

WARWICKSHIRE

Industrial Archaeology Society

WIAS

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FROM THE CHAIRMAN

It is a matter of some regret that the coverage of the industrial heritage of the county is (inevitably) patchy, often depending on the particular interests of members, their place of work or residence, and the availability of material. Many of these gaps are filled by other organisations, and the world of motor cars is, of course, a prime example. Local history groups also contribute greatly and Leamington History Group's recent publication *'Enterprising Leamington: Celebrating 200 years of Industry and Creativity'* is a case in point. Several members of WIAS have contributed to this book – Mick Jeffs, Nigel Briggs, John Willock, Peter Coulls, Margaret Rushton, and myself. The book is available from Waterstones, Leamington or secretary@leamingtonhistory.co.uk, price £20.

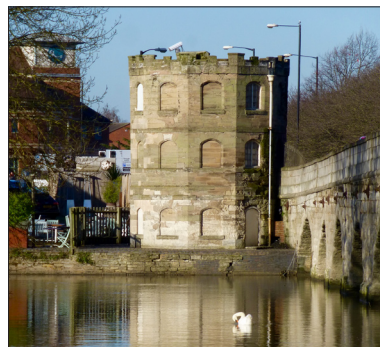
My own involvement in writing a book on an aspect of Stratford upon Avon's industrial history raised the thought that bringing together other aspects of industrial history of the town would be a good project – and would raise the profile of WIAS in Stratford upon Avon. Histories of the town (understandably) very much focus on the Shakespeare connections. It would be good to bring together the various elements that make up the industrial heritage of Stratford, and to produce a document that could be included on our website with references to where additional material might be found.

This gave rise to thoughts on a structure that we might use

- Transport – river, road, canal and (complex) railway history – plus associated facilities
- Civil engineering - especially bridges, locks, weirs
- Markets and fairs
- Agriculture-based industries – brewery, flour mills

- Extractive industries – brick
- Ironfounders, metal industries and street furniture – e.g. Royal Label Factory, Ball & Horton
- Manufacturing especially engineering – e.g. Pashley cycles
- Tourism – any industrial links?

This coincides with a project that is being discussed at the moment in Stratford about developing a museum specifically for the town, to complement the wealth of material already existing on the Shakespearean connections. This is only at the discussion stage, but it would be good if WIAS was able to provide input. I hope to be able to report progress on this project over the coming months, and if anyone has particular knowledge of an aspect of Stratford's industrial heritage, please get in touch.



Clopton Bridge Tollhouse.



The Avon, Tramway Bridge and (former) Cox's timber yard from the Big Wheel.



Ball & Horton ironfounders.



Royal Label factory road sign, Baginton.



Former Ashwin's warehouse, Union Street.



Brick and terracotta on The Old Bank.



Stannals Bridge on the former GWR line to Honeybourne, now the Greenway.



Flowers Brewery label and iconic Pashley Cycles, established 1926 in Birmingham, now in Stratford.

PROGRAMME

5 June (live/zoom): Colin Millet
The Wonder of Worcester Porcelain: a City Heritage Success Story.

NEWSLETTER

Meeting Reports

March (live/zoom): John Purcell
The Industrial Heritage of Earlsdon.

John began his talk by explaining that until 1850 Earlsdon was just a field. In 1852 the Coventry Freehold Land Society bought some 30 acres which were divided into 250 plots laid out on eight streets. A few silk weavers moved out from the congested and unhealthy courts in the city where cholera was rife. John showed one slide of a pair of handsome brick houses with the telltale top shop windows. However, silk weaving was in decline and watchmakers took over many of the properties. Most of the watchmakers worked individually but there were some bigger businesses; John Flynn built Earlsdon House where he employed 14 men and 5 boys.

By the end of the century watch making was also in decline and what were the apprenticed sons of skilled watchmakers to do? Many turned to the thriving industry of cycles and in time motor cars and motor bikes. An example was William Hammond who gave up watchcase making to open the Clarendon Works in Moor Street. A slide showed an impressive double Phaeton from 1902 but Hammond went bankrupt in 1905. Billy Williamson took over the works and another slide showed a three wheeler of 1913 made at Moor Street looking like a prototype of a Morgan. The site is now a GP surgery.

