

Issue 53: November 2018

Newsletter



Eastnor Castle by John Mason

**WORCESTERSHIRE
INDUSTRIAL ARCHAEOLOGY
& LOCAL HISTORY SOCIETY**

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MEMBERSHIP NEWS

We are pleased to welcome the following new members,

- Guy Watson - Worcester
- Val Monaghan—Worcester

Sue McCurdy

NEWSLETTER TEAM

Content:	Michael McCurdy
	Roger Tapping
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PRESIDENT'S PIECE

I hope that you have all had a good Summer, enjoyed the excellent weather and found time to visit some of the events in the area.

Our Patron, Henry Sandon MBE was 90 years old on August 4th and I was invited to his Birthday Party at the Henry Sandon Hall at Royal Worcester Porcelain. It was a lovely gathering, Henry's family had organised it and many of the people Henry had worked with, friends and neighbours and colleagues were invited. We enjoyed a delightful tea and Birthday cake and were shown an interesting film of Henry's exploits and Henry gave us a commentary. If you have not visited the Porcelain Works site recently - it is worth popping down. The entrance from Severn Street

is much improved and a garden from RHS Malvern is now in situ and looking as if it has been there for years. There is a Café - NEST — (who also have one near Ledbury) and the old café is now the Henry Sandon Hall, complete with bar area and toilets that we were asked to visit as they are so interesting. This renovation work was all paid for by the Bransford Trust.

The AIA Conference was held at West Coker near Yeovil and all attendees from WIA&LHS decided to stay for the weekend. Some of us stayed at Haddon House Hotel, West Bay, Bridport, and very much enjoyed the Hotel and the area. It was still a small fishing port and there was even Industrial Archaeology for us to see.

WELLAND STEAM FAIR
(John Beale)



On April 21st a group from the Society met at my house and walked to the Walled Garden, Rose Terrace and afterwards looked at the remains of the fort in Fort Royal Park and returned to my house for tea and cakes. If you are interested I will arrange the same visit for 2019.

In May I visited the Newport Transported Bridge with SWAG and also the Newport Mediaeval Ship, found in 2002 in the banks of the River Usk. Afterwards we visited Tredegar House, where we were fortunate because there was a folk festival in the grounds at the same time. We were invited to the outdoor performance of the 'Hound of the Baskervilles' at the Commandery — the performance was like a panto, but it was a beautiful warm evening and we all enjoyed ourselves.

The Welland Steam Rally is always held on the last weekend in July — apart from the Dorset Rally it is the largest one in the UK. We went on the first day— Friday - there is always an auction on that day and it is possible to buy

anything from 10 brooms to a car or tractor. There were over 100 traction engines, old tractors, cars, motorcycles and bikes. There is also an entire steam Funfair including the Big Wheel. The Steam working area is very interesting and there is even a standard gauge railway track and a different locomotive is invited each year. There really is something for all the family and if you have never been, try it in 2019.

On 28 June we were fortunate to see a Magic Lantern Slide Show in Countess of Huntingdon Hall. The slides were from the Hive archives and originally belonged to Arthur Henry Whinfield 1863-1917, who was the organist at Claines church and owned the Nicholson organ factory. The slides were of a round the world visit. We were surprised at the clarity of the images and enjoyed the poem, 'Round the World', by Paul Conneally. Many thanks to Justin Hughes for his work as project manager and magic lantern operator.

I look forward to seeing you at our Winter Lectures. *Christine Silvester*

DATA PROTECTION—GDPR

You may be aware that new regulations regarding data protection came into force in May. They mainly apply to large organisations, who may wish to share data with other groups. Many of you will have had contact from other bodies, such as the National Trust, asking you to confirm your permission to use your personal data for this purpose. So now is a good opportunity to assure you that WIA&LHS does not share your personal data with anyone, even other members, without your permission.

Your personal data is stored on computer or paper purely for the purpose of managing your membership and keeping in contact with you. This is permitted by the General Data Protection Regulations (GDPR) under the justification of Legitimate Interest. In other words, you have joined the society because of your interest in industrial archaeology and local history and would expect us to contact you about membership matters and to keep you up to date with details of our activities. Under this justification, we do not need to ask you for permission to hold your contact information, as this permission is implied by your membership.

The personal information we hold is limited to:

- Name
- Address
- Telephone Numbers
- Email Addresses
- Date joined the society
- Membership category (single, joint, honorary life) and renewal dates
- Copies of Standing Order forms (in case of query)

If you cease to be a member of the Society you may request that your personal information is deleted. We are not required to do this automatically as retention of some information for historical purposes is also permitted by the GDPR.

From time to time I receive information by email from other organisations. I forward this information if it is likely to be of interest to some of our members. If you would like to receive this please let me have your email address.

Only myself and the Summer Programme Secretary have a full list of details and I am putting extra security measures in place to keep your data secure.

