2020: Mike Bunn
Fetch the Engines: a History of the Warwickshire Fire Service.

11 June 2020: Peter Hoath
A View of Computing History - 2,000 Years in 60 Minutes.

Meeting Reports

June 2019: Chris Barney
The Redditch Needle Industry.

Needles are nothing new. Indeed, examples can be found amongst the earliest of man-made tools, especially in the more temperate climate zones. As soon as animal skins were seen as a possibility for clothing, a means had to be found to join smaller pieces into a useful whole. Bone needles and animal sinews provided the answer.

Chris Barney has been studying the Redditch Needle Industry for some time as part of an MA Degree course in West Midland's History and shared his findings with us.

The earliest examples of metal needles are found in Tudor times. Immigrant Spanish artisans began to supplant the efforts of the local blacksmith to supply a much-appreciated domestic item.

Whilst the manufacture of a pointed shank was relatively simple (drawing out a wire and hammering on an anvil), producing an eye to take the thread was not and required considerable skill and some specialised tooling.

There seems to be no obvious reason why the district around Redditch became the centre for needle manufacture. A possible influence was the local Catholic Throckmorton family (Coughton Court) who were sympathetic to the Catholic refugees from Europe and probably supported the development of a cottage industry organised by a factor. The river Arrow also provided power for the watermills that are found along it from Alcester to the north of Redditch but especially near to the latter town.

The earliest written evidence relating to needle manufacture is an illustrated volume by Diderot dating to 1730. This shows, perhaps idealised, the various processes involved. Well dressed artisans in well-lit workshops might not have been found in every cottage but the manufacturing stages were. Cutting wire to length, flattening one end ready for the eye and punching it out over a block of lead before cleaning it out, then filing a point before hardening and tempering are clearly shown. As are the subsequent stages of packing quantities of needles with abrasives and oil preparatory to scouring back and forth for many hours under a heavy weight; repeated with successively finer abrasives washed out and dried in warm sawdust between each scour.

By the early 1800s there were some 20+ companies in and around Redditch and mechanisation was emerging. The first operation to use a power source was point grinding. This soon became a hazardous task, albeit well paid. With no dust extraction and poor-quality grinding wheels silicosis and exploding wheels meant that most point grinders were dead by the age of 30. Paradoxically, when primitive dust extraction was introduced there were strikes over reduced pay. Some idea of the early working conditions was shown in a series of photographs of machinery that has been preserved.

There is a world-wide demand of some three needles per head of population. This is reflected in the growth of Redditch production from 5 million per week in 1800 before any mechanisation to 50 million in 1850 with some mechanisation to 70 million in 1939 with automation. This growth led inevitably to the consolidation of the industry into larger factories and the emergence by the late 1920s of three large groups: Abel Morrall, William Hall and Milwards.

Many early needle makers also made fishhooks, and some moved into fishing tackle more generally. Most notably, Samuel Allcock who by 1869 offered an enormous range to the burgeoning recreational fisherman. In 1930 Halls and Milwards merged to form the English Needle and Fishing Tackle Co Ltd.

Another significant innovation was the sewing machine developed by Singer. The very different needle required by the machine was a problem for the Redditch manufacturers with the requirement to make a needle with a reduced shank achieved by swaging. So much so that Singer made and supplied needles for his machines. An early example of profiting from the ongoing supply of a consumable part of the original sale.

Some Redditch needle manufacturers opted to develop new products. Herbert Terry turned to spring steel products, amongst which was the iconic Anglepoise Table Lamp. Ladies hair fashions needed Kirby Grips to the tune of over 20 million a week! Gramophones had an enormous demand for needles that had only a limited life if precious records were not to be damaged.

Moving to the commercial aspects of the industry, it was noted that in 1930 Hall and Milward had sales of £425 million with a substantial proportion of exports. America imported rather than made needles and Redditch supplied some 50% of the world demand; some commentators put the proportion even higher. Germany was the main competitor with France and Italy offering a lower quality product. Germany exported mainly eastwards to Russia and China, but various wars curtailed German sales to the advantage of the Redditch factories.

