INDUSTRIAL ARCHAEOLOGY NEWS

195
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THE BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

FREE TO MEMBERS OF AIA

Stephenson and Snibston • Carey estate find • John Pilling 3
SS Robin • Coal for steam engines • Restoration projects

INDUSTRIAL ARCHAEOLOGY NEWS 195 Winter 2020

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COVER PICTURE

Steam Tug Kerne relaunching 20 September 2020 from Carmet Marine, Bromborough following hull repair and maintenance. The work was supported by an AIA restoration grant. See page 4

Chairman's report

2020 remains dominated by the Covid-19 health crisis. I have commented elsewhere in my role as IHSO on its impact in England and various parts of the UK. I would note here that the impact of the pandemic is forcing many organisations and societies online. Thus, TICCIH ran an online textile workshop in the spring, INCUNA in Spain moved their annual conference entirely online, and the Industrial Archeology Society in the States is running a series of online talks. The shift to a blend of online and face-to-face delivery would, in my opinion, appear to be decisive and the AIA needs to consider how we should continue to adapt our communications strategy and meetings in these changed times. Elsewhere, site closures and layoffs directly related to Covid-19 continue to be reported through the E-FAITH, TICCIH and ERIH networks.

Historic England has been working for some time on a revised Industrial Heritage Strategy. This is in the final stages of completion and will be launched in the New Year. The All Party Parliamentary Group on Industrial Heritage remains to be reconvened, though the re-establishment of APPGs can take some time after a General Election.

This is my final report to Council as Chair. It has been an interesting three years. Whilst individual membership has dipped and then come back up (not without some hard work by many people), the number of institutional members has soared through T&F, and the income from downloaded articles has also grown. We have been fortunate to retain the sponsorship of our anonymous donors for our Restoration Grant awards, for which I am very grateful. However, the industrial archaeology and heritage landscape is being changed significantly by the pandemic and there will be, undoubtedly, some stressful times ahead. Initiatives such as the Young Members Board, e-newsletter, and online Council meetings should help to increase the resilience of the Association.

Finally, I'd like to thank all present and past Council officers and members, and the wider AIA membership, for their hard work and support over the last three years. Your commitment and cheerfulness has made my time as Chair that much easier and enjoyable.

Mike Nevell

Hail and Farewell – a change of Editor *for Industrial Archaeology News*

This is the final issue of *Industrial Archaeology News* that Chris Barney will be editing. He took on the role from Peter Stanier in 2011, producing issue 157 that summer. I remember that the cover was an image of a floodlit headframe at Snibston Discovery Museum in Leicestershire where an arts project called 'Transform' was at the heart to a regeneration project there – now sadly no more although the scheduled headframe is still there amidst concrete dereliction. Chris has edited 38 issues of *Industrial Archaeology News,* no mean feat in putting together sufficient material four times a year! I am aware of just how often he has sourced articles himself (although he had had some regular correspondents) and has also overseen the transfer of the final printing and distribution of the magazine from a local printer to Taylor and Francis. He has certainly produced some bumper issues with superb front cover images!! I know AIA members really look forward to receiving their copies of the magazine and having something tangible to read rather than a digital copy as so many magazines are now. Very many thanks, Chris, for all that you have done.

We are very fortunate in having an immediate replacement in the person of Pat Bracegirdle. She grew up surrounded by IA – the iron, coal and clay of the Severn Gorge. She went to school in Coalbrookdale and her father was an engine winder at one of the nearby collieries. I remember her being very excited on a visit to Pleasley Colliery during the 2018 Nottingham conference where she sat in the engine driver's seat on one of their steam engines just as her father had done! While teaching in London she met Brian Bracegirdle and introduced him to her home region, which is when her involvement in IA began in earnest. Together they worked on his heavily illustrated 1973 book *The Archaeology of the Industrial Revolution,* with Pat playing a key role in its production and they went on to produce two more books,one on *Thomas Telford* and another on *The Darbys and the Ironbridge Gorge.* Working at a teacher training college, she introduced IA as part of the science curriculum and ran field courses each year focussed on Shropshire and North Wales. Her field knowledge was extended by academic study when she gained an MSc in the History of Technology at Imperial College, since when she has also completed a doctorate in the History of Medicine at University College, London. After the death of her husband four years ago (she had married Brian in 1975), she returned to Shropshire. She volunteers at the Ironbridge Gorge Museum, initially as a guide at the Coalport China Museum where her father had worked as a lad, and is currently cataloguing the Bracegirdle photographic archive held in the Museum Library.

We wish her well for her time as Editor of *Industrial Archaeology News* and look forward to her first issue early next year.

Marilyn Palmer

Annual General Meeting 2020

Due to Covid-19 the Association had to postpone its annual conference in Liverpool. Therefore the postal AGM was arranged, and then finalised by the Council who met on 11th October by Zoom to propose and second the resolutions. Twenty members were present, the quorum being 15. Sixty-five forms were returned with all of the resolutions were passed without objections. Some of those came from Council members, so the total number of votes was 71. We are grateful for your cooperation and understanding in these difficult times.

A semi-closed meeting was an unusual solution caused by an unusual situation and driven at that time by our somewhat limited knowledge and experience of the technicalities. However, if we have to do it again for the 2021 AGM by then we will have the capabilities to hold a live Zoom event, open to all members who have email and internet access.

In August all members were sent the Notice of the AGM and an explanation of how it would be held. With it came the calling papers – the Agenda for the 2020 AGM, the Minutes of the 2019 AGM, the General Report and Accounts for 2019, and a postal Voting Form. Through an amendment to the fourth resolution received after the papers had gone out, two further members were elected to Council: Patricia Bracegirdle (incoming Editor of IA News) and Zoe Arthurs (Secretary of the new Young Members Board). After chairing the meeting Mike Nevell stepped down on completing three years and handed over to the incoming Chair, Professor David Perrett.

Saving a Revolution: Industrial Heritage – the Impact of COVID-19

The COVID-19 pandemic of 2020 continues to impact all aspect of home and work life, around the globe: archaeology and heritage included. Adapting to the threat of spreading the disease has been particularly challenging in the archaeology and heritage sector, which like the Arts, relies on personal contact and interaction with volunteers and audiences of all ages.

During July and August 2020 Industrial Heritage sites and organisations began to re-open in the UK, as the Government eased the measures taken to contain the first wave of the COVID-19 pandemic. The Office of Road & Rail had already issued 'back to operation' guidance for heritage railways in May, whilst Historic England had issued re-opening guidance on Industrial Heritage sites in June, noting the potential for damage to historic fabric. In July 29% of the c600 IH publicly accessible preserved sites in England re-opened. However, mass events such as fairs & rallies were cancelled. Many sites focussed on opening the food retail &/or open spaces on their sites. In August, the re-opened sites in England included 52 watermills, 41 heritage railways, 38 canal & river sites, and 34 windmills. By the end of August 48.5% of the industrial archaeology and heritage sites presented to the public had re-opened. This is based upon a rapid online survey of the c. 600 sites in England, but a similar level of re-opening was seen in Northern Ireland, Scotland, and Wales. Larger industrial museums (such as Ironbridge), many English Heritage and National Trust properties, and many heritage railways opened in July. In August CADW and Historic Scotland properties re-opened along with local authority industrial museums and some smaller industrial sites.

It's now possible to take a step back and start to review some of the changes and impacts on the industrial archaeology and heritage sector since the lock-down of March 2020. 46 industrial heritage sites have announced that they will remain closed until next year (including local authority sites in Essex, Kent, and Lancashire). Furthermore, two English Heritage sites and nine National Trust sites remain closed. During lock down some industrial heritage sites suffered vandalism & trespass, with incidents recorded at preserved railways, like Bowes, Churnet, and Peak Rail, and some windmill sites. Fund raising events have been cancelled at Industrial Heritage sites, and during re-opening admission numbers have been limited. Many re-opened sites reported visitor numbers down 50% over the summer season due to the lock down. Redundancies have also been announced at several Industrial heritage sites and the long-term impact on volunteer numbers and the financial viability of these sites remains unclear.

BUT it's not all gloom. A dozen water- & wind-powered corn mills saw a boom in business as flour demand rose sharply during lock-down. 12 preserved railways raised £3 million from the public in emergency appeals by the end of August. Industrial archaeology and heritage sites have received emergency COVID funding from Historic England such as Wheal Martyn, & many more from COVID emergency funds through CADW, the Scottish Government, the National Heritage Lottery and the Arts Council.

Like many industrial heritage societies, the Berkshire Industrial Archaeology Group normally run a host of live activities for the Heritage Open Days events in September. BIAG was faced with either finding new ways to communicate or hibernating until the pandemic was over. Amongst the suggestions put to the group was a twitter conference (http://biag.org.uk/). This duly took place on 15 September 2020, with a suite of seven papers discussing local and national industrial archaeology topics. Many other industrial heritage sites and archaeology groups went online to deliver their Heritage Open Days events, although some were able to provide a live, in person, experience such as Crofton Pumping Station.

The pandemic continues to evolve, as does its impact on industrial archaeology and heritage. Although I step down as Chair of the AIA at the (delayed) AGM in October 2020, I shall be continuing to monitor its impact through my role as IHSO for England. I'm keen to collect lock-down stories and experiences of recovery across industrial heritage so please do get in touch.

Michael Nevell
retiring AIA Chair and IHSO for England

Young Members Board Strategy Day

The newly formed AIA Young Members Board held a Strategy Day on 26 September 2020, to explore the different ways we could support the amazing work of the AIA and develop some initial ideas already discussed. Following weeks of online meetings, we were eager to finally meet each other in person, choosing Ironbridge Gorge as a fitting venue for the occasion. However, due to changes in Covid-19 restrictions, it was decided that our online platform would have to do. Chair of the AIA, Dr Mike Nevell, did not disappoint though – and treated us to an Ironbridge digital background when welcoming us and introducing us to the AIA, its aims and work.

Thoroughly inspired by Mike's introduction, we delved into setting actions for the various areas of work we had identified for the YMB. We split into groups to investigate and brainstorm how we could make an impact in different areas; including social media, international connectivity, and equality and diversity issues. Our groupwork enabled us to create an action plan for delivering some new initiatives which we hope will extend the work of the AIA in exciting ways. The YMB is aiming to attract new audiences; engage with audiences through digital platforms; raise the profile of the next generation of industrial archaeology professionals and enthusiasts; advocate for industrial archaeology internationally; facilitate skills and knowledge transfer between generations; and engage with communities currently under-represented within industrial archaeology. Alongside these bigger goals, we also decided on our preferred branding for the YMB, reviewed our terms of reference, and we elected our various officers. Congratulations to our first chair – Sarah Murray; vice-chair – Ashley Brogan; secretary – Zoe Arthurs; and treasurer – Carmen Bowes. It was a productive day, which we left feeling motivated as a team.

Sincere thanks from us all to Dr Mike Nevell and the YMB triumvirate, Geoff Wallis, Tegwen Roberts, and Maryann Soper, for their time and valued input.

We are all excited to make a difference to the AIA and beyond and will update you on our progress in the next newsletter.

Sarah Murray and Vanessa Ruhlig

Details of all the members of the YMB are on pages 17 and 18.

AIA Restoration Projects

The AIA restoration grant scheme which has been operating since 2008 has now been funded through the generosity of our anonymous donors to a total of £771 thousand pounds which with Gift Aid has meant that nearly a million pounds has been available to support many score of industrial restoration projects This year an AIA credit panel has been sent to every one of the 2020 winners. Inevitably some projects have been delayed through unforeseen difficulties in respect of planning, additional complications and other matters. This year has been particularly difficult to achieve progress which allows us to congratulate the Steam Tug Kerne Preservation Society who have completed the work needed to relaunch the vessel just three months after their grant was agreed.

Steam Tug Kerne

Steam Tug Kerne on the slipway

Steam Tug *Kerne* was launched at Montrose Shipbuilding Company in 1912. From 1913 until 1948, she served the Royal Navy at Chatham Dockyard as *HM Tug Terrier*. She is the last operational Royal Navy steamship from the First World War and has been recognised as a National Historic Ships Fleet Vessel, of national and regional historic importance.

In 1948 she was renamed *Kerne* and worked on the River Mersey towing barges for The Liverpool Lighterage Company. In 1971, as the last coal fired steamship working on the Mersey, she was saved by our preservation group who have maintained and, since then, run her to public events.

The wheelhouse

The Scotch twin furnace coal fired boiler is in the process of stay tube replacement by our volunteers, partly Heritage Lottery funded, but the vessel's 108 year old hull was also in urgent need of repair and conservation.

The Association for Industrial Archaeology made a grant of £7,000 to our charitable trust, The Steam Tug Kerne Preservation Society, to enable *Kerne* to be drawn out of the water at Carmet Marine, Bromborough Slipway.

Over a very busy two week period during August the hull was high pressure jet blasted and mechanically scaled, marine surveyed and the leaks repaired. Three coats of high quality marine two pack paint were applied to all areas of the hull to fully conserve it. Sacrificial anodes were replaced and whilst out of the water our volunteers serviced the sea water valves and the stern gland. This has returned the hull to good condition and once the boiler tube work is finished it will enable the historic steam tug to navigate and once again welcome visitors aboard at popular heritage events around Merseyside.

Middlewich Brine Pump

A colossal challenge to save a unique part of Middlewich heritage is nearing completion. The scheduled monument is the only intact pump over an original hand-dug shaft remaining in Britain and the site will open as a visitor centre next April. A new video has been produced by Middlewich Heritage Trust to show just how much has been achieved.

Kerry Kirwan, heritage development officer and project manager, said, "We are very proud of what we have done. The whole thing would have been crumbling away. When we came on site in 2008, the walls were coming down, the doors had rotten, it was a mess."

Thanks to £400,000 funding from bodies including Historic England, Heritage Fund and Association of Industrial Archaeology, specialists and volunteers have saved the site which dates back to 1889.

The late, retired chemical engineer, George Twigg played a vital role in the restoration. "He was part of the team that documented the saltworks before it was knocked down." said Kerry. "He was an unbelievable man and donated his entire archive of more than 3,000 items to us."

The crumbling monument in 2008

Documents, maps, drawings, photographs and films have been digitised in a virtual museum on a new website. "We need to make people aware of this site." continued Kerry, "Living in a town that has this connection with salt is a rare thing. The process hasn't changed that much in over 2,000 years. We couldn't live without it."

"Everything is going to be interpreted so people can understand what happened here. Middlewich is very rich in history but doesn't have a museum. The community can't engage with its own heritage".

Winsford and Middlewich Guardian

Progress on the Stothert & Pitt crane

What do the dockside in Thessaloniki, Greece, the Port of Antofagasta Chile and the dockside in Wellington, New Zealand, have in common? Answer: they all have restored Stothert and Pitt cranes, standing proud and tall.

Stothert and Pitt were 'crane makers to the world'. This is the title of a book written by Ken Andrews and Stuart Burroughs in 2004. In 1980 the then Director of the Science Museum claimed that 'the contribution by Stothert & Pitt as a supplier of heavy engineering across the world was Bath's greatest contribution to world history'

Now there is the opportunity for Bath to acquire a quarry crane which was built about 1864 and is the oldest known Stothert and Pitt crane surviving intact. It worked in Box in the Bath stone quarries and was saved in the 1980s from scrappage by David Pollard, the then chairman of the Bath Stone Museum Trust.

Its condition is very poor but it is currently being restored by a group of volunteer experts, led by Peter Dunn and Arthur Feltham, former Stothert and Pitt service engineers. The trustees of the Bath Stone Quarry Museum Trust have expressed a willingness for the restored crane to be erected in Bath.

The team is delighted to announce that we have received an offer of grant from the Association for Industrial Archaeology. This grant has been matched by the Bristol Industrial Archaeological Society, and the Trust that owns the crane. So we now have the funds to treat the metal components so it lasts another 150 years.

Our vision is to see the crane returned to the place it was built and discussions are underway to find a suitable spot for the crane so that everyone can see and appreciate this iconic structure. The Museum of Bath at Work is the pre-eminent organisation championing the industrial heritage of Bath, and the museum is preparing to lead the interpretation of the Bath Quays South site. We hope that the crane will be a fine part of this story.

Mary Sabina Stacey

The crane at quarry before restoration

Background Historical Information

The crane was built in the Newark works of Stothert and Pitt. It is manually operated and would lift 6 tons at a fixed radius of 15 feet. The king post, slewing frame and jib are supported by a large timber frame with four rail wheels at a gauge of over nine feet.

It has the number 57 which may be a quarry reference number. Regrettably much of S and P's paperwork archives have been lost owing to flooding and war damage and no precise date for manufacture has been found. However, the late David Pollard believed it to be in or close to 1864 and Hugh Torrens in his book *The Evolution of a Family Firm – Stothert and Pitt of Bath (1978)*, concluded that the crane was constructed between 1855 and 1883 and probably in the 1860s. "A crane of this type is shown in the 1885 S and P catalogue."

David Pollard stated that the crane was used to lift block stone from quarry trolleys on to Great Western Railway wagons at Pictors wharf, at the foot of Box Hill. The quarry trolleys ran on a tramway to the wharf up from Clift Quarry on Box Hill. Clift Quarry was opened in 1865 by Pictor and Son; it closed in 1968.

Around the time of WWII, the crane was bought by Hibbards for their saw mill at Biddestone in Wiltshire but they never used it. In the 1960s the Bath and Portland Stone Firm brought the crane back to Clift Quarry. It later resided in the garden of Dr Davey at Ashley where it was surveyed in the late 1970s. The crane was acquired by the Bath Stone Quarry Museum Trust in 1983 as it was believed to be the only one of its type to survive intact. It was relocated to the site of a quarry in Corsham.

To conserve and repair the crane to a high conservation standard the project team includes experienced engineers who worked at Stothert and Pitt, Peter Dunn and Arthur Feltham (both former S and P apprentices, commissioning and service engineers).