(Edited extract of letter sent to all members by Sue McCurdy in April 2018)

CREDITS: Thank you to Michael McCurdy and Roger Tapping for chasing and selecting content for this newsletter, and John Mason for permission to reproduce his fine painting of Eastnor Castle on the cover. There is no connection to the content but it might remind us of the summer as we enter the Winter season! JB

WINTER PROGRAMME DATES 2017-2018

ALL MEETINGS ARE HELD AT RGS WORCESTER IN THE LECTURE THEATRE
7.30pm START. ANY QUERIES OR INFORMATION PHONE CHRISTINE SIL-
VESTER 01905 354679

SEPTEMBER 14th. JUSTIN HUGHES - Worcestershire Archive & Archaeology
Project Foresters Forest : LIDAR and Archaeology in the Forest of Dean

OCTOBER 19th. DR TERRY DANIELS
Made in Oldbury: Oldbury, originally in Worcestershire, had many interesting manu-
facturers. The lecture will show us many of the products and where they were
made. This could also be followed up with a walk .

NOVEMBER 23rd. ROB HEDGE - - Worcestershire Archive & Archaeology
Worcestershire in the Ice Age.

DECEMBER 7th. PAUL BARNETT
Port to Port - a journey down the Gloucester Ship Canal: You will remember that Paul
spoke to us about the Severn Rail disaster. We have a visit to Purton, guided by
Paul on 27 May 2018. We will have Mulled wine, mince pies etc on that night and it
will be in the ELD Hall.

JANUARY 18th 2019. PETER GOGGS.
Worcestershire Coalfields: Did you know we had any? You will remember the very
interesting talk Peter gave us on Worcester Trams and Dickie Fairbairn .

FEBRUARY 15th . MARTIN HUDSON.
The Leominster Canal: One of the canals that were planned when Canal Mania was
raging. We could also have a site visit .

MARCH 22nd. (AGM)
Annual General Meeting followed by CHARLES BRECKNELL on *How to Survive the
Great War:* An illustrated Lecture about the travels of a Motorcycle Dispatch Rider
Charles' Great Uncle in WWI. Salonika. Egypt and the Western Front.

APRIL 12th MIKE NAPTHAN.
Worcester Castle: Mike is an independent Archaeologist and this talk on Worcester
Castle was postponed from December 2017 because the school was closed on the
planned date.

Christine Silvester

ARCHWAY TO THE BRINE BATHS (DROITWICH)

By PAUL JONES LRPS

When serving as a volunteer at Droitwich Heritage Centre in about 1990, one of the members of staff there opened a cupboard door on the first floor, to reveal a bricked-up archway which once led into the brine baths. Ever since, I have wished that I had photographed the archway, so, in July of this year, I finally got around to seeking permission to take some shots of it, to which Sarah Davies and Rebecca Pye of the Heritage Centre so kindly agreed.



St Andrew's Brine Baths, as originally constructed in 1887, were intended by John Corbett to provide the very latest facilities for a higher class of customer. Corbett chose John Cotton of Bromsgrove as his architect for the project, which was to be the most important work produced by Cotton for Corbett. Of this building, Cotton himself stated that "Architecturally, the building is of a very original design, partaking somewhat of a renaissance character. It is faced externally with pressed buff-coloured bricks, the plinth being of pressed red bricks, and the gables of half timber construction framed in oak, it having been Mr. Corbett's desire that the building should harmonize with Salters' Hall adjoining."

In 1907, St Andrew's Brine Baths were extended, though they were still very similar in appearance to Cotton's original design, and much of Cotton's original

work of 1887 remained unaltered. In the old exterior view of Cotton's original design shown here, the portion of building seen at the back with an arched window survived the 1907 redevelopment of the site. The large interior archway beyond – which led into the plunge pool or ladies' pool – also survived, and it is this archway which can still be seen today in the south wall of the Heritage Centre.



The interior shot of the baths shown here is of the ladies' pool, as it appeared in c.1910. Originally known as the plunge pool, it was soon to become the ladies' pool, as a separate gentlemen's pool was added to the complex in 1888. The interior archway in question can be seen at the back of the pool, though unfortunately, the south face of the arch seen in this picture is now the external wall of the Heritage Centre, and has been plastered over. At the top of the gallery below the archway, can be seen what appears to be some wainscoting or panelling, but this is in fact a row of cubicles.

In the early 1930s, the third and final entrance to St Andrew's Brine Baths was constructed, which clearly incorporated some of its predecessor within its structure. A guidebook from the time of its construction states that "St Andrew's Brine Baths have recently been remodelled and rebuilt. The extra lounge accommodation necessitated by the increasing patronage has resulted in an additional storey being erected on the whole of the baths' frontage."



For the past quarter of a century, this former entrance to the brine baths has housed the Droitwich Heritage Centre, and the new photographs of the archway shown here reveal what could be the last remaining portion of Cotton's grandest design for Corbett. Egg and dart decoration –



also known as egg and tongue decoration – can be seen, and though the brickwork has been painted over, the original red mortar is also clearly visible. All that remains is to hope that perhaps further study of the building – particularly the ground floor and south wall– will reveal yet more fascinating fragments.

Paul Jones

49TH REGIONAL INDUSTRIAL ARCHAEOLOGY CONFERENCE

The 48th. South Wales and West of England Regional Industrial Archaeology Conference was held West Coker, Near Yeovil Saturday 14 April 2018 , hosted by the Somerset IAS.