Research into the archives unearthed some interesting material. One condition in a contract required the agent to provide a replacement horse, at his own expense, if the one used by the salesman should 'happen to die or be taken lame or blind or by any other accident be rendered incapable of travelling'. In another instance 'When I was fifteen I went out alone, travelling mostly in the North and in London. I carried my stock with me in the gig and used to sell from that.'

Redditch was well represented at the Great 1851 Exhibition. John James showed specimen needles and fishhooks. William Bartlett showed needles and fishhooks of every description. William Boulton included surgical needles and fishing spears. Henry Hemming had an assortment of sea and river fishhooks and Abel Morrall 'not only had specimens of needles but also had on show machinery for their production. Elaborate displays were created for this and other exhibitions and as point of sale material. Variations on the conventional needle eye, such as the 'Calyx' double eye, were tried with varying success.

Further examples of commercial correspondence from the archives showed the extensive export markets that were developed and the quantities involved. Whilst sales were mainly direct in the UK, overseas they were predominantly through agents. Senior management made regular annual sales trips.

From the mid 1920s trade became harder, although rearmament boosted military demand, but after the war the need for new plant to improve export potential was a financial burden when competition from lower cost countries such as Italy and especially China increased. Despite consolidation, plants were closed and today, only small quantities of specialised needles are made in Redditch but otherwise the industry has ceased to exist.

September 2019: Martin Green
Chairman's Lecture.

The Chairman gave us his thoughtful and thought-provoking views about 'the way forward' for industrial archaeology with the subtext of 'where next for the industrial heritage'. Happily, he saw positive options in an uncertain world. As always with Martin's talks, this one was lavishly illustrated with memorable photographs.

At first glance the odds seemed to be stacked against the industrial archaeologist. Is it a one generational subject? Expertise and experience are being lost as memories fade. Funding is always an issue and there are many alternatives for precious leisure time. The pace of change is rapid. Nonetheless, there are challenges and opportunities to be exploited, both for our Society and for individual members.

Members could have greater involvement with the Society's presence at local events such as the recent local history day. More could be done to publicise our activities and develop our website to build upon Peter Riley's splendid efforts. There are plenty of opportunities to research Warwickshire's industries and to preserve records, working experiences and the like. We could support our industrial museums more. Enthusiasm and curiosity are important but perhaps inexperienced, incomplete, inconclusive research is better than having none at all.

By way of example, brief research showed that one small Leamington building links milk, raffia, supercars and rocking horses. The building lies between Gunnery Terrace and Guy's Cliffe Road. No longer in single occupancy, Gunnery House is commercial offices and a domestic dwelling fronts onto Guy's Cliffe Road.

In the 1880s it was home to the Stoneleigh Dairy run by the Hoddinott family with a farm at Stareton, hence the name. A contemporary photograph of a sign written delivery van provides the evidence. The business was sold in 1919 and the sales particulars noted that: The building occupied an excellent position, highly suitable for conversion into motor garage or factory, had frontages to Guy's Cliffe Road of about 30ft. and to Gunnery Terrace of about 33ft. 6ins, and a total depth of about 101 ft. 6 ins.

Subsequent occupants included the Auto Sheet Metal Company offering radiators, petrol tanks, panels and wings and in 1927 J P Emerson employed 84 girls making raffia products. Supercars were fairground dodgems and in the 1970s Leamplas was producing glass fibre rocking horse replicas of carousel animals. After further use by a removals company, in 1985 the building was converted to offices. The unanswered question is: what was it originally built for?

Links with other organisations are important. These could include other industrial archaeology societies, local history and family history groups, national organisations – particularly the Association for Industrial Archaeology (AIA) and other organisations with general concern for conservation e.g. Historic England and The National Trust.

The last named has helped the cause of IA with its rebranding of the north Cornwall Levant mines as 'the Tin Coast' and introduced mobility aids and virtual reality tours for those who cannot access the mines.