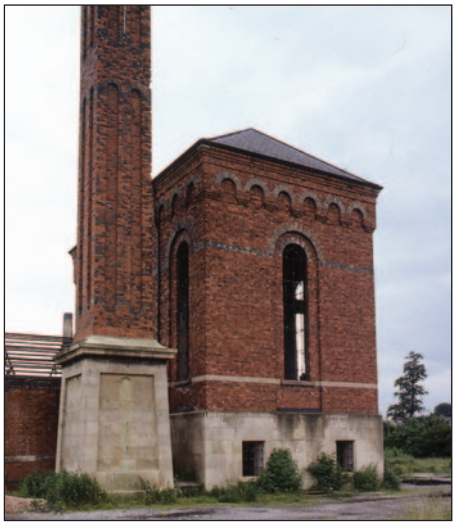
Kingpost and saddle cleaned and repainted

Industrial Buildings in the News

The Victorian Society's Top 10 Most Endangered Buildings list 2020 was published on 30 September. Usually, it does include at least one industrial building, but this year there are three and the AIA has links with them all. Two are brewing related and featured in our last two conferences: in 2019 the Somerset Conference's Tour I visited the Anglo Bavarian Brewery at Shepton Mallet, and in 2018 the Nottingham Conference's visit to Newark included a walk past the Maltings of Warwick and Richardson's Brewery on Northgate. The third site is the Bracebridge Pumping Station, Worksop, Nottinghamshire which was the subject of a listed building application in 2011 upon which the AIA made comments. The comments quoted are those of Griff Rhys Jones, the Victorian Society's President.

Amber Patrick,Planning Casework Officer

I will deal first with Bracebridge Pumping Station. The 2011 application was a renewal of an earlier one made in 2004. It was for the conversion of, and extension, to the Pumping Station to provide 24 flats. In the event it was for 23 flats (apartments) and an attached house. According to the Victorian Society's website it was offered for sale in 2018 when it was stated to have had a new roof. Here are some of my comments made in respect of the 2011 application.



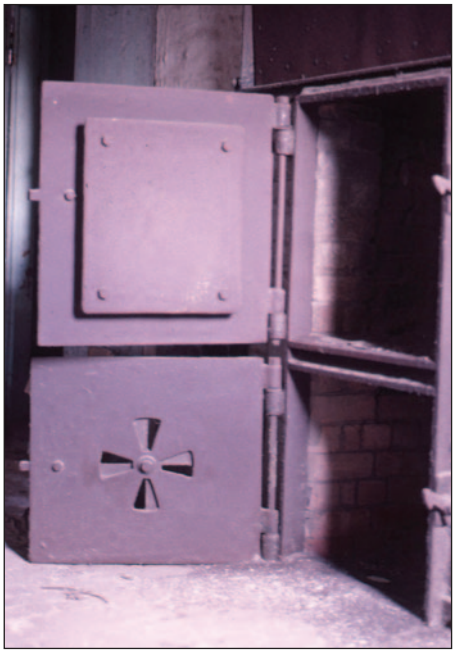
Bracebridge Pumping Station, Worksop, 1980
photo Amber Patrick

Bracebridge Pumping Station with its chimney, is a Grade II listed sewage pumping station of 1881 in an Italian Romanesque style. It is a red brick structure with a base of ashlar stone, and there are bands of decorative brickwork on the pump house and the chimney. The pumping station buildings originally extended further east but that section had been demolished. The building stands in open ground. It is a good example of industrial architecture and an important part of the town's industrial development and heritage. The conversion to residential surprisingly meant relatively little change to the appearance of the elevations. The original external west facing main entrance staircase was to be reinstated. Internally there were still some original features surviving, most notable the cast iron columns/arcade, although the original machinery had long since been removed (replaced by electric pumps). The Association was not against the conversion and extension and was keen to see that the pumping station and chimney come into use so that they may could be maintained in good condition and remain part of Worksop's industrial heritage. Sadly nothing has happened in the intervening years. My photos date from 1980 but a Google street view image taken in May 2019 shows not much has changed!

Warwick and Richardson Brewery Maltings , Newark 2017 *photo Amber Patrick*

Warwick and Richardson's Brewery Maltings is a site I have been involved with for many years and my last visit was in July 2019. It is also a building for which there have been applications for conversion although I have not commented on behalf of the AIA. It is a Grade II listed malthouse built in 1864, in semi-Grecian style. The malthouse has two sets of kilns, a barley kiln and two maltkilns at the opposite end of the building. The whole is constructed of red brick with slate roofs which appear to have been replaced in recent years. There is extensive brick decoration in the form of polychromatic brickwork – white bricks forming some cogging and dentil courses, and as segmental head to windows and bands between them, around the kiln apertures, and under some of the eves. It is a very attractive building and clearly as the *Newark Advertiser* reported no expense had been spared. At least one tie bar boss and some columns are stamped W Nicholson Trent Works Newark. The barley kiln is adjacent to the steeps and next to those is the couch which is effectively a mezzanine floor at a level between the bottom, semi-basement and the upper germination floors which are laid with quarry tiles. The barley kiln had a simple open fire basket furnace. In contrast, the malt kilns, when they went out of use, had H. J. H. King enclosed furnaces. All three kilns were floored with Stanley Bros tiles. Photographs and a measured survey were carried out by the then RCHME in 1996.

The comments accompanying the Victorian Society entry say *"It is certainly unusual for a building to be empty for 54 years and still be with us. Today, very few malt houses survive unaltered."* These comments are appropriate as the two malthouses to the north suffered a common fate of being burnt down and the retail park now covers their sites. The brewery buildings to the east of the maltings have been reused/converted, in part to residential but with retail on the ground floor. When I first saw these



The Malt Kiln

Anglo Bavarian Brewery, Shepton Mallet in 2012 *photo Mary Miles*

in the spring of 2017 all the units were occupied but even by 2018 it was clear they were no longer successful. Reusing/converting the maltings will be a problem if many features are to be retained.

The last site, the Anglo Bavarian Brewery at Shepton Mallet was visited as one of the tours of last year's (2019) annual conference. The visit was arranged by Mary Miles and by permission of the owners, J. H. Haskins & Son Ltd. The Brewery was built in 1864 and extended in 1872. It is Grade II* listed. It is built of coursed limestone with ashlar dressings in an Italianate style. Full details of its history are to be found in Mary Miles's *Perfectly Pure – A Directory of Somerset Brewers excluding old North Somerset* published in 2007 by the Brewery History Society. It also featured in Alfred Barnard's *The Noted Breweries of Great Britain and Ireland 1889-1891*, Volume 2 page 256 et seq, The brewery was producing light sparkling English ales which had good keeping properties, although it was suggested that they were German or Lager beers, which is still what is referred to on the Victorian Society's entry. The brewery used improved methods of production and often employed the latest idea including a laboratory and electric light in 1889.The First World War meant the brewery lost its export business and closed in 1921 and all the brewing equipment was removed. In 1927 the Anglo Cyder mills produced cider there but that was short lived as was a brewing venture in 1935. In 1939 the site was requisitioned by the Air Ministry. After World War Two it became the Anglo Trading Estate. Now only some of the buildings are partly used. The surviving buildings besides the Brewery include two malthouses, offices and a gatehouse with a clock.

The Victorian Society comments included: *"I hope heritage loving small businesses will now seek out space at the brewery after seeing it highlighted."* With a further comment: *"perhaps more local brewers or a group of brewers could return to this landmark building"*!There is certainly plenty of space to be reused and rather less in the way of restrictions because the original brewing equipment has long since been removed.

It is pleasing that so many industrial buildings have featured in the Victorian Society's Top 10 but is certainly a reflection on the difficulty or maintaining and reusing industrial buildings especially if they are to retain original features and use difficult spaces. Some of the comments of Joe O'Donnell, Victorian Society Director are particularly relevant in the current Covid-19 crisis. They include: *"This year we've all faced huge social and economic challenges that will have a lasting impact."* and *"Finding new uses for these wonderful Victorian and Edwardian buildings is important not just because of their architectural merit, but also to keep a sense of place and local identity. Looking after the buildings we already have, rather than wastefully knocking them down, should be central to a green recovery from Covid-19."* Unfortunately much of my casework is objecting to the demolition of industrial buildings. It would certainly be good if Joe O'Donnell's comments on such buildings being central to a green recovery was more recognised.

Merseyside Industrial Heritage Society

The MIHS has passed a notable milestone with the publication of the 400th edition of their Newsletter in their 56th year. The President of the AIA – Professor Marilyn Palmer MBE wrote to express well deserved congratulations.

'The Association for Industrial Archaeology would like to congratulate MIHS and their current Editor on the 400th issue of their Newsletter! This is a great achievement and I look forward to reading it.

I remember the earlier incarnation of MIHS as the North-West Society for Industrial Archaeology & History and knew some of its early members well – John Crompton, for example. I think NWSIAH was founded in 1966, at a time when many local societies were being established everywhere – AIA did not really come into being until 1973 and I have just spoken to the 50th anniversary meeting of the Leicestershire Industrial History Society, my own local group.

I first joined AIA Council as the Local Societies Officer and so got to know many local groups very well. It has been said that industrial archaeology has had its day, but I think all these anniversaries disprove that and show that the study of industrial heritage and industrial archaeology is still flourishing at both the local and national levels – and, indeed, international – we are finding that articles from *Industrial Archaeology Review* are being downloaded in increasing numbers all round the world.

2020 was, of course, to be the year in which AIA was to be hosted for its Annual Conference by MIHS in Hope University in Liverpool. The presentations given to delegates at last year's conference in Bridgwater by Anna Alexander and Malcolm Verity really whetted our appetites and we were all looking forward to it. Sadly, Covid-19 intervened, and such large meetings are not possible at the moment – however, we certainly hope to be with you in August 2021.'

VAT cut needed to spur Restoration

The Green Alliance has published a new report on **Improving the environmental and social impact of UK VAT**. The report states that under the current tax system, demolition is encouraged over restoration. We are pleased to see organisations across the sector and beyond make the case for #CutTheVAT

VISIT THE AIA WEBSITE

www.industrial-archaeology.org

Recent discoveries on a Dorset estate

It is exciting to report the 'discovery' of a new site of industrial interest, abandoned and lost for half a century in a rural corner of Dorset. In late February, not long before the Covid-19 lockdown, experts from Hampshire to Cornwall were kindly invited by owner Mark Constantine to visit the Carey estate to share their views on some of the high quality structures which have emerged from the undergrowth over the last two years.

Peter Stanier

Carey estate walled garden office *photo Peter Stanier*

The Carey estate lies in the lower Piddle valley near Wareham, Dorset, and a small waterwheel, pumphouse and substantial brick-walled garden are the main surprises to have been revealed virtually intact after the clearance of dense trees and laurel.The small overshot iron waterwheel 5ft 2ins diameter x 6ft 2ins wide (1.5m x 1.8m) is largely undamaged although the buckets have corroded away. The wheel and its iron launder each bear the name MUNDEN, ARMFIELD & CO. RINGWOOD, which dates them to the very short period c1875-85 when William Munden and Joseph Armfield were partners before the latter took over to create the firm which became the renowned turbine manufacturer J.J. Armfield & Co. Ltd. The waterwheel took power from the North Stream, a broad leat which runs past the site. Beside it is a small pumphouse with brick walls under a tiled roof, containing a much corroded pump manufactured by Hamworthy Engineering of Poole. Opposite is a brick-lined well, next to which yellow brick steps (stamped 'FIRE') descend to a round basin edged with tile and stone in front of the wheel and pumphouse. At one side is a workable sluice, intended to flush out the basin, with the water discharging under the wheel into a brick tailrace tunnel beneath the North Stream.

Ordnance Survey maps name a hydraulic ram here in 1900 but a waterwheel by 1926. This suggests the ram was not too successful and it was replaced by the second-hand waterwheel to work a new Hamworthy pump installed in the pumphouse. It is believed to have pumped fresh well water up to a reservoir higher up the slope for supplying the house and various garden ponds. A circular tank marked on OS maps is now evidenced now by a hollow under the trees. The waterwheel, pumphouse and basin were functional and decorative, most fitting for an estate of the late 19th and early 20th centuries, where they could be admired by the owners and their guests. Two hydraulic rams partly hidden in a chamber elsewhere (presumably part of the 1920s improvements) include a Green & Carter 'Vulcan' ram which is known to have been installed in 1928 and is still working.

The wide valley floor of the River Piddle has numerous water courses and channels which once served water meadow systems. The North Stream leat, which fed the waterwheel, first flows under the low three-arched 'Cow Bridge', built of brick and surely part of the model estate, while an overflow channel features artificial stepping stones and a cascade. . A rebuilt stone bridge with a concrete arch crosses the fast-flowing channel, where a Lott & Walne iron sluice was probably installed in the 1920s. The whole structure incorporates stones which appear to be the cut-waters from an earlier sluice. A dressed stone carved 'DB 1722' would fit with probable eighteenth century improvements and developments in the water meadows.

Pride of place is the large walled garden, which is now under restoration, having been completely abandoned and overgrown. It was shown already present on the Ordnance Survey map of 1886, of irregular shape and open to the south. Seen in plan, one section of the main wall has a subtle curve. The brick walls are curious, with the bricks laid on their edge in a form of English garden wall bond, and the header courses with regular batches of darker colours. More

Concrete dairy house and railings *photo Peter Stanier*

unusual, the inner and outer walls enclose a concrete core which is exposed at the top where it curves inwards to form an overhang which is capped with tiles. The decorative entrance is all in brick, and the wall incorporates a small rounded room which might have been the head gardener's office, with spaces for shelves for seeds, etc. Unfortunately, it is not known if the bricks were made at one of the many local brickworks around Wareham and Poole because the few bricks seen stamped 'CLAYTON & CO. PATENT' only indicate the type of brick-making machines employed. The use of concrete could be an early example of experimenting with this material, and it may be relevant that a cement works at Ridge near Wareham, was taken over in 1879 by Thomas Page Powell who was keen to develop his business.

In later years, the walled garden was used for keeping livestock, and adjacent to the south boundary is a dairy building with walls of shuttered concrete, apparently built in the Second World War probably for hand-milking. The structure is mainly intact with some equipment inside and provides a good example of a milking parlour of the period. The name Woolley & Co Tamworth on the dairy equipment might not be original.

The original purpose of the walled garden is obscure since it was relatively isolated when constructed. The nearby Garden Cottage, marked and named on the 1886 Ordnance Survey map, was not inhabited by the main family until it was enlarged and renamed Carey House in the 1920s. Garden Cottage is built of brick and tile with numerous decorative details, such as columns and even a bird hand-painted on four tiles high up on a gable. Like the walled garden, the house appears like an advertisement for the varied products of a brick and tile works. The estate was owned by the Sturdy family, who enlarged the house in the Arts and Crafts style in the early 1920s, using stone and timber, and presumably at the time the waterwheel was being installed as part of a grand make-over on the estate.

Brickwork and tile detail *photo Peter Stanier*

Granite on the roll

The granite roll before removal

This formidable granite roll from the Inverurie Paper Mill is being donated by the former owners of Thomas Tait and Sons Ltd, which closed in 2009.

The 50 ton roll was installed in a new machine – called PM4 – as part of a £22.5 million investment by the mill in 1985. It was used to squeeze water out of the paper at the early stages of production on the machine which, at the time, was the biggest of its type in the UK.

PM4 was originally destined for Iran, but the impact of the Iranian Revolution left the German manufacturer with a 'redundant' machine. That was the opportunity for Thomas Tait to purchase it and bring it to Inverurie to create business communication and fine copier papers.

At the height of its production, the roll played its part in producing 3,000ft of 272 inch-wide paper every minute.

Thomas Tait explained, "The granite roll was decommissioned in 2004 when it was replaced with a silicone-coated steel roll and it has been at Kirkwood Commercial Park in Inverurie, waiting for a new purpose ever since. "It is our understanding that our PM4 is still producing paper in Russia, which then sends back material to Britain – which seems a bit ironic."

Time has not erased the influence which this place had on so many families or diminished the memories of Mr Tait whose connections with the mill stretch back almost 70 years: "When I started in the 1970s, we were producing around 10,000 tons of paper every year, but the demand kept increasing and that figure had risen to 250,000 tons by the time I retired, which led to us employing more people and sending paper to all parts of the globe".

Thomas Tait and Sons Ltd was launched by his five times great grandfather in 1852.

"In 1994, the mill employed 510 people, who worked in shifts for 365 days a year, for 24 hours a day with five different crews. "It was horrendous for me and my family when the plant closed and we knew what the consequences would be for the staff who had done a terrific job for us for so long. It was a tough time, and people have had to be imaginative to create new sources of employment which is one of the reasons why the Garioch Heritage Centre is so important."

Information from the Aberdeen Evening Express, Neil Drysdale 4 September

James Horsfall

A blue plaque has been unveiled to honour nineteenth century industrialist James Horsfall

His inventions for Webster & Horsfall in Birmingham profoundly influenced the progress of the Industrial Revolution. The company manufactured all the wire for the first successful Trans-Atlantic telegraph cable in 1866 and his patent steel wire made the internal combustion engine a reality and cables strong enough for deep cast mining are still manufactured by Webster & Horsfall today.

The plaque, was unveiled by The Bishop of Aston, The Rt Rev Anne Hollingshurst, and Charles Horsfall, chairman of Webster & Horsfall and a direct descendant of James. The ceremony – part of Heritage Week, took place outside St Cyprian's Church, Hay Mills. The church was built by James Horsfall in 1870 for the benefit and wellbeing of his workforce.

Charles Horsfall, in unveiling the plaque, said: "I am extremely proud to be here today to unveil this plaque to my great-great-grandfather. At last we are able to give him the recognition he justly deserves for his extraordinary achievements. Webster & Horsfall is located at Hay Mills and is one of Birmingham's oldest surviving companies. This year, the company is celebrating 300 years.