This was an excellent Conference, well attended and very well organized. It differed from the usual format in that we had a visit to a restored twine works almost opposite the village hall where the conference was held after the last morning lecture and before lunch. CS

Coker Canvas: Hemp and Flax in South Somerset

Richard Sims

The venue for this conference, organised by SIAS was close to the newly restored Dawes Twine Works in West Coker. In such a rural setting today it took a while to realise what a hive of industry this area must have been 150 years ago. Indeed, arriving in West Coker - some 20 miles from the Sea, its close association with ocean-going ships was not immediately obvious. The first speaker, Richard Sims explained how all this could be so. Although there is little sign of it today, this area was preeminent in the production of sail-cloth. At its height and long after, the term "Coker Canvas" was regarded as the standard to measure others by - like "Rolls-Royce" for motor cars.

Canvas making here dates from the 17th Century with production reaching

its height at the middle of the 19th century. When steam propulsion eventually replaced sail, the main canvas producers turned to making yacht sails - keeping their reputation for making the finest products. Up to mid 19th Century this had been a cottage-based industry but by 1850 the processes were becoming mechanized and were now concentrated in small factories.

The origin of this thriving local industry was suitability of the land for growing the crops hemp and flax to make the cloth; hemp - *Cannabis sativa* which is a native of western Asia, and Flax - *Linum usitatissimum*. Both crops flourished in the soil conditions in this area on the Somerset/Dorset border. The flax plants, about 1 m tall, were pulled rather than cut to maximise the fibre length; a labour-intensive task made easier by the shallow roots. Some 1000 tons of hemp and 500 tons of flax (thought to equate to about 4,500 and 2,300 acres respectively) were grown annually in this locality.

Richard explained that the treatment of the hanks of yarn evolved into a highly complex process. An important early stage in the preparation of the fibres was "retting" whereby the plants were soaked in water for 2-3 weeks. Pond-retting was a smelly and polluting job - hard to imagine in this idyllic setting today! This was followed by "scaling" - stripping the hemp or flax from the stem then "breaking", "scutching" and "hackling" and spun into hanks of yarn.

Apparently, what really differentiated Coker Cloth from other cloth of the period was the "bucking" process carried out on the hanks of yarn which had evolved into a multistage process. In simple terms it involved boiling up the yarn with a bleaching agent. The conditions in the bucking houses must have been unimaginably awful with furnaces for heating the vats of boiling liquid containing the yarn to which a bleaching agent was added - latterly chlorine. The process was then repeated multiple times. It was this bucking that defined Coker Canvas. During bucking, the yarn lost a quarter of its mass. This, however, meant much less shrinkage of the final cloth during use and notably there was much less of a problem with mildew giving the sailcloth a fine reputation for durability and length of service.

All of these laborious and evidently noxious processes were carried out before the final yarn was woven into the bolts of sailcloth to be supplied to the manufacturers of the working sails. Yarns of hemp and flax were both used for the weaving of canvas, often in combination, e.g. hemp warps and flax weft. The final stage of stitching together the lengths of canvas being carried out in the sail lofts closer to the sea.

Eventually, the production of yarns for yacht sails also waned and the factories adapted again to the production of twines - hence the venue for this conference and to be the subject of further talks in this interesting programme.

HF

'What a Load of Rubbish' - The History of Waste Management

Peter Daniel

This was a good lecture, both interesting and informative and with a hint of humour.

The nature of recycling has changed — partly depending on the value of the rubbish. Originally it was burn, bury or trade. You will recall in Dickens' book 'Our Mutual Friend' people becoming rich owning ash tips. Scavengers were busy from late 18th.C in London and Southampton and paid to scavenge waste. The history of waste management is imperfect as we only find waste that does not decay. In the Industrial Age, pre-sewer systems waste was sold. Human waste was collected at night by night soil men and eventually sold to farmers as a fertilizer.

There were uses for ash — it could be used with clay to make bricks. When one considers that every home would be burning coal and wood for warmth and cooking this must have been a huge amount in big cities.

In 1890 the composition of waste composed of Cinders, dust, vegetable matter, paper and card, metals and textiles. In 1876 a new modern system was needed and Heenan developed Incinerators in Worcester and Manchester. By the 1930's as many as 500 towns were using Incinerators and by WWI. 25% of districts were using the power to generate electricity - this seems to have been forgotten as new incinerators are hailed a new idea.

Plumstead —Woolwich incinerator survived for refuse destruction until 1965 and there was also one at Brighton. In 1897 Shoreditch installed an incinerator and developed Light and power until 1920's .

In Cambridge, Cheddars Lane, some of you may remember that we visited on our stay in Cambridge, the site is now a museum the waste was burned to produce steam. There were 3 pairs of destructors, out of service in 1942 because there was a drop in calorific waste.

Taunton installed a Babcock and Wilcox Destructor in 1903 that could deal with 10 tons in 24 hours. The sewage treatment works is now a scrapyard - it was still in use in 1930's and partly demolished in 1960's.

Yeovil disposed of ash and refuse in local landfill pits. Other areas used limekilns to burn waste. Much waste was tipped over cliffs. In Chard waste was burned outside until 1960's over weekends.

