WARWICKSHIRE WIAS
Industrial Archaeology Society

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NEWSLETTER

FROM THE CHAIRMAN

Covid restrictions forced the Association for Industrial Archaeology to transfer its Annual Conference from a week-long in-person experience to a series of online lectures. The session on September 18th. is to be a one day seminar on the theme: "The impact of Covid-19 on the industrial heritage sector", and one of the lectures is to be delivered by a local society. This caused me to speculate upon how Warwickshire Industrial Archaeology Society might have presented our experience had we been given that responsibility. In fact, Victor Lobb, Peter Riley and myself had already provided a piece for the AIA Newsletter in which we described the way in which we had switched to the Zoom facility for our meetings, enabling WIAS to go over the border to Oxford, Warrington, Cheshire and Gloucestershire, as well as learning more of the history of the kitchen range, plus staying closer to home with the Coventry Silkmen.

What occupies me now is whether some of the changes to the way the Society operated in Lockdown might have been a temporary emergency in highly unusual circumstances, or whether some might become long-lasting – even permanent.

We had the advantage of the responses to our Survey in which it became clear that the 'in-person' meeting was a very important ingredient to many, and that a Zoom-only Society would not be welcomed, unless absolutely necessary. The supporters who have really been disadvantaged during the pandemic have been those with no computer access, and this remains one of our biggest concerns. Set against this has been the fact that we had spread our message as a result of having Zoom lectures, and that visitors from anywhere in the country (and beyond) could tune in to hear the latest WIAS lectures. It would be a great shame to lose these contacts.

After a great deal of heart-searching, the committee has decided that the time is not yet right for a return to in-person meetings, and the AGM and Chairman's talk on 'The diversity of Warwickshire's industrial heritage: Chains, Caravans and Corsets' on September 16th. at 7.30pm will be a Zoom presentation.

Once we have assessed that it is safe to do so, we will be experimenting with the in-person lecture at Warwick School (with all the usual features such as refreshments and bookstalls once we are given the all-clear from the School) being simultaneously transmitted to a (restricted) Zoom audience. This 'narrowcasting' could be an enormous bonus to our viewing numbers and would permit the WIAS message to reach a much larger audience. It would also help those who are having trouble in travelling to Warwick School because of health or mobility issues. Once the system has been established, only members and those who had made a suggested donation of £3 for each lecture would have access to the talk, thereby restricting the audience.

This will be an experiment, and will be trialled at our first in-person meeting. Full details of the arrangements will be circulated in due course. For the first in-person meeting the Zoom invitation will be sent to all our members, former members and supporters (on the 'WIAS Circulation List) with no charge, and no-one will be charged for entry to the in-person meeting. Assuming no problems, this will be the pattern for the remainder of the season, with free entry to the meeting and free access to the Zoom link for members with the £3 donation operative from subsequent meetings both for visitors to the in-person lecture and access to the Zoom link.

Also as part of these arrangements, we are pleased to confirm that there will be no change to subscription rates for season 2021-2022. These remain at £20 for an individual; £26 for a couple living at the same address. These can be paid at meetings or cheques can be sent to:

WIAS Membership Secretary
17 Knightcote Drive, Leamington Spa, CV32 5FA
Cheques are payable to "Warwickshire Industrial Archaeology Society"

Full details can be found on the WIAS website under the CONTACT tab, including the facility to pay by bank transfer.

This Newsletter represents the permanent record of the Society's meetings and an initiative that emerged from Lockdown was the idea of a more temporary occasional publication with news, topics and references etc. identified by members. This is the WIAS Monthly On Line Edition (or MOLE), to be published at the start of each month. Contributions are always welcome. No analysis of the Lockdown experience would be complete without thanks to those who made donations to the Society over this period, to the Officers of the Society, and to the membership and our wider list of supporters who have maintained the impetus of the Society during the most difficult of times. Can I place on record my sincere thanks to the WIAS community as a whole for the contributions you have made in sustaining interest in, and concern for, the industrial heritage of Warwickshire and beyond.

PROGRAMME

PROVISIONAL

16 September 2021:
AGM followed by **Martin Green**
The Diversity of Warwickshire's Industrial Heritage: Chains, Caravans & Corsets.