200th Anniversary story of Lancashire Loom and Machine Makers, John Pilling & Sons
Hand-looms, Dandy-looms, Power-looms & Mill Engineering in East Lancashire – part 3

The Great War, research, development and takeovers in the depression, WW2 munitions, parts and parachutes, postwar export, more R&D and reorganisation

Anthony Pilling

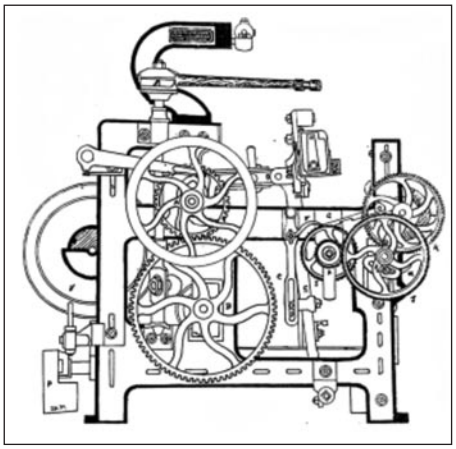
In 1914 the cotton boom was at its height in East Lancashire. New mills were under construction and many more were being planned. Established manufacturers had extended their existing premises, some like Marsden Mill, Nelson, had literally doubled in size completing a second 1350 loom mill for its room and power tenants in 1912. Many Pilling loom customers, James Nelson, Joseph Sunderland, Hendon Manufacturing, Thomas Mason, William Ecroyd etc. were expanding their own mill premises or renewing their looms. In the Nelson and Colne district alone, between 1911 and 1914 demand for new power looms averaged 5000 per year. The total home market was much larger than this, and shared by other loom makers though John Pilling and Sons had the lion's share of the local trade and designed looms especially for it. Nevertheless hundreds of worsted looms were sold to Yorkshire Mills and to de laine manufacturer, William Ecroyd in Nelson as well as Jacquard looms for silk and cotton. However, the home market was by this time dwarfed by export demand from Holland, France, Portugal, India and elsewhere, which the company serviced through their agents in Manchester, Enschede, and Oporto.

Primet Foundry was producing about 3100 new looms a year for the continuing mill building boom at home and abroad, as well as supplying millwrighting components for local mills. Furthermore, weaving manufacturers needed engineering parts and adjustments each time their customers ordered a new weave design. Each different cloth density would require a hundred new pick wheel gears for each hundred looms involved. More complex weaves need twill shedding motions, dobbies, Jacquards and sometimes dropbox or circular box upgrades to work multiple shuttles. Additionally thousands of heavily used 50 year old machines require ongoing renewal of thousands of worn bearings, sleys and cams.

The Great War

John Anthony Pilling had retired a few years before the outbreak of war so his younger brothers, Frank James who became MD and Sydney Preston Pilling as Company Secretary ran the firm. The works was running at maximum capacity, capable of producing up to 8 tons of iron parts an hour from 2 cupolas melting alternately, not to mention the steel crank shafts and rods, brass big end bearings, wrot iron straps, hickory picking sticks, baywood sleys, fitted leathers and mill gearing etc.

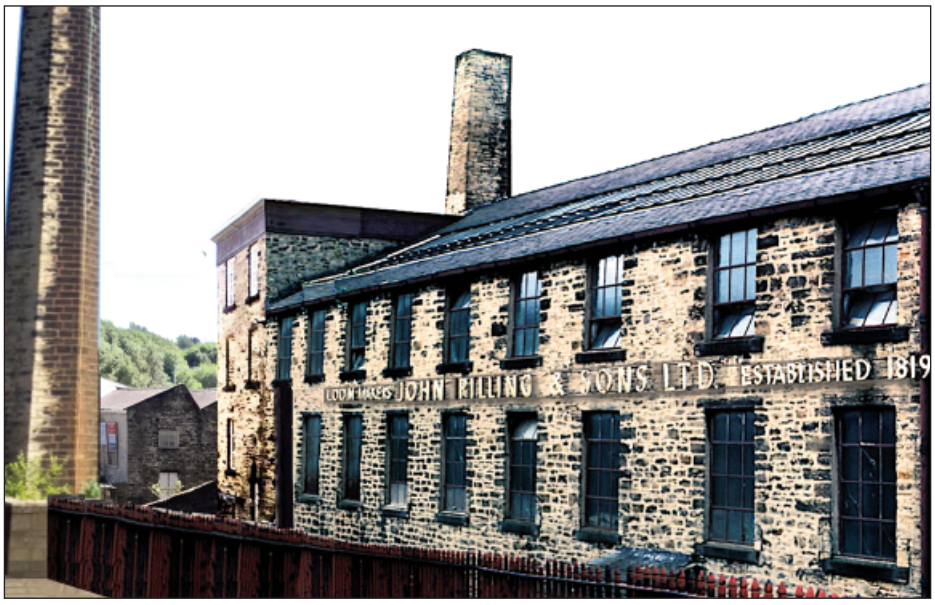
Suddenly as hostilities commenced, new build mill projects were put on hold and men were sent overseas or to shipyards to fit out battleships. However, cloth for tents, uniforms, towels, bedding, bandages, wagon canvas, gun cleaning cloths, balloon and aircraft fabrics were vital war supplies – so loom production continued at a reduced level, adapted to deliver to these wartime specifications. The loss of a proportion of the skilled workforce from the textile industry led to more cooperation with the weaving masters at local Municipal Technical Schools to publish enlarged editions of classic City and Guilds coursework texts by James Holmes and J Wilkinson in 1914 and by William Wilkinson in 1915 to train new people – as well as advertise Pilling Looms.



The John Pilling single shuttle loom for plain weave, illustrated in James Holmes' weaving course of 1914, gives no trade secrets away. It illustrates an out of date 'old cotton loom' with 5 wheel cloth take up and the 'big gears' mounted at the opposite end from the drive pulley. This increases mechanical flexibility but puts twice the load and all the picking shocks through the crankshaft. The current design actually eliminated that fatigue problem, had more resilient gear spokes and the easy to adjust 7 wheel Pickles cloth take up motion.

The reduction in new loom production released foundry and machine shop capacity which was fully utilised throughout the war for the manufacture of countless 18 pounder artillery shells and mortar rounds, sent by rail to ROD explosives factories and on to the front lines.

Unfortunately, during the war the two 150hp vertical gas engines driving Pilling's adjoining Riverside weaving mill proved to be unreliable. In 1918 a larger boiler with 100ft chimney and ready to run 300hp tandem compound steam engine were urgently installed to maintain wartime cloth production. Made in 1903 at Thomas Broadbent's Central Ironworks, Huddersfield and no longer required for Crowther's mill at Slaithwaite, this engine was installed by EA Foulds of Colne to run at 85rpm and drove approximately 500 looms and a 47KW alternator until the mill wove out half a century later.



The original 1849 Primet Foundry Machine Shop building with Joinery, Fitting, Assembly shops and steam plant. In 1980 it still declares the date the firm was established in Trawden to make dandy handlooms and timber framed power looms.

Research, Development and Takeover

After the armistice it was clear that times had changed. By its centenary in 1919 the firm of John Pilling and Sons had played its part in bringing new inventions to bear and help make East Lancashire's textile revolution happen – from domestic handloom cloth production to a world

centre of power loom weaving. At the outbreak of the First World War the firm's 300 skilled men had achieved its peak output and developed fully automatic shuttle changing looms using the James Cowburn patents. From 1910 they were working with Peter James Terry on a cop-changing automatic. However, in 1919 new loom orders were at only 20% of their prewar level. It was clear that much research and development would be needed to revitalise the business but James and Sydney Pilling who had taken the firm through all the production changes necessary to deliver the wartime requirement, needed to retire. Having no successors within the family to take the firm forward they sold their controlling company shares to their business accountants, Proctor and Proctor who had majority interests in several local weaving companies and took over the challenge. The following year they moved Pilling's (1909) Ltd into room and power space at Vivary Bridge Mill on the other side of the railway, selling Riverside Mill (to purchase additional Pilling looms) to Radcliffe, Brown and Lancaster who also continued to buy John Pilling looms.

Proctor and Proctor appointed Lewis Barlow Smith (referred to by many as 'Captain Smith" after his WW1 rank) to take the company forward. He was a good choice, coming from a textile manufacturing background with one branch of his family, JR & A Smith, weaving at Manchester Mill in Preston who went on to order Pilling looms for their own shed, though later specialising in velvet fabrics as 'British Velvet'. He married into the Proctor family and in due course his son Lewis Proctor Smith inherited their John Pilling and Sons shares and those of all their room and power mill companies, which he ran from his Primet Foundry Loomworks office.

To address the huge drop in orders a strategy was put in place to understand the post war reality by reviewing the business, its methods, products, marketing contacts, client base and seeking technical research and development opportunities. A loose leaf catalogue 'Pilling Looms – Famous for Over a Century' was urgently produced in 1920 with photographs of the latest production looms as well as the 1895 catalogue engravings to illustrate the still popular standard models, which continued to be ordered by customers for the next 57 years.

Next a 1920 Spare Part Catalogue was published reusing fifty 1895 plates and schedules with just five new ones – a new frontispiece photograph of the 1919 heavy plain calico dobby loom and two new pages of numbered parts photographs each with cross referenced schedules for the old Eccles drop box motion and Pilling towel loom motion parts. In new covers a few thousand of these very quickly produced catalogues were issued to all overseas agents, current and prospective customers and used until the end of new loom production in 1977.

Areas for technical research were identified and included the need to develop the automatic cop-changing loom, as customers were not ordering the shuttle changing automatic looms. Also a gap in the market was noted for development of specialist looms for more

Loose-leaf catalogue cover with the latest current model on the front, a 4 shuttle silk overpick for dobby or Jacquard.

complex multi shuttle weaves especially in fine cotton and silk yarns for which Northrop automatic looms were less competitive. They also saw a need for an automatic weft cop changing system that could be applied to existing overpick looms and realised that they needed a more robust multi pattern cylinder dobby design and more efficient multi shuttle drop box motions that could work with pick and pick weft insertion. (Pick and pick looms allow single picks of different wefts to be inserted into intricate weaves by the use of coordinated multi shuttle drop boxes to ensure each shuttle always has an empty shuttle box to enter!) The firm actively followed up all possible research leads, promising inventors and new patents that might benefit the product range.

The first opportunity was taken to advertise internationally at the 1922 Tokyo International Exhibition with a 5 tread undertwill overpick loom that had been a mainstay of the war effort, capable, with minor adjustment, of reliably producing mile upon mile of plain, twill or sateen fabrics in cotton, worsted, linen, silk or union yarns. The 1924/25 Wembley Exhibition provided an even better platform and John Pilling and Sons won a medal for their dobby loom exhibits on stand K355 (A).

Management systems within the works followed an established effective but laborious system developed from 1874. Different ledgers tracked, cross-referenced and analysed all aspects of the business. Loom Books recorded every loom specification ordered, Waste Books picked up every daily transaction in or out including payments and wages so that all expenditure or income could be transferred to the Sales/ Expenditure and Analysis ledgers to also track materials, consumables, bought in items, transport, fuel and equipment costs. Shop foremen kept a daily record of each man's time spent on every task, which transferred to the Wages ledger via a time taken schedule. This schedule recorded 'standard time' for every task which was the rate charged to the customer being equal to the time a competent apprentice would take, the next column recorded 'actual time' which a skilled man would always do more quickly, the difference being reflected in his bonus and the company's profit. In addition to this were the commercially sensitive Director's Minutes, Private Ledger and Bank Books.

All of this was handwritten into huge books, only random selections of which survive. The biggest challenge was the time and accuracy required in copy writing every loom specification for each Shop Foreman to deliver each order with precision.

Copies were needed for Foundry, Blacksmith, Machine Shop, Fitting/Assembly shop, Joiners, Slay shop, Dobby shop and after WW1 the Electricians' shop – 9 copies including the original in the Loom Book! Captain Smith introduced the latest technology – a Gestetner duplicator with stencils into which the specification could be typed. These could be duplicated 9 times in less than a minute onto pre printed specification sheets for record, copy and distribution.

The firm developed the practical application of the Whittaker weft replenishment attachment with the Whittaker Automatic Loom Company and in August 1924 – before the patent application date – the Shop Foremen received the specifications to make 4 fully automatic Pilling-Whittaker cop-changing overpick looms. They completed left and right hand fully automatic looms of two popular types, an outside treading pair of 5 shaft crossrod twill/sateen looms having 2 inside cams for plain weave, and a pair of Dobby looms also with 2 inside plain weave cams. Two, one of each type, were delivered to the Whittaker Automatic Loom Co in Preston and the remaining two to John Pilling & Sons' showroom adjoining Riverside Mill. These used the Northrop under pick principle which was by then out of patent, but had a 'Z' shaped magazine design suitable for both over and under pick looms. Unfortunately for Pillings, this resulted in business to retrofit Whittaker attachments to existing looms rather than orders for new automatic looms.

By 1924 a number of textile firms were in difficulties. JPS Ltd took over Hill & Sons' range of Keighley dobbies ('the original inventors of the dobby' who originally worked with Hattersley's who make the same claim). These dobbies could be made for narrow and medium widths of loom to lift from 8 to 40 shafts, though most were made for 16, 20 and 24 shafts. They could be made with 1 or 2 pattern cylinders and for 3 cylinders with a 4th dobby control cylinder for fancy weaves, cross borders, fringes, etc. Spare dobby shafts could be programmed using pegs to control shuttle drop box selection, pick and pick motions, cramming, fringing, loop pile reed setback and border weighting motions for Terry toweling. They had special large diameter bearings to reduce wear and retain lubricant and were just the reliable robust quality design the firm had sought and had already been purchasing for their customers.

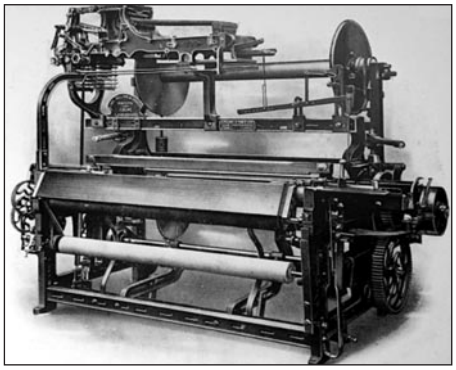
The New Silk and Towel Looms 1925

In 1924 Ernest Heyworth joined Pilling's from Smith Bros, loom makers in Heywood near Bury to further develop joint dropbox patents for multi shuttle looms including the 6x6 and 4x4 dropbox, pick and pick with silk take up and 3+1 cylinder dobby motions for the new silk and towel looms, as well as the 4x1 dropbox 3+1 cylinder dobby

terry towelling loom designs with fringing, cramming and cross border weighting motions. Pillings continued to work amicably with Smith Bros and fitted their improved drop box motions and sleys onto Smith – Pilling silk looms which Smiths advertised as such in their catalogues.

New Drop Box Motions 1924/28

Artificial silk availability opened a market for silk and crepe dropbox looms, which Pillings were quick to spot and develop. In particular crepe



Pilling - Hill 2 cylinder cross border Nelson double lift Dobby controlling a John Pilling overpick Turkish towel loom

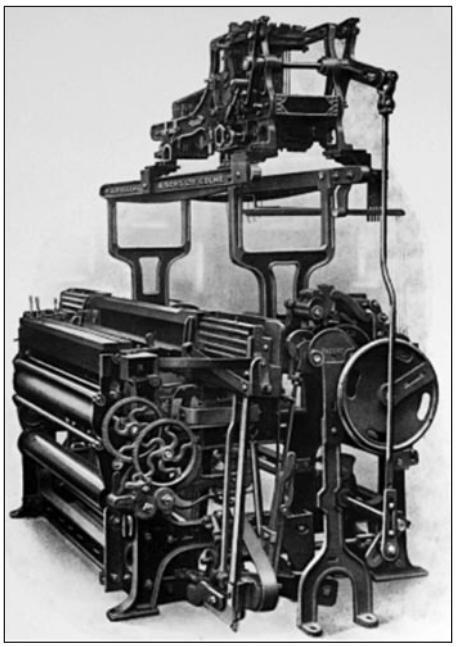
fabrics require two shuttles to alternately insert weft spun with opposite twist (Z & S).

Because the Heyworth drop box motions are eccentric driven they can be set to oscillate causing two shuttles to be picked alternately across the loom. It was realised that this idea could be applied to three new, different types of simplified, robust, low cost 2 box weft mixer loom motions to produce crepes, checks or plain weft fabrics at high efficiency. One type could be programmed by dobby or punched metal cards or set to oscillate, the second was cam driven with change gears to select oscillating or equal checks or plain weft and the third oscillating only, driven by a very robust low shaft eccentric. These looms could all weave crepe fabric with alternate 'S' spun and 'Z' spun yarn or alternatively mixed cotton and manmade yarns in the shuttles or just plain weft by having the same weft in each shuttle. The change wheel type could also weave a standard check while the programmable type could weave any size of check or squared or weft striped pattern. They could all be applied to looms having plain, twill, dobby or Jacquard shedding. These John Pilling & Sons – Ernest Heyworth 2x1 dropbox weft mixer designs were patented.

The newly developed 6x6 and 4x4 patented pick and pick dropbox motions worked well with the new Pilling – Hill 24 shaft dobbies strengthened with heavier frames suitable for up to 3 pattern cylinders selected by a fourth, control cylinder. Combined with a new, accurate fine silk take-up motion, the 'New Silk Loom' was a refined product that had been thoroughly tested in the showroom shed at Primet Foundry. Announced by being published with a favourable review and large photograph in the Silk and Rayon Journal the 'New Silk' multi shuttle pick and pick silk & crepe loom design suitable for dobby or Jacquard shedding, was very well received and produced in large numbers.

Pilling - Terry Automatic Cop Changing Looms 1926/29

More R&D was undertaken with Peter James Terry to develop his automatic loom patent into a motion with distinct advantages over the Northrop system. Terry's 1926/28 Automatic Loom patents uniquely had the cop transfer hammer moving with the sley, which increased the available transfer time. This not only allowed looms to run faster than the Northrop equivalent, it reduced the force that needed to be applied to



The photograph published in the 1925 Silk and Rayon Journal of the New Silk Loom, an underpick dobby loom with special silk take up motion and 4 shuttle drop-boxes both sides (4x4) for pick and pick weaving. It was also available with two 6 shuttle drop boxes (6x6) and also with 2 or 3 +1 cylinder Pilling-Hill dobbies.

the cop to complete the transfer. However, as patented with vertical magazine above the shuttle, like the Northrop, it was only suitable for underpick looms. By 1929 John Pilling & Sons Ltd had produced the first Automatic Pilling-Terry universal cop-changing system for either underpick or overpick Lancashire looms, with a large 'C' shaped weft pirn/cop magazine that cleared overpicking sticks and increased cop storage capacity.