After 1912, very few incinerators were used to generate electricity. 1890 — 1935 Decrease in calorific value of waste, including fine dust and veg. matter. CS

Ham Hill: "England's Most Seductive Stone"

Peter Stanier

Ham Stone has been quarried from Ham Hill, Somerset, since Roman times. This, golden medium-to-coarse-grained limestone was laid down some 170 mil-





lion years ago in the Jurassic Period during the formation of Yeovil Sands, the geology which underlies this area. Its glorious golden colour is a result of iron ions in calcium carbonate with tiny fragments of shell deposited in shelly banks. Cross-bedding gives rise to the characteristic furrowed weathering of the stone. Most quarried stone was used locally and good examples of Ham Stone can be seen in the buildings in local villages such as Odcombe and the church at Stoke-sub-Hamdon. Ham stone was also used in the construction of Crewkerne railway station and for Montacute House which is probably the best single example of the use of this stone. It is a "free stone" which means it can be cut in any direction, and it tends to be used for doorways, windows and other details.

After the lectures Peter Stanier led a

visit to the site starting from the car park on the top of Ham Hill. Here the remains of old lime kilns (above) can be seen where stone was burnt predominantly for use as fertiliser. Some was used for mortar and lime wash render, though this was of poor quality due to the high iron content.

Since the 1960s Ham Stone has been quarried again at Ham Hill from strata up to 90 feet deep. Today, the stone is often used for the repair of external features in historic buildings and quarrying continues on this ancient site. JF

Gloving in Yeovil

Joseph Lewis

The final talk of the day was on the gloving industry in Yeovil. Joseph Lewis concentrated on the impact the industry has had on the town.

At first dressed leather was obtained from London. Businesses were conducted from fairly small premises. Some of the three storied buildings still exist and Joseph showed photographs of these. The addition of an extra floor gained the advantage of the light, to allow sorting and matching of leather, and the louvred windows allowed the leather to dry. The leather was cut on site and sent to female outworkers to be hand stitched.

In time manufacturers moved to the outskirts of the town to set up their own small tanneries and leather dressing factories on the ground floor with cutting rooms above. The introduction of machinery left many unemployed and glovers were set to flood clearance. During WWI many of the women were employed by Westland to stitch the fabric onto the wings of aircraft.

Although the firms were quite small, unlike producers such as Fownes and Dents of Worcester, Yeovil still produced around 50% of the UK's gloves until the lifting of import tariffs in the 1950s flooded the market with cheap imports. While many of the buildings have been demolished, the families are remembered in street names. The heritage centre tells the history of gloving in Yeovil and Yeovil Town FC is known as the glovers. SM

Visit to Stoke-cum-Hamdon

This was led by Peter Daniel and was a few miles from the Conference venue and the route went over Ham Hill, where the stone from the area was quarried.

A good crowd, about 25, met Peter in the car park by the village hall, Peter explained that the main industry in the area was gloving and that as in the Worcester area glover houses were noticeable because they had wider windows on the top floor. The houses were nearly all built of Ham Hill stone, a freestone and easily workable. We were shown the last remaining Glove Factory and from the information that Peter gave us I suspect that it was a greater Industry than the Worcester glove makers.

We walked around the streets and saw churches and chapels and schools and also Stoke-cum-Hamdon Priory, an almost complete complex of buildings began in the 14th. Century for the priests of the chantry chapel of St. Nicholas now destroyed. It was quite amazing. Open all year and free to enter, an amazing treasure in a quiet street. It was in great repair and was obviously originally the core of buildings of a monastic farm.

We finally visited a pub with a fives court at the rear, a terrific surprise, the wall was at least 20ft. high and almost looked like part of a Mediaeval Castle. Fives was a popular sport in the area in 18th and 19th. Centuries. I would think that the maintenance of such a structure would be a considerable expense and hope that the Landlord didn't have to pay.

The visit was very interesting, more so because it is unlikely that we would have visited at any other time. CS



Visit to Dawes Twine Works

The Dawes Twine Works is opposite the conference venue in West Coker and was the feature of the conference. The whole party was split into five groups and escorted over the road to have a tour of the site to see the results of recent restoration.

Many of you will remember the site

featuring in the BBC series "Restoration" a few years ago. At that stage the long timber building that covers the "rope" (twine) walk was in a very poor state and liable to collapse. This has now been saved and restored. Fortunately neglect by the owner of the site's had included omitting to throw anything away, so the volunteers have found virtually every piece of original



machinery and restore it to its rightful position and the twine works is now capable of producing twine again.

The only exception to this is the steam engine that is no longer on site. This was replaced by a diesel in the 1920s but this engine, too has gone. Recently the museum has received on long term loan a 1927 23HP Shanks diesel engine which had been rescued from a farm in Scotland where it had been since it was built in Arbroath in 1927. The 'Internal Fire' Museum has also provided in long term loan a compressor which charges up a re-purposed torpedo casing which is used to start the engine. A great example of innovation in preservation and museums helping each other out to mutual benefit. The engine running was truly remarkable in itself and almost silent in operation.

The whole site was exceptionally interesting and well presented. Any member who has not been should make it a priority. It has limited opening hours so

pleas check in advance. Perhaps we can have a society visit here sometime as part of a weekend tour? I include here a couple of photographs of our tour. JB

Visit to Clapton Mill

Clapton Mill is located between Crewkerne and Lyme Regis, and several WIALHS members joined this tour. The mill is still owned by descendants of the milling family that last operated the mill, and looks as if nothing has been done since it last operated in 1991. However the owner explained that he had actually done a lot of work to secure the structure of the building, make it watertight, reduce rodent infestation and it has been completely required. All this has been done without altering the character of the building and its almost seems undisturbed!