The 1891 census shows nearly as many cycle makers as watchmakers, and that year was the peak year for watchmaking; 126 people are listed in the trade in 71 houses, over half the population.

An early example of environmental action quoted was in respect of William Pitt's nail factory at 42 Moor Street which produced so much smoke that William Hammond forced him to close. The works were taken over by Fred Allard, a professional cyclist who was the world champion safety bike rider in 1887. He produced the Royal Allard bike and a slide showed a 1900 Allard Folding Bicycle in the Coventry Transport Museum. Apparently folding just meant that you could remove the wheels easily. They also produced the Allard Motor Tricycle which was very successful

Rex Motor Manufacturing took over Allard cycles in 1902 and moved the business to Osborne Road. A picture of their impressive 'works' dated 1905 is apparently pure invention. Rex made a large variety of machines of which the Rexette, 1903, 'King of Little Cars', was perhaps the most peculiar. Rex claimed it would climb a 1:9 slope with six passengers but, as John commented, how you would fit six passengers on it is a puzzle. The 1910 3½ hp belt driven bike was more conventional. It was the first bike to have telescopic forks.

Rex Motor asked top champion women's motorcyclist, Muriel Hind, to design a bike for women. The result was 'The Blue Devil', which had a dropped frame suitable for a full-skirted lady. Muriel Hind herself always wore long skirts and a bonnet tied under the chin. In 1906 she had been awarded a gold medal for completing the London to Edinburgh rally in 22 hours and 52 minutes and in 1908 a bronze medal for the Lands' End to John o' Groats. During the Scottish 6 day rally in 1910, in which she was her own mechanic, she suffered some 20 punctures. A splendid slide showed the Rex 1913 Scottish 6 day trial team, five men and Muriel. In 1906 the company claimed 'the largest output of any motorcycle company in the world' but in 1914 the company went into voluntary liquidation.

John explained this was because the site was too small for the company to bid for War Office contracts. In 1921 the company joined with the Acme Motor Co. John had a slide showing the workforce in 1922, he counted 160 workers including 8 boys.

Recruitment was always a problem in the Coventry motor trade, an excerpt from a 1908 Irish paper appealed for youths to train in Motor Construction. Between 1901 and 1911, 23 thousand workers moved to Coventry.

Rex Acme was successful in the Isle of Man TT during the 20s but the company finally went into liquidation in 1932. Standard Motors bought the site but sold it Coventry Bicycles. During WWII the building was used to store machinery rescued from bombed factories. Alpha Engineering occupied the factory from 1948 to 1987, they had 140 employees in 1975 but after demolition it is now the site of Coventry Diocesan sheltered housing.

A plan of Earlsdon showed manufacturing at its peak in 1926. It is possible to make out:

- The Rex Acme Works - Osborne Road
- The Cromwell Works (Motor Body) - Earlsdon Road
- The Empire Works - Clarendon Street
- Avenue Works (Cycles) - Avenue Road
- An Anonymous Cycle Works - Moor Street
- Gauge and Tool Works - Warwick Street
- A Sawmill and a Mineral Water Manufacturer

John made the point that before the age of the telephone, let alone emails, good postal communication was essential. In 1904 there were nine collections from Earlsdon and five deliveries per day. No letter could exceed 2 foot in length and 1 foot in width. The standard rate for letter up to 4 ounces (110g) was 1d (0.4p).

The Empire Works in Clarendon Street had been Harrington's Tubular Bells from 1900 to 1920, when they moved to the Cotswolds. It then became Caesar Cycle Co and later, from 1930 to 1962, the Clarendon Pressing and Welding Company. The DBS retail furniture company took over the building, it has now been redeveloped as residential.

The Coventry Gauge and Tool Works at 34 Warwick Street had been, from 1910 to 1913, the Viking Motor Body Co. That company advertised that their coach-built side cars were lighter and stronger than wicker or cane bodies. This was the property that had originally been John Flynn's, the watchmaker's, Earlsdon House, but it was extended in 1932 to include an extensive drawing office.