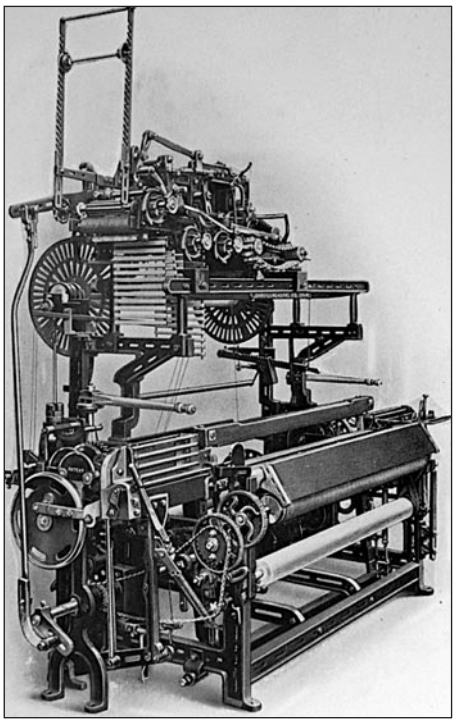
Surviving the Depression

Two of the latest prototype Pilling looms won medals at the 1930 Enschede International Exhibition in Holland - a major export destination for the Low Countries and Northern France. These were the fully automatic cop-changing Pilling/Terry plain overpick loom with Mather and Platt automatic warp stop motion which was demonstrated alongside a 2 shuttle drop box Pilling/Heyworth weft-mixing silk underpick crepe loom with 8 shaft crossrod shedding and separate selvedge motions.

This promise added to the success of the versatile 'New Silk' loom design introduced in 1925 and resulted in large orders for silk weft mixer looms because of the popularity of low cost artificial silk yarns. Made by chemical processing from wood pulp, 'Celanese' yarns by British Celanese of Sponden (Derby) together with 'Lustrafill' and 'Lansil' (Lancaster Silk) yarns from James Nelson of Nelson and Lancaster were fashionable yet affordable silk substitutes. British Celanese alone ordered well over 1000 machines in the late 1920s and 30s while James Nelson's ordered several hundreds of new looms for their fine silk substitutes. Loom Book 7 was opened specifically for the volume of new exports to Portugal via agents, Spratley da Silva of Oporto.

Unfortunately at this time there was considerable union opposition to 'more looms working" by those manufacturers trying to introduce automatic looms, as that might mean half the number of weavers if demand for British cloth did not double. As a result there were only a few orders for the Pilling-Terry Automatic.

Eventually, the cloth manufacturers, after years of argument, got agreement to the use of Mather and Platt warp stop motions which convert Lancashire looms into 'semi automatics'



New Towel Loom with 6 shuttle dropbox one side (6x1) all motions, loop pile reed set back, cramming, fringing, auto weighting controlled by 3+1 cylinder dobby (also used with silk looms).

– looms that will stop if any single thread breaks or loses tension, but will not replenish the weft like a fully automatic loom. This compromise solution was cheaper in capital cost and was adopted by many mill companies including British Celanese and James Nelson. These silk orders together with those from other British mills and significant exports into Northern Europe via Enschede saved the firm from failure during the depression.

Exporting dobby makers, Richardson and Tuer, appointed to take over the agency work for John Pilling looms in India considerably increased sales of new looms and reprised the production of the old Eccles drop box motions used with R&T dobbies, so the company could even afford modest reinvestment into the Primet Foundry premises. In 1929, the original 1849 Machine Works two span roof with valley gutter was replaced by a single span roof with excellent new roof lights over the top floor joinery and patternmakers' shops. In 1930/1 a flying office for the Managing Director was built literally on top of the main gate and a drawing office added to the showroom and silk shed. The first motor lorry was purchased for deliveries and the stable converted to receive it by adding a minimal platform extension into the yard to only accommodate the rear end of its flatbed, being longer than the horse drawn lorry! A fuel tank and pump were also installed while the redundant hayloft became an overspill pattern store.

At the end of the 1930s, loom makers Hacking & Co of Bury finally succumbed to the depression. John Pilling and Sons took over their assets, modernised their cloth inspection, measuring and folding machines with a patented safety guarding system and manufactured this range of cloth plaiting machines for the next 30 years.

WW2 John Pilling and Sons (Munitions) Ltd 1940

During the first months of 'phoney' war up to the 1940 Dunkirk evacuation, loom production continued albeit at a reduced level, as textiles are such an essential military requirement for which the robust Pilling range of looms was well suited. With Japan having cut off the supply of natural silk, the artificial silk fabric capacity already created proved vital for parachute manufacture.

The Loomworks won the contract to refurbish 972,933 Great War grenades – mainly stored at the nearby Foulridge munitions dump where they had been deactivated. A former WW1 cordite site, it still had its own railway connection. Contracts for new ordnance quickly followed, so by December 1940 John Pilling & Sons (Munitions) Ltd was a registered company. The Silk Shop/Showroom and Collingwood Street timber storage premises were converted to 25 pounder shell machine shops for WW2. The grinding shops


April 23rd, 1941.

Order No.150.

LOST THROUGH ENEMY ACTION

An order for five 4x1 drop box dobby looms suitable for artificial silk, sunk by enemy action en route to Portugal.

4 inert JPS service grenades and below, 3 practice grenades, (with holes to avoid mistakes) the middle one sectioned at Primet foundry for instruction, the left hand one for rifle launching and that on the right for throwing.

and over-river store became grenade shops, with tank, aircraft and other military parts manufactured in the machine shops.

Munitions, parts and parachutes

502,450 new practice grenades and 2,265,000 new service grenades for action were made in the Foundry. Because practice grenades were to be thrown hundreds of times, the vulnerable tops of all JPS No36 grenade castings were reinforced, requiring more precise foundry work and making them unique. Other ordnance production included 25lb naval shells at the rate of more than 5000 a month for the duration of the war. Churchill tank wheel bearings and Halifax bomber engine mountings were also made for local armaments factories. From 1941 the whole works was working long hours on either Ministry of Supply contract production or war critical textile machines and parts especially silk looms for artificial silk parachutes, twill looms for uniforms, towel looms and wide double treading sheeting looms for lorry canvas, tents, inflatable rubberised cloths for barrage balloons, dinghies and decoy tanks. Board of Trade licences were granted for export of looms to friendly countries – some of which are recorded as 'sunk by enemy action' in the loom books.

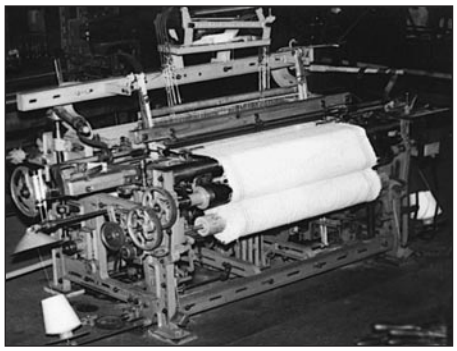
The Government Export Drive

After the massive war effort, much of the plant was worn out. Limited government recovery grant was available, provided it was used to build up export production. The shell shop was converted back to electric silk loom assembly. Electric drives, gears and clutches were designed in house and fitted to adapt and refurbish all the machine tools, smithy hearth and cupola blowers (iron melting furnaces). Once electrified, the steam engine was removed and the space opened up for finish grinding of large cast parts.

In 1947 an export packing shop was built over the machine shop extension. More looms were exported to India via Richardson and Tuer, to N Europe via Christiaan Janssen & Co Enschede, Holland, to Western Europe and Southern Europe and South America via Spratley Da Silva, Portugal, to Australia via Chemtex, etc. This combined with subsequent Textile Industry reorganisation acts in 1959 and 1963 plus overseas investment initiatives, including setting up mills in commonwealth countries, did nothing to slow the exporting of most of the Lancashire textile industry by the mid 1970s.

More R&D

JPS Ltd continued to look for new ways forward, in 1950 working to develop an effective continuous weft loom with Cyril Aspden of Colne, patentee of a projectile shuttle loom. By hooking directly onto a weft thread supply, the projectile shuttle eliminated the need for pirns at all, taking weft directly from pairs of massive 'cheese' wound cones. This allowed these Pilling looms to run all day without stopping and without the need to wind vast quantities of weft pirn cops. By 1954, Sulzer had perfected a high speed projectile loom with bullet sized shuttles that travelled in guides through a small warp shed opening which



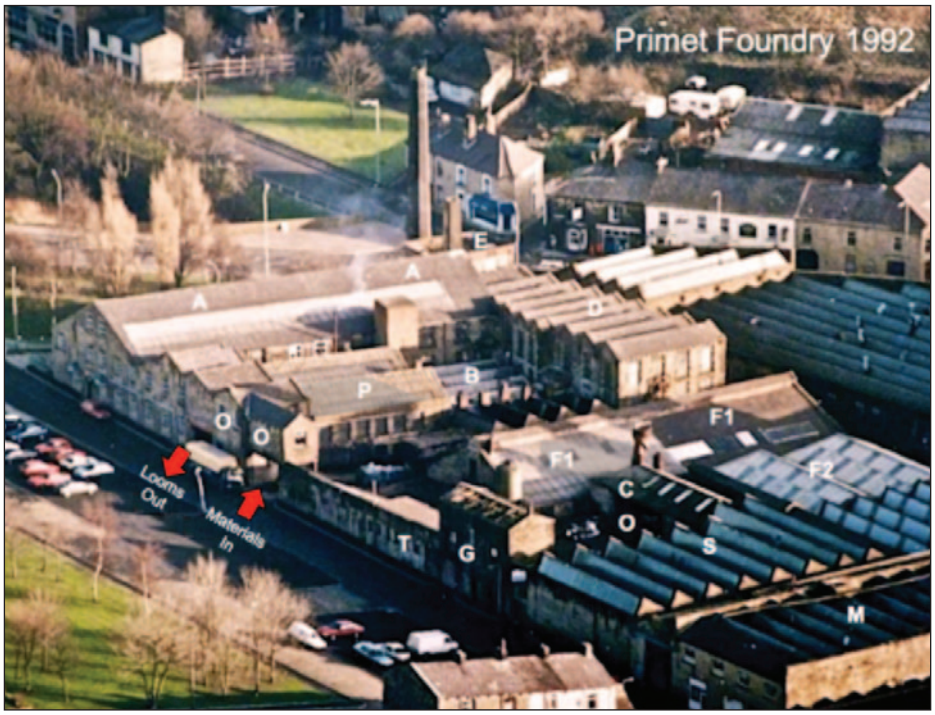
The Pilling-Aspden continuous weft Automatic – the most advanced Lancashire loom of all?

superseded the Pilling-Aspden design so yet again relatively few were made. Nevertheless in 1956 sets of Pilling fully automatic projectile shuttle continuous weft Turkish towelling looms were exported to Australia via Chemtex to Griffiths' in Melbourne.

With refinements in the 1960s such as the addition of centre weft forks, Mather and Platt warp stop motions and stop on pick brakes, many orders were for semi automatic looms. JPS Ltd had an agency for fitting Fischer sleys and pirn changing attachments to convert Lancashire looms to fully automatic operation which enabled firms with limited investment capital to compete with large Northrop equipped consortia.

Pilling looms were also used in connection with pneumatic picking experiments and with Professor Eric Laithwaite's electric linear motor shuttle projection in the hope of finding new efficiencies, but to no avail. In the event, bullet projectiles, rapiers, water and air jets proved to be the way ahead.

The last large order of 200 looms was delivered in 1974 to Stephen Cann Ltd in Burnley.



1849 Assembly Shops: 2nd Joinery & pattern shops, 1st Fitters' loom assembly shop, Gnd Machine shops, L Gnd Parts & Pattern store 1849 Beam Engine & Boiler. B – Blacksmiths – 7 Forges, plus Furnace. C – 2 Cupolas (Iron Furnaces). D – 2nd Dobby Sley & Electric Motor shops, 1880, 1st Paint shop & bolt store, Gnd Pattern stores fettling & grinding shops, 1857. E – Gnd Engine room for former 200hp tandem compound & generator 1904, Roof tank for Y&T boiler 1895. F1 – Foundry 1857, with sand stores and core oven, F2 – Foundry 1877, F3 – Foundry extended 1895, with Brass Foundry. G – Garage & pattern store, previously 1857 stable, hayloft & horse lurry store. M – 1st Mill – former bridge link to show room from Riverside Mill 1906, Gnd Riverside Mill Warehouse. O – Offices 1877 & 1930, Drawing Office c.1931 Adjacent Silk Shop. P – 1st Packing shop 1947, Gnd Machine shop extended 1895. S – Silk loom shop, former shell shop, R&D / Showroom c.1898. T – Timber saw pit 1857 original fire proof store, then from 1952 WCs

Reorganisation in a brave new world.

Mothballed as a loom works, in 1977 most of the workforce was made redundant with a skeleton staff retained to run one third of the foundry and skeleton machine shops as a spare parts business for any make of Lancashire or Northrop Automatic Looms. Continuing as jobbing founders and engineering machinists, JPS Ltd ran their portfolio of Mill premises and Shed Companies, which were still rented to textile and other businesses from their Primet Foundry head office. The mills included: Nelson – Marsden No1 and No2 Mills rented to an Irish carpet company; Earby – Brook Shed, Victoria Mill and its separate Victoria Shed let to Johnson and Johnson for weaving medical fabrics on imported air jet looms; Earby – Albion Mill let for storage units; Kelbrook – Sough Bridge Mill let as manufacturing units.

The foundry was let to C&M Marshall iron founders in 1981 (Clive Marshall joined JPS in 1942 worked in various departments and the drawing office before becoming works manager). Simpsons Furniture manufacturers occupied the machine shops, East Lancashire Automatics, a machining firm operated in the silk shop and JPS Ltd moved its head office to the Proctor and Proctor offices at No.1, Carr Road Nelson from which Lewis Proctor Smith managed the mill premises, with a maintenance depot in the former engine house at Brook Shed, Earby.

Primet Foundry was subdivided and sold to its tenants between 1990 and 1996 The iron foundry itself was taken over by P & H Castings, iron and aluminium founders, and the silk shop by Trojan, hydraulic plant engineers, with Simpsons Furniture Makers purchasing the Machine shops. John Pilling and Son Ltd was wound up at Companies House in 2005 by Lewis Proctor Smith, who sadly passed away in 2006.

'Pilling Looms' continues as a Mill, Machinery and Power consultancy to support mill engine, water power and mill heritage charities, textile museums and small textile related start up businesses. It carries out historical research, advises Museums, Trusts and English Heritage on conserving mills, looms and mill steam engines including returning them to working order.

The sun sets in 1980 on Primet Foundry's dobby, sley, joinery, machine and assembly shops beyond the railway arches.

Acknowledgements: Lancashire Mills Study steering group discussions with Ian Miller and the assistance of Ian Gibson have been much appreciated. Access, documents, photographs and artifacts were generously made available by Clive Marshall, Steve and Phil Simpson Jeff Pedder and Joe Emmott.

Sources include: Rothwell M – A Guide to the Industrial Archaeology of Colne, Trawden and Foulridge, 2015; G Shackleton, 2006, The Textile Mills of Pendle and their Steam Engines;; The Author's collection of John Pilling & Sons Looms, Loom Books 4, 5, 6 & 7, Works ledgers, photographs, drawings and documents. Original works drawings and documents from Lewis Proctor Smith; Company Director's Minutes and documents from Mrs. Margaret Smith. Information and photograph from Conrad Varley. All illustrations are from the author's collection.

Teeside icon

Engineers have carried out initial inspections on an iconic piece of Teesside's skyline as a battle to save it continues. Built between 1953-56, the tower was first used to store coal for the coke process.

It has been disused for decades - but its brutalist appearance on the skyline is a striking reminder of the thousands of Teesside men and women who worked there day and night.

The MP for Redcar, Jacob Young has pressed the case for preserving the tower with the chair of the South Tees Development Corporation, Tees Valley Mayor Ben Houchen.

Mr Young said, "Decades ago Cleveland Bridge merged with Dorman Long, so it was great to invite them back on site to take a look at this iconic building and assess its structural integrity.

Mr Houchen said, "I recognise that the tower is a defining feature of the Teesside skyline that means a great deal to a lot of people, including Jacob himself. It is important to note that the £150 million programme of demolition work across the Teesworks site – including the Redcar Blast Furnace and Coke Ovens –does not include the Dorman Long tower, and the future of it will be discussed as part of the on-going consultation for the site".

Information from the Teeside Gazette

The Dorman Long tower painting hanging in Jacob Young MP's office

The Faraday Centre Napier New Zealand

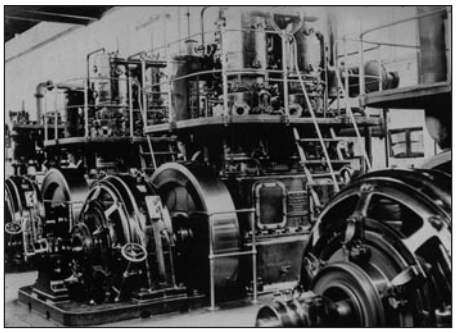
While on holiday in New Zealand in February of this year, my wife and I visited the Faraday Centre in Napier, otherwise known as the Hawke's Bay – East Coast Museum of Technology Centre. This fantastic museum is packed full of items with something to interest all ages.

Alain Foote

General view of the museum *photo Alain Foote*

The Faraday Centre began as the Hawke's Bay Museum of Technology in 1979. It is housed in a reinforced concrete building which was constructed in 1913 as a power station to provide electricity for Napier's trams. The power plant consisted of three Westinghouse 215 hp gas engines with 137kW, 460V DC generators. Producer gas for the engines was made on site from coal. In 1916 a 500V lead acid battery was installed which provided power for the town's lights after 11 pm, when the trams stopped running and the generating plant was shut down. The battery was recharged during the day.

In the early 1920s Napier began the change from DC to AC as a connection was expected to the National Grid, so they ordered a Diesel Generating Plant from the English Electric Company in Rugby, England.