Corn milling has taken place on the site since at least 1257 and probably even earlier. The current building, which is Grade 2* listed, dates from the 18th Century although the interior was extensively remodelled in the





1850s. Since then it has remained virtually unchanged throughout its 150 year history.

It has four pairs of stones, and its huge 21ft diameter waterwheel is fed from two rivers to ensure continuity of operation. This is the reason for the elevated aqueduct that carries one of the mill leets onto site, as shown in the photo. The mill also has a complete Armfield roller mill plant and its original Ruston

and Hornsby oil engine.

The Mill worked commercially until 1991. A recently installed hydroelectric turbine was also available to see, generating green energy. JB

Authors for this article:

CS—Christine Silvester

HF—Hugh Field

JF—Jenny Field

JB—John Beale

Broadway sta-

tion reopened at Easter as part of the extension of the Gloucestershire & Warwickshire steam railway. A new station building has been built in authentic GWR style shown shortly after opening. JB



SUMMER PROGRAMME REPORTS

Walled Garden and Fort Royal, Worcester

21st April 2018

Christine Sylvester led an very interesting (*additional*) walk to an open garden at Rose Terrace, Worcester. The garden was a walled garden with some very interesting features. The owner of the garden explained that he had spent many years restoring the garden including many of the original features. Which included a ruined observatory.

We then took a short walk to Fort Royal Hill. The view of Worcester is incredible.



Water Carrier at Fort Royal
(*Sue Southwick*)

Christine explained how the park had been restored and how park of the park had once been allotments. We then returned to Christine's home where she provided us with excellent refreshments.

Thank you Christine.

Sue Southwick

Purton Hulks - Guided Walk with Paul Barnett

27th May 2018

This was a visit by car and those who wished to have lunch met at Frome-bridge Mill (previously a working Mill with a turbine now converted into a rather large restaurant with plenty of parking) en route for Purton and just off M5. A good number of our members met for lunch and we mainly had the carvery - very good and very inexpensive. They also serve other food including vegetarian and vegan.

While we were having lunch — the heavens opened and looking out of the large windows was like being under a waterfall. When we left to travel on to Purton the sky was blue, but the car park was flooded.

About 20 of us met Paul at Purton church and after a brief outline of where we were going we set off along the Gloucester to Sharpness canal. The graveyard is between the River Severn and the canal. At this point the River is very close to the canal and the high tides were in danger of breaching the

banks. The Chief Engineer of the Berkeley, Gloucester, Berkeley and Birmingham Canal, Mr. A.J. Collins assessed the destructive erosive power of the river and in 1909 there was a massive landslide which removed 60 metres of riverbank - leaving the canal in danger.

As a temporary measure a small fleet of redundant Stroud -water wooden barges were run aground to plug the breach and shore up the eroding river bank. This was effective and until 1965 ships have periodically been beached to stem coastal erosion and as a means of ridding owners of vessels at the end of their lives. The site continues to exhibit land development and the beached vessels are preserved in the silt, sand and mud.

Paul has identified 88 vessels that are all now named with a plate — I was a little surprised to see several ferrous concrete lighters these were run aground between 1963 and 1965. This technology ensured success on the beaches of Normandy WW2 as Mulberry harbours.

After a two hour walk we returned to the church for tea and biscuits, (later in the year it is tea and cakes). I discovered that Purton was a real Port with a Custom House next to the church. The Custom House became a pub and several Pilots, active and retired live in the village. The village also had a school, shops and a Post Office. The canal brought life and trade to the village and before buses a regular canal boat travelled to Gloucester with shoppers.

Many thanks to Paul Barnett for leading

the walk.

Christine Silvester

Churchill Forge Water Mill

31 July 2018

Churchill Forge water mill was one of the last working water powered forges in Britain, operating until the 1970's. It is first recorded in a charter at the time of Henry 3rd in 1238. The Forge lies in the valley of Ganlow Brook in the Clent Hills from there to the Stour and eventually the river Severn. Water to power the mill is stored in the Hammer Pound, a pool of two acres, formed by damming the Ganlow Brook. Water is fed into the header tanks and when released turns the wheels.

It was a pleasure to meet Pauline Bache whose family have been associated with the forge for a number of generations since 1743. She recalls how her grandfather (Ben) reopened the forge in the 1920's which had previously been owned by Lord Cobham. There were many difficulties and her father who took over the mill worked tirelessly to make it a success. His brother (uncle Syd) was released from the RAF to carry out his war service at the forge as it was essential to the war effort.

During the Second World War the production was turned over to forging ladles for molten metal in the making of bombs. The usual production was agricultural equipment and the forge also had a contract with Woolworths to supply firewood choppers.

The power for the forge is powered by two water wheels, one upshot



The waterwheel at Churchill Forge
(Eileen Porteous)

The equipment the mill powered such as hammers and presses are no longer there and is only powered up for effect only.

Since 1981 the Churchill Forge Trust was formed, it is non-profit making and has full recognition of the Charity Commissioners. [Grab your reader's attention with a great quote from the document or use this space to emphasize a

(overshot? Ed.) and the other downshot (undershot? Ed.). The main wheel has a diameter of 17 feet and is 5 foot 3 inches wide.

The other wheel is the same diameter and is narrower at 2 foot 3 inches wide. The spokes are made of oak with a steel bucket.

Outside on the outer bearing of the wheel it is connected to a crocodile shear which can cut mild steel up to 4 inches cold.