Harry Harley, born in 1878, who had formed CG&T with his brother-in-law, had trained in Alfred Herbert's machine tool factory from the age of 14. The business specialised in thread gauges and thread grinding tools. Two slides showed the extensive machine shops with a mass of belt driven lathes and overhead shafts. The company moved to larger premises in 1936 and for a while the building housed a sock factory. The site is now housing.

John's talk concluded with a slide showing the Coventry Technical College, opened in 1935. There are three roundels on the façade. The first shows aero engines and gears, the second, telephone and radio, and the third, design, gauges and tools. In 1936, 53% of Coventry workers were skilled manual workers compared to 34% nationally.

April (live/zoom): Tim Bridges (of the Victorian Society)*Victorian and Edwardian Industrial and Commercial buildings in the West Midlands.*

Tim, who is a Conservation Adviser to the Victorian Society, described the development of the concept of conservation that began in the nineteenth century with people such as William Morris who were concerned at the unsympathetic refurbishment, particularly of medieval churches, leading to the founding of the Society for the Protection of Ancient Buildings (SPAB). Since 1945 further concern over the nature of redevelopment, particularly the destruction of the Euston Arch and the plans for Scott's Midland Hotel, led to the creation of both the Georgian Society and the Victorian Society.

Central Birmingham has a splendid array of Victorian buildings thanks to architects such as Julius Alfred Chatwin (1830-1907) and the Birmingham Branch of the 'Vic-Soc' have published a book to celebrate them.

Birmingham grew up as a metal manufacturing centre during the eighteenth century but, because of its limited transport connections, trades there concentrated on small items and particularly on jewellery. Many of the Georgian houses in the 'Jewellery Quarter' became workshops and the intricacy of ownership has made redevelopment difficult. Tim showed two slides of a proposed site for a large residential block: the first an impression of the developed site and the second showing the cleared site undeveloped. He made the point that it is often better to convert building rather than demolish it.

Further examples of sensitive conversion were needle factories in Redditch and Cash's topshops in Coventry. Slides showed the Daimler Works and the Challenge Cycle Works both of which had been repurposed and the Gatehouse buildings to the former IMI Works (1915 by William Haywood) which were now listed. The handsome Pelican Works in Great Hampton Street now stood isolated as the rear part had collapsed as had some of the buildings in Legge Lane in the Jewellery Quarter. Examples of houses now protected include Winterbourne, an Arts and Crafts house built for the Nettlefold family and now part of Birmingham University and 17 Rotton Park Road now listed grade II.

Buildings that Tim thought deserved protection included the former Council Depot, in Rotton Park Street, built in 1903 by Martin and Martin and the 1879 Wood Green Pumping Station in Wednesbury. Chance's glassworks in Smethwick, now Grade II and a scheduled ancient monument is subject to an extensive scheme for refurbishment and redevelopment including a 'lighthouse' to commemorate the production there of the intricate lenses that were made for most of the lighthouses in the British Empire. The 1870 Langley Maltings in Sandwell have achieved Grade II while the Soho Mint building, the only remaining part of Matthew Boulton's Works is a scheduled monument.

The Wolverhampton Low Level Station, listed Grade II in 1986, has now been converted to a 'Conference and Wedding Venue' and a remarkable slide showed the much converted old platform set out for a banquet.

Phillip Hardwick's splendid Curzon Street Terminus building stands isolated in the HS2 construction site, it is listed Grade I and its future is unclear but it is unlikely to suffer the same fate as its contemporary Euston Arch. Other railway structures are less protected, the Spon End railway viaduct is under threat from road widening. The charming ex GWR Tyseley Station has recently been restored after

doubts of its survival.

While the canal system is now likely to survive some of waterside buildings are less secure. Gas Street Basin (where your notetaker lived in the late 60s) is unrecognisable, although it might have been worse. A slide showed an impression of proposed tower blocks rising in place of the warehouses.

The Birmingham area has numerous commercial buildings which are well worth preserving. Tim showed pictures of the 1874 Great Western Arcade opposite Snow Hill Station, designed by W H Ward, the highly ornate Taylor's Music Shop designed by Samuel Loxton in 1891 with elaborate carvings by John Lea and the modest former department store in Upper Lichfield Street in Willenhall. JA Chatwin designed banks in Wolverhampton, Walsall, Malvern and Stratford-upon-Avon. While in 1900 W R Lethaby with J L Ball designed 122 Colmore Row, formerly the Eagle Insurance Offices which with its magnificent bronze door is now Grade I listed.