Inside the power house in 1913

The plant supplied by English Electric was a 600 hp 4Q Fullagar diesel engine, manufactured in their Rugby works, coupled to a 3.3kV 500kVA alternator manufactured in English Electric's Stafford works. The Fullagar design is a two stroke Diesel engine with opposed pistons, which was patented by Hugh Francis Fullagar in 1909.

The plant was completed in 1925; however it was 21 April 1927 before it fully completed its commissioning trials. Only two months later on 1 July 1927, Napier began receiving power from the hydroelectric plant at Mangahao near Shannon, 200km south of Napier. This meant that the diesel engine became a standby unit which was only used when the hydro plant was unable to supply the demand.

At around 10:47 am on 3 February 1931 a 7.9 magnitude earthquake struck Napier. The Power Station building was badly damaged, but after the walls had been shored up, the Fullagar engine was able to supply power for the refugee camp which had been set up in Nelson Park. The battery bank mentioned earlier was totally destroyed in the earthquake, when the brick building housing it collapsed.

The English Electric generating plant was used as a standby up until 1970 when a major winding fault on the generator caused it to be shut down permanently, having operated for an estimated 27,000 hours.

Napier's Municipal Electricity Department planned to scrap the Fullagar engine in the 1970s, but it was saved by a group of enthusiasts and it is now the largest exhibit in the Museum. The engine is the third Fullagar engine to be constructed by the English Electric Company and is numbered IF 401. The engine at Napier is probably the best preserved Fullagar engine in the World. Others are still in situ underground in Gibraltar and also in an underground power station in Malta. The Napier engine is capable of being run but currently is not fitted with a silencer.

Although the Fullagar engine is the largest exhibit in the museum, there are a number of other items of interest. There is a collection of small stationary steam engines some of which can be steamed using steam from a small stationary boiler.

In addition to these, the museum also has displays relating to shops and services, as well as to communications and there are examples of early domestic appliances and methods of transportation. Many of the exhibits are interactive and so suitable for younger visitors.

When visiting Napier it is also worth seeing the post-earthquake Art Deco style buildings. Most were constructed from reinforced concrete in order to better withstand earthquakes, they were also cheap to build.

600hp Fullagar engine *photo Alain Foote*

George Stephenson, Coal from Snibston and Coal to Power Stations

Coalville is a town in West Leicestershire with a population of 35,000. Before the coming of the railways Coalville as a place hardly existed and the name Coalville did not come into use until then.

Robert Carr

To the north and northeast of what is now Coalville, exposed coal measures in the Swannington and Coleorton areas have been worked from the beginning of the thirteenth century. Adits, bell pits, and pillar & stall techniques have been in use and longwall mining took place in the area from a surprisingly early date. Before the canal age coal was sent to Leicester by pack horse, and later by horse and cart, but from 1778 improvements in inland navigation allowed water-borne coal from the Notts-Derby coalfield to reach Loughborough and later Leicester.

To counter this influx of cheaper coal into Leicestershire the Charnwood Forest Canal was built. This involved a horse-drawn plateway system linking the Coleorton and Swannington areas to the west end of the Canal at Thringstone, which then ran about 7 ½ miles eastwards to Nanpanton. This was still about three miles short of the River Soar at Loughborough, and well above the level of the river. To complete the journey, another tramway took the coal on to Loughborough. This Nanpanton Tramway was an edge-rail railway with William Jessop as engineer. Jessop laid cast-iron edge rails raised above the ground to allow a flanged cast-iron wheel to run on them. This was probably the first example of rails laid on sleepers – the first modern-style railway.

At first it seems extremely odd to have wagons running on tram plates at the western end of the system and on edge rails on the east. It would not be possible to carry wagons on the canal, running them on to a barge at Thringstone and running them off at Nanpanton to continue their journey. The answer is that the wagon bodies were made to lift off; they were lifted off their wheels by crane at Thringstone, placed in a barge and lifted off by crane at Nanpanton where they were placed on a different set of wheels — an early use of containers.

The whole system opened in 1794 but the mixture of canal and wagonways, involving transhipment at Thringstone, Nanpanton – and Loughborough before the coal reached Leicester, proved an awkward arrangement.

Blackbrook Reservoir supplied the Charnwood Forest Canal with water but in February 1799 the reservoir's dam collapsed catastrophically causing widespread flooding. The dam was repaired in 1801, but the canal did not prosper. The Charnwood Forest Canal, one of the least successful projects of the Canal Mania, saw little use and in the first quarter of the nineteenth century, finding a cheaper means of transporting West Leicestershire coal to Leicester became imperative.

Stephenson's House at Alton Grange

A canal from the Coalville area to Leicester was impractical but news of the opening of the Stockton and Darlington Railway in 1825 suggested another possibility. The opinion of George Stephenson was sought; George carried out a survey and reported favourably on the construction of a railway to Leicester.

George Stephenson was asked to become its engineer but he was too busy building the Liverpool and Manchester Railway as well as being involved in other schemes. George suggested his son Robert then aged 27 as engineer and this was agreed, provided George oversaw Robert's work. In 1830 Robert commenced work on this line, the Leicester & Swannington Railway - 16 ½ miles long. According to Samuel Smiles in Lives of the Engineers, while in the Snibston area Robert noticed from the strata that coal was likely to be found there and he mentioned this to his father who came to look. George decided it was a good place to sink a shaft for coal. This was done in 1831; coal was found beneath a layer of stone and a colliery started.

Around Snibston colliery George Stephenson developed colliery housing similar to that in his native North East and also attracted miners from there to work in his pit. A kind of Geordie colony grew up. George Stephenson also moved to live in the area and resided at Alton Grange. From here he commuted, a distance of about two miles, to Snibston by gig drawn by his favourite horse Bobby. In the 1950s Alton Grange was used as the local headquarters of the National Coal Board.

The Leicester & Swannington railway opened in July 1832 and the first coal from the new Snibston mine was despatched by train. Coal continued to be sent from Snibston on the Leicester & Swannington line for the next 151 years.

The area to the east of Snibston was now beginning to be built upon and in 1833 the name Coalville was adopted for the whole settlement, Snibston becoming the western part of Coalville.

At Snibston there were three collieries, Snibston No.1 (1831 – 1882), Snibston No.2 (1832 – 1983) and Snibston No. 3 (c.1850 – c.1895) - the dates indicate when the shafts were in use. The Stephensons sank Snibston No.1 and Snibston No.2. The surviving tandem headgear is at Snibston No.2. Nowadays the Colliery is referred to simply as Snibston.

George Stephenson built houses for his miners adjacent to the pit on the south side of the Ashby Road. They were probably quite well built as some of them lasted into the twentieth century until they were demolished to make way for Coalville's Midland Red bus garage which was opened in December 1925 and extended in 1930 and 1938.

Samuel Smiles in *Lives of the Engineers* gives the impression that George Stephenson's discovery of coal beneath a layer of whinstone at Snibston was something quite remarkable. When we learn that seven years earlier in 1824 William Stenson had sunk a shaft at Whitwick, about 3/4 of a mile to the northeast of Snibston and had found good coal below a bed of whinstone the feat seems less notable.William Stenson (1770–1861), who probably came from Coleorton, was one of the people who proposed building a railway to Leicester and in 1828 it was he, with John Ellis and Ellis's son Robert, who went north to visit George Stephenson then building the Liverpool and Manchester railway. George might be the 'Father of Railways' but William Stenson was the 'Father of Coalville'.

Smiles emphasises how well George Stephenson treated his miners and there is probably some truth in this. When the Stephenson family ceased their involvement in Snibston Colliery conditions did become worse.

Writing in the mid-1870s, F S Williams in his substantial volume *The Midland Railway, its Rise and Progress,* describes Coalville thus:- 'Coalville, – how incongruous that *ville* sounds in such a connection! – is the centre of this coal district. The people, houses, roads, fields, everything, are grimy. Coal-laden trucks block up the sidings. Coal-laden trains are groaning and grunting hither and thither. Coal lines glide off in various directions, or suddenly turn unexpected corners and surreptitiously disappear; while every here and there, in the bottoms of distant valleys, and on the tops of remote hills, may be seen the tall shafts rising amid the green fields; and the masses of black smoke and white steam proclaim afar that a world of busy life is labouring in the shafts and drifts hundreds of fathoms beneath our feet. A quarter of a mile on either side the line just beyond Coalville are the pits of Snibston on the left, and of Whitwick on the right; while from the sidings may be seen the steep inclined plane leading up to the Swannington pits.

Williams' description of Coalville could apply to many nineteenth century coal mining towns and villages. Quite how much his description was written from first hand observation is at first sight unclear. People round-about the station dealing with coal would probably have appeared grimy, but did Williams visit the town – perhaps not? He may have just visited the vicinity of the station.

Snibston mine 2015 *photo Robert Carr*

His main purpose seems to have been a visit to Ashby-de-la-Zouch, a tourist destination beyond the coalfield to the west. When you read, 'every here and there, in the bottoms of distant valleys, and on the tops of remote hills, may be seen the tall shafts rising amid the green fields' - it becomes clear that Williams is describing the train journey from Leicester to Ashby.

Snibston Colliery continued to produce coal well into the twentieth century. In 1963 a drift was driven with the shafts being retained for ventilation, winding men and materials and emergency use. Coal from adjacent collieries was brought underground to Snibston and raised to the surface through the drift by conveyor. It was dispatched by rail, principally to Didcot power station.

Two coal trains a day used to run from Snibston to Didcot, pulled by a pair of diesel-electric locomotives from Coalville shed. These were merry-go-round trains. The wagons were 45 ton hoppers which would be unloaded at Didcot while the train moved slowly forward. Over 11,000 of these wagons were built but only a handful of them now exist – in partial preservation.

The 1980s saw widespread colliery closures; from 1983 to 1991 six local pits – Snibston, Desford, Whitwick, Ellistown, South Leicester and Bagworth – ceased production with 5,000 men being made redundant. Coal production at Snibston ended in 1983 and the colliery site was finally abandoned in 1985 when it was bought by Leicestershire County Council in order to preserve the most important historic buildings. A major new museum of science and working life was created, *The Discovery Park.* This opened in 1992 and many people will have enjoyed a visit here. However, in January 2015 Leicestershire County Council announced that the museum would be closed and the land sold for housing. The Discovery Museum did close at the end of July 2015 and demolition of the main hall was completed by the end of April 2016.

The Museum housed many sizable exhibits including large road vehicles and finding a new home for them was a serious problem. During the WW II part of the Midland Red bus garage in Ashby Road was requisitioned and in 1940 some of the building and land to the rear was used by the War Department for storing heavy machinery and other equipment. The bus garage, close to Snibston Colliery, has been out of use since March 2011 and following the closure of the Museum it seems likely that large museum exhibits might have been temporarily stored there? Further information would be welcome.

Midland red bus garage *photo Robert Carr*

Postscript

Before 1940 there were few local historians in Coalville, now they are numerous and doing excellent work. The area is a desirable place to live and to commute from. There is a scheme to re-use the Midland Red bus garage as a quality car showroom; the location is handy for the M1.

Thanks are due to Tim Smith for information on early railways.

Robert Carr

A warm welcome to our new members:

Zoe Arthurs, Shawbirch, Shropshire
Michael Barber, Kingston upon Thanes
Elisabetta Battistella, Varmo, Italy
Andrew Blayney, Bristol
Ashley Brogan, Wigan
Carmen Bowes, Clevedon
Ron Daughtry, Grantham
Ronald Drew, Watford
Penelope Foreman, Newtown, Powys
Kieran Gleave, Marple, Cheshire
Charlotte Goudge, Henley on Thames
Keven Johnson, Doncaster
Georgia Lowe, Market Drayton
Leonor Medeiros, Lisbon, Portugal
Sarah Murray, Redruth
Mathew Ricchezza – Scarsdale, New York State, USA
Jack Roberts, Penzance
Vanessa Ruhlig, Wellington, Somerset
Juan Cano Sanchiz, Cordoba, Spain
Peiran Su, Oxford.
Emily Taylor, South Cerney, Glos
John, Winterburn, Solihull
Katie Wylie, Oxford

Congratulations

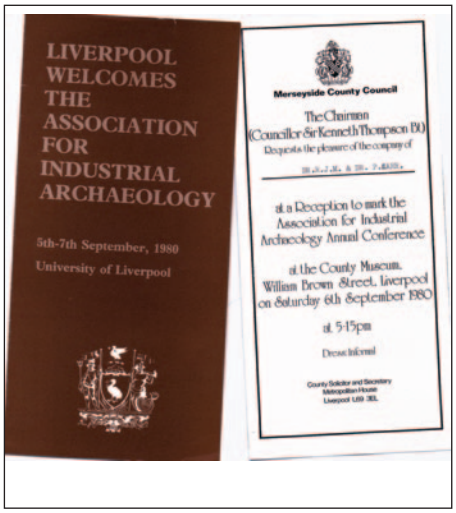
Congratulations to Sarah Murray, a member of our newly created AIA Young Members Board who has been appointed to the staff of the Heritage Alliance as Project Manager for the Rebuilding Heritage programme which is funded by the National Lottery Heritage Fund. Her role will support heritage organisations to thrive in the changed landscape resulting from the COVID-19 crisis. She will be working closely with the programme partners: Creative United, Clore Leadership, Chartered Institute of Fundraising and Media to deliver a programme of support and training for the sector.

The Heritage Alliance, of which the AIA is a longstanding member, unites over 150 independent heritage organisations in England as a powerful, effective and independent advocate for heritage.

As England's biggest coalition of heritage interests the Alliance brings together organisations including the National Trust, English Heritage, Canal & River Trust and Historic Houses, as well as more specialist bodies representing visitors, owners, volunteers, professional practitioners, funders and educationalists. The members' 6.3 million volunteers, trustees, members and staff demonstrate the strength and commitment of the independent heritage movement.

LETTERS

The 1980 Liverpool Conference



Whilst looking through old AIA-related papers prior to leaving Council, I came across some relating to the 1980 Liverpool Annual Conference. Since Liverpool is where we should have been meeting again in 2020, and hopefully will be in 2021, it seems appropriate to share their contents with readers.

One is a report to Council from the editor of the *Industrial Archaeology Review,* S M Linsley. In his previous report he had obviously pleaded for more material for publication. The response had been satisfying, so much so that four issues had been published in the previous 12 months, although the editor did comment that the quality of papers was 'less open to control'. Attempts to commission articles had had limited success, and thus, 'the proposed change in scope (in the Review) had not come about'.

More papers from overseas had been received, but like British ones, are not always appropriate.

A notable and lasting innovation was the addition of a panel of referees to the existing Editorial Board, this had provided added expertise and reduced the Board's workload. Another addition was the inclusion of an index in every third issue of each volume.

The editor ended by commenting on the low circulation, 'the future of the Review does depend upon a considerable build-up of circulation over the present level'.

On the last point, he might be astonished to know how circulation has increased, over 2,500 institutions and organisations subscribe to the Review, from Europe, north America, Africa and the far East. Not only that, all back numbers have been digitalised, and are searchable by members, see Marilyn Palmer's article in *Industrial Archaeology News 188.*

It's all thanks to the early editors and correspondents, and their persistence, that we are able to look forward to Volume 43.

Bruce Hedge.

Richard Hartree

I would like to add a short note to the obituary of Richard Hartree (1931-2020) which appeared in *IA News 194.*

Richard spent several spells of his long and distinguished career at the ALCAN factory at Banbury and settled nearby when he retired. He assembled a mass of material about the factory, documents and images, which he presented to the Banbury Historical Society and the Warwickshire Industrial Archaeology Society, of both of which he was a member, and to various other groups. He wanted to see the material in a permanent printed form and I agreed to co-operate with him to produce an article for the Banbury Historical Society's journal, *Cake & Cockhorse.* It was a delight to work with him. Richard was happy to answer queries about technology that made the text easier to understand for non-specialists, and to explain why economic changes necessitated the closure of the Banbury plant at the end of 2008. When the article appeared [Richard Hartree, 'The Banbury Aluminium Works 1929-2009', *Cake & Cockhorse,* vol 20 (2015), 3-30] it aroused enormous local interest. Copies were put on sale in Banbury Museum and demand necessitated two reprints. Richard ensured that the history of a factory that was of crucial importance during the WW II and once employed 3000 people is well-recorded for future generations.

Barrie Trinder [vice-president, Banbury Historical Society].

A monstrosity?

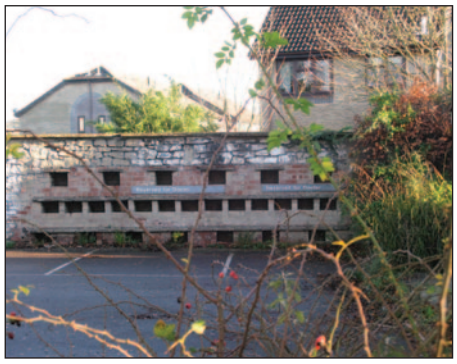
The Anderton Boat Lift near Northwich is a fine structure. Obviously there are people who don't share my opinion. This quotation is copied from David Carden's book *The Anderton Boat Lift,* it's a letter by G. Davies, printed in the *New Civil Engineer* in March 1996:

I was dismayed to read in your excellent article on the Anderton boat lift, that English Heritage has offered half a million pounds of taxpayers' money towards restoring the structure to a working state. I have no quarrel with the principle of restoration – I admire those hard working people who restore steam locomotives – but I question the need to rebuild what is arguably the country's ugliest structure. Current issues such as the status of engineers will be set back a pace or two if we persist in rebuilding this monstrosity – is this really the face of engineering we wish to present to society?

The Times described the structure as – "... an early North Sea oilrig rising from the riverbank".

Robert Carr

What is this?



The mystery wall

I am hoping AIA members may be able to help identify this mystery wall.

Michelle Cook and husband, Richard, both members of the South Glos Mines Research Group, contacted Bristol IA Society to help explain the purpose of the recesses.

I thought it was a retort wall as it is right next to the site of the Chipping Sodbury Gas Light and Coke Company and on old map also shows an iron works next door? However this theory is in doubt as Harry Yates from Fackenham Gas Works does not recognize the dimensions and points out that there is no sign of scorching of the brickwork associated with such an application. The dimensions of the wall are 21ft long x 5ft tall, the apertures are – top row 11inches x 13 inches, centre row 14inches x 9 1/2 inches and bottom row 13inches x 9inches.