The grinding shop is at a higher level. This houses an exhibition of some of the implements which were produced by the company. The tools that were produced from 1700 onwards as well as agricultural implements were salt skip-pets (special shovels) for the salt industry in Droitwich. By 1960 the main products were made for the Stour-bridge glass industry.

key point. To place this text box anywhere on the page, just drag it.]

It is hoped that special events can be arranged to raise funding, the website is www.churchillforge.org.uk, do keep an eye out for events you can support. I have to add that they do super lunches. And oily rags? Not one, not two, but a whole pile!

Eileen Porteous

I am so grateful to Mike Hayzelden for arranging the visit to Churchill Forge - and we all loved the idyllic setting, the friendly and well-informed volunteers - we all especially enjoyed the picnic lunch that exceeded our expectations and we all loved seeing the geese wandering around.

The Forge is a complete 19th. Century water driven forge, built on a site that has supported a water-mill since the 13th. Century and a blade mill since the 16th. Century. The whole site is like

going back in time and we all felt how peaceful it was to be there although we realised that when the forge was working it would have been a totally different atmosphere and quite noisy - but the millpond would have always attracted wildlife and the workers would have appreciated the changes in the seasons and possibly getting fish and birds for the pot.

The volunteers explained exactly how the forge operated — the only thing they did not have was hot metal. The workers must have been very skilled to produce so many implements at speed - for instance plumbers 6in. ladles were 6/- per dozen and beet choppers were 4/9d per dozen. They produced dozens

of different edge tools and they have a small museum. We were interested in guessing what they were used for. A fork with the centre tines was for rooting out stubborn weeds and an implement that almost looked like a brickie's hod was to ridge up potatoes.

The forge is run by volunteers and is a scheduled ancient monument, I hope that they will continue to be able to maintain and repair both the buildings and the millpond.

When we left some of the members agreed that it was one of the best visits ever.

Christine Silvester



Inside Churchill Forge (*Mike Hayzelden*)

Coleham Pumping Station, Shrewsbury

17th September 2018

We arrived at the pumping station, which like so many others looked exactly like a Methodist Chapel. We were told that this was so that they fitted into the area, it did. We were divided into two groups and were taken round by very knowledgeable and helpful volunteers, who were involved with the restoration from the beginning and knew every nut and bolt intimately.

Coleham is at the lowest point in Shrewsbury - where the sewage drained into the river. National legislation in the 19C meant that there was an awareness of public health issues, outbreaks of cholera and dysentery were common all over the country. In 1894 the Borough council commissioned a report on the problem from a London firm of civil engineers, John Taylor, Sons and Santo Crimp of Westminster. A comprehensive scheme was designed and constructed over the next 7 years at a cost of nearly £70,000. With additions and updating it is still the basis of the sewage system today.

The pumping station and 50-acre sewage farm were on separate sites, the latter at Monksmoor, where sewage was allowed to settle in large open tanks and distributed onto the fields in careful rotation. Apart from this, the farm was perfectly normal and was cropped in the usual way. The town has grown since those early days, so in 1964, a new works was commissioned on the same site, and further extensions

in 1978 cater for 100,000 people. After treatment the clean water is returned to the River Severn and the sludge it taken away in tankers and sprayed on farmland over a wide area.

The pumping station was bought from John Davies for £685. At that time the riverside in Coleham was mainly industrial with a brewery, tannery and a brush factory upstream. The machinery was well proven, and coal fired and ran until 1970 when electricity took over as power for the pumps. The pumps were beam engines made by Renshaw of Stoke on Trent and were installed in 1899. They were Woolf Compound Rotative Engines. The boilers were interesting both Cornish boilers made by Galloways in 1899. They were 21' long and 5'6" diameter. The furnace tubes are 2'9" in diameter (unlike locomotive boilers they do not have dozens of tubes), the coal is shovelled in and the water capacity is 2,830 gallons in the tank above the fire. Originally the boilers were both hand-fired but were converted to mechanical stoking in 1940 and in 1990 one was altered back to hand firing.

We were all interested in all the innovative touches, a governor to control the speed of the engine, Parallel link motion to allow the piston rods to move up and down in a straight line and a deadweight safety valve - I think like the weight on a pressure cooker. We all enjoyed the visit, the volunteers were all so helpful and really knew what they were talking about and clearly lived doing it, they also kindly gave us tea and biscuits.

Christine Silvester

BILL GWILLIAM MEMORIAL BENCH

The Bill Gwilliam Memorial Bench is a Hardy and Padmore cast iron bench that the Society obtained and arranged

Steve Smith, the Cathedral Service Manager saying that he had done the work and it now looks splendid. (see after



to be restored by Dorothea from Bath. This was erected in the Cathedral Gardens in memory of Bill Gwilliam who was our founder member. The Society raised the money for this by events and collection and it is situated on the terrace overlooking the river, the favourite spot for Bill to sit.

On a walk earlier this year, John Beale noticed that the bench was looking shabby and in need of a re-paint (see above photo). Your committee agreed to fund the work, so I approached the Cathedral about this matter. I was delighted to receive a phone call from



photo). We have now donated £100 to the Cathedral to thank them for completing the work to such a high standard.

Perhaps you will visit the Cathedral grounds and see the bench when you are in town.