14 October 2021: Roger Cragg
The Oxford, Worcester & Wolverhampton Railway.

11 November 2021: Allan Jennings
The Bonniksens and Leamington Aerodrome.

9 December 2021: Laurence Ince
The Thames Iron Works.

Meeting Reports

March 2021: David Fry

Eighteenth Century Coventry Silkmen: Masters of the City's Industrial Universe.

David Fry has given us several talks on aspects of Coventry's history (February 2019, Forgotten Foleshill NL66 and January 2014, Industrial Coventry in Old Postcards NL51). His meticulous research and discovery of historic documentation was again evident in the story of the 18th Century Coventry Silkmen – who were indeed Masters of the City's Industrial Universe.

The story poses a number of questions. Why did silk ribbon weaving come to Coventry? Who were the Coventry silkmen, what did they do and what status did they enjoy? More provocatively, did Coventry's 18th C ribbon trade mark the start of the Industrial Revolution?

One problem facing the researcher into those early days is the paucity of information. Whilst the 19th C onwards is well documented, examination of prior times needs some experience.

It is relatively simple to find reasons for a silk ribbon industry arising in Coventry. There had existed a tradition of textile production since medieval times. The population could easily accommodate and master a single hand loom. It was a sufficient distance from London to have lower labour costs, but near enough for transport not to be a problem for a light, high value product (there already existed a comparable product, watches) moving by road in the absence of water transport. There was also a significant non-conformist business class with ready access to capital.

Turning to the people, we were introduced to the Bird family. Prominent in the trade, their family history provided continuity over several generations through their wills, property and some contemporary comment.

But first, what did the silkmen actually do? They were merchants who firstly buy raw silk, usually in London and arrange for the silk to be 'thrown' into threads (Sherborne in Dorset was one centre) and brought to their Coventry warehouses. Other storage was located in the Spitalfields area of London. There were usually not be more than a dozen silkmen at any one time and in Coventry often fewer. They hired undertakers to distribute the thread to weavers' homes where it would be woven into ribbons.

It was a patrician trade. Silkman apprenticeships were more exclusive than banking and cost up to £200 (£20,000 today). Lines of credit that could last for more than a year were commonplace.

Silk ribbons were a high fashion item. Complex designs were created by skilled weavers on simple hand looms. Examples can be seen at the Herbert Museum but for the facts behind the finished product it is necessary to examine the few available historical documents.

Some key features are common to most of the historical accounts. The trade was introduced by a Mayor of Coventry in the early 18th C. He employed a number of Huguenot silk weavers who had fled persecution in France. In 1746 a Coventry silk manufacturer is recorded as employing some 2,000 workers. The Spitalfields Act of 1773 forced silk production out of London, leading to Coventry becoming the ribbon weaving centre of the UK.

A number of books have been published on the subject, notably: *A History of Coventry Textiles* by Alice Lynes in 1952 and *Silken Weave* by Jenny Dodge in 2007. Both authors identify Thomas Bird as the founder of the industry in about 1703 and this is supported by others.

However, David's meticulous research has thrown up some problems. Poorly referenced secondary sources repeat earlier assertions, there are contemporary references to silk but few to ribbons which are produced on hand not broad looms and there are few local newspapers or surviving business records.

Burial records have been useful. The records at St Michael's Church for 1705 – 7 covering 300 burials list 32 silk weavers and only 19 weavers (assumed to be in the wool trade). Probable evidence for a greater prominence for silk woven products.

The first physical evidence for a Coventry woven ribbon dates from 1761. Part of the Herbert collection, the ribbon commemorates the Coronation of George III. It is patterned and could only have been woven singly, not on an engine loom. It also incorporates silver metal thread.

Further evidence about Coventry is found in an account book of a certain de Brissac which contains references to ribbon patterns and designs sold to a Mr J Bird of Coventry in the 1760s. Such commissioning of complex designs shows the continuing importance of the Bird family in Coventry and its links to the Spitalfield silk trade.

