

WARWICKSHIRE

Industrial Archaeology Society

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PUBLISHED QUARTERLY

FROM THE CHAIRMAN

The limits to industrial archaeology are a frequently debated topic – not least on these pages – and this issue of the Newsletter includes two elements that might be regarded as marginal candidates for inclusion – agriculture and housing.

The industrial revolution occurred in a society dominated by agriculture, and many of the new advances in materials, technology and power were applied to agriculture, and it was not long before England's agricultural engineering companies were a feature of the local and national economy.

In order to fully understand the links between industry and agriculture, it is perhaps useful to establish a framework for analysis. There are various ways in which this might be achieved but a simple classification might be:

Power on the farm.

Tools, machinery and vehicles.

Buildings.

Water supply and drainage.

Fertilizer production and application.

Impact of technology and transport changes on market access.

Companies and individuals.

The processing of agricultural products is another significant area and there are many elements to this: milling and the processing of cereals, maltings, brewing and cider making, dairies and cheese-making, vegetable processing, canned fruit and vegetables, meat processing, animal and pet food, and gelatine.

Given these frameworks, analysis of Warwickshire's agricultural history becomes a simpler task, but also reveals the extent and diversity of the links to industrial activity. The members' evening in June attempted to explore aspects of this and the report on that meeting is overleaf.

A second element that might be considered 'marginal' to industrial archaeology is the provision of company housing. As Chris Barney commented to me after the meeting on company housing ... "virtually all housing is ultimately housing for workers" ... and so it sometimes becomes difficult to make clear-cut

divisions on company involvement.

A new company moves to an area that is deficient in necessary housing, and a private (or council) developer seizes the initiative to fill that gap. Is this company housing?

In fact, most of us would not include such developments but would reserve it to situations where companies were directly involved. Beyond this, of course, come all the other benefits apart from housing that companies might provide for their workers. Including: refreshment facilities, bath house and washrooms, social club, dance hall, institute, library, reading room, sport and recreational facilities, parks, playgrounds, open spaces, allotments, schools and adult learning, religious buildings, provision for retirement and almshouses.

Interestingly, it is often these that are the last remnant of a firm or industry when the production facilities have long gone. Are they industrial archaeology?

Central to this discussion is the motive that lay behind provision of housing by companies. It is likely that more than one motive would be present – provision of housing might be a necessity; provision often made good financial sense and contributed to business efficiency; provision promoted good industrial relations; and finally paternalistic/philanthropic sentiments might be present, including, of course, the special contributions made by The Quakers.

Analysis of motivation permits us to set out a classification of types of housing:

Houses provided on a temporary basis to meet an immediate need. By definition, this accommodation is no longer in place, but sometimes remained longer than anticipated.

Houses in which industrial activity took place alongside the provision of accommodation, e.g. weavers' cottages; watchmakers' premises. Prime examples exist in Coventry.

Houses associated with transport, built to accommodate staff at their place of work, e.g. station master, lock-keeper etc.

Houses provided by a landowner

such as estate and farm workers' cottages, which we would probably exclude from the list given the limited links to industry.

Housing associated with mining and quarrying, and the processing of the extracted products. Location is the result of an accident of geology rather than prior settlement patterns, with the special example of colliery housing and welfare evident in the north of our county.

Houses provided by firms specifically for their workers, but with no obligation to provide welfare services. These were sometimes built in combination with local authorities, and the extent of welfare involvement depended on a range of factors such as the scale of development or the availability of existing services.

The planned industrial village (whether as an expansion of existing settlements or on new territory), with associated welfare facilities. This could be a gradual evolution, or much more of a planned outcome.

Given this framework, examples of all these types of housing can be discovered throughout Warwickshire, although, of course, we have nothing on the scale of company towns such as Bournville and Port Sunlight. Some photographic examples from Warwickshire can be found later in this Newsletter.

PROGRAMME

January 14 2016

Gary Collins & Donata Santorini, Archivists:

The Willans Project - What Did It Achieve?

February 11 2016

Dr Barrie Trinder:

Industry in Banbury: an Overview 1700-1960.