Christine Silvester (with edits and photographs by John Beale)



Diglis Basin frozen over, April 2018! JB

BRIAN DRAPER MBE

I am sure that most members will be familiar with the name Brian Draper, he gave us many talks and also visits, we learned a great deal, but it was always delivered with his great sense of humour.

Brian died on 11 August 2018 aged 81. I am sure that you will be shocked at the news because he was someone who was so alive and had always loved his work. Brian was educated at Christopher Whitehead School and Bill Gwilliam was one of his teachers. After school he started working for Severn River Board — which had various name changes and stayed with them all his working life. It was an ideal job for him, a country boy from Martley, who was always interested in wildlife and the countryside and also conservancy. This was his dream job because the balance of nature was needed to keep the rivers healthy and he was so knowledgeable on the birds and other wildlife and the trees and plants of the riverside. He

was awarded an MBE for his work on conservancy and we were all very proud of him.

He took us on various coach trips up the Severn, Teme and even the Thames valleys - they all seem to start in a bog and he must have planned the visits in a car because we went through such narrow lanes that seemed almost impassable for a coach — but we all arrived home unscathed. On the various trips he would point out areas where certain birds might be seen and often we saw them.

In the last years of his life Brian lived at Knightwick, very near the Teme just a few miles from Martley where he started. They say that if you love your job you don't have to work a day in your life and I think that it was so with Brian — we will miss him.

Christine Silvester

TARDEBIGGE LIME KILNS

I always look forward to the Heritage Open Weekends, and I usually look out for any sites of industrial archaeology that I haven't visited before. So on 8th September I was excited to see that the Tardebigge Lime Kilns would be open so I turned up on a very soggy morning, to be shown around by Bill Lambert. He is quite keen that members of the WIALHS should get involved in the project if they would like to. They are open to advice on conservation and any volunteers to help with research—so if

that sound like you get in touch. I asked them to send me something for the newsletter, so the rest of this article is reproduced with permission!

John Beale

Worcester-Birmingham & Droitwich Canals Society (WB&DCS) has been conserving and renovating the 200 year old Tardebigge Lime Kilns over the past few years. Here is a brief history of them:



Clearance work at Tardebigge Lime Kilns (WB&DCS)

The Worcester & Birmingham Canal was open as far as Tardebigge New Wharf by early 1811 and fully opened in December 1815. The Lime Kilns were constructed very soon afterwards.

A local business which made extensive use of the canal for many years was Thomas Dixon and Co. of Tardebigge who ran a canal carrying and coal business. The Dixons' business expanded over the years to include lime burning at both Tardebigge Old and New Wharves.

The kilns comprised of a bank of five 'flare' or 'draw' kilns utilising the natural slope. They burnt limestone probably for mortar and agricultural fertiliser.

According to 'Chronicles of the Cut' by The Rev. Alan White, the lime kilns were constructed shortly after the

completed canal opened in December 1815. The limestone came up the canal to Tardebigge from Dunhampstead and coal for the burning process arrived by canal from the Black Country, which had many collieries at that time. The New Wharf kilns were in a prime position although other lime burning sites have been identified including those at Tardebigge Old Wharf and Selly Oak Junction.

Many workers known as 'lime burners', according to 'A Hundred Years in Tardebigge' by The Rev. Alan White, lived in the nearby cottages. The business, from around 1877, was run by T&M Dixon. The burnt lime was used by local farmers on their land and as building material, for example at Hewell Grange.

George Bate, who worked on and lived by the canal, states in his memoirs that

there were 6 lime kilns although only 5 have been identified, which is corroborated in Alan White's books. The lime kilns became disused on or around the time of World War I and soon became rubbish filled and used for the tipping of canal dredgings. Trade directories up to 1908 list a Lime Merchant at the wharf with 3 of the kilns being extant in 1927.

Moving further forward in time; in 1945 the Inland Waterways Association (IWA) was founded as a result of a meeting between Tom and Angela Rolt and Robert Aickman aboard narrowboat 'Cressy', moored just above Tardebigge top lock. Campaigns to save the inland waterways really began then as many people could see that wholesale closures were already happening throughout the land. This included the possibility of the closure of the Worcester & Birmingham Canal.

There were also buildings on the garden site which are not there now. The Worcester-Birmingham & Droitwich Canals Society made a decision in 2011 to conserve the kilns area and work started to expose them by removing the dredgings, soil and rubbish covering much of the site. A later decision was made to also clear out the overgrown garden area just below where the kilns are situated.

The society aims to conserve and enhance the whole area and is to apply for 'Heritage Lottery Funding'. Canal & River Trust (C&RT), who own the land, also help and agreed for the society to 'adopt' the site. The society also looks after the 'tug boat' compound and the area around lock 58, the top lock on

the famous 'Tardebigge Flight'.

Bromsgrove District Council regard the lime kilns as a heritage asset and is a significant historical feature as listed in the Tardebigge Conservation Management Plan. They are one of the very few lime kiln structures still intact in Worcestershire.

Lime Kilns Orchard and Community Garden

Whilst clearing the rubble and neglect of years around the lime kilns, our volunteers uncovered an old orchard and allotment gardens. The main orchard at the bottom has five old apple trees of different varieties, some gooseberry bushes and two grapevines. There used to be a plum tree and were probably other food crops there too.

On the upper section going down towards the kilns, there is a run of damson trees and lower down to the right, an old plum tree. There are some surviving garden flowers such as lilac, Spanish bluebells and rose bushes. There was bramble and nettle cover over the whole site, which made access difficult, but this is now under control.

The hazel hedge at the bottom has been coppiced, with approval from the Bromsgrove Tree Officer, as it had grown very tall and thick and was shading the fruit orchard. The aim is to let it re-grow for a couple of years and then lay the hedge properly. Light will allow the trees to thrive better and more variety of flowers to grow underneath.

We want to encourage and enhance wildlife. Flowering plants will bring bees and other insects which in turn will attract birds and bats (for which there are nest boxes). Some area still has brambles, ivy and nettles as these are good for butterflies and much of the old wood has been kept as woodpiles for fungi, invertebrates and insects. There may be a pond built fed from the stream at the bottom of the gardens.

The land has been slightly reshaped as soil and rubble was removed from the kilns and the bank in front of them, while still retaining it as an important heritage site.

Public access has now been made with the paths through the site formalised and a low fence put in by C&RT all helping to guide visitors. C&RT has also erected a screen fence to hide the sewage works. Gabions have been put in place to ensure the bank between the top and bottom gardens doesn't col-

lapse.

All areas away from the paths, including the gabions, will eventually be covered with natural vegetation and the top of the kilns themselves will be planted with shallow-rooting plants to stabilise them. Our plan is to create a pleasant, accessible and natural area. The aim is for people to see that the whole site was not only important to local industry, but also part of a centre of orchard production and a living environment for native wild flowers, trees, insect, birds and bats.

For more information about the Tardebigge Lime Kilns Project please visit our websites:

www.wbdcs.org.uk

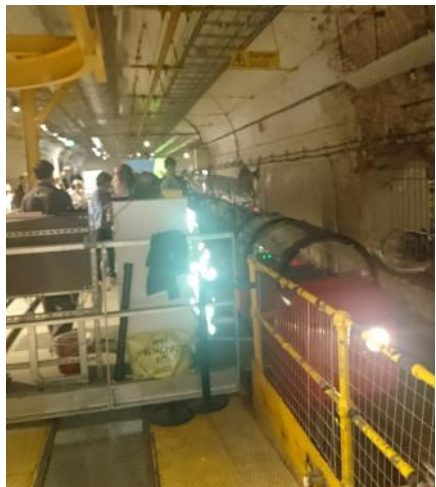
www.tardebigge.uk.net

or contact our Volunteer Coordinator Bill Lambert on 02476 726924 or 07815 986012

WB&DCS

MAIL RAIL

Earlier this year, the new postal Museum opened in London, adjacent to the Mount Pleasant sorting office. It is very interesting and worth a visit. But the main attraction is across the road where they have opened up a very small part of the underground railway that once linked all the main rail termini and sorting offices. It was taken out of use when Royal Mail stopped using trains for mail. You can ride on a battery powered train around the complex of lines under Mount Pleasant sorting office—very interesting but very cramped if you're above average size or height! *John Beale*



WIALHS WINTER PROGRAMME 2018/19

"Made in Oldbury — the Products and Enterprise of a Mid-land Town"

October 19th 2018

Dr Terry Daniels started by outlining the natural resources of the old Borough of Oldbury, which straddled the eastern boundary fault of the South Staffordshire Coalfield. The western half of the borough was rich in coal, Etruria marl, and some iron ore leading to the heavy industries that developed there, coal mining, brick making and metal working. The eastern half remained rural and agricultural until the mid-twentieth century being based on Permian sands and gravels.

He then presented various objects manufactured in the town and illustrating the different industries that became established there. The oldest industry was the production of hand-made nails, which flourished locally until they were replaced by machine-made cut nails in Victorian times. One of the first factories to be established in the town was that of William Hunt in the late eighteenth century. They produced all manner of 'edge tools' at the Brades works, including brick-layers' towels (the Object for this industry), scythes, garden equipment, knives, and even ramrods for cannon in the Napoleonic war.

Larger products arose through the development of railways, with the building of wagons and coaches at Oldbury Carriage Works. Not able to bring a whole wagon, his object here was a car-

riageplate, 'Built at Oldbury Works 1929'. The firm started in Bromsgrove in 1847 but moved in 1854 to a site in the cornfields next to the new London and North Western Railway at Oldbury. Carriages were sent to railways throughout the world, giving them an international reputation. They became part of Metropolitan-Cammell, and the site finally closed in the 1930s. They can claim the production of around three-quarters of the tanks used by the British in WWI.

Also of large size were the boilers built by Edwin Danks and Co, and represented by a 1911 sales specification. Their main rivals were other members of the family running Danks of Netherton! The company was sold to Babcock & Wilcox and continued to make boilers until the 1970s. To burn low-grade coal and release men for WW2, they developed the 'Oldbury' Chain Grate Stoker which fed fuel to the boiler and removed the ash mechanically.

The next object was a brick made by Pratts Ltd at their New Century Brick Works. This was one of the last brick companies in Oldbury, started in 1900, at a time when the centre of Oldbury was surrounded by marl holes and brick works. The last marl hole was filled in about five years ago, and now there are none!

And this is where we ran out of time, leaving chemicals, plastics, surgical items and a host more for another time.

Terry Daniels



WIA&LHS ROLES

2018/2019

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