The Bird dynasty were not the only silkmen in Coventry, there were others and all were wealthy, but only a few such merchants could flourish at a time. Research into wills showed that only 23 silkmen left wills at the Prerogative Court of Canterbury and 12 at the Diocese of Lichfield & Coventry over the whole of the eighteenth century. Almost 10 of the former are accounted for by various generations of the Bird family.

Other evidence of wealth comes from court reports, a death sentence for stealing ribbons worth £1,500 (£150,000) from a Coventry warehouse and evidence of substantial bequests - £4,000 (£400,000) to an unmarried daughter.

Returning to the Bird family, whilst much wealth and property was passed down the family frequently there are bequests for several thousand pounds to outsiders. Regarding property, that which passed from William to his son Richard before 1711 included: the premises in High Street, near Broadgate, lands in Exhall, Foleshill and Keresley including the manor of Newlands, the Horseshoe Inn at Spon End with several tenements and lands there and the house in Little Park Street originally occupied by Lady Bridgeman. Later, three of the best properties in the street, and in Coventry, were owned by Birds.

In 1742 a coat of arms was granted to Thomas Bird confirming his status in the city. Obituaries were fulsome, his described him as one of the most eminent silk manufacturers in England employing over 2,000 workpeople.

Finally, David explored the London end of the trade showing the locations in Cheapside and Spitalfields that exist today and pondered the fate of the Coventry Silkmen. References tail off from the beginning of the 19th C, London silkmen set up warehouses in Coventry and deal directly with the undertakers. Post Napoleonic wars disruptions don't help and factory operations develop by the 1840s.

As to whether the Silkmen started an industrial revolution: Coventry grew substantially with much employment in the ribbon trade but this remained craft, home working, not mechanised and with no new technology. Great wealth created for a few, little change for many.

April 2021: Dr Mike Nevell
The Salt Archaeology of Cheshire..

Mike Nevell, introduced a large (52) zoom audience to Cheshire's Salt Archaeology. As a practicing archaeologist and author, associated with the University of Salford and the Ironbridge Gorge Museum, we could not have had a better guide.

Speaking in front of a painting from the Salford Museum of a 19th C open pan salt works, Mike introduced us to the 2 ½ thousand year history of Cheshire salt and especially the most recent centuries.

There is evidence from earlier times of salt usage amongst Neanderthals but the exploitation of England's inland salt fields dates from the iron ages and it grew rapidly during the Roman occupation with increasing requirements for food preservation and flavouring.

Initially, saline springs provided the brine that was heated in clay pots to leave a sludgy mass that dried into crystals. Such very coarse pots, which are porous, were also used for transporting the salt. Dating to around 500 BCE, they are frequently discovered.

Rock salt deposits are widely distributed in the British Isles, but the substantial ones under the Cheshire plain were conveniently placed for use by a growing population. It seems likely that Cheshire salt was exchanged and controlled by the Iron Age elite as evidenced by the widespread pottery finds, sometimes accompanied by dateable coins.

As with other natural resources, exploitation under the Romans led to the growth of the salt towns of Nantwich, Middlewich and Northwich. Salt production reached several thousand tons a year. This required developments in manufacturing technology. Notably, the adoption of lead salt pans, the use of which continued into the 17th C. More fragments of these lead pans have been found in Cheshire than anywhere else. Inscriptions are often found that provide evidence for dating and ownership. The Lion Saltworks Trust, of which more later, has recreated Roman salt pans and evaporation hearths.

The salt industry had an impact on the local landscape. Notably, extensive coppicing to provide fuel for all year-round production.

Excavations in Nantwich unearthed the largest brine tank yet found, dating to 114 CE and built from reused timber. Elsewhere in the town are medieval salt houses from the 11th, 13th and 16th centuries, all close to the River Weaver. Production in Nantwich peaked in the 16th C.

The introduction of iron pans improved production rates and reduced the health risks from using toxic lead. A good description of the process is found in Agricola's De Re Metallica of 1556 which was used as the basis for the reconstruction of an iron salt pan as used in Nantwich in the 17th C.

Apart from the introduction of iron pans, the other driver of increased production was the discovery of extensive rock salt beds in 1670 at Nantwich by the Smith Berry family when prospecting for coal.

Descriptions of the development of the processes for extracting salt highlighted the natural advantages in Cheshire. Not least was the source of cheap and abundant fuel from the overlapping Lancashire coal field and the proximity to waterborne transport for a bulky material.