I would be grateful if you could pose the question to your knowledgeable membership.

Mike Taylor vice chair BIAS

Not just any face mask

In 2013 English Fine Cottons began spinning in Dukinfield's Tower Mill which had been out of use since 1955. They installed the most modern equipment and declare they produce the finest quality cotton yarns anywhere. Here is a personal compliment from Finland.

Face mask, face cover… How could a tiny piece of cloth cause so much anxiety and worries? I don't know, but I might not be the only one. In early August we here in Finland heard that the authorities would recommend the use of face masks in certain circumstances. That was something I had been waited for with a worry. But I found a way to reduce my face mask anxiety.

And then it happened – in the early days of August 2020 we were informed of the coming recommendations about face mask use. I knew that I had to act at once. When the Finnish authorities made an official recommendation for the use of a face cover in certain circumstances – in mid-August, I had already ordered my face masks – from England.

You might find this strange. Why a person living in Finland would spend money to order face masks from England when the easiest way would be to buy cheap, disposable face covers in your local stores. That has something to do with my personality, the way I see my life: whatever I do, it must have a purpose, a strong cause, so to speak. So, when we heard that the face mask recommendation would happen, I started thinking what's the best way to make me feeling comfortable with it. Where should I buy them…

I remembered that I had seen a picture of someone wearing a nice looking mask with a bee motif by a company called English Fine Cottons. These two masks arrived two days ago beautifully wrapped in the company's own wrapping paper and tied with their lovely ribbon.

This is what is said about their masks on their website:

Our superfine, extra-long-staple cotton yarns, tightly woven into beautifully soft and durable fabrics, can effectively filter aerosol particles while being comfortable and breathable. Spun at our base, a revamped Victorian cotton mill in Dukinfield, our cotton yarns are woven in Devon. The fabric is printed in Manchester before it is brought back to Tower Mill to be made into masks by our own team of machinists.

My original idea was to order only the bee mask. It is quite understandable that English Fine Cotton chose this motif on their masks as the company is located in the Greater Manchester area, in Dukinfield. And a humble worker bee is one of the symbols of the city.

In fact I was thinking that my order was too tiny regarding all the work it needed, so instead of one mask I also ordered the NHS Rainbow mask. This is in fact a good thing. You have always one mask ready for use if the other one is still hanging on a washing line.

I don't know if I will ever need them, but at least I have them now here if I need to travel by bus or go somewhere where I need to use a mask. And, we live now in the middle of a historical period, so I will definitely keep them as mementos.

I mentioned above something about my personality, that everything I do needs to have a good cause, even when buying face masks. Besides the obvious cause of joining the fight the virus I needed something else to calm my anxiety concerning the fear of having to use the mask.

The only way to do it was to make the purchase in a way that it would give some kind of feeling of 'doing good'. That's why I chose the face masks of English Fine Cottons.

There were two things. Firstly, the company itself. I have followed their activities at least with one eye since they started. I find it so fascinating that with them the commercial cotton spinning has returned to Manchester. When I heard about it, I was just wishing in my mind good luck and a successful future to them. And they are locating in a beautiful, listed mill, Tower Mill. What a great way to continue Manchester's rich industrial heritage, as well as breathe new life into the old spinning mill.

Taken from 'Tales from The Brazier's Grotto'
A blog by Katrina Etholén

John Stengelhofen 1939 – 2020

We were saddened to learn that John Stengelhofen died on 12 July 2020 having sustained a serious head injury in a fall a week earlier. He was an early member of the Association and had attended almost every conference since the first at Keele in 1974.

John trained as an architect at the Architectural Association, following in the footsteps of his father who was architect to London Zoo. He initially practised in London before moving to Cornwall. In 1972 he took up a Research Fellowship at the newly established Institute of Cornish Studies under the late Professor Charles Thomas. Whilst there he met his wife, Lindy, who was Charles' personal assistant. John had long been interested in archaeology, having dug at Gwithian with Charles Thomas and in Egypt, but it was industrial archaeology that interested him most. He was asked to design the new Wheal Martyn China Clay Museum near St Austell and on its opening in 1975 became its first Director.

Having established the museum John found running it rather less of a challenge and took a post of Curator with the National Maritime Museum at Cotehele, running their outstation there with responsibility for the Tamar sailing barge 'Shamrock'. Valhalla, the collection of ships' figureheads on Tresco, also came into his orbit. When the NMM discontinued its outstation programme he returned to architecture, joining a practice in Truro, and only retired a few years ago.

About 1971 he joined the Council of the Trevithick Society, where we met, introducing their Journal in 1973 and editing it until 1980. He also designed the Society logo, still in use, and played a major part in the Society's new publication programme. An important interest was the Royal Institution of Cornwall and he designed the Courtney Library there in 1972. Whilst he was President of the Institution from 1984 to 1986 he played a major role in acquiring the chapel next door and designing its incorporation into the Royal Cornwall Museum. Last year the Cornish Buildings Group acknowledged his fifty years contribution to their work; he was Vice Chairman following some years as Chairman. Although always a great believer in good modern architecture he was also a determined advocate for historic buildings. Some of his recent campaigns have included an inappropriate extension to the White Hart at Hayle, once run by Richard Trevithick's wife, ugly additions to the listed St Erth railway station and trying to save the substantial mine workshops at Wheal Busy.

Believing there was an opening for a good publisher of Cornish industrial and transport history, John and I founded Twelveheads Press in 1978. With John responsible for design and production we soon earned plaudits for the quality of our work. Design was very much a pre-occupation of John's. He was very precise, if not pedantic, about what was right and the results, whether a book or a simple leaflet were always of top quality. From 1980 until recently he designed and produced most of the Association's annual Conference guides; they set a standard for other organisations to follow.

An enthusiastic member of CAMRA with a strong liking for Belgian beers, he regularly visited Belgium. Members will recall that at Conference he was always keen to find the pub selling decent beer. He was a fund of useful knowledge which he was always happy to share and was always good company. He missed the Somerset Conference due to throat cancer but treatment resolved this and he was getting back to normal health as the accident happened.

He will be missed, and not just in Cornwall.

John leaves behind his wife, Lindy, his proud children, Martyn, Annie and Tom, and his grandchildren.

Michael Messenger

Roger Francis and Anne Andrews

Roger Francis, a member of AIA, died on 26th July 2020 aged 86. He was a stalwart of the Staffordshire Industrial Archaeology Society, having served in every office in that Society and was a regular contributor to the Journal. His death followed shortly on that of Anne Andrews, the editor of the SIAS Journal, who received the AIA's Local Society Publications Award in 2019 for the Golden Jubilee edition of the SIAS Journal. Both attended AIA conferences and will be sadly missed, particularly for the vast amount both contributed to the study of IA in Staffordshire.

Marilyn Palmer

AIA Young Members Board: New faces for wider engagement

The Association for Industrial Archaeology has established a Young Members Board with the aim of promoting the aims of the AIA and its sustainability into the future through broader engagement of the association with younger people and the wider community.

Vanessa Ruhlig

Young Members were invited to express their interest in joining the Young Members Board and being part of its development. The opportunity was aimed at those who are mid-career or younger, with an established interest and experience in industrial archaeology and heritage. This has brought together a group of fifteen founder members with a diverse range of experience, skillsets and interests. They are:

Zoe Arthurs has an undergraduate degree in History and is currently a mature MSc student in Sustainable Heritage at the University Centre Shrewsbury (UCS). She has had a long-standing passion for industrial history. Having always lived within 10 minutes of the Ironbridge Gorge World Heritage Site, it was the first type of tangible heritage she was exposed to. She hopes that her time with the YMB can contribute to the preservation and sharing of our industrial past with as many people as possible. Zoe has aspirations that engagement through the YMB will highlight the importance of Industrial Heritage, therefore increasing its exposure and popularity which will in turn contribute to its longevity and sustainability in the future.

Andrew Blayney is originally from Belfast and completed a History degree at the University of St Andrews and a PGCE at Bristol University. Subsequently, he was a History teacher, Head of History and Head of Key Stage at secondary schools in Bristol and Madrid. Deciding on a career change, in 2018 he completed an MA in Heritage Management at Bath Spa University and is now Heritage, Learning and Volunteer Manager at the Underfall Yard Trust in Bristol. He is looking forward to working with the YMB to widen access to industrial archaeology and heritage and hopes to contribute to the AIA's core purpose of giving the past a future.

Carmen Bowes is a graduate building surveyor who works primarily on listed buildings, projects within conservation areas and industrial sites, after devastating incidents such as floods or fire. Following completion of a Classics degree at Durham University and an MSc in Conservation of Historic Buildings in Bath, Carmen has spent time in historic building and archaeology consultancy. She is looking to advocate, with like-minded individuals, for industrial archaeology in peril whilst being 'boots on the ground'.

Ashley Brogan is a professional archaeologist in the heritage management team at Salford Archaeology, within the University of Salford. Her job involves a great deal of research into the history, development and significance of archaeological sites (both above and below ground). Due to working in Salford, much of her research includes industrial sites across Greater Manchester, which really sparked her interest in Industrial Archaeology. She has become increasingly interested in the industrial development that has shaped Britain since the eighteenth century. She would like to continue her research into the historical development of industrial sites, whilst adding to and sharing our understanding of these often-overlooked archaeological sites.

Dr Penelope Foreman is the Chief Storyteller and Memory Maker (Community Archaeologist) at the Clwyd-Powys Archaeological Trust. Though her first degree was archaeology, she went on to train as a teacher and spent almost a decade in education before returning to archaeology. She was excited to see the AIA Board reaching out to form the YMB and knew that she could bring her experience working on other boards along with her passion for industrial heritage. She is active in several groups working for change in archaeology – particularly in diversifying the profession – and would like as many people as possible to see themselves reflected in the AIA. She also wants to support organisations and sites in becoming spaces that explore, protect, and promote diverse narratives and feature marginalised and minority voices.

Otis Gilbert is a commercial archaeologist with Wessex Archaeology in Sheffield. He regularly participates in a range of industrial digs and was motivated to join the YMB by a desire to get more young commercial archaeologists engaged with industrial archaeology.

Kieran Gleave graduated from the University of Chester after studying BA Archaeology (2019) and now works as an Archaeologist with the University of Salford. His interest in Industrial Archaeology started in 2015, when he began excavating the Mellor Mill (Marple, Greater Manchester) as a volunteer, whilst studying. He continues to maintain an interest in the Industrial Heritage of the area, where he is involved in securing funding for the restoration of Samuel Oldknow's Marple Lime Kilns.

Georgia Lowe has recently commenced her studies in Archaeology and Heritage at degree level at the University of York. This subject has always been an interest of hers since she began as a young archaeologist for the Ironbridge Gorge. She joined the YMB as a way of expanding her knowledge in the field of Industrial Archaeology and to gain insight on the issues surrounding modern day knowledge of archaeology as a whole.

Dr Leonor Medeiros is an archaeologist from Lisbon, Portugal, who has always been fascinated by industrial sites and their stories. With a Master's degree from the Ironbridge Institute, and a PhD in Industrial Heritage & Archaeology from MTU (USA), she is professor at NOVA FCSH – School of Social and Human Sciences of the New University of Lisbon; researcher at CHAM – Centre for the Humanities; and president of the Portuguese Association of Industrial Archaeology (APAI). Her research focus is the methodological aspects of landscape archaeology and building archaeology, with a focus on industrial landscapes, inventory and documentation, with which she aims to promote heritage-led community development in post-industrial areas. She believes that the YMB has a strong contribution to make in promoting the engagement of industrial archaeology with society.

Sarah Murray started her career in heritage with the Museums, Libraries and Archives Council working on the London Cultural Improvement Programme, supporting the cultural sector to innovate services. She has worked at national, local authority and independent heritage organisations, which has given her an understanding of the challenges and opportunities that are particular to the independent heritage movement. Her proudest achievement is delivering the £3 million Heritage Fund programme at Underfall Yard, Bristol, including its engagement programmes and the Trust's thriving volunteer programme. She has an MA in Museums and Galleries in Education from the Institute of Education. She joined the YMB with the hope of spreading the joy and fascination that industrial sites have brought to her life since her childhood visits to Broseley and the East Lancashire Railway.

Jack Roberts is Deputy Manager at Geevor Tin Mine Heritage Site/Museum in Pendeen, Cornwall. He has lived in west Cornwall all his life and has been surrounded by wonderfully interesting industrial heritage. He studied History at the University of Exeter's Cornwall Campus in Penryn which further intensified his interest in industrial archaeology and heritage, and Cornish mining in particular. His degree led to a work placement at Geevor Tin Mine which in turn led to a job offer. Over the last 6 years he has worked his way up from tour guide to deputy manager. Jack hopes that joining the YMB will help to forge strong connections within the industrial archaeology community, share expertise and knowledge, and help widen the approach Geevor takes in its presentation of industrial archaeology.

Vanessa Ruhlig is a senior architectural technologist and heritage researcher at specialist architectural studio, Thread, in Somerset. She completed a Master of Philosophy in Conservation of the Built Environment at the University of Cape Town in 2018, following several years' experience in architectural practices in South Africa and Namibia. Much of her work involves assessment of historical building development, including understanding

the processes and uses of several abandoned industrial sites in the south-west and their interpretation. Vanessa joined the YMB with the hopes of contributing her architectural point of view towards this inter-disciplinary field. Having lived and worked in post-colonial cities, she also has an interest in critical issues in heritage and contested spaces.

Dr Juan Manuel Cano Sanchiz is Associate Professor at the Institute for Cultural Heritage and History of Science & Technology (USTB, China). His work is focused on the study of the material footprints of globalisation, industrial archaeology's theory and methods, and critical industrial heritage studies. He would like to contribute to the Young Members Board by helping the AIA to extend its international networks, especially in China, Mediterranean Europe and Latin America, so together we can build a more diverse industrial archaeology. There is also much he expects to learn from the expertise of the AIA and the fresh approaches of their young members.

Dr Peiran Su is a Senior Lecturer in Strategy at Oxford Brookes University. He investigates competitive strategy and strategic evolution of the firm in the context of product innovation and organisational survival. His current research project is about heavy engineering firms in Scotland between 1850 and 1950. He hopes to contribute a possible doctoral workshop and special interest group to the AIA annual conference as well as potential specialist conferences or talks at a regional scale.

Katie Wylie grew up in Cornwall surrounded by industrial archaeology – especially mining. Her love for industrial sites transferred to her studies, culminating in her Master's dissertation on Cornwall's architectural railway heritage. She has taken part in archaeological fieldwork, volunteered for the likes of Historic Royal Palaces, and worked at the Royal Cornwall Museum – using exhibitions to tell stories from the collections. She now works as the Assistant Heritage and Planning Officer at Oxford Preservation Trust, where they are hoping to restore the Rewley Road Railway Swingbridge. She is keen to bring her interest in outreach to the YMB. She is passionate about local communities feeling empowered to engage with the planning system, tell their own stories, or get involved with groups like the AIA.

As can be gleaned from the introductions above, the diversity of expertise and backgrounds offered by the group members, along with their passion for industrial heritage and archaeology, provides the Young Members Board with an exciting opportunity to bring together a unique and fresh vision for the AIA's future. At the time of writing, the YMB has already met virtually on several occasions, to get to know each other and to discuss the way forward for the YMB and how it can set up new initiatives and connections with the AIA and broader community, both locally and internationally.

IHSO Progress report, June to September 2020

During July and August 2020 Industrial Heritage sites and organisations began to re-open in the UK, as the Government eased the measures taken to contain the first wave of the Covid-19 pandemic. The Office of Road & Rail had already issued 'back to operation' guidance for heritage railways in May, whilst Historic England had issued re-opening guidance on Industrial Heritage sites in June, noting the potential for damage to historic fabric. In July 29% of the c.600 IH publicly-accessible preserved sites in England re-opened. However, mass events such as fairs and rallies were cancelled. Many sites focussed on opening the food retail and/or open spaces on their sites. In August, the re-opened sites in England included 52 watermills, 41 heritage railways, 38 canal & river sites, and 34 windmills. By the end of August 48.5% of the industrial archaeology and heritage sites presented to the public had re-opened. This is based upon a rapid online survey of the c.600 sites in England, but a similar level of re-opening was seen in Northern Ireland, Scotland, and Wales. Larger industrial museums (such as Ironbridge), many English Heritage and National Trust properties, and many heritage railways opened in July. In August CADW and Historic Scotland properties re-opened along with local authority industrial museums and some smaller industrial sites.

It is now possible to take a step back and start to review some of the changes and impacts on the industrial archaeology and heritage sector since the lockdown of March 2020. 46 industrial heritage sites have announced that they will remain closed until next year (including local authority sites in Essex, Kent and Lancashire). Furthermore, two English Heritage sites and nine National Trust sites remain closed. During lockdown some industrial heritage sites suffered vandalism and trespass, with incidents recorded at preserved railways, like Bowes, Churnet, and Peak Rail, and some windmill sites. Fundraising events have been cancelled at industrial heritage sites, and during re-opening admission numbers have been limited due to Covid with online booking the norm. Many re-opened sites reported visitor numbers down 50% over the summer season due to the lockdown. Redundancies have also been announced at several Industrial heritage sites and the long-term impact on volunteer numbers and the financial viability of these sites remains unclear.

However, a dozen water- and wind-powered corn mills saw a boom in business as flour demand rose sharply during lockdown. Twelve preserved railways raised £3million from the public in emergency appeals by the end of August. Industrial archaeology and heritage sites have received emergency Covid funding from Historic England such as Wheal Martyn, and many more from Covid emergency funds through CADW, the Scottish Government, the National Heritage Lottery and the Arts Council England.

Like many industrial heritage societies, the Berkshire Industrial Archaeology Group normally run a host of live activities for the Heritage Open Days events in September. BIAG was faced with either finding new ways to communicate or hibernating until the pandemic was over. Amongst the suggestions put to the group was a twitter conference (http://biag.org.uk/). This duly took place on 15th September 2020, with a suite of seven papers discussing local and national industrial archaeology topics. Many other industrial heritage sites and archaeology groups went online to deliver their Heritage Open Days events, although some were able to provide a live, in person, experience such as Crofton Pumping Station.