March 10 2016

Mike Gould:

Rover - the Marque Doomed to Die.

April 14 2016

Peter Lee:

Nuneaton's Mills and Factories.

May 12 2016

Anthony Coulls:

The London Water and Steam Museum.

June 9 2016

Members' Evening.

NEWSLETTER

Meeting Reports

June 2015: Members' Evening

Industrial Archaeology and Agriculture - Strange Bedfellows.

Martin Green began the Members' evening by providing a survey of the potential links between agriculture and industrial archaeology and then went on to illustrate these links by reference to examples from our area. What was immediately apparent was that agriculture has always had a strong presence in the economy of Warwickshire, exemplified by the choice of Stoneleigh for the headquarters of the Royal Agriculture Society of England (and for many years the site of the Royal Show) and the research facilities established at Wellesbourne, now part of Warwick University.

Our area is also home to two vehicles that have made a huge difference to agricultural productivity throughout the UK and further afield – the Land Rover and Massey Ferguson tractors. The former, of course, continues to operate from its Solihull headquarters but the Banner Lane site of the tractor factory is now covered by a housing estate and the MF social club remains as the principal reminder of a once-proud Coventry industry. There are many versions of the MF tractor still in use, and groups such as 'Friends of Ferguson Heritage' and 'The Warwick Vintage Tractor and Machinery Society' continue to keep the memories alive. We were shown many examples of tractors at work in ploughing contests still held locally.

Agricultural engineering has been an important industry in Warwickshire, and Martin looked back at the Troth and Hillson plough manufactured on a small scale at the Swan Foundry, Langley in the nineteenth century and beyond, and a much more recent development of the Dowdeswell plough developed by Roger Dowdeswell in the 1970s at the Blue Lias Works at Stockton. At one time the firm employed 300 people and had 40% of the UK plough market. More recently, times had become very hard, and, sadly, the firm has now had to close.

Steam power on the farm was illustrated by reference to one firm on the county boundary – Bomford and Evershed at Salford Priors - and one just over the border in Banbury - Barwell and Stewart (where there is a current vigorous campaign to save the remaining buildings of the canalside site). Bomford and Evershed have continued to adapt and are now part of the Alamo Group, specializing in hedge trimming and mowing machinery. Many firms were involved with the manufacture of buildings for agriculture, including the ubiquitous iron-framed barn, and many still carry the manufacturer's name e.g. Glover of Warwick, Matterson, Huxley and Watson of Coventry. However, what the catalogues of these firms indicate is the enormous range of items that they supplied to agriculture, a point emphasised later by Peter Coulls. One such agricultural engineering firm was Thwaites, established in Cubbington in the 1930s by Basil Thwaites. A fascinating collection of black and white photographs were provided by **Jerry Cleal** and he was able to provide expert commentary on these images. Most were concerned with the various types of lifting gear that were developed by Thwaites, muck spreading machinery and some nostalgic pictures of life on the farm. Thwaites continues to operate on the Cubbington site, specialising in dumper trucks, and could easily be a topic for further research.

John Frearson again showed that his meticulous research into local sources can produce a fascinating story. His exploration of Rugby's brick makers (March

2014) is now complemented by a review of a curious attempt in the mid-1800s to pipe waste from a Rugby sewage works to irrigate and fertilise a wide area of farmland.

Rugby was the first town in the country to establish a local Board of Health to deal with disposal of sewage and the like and after some prodding work began in 1850. However, a series of reports in local papers, notably the Leicestershire Mercury, show that by mid-1852 not much progress had been made, but by 1853 a lease was granted to Mr G H Walker of Newbold Grange to allow the use of certain of his land for the discharge of sewerage and some works had been established. Indeed by 1854 Walker had so far improved his works that he used all the liquid manure flowing into his tank and could dispose of double the quantity if he could obtain it.

Old plans superimposed on new showed the extent of the pipe network from the old sewage works towards Newbold on Avon. Large areas of farmland were irrigated and manured so that 12 crops of grass were obtained. In all, some 1,800 pipes were laid totalling 5,400 yards.