Future AIA Conferences will be held in Liverpool (2020), Dublin (2021) and the Black Country (2022). For each conference the organisers produce a comprehensive review of local IA. For example, that for Somerset Textiles included one of the very few remaining weavers of horsehair – John Boyd & Co of Castle Cary operating since 1837.

Coming closer to home, Warwickshire is badged on its borders as 'Shakespeare's County'. If we were ever to host an AIA Conference perhaps 'The Transport County' would be more appropriate? Warwickshire has early roles in the canal and railway history of England, including the unique features of the Stratford canal. It is the home of important components of the cycle, motorcycle and car industries, and their ancillary trades. It has made significant contributions to the aircraft industry. It is home to 3 nationally recognised museums.

Photography and Industry is a subject close to the Chairman's heart. His recording of the contemporary scene is exemplary and has illuminated many a talk to the Society. He drew our attention to the work of John Myers and a recent publication 'The End of Industry'. Examples from the book, grimy black and white landscapes and portraits, recalled the not so long-ago realities and preserved them.

There have to be questions raised as to the long-term viability of industrial museums. Sources of funding are difficult in many cases, but curators do not always help their own cause when exhibits are 'dumbed-down' with inadequate or over simplistic explanations. The content of bookshops often reflects the same lack of appreciation of the need to educate the visitor or to reflect the true significance of the museum's purpose. Are too many such museums a poorly shared experience?

There are honourable exceptions. At the Helmshore and Queen Street Mills in Burnley the National Trust is working with partners including Lancashire County Council, Heritage England, the National Lottery Heritage Fund and Arts Council England to help find a future for the mills.

Industrial Museums can also provide opportunities for sharing the experience with other groups. The iconic Papplewick Pumping Station has hosted a 'Steampunk Weekend'. An extraordinarily garbed group, captured by the camera, represented this subgenre of science fiction or fantasy that incorporates technology and aesthetic designs inspired by 19th century industrial steam-powered machinery. The pumping station itself is an example of all that an industrial museum should be.

Elsewhere, there is the adaptive re-use of industrial buildings. Not always an easy task. The scale of the buildings and site together with their specificity can be daunting. And with scale comes higher costs. Issues of environmental protection and health and safety will become more not less onerous. Sometimes only partial conversion or attention to the fabric of the building or only its facade are possible. Holmes Mill in Clitheroe provides a good example of what is possible as does member Peter Stanworth's elegant conversion of his water tower into unusual holiday accommodation.

We are in a period of some important anniversaries. 250 years ago, in 1769 the Birmingham canal opened delivering coal into the heart of the city. The Canal & River Trust has appropriately celebrated the event and many visitors have enjoyed the experience of the now restored canal system with its many examples of former industry and engineering ingenuity.

2019 also saw the 200th anniversary of the death of James Watt. 175 years ago the Leamington (Milverton) to Coventry railway opened and, perhaps, most significantly the first meeting of the Warwickshire Industrial Archaeology Society, on 17 November 1989, was addressed by Barrie Trinder on the subject of 'our industrial heritage'. Full circle?

October 2019: Peter Coulls and Alan Jennings

The Warwick and Leamington Tramways.

Book launches at WIAS meetings are in vogue. With the *Leamington and Warwick Tramway* Allan Jennings and Peter Coulls have recorded the relatively short but fascinating story of public transport between the two towns from 1881to 1930.

Allan Jennings opened with a review of the introduction of passenger transport using light horse-drawn carriages running on rails into the UK. Such methods were not new, they had been used in industry for many years.

However, it was an American, George Francis Train, who introduced a horse-drawn tramway for passengers at Birkenhead in 1860. The next year Train opened the first, short-lived tramway in London, the first of three routes. None prospered and soon closed mainly due to the obstruction caused to other road users from rails laid proud of the road surface causing havoc to carriage wheels. The development of grooved rails set flush to the road surface a decade later allowed the street tramway era to begin.

In 1880 Leamington, population 23,000 and Warwick, population 12,000, were not obvious candidates for a linking tramway. However, Leamington's spa waters were being heavily promoted and gave resort appeal, two main railway lines ran through the town and it was a long walk between the two town centres.