The production boom was fueled by demands for food preparation and preservation, from the textile industry for bleaching and dying and especially from the burgeoning chemical industry's need for soda. Output reached several million tons a year by the mid-19th C. Figures from the River Weaver Navigation records show that some 3 or 4 tons of salt were carried for every ton of coal.

This traffic led directly to the construction of the Anderton boat lift linking the Weaver with the Trent & Mersey Canal. Liverpool thus opened up as a major port for salt exports. Incidentally, more recently there was considerable local objection to the restoration of the 'pile of scrap' into which the lift had been allowed to deteriorate.

Cheshire's open pan salt works were characterized by low buildings and tall chimneys in a flat landscape. These were evocatively shown in a series of historic photographs.

Some buildings, such as the Middlewich Brine Pump House have been restored under the aegis of the Middlewich Heritage Trust but the structures over the open salt pans were always regarded as sacrificial to the corrosive atmosphere and temporary. Consequently, few have survived.

The brine pump introduced the later technical developments for extracting salt from the underground beds. Water is pumped in and brine extracted. This allowed the development of more distant works, such as in Runcorn and the Vacuum Salt Works at Weston Point.

Today, there is still a salt industry but one largely utilizing pumped brine whilst rock salt is mined for use on roads. The mines with their extensive caverns are used for storage, notably for archives.

What is the heritage position today?

The Lion Salt Works, now a council-run museum, is the only survivor of the Cheshire open salt pan industry. The first connection of salt with this site was in 1781, a shaft was sunk some 100 metres deep to access the rock salt deposits. The first Boulton and Watt steam engine in the Northwich area was installed there. The business passed through several owners until the site was declared a scheduled monument in 2002.

Subsequently there has been considerable archaeological work undertaken to restore buildings and recreate the processes used. Not least has been the investigation of the canal and rail links that were fundamental to the development of the salt industry. This work was well illustrated and emphasized the unique nature of the site which would be well worth a visit.

Close by the Lion Salt works is another site that has been studied for some five years by Mike and his team. The Ollershaw Lane Salt Works today is marked by two large ponds where the ground collapsed into an underlying mine in 1929. The archaeological work has uncovered a variety of remains around the ponds including salt pan houses, tramways, a warehouse and flue and the canal arm that served the works.

Industrial sites have always been of interest to a wide variety of people. In the 18th C many were tourist attractions and this curiosity continues to the present – not just amongst industrial archaeologists. Mike's work with Ironbridge has included a survey of the Weaver valley for a possible heritage trail and investigating the potential for the Cheshire salt fields more widely.

We now have another reason for visiting the Northwest when conditions allow.

May 2021: Dr Ray Wilson
Gloucestershire's Industrial Heritage.

Another Zoom presentation gave a further opportunity to trespass into another county. In Dr Ray Wilson, a well-travelled physicist and long involved in the county's industrial archaeology, we had an exemplary guide to the industrial heritage of Gloucestershire.

Gloucestershire is not often thought of as an industrial county, but in fact it has been home to a very rich and interesting range of activities. The county divides naturally into three parts. The westernmost, beyond the River Severn, is the Forest of Dean where mineral extraction dates from ancient times. East of the Severn lies the Vale country centered on Cheltenham and the Cotswolds where sheep brought great riches and long-lasting industries.

The illustrations of the Gloucestershire heritage often crop up in the county's tourism brochures but the origins are mostly industrial. Typical are the ponds that fed the leat of the Park End Ironworks or the overgrown quarries from which much prized sand stone was extracted. Coal was often the reward for the 'free miners' of the forest.

At Whitecliff there is a now restored charcoal fired furnace that produced iron from local ore and limestone. The Cinderford Ironworks in the 1880s could easily be mistaken for one in South Wales due to its size.

Across the Severn is 'The Devil's Chimney'. Frequently used in brochures it is an industrial monument featured in a sketch which shows the chimney alongside a ropeway that was built to transport stone quarried at the top of the hill down to the tramway linking Cheltenham to Gloucester and its docks.