The old and subsequent sewage works are shown on the OS maps from 1886 but of the pipelines no trace remains.

An interesting overview of a sewage disposal and irrigation project in Rugby that probably deserved better success. But succeeding owners of the land do not seem to have had the vision of the originators and had problems with river contamination that may have curtailed the development.

Peter Coulls used Spennell's Annual Directories for 1880 to 1899 to demonstrate the wide variety of manufacturing activities that took place in Warwick and Leamington, principally to meet the local demand for equipment and maintenance.

Understandably, steam power in the form of stationary and portable engines figured prominently; Joseph Mitton in Saltisford and Roberts & Son in St John's Foundry (The Warwick Engine) also offered pug mills, saw benches, winding engines and pumps.

Smiths and wheelwrights such as Henry Savage in High Street, Leamington advertised alongside Jas W Mann, General Furnishing and Agricultural Ironmonger in Warwick.

Corn Mill engineers Lampitt & Son in Warwick sported 'Her Majesty's Royal Letters Patent' at the head of an impressive page of flour and corn milling machinery, water wheels and buildings. A one stop shop.

Marquees, tents and rick cloths, wagon and cart covers, horse and boat cloths were all provided by George Griffin in Smith Street, Warwick.

Wm. Glover & Sons of Eagle Works in Warwick began to spread their wings by buying out Lampitt at the Packmore works, thus expanding their wagon, cart and farm building business. This later extended to include steam, gas and oil engines and associated machinery and shafting.

Other services advertised included; Maltsters and Corn Dealers, Auctioneers and Boot & Shoe making and repairing, Harness Makers and Veterinary Services offering every description of medicine and remedies for horses, cattle, dogs, &c. whilst W A Walker at The Cottage, Warwick could provide a range of poultry coops and runs.

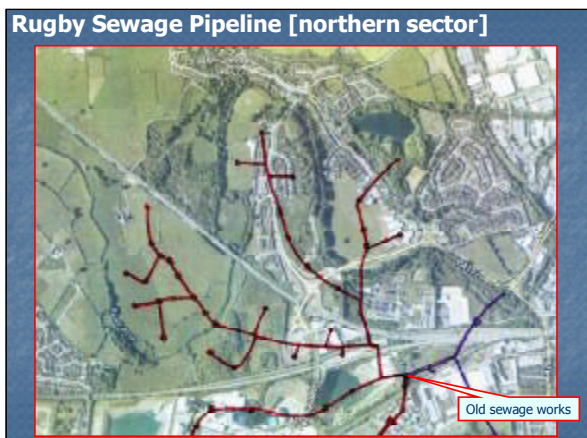
Clearly, Warwick and Leamington were well provided for with a wide range of services.



Above: The Name plate from a Troth and Hillson Langley plough.

Right: The extent of the Rugby sewage pipeline.

Left: A Barrows and Stewart steam engine at a rally at Bloxham.



Staying on the straight and narrow - a ploughing contest.



A Hill & Smith (Brierley Hill) barn at Camp Hill Farm, Henley-in-Arden

SPENNELL'S WARWICK DIRECTORY ADVERTISING AND PRINTING.

WM. GLOVER & SONS,
(Late LAMPERT & SONS, LIMITED),
EAGLE WORKS and PACKMORE WORKS,
WARWICK.

Engineers and Millwrights.

MANUFACTURERS OF ALL KINDS OF
FLOUR & CORN MILL MACHINERY,
 Improved Centrifugal Flour Dressing Machinery,
 WATER WHEELS OF EVERY DESCRIPTION.
 Brick-making Machinery of all kinds.

THE
"Little Giant"
DOUBLE TURBINE

Guaranteed to be one of the best and most effective Turbines ever made.

One of these Turbines can be seen at work in Warwick giving off 67 Horse power.

Designs and Specifications of every kind of Machinery, Buildings, etc., free on application to

WM. GLOVER & SONS,
Engineers, WARWICK.

REPAIRS to old Engines, New Fire Boxes, Tubes, &c.



An advertisement from a Spennell's Directory.



An interested audience for a demonstration of Thwaites lifting machinery.



The (now demolished) site of Glover's works on the Coventry Road, Warwick.

Members' Contributions

Alain Foote:

Visit to Ironbridge Power Station; 28 April 2015.

Thanks to John Willock, a number of WIAS members were able to visit Ironbridge 'B' Power Station at the end of April this year, a few months before it was due to close. This is, therefore, an appropriate opportunity to describe the history of the power stations at Ironbridge and the links with Warwickshire.

The planning of the first power station at Ironbridge was started around 1925 when the West Midlands Joint Electricity Authority was formed, embracing around 1,000 square miles of Staffordshire, Shropshire and Worcestershire from Tamworth to the Welsh Border. As originally planned the station was to have five generating sets of 25MW each. This was later changed to four 50MW sets. The first contract was let in May 1929 to create a power station with one 50MW set with space for a second unit. The main structure took shape in 1930 with the official opening ceremony of the first unit taking place on 13 October 1932.

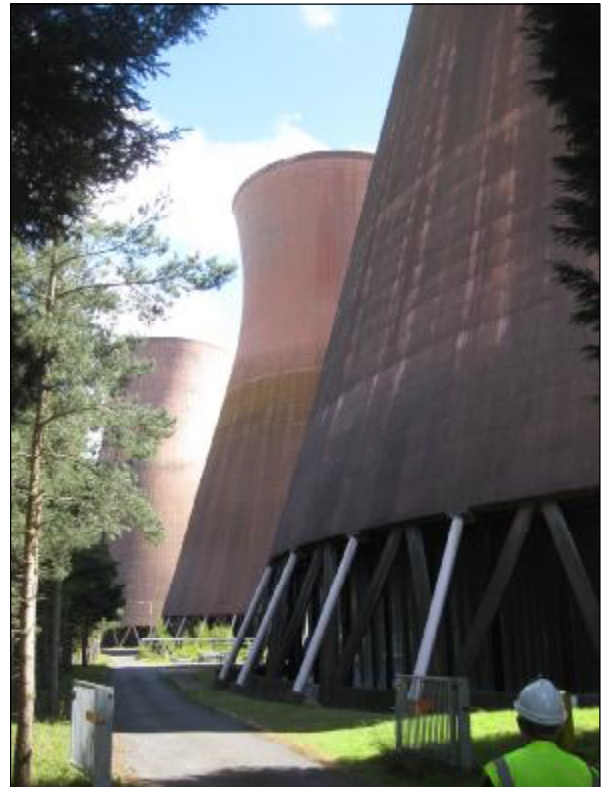
The steam turbine and generator were supplied by British Thomson-Houston (BT-H) of Rugby. The steam turbine was a two cylinder 1500 r.p.m. unit, serial no. R1509, dispatched on 14 June 1931 from Rugby. It was designed to operate on steam at 375 psi and 750° F. Due to the narrowness of the local roads and the restricted railway loading gauge, the generator stator had to be fabricated at Ironbridge rather than at Rugby.

The second unit (No. R1781) was installed during the winter of 1935-6, with the third and fourth units (Nos. R1946 & R2008) in 1938-9. By then a total of ten boilers had been installed. The Turbine Hall with the four units installed is shown opposite.

The units at Ironbridge 'A' operated through the Second World War and into the 1950s. By the early 1960s, the Central Electricity Generating Board (CEGB) was looking for sites for new larger power stations and Ironbridge was identified as being suitable for accommodating a new station with two 500MW units. The project was given the go ahead on 1 April 1963 with the aim of creating an output of 1000MW, five times that of the 'A' station on just twice the land area!

Initial site clearance began on 17 June 1963. The new station needed four cooling towers to reduce the heat rejected to the River Severn. This time, the turbines (serial nos. 5970 & 5971) and generators, were ordered from Associated Electrical Industries (AEI) at Trafford Park. The units were 5-cylinder 3000 r.p.m. reheat units designed to operate at steam conditions of 2300 psi, 1050° F with reheat steam conditions of 565 psi at 1050° F. One of the turbine generator units on its concrete foundation is shown opposite.

Great care was taken with the design of the buildings and cooling towers to minimise the impact on the landscape, including using a reddy pink tint in the concrete for the towers. The design of the first two towers had to be changed following the cooling tower collapses at Ferrybridge on 1 November 1965, with their thickness increased from five to seven inches. A picture of the towers taken during our visit is shown above and the additional supports needed



Ironbridge B Cooling Towers showing the additional supports needed for thickened concrete.

to accommodate the thicker concrete needed, are clearly shown.

Unit 1 was first synchronised to the grid on 11 June 1969 with the second unit coming on stream on 27 February 1970.

When operating on coal, the two boilers at Ironbridge 'B' consumed 10,000 tons of coal a day, which was supplied by Merry-Go-Round trains of 32-ton wagons. In 2013 the boilers at Ironbridge 'B' were converted to run on biomass (namely wood chips). This restricts the output of the units to 300MW each, however on 4 February 2014, unit 1 suffered a last stage blade failure during run up. This caused a large imbalance resulting in damage to the generator hydrogen seals and oil pipes which, in turn fuelled a large fire. As the station will close at the end of 2015, it has been decided that the unit is beyond economical repair, so only unit 2 was running when we visited. The logistics of handling the wood chips presents many challenges for E.On!

Ironbridge 'A' Power Station was finally shutdown on 19 January 1978. Plans to preserve the plant as a Museum of Electricity failed due to the high cost of maintenance, even though the Ironbridge Gorge Museum was offered the site for a token £1. Demolition commenced in April 1982 and was completed the following year. It is assumed that demolition of the 'B' station will commence after closure at the end of this year.

Thanks again to John Willock for arranging this visit.

Members' Contributions



One of the Turbine Generators on its Concrete Foundation at Ironbridge B.



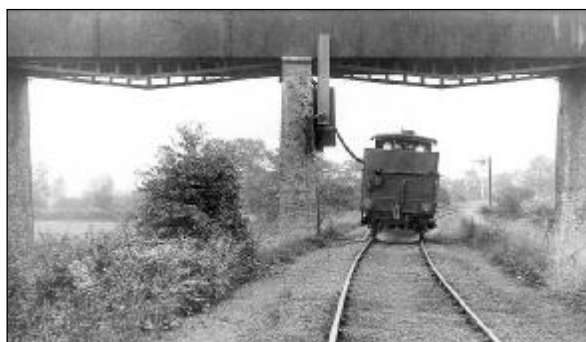
Ironbridge A Turbine Hall with 4 Turbines installed.



Ironbridge B Cooling Towers on our Visit.

Peter Chater:

The Alcester Railway.



In 1876 a railway line was opened between Bearley and Alcester. The section between Great Alne and Alcester was subsequently closed, leaving the four remaining miles of track open between Bearley and Great Alne.

This is one of the local lines I knew as a locomotive fireman in the 1940s.

On Fridays only, a little train of two or three wagons, plus the brake van, was formed at Bearley. Between 10.00 and 11.00 am. we, (driver, myself, guard and a porter from Bearley) would start the journey after obtaining a staff for the single line between Bearley East Signal Box and the North Signal Box. This was exchanged for another staff (one engine in steam) for us to occupy the single line to Great Alne. No other train would be allowed on this line until the staff had been returned.

This line, only being used once a week for this one train, had little maintenance. Only small locomotives were allowed. Brambles overhung, grass and weeds were over the track, pheasants and partridges would scurry out of the way. Although the journey was taken at a very leisurely pace, farm animals in the fields would look alarmed and race from the line side. On approaching Great Alne there was a level crossing (Spencer's Crossing). Here was a narrow lane leading to Spencer's mill. The gate had to be closed to road traffic for us to pass through. This operation was performed by the porter. We then proceeded the few hundred yards to Great Alne station and yard.

The porter operated the ground frame. We took the empty wagons from the sidings and put the fresh ones in position and then formed a little train for return journey. With the train left secure, it was then time for us all to walk the short distance to the Mother Huff Cap inn for refreshments, attracted by the convivial atmosphere and the unfailingly friendly landlady.

My mate, never renowned for his hospitality, always seemed willing to buy another round of drinks before we returned, fully replenished, to the station and made the journey back. Water was often taken for the engine from the Edstone aqueduct before proceeding to Bearley North Signal Box where the staff was given up. We were then given a staff to enter the short section of line to Bearley East Box. Excursion over.



Former miners' housing in Camp Hill, Nuneaton, due for demolition.



Craven Street in the watchmaking district of Chapelfields, with topshops to the rear.



Bermuda Village, Nuneaton, former housing for workers at Griff Clara Colliery.



Nelson Way, Bilton, Rugby, provided by English Electric for its workers.



Model Village, Southam, built by the nearby Kaye's Cement Works.



Housing in Saltaire, part of the company town created by Titus Salt.



The Nelson Club, Stockton, provided by the Nelson Cement Company.



One example of the high quality of the housing provided by Lord Lever in Port Sunlight.

Meeting Reports

September 2015: AGM followed by Martin Green:

Company Housing and Company Towns: Warwickshire and Beyond.

The meeting opened with the formalities of the Society's AGM.

As Martin Green made clear in his Chairman's Report, the Society, when judged against all the usual yardsticks – membership, attendances at meetings and visitors – is in excellent shape. Many similar local Societies are envious of our position.

However, it would be dangerous to rest on our laurels and there is a need to move forward wherever possible. The focus of the Society is its programme of monthly meetings and that going forward to June 2016 (see page 1 for details) should provide interest for all members.

The Society uses other media, both to keep members informed and to interest an outside audience. Notably an excellent website, now supplemented by Facebook, an interactive database of Warwickshire IA sites now reaching 300 entries, a quarterly Newsletter records the meetings and provides an opportunity for members to publish individual contributions, whilst the book stall sales at meetings quadrupled.

Financially, the Society is secure. The Treasurer reported that we have a small surplus, as in previous years, after covering expenses and maintaining our support of suitable local causes such as the work on the Willans & Robinson and Healey archives at the County Record Office.

After being unchanged for many years the room hire charge will increase by 18% in 2016 to £780 but subscriptions will effectively be reduced as the meeting unanimously passed a resolution that: *approved the recommendation of the Committee that, to support the Society's application for Gift Aid reimbursement, and with effect from 1 September 2016:*

i) *Annual membership fees shall be £16 for individual membership and £20 for joint membership;*

ii) *The previous practice of members contributing £1.00 to attend each meeting will cease;*

iii) *Guests will continue to be invited to make a voluntary donation for attending meetings of the Society.*

The Committee is to keep this matter under review and report to future AGMs.

The Committee was re-elected unchanged and the Chairman closed the formal proceedings with thanks to its members, to the bookstall and refreshment providers and especially to the membership.

After the formalities, Chris Barney, who had come straight from Sussex University, with its principal buildings by Sir Basil Spence, reported on this year's AIA Conference. Many good speakers and interesting subjects, which had included 'the Worth of the Industrial Heritage to the National Economy', made for an interesting and topical Conference. The L T C Rolt Memorial Lecture on Rolt's lesser known associations with cars and motors will be published shortly and should make interesting reading.

The well organised excursions (in an owner-driven vintage Green Line bus) provided Chris with plenty of photo-opportunities which allowed us to enjoy the varied industrial archaeology of Sussex.

A Jill & Jack windmill relocated to the Downs and the Volks electric railway that ran along Brighton's seafront, with a car rescued from Southend's pier, to a concreted water catchment area at Stanmere House were just the beginning. At Tangmere with its Battle of Britain history was Neville Dukes' world air speed record breaking Hawker Hunter

and the remains of a Hurricane, recovered 75 years after its vertical dive into Woodhouse Road in Hove.

A beam pump engine at Petworth House and the artefact store at the Weald & Downland Open Air Museum led to a swing bridge on the Chichester Canal possibly by John Rennie and a triple expansion Tangye engine in a water company building.

More modern but with a welded steel frame was the iconic de la Warr Pavilion in Bexhill close by a Victorian bathing machine. Clearly, there is more to AIA membership than the magazine and the 2016 conference to be held in Telford will have a wealth of IA to explore.

After the break, Martin Green spoke about Company Housing and Company Welfare in Warwickshire and beyond. This large subject, Martin suggested, required an analytical framework such as that provided in the Chairman's Notes in this issue. After explaining this framework he went on to illustrate it with specific examples, a small number of which are included here and in the photographs opposite.

In Warwickshire, two extractive industries – coal and cement – have left their mark on the landscape not only in terms of physical change but also in the houses and other facilities provided for workers. In the cement industry, housing in Rugby, Stockton and Southam were all provided by cement firms. Indeed, Nelson's provision of housing, Village Hall and Working Men's Club in Stockton is probably the best example of a 'company village' in our area. The nearby 'model village' in Southam - courtesy of Kaye's Cement - is also an interesting example which used the 'Calway System' of construction on its first 40 houses.

The (evocatively named) mining communities of Bermuda and Piccadilly both retain examples of housing built for miners, and the later Camp Hill estate in Nuneaton was an example of post-war housing geared to attracting workers to the local mining industry. Apart from a few examples (e.g. Queen Elisabeth Road) this area has been subject to considerable re-development in recent years.

With regard to workshop housing, the topshops of Coventry and the unique example of Cash's factory are reminders of the city's weaving heritage. Elsewhere in the city, the Chapelfields watchmaking district is an example of private developers (including some with watchmaking interests) providing housing designed for use by (small) firms engaged in the many processes of watch manufacture. It is an important example of the concentration of so many manufacturing establishments within a residential area, with efforts made in the layout of the streets to retain that residential character.

Martin concluded his talk with illustrations from some of the more famous company villages and towns – New Lanark, Saltaire, Bournville and Port Sunlight - together with some thoughts on the philanthropic nature of some of these developments. He left his last words to Jervis Babb, president of Lever Bros. in New York in the 1950s, who described soap magnate Lord Lever as "a man with extraordinary ability to spot wealth-creating opportunities. He realized these could best be developed with the co-operation of sturdy, self-reliant working people, living in dignity and comfort. To him, providing good working and living conditions and sharing the wealth he was helping to create were simply good business".

October 2015: John Berkeley

From Fleas to Phantoms: a Museum in the Making.

Member John Berkeley is a man of many parts. He has combined a distinguished career in industry (being awarded an OBE for services to training) with the foundation of The Midland Aircraft Preservation Society and the Midland Air Museum. More recently he chaired the precision engineering company Brandauer and his December 2011 talk *'From Pens to Particle Physics'* was memorable; as have been his contributions at many other meetings.

From Fleas to Phantoms began with a review of aviation in Warwickshire from its earliest days that was a revelation to many; both for its early start and for its great variety. From pre WW1 into the interwar years, Warwickshire was home to all aspects of aviation; airframes, engines, airfields and flying clubs.

The first part was social history with a difference; aviators ranged from aristocrats to bus drivers, often flying home-built machines as self-taught, unlicensed pilots. The second, dealing with preservation and museums was equally fascinating and notable as a demonstration of what a dedicated and determined team can accomplish.

The story began with one Alfred Pericles Maxfield 'Birmingham's first flying man' who made flights from Castle Bromwich Golf Links in October 1909. Others followed and with a series of illustrations culled from many sources John produced a vivid picture of a rapidly developing scene.

Coventry embraced the fledgling aero industry as enthusiastically as it had weaving, watches, bicycles and cars. Humber took a license from Blériot, The Coventry Ordnance Works anticipated war and airfields and aero clubs proliferated. The Nuneaton Air Field on Attleborough Fields Farm hosted a two day 'Air Fête' in July 1912 and boasted a hanger twice the size of Hendon's largest.

WW1 brought massive expansion and more aircraft were ordered from Coventry manufacturers than from anywhere else in England. Siddeley Deasey, Daimler, Standard and others all flourished. As well as airframes Coventry built engines; Humber and Daimler built W O Bentley's outstanding BR1 and BR2 rotaries, our old friends Willans and Robinson built Salmson engines, whilst at Longbridge, Austin produced 1,900 SE5A aircraft and engines.

After the war Herbert Austin turned his attention to the private flyer and offered the Austin Whippet but was ahead of his time. Hopes were high at the 1920 Olympia Aero Show but only five machines were built. The Longbridge airfield at Cofon Hackett was unusual in its circular layout with four radial runways intersecting at the centre. Scope for pilot confusion! In those early years 49 civilian airfields and landing grounds were located in Warwickshire plus a further 10 for military purposes.

The general public's interest in aviation was fuelled by pioneer Alan (later Sir) Cobham and his air shows with their displays and joy-rides and by newspaper sponsorship for competitions. Alan Cobham pressed for an airfield at Stratford upon Avon to provide such entertainment alongside the traditional Mop Fairs and enjoyed a roaring trade.

A whole talk could have been used to cover the history of Warwickshire's flying clubs. Mainly male establishments but with a few notable women including Miss Joan Parsons of Leamington whose record breaking flight to Cape Town was cruelly halted only 300 miles from the finish.

No coverage of the amateur flying scene could be complete without a reference to the 'Flying Flea'. Conceived by a Frenchman, Henri Mignet, as the Model T Ford of the air

and promoted through a 'how-to build and fly it' book. *If you can nail up a packing case you can build it and teach yourself to fly in a month* were typical exhortations. The 'Pou du Ciel' captured the public's imagination and members of the Birmingham Flea Club built some 17 examples, only 10 were completed but none flew seriously although some did become airborne! Eventually banned by the Air Ministry for safety reasons one example was illegally flown.

After the interval, John turned to preservation where he has unparalleled personal experience and enthusiasm. It began in his teens and shows no signs of diminishing.

Vast numbers of light aircraft were scrapped before and after WW2 but a few people sought to preserve an aviation heritage. One such, an employee of Armstrong Whitworth, acquired an SE5A which was hidden/restored/ hung in the rafters somewhere and now flies regularly at Old Warden as part of the Shuttleworth Collection.

Local aircraft, notably the AW experimental Tailless machines, if they had not crashed, were displayed and then broken up or were just left to rot. Three Coventry lads known as 'The Shuttleworth Veterans' used to cycle to Old Warden to help in the early post-war years.

So was born an idea and on 12 March 1967 when an advertisement was placed in the classified columns of the Coventry Evening Telegraph calling for like-minded enthusiasts. 50 turned up at the inaugural meeting of what became the 'Midland Aircraft Preservation Society' whose first project was the restoration of a wooden four-bladed propeller.

The first aircraft acquired was a Parnell Pixie 3 in August 1967 followed by a Flying Flea first flown in 1936. Easily transported, the Flea proved a useful exhibit at various shows attended by MAPS.

Lack of facilities and resources were inevitable in the early days, and as a result possible projects, such as the Hawker Hunter that had stood outside Solihull School and which needed a new home, could not be taken on. A breakthrough came at the Stoneleigh Town and Country Festival in 1972 with an offer of suitable storage facilities, at least for ten months of the year.

John's remarkable collection of photographs covering the subsequent developments were even more evocative than those in the first half, especially those of the 'might-have-beens'. Another important element in the story was learning how to dismantle, transport and then reassemble the old aircraft that became available. It seems that the skills and makeshift tooling plus sponsorship from local businesses and transport were forthcoming and so the collection grew.

After 25 years it comprised some 70 aircraft, or substantial sections thereof, and the need for a permanent home had become pressing as Stoneleigh was no longer a long term option. Fortunately, in 1974 Coventry City Council approved the use of the present site at Baginton and so the Midland Air Museum became a reality. John's anecdotal history, liberally illustrated, of its growth, especially the dealings with Governments and donors will be long remembered.

Perhaps most of all, the discovery in 1975 of a Whittle Jet Engine in a scrap yard being viewed in disbelief by John, who then negotiated funding from Birmingham City Council for what is now 'The Frank Whittle Jet Heritage Centre'.

Much done but so much more to do, might well be the motto of the dedicated group determined to preserve the aviation heritage of Warwickshire and beyond and to whom all success is due.

We look forward to the next 25 years of MAM.