The distance was short and the line, in different configurations, only lasted for some fifty years. But, in that short span of time the company went through most, if not all, of the experiences that made up the history of Britain's tramways. It fought for recognition, had disputes with the local authorities began running with horse traction, experimented with road transport, was taken over and electrified and eventually abandoned.

The first proposal for a line was put forward in 1870 and objections began; one of the main ones being that the proposed line down the Parade in Leamington would be detrimental to its acknowledged elegance. On the other hand, improved transport for workers in Leamington living in Warwick would benefit the former's economy.

The proposed route ran from a terminus in Avenue Road, Leamington, up the Parade along Warwick Street to Milverton Station and then along Emscote Road to Coten End before ascending Smith Street, through the Eastgate into Jury Street and High Street terminating near to the Warwick Arms Hotel. Once established, the journey time from end to end was 35 minutes.

After a close vote and a lively public meeting, the decision to proceed was made and the appropriate application to Parliament was made. In June 1879 the Tramways Order Confirmation Bill granting the Provisional Order was passed through the House of Commons without objection and the next year The Leamington and Warwick Tramway and Omnibus Company Ltd was formed.

As might be expected, progress was not straightforward. Twenty-five tenders for the work were received. The lowest was accepted but the deal fell through as did the next but at the third re-tender John Fell of Leamington's bid was accepted and construction work began in June 1881. Weather permitting, the building was straightforward although several alterations were necessary.

These included raising the road surface of the Emscote Road canal bridge to lessen the gradient over its crest and widening the Portobello bridge. In Warwick the steepness of Smith Street and High Street presented a problem and 'pull up' horses were needed to assist loaded trams up these sections as they were in the Parade and over the canal bridge.

The Eastgate at the top of Smith Street turned out to be too low for the double deck trams that had been bought to pass through with passengers on the top deck and so the line was re-routed around it. This error only came to light during the Board of Trade inspection of the route when it was completed in October 1881. The tramway depot and stables were in Coten End.

Throughout the description of the route much use was made of old postcards and material drawn from the local papers and official documents. Apart from satisfying nostalgia it once again showed how many sources of material are available to the diligent researcher. Not least was the quote describing the trams as 'Wackrill and Bright's Rattlesnakes'. From other sources it seems that the tram ride was far from being smooth and silent. Nonetheless, customer demand grew, and further tram cars were bought. The original fare was 3d for the full journey.

Progress meant electrification and in 1905 a card was issued in loving remembrance of the Leamington and Warwick horse trams. But in contrast, the Warwick Advertiser declared that 'unwept, unhonoured and unsung the tramway system is about to be relegated to the limbo of the past'.

The move to electrification had begun in 1897 when the newly formed British Electric Traction Company made an approach that was completed in 1899. Peter Coulls took over to describe the conversion to electric traction. There was much discussion about the aesthetics of the proposed poles for overhead wires. The track would need altering for a revised gauge to bring uniformity with the rest of the country. A power station would have to be built. New rolling stock was required.

Amongst the modifications needed to the track was the lowering of the road surface under the railway bridges at Milverton and Emscote Road. These changes are still observable today.

The redundant horse trams had to be disposed of, one can be found in the museum in Crich, two others were found in Yarningale Common in 1984 and a further two have served as sports pavilions.

Whilst the conversion was underway, a double-deck horse drawn omnibus service operated.

Some accidents happened, happily with few fatalities. One spectacular derailment ended with a runaway tram buried in the Castle Arms Hotel opposite the Eastgate and has been the subject of a highly detailed model reconstruction of the scene.

Many contemporary illustrations were used to describe the electrification and subsequent operations. Notably, the history of the Emscote Power Station which supplied power for domestic customers as The Midland Electric Light & Power Company well as to the tram system. After some 50 years it closed in 1973, by which time it was the smallest in the Midlands. The tram depot was located alongside the power station and its surviving buildings were recorded by Anthony Coulls in 1997. Tesco now occupies the site.

The last electric tram ran on 16 August 1930. It was replaced by a bus service, which is another story.