Mike Nevell

Community Engagement Award

The AIA is pleased to announce the launch of the Community Engagement Award. This new award of £500 will recognise impactful community engagement initiatives undertaken as part of projects which preserve, interpret, or promote industrial archaeology or heritage.

At the time of going to print the final details of the award's rules, application process and criteria to be considered by judges are currently under consideration by the AIA's newly appointed Young Member's Board, please check the AIA's website for full details.

In judging nominations to identify the winning application, the adjudicators will consider:

- The degree to which organisations/ projects have successfully identified and targeted communities who might interested in the project.
- The size and diversity of the community which has engaged with the project.
- The impact of the project on community members, including their knowledge, and wellbeing.
- The impact on the industrial heritage asset generated by the community engagement project.

In addition to the cash prize, the winning organisation will be invited to attend the AIA's annual conference to receive their award and to speak about their project.

Nominations, which can be for projects from anywhere in the world, may be made by anyone, including those who have been involved in the project. Nominations must be received by AIA's Secretary no later than 31st January 2021.

For more information go to the AIA website or contact Andrew Blayney andrew@underfallyard.co.uk

Coal mine decision and consequences

The application for a new coal mine in Northumberland has been rejected by the Government, but the Heritage Railway Association (HRA) has said that this decision is a blow to the heritage railways in Britain. They have also said that many railways may be forced to reduce or cease operation as a result of this decision.

Heritage railways, like traction engines, steam boats, steam ships and static steam engines, all need coal to function, and the kind of coal they need is different to that used by power stations; however, it can be sourced from the same mines. In England, the last mine producing washed lump coal, which is vital for heritage steam, ceased operating in August, marking 'a bleak future for heritage railways'.

Steve Oates, the Heritage Railway Association's Chief Executive Officer, says the decision 'makes no sense'. He said, "The UK needs five million tonnes of coal every year, for steel and cement production. The decision to end coal production in the UK is driven by CO2 reduction targets. But the CO2 generated by importing coal from countries like Russia and the USA produces ten times more emissions than producing it domestically. While importing coal may be a practical, if not environmentally-friendly, solution for the nation's coal and steel industries, the solution presents huge challenges for heritage railways. Steam engines need washed lump coal. It is different to the more finely-grained coal the steel and cement industries need. Britain's heritage railways use just 26,000 tonnes of coal a year. Such coal can be imported, but it will come at prices most railways simply won't be able to afford."

On behalf of their members, the Heritage Railway Association has been asking the Government for clarity on the future of coal for heritage steam. The Government has stated that it has no wish to see the end of heritage steam in the UK, however, while it has understood the problem facing the heritage sector, it has yet to find a solution.

The Northumberland decision brings to a halt the long running dispute. In October 2015 Banks Group originally submitted the plans for a mine in Highthorn, near Druridge Bay Country Park on the Northumberland coast. It said the proposed 400-hectare site would bring 'substantial investment' to the area by extracting up to three million tonnes of coal and creating at least 50 jobs over a five-year period. It claimed that this would boost the Northumberland economy by £87m and keep £200m within the UK economy by not importing the coal that would otherwise come from overseas suppliers, and make supply chain contracts worth £48m available to locally-based businesses.

Northumberland County Council initially approved the application in 2016 but the authority was later overruled by former Local Government Secretary Sajid Javid, who rejected it. Banks then took the case to the High Court, which quashed Mr Javid's decision in November 2018 over the legal reasons for the rejection.

Coal mining in the UK: View from industry and environmentalists

Environmentalists have long called on the UK government to show its commitment to ending coal mining in the UK by putting a stop to the opening of new open-cast coal mines. Campaign groups such as Friends of the Earth, RSPW, WWF and others have also urged the government to block all developments for new projects.

In February 2018, Anne Harris, of the Coal Action Network said, "The 2015 Paris Agreement and the sharp decline in coal use this year indicate there is no long-term future for coal. If it fails to intervene in these projects, the government will allow local people's health and ecology to be needlessly and permanently damaged and risk its reputation as an international leader in 'powering past coal'."

But industry argues that coal demand remains high and domestically-produced supplies are needed as a result. Banks Group, which operates many of the country's open-cast mines, says that without producing its own coal, the UK would have to import more from countries such as Russia, the USA, Colombia and Australia – which produces more CO2 via its transportation than coal produced in the UK. Their Community Relations Manager, Jeannie Kielty, who is heavily involved in community work across Durham, Cumbria and Northumberland says she believes the industry has a place in Britain's energy market. "We believe it makes much more sense to mine the coal and provide the investment and jobs in Northumberland and the North East than to send that money abroad."

Heritage Emergency Fund

The National Lottery has announced that its *'Heritage Emergency Fund'* had provided £50 million in direct support to 950 organisations across the UK to help cope with the challenges of the COVID-19 pandemic.

The Heritage Fund, the independent body charged with distributing National Lottery funds to UK heritage and cultural projects, has provided a breakdown of the £50 million fund launched at the start of April.

Open to all communities and organisations involved in maintaining UK cultural projects, the Heritage Fund revealed that it accepted 77% of all applications received.

The highest proportion of heritage grants (29%) were issued to organisations managing historic buildings and monuments. The funding was closely followed by grants to 'community networks' such as theatre groups and cultural associations (26%) helping support the UK's art and creative societies.

Meanwhile, museums, libraries and archives received 19%, whilst natural heritage sites secured 14% with historic industrial, maritime and transport heritage sites receiving 10% of funding.

Ros Kerslake, Chief Executive of The National Lottery Heritage Fund, said, "This is the biggest heritage crisis I have seen in my lifetime. Every area of heritage we support has been severely affected, from wildlife trusts and gardens to museums and historic railways. Many of the places we know and love faced permanent closure within weeks of the start of lockdown.

"We realised that heritage would need significant support to survive, and we have worked incredibly hard to provide a lifeline and get grants out of the door in record time. We cannot save everyone and challenges still lie ahead, but we are grateful that, thanks to National Lottery players, we have been able to help so many."

Focusing all resources on overcoming COVID-19 crisis, the Heritage Fund revealed that it has halted any National Lottery Grants for Heritage until 2021.

SS Robin

The *Robin* is a very remarkable steamship built at Orchard House Yard, Blackwall, London in 1889-90. She was one of a pair. Her sister ship the *Rooke*, built alongside the *Robin*, was wrecked off North Wales one Christmas in the 1920s. At the time these two ships were built, Lloyd's of London were wary of ships constructed from steel which was regarded as a treacherous material. They only agreed to a specification for steel ships in November 1889. The *Rooke* and *Robin* were built under Lloyd's survey and it is indicative of their concern that Lloyd's surveyors visited the two ships at Blackwall no less than 83 times. The *Robin* is thus one of the first British steam coasters to be built of steel, and very well at that. She is a most remarkable survival – steel ships usually have a short life in salt water.

The *Robin* was launched in September 1890. Fitting out took place in London at the East India Docks but after that *Robin* (and presumably her sister ship the *Rooke*) were towed to Dundee where boilers and engines were fitted. The *Robin* received her engine during the period 23 October - 11 November 1890, again under Lloyd's Survey, and both ship and engines received the classification '100A1 Lloyds (steel)'. *Robin* still has her original triple-expansion engine but the boiler is thought to have been replaced in the 1960s. She originally burned coal but was converted to burn oil in 1966. That year she had a major refit when the whaleback (at the stern) and the mizzen mast were removed, the foremast and the funnel shortened, and the forecastle extended.

After her launch in 1890 *Robin* did not remain long on the British Register, she was sold to Spanish owners on 13 May 1900 and became the *SS Maria.* Her life there was rough; for many years she carried punishing cargoes of coal and steel scrap round the exposed Atlantic coast. Bilbao was a regular port of call. Amazingly she continued her work until the 1970s when she was purchased by the Maritime Trust.

The *SS Robin* as *SS Maria* came back to the UK in 1974 under her own steam. Restoration work was carried out on a slip at Rochester on the River Medway. Later she was displayed as part of the historic ships collection in the East Basin of the St Katharine Docks.

From here in 1991 she moved to the West India Docks. The *Robin* was the last vessel to be owned by the Maritime Trust with the exception of *Cutty Sark*. *SS Robin* had become a big drain on Maritime Trust resources and the Trust sold her so as to concentrate on *Cutty Sark*. The committee which had previously been looking after *Robin* was unable to obtain suitable funding.

David and Nishani Kampfner bought *Robin* for £1 and in 2002 the SS Robin Trust was set up. Crossrail provided the new Trust with a £1.9 million loan and later the Heritage Lottery Fund made a grant of just under £1 million. The Kampfners opened *Robin* as a floating photography gallery and education centre. Had it not been for their heroic initiative *Robin* might well have been broken up – see the article in *IA News 126*.

Being afloat, *Robin*'s condition deteriorated and in June 2008 she was taken to Lowestoft and put on a slipway where substantial restoration took place – see *IA News 147*. Since berthing on the North Quay of the West India Import Dock much redevelopment involving tall office blocks had taken place with areas of water being encroached upon and getting her out from her old berth to the quay on the south side of South Dock was a major operation.

Parts of the Isle of Dogs are reminiscent of Chicago and main roads crossing navigable channels are carried across the water by bascule bridges which can open to allow quite large vessels to pass through. The sequence of photographs, taken in June 2008, shows something of the operation:

1 Being moved sideways, southwards across the Import Dock.

2 Squeezing beneath the DLR bridge, avoiding the platform extension works at West India Quay station.

3 Coming south, in the passage from Import Dock to South Dock.

4 Coming South through the lift bridges towards South Dock.

5 Going southeast across South Dock to the quay on the south side of the Dock near the entrance lock.

From here she was towed to Lowestoft classified as 'a hulk'. This was a hazardous operation but fortunately *Robin* did arrive there. When in Lowestoft it was decided that *Robin* was of such historic importance and so fragile that she could no longer be kept afloat. The ship is a member of the National Historic Fleet, the maritime equivalent of grade I listing.

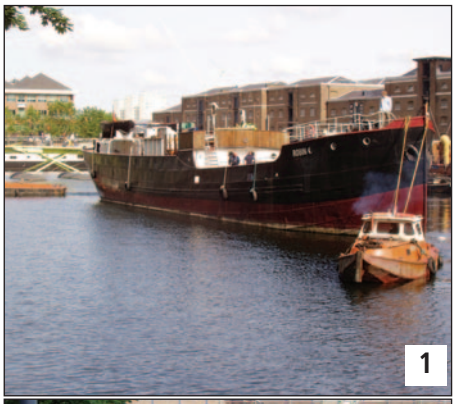
Robin's return to London on a pontoon is described in *IA News 155*. Currently she is situated on the south side of Royal Victoria Dock in east London, still on the pontoon.

Robin is now 'mounted and stuffed', in some senses almost a full-size ship in a bottle. For those of us familiar with her as a floating ship this seems a sad outcome. She has not been much in the news lately, but now *Robin's* website has been updated and redesigned, see http://ssrobin.com/

There are plans for her continued maintenance and display as part of wider proposals for a London collection of historic vessels in the Royal Docks and it is hoped that when the Covid-19 pandemic has subsided the vessel will be open for visits by the general public. *Robin* was due to open for Open House in September 2020.

Robert Carr

Photos 2008 Robert Carr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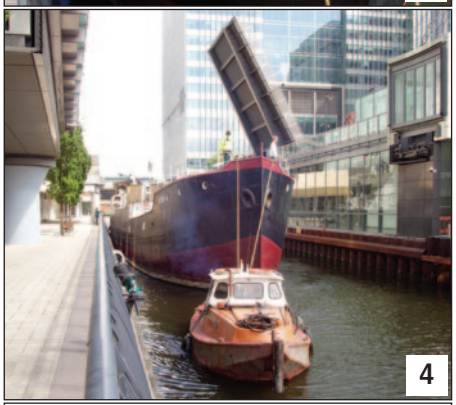
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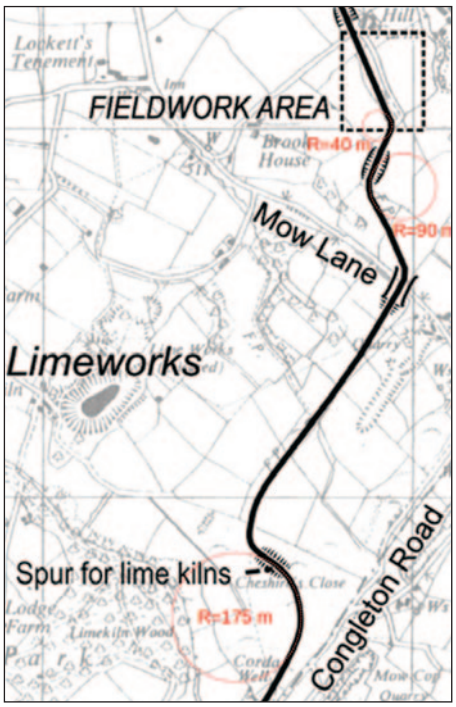
Going Round the Bend – Early Cast Iron Railways

The Congleton Railway article in *Industrial Archaeology Review Vol. 42*, by Rowan Patel, prompted further discussion on how early cast iron railways negotiated bends.



Radius of curvature on some bends (base map courtesy of Richard Dean)

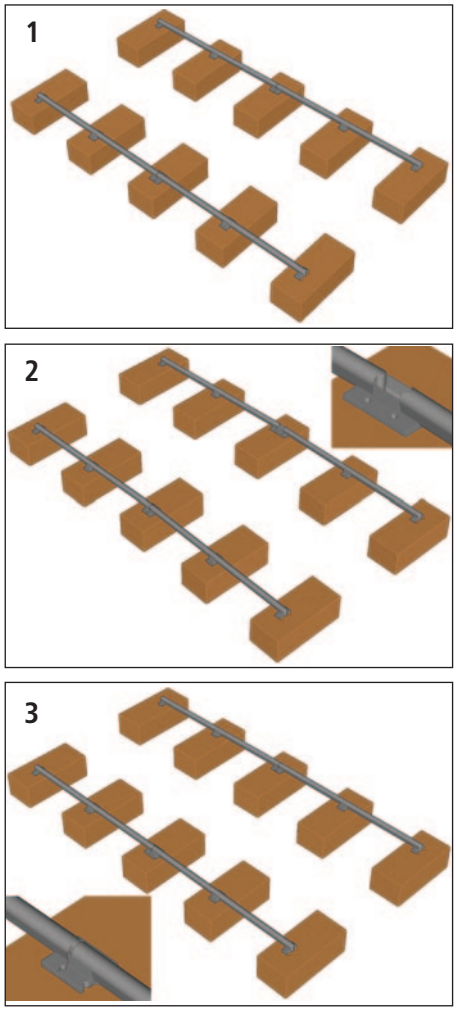
The path around the outside of a bend is longer than that around the inside and somehow the rails must accommodate that. One can imagine a plateway tolerating a bit of a gap between the outer plates, on each sleeper. However, one can't imagine such a gap being tolerable on a railway, nor would it suit the spiking arrangement of the Congleton rails.

Three hypotheses are discussed, as follows.

A) Different lengths of rail were available. If there were two lengths available, the route could be straight or curved at a fixed radius. No evidence has been found for there being different lengths at Congleton but few rails survive from which overall length can be inferred. In relation to plateways, the Butterley Company sold short plate rails (shorter than their standard 3 feet) for use on curves, and these are mentioned as 'short rails' in Butterley's earliest furnace ledger (when they were still trading as Benjamin Outram & Co.). In fact, a letter dated New Year's Day 1798 in the Butterley Co letterbook states: "Please do direct your Workmen to lay the shorter rails in the curved parts of the Railway" [Derbyshire Record Office D5974/3/1].

B) The lugged saddles, designed to dovetail with the rail ends, could be used to fill gaps between the outer rails on bends, holding short filler rails. This is mocked-up, minus fishbellying and filler rail, in the CAD image in Illustration 2, which can be contrasted with Illustration 1. The dimensions of the parts give the track a radius of curvature of 25 m, a 2.82 degree kink at each joint. By inserting a saddle every two rails, the radius can be doubled, etc. A variety of sequences can approximate a variety of curves: a saddle-one-rail-saddle-two-rails sequence would approximate a 37.5 m radius. Multiple saddles could be inserted for tight bends. Key archaeological evidence for this hypothesis would be finding a sleeper with matching spiking holes. The requirements of some of the bends on the route are shown on the plan.

C) When negotiating bends, the inner rail was shortened, loosing its foot at one end, that end resting instead on a lugged saddle, which kept it aligned with the next rail section (see Illustration 3). If the inner rail lost just its foot, a track radius of curvature of 47 m would result, a 1.48 degree kink at each joint. For tighter bends the rail could be shortened more and, like B, for gentler curves, shortened sections could be applied intermittently. How would the shortening be achieved? Today, we might use a hacksaw, grinder or gas-axe. Would they crack it off cold, with a chisel, or would the local blacksmith do it hot?



Hypotheses B & C offer an explanation as to why some saddles were specially shaped to dovetail with the rail ends, when their more-normal job was to support the middle of the rail. However, further archaeological or historical evidence needs to come to light to support these hypotheses.

John Outram & Rowan Patel

Surveying is Rubbish!

We all have to improvise at times; I was faced with the problem of estimating the diameter of an icehouse floor with no access to the bottom. The icehouse in question was in Lydiard Park, near Swindon, in 2004. The answer turned out to be a can of soft drink.

At the time I was preparing a photographic record of the state of the park to back-up an application for Heritage Lottery Funding for the park's restoration. The house and park had been the home of the St. John (Sinjun) family for 520 years until it was acquired by Swindon Borough Council in 1943. The last time any significant money had been spent there was in the early 1800s; the Council had maintained both house and park since they had taken over the estate, but it was felt that it should be brought back to something like its eighteenth century glory. Even in its run-down state it got around 300,000 visits a year from people in the area.

While the external appearance of the structure left a lot to be desired, the interior was in in sound condition; all that had happened to it over the years was people depositing rubbish in it. The building had not been accessible for long when I took the photograph, but it had acquired a lot more rubbish before restoration.