Excavations at the docks in the 1980s uncovered some flanged rails on stone sleeper blocks which have been incorporated in today's display of the old tramway and its rolling stock.

Also in the docks is a plaque commemorating their opening in 1991; the photograph we saw is notable for featuring the Rev. Awdrey of Thomas the Tank Engine fame who was President of the Gloucestershire IA Society for many years.

Transport in one form or another features widely in the county and amongst the many examples are the 1860s station at Nailsworth, whose stone detailing matches a nearby church suggesting that the same masons worked on both buildings, and the original Severn railway bridge built to bring coal to Sharpness Docks, which was damaged in 1960 when two tankers collided on a foggy night and then brought down two spans. It was never repaired.

Turning to some smaller canals we saw evidence of restoration work on the the Cotswold's canals; notably the Stroudwater.

A plaque on the Dudbridge Lock Bridge marks a watershed moment in 1991 when the County Council recognised that canal restoration was possible. Bridges have been sympathetically treated to meet modern transport loads, not just flattened out.

A surviving crane from the 1850s, originating in Preston, and installed on the canal, is a good example of the growing industrialization of the County brought about by the railways.

Moving east we came to Brinscombe and the Thames and Severn canal. Brinscombe Port arose at the junction of the Severn and Thames traffic because of the different sizes of barge on the two systems. Little now remains of the port basin but some of the buildings illustrate adaptive reuse of old ones.

A good example of which is an old salt warehouse. Supplies from Droitwich were housed in a centrally heated building now over 200 years old. The 'round house' cottages for the canal linksmen who walked a stretch of canal keeping it in a good state of repair now have new owners. Adjacent to the one shown was more recent accommodation used by artist Damien Hirst, one of three locations he uses in the County.

One of the gems in the County is the Sapperton Tunnel on the Thames & Severn. Opened in 1789 it was then the longest canal tunnel in the UK. It has been blocked for many years but may possibly be opened up.

Returning to the Gloucester & Sharpness there are some ten bridge-keepers' cottages of classical design now restored and occupied.

Continuing the transport theme, toll houses are a reminder of the cost of providing overland transport with examples at Butter Row, Stroud, Pike Cottage and Thomas Telford's unique (?) toll house with a booth on the opposite side of the road at his bridge in Tewkesbury.

Telford also built an elegant masonry bridge on the road out of Gloucester (the A40) to Ross-on-Wye but miscalculated and on removing the timber shuttering the centre sank by 8 inches, increasing to 10 soon thereafter. Nonetheless, the bridge stood and was in use until a new crossing was built in the 1960s.

Moving on to manufacturing, Ray commented on the usefulness of company letter headings, especially the liberally illustrated Victorian variety. The Walker family of Stroud's Dunkirk Mill provided a good example entwining social with industrial history.

Cam Mills near Dursley still weaves the cloth for all the championship snooker tables and the Woolpack Inn at Slad (Lawrie Lee's local) has a sign that well illustrates how packhorses carried local wool to the docks.

A sketch map showed that some 200 wool mills lined the rivers around Stroud, Nailsworth, Dursley and Wooton-under-Edge. (Members might recall Ian Macintosh in his Stroud Scarlet waistcoat talking about Stroudwater Textiles in November 2012 see NL 47.)

Many mills have been converted to other uses, often housing, which has preserved the structures. The important iron-framed King Stanley Mill from 1813 has been in limbo for several years but is now due for reuse as housing. The iron work will not form part of the development. Brinscombe Silk Mill prepared silk for weaving, sending thread to Cash in Coventry amongst others.

The Chalford Stick Company still produces walking sticks using traditional machinery as does Hooper turning out skittles and wooden balls for coconut shies.

Elsewhere Gloucester has seen boat builders exporting river craft to South America and aircraft by Gloster of first jet flight fame. Pins and pianos have been produced and printers can enjoy the time capsule to be found at the Severnside Press. At Stonehouse could be found a paper and bag mill as well as a brickworks that boasted the tallest chimney in the county. Brewers cannot be forgotten and the now lost maltings in Stroud were notable.

Our journey through the wide and rich heritage of Gloucestershire ended with the Hampton car. It was made in Stroud but had its origins in Hampton-in-Arden.