There are numerous hotels and public houses worth conserving. Examples include the former Talbot Hotel in Wednesbury, the Priory Hotel in Walsall along with the adjoining shop currently a WH Smith. The Red Lion in Soho Road and the Barton Arms in Newtown, both seemed to be in splendid order and both by the Lea brothers. In Sandwell the Waterloo Hotel is Grade II* partly in respect of its tiles by Carter of Poole. Another hotel by the Lea brothers, the former White Lion in Horsefair is Grade II.

Public buildings include the Grade II Aston Council House by William Henman, built in 1880 with a splendid staircase and tiling and the Birmingham Children's Hospital in the Steelhouse Lane Conservation Area, listed Grade II in 2019. Martin and Chamberlain's schools are well known and the 1883 Icknield Street School, Grade II* listed is a fine example. Other work by Martin and Chamberlain includes St John, Sparkhill with its bold arched roof and Highbury House. The Moseley Road Baths (1906-7) by William Hale are now Grade II*.

A most extraordinary slide showed a proposal to build a 42 storey tower above the Grade II listed former Islington Glassworks owner's house, later a hospital, at 80 Broad Street. Fortunately it has now been rejected.

Internal features worthy of note include stained glass by Mary Newill at the Anchorage in Handsworth Wood and tiles by William and Henry Godwin at Lugwardine. An unlikely survival, the summer houses in the Stoney Road Allotments, Coventry are now listed Grade II*.

Two industrial villages are worthy of note. Bourneville built by the Cadbury family at the turn of the nineteenth century to house the workers away from the slums in the city centre is well known. Less known is the Austin Village built in 1917 with prefabricated wooden houses to accommodate the increased workforce.

Each year the Birmingham and West Midlands Victorian Society make an award for conservation. The first was in 2015 for the Grand Hotel in Birmingham. Since then recipients have included Birmingham City University for the Eccles Building and Wedge Group Galvanising Ltd for the former Little London School. Tudor Grange in Solihull was the winner in 2023 and in 2024 the West Bromwich Town Hall and Library.

Tim's whistle stop tour of the of buildings of Birmingham opened our eyes to the great variety of Victorian architecture of the area. We will see it differently.

May (live/zoom): Dr Jonathan Ayles*RAF Planes that won the Battle of Britain were built on German Machinery.*

Jonathan began by noting several facts about Britain's preparation for war in the 1930s. In 1934 British aircraft construction was only one hundredth of what it would be by 1944. Aircraft would change from fabric covered wooden bi-planes to monoplanes made of aluminium and magnesium alloys. All this relied on German machinery and UK rearmament was informed by German materials, designs and manufacturing practice.

In 1938 Germany was the largest producer of aluminium in the world. During the 1920s the US and the UK were reluctant to adopt German technical advances but by the mid-1930s a new basic industry was emerging in the UK to supply and form alloys for stressed skin aircraft. However, this depended on Schloeman AG presses from their factory in Dusseldorf. A slide showed one of these, at High Duty Alloys in Slough, forging propeller blades for Spitfires and Hurricanes to replace the wooden propellers in 1939. Of course, the Luftwaffe knew exactly where this plant was!

To counter this the government set up 'shadow factories'. Northern Aluminium in Banbury became the largest aluminium fabricator in the UK. The aluminium came from Canada but the machinery was German. Woodgate Works, Birmetals, built in 1937 at Quinton had almost all German equipment. The strip rolling mills at Warrington were only completed a week or two before the start of the war and the extrusion presses at Banbury were not yet complete; the German technicians were interned.

Ludwig Loewy, a Jewish man born in 1887 in Bohemia, now part of the Czech Republic had joined Eduard Schloemann GmbH in Dusseldorf in 1914. He became Chief Engineer and Technical Manager in 1915. By 1920 he was a director and part owner. He led the company into the design of hydraulic presses and rolling mills and these they exported to Japan, USA and later the Soviet Union and Britain. Jonathan showed a slide of a giant wheel press at Blaenavon from a wartime Nazi sales brochure with the name Schloemann cast into it! In 1932 Schloemann built an extrusion press for stainless steel tubes for Chesterfield Tubes including key developments for this new material.

Loewy had been elected to the British Institute of Metals in 1929. After the election of Hitler in 1933 he spent much of his time in the UK and in 1936, under pressure from the Nazis, Loewy, by then Chairman of Schloemann, resigned and, with some of his design staff, moved to England where they set up the Loewy Engineering Company. He agreed continuing cooperation with GHH in Germany but learned that the Gestapo were keen to arrest him on a one day return to Germany. All his shareholding in Schloemann was lost and by 1940 he and his brother were written out of the firm's history. However, several thousand drawings from Schloemann were, by then, now in the possession of the new company which had immediate orders from Northern Aluminium at Banbury for a 750 ton press to make duralumin pistons for aeroengines and another for a tube extrusion press for copper tubes. Another order was for a huge steel tube plant for Chesterfield Tubes to make boiler tubes and submarine pressure vessels up to 20 tons weight. This involved a giant four column hydraulic piercing press and the world's largest drawbench.

The Air Ministry, by then realising the value of Loewy Engineering, asked the firm to move out of London to avoid the impending blitz and the whole firm moved to Branksome Grange, a large house in Poole. By 1942 they had built:

107 Extrusion presses with capacities between 1650 tons and 6600 tons,

35 other presses including two 12000 ton die forming presses for propellor blades,

18 Hydraulic stretchers for aluminium sheet and bars

35 Automatic sheet rolling mills,

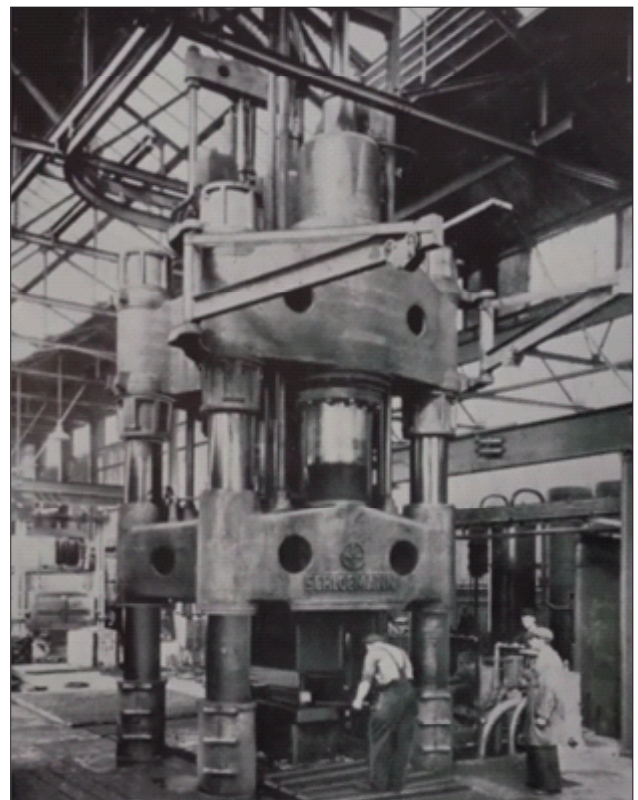
A complete rolling mill for aluminum sheet and a complete propellor blade forging plant besides numerous smaller mills and equipment.

Ludwig Loewy himself became technical advisor to Lord Beaverbrook, the Minister of Aircraft Production from May 1940 to April 1941. Beaverbrook fiercely defended him against parts of the MI5 and even some of his own staff. However, once his value to the war effort was fully appreciated, he was treated with the utmost respect by the Ministry and it was recognized that he was too important to be allowed to visit the USA. He was made a British Citizen on March 2nd, 1942.

In the summer of 1942 Loewy became ill. He was offered an RAF ambulance plane to take him to the USA but he died, from stomach cancer, on October 10th aged just 55.

One question at the subsequent discussion was, 'Why did the Nazis continue to export the machinery to the UK?' and the answer was that they needed the money.

Jonathan had given us an extraordinary account of a little known aspect of German engineering put to British use at a critical time.



Forging propellor blades at High Duty Alloys, Slough, 1939