Access to the icehouse was by a narrow passage giving on to an equally narrow section of the top of the pit. With an infra-red measuring tool the diameter at the top was easily established; like-wise a reasonable estimation of the depth was possible (7m.). A photograph of the can lying at the bottom, plus a visit to a local newsagent where I took the measurement of a similar can (I didn't buy it), was enough for me to estimate the diameter at the bottom. I'm sure there are cleverer ways of doing it, but I had no access to them.

The photographic work I did paid off, and a substantial contribution towards the total cost of £5.3 million for the park's restoration was received. The ice-house now looks very smart, as does the park and walled garden. By the way, my calculation showed it to be three feet in diameter (0.92 m.), which agreed with the actual measurement when the bottom was cleared of rubbish.

Bruce Hedge

Little Mester's workshop in Sheffield

Looking down on Leah's Yard and the Sportsman pub on Cambridge Street

In Sheffield, a trio of social enterprises has submitted a £350,000 bid to revamp a historic Little Mester's workshop – one of the most important parts of the £480m Heart of the City II scheme.

'Leah's Yard Social Enterprise' (LYSE) has lodged proposals to convert the disused eighteenth century Leah's Yard building on Cambridge Street which once housed eighteen 'little mesters' industrial workshops and has Grade II* status. The authority says it wants to maintain the site's 'unique Sheffield character' and provide a new 'maker' space.

The LYSE proposal includes a shop for local makers, artists' studios, a café-bar and home for pop-up street food traders, an event and conference venue, co-working space and a new public square. It says it would create more than 2,500 jobs over 25 years, attract over 200,000 visitors to the Heart of the City II and pump more than £15m into Sheffield's economy every year. The three partners in LYSE are Union Street, DINA – Sheffield Arts Centre and Opus Independents.

Union Street is a city centre cafe and co-working space which is home to 100 lone workers and companies and is full. It would relocate into Leah's Yard, giving it room to expand.

DINA Sheffield Arts Centre on Cambridge Street has hosted dozens of events but must now close due to the Heart of City II redevelopment. Director Deborah Egan OBE said, "Looking back on the way little mesters workshops operated, you see that Sheffield was built on a network of independence."

Tim Feben of Opus added, "We want the partnership to be radical, to be a place where organisations can come together and help make our city better for everyone, providing meaningful opportunities and an inclusive space for shared cultural experiences."

In February, the city council applied for listed building consent to make the building structurally sound and bring it back into a usable condition, including making it weather-tight and by installing new windows, doors and roof.

David Walsh, The Star Sheffield

Bennerley Viaduct

The progress that has been made over the last year has been phenomenal yet we are aware there is a long way to go before the viaduct is re-opened. When the structural restoration works are complete, the construction of the western ramp will commence to be followed by the deck installation..... and there is still more funding to be raised. Great news on this front is that Broxtowe Borough Council are investing a further £100,000 in the project in addition to the £20,000 that they had already pledged.

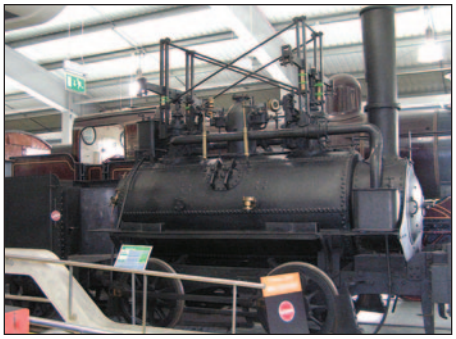
Further good news is that American Express has awarded $1 million to a selection of seven 2020 World Monuments Watch sites, including Bennerley. This funding is for a variety of projects that place sustainable tourism at the heart of their efforts. At these sites, WMF will experiment with different strategies, balancing environmental resources and the creation of long-term economic opportunities, all while ensuring the respect of the host communities, and increasing the pool of local and international locations for everyone to enjoy.

In this process, WMF will work closely with local and regional authorities, resident communities, and site managers. For example, at Bennerley Viaduct in the UK and at the Canal Nacional in Mexico, they are working with local community-based organizations to enhance recreation and tourism opportunities and highlight their continued cultural importance.

Mystery solved

One of the longest standing early railway mysteries has been solved with the reputed pedigree of a locomotive proven to be false.

The *Lyon* was said to be have been designed by George Stephenson and to have pre-dated his 1825 *Locomotion No 1* and 1829 *Rocket.*



The Lyon on display at Locomotion National Railway Museum, Shildon

Peter Davidson and Dr Michael Bailey who spent seven months investigating the engine's history at Locomotion National Railway Museum in Shildon, County Durham, said they can 'conclusively' prove that to be false. However, the myth has ensured that the engine has survived.

The locomotive, which hauled coal at Hetton Colliery near Durham for 60 years, was actually built around 1849.

A museum spokesman said the mystery began in 1902 when 'exaggerated claims' by the colliery's owners led to extraordinary national interest. As a result of the claim, the *Lyon*, one of three sister engines, was withdrawn from service and went on to lead the 1925 procession for the Stockton and Darlington Railway centenary celebration.

The team realised that the technology needed to make long sheets of wrought iron plate used in *Lyon's* boiler did not exist before the 1840s, ruling out an earlier construction date.

Hetton Colliery near Hetton-le-Hole opened an eight mile (13km) long railway in 1822, created by George Stephenson. "Although it would have been exciting to uncover links to an early Stephenson engines, the benefit to us today is that this remarkable locomotive would undoubtedly have been scrapped were it not for the tall tales surrounding it."

Appledore Shipyard to reopen

Appledore shipyard in north Devon is to reopen after being bought in a £7m deal.

The yard closed in March 2019 after owners Babcock said its future was not 'secure', despite the offer of a £60m Ministry of Defence contract.

The site's new owners InfraStrata said the yard's ability to cater for smaller vessels was 'a market segment that cannot be ignored'. Unions have welcomed the deal and urged the government to give the yard orders.

The yard will now be operated under the name Harland and Wolff (Appledore), after the much larger Belfast site the same owner bought in December 2019.

InfraStrata said the yard had been dormant for some time and currently only has one employee – the site manager - but the workforce can be 'very quickly ramped up' if contracts for work are secured.

Appledore Yard was founded in 1855, downstream from Bideford on the estuary of the River Torridge. It was known as P.K. Harris & Sons until it became Appledore Shipbuilders in 1963. It was bought by Babcock International in 2007. The company has built more than 350 vessels, including military craft, super-yachts and ferries.

Industrial success and forced labour

Fowler traction engines in use during the Boer War

Exported across the globe, they were the extraordinary engines which helped power Leeds to the summit of industrial excellence, but their unrivalled efficiency was also harnessed to support the growth of huge mining, railway and forced labour operations in hundreds of colonial territories.

Now, thanks to an innovative partnership project at Leeds Industrial Museum, new light is being shed on the complex legacy of the city's world famous machines. Through a fascinating collection of archive material and images, curators at the Armley museum and historians at Heritage Corner are working together to re-examine the many different ways Leeds-made locomotives and engines were used.

Exporting engineering and railway products had enabled Leeds companies to amass vast fortunes, which in turn boosted the growth and success of the city as an industrial hub. Many of those companies were also heavily involved in supplying equipment for empire-building by Britain and other colonial powers in places like Sierra Leone, where Leeds loco builders Hunslet Engine Co. and Hudswell Clarke exported at least 103 locomotives which were put to work on the controversial Sierra Leone Government Railway.

Colonial railways were usually built so valuable natural resources like ores, diamonds, gold, palm oil and groundnuts could be extracted more efficiently from occupied territories and local populations were often taxed to cover the costs of building them. Gildersome company Robert Hudson also completed a huge order in 1924 for the Loanda Railway in the then Portuguese West Africa, which The League of Nations later found was built using forced labour.

John McGoldrick, Leeds Museums and Galleries' Curator of Industrial History, said, "Leeds quite rightly has a long and proud history as an industrial trailblazer and a city which led the way in invention and innovation. But that success came at a price for people from other parts of the world, where Leeds-made machines were a driving force behind colonial expansion and the widespread plundering of natural resources. By using the knowledge and resources we have today, we can acknowledge the different and contrasting aspects of our city's heritage and present a more balanced and complete picture to our visitors."

Already housed at the museum is Leeds locomotive *Aldwyth*, twinned with another Manning Wardle locomotive *Nellie* which was built for the Sierra Leone Government Railway in 1915. The museum has previously worked with Heritage Corner to explore those links and the historic African presence in Yorkshire.

Andrew Hutchinson,
Yorkshire Evening Post

PS Waverley

Twenty-four people were injured after the paddle steamer *Waverley* collided with Brodick Pier in Arran on 3 September. Over 200 passengers and 26 crew were on board the vessel when it struck the pier.

The historic ship had resumed service on Saturday 22 August, following urgent boiler repairs. The 2020 global pandemic not only slowed work on returning *Waverley* to service after her extensive boiler refit – shortening her season from five months to a little over two weeks – but social distancing further reduced her passenger carrying capacity by 30%.

Waverley Excursion's General Manager, Paul Semple, said, "It was like open-heart surgery. She's had a major transplant in the sense that the boilers have been replaced, the electrical systems have been replaced and all the super-structure put back on top – and the famous funnels reinstated again. Technically, we have a new *Waverley*."

Restoration plan welcomed for Govan Graving Docks

Plans to deliver a housing development at Govan Graving Docks appear to have been abandoned in favour of returning the site to industrial, heritage and cultural use. Developer, New City Vision, which owns the site, had initially planned to create up to 800 homes, a 195-bedroom hotel, shops, restaurant and office space at the site.

However, the proposals were given short shrift by Glasgow City Council officials who described the plan as 'surprisingly poor' given the scale of development proposed and rejected the application owing to its failure to preserve the site's 'special architectural and historic interest' and flooding concerns.

Now the company said it has listened to local stakeholders and aims to bring the first of the three dry docks back into use for ship repair work next year.

A feasibility study was conducted when marine and civil engineering specialists carried out a range of surveys including a dive survey and testing of the dock gate. The dock itself was emptied, for the first time since 1987, down to 700mm above the bottom so that the walls could be checked.

Peter Breslin, managing director of Marine Projects Scotland Limited, which carried out the survey, said, "We were delighted to be instructed to carry out an initial feasibility survey on Dock 1. "The survey revealed that the dock gate, culverts and dock walls are all in good condition. "A programme can now be developed for the works required to reactivate the dock."

It is hoped the dock will be ready to open early in 2021.

Scottish Construction News
23 September 2020

Local Society and other periodicals received

Abstracts will appear in *Industrial Archaeology Review.*

Bristol Industrial Archaeological Society Bulletin, 161, Summer 2020
Bristol Industrial Archaeological Society Journal, 52, 2019
Cumbria Industrial History Society Bulletin, 107, August 2020
Greater London Industrial Archaeology Society Newsletter, 308, July 2020; 309 September 2020
Hampshire Industrial Archaeology Society Focus on Industrial Archaeology, 94, July 2020
Histelec News: Newsletter of the Western Power Electricity Historical Society, 75, August 2020
Historic Gas Times, 104, September 2020
Irish Railway Record Society Journal, 202, June 2020
London's Industrial Archaeology, 18, 2020
Manchester Region Industrial Archaeology Society Newsletter, 163, Spring 2020
Midland Wind and Watermills Group Newsletter, 126, April 2020; 127, August 2020
Northamptonshire Industrial Archaeology Group Newsletter, 156, Autumn 2020
Piers: the Journal of the National Piers Society, 134, Winter 2019; 135, Spring 2020; 136, Summer 2020
Somerset Industrial Archaeological Society Bulletin, 144, August 2020
Subterranea – the magazine for Subterranea Britannica, 53, April 2020
Surrey Industrial History Group Newsletter, 227, August 2020
Sussex Industrial Archaeology Society Newsletter, 186, April 2020; 187, July 2020
Sussex Mills Group Newsletter, 186, April 2020; 187 July, 2020
Transactions of the Ancient Monuments Society, 64, 2020
Trevithick Society Journal, 47, 2020
Trevithick Society Newsletter, 189 Autumn 2020
Triple News: Newsletter of the Kempton Great Engines Society, 55, Spring 2020
Welsh Mines Society Newsletter, Spring 2020
Yorkshire Archaeological Society Industrial History Section Newsletter, 110, Autumn 2020

Gasholder decision

Now the last two remaining wrought iron frames that held giant 60ft and 120ft high Victorian storage tanks are to be dismantled and taken away to be restored – then put back together bit by bit with circular residential tower blocks filling the gap inside.

The scheme for 550 homes in five round towers modelled on the gasometer geometrics, mainly luxury apartments with a third for "affordable" renting, comes as a bitter blow to conservationists wanting to preserve the 18th century heritage structures since being abandoned by the gas industry in 2012.

"Removing and re-erecting the gasholder frames will lose their structural integrity," veteran East End campaigner and artist Lucinda Rogers told Thursday's committee meeting.

Complaints were about the impact of the development's "excessive scale" on schools, public transport and medical centres, as well as soil contamination and being "out of character in the conservation area".

Opposition also came from East End Waterways Group, Friends of Regent's Canal, the Hackney Society, Greater London Industrial Society and Save Britain's Heritage.

It would cause "a major loss of sunlight" to canal boats moored next to the site and at a nearby community centre, the council's own planning officer Adam Garcia admitted.

Fears were raised by Historic England about the second oldest gasometer in the world being lost or damaged by dismantling and having no justification.

Lucy Rogers, has made this EXCELLENT video showing how their frames can be seen in silhouette.
www.youtube.com/watch?v=C0aR_y7H69k&feature=youtu.be

Books

Steam on the Sirhowy Tramroad and its Neighbours, by Michael Lewis, RCHS, 2020, 176pp, 122 illus. Hbk £25 post free in the UK from rchs.org.uk

Greenwich Peninsula – Greenwich Marsh: History of an Industrial Heartland, by Mary Mills, 232pp, ISBN: 979-8669957155, £10 available through Amazon.

This details the transformation of the former marshland into the vibrant, cutting edge district that it is today. Readers will discover more about the Peninsula's history in the industries of gunpowder, ship-building, cable-making, telecommunications and more.

Dr Mills, who is the Chair of Greenwich Industrial History Society, commented: "Explaining to people the scale of change in this remarkable area and the impact it has had on the world has been my passion in recent decades. Hopefully this new book will make the history of the Peninsula accessible to anyone who is interested in, or has a connection to, this unique location."

Mary Mills has lived in Greenwich for 50 years and for 14 years was the local councillor for the Peninsula and East Greenwich. She is also the Chair of Greenwich Industrial History Society.

AIA on Facebook

Statistics for 29 September 2019 to 20 September 2020:
Total Number of Members = 2,040
(for comparison there were 941 in September 2018);

Number of active Members = 1,728
an increase of 117% (785 in 2018);

Number of Membership requests approved = 844 (191 in 2018),
9 declined as not relevant to AIA.

Paul Collins

DIARY

For up-to-date info on events check the AIA website,

10-13 June 2021
7TH INTERNATIONAL EARLY RAILWAYS CONFERENCE
National Waterfront Museum, Swansea

29 August to 4 September 2021
TICCIH CONGRESS XV111
Industrial History reloaded
Montreal, Canada

19-26 August 2021
AIA ANNUAL CONFERENCE
Liverpool

Do we have your email address?

The relentless growth of digital communication has accelerated during the Covid-19 lockdown, with many events and meetings now moving on line. AIA is currently looking at how it can deliver more of its learning activities and other support for the industrial archaeology and heritage sector digitally. As some readers will know, we now also publish a regular email bulletin, the e-News, which has a wide circulation beyond AIA members, and which highlights the latest campaigns, events and other news more immediately than this printed newsletter can. In order for AIA to be able to keep members up to date with developments at this time of rapid change, we would love to have your email address, if we haven't already got it. All you need to do is to send an email to secretary@industrial-archaeology.org. We promise you won't be bombarded with lots irrelevant communications and that your data will be processed in accordance with data protection rules.

Ian West
AIA Communications Co-ordinator

Important – a new index of speakers

In the current environment it is not surprising that our Affiliated Societies feel unable to hold face to face events in the way they always have. But this does not mean they have to remain dormant. Increasingly groups are switching their meetings from physical to virtual allowing them to continue in a meaningful way and even extending awareness of their group to audiences far beyond local and even national boundaries.

But all IA groups have difficulty identifying good speakers for their meetings and adding the requirement of being able to give a talk 'virtually' might make that problem even harder. However, just because it's a local topic doesn't mean a talk wouldn't be of wider interest and presenting the talk 'virtually' avoids the problems with travel, particularly on winter evenings.

In the light of this the AIA is creating an index of speakers willing to give IA related talks face-to-face but also, crucially, indicating whether they are willing to present virtually.

The list will be made available only to Council, Affiliated Societies and the Young Members Board. However the existence of the list would be made public via the AIA website.

Recipients of the list need to be made aware that:

The list is provided only for their group's use for planning future events

The list is not to be passed on to other persons or organisations

The inclusion of anyone's name on the list does not imply any kind of recommendation or endorsement by the AIA

Groups must contact and make any arrangements directly with the speaker and that the AIA cannot be involved in any such arrangements

We already have a few names but we need your help. Can you or anyone in your group tell us about good speakers you've heard who might be willing to speak to other groups? Or would you be able to give a presentation yourself?

You don't need to get a lot of information from the people you propose – but we do need to approach them and gain their permission to be added to the list and other necessary details.

To tell us about a speaker or to get on the list yourself contact me at webmaster@industrial-archaeology.org

And if you need more information or help with setting up online seminars I am very willing to help. Technically it is not difficult to do. When I set up my first Zoom meeting I was amazed how easy it was and I know many other non-technical people who have found the same thing.

Bill Barksfield

It is not often members get to see the council in session – no names – no pack drill!

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1 April for May mailing
1 July for August mailing
1 October for November mailing

The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to assist and support regional and specialist survey groups and bodies involved in the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. The AIA publishes an annual Review and quarterly News bulletin. Further details may be obtained from the Liaison Officer, AIA Liaison Office, The Ironbridge Institute, Ironbridge Gorge Museum, Coalbrookdale, Telford TF8 7DX. Tel: 01952 416026.