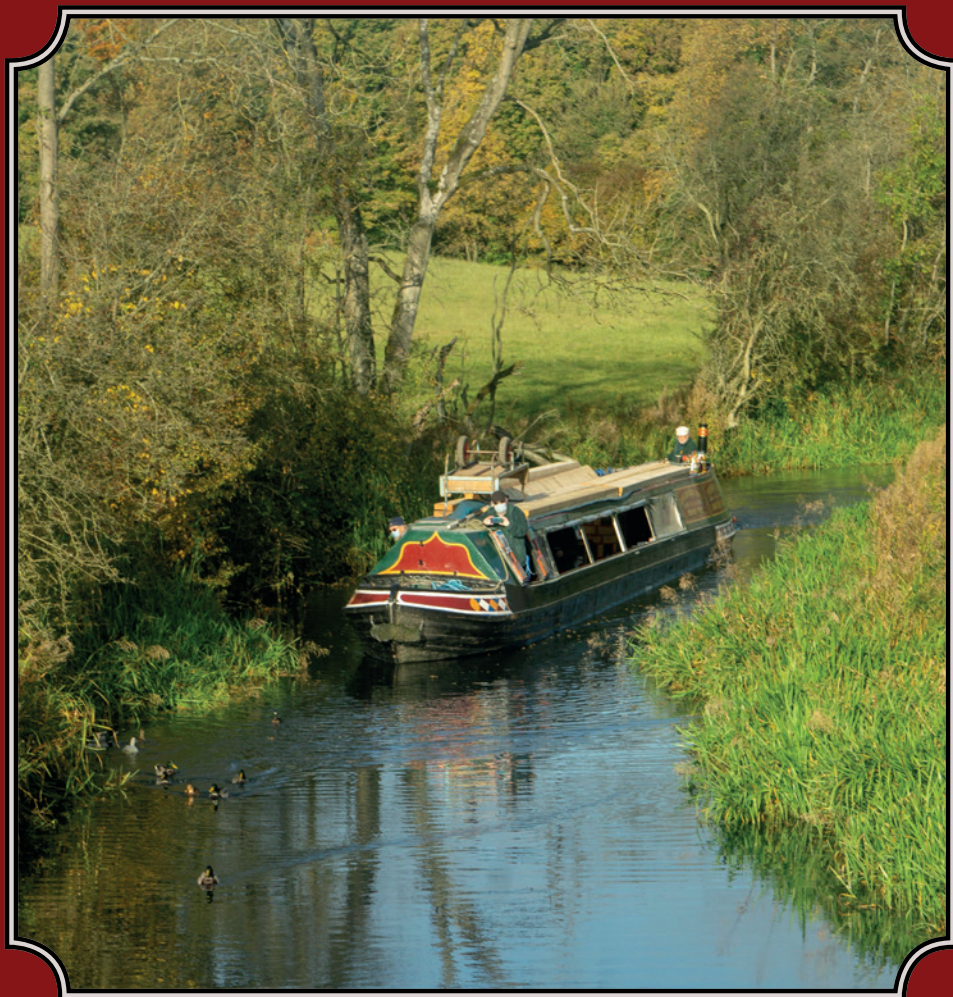


# THE PORTAL

Issue 75 - Winter 2020

Price £1.00 - Free to Members



Friends of the Cromford Canal

Registered Charity No. 1164608

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## Front Cover

Carrying on the Cromford Canal. *Birdswood* transports the roof beams for Aqueduct Cottage from Cromford Wharf to Leawood – see page 8.

*Photo: Keith Bailey*

## Back Cover

Recent work on boiler 43 of Leawood Pump – see page 22.

Top: A rare view of the boiler tubes.

*Photo: Arun Mather*

Bottom: Cutting the corroded plate from the underside of the boiler.

*Photo: Israel Newton*

**The copy date for the next issue is 19th February 2021**

## The aims and objectives of the Friends of the Cromford Canal



The restoration, reconstruction, preservation and maintenance of the Cromford Canal, its associated buildings, towing path, structures and craft and the conservation of its natural character as a navigable inland waterway system for the benefit of the public.

# EDITORIAL

Well, you don't need me to tell you that it has been a strange and trying year! It seems to have been a year when nothing really happened. And yet, FCC has been as busy as ever, but in different ways to 'normal' (if you can remember 'normal').

We've not been able to hold our popular social meetings at Ironville and we've not been able to run *Birdswood*. The work party has had to pause, but keeps quickly bouncing back thanks to careful planning and great enthusiasm from its loyal members.

Sadly, we have had to make the post of Boat Operations Manager redundant. Consequently much thought has gone into planning how we run *Birdswood* in future using solely volunteers when we start again next March. That is on top of planning to be able to run during Covid restrictions, which we have been able to do thanks to help from Derbyshire County Council.

Our diligent engineers have continued to pursue the solution for Browns Swing Bridge

at High Peak Junction and we hope to have that completed by next Spring. Our Strategic Restoration Committee continues to battle the labyrinth of legislation and conditions around the Beggarlee Extension.

And like the rest of the world, the Boat Committee and the Trustees have discovered Zoom to enable them to continue their work at a socially safe distance.

Meanwhile the canal itself has proved an invaluable resource for lockdown leisure as more and more local people have discovered the delights of a walk along the towpath both between Cromford and Ambergate and around Codnor Park.

If local restrictions mean you are having problems getting out to do your Christmas shopping, do take a look at the FCC shop (see page 35). Meanwhile, I wish you all the very best for Christmas, or however much of it we are allowed to have, and hope that 2021 will be a better year than 2020 has been. **T**

**Hugh Potter**



*If a picture is worth a thousand words, let's hope that this dramatic shot by Rebecca Parker heralds the dawn of a brighter 2021. It was taken as Birdswood was made ready to load the timber to be taken to Aqueeduct Cottage (page 8).*

# CHAIRMAN'S NOTES

By David Martin

So much has happened this year I don't know where the time has gone. Whilst the Friends of the Cromford Canal have suffered some real setbacks, equally we have made some significant progress – such is the way of the world we are in today.

As I reported in the last *Portal* our trip boat *Birdswood* will not be running until next spring. She will however be used for refresher training the boat crew, and for the work parties once the Covid restrictions permit. *Birdswood* was out the other week helping to carry materials up the cut to Aqueduct Cottage, in a similar way as they would have been delivered originally some 220 years ago (see page 8).

The Boat Committee have been and are still very busy making their preparations to resume trips making them as safe as they can be, with the support of Derbyshire County Council's officer Georgina Greaves and a video called "We're Good to Go!"

Our engineers have been on fire too. Plans are steaming along at a pace to repair Browns Bridge at High Peak Junction. We are aiming for Spring 2021, provided we can get through the paperwork now that the design work has been approved and get all of the necessary agreements for our plans in place. Nothing is ever simple or straightforward in a World Heritage Site with an SSSI there too.

Our Chief Engineer John Boucher has been beavering away on the pre-commencement planning conditions for the new Beggarlee canal extension from Langley Mill to Brinsley. These are mainly around archaeological and environmental issues where we have now appointed contractors who are specialists in those fields and they have started working on them already. We have also set up a Planning Construction Committee to navigate our way through this very complex undertaking to build

a mile of canal with two locks. We are still in need of volunteers who may be able to assist us with this process, from all sorts of trades from design and build through to construction. If you think that you could contribute please do get in touch (contact details on page 2).

This summer saw the launch of the third edition of our Walker's Guide 'A Walk Through History'. It really is proving to be very popular and makes a great ally when trying to navigate your way around the whereabouts of the different sections of the Cromford Canal on foot. Some of the past pictures of the canal give you a real glimpse of our rich industrial heritage; many are almost unrecognisable today. I would like to thank Hugh Potter and Ken Brockway for all of their hard work here; it really is a great guide, very reasonably priced at £5 and would make a great Christmas gift.

I joined John Barker with our dedicated work party at Pinxton Weir in September when FCC repaired it eventually after the concrete finally turned up! (See page 12.) They will now be returning to work on the Ironville and Cromford sections subject to strict Covid regulations. We have received a small grant from DCC to acquire new PPE to help keep them all safe.

Also in September the FCC held its AGM on Zoom and conducted the required statutory functions that the Charity Commission insists on. I must say it's functional but it isn't the same as seeing you all in the hall at Ironville.

Looking ahead to next year we still have lots of work to do in almost every area within the charity, from IT through to reed pulling. Upon reflection I can see that despite everything, we have made some great progress this year, and so with those thoughts in mind it just leaves me to wish you all a Merry Christmas and a Happy New Year from the Friends of the Cromford Canal. ■



# MEMBERSHIP MATTERS

By Yvonne Shattower

When I received Hugh's reminder that the press date for this edition of *Portal* was looming, I wondered what I was going to be able to write about. With the second Covid-19 lockdown still preventing meetings, no *Birdswood* running and things generally having ground to a halt, there was little to say.

Then out of the blue, I received a lovely letter from Sarah Dines, the MP for Derbyshire Dales, together with a completed membership form. Sarah has commended our work on the canal, and hopes to come and see us in action when conditions permit, and we are thrilled to have her support. Sarah has given permission for her letter to be reproduced for all the members to read. As well as Sarah, I would also like to welcome all the other new members who have joined us since the last edition of *Portal*.

We managed to get a quorum of votes for our virtual AGM; who would have thought a year ago that we would welcome the chance to speak to each other via the laptop? The Trustees are meeting regularly in this way, so management of the Friends is going on as usual. We are already planning the AGM for 2021 and you will find preliminary details in this edition; hopefully we will all be vaccinated and able to meet in person by then.

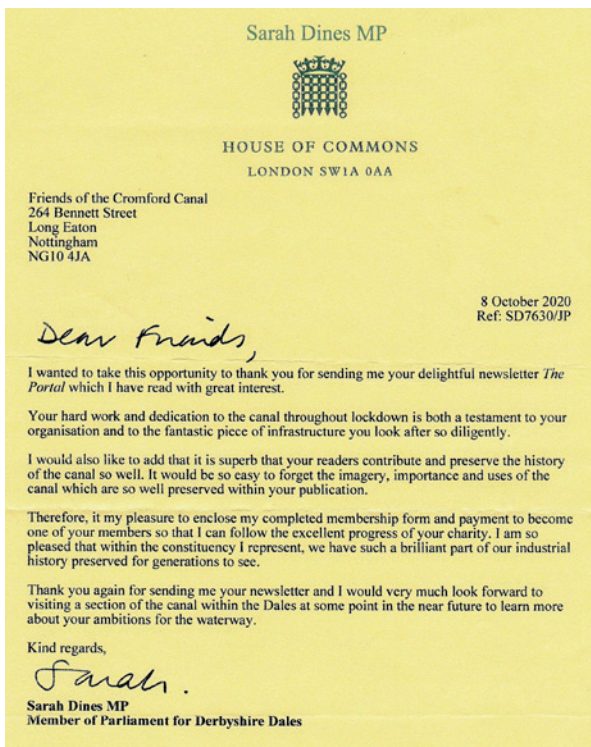
Many congratulations to all those volunteers who turned out to get *Birdswood* through her recent MCA examination. There is a list



of actions to be completed before the out-of-water examination next year, but it is good to know that she is good to go as soon as circumstances permit.

Thank you to all of you who have recently renewed your membership; can I please ask that if you decide not to renew for any reason, you let me know as

this saves the cost of sending out unwanted reminders and copies of *Portal*. I fully appreciate that, for whatever reason someone would not wish to continue with us, but it does help me if I know that a member will not be renewing. We ►



accept payment by Bank Standing Order, or if you want to pay by a BACS transfer when your renewal is due, please let me know and I will send you the relevant details.

We were a bit behind on Gift Aid claims but are now up to date, partly because the timescale deadline is different for claims for cash donations. We're very grateful to Steve Parish for his work in making the claims. *Birdswood* is a major source of donations but obviously in this year of the virus the income from *Birdswood* has disappeared (donations totalled over £7,500 in the previous two years).

We have about 170 members and/or regular donors registered for Gift Aid and that adds 25% to each of their payments. For 2018 and 2019 we expect to get over £3,000 back from HMRC. Feel free to join as a member, or just send a donation – and if you pay tax, please make it gift aided.

For some time now, our membership form has carried a Gift Aid declaration, but the earliest membership forms did not, so if you

joined us in the early days and pay income tax, your membership fee can earn us an extra 25%. All you have to do is sign a simple form which I will be pleased to send you. Not only can we claim for your current year's subscription, we can also claim for the past four years, so a joint membership would earn us £14 – almost 'buy four get one free'!

With Christmas coming up, how about giving FCC membership to the person who has everything – other than FCC membership, of course! For £9 they will be reminded of you four times a year or even more frequently if they receive our email newsletter. Please contact me for details.

I do hope you are avoiding the virus, I know that some of you have been unfortunate enough to catch it so I send my very best wishes for a speedy recovery. At the time of writing, we don't know how we will be able to spend Christmas but I do hope you will be able to enjoy it and we look forward to seeing you in 2021. **T**

## Volunteers Wanted

Due to Covid restrictions *Birdswood* will only be able to carry 40% of our normal passenger numbers next season, thus revenue will be greatly reduced. To adapt & reduce costs *Birdswood* will become a wholly volunteer led operation. We are seeking volunteers for the jobs below. You will need a computer or tablet, a broadband connection & familiarity with email, word processing & spreadsheets. The jobs can largely be done from home with occasional visits to Cromford Wharf. Full training will be provided.

### Customer Liaison Manager

Deal with telephone & email enquiries from the public. The volunteer will need to monitor the *Birdswood* online bookings page, & take bookings & credit card payments.

### Rota Manager

The Rota Manager will determine crew requirements, request crew to volunteer, assign them to trips & enter these on the rota web page.

### Volunteer Liaison

Volunteer recruitment and ensuring crew are kept abreast of developments relating to *Birdswood*.

### Community Liaison Officer

This role requires attendance, either face to face or via Zoom, at meetings with community stakeholders such as local authorities, schools, charities & community groups to promote *Birdswood*. The role will also involve seeking out & applying for grants.

**For further information or to volunteer for any of the above please contact  
[boatcommittee@birdswood.org](mailto:boatcommittee@birdswood.org)**

# BIRDWOOD SAVES THE DAY

## By Ron Common and the Aqueduct Cottage Restoration Team

Once in a while, something unexpected and rather special happens on the Aqueduct Cottage restoration project. Thursday 22nd October 2020 was such a day.

With the help of *Birdswood* and her crew, a little bit of history was made . . .

### The Background

Having suffered months of delay on the cottage restoration due to the Covid pandemic, the Derbyshire Wildlife Trust (DWT) project team was looking forward to restarting work on site, almost exactly 12 months since its volunteers started clearing the cottage in October 2019.

There was added excitement because we were expecting delivery of the main timbers for the new roof. The cottage has been without a roof for decades, so the sight of new timbers being erected is a significant and exciting new chapter in the 4-year restoration story.

delivery lorry was too big to get down the lane to the Wharf Shed (our normal drop off point for materials for the cottage).

The next suitable drop-off point was Cromford Wharf car park, but this presented another problem because the wharf is over a mile away from the cottage, and we had no means of carrying the long heavy beams that distance.

With no road access to the cottage, the only practical solution was to transport the timber by boat. So, that morning, I made call to Hugh Potter of the Friends of Cromford Canal to enquire if there was any chance we could use their boat, *Birdswood*.

Within a couple of hours, Mike Kelly of the FCC replied to confirm that they would like to help. By happy co-incidence, the boat was in need of a run to check its new motor.

The plan was to load the timber onto *Birdswood's* roof and undertake a couple of trips to the Leawood Pump House where it would be off-loaded and carried by DWT volunteers the short distance to the cottage.

In a few short hours, we went from having a logistical headache to real excitement at the thought of creating a little bit of history.

The significance of what we were about to embark on quickly translated into frantic activity, among both DWT and FCC volunteer teams checking who was available, co-ordinating with suppliers, and raising awareness of the event with our respective followers. News of the event was also circulated on social media and with BBC Radio Derby and TV.



*The timber delivery lorry squeezes through the narrow gateway onto Cromford Wharf.*

*Photo: Ron Common*

However, the excitement was soon tempered when, the day before delivery, Howarth Timber & Building Suppliers called to say that their

### Day Of Delivery

Amidst all the excitement, Howarths were still unsure if the lorry would fit through the Cromford Wharf entrance, and it was with ►

some relief when the driver, at 7.45am the following morning, managed to squeeze through with only inches to spare. Shortly after, the timber was craned onto the wharf, ready for loading onto the boat.

BBC Radio Derby also covered the event with three interviews broadcast during their morning and afternoon schedules.

Having decided to carry the full load in one trip, *Birdwood* set off, with Mike Kelly at the

helm, to make the familiar mile and a half journey to Leawood Pump House. From here, DWT's volunteer team unloaded the timbers and carried them to the cottage. It wasn't all plain sailing, however, because there were some concerns about the boat's engine by the time the cargo reached High Peak Junction. At this point, *Birdwood* had attracted quite a crowd. So, the DWT volunteers grabbed the horse rope and towed her the final stretch to the Leawood Pump House. If only we'd thought of calling Arraslea Shires earlier!

It's remarkable to think that the last time such an event happened was in 1802, when Peter Nightingale originally built Aqueduct Cottage. ►



*Carefully stacking the timber onto Birdwood's roof. Each piece was 6m or 7m long.*

*Photo: Keith Bailey*

*Birdwood* was brought alongside at the wharf and then under the supervision of the boat crew, DWT's volunteers carefully loaded the timbers. It was a great sight, helped by some glorious morning sunshine. There was certainly an air of nostalgia as thoughts went back to over a century ago, when the canal was last used for transporting commercial goods.

It was also heartening to witness the number of visitors who got up early to see *Birdwood* playing its part in the restoration of the historic cottage.

The event also attracted some media attention. James Roberson from the BBC arrived at 9.30am and filmed clips throughout the morning for a BBC East Midlands Today news feature about the cottage that we hope will be scheduled for December/January 2021, when the roof is completed.



*The heavy timbers being unloaded at the pumphouse for carrying to the Cottage.*

*Photo: Rebecca Parker*





*Carrying the heavy timber the last few yards from Leawood Pump House to the Cottage.*

*Photo: Keith Bailey*



*Birdswood being bow-hauled the final length after the summer's growth of weed defeated her at the swing bridge.*

*Photo: Rebecca Parker*

Whilst the stone used in its construction was most likely quarried from Lea Wood, the seasoned oak timbers are thought to have been brought by canal from the mills at Whatstandwell.

How fitting then that, 218 years later, history appears to have repeated itself with the canal boat, once again, being the transport of choice to deliver the timber to the cottage.

With the timber delivered, the construction of the roof 'frame' is expected to be completed by December 2020, which will be a very pleasant way to end an otherwise challenging year.

A huge 'Thank You' to the Friends of Cromford Canal, its team of volunteers, and *Birdswood*, for helping create a special memory in the history of our much-loved Aqueduct Cottage. ■



*The timber finally arrives at Aqueduct Cottage ready to be used to build the roof structure.*

*Photo: Ron Common*

# WORK PARTY REPORT

By John Guyler

A short report this quarter, as all of September and part of October were taken up with the rebuild of Pinxton weir, as described by John Baylis in his article (page 12).

Some of the work party group were able to do vegetation clearance and landscaping around that area at various times, when there were reduced numbers working on the weir. In total, the FCC volunteer work parties had thirteen separate working days, giving 360 direct volunteer hours and 71 travel hours on this project.

The main work at Ironville was under the instructions of Imogen Wilde, the Canal & River Trust Ecologist, in the overspill at the Codnor Park Reservoir. The main concern was the identification and marking of water vole holes. The vegetation was cut back and the saplings reduced to prevent a slowing of any excess water in times of a flood.

There was also work done on replacement of fencing between Lock 3 and the former Lock 1 at Pinxton Junction Bridge. On one day, volunteers worked on clearing the lock keeper's garden at Lock 4, making it good for winter.

All work was done with reduced numbers in the work parties and with social distancing whenever possible.

There were two work parties planned for Cromford, but both had to be cancelled due to the second lockdown.

FCC works under the Covid-19 Risk Assessment for both CRT and Derbyshire County Council, which we submitted to both parties for approval, before re-starting work parties in July.

We have now been informed by CRT that we can operate work parties in lockdown on their sections, following guidance from HM Government. We shall be in discussions with

DCC regarding working on their sections.

All volunteers are asked to read the Covid-19 Risk Assessment and to indicate to the work party leader that they have read it; this is then recorded on the signing on sheet.

Also, following on from the FCC and Friends of the Forge fitting new steps at the 'Humpy Bridge' at Jacksdale in February, the Friends of the Forge have now fitted a hand rail for the steps. **T**



*Friends of the Forge fitting handrails to the steps installed by FCC earlier this year.*

*Photo: John Guyler*

If you would like to join the work parties, please contact John Barker 01773 760358; [work@cromfordcanal.org](mailto:work@cromfordcanal.org).

# PINXTON WEIR REPAIR

By John Baylis, BEM

In the spring *Portal* (72) I went into some detail on the construction of Pinxton Weir prior to the Smotherfly coal opencasting in the 1990s and the failure of UK Coal's successors to complete the restoration. Derbyshire County Council were concerned at the downstream state of the weir and were having problems maintaining water levels in Pinxton Wharf with water leaking through the weir. DCC were also concerned at the possible collapse of the weir due to scour in times of heavy flow and vandalism. Our Honorary Engineers convinced DCC that FCC volunteers could do a more than adequate repair at much less cost than contractors by increasing the weight on the downstream side by casting a concrete apron that the canal water will flow down.

The work couldn't be carried out in 2019 due to heavy rain during the autumn and then in March the planned start was put off by the Covid-19 lockdown. The weir was constructed of wire gabions filled with stone along the side of the track by the canal and possibly forming the core of the weir. The upstream side of the weir was some form of plastic sheet and clay to prevent passage of water through the stone-filled gabions; the downstream slope was stone riff-raff with a crest of concrete kerbs set in concrete. In 2019 we had been planning a Waterway Recovery Group work camp led by WRG North West but with the restrictions on volunteers staying overnight a work camp was out of the question. Chris Broome, John Barker and myself arranged a new work programme and method statement for FCC work parties which was approved by DCC who agreed to pay the cost of materials, plant hire etc.

We eventually became more able to do work in August and preliminary work removing vegetation and cleaning off the old stones was begun. Chris decided that the weather looked ►



*The state of the weir before work began.*  
*Photo: John Barker*



*Work begins on Pinxton Weir.*  
*Photo: John Guyler*



promising with little rain, and work started in the second week in September. Plant and some materials were supplied by the Erewash Canal Preservation & Development Association and WRG from Langley Mill, concrete blocks and aggregate were brought in ready, and John Barker's team pressure washed the existing stone and cut the offside tail of the weir back into the bank. About 30m above the weir John and Chris organised the construction of a temporary dam with polythene sheet and 150 sand bags; pumping round the weir reduced the level at the weir crest by about 250mm, just what was needed.

the weir and the bottom shutter the stones were levelled off by the addition of more stones to give a finished concrete cover of about 150mm. When the concrete was laid a sheet of steel reinforcing fabric would be incorporated in the concrete.

I was aware of the problem of laying several cubic metres of concrete by hand and arranged for a pumped delivery of Readimix at 11am on Thursday, September 17th. Unfortunately, the pump arrived at 9am but the Readimix was delayed until the afternoon and the pump had another booking; so the concrete was called off for the day.



*Laying out the slope for the concrete apron.*  
*Photo: John Guyler*



*Awaiting the concrete.*  
*Photo: John Guyler*

Below the tail of the weir there was a layer of small stones and on these was laid a row of concrete blocks, about 2.5m from the crest of the weir, to form the bottom edge of the new concrete tail. Along the offside edge was laid a row of concrete kerbs set in concrete to finish about 100mm above the finished concrete. On the towpath side the row of stone-filled wire gabions was deteriorating; this was shuttered and concreted to about 100mm above the weir crest. This also filled in some holes in the gabions near to the weir crest through which water was escaping.

A shutter board was set up to give about 100mm of concrete over the row of concrete blocks and with a board between the crest of

Chris wanted to get the concrete done before the weather changed but the earliest we could get was Monday. Again the pump was early but the Readimix got later and later and the pump left; Chris decided that it must be done before it rained and we would move the concrete by hand when it arrived. The concrete finally arrived at 4.30pm and the volunteers who had been hanging around for most of the day finished about 6.30.

Over the next week the shuttering steel supports were removed, the concrete kerbs forming the crest were pointed up and finally the wooden fence was repaired and the dam removed. ►





*John Baylis supervising work in progress.  
Photo: John Guyler*



*The finished weir.  
Photo: John Guyler*

The total volunteer effort on site was over 300 hours; plus a lot of driving to and from site. The photographs by John Guyler show the great improvement in the weir run-off which should last for many years – a great improvement on the initial construction.

During the work Mick Bacon was a great help in storing materials in his yard, and tools etc in his shed; he frequently came round to give advice and encouragement. Derbyshire County Council is very happy with the repair and we have received a cheque for over £3,000 for our efforts. **T**

## Buy now for Christmas



**Friends of the Cromford Canal**

**Xmas cards & other merchandise available online at:  
[www.birdwood.org/shop](http://www.birdwood.org/shop)**

# BIRDWOOD AND THE COVID YEAR - PART 2

By Mike Kelley

In the last edition of the *Portal* I wrote about 'Birdswood and the Covid Year', in which I spoke of the negative effect 2020 has had on our *Birdswood* operation. I will not repeat that, save to say that many people have missed the sight of our traditional narrow boat plying its way along the Cromford Canal. Our colleagues in the Derwent Valley Mills World Heritage Site have commented how many tourists have missed her.

Probably no-one has missed *Birdswood* more than our former Boat Operations Manager (BOM) Vix Wilding. Vix was our only full-time paid employee and had put several years of hard working service toward the success of this operation, often working above and beyond the call of duty. Her many innovations were inspirational, bringing the canal to ever widening numbers of the public.

However the last time our boat carried passengers was December 2019, and she has carried no passengers since. The position of the BOM was furloughed throughout most of 2020, as part of the Government's Coronavirus Job Retention Scheme, with the trustees agreeing to top up the BOM's income.

As a charity, trustees have an obligation to FCC members and the Charity Commission, and with no prospect of any income from boat operations until at least the spring of 2021, trustees had no alternative – after due process – to declare the role of BOM redundant. Unless the Covid threat miraculously disappears, 2021 passenger capacity will be reduced from 42 people for a full load to 12 or 14, so it will still not be enough to pay for a full-time employee.

We have also had considerable difficulties with the propulsion system of the boat. (For more details see Kerry Green's and John Baylis' articles, pages 17 and 16.) This current problem with the unique eco drive system was

caused by a manufacturer error which caused yet other issues. This is now being dealt with by an agent company for the manufacturers, so the current lockdown will not inhibit the repair process. I thank John Baylis and Kerry Green and their teams for being so diligent, methodical, and ultimately successful in the repairs they have all done.

The Maritime & Coastguard Agency inspected the boat on 4th November and passed her as fit to go. So we are targeting March to recommence operations, subject of course to that damn virus!

The Boat Committee and wider Trustees are now concentrating on where we go from here. Our charity is in urgent need of personnel who are willing and able take on the roles of Fund Raiser, PR Officer, Treasurer and online Booking Coordinator. We need volunteers to take on these roles, for we cannot keep relying on an aging number of long-serving and over-stretched volunteers.

Are you up for one of these roles? (See ad. on page 7). **T**



*A sight sadly not seen in 2020: Chelsea, Corinne, Hugh and Mike raring to set off on another trip.*

# BIRDWOOD'S NEW PROPULSION SYSTEM

## John Baylis, BEM describes the work involved

In February I reported that we had removed the hydraulic motor driving the propeller on *Birdswood's* rudder for repair. When we removed the motor and sought advice from Tim Ogle at Ripley we learned that motor was 25 years old and no longer available; however Tim sourced a new motor of a size to fit in the space available, but the steel rudder housing needed modification and the propeller shaft needed new bushes. We had just got most of the bits together and the Covid lockdown in March stopped progress as the volunteers and some of the engineering firms were forced to stop working.

We eventually restarted in July and rebuilt the rudder housing, fixed the propeller to the new motor and fitted new hydraulic pipes from the new motor to reach into the pump under the rear deck of *Birdswood*. Whilst the rudder was off I designed and built a new extension plate for the rudder to improve steering and also turned and fitted a new brass bush to the lower rudder pin; this latter had been required by the Maritime & Coastguard Agency at last November's inspection.

Gundels from Mansfield delivered the rudder from Langley Mill to Cromford on a small lorry with a HIAB and lifted the rudder back on to *Birdswood*. The pipes were connected, the hydraulic fluid topped up and the motor tested; unfortunately the new motor on the rudder was still noisy and deemed unacceptable.

We sought more professional advice from Tim Ogle who thought that the noise was being generated inside the rear of the boat rather than the rudder. Several suggestions were tried: re-routing pipes, filling the old diesel tank with water to stop the empty tank vibrating and testing the output pressure from the hydraulic pump; all to no avail.



*The rudder with new motor and extension plate being lifted back onto Birdswood in July.*

Tim then built up a slave pump driven by mains electricity; this was situated on the bank to power up the propeller and the sound was considerably reduced. Tim then suggested several internal modifications to the oil reservoir, fitting a new, larger filter and mounting the new electric motor on anti-vibration pads.

On re-assembly by Mike Chisnell the motor was much quieter and we seemed to have cured the problem, so Mike Kelley did several trial runs. I was concerned that despite Nigel Neale clearing out the bilges we were still ►



getting water and hydraulic fluid appearing. We tightened up all the hydraulic joints and did some pressure tests on various parts of the pipe runs and finally wiped the engine bed dry. However, after running for about 10 minutes, oil again appeared and we traced the leak to the back of the electric motor.

I decided that the problem looked like a failed oil seal on the driven side of the pump and fluid was leaking into the electric motor. Kerry Green confirmed this and the motor and pump have been taken for repair; this was a new pump and a new motor so hopefully there will be no charge.



*Dave Turner checks the swing of the newly re-installed rudder.*

### **Kerry Green Describes the New Electric Pump and Motor**

In 2018 *Birdswood's* electro-hydraulic propulsion system became very noisy, so much so that people on the towpath thought we were running a diesel engine.

As the propeller hydraulic motor had been refurbished a few years earlier it was thought that the hydraulic pump was now worn out so it was decided to upgrade the motor and pump to a new silent design.

However the pump motor was on a long delivery so we missed the opportunity to fit this at the start of 2019 and continued to run with the noisy system, hoping it wouldn't fail mid-season.

In November 2019 the new silent integral motor pump was installed and we started testing. It was then discovered that the hydraulic propeller motor was seizing up and would also need replacing.

Due the age of the part which was no longer available, an alternative had to be found. Nobody but John Baylis had the expertise, willingness or contacts to undertake the special engineering required to extract *Birdswood's* rudder and modify this to take the new part. John actually saved the FCC a lot of money by doing this work through the Covid 2020 lockdown period.

Once the system was installed again, preliminary testing showed that other parts of the aging hydraulic system were in need

of renewal. John reworked the hydraulic system putting in new filters, pipework and tracking down curious noises coming from the hydraulic pipes resting on the old empty diesel tank in the stern.

In November we made another test run with Hugh on the tiller and *Birdwood* was quiet. Then it was noticed that the new silent motor pump unit was leaking oil; this is due to an intermediate oil seal failing which the manufacturer has agreed to repair at no cost. All we have to do now is remove the unit and send it back for the repair, but we are restricted by the November lockdown at present. We are feeling confident that once this repair has been done we will be back to 100% operational. **T**



*The complex system of hydraulic pipes that operates the boat's electro-hydraulic system. The defective motor is on the left.*



# GETTING THE PLANNING PERMISSION

## John Boucher on the 4-year process to gain permission for the Beggarlee Extension

When our Strategic Restoration Committee (SRC) was established in 2016 it was mandated to consider the whole canal, including the southern end which some felt had been slightly overlooked during the

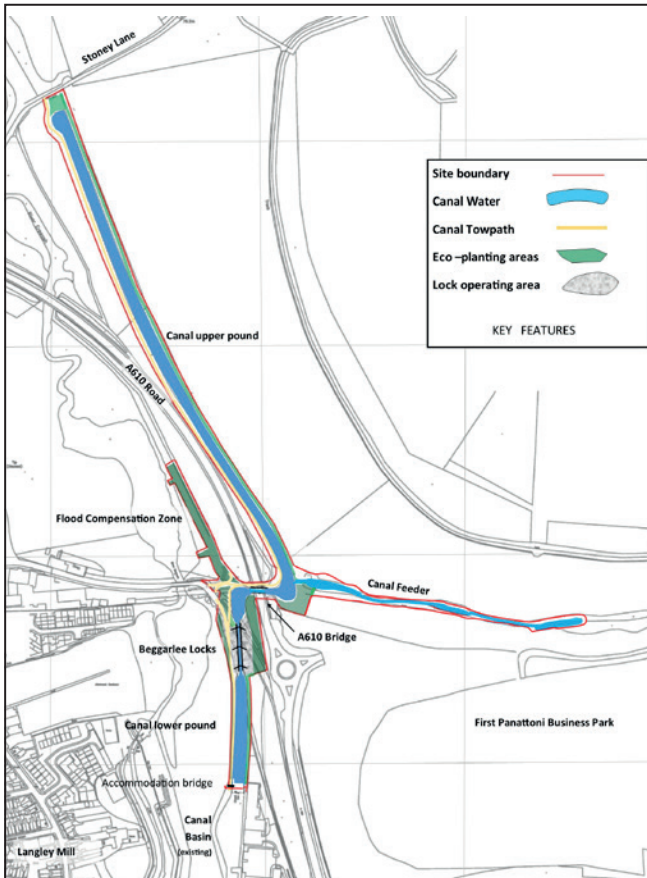
euphoria that went with getting *Birdswood* up and running at Cromford.

The first idea was to simply extend Langley Mill Basin a little further north, an easy exercise for volunteers. Looking at the planning

regulations relating to remainder canals, which ours is, it seemed to fit nicely into the box labelled Permitted Development. Alas, the Planning Officer at Amber Valley did not agree, and said that as there was excavation involved we would need a full planning application.

The SRC was keen to put its mark on the now disused railway bridge beneath the A610 Langley Mill bypass, the only feasible route to enable us to progress to the north without the huge expense of a completely new bridge to get through the blockage caused by the road construction. We were keen to claim the route, as we had heard of competing proposals to put a new road through it (fortunately these were dropped).

I therefore offered to prepare a planning application to take the canal as far as the county boundary beneath the bridge. However it was decided that to make it worthwhile a better idea would be to take the canal ►



*The route approved in the recent planning permission showing the extension north from the existing basin, up a staircase pair of locks and under the A610 by the former railway tunnel to reach Stoney Lane. More details were published in the last issue of Portal.*

into Nottinghamshire as far as Stoney Lane in Brinsley which would complete the diversion around the A610 blockage up to the point where the canal could re-join its original route to the north – a total distance of one kilometre.

This obviously required a little more thought than a straightforward digging out of 120m of infilled canal. It required survey information to check that the levels would work out (it will actually bypass two of the original locks), a study of ground conditions (it would pass along the toe of the old Moorgreen Colliery waste tip, which had been reclaimed into pleasant farmland but would nevertheless present a landslide hazard if we went in too deep) and many other aspects.

It would also require a cross-border application as it not only crossed the two District boundaries, but also crossed the County boundaries. Surprisingly, cross-border applications are quite rare, and not only were we feeling our way, it seemed as though the Local Planning Authorities were also feeling theirs. Fortunately, or so we thought, all the procedures were now set out in the on-line Planning Portal. The LPA with the greater proportion of the project area (Broxtowe) was designated the lead authority, and although we had to submit identical applications to each authority Amber Valley would advise and Broxtowe would make the final decision and supervise the project from the planning point of view. At least, that was the theory.

During 2018 a lot of work went into the project planning, developing the scheme designs, checking surveys, and preparing the detailed assessments necessary to support a planning application. We were fortunate to have four Chartered Civil Engineers in the SRC team, so engineering was not a problem.

Chris Broome did a lot of detailed work to satisfy the Environment Agency with the Flood Risk Assessment, Doug Readle handled the detailed structural designs and prepared the CAD drawings, and also Traffic Management and Sustainability Plans. Having some mining

background I prepared the Coal Mining Risk Assessment, and also the Archaeological Assessment and the Design and Access Statement, the basic document setting out all the proposals. Susan White, the Derbyshire Canals Officer and an ecologist by background stepped in to provide the stage 1 Ecological survey. George Rogers, the SRC Chairman, and other team members provided further guidance.

Deciding on the amount of information to include in a submission is difficult. We decided to include what we thought was essential, and to be prepared to undertake further specific studies during the consultation period. This approach was confirmed in a pre-submission discussion with the lead Planning Authority, and we were able to submit our applications on line at the end of February 2019, simultaneously to both authorities.

Consultation responses arrived at various intervals; some came quickly, others took much longer depending on consultees' internal resources. We had further discussions with the Canal & River Trust, who surprisingly took the longest to formally respond, but provided much helpful detail when they did.

I had rather a shock when the Coal Authority replied to Amber Valley and dismissed the Mining Risk Assessment out of hand, which sent us into a flurry of further reviews, including the purchase of further reports at some cost. Imagine my amazement then, when 13 days later the same CA official using (we thought) the same information approved it to Broxtowe and fully agreed with its conclusions. Flabbergasted, I went back to Amber Valley, and it transpired that although they had forwarded it to the CA a few days before Broxtowe did, they had failed to include the detailed information, having only sent the very short summary in the D&A statement – no wonder they thought that was inadequate. Easily resolved!

As anticipated, it took a rather longer to resolve environmental issues with the Environment Agency and the two ►

Wildlife Trusts. The EA were happy with our flood risk assessment and its proposed mitigation proposals, but we were invited to a meeting at their Nottingham office to discuss the issues relating to habitat and hydrology. This resulted in some water sampling in the Langley Mill basin with rather advanced eDNA testing to check for the presence of white clawed crayfish, crayfish plague or signal crayfish. We did detect traces of white clawed crayfish close to the feeder from Moorgreen Reservoir, but fortunately no signs of signal crayfish or the plague.

Chris prepared a Water Framework Directive Compliance Assessment, a recently introduced hurdle, and this additional work satisfied the EA, although they then highlighted the need for more applications for licences further down the line before we could open the new canal.

The two Wildlife Trusts were still not satisfied with the additional stage 1 habitat information we produced, and demanded more work, including a biodiversity metric assessment, a complicated algorithm using a new version which was only published five months after we had submitted the application. This was getting too much for us, so we brought in Baker Consultants of Cromford to assist. They initially reviewed the overall situation, and produced an authoritative review that concluded we had already covered most of the requirements, but recommended further work in two areas. We commissioned this from them, and submitted it for approval.

Alas the Covid-19 pandemic intervened, the wildlife staff were furloughed, and it took almost three months to get a further response from the Wildlife Trusts. Eventually our reports were accepted, subject to lengthy conditions requiring further studies before the works could proceed, which fortunately are already part of our plans.

Unfortunately the Derbyshire County Planning Archaeologist did not accept our Archaeological Assessment, even after we submitted additional evidence to show we

were only working in ground that had already been heavily disturbed. Although I had informal opinions from three experienced archaeologists that what we had produced was enough to satisfy the Planning Practice Guidelines (PPG) requirement, she felt we might have missed evidence of Romano-British settlements along the river bank, and insisted that we employed an expensive Chartered Archaeologist to produce another report. Unable to reach a compromise we had to give in to avoid further delay, and the report was produced and confirmed what we had already said. Finally they accepted we could proceed, but subject to further detailed conditions.

The Canal & River Trust also produced a long consultation response, largely covering discussions we had held with them during the planning process. It concluded with a series of proposed conditions, mainly relating to detailed design, water supply, and how we arrange the final connection to the existing canal, which will form a useful agenda for future discussions. Chris Broome continues to cooperate closely with them on his detailed Water Resources Study, which will inform long term water supply issues and be essential for any further canal extensions in the future.

Eventually, after almost eighteen months, planning permission was granted by both authorities. In an unexpected last minute twist, after we'd agreed all the draft conditions, Amber Valley decided that on a legality they could not accept handing the final decision to Broxtowe, and thus we now have two separate approvals, one from each Borough. We have now started work to satisfy the planning conditions, a few of which must be resolved before any construction works can start, with further assistance brought in from various specialists in areas where needed to bolster our own team's experience. This is likely to take a few months, during which time detailed construction plans and programmes can be made, and the further funds necessary to complete the work can be raised. ■

# PHOTO NEWS

A pictorial round-up of recent developments along the canal corridor



*Lockdown - 1. A previously unknown lock has been discovered at Ambergate leading down to the river Derwent alongside Holly Lane..*



*Lockdown - 2. With the second lockdown expected to bring more people to the canal towpath, Derbyshire County Council placed rather more prominent signs for cyclists than the previous rather discreet ones. In all fairness, the vast majority of cyclists are very considerate.*



*It's not only Aqueduct Cottage that is getting a new roof. After almost a decade, work has begun on the former Newlands Inn to convert it into apartments*



*This delightful kissing gate has been erected by Friends of the Forge beside Lock 6 to give access from the canal into the nature reserve. So good to see the boat alongside the wildlife.*



# LEAWOOD JOTTINGS

## Ian Yates on recent boiler work

As I sit and write this we are back in lockdown, but fortunately things are proceeding at the pump house. When we were allowed back, several returned straight away but some waited to see what would happen. Eventually we ventured back generally – not more than five of us at any time.

We decided to make a clean sweep of the boiler house whilst it is out of use and removed all the lagging to boiler 44 and the pipework. This has not been removed from the pipes for many years and we wondered what it would be like underneath. The lagging was a mixture of Rockwool and fibre glass and it had more of an effect on us, even wearing masks, than Covid could. Eventually it was all bagged up, removed from site and disposed of with a bit of help from the DCC rangers.

The pipework is in very good condition except for a couple of joints on the warming line which will need attention. We may replace all the warming line and bring it level on both sides as it is higher over boiler 43 than 44 so would look better. The pipework has been cleaned down with a wire brush and is ready for priming again when we return. After the first lockdown ended, Brian collected the timber for the access gates at the top of the steps. He has made new gates and they have been fitted just in time before the old ones disintegrated altogether. The gate to the coal drop has also had the painting completed and is now back in place.

The engine side has not required much work. We cleaned down the patches of rust that had appeared on some of the bright work and generally oiled it over again. It was quite surprising the rust on the cylinder top had formed under the oil layer, but oil floats on water and hence it had rusted underneath. The roof was inspected by the steeplejacks and they returned and cleaned out the gutters again as

we had some water come in by a downpipe due to detritus in the hopper head. All now seems fine again.

Just as we locked down again, the boiler engineers had started to repair boiler 43. This entails cutting out a section of corroded plate from the underside and replacing with new. An area indicated by the non-destructive testing is being removed first and then the area can be inspected to see if any more requires removing. This is the only way into the boiler as we do not want to remove the tubes. It would be a problem to replace them as they are copper and would be very expensive, any re-tubing would probably now be done in steel.

An inspection by the boiler inspector was due on 11th November so we will know then what is happening and the current state of the boiler shell. A new piece of plate will then be welded in place and a hydraulic test carried out. Unfortunately, the area covers a joint so that will need riveting and then caulking up to prevent any leaks.

Hopefully we can return in early December and carry on with the general maintenance. Dates have been set for next year but we are not releasing them yet as we need to work out a safe system of operation, probably booking on line. A charge would have to be made as we would not be able to rely on donations for the coal cost as numbers would be lower.

Fortunately, the engine house allows for a one-way system: in the back, out the front and back up the side of the boiler house. The Victorians must have thought about that need at some time! The steps up to the towpath would have to be self-regulating.

That's all for now; hopefully we can report good news next time and look forward to more normal times. Keep safe and look after yourselves. (See also back cover - Ed). **T**

# ALONG THE EREWASH RIVER

## Chris Stamford-Burrows explores from Kirkby-in-Ashfield to Langley Mill



*Portland to Pinxton. OS maps showing the footpaths, highlighted in pink, that most closely follow the River Erewash.*

*©Crown copyright 2020 Ordnance Survey. Media 025/20*

The topographical relationship between river, valley, railway lines and canals re-occurs all the way along the Erewash, via Langley Mill, eventually to emerge in the Attenborough Nature Reserve, some 14 miles south of Pinxton.

The river runs close alongside the Pinxton Branch of the canal past

In a valley west of Portland Park, between the disused Mansfield & Pinxton and Great Northern railway lines, two streams merge to become 'The Erewash River' which passes under an old footbridge. From this point it follows a valley towards Pinxton Wharf where the connection to the Cromford Canal begins.

Before that, the river passes under the M&P Railway line twice, then the M1 motorway, via widely differing 'culverts' built in the 19th and 20th centuries.

the Boat Inn and the second sewage works to be found along the way. The river never fed the canal because as it turned south it fell below canal level. The Smotherfly opencast coal site diverted the river along a stone-lined ditch which still follows the canal line. ►



*The rather decayed second bridge/culvert under the derelict Mansfield & Pinxton railway line, built around 1819.*



*Pinxton to Jacksdale.*

*©Crown copyright 2020 Ordnance Survey. Media 025/20*



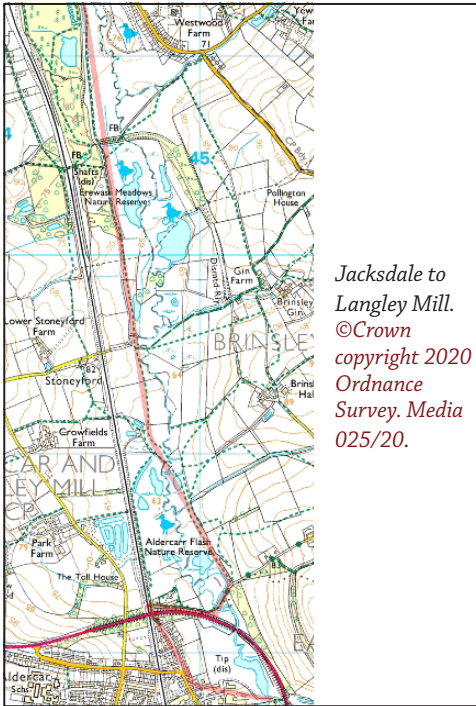


The basin was linked to the Cromford Canal under the stone bridge now called 'Old Humpy', having passed over the river on what was the first of the canal aqueducts along the Erewash Valley.

coal sites – the river passed under a second Cromford Canal aqueduct, now marked by an (overgrown in summer) steel footbridge.

The network of pools and loops at Aldercar finally converges at Stoney Lane. On the other side of the lane, the river disappears into an impenetrable wooded jungle. Google Earth (2001) shows it meandering for a few hundred yards before diving under the A610 and opening up into what is known as Beggarlee. Now choked with reeds, this area will be opened up to form a 'flood risk compensation area' for the Beggarlee locks and canal extension which is planned by the FCC. Walkers will certainly benefit from this, which has now been approved by the local councils.

From here the river runs close to Langley Mill Basin and under the Derby Road before it picks up its relationship with the Nottingham and Erewash canals along the great Erewash Valley. But that's another story. **T**



*Jacksdale to  
Langley Mill.  
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Survey. Media  
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Now that the river has found the Cromford Canal it meanders south through a wide, shallow valley, as the canal drops down a series of locks toward Langley Mill. Looking south from 'Black Bridge' and the derelict branch line, on the far right is the active East Midland Railway, then the filled-in line of the canal, the Erewash Meadows Nature Reserve and then to the left, prior to 1974, there would have been the Great Northern Railway Viaduct crowned by Jacksdale Station.

Further south still, the river passes by Stoneyford. At this point it is an attractive waterway, with paddling and fishing pools and places to sit on the grass and picnic. Before it passes into Aldercar Flash Nature Reserve – formed by mining subsidence and open-cast



*The overgrown footbridge on the site of the aqueduct across the Erewash below Stoneyford.*



# LETTERS TO THE EDITOR

## Footpaths at Bullbridge

An interesting feature on the demolition of Bullbridge aqueducts (*Portal* 74). It's not uncommon for footpaths to be used in an attempt to prevent something happening but as is also usual it may have delayed but didn't stop the wish of those in control. In fact it appears to have had little effect and I'll explain why.

In an earlier article (*Portal* 69) I tried to account for the Cromford Canal towpath being recorded throughout as a public footpath, not the general rule on most canals, navigable or abandoned. The footpath along the canal in the large Ripley parish and former urban district area was claimed and is recorded on the first Definitive Map as Ripley FP81. It starts at the west portal of Butterley tunnel and ends at the District boundary near Gratton's Bridge 15. While this is no longer the case, it would appear because of a diversion around the gas works site, the section at Bullbridge to the A610 at Lower Hartshay is now numbered FP146.

Back at Sawmills/Bullbridge footpath 79 is also shown on the Definitive Map. This starts from the A610 near the Mission chapel, crosses the rail line and runs at the foot of the canal embankment on the NE side to meet Drovers Way. This route still exists and was recently diverted to allow for construction of the footbridge over the railway.

I explain the different path numbers above because when a footpath meets a road it ends. If a path continues opposite, this is given a different number. Take a look at the current definitive map online and it can be seen that FP146 continues from the back of houses at Sawmills, swings round to cross the A610 and railway line and continues across the embankment along the towpath to Bullbridge without a number change. The footpath across the demolished road and rail aqueducts still

exists but of course is impossible to follow owing to the lack of a bridge!

**Ken Brockway**

## Butterley Support

Having recently read the article 'The Standard Unit Bridge' (*Portal* 74), I came across an article in this July's edition of *Action* (magazine of the AC Cars Owners Club).

Interestingly, the article in *Portal* suggests that the Butterley bridge to Taggs Island was built on the wooden trestles of an pre-existing structure whereas the *Action* article indicates that there was no structure prior to the construction of the Butterley bridge.

A big thank you to you and Keith Bailey for producing such an informative and entertaining publication. Always a good read.

**Alan Alford**

*It's great to know that Portal is read in such detail, even on topics as diverse as this! The article in Action states that prior to the bridge, the only access had been via a ferry. Despite having been a 'temporary' wartime structure, it was not finally closed until 1977 when it was replaced by a new structure in a different position - Ed.*

## Robin Hood

I have recently read an article in *Portal* 62 (Autumn 2017) about the Sims Bridge. I grew up in Whatstandwell and my grandfather worked at Duke's Quarries and at another site, Birchwood near Homesford, with his brothers until he retired before I was born.

I paid particular interest to the construction of Sims Bridge in the magazine, and whether it carried a railway. I believe it did carry a railway. I have read several articles on the internet referencing a wagonway or tramway, which I believe would have been in use before the bridge was built. ►

There was a mill at Robin Hood that was driven by a water turbine powered by the stream which runs through the hamlet.

I believe stone was loaded on to boats at certain points along the canal. Parts of the bank both in front of the house (which is now the occupants' front garden) and to the south are lined with stone, and I believe they would have been loading points for stone. I believe there were wagonways down that side of the cut, and it makes me wonder if there were more loading points along the stretch where the crane base was found near Sims Bridge? Stone from Wakebridge could also have been loaded.

More recently, there used to be a footbridge going over the canal in this area linking Robin Hood with Dawbarn & Sons Steam Joinery Works, which was between the canal and the River Derwent.

Engineers of the canal built tramways at many other sites in Derbyshire. Duke's had a huge reputation for completing big orders of stone, sometimes 200 tons of stone weekly when Derby Gaol was being built in 1823; that's somewhere in the region of 7 to 10 boat loads of stone per week. Whatstandwell stone

was used to build a number of other buildings including the original Euston Station, Millbank Penitentiary, Waterloo Road Bridge, Leicester Gaol and the London to Birmingham Railway stone sleepers.

I believe a narrow-gauge railway was built on Sims Bridge on a similar timescale to the narrow-gauge railways at Crich. This would have been used to take stone traffic to the Midland Railway at Whatstandwell, after the Midland Railway took over the Cromford Canal.

Growing up in Whatstandwell I used to ride my bike over the iron bridge (as we called it), which is Sims Bridge. We rode over the bridge and on to the towpath side of the bridge and I remember a piece of old railway line sticking out from the end of the bridge, almost under the path, where it had been covered over but worn away. I remember asking my father why there was a piece of railway line sticking out from the bridge and he told me that there was a railway from Duke's Quarry to the rail wharf, like the one to the canal from Crich. I have since discovered (*Through the Limestone Hills*, Bill Hudson, 1989), that between 1880 and 1914, 50–70 wagon loads of gritstone left

Whatstandwell every week, and by 1885 three cranes were used at the rail wharf. Would they have been able to move this sort of tonnage with horses and carts?

I have not been able to find other information about there being a railway on Sims Bridge, just my childhood memories and what my father told me. I would be very interested in trying to find out more about it; perhaps this letter will jog someone's memory.

**John Harris**

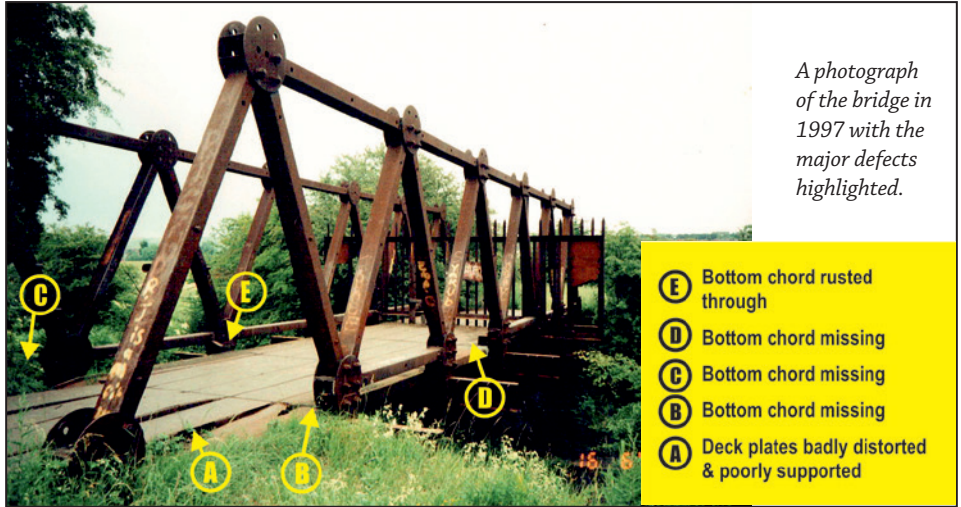
*If any readers can throw any more light on the mysteries of Robin Hood, please get in touch via the Editor; any correspondence will be forwarded. ■*



*The well-known house at Robin Hood, with stone canal walling extending to the south where boats could have been loaded with stone. The small 'tower' on the right is now being offered as self-catering accommodation; details at [www.rhtower.co.uk](http://www.rhtower.co.uk).*

# BUTTERLEY MEMORIAL BRIDGE?

John Boucher offers a suggestion



Many people share Brian Key's views (*Portal* 74) regretting the loss of the wartime 'Butterley Standard' bridge across the canal between Jacksdale and the Codnor Park works, and thinking it would be nice to have a Butterley Memorial bridge on the site. It was good to see Tim Castledine's informative article on this bridge design in the same issue.

Unfortunately the bridge, being a wartime competition design, was only designed for a short life – wars are supposed to be over in a year or two – and galvanising or good steel protective coatings would have been an unwarranted extra cost. When I went to have a good look at the bridge in 1997 it had corroded so badly that critical parts had dropped away, and I had difficulty envisaging what was stopping it collapsing.

I marked up a record photograph to clarify my concerns. The bridge was designed as a readily transportable and easily erectable unit bridge, using a limited number of standard components connected together on site with

round steel pins through the joints. Each side was of a design known as a Warren truss, where the top horizontal chord member acts as a strut, and the bottom chord as a tie, which working together provide the necessary bending moment resistance to support it.

The diagonal members each side provide shear resistance and hold it in shape. By the time I saw it the bottom chords had corroded severely and three had dropped out altogether, so there was none of the original design resistance left at all. I puzzled over it for a long time and could only conclude that the pins in the top chord had rusted so badly they had completely seized up solid, creating arches relying on the rust in the joints and the very doubtful resistance of its feet into each bank.

I was very concerned that the bridge was liable to collapse at any time, particularly in the coming winter when it might be heavily laden with snow and children playing on it. When I made enquiries I learnt that the ►



*The 'Standard' bridge immediately after demolition.*

Callender-Hamilton bridge (another Warren truss design) which was selected as an alternative, and remained in production much longer. Back around 1970 when I was working in Africa I was asked to provide a preliminary costing for a bridge to extend the steam-powered Zambezi Sawmills Railway to a new logging site across the Zambezi, which was nearly half a mile wide but quite shallow in the dry season at that point. The Callender-Hamilton

District Council were aware of its condition, but had not taken any action as they could not pin down an owner to enable them to pass on the costs of demolition. However my enquiries obviously prompted them to think again, especially as an old bridge across the Erewash just to the other side of Ironville had collapsed only a few months previously, killing a child who had been playing on it. Demolition occurred shortly after.

Tim mentions that the Butterley Bridge lost out to the Bailey Bridge in the wartime competition. It actually also lost out to the

bridge was still in production at that time, by now galvanised, and I chose twenty spans for the crossing. Alas, even that economic design exceeded the funds available!

I also like the idea of reconstructing a bridge at the site as a Butterley Memorial. However, the wartime bridge was not their best-looking design, and when the possibility of providing a new bridge at the site was discussed a few years back I suggested a design based on the traditional Butterley cast iron bridge. The rough sketch of my proposal is published here. I rest my case! **T**



*John Boucher's proposal for a 'Butterley Memorial' bridge to replace its forerunners and the current boardwalk.*



# CIRCULAR CANAL WALKS – 9 CRICH

Ken Brockway offers a walk with some spectacular views

**Distance:** 5 miles.

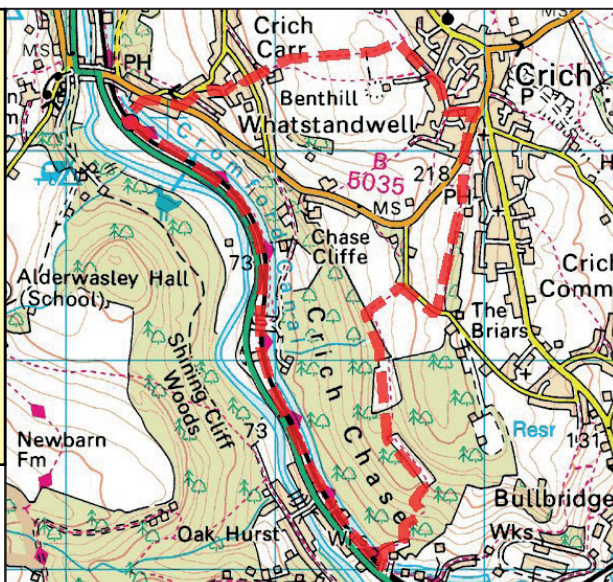
**Start point:** Crich Market Place (Alternative from Whatstandwell station – Transpeak bus or train).

**How to get there:** Bus 140, 141, 142, 144 to Crich from Alfreton, Ripley, Matlock. See Traveline for details. Car parking on street, Coasthill DE4 5DS.

**Refreshments:** Old Black Swan, The Loaf Crich. Hurt Arms Ambergate, Family Tree, Whatstandwell.

*Map:*

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On the bus shelter on Crich Market Place is an information board about the Butterley Gangroad that is worth studying. Take the road also named Market Place with the convenience store directly behind you. As the road bends right to become Coasthill take care to follow this, past an old Crich Tramway bridge on the right, as it narrows to arrive at a gateway into a field. Cross the field to a stone gate post which marks a crossing path, turn left here.

A short climb, then over the brow of the hill a panoramic view opens up. Ahead are the masts on Alport Height, Alderwasley Hall is the square white building and to the right the towers of Riber Castle. Follow the path steeply downhill, straight across a farm house track, with steps in places. At a road dog-leg right then down more steps into Crich Carr.

Passing a house 'The Homestead' on your left bear left down the narrow lane. Join another road and it's still downhill. The road bends right around the old chapel and meets another road by the school. Turn briefly right then left onto the footpath to the station.

From Whatstandwell station join the canal and follow the towpath, with the canal on your left, for a little over 1½ miles. This is the easy bit following canal, road and railway all jostling for a part of this narrow valley created by the River Derwent. Pass under the original stone, Chase Bridge then at Gratton's Bridge leave the towpath and cross over the bridge.

Take the signed footpath left by the well. The path turns right and starts to climb. Keep to the main path as it twists and turns through the woodland, ever upwards, occasional waymarks offering assurance you are on the correct path. After passing through a gateway ►



*The canal, railway, road and river all vie for space in the narrow Derwent Valley.*

*All Photos: Ken Brockway*

the path bears left and levels out to follow a wall on the left. When the wall ends, take the path right gradually uphill.

The trees disappear on your right and at the field end take the stile right up to the road at Chadwick Nick. Turn right along the lane. Note the metal gates; not a footpath, they mark the route of the pipeline from the Derwent dams at Bamford taking drinking water to Nottingham and Derby. Don't be tempted by the much used path across the field left. Stay on the lane taking care through the rock cutting ('nick'). As the road bends right take the signed footpath up steps left.

Enter the field and follow the fence and wall on the right. Again excellent views to your left from this ridge 'The Tors', then ahead you see Crich's prominent church spire and Crich Stand. After 600m DCC have erected signs warning of a steep drop on the right. Take care but do take a look over the wall; views to the east open up here, all the way to the power stations of the Trent valley on a clear day. Ignore the path right, continue along the enclosed path to arrive at Sandy Lane where you turn right. Here an information board tells us about the Crich Railway which was in a tunnel directly below.

Sandy Lane leads back to the market place but take care, as there is initially no footway. **T**



*Bridge at Coasthill for the Crich Railway built by George Stephenson in 1841 to carry limestone from the quarry to his kilns at Bullbridge.*



*The reproduction sign at Whatstandwell station as used in LMS days.*

# BUTTERLEY IRONWORKS - THE FUTURE

By Mike Kelley

The Butterley Ironworks Trust (BIT) has been working hard over a number of years to protect and develop the great historical site at Butterley. This once great works had been slowly asset-stripped until it became a failed company and the site abandoned. Since then BIT have been working to not only protect what is left of this jewel of industrial history, but also to seek to make a tourist attraction of it.

Initially BIT looked at making an escalator and/or lift to take people down to canal level below the site, then take electric boats to view the underground harbour called the Wide Hole. This would have been lit up with imagery and sets to show how things were underground in its halcyon days. Getting people down was one thing, getting them out in an emergency was another – which proved impossible.

The hybrid Planning Application (AVA/2020/0697) for development of the site was approved in September and BIT is reasonably confident that the key elements of Butterley's heritage features will be saved from destruction.

Butterley was at the forefront of the huge socio-economic changes for people that flowed from industrialisation. What follows are some BIT's own visionary proposals:

## The Great Wall of Butterley

The Blast Wall is an impressive 137m long and 12m high. It was built over a 130-year period and is made up of seven blast furnaces. These belong to three distinct generations with the first dating from 1791. Step inside the Wall's main arch where a blast furnace connected to a cast house. Learn about the earliest known example of the mechanisation of a heavy engineering industrial process.

Walk on the clear acrylic covering and look down the shaft to an adit, a stone-built channel which connects with the canal just in front of the Wide Hole. Blast furnace cooling water was returned to the canal via this shaft and adit. Follow the new [Public] Footpath to the top of the Blast Wall and take in the views from the viewing platform.

Whilst there – using the latest technology – look through the 'digital telescope' and see what the factory looked like in its heyday. See the location of the two shafts through which the limestone from Crich and coal from Carr Pit was hoisted up to the furnaces above the Wide Hole.

## The Wide Hole

Butterley Wharf – or the Wide Hole – is the unique underground wharf complex located directly beneath the Ironworks. It is part of the Cromford Canal which runs through a tunnel 2,712m long beneath the Butterley Estate. Vertical 30m shafts directly linked the canal tunnel and wharves with the Ironworks above.

Hoists at the Ironworks raised and lowered materials and finished products through these shafts, allowing them to be transferred from the canal directly to and from the Ironworks' internal railway system. Two of the former counterpoise shafts were capped off as late as 2007. Their width and the evidence of putlogs confirmed that they were not merely for ventilation. The loading shafts were capped many years before about 5m above the canal water level.

Limestone (from Crich Quarry) and coal (from Carr Colliery) in containers were lifted vertically from canal boats to tram wagons on the surface that transported the materials to the nearby furnaces. The lifting system initially used a water bucket counterbalance system ►





*Simon Waller's interpretation of what the 'Wide Hole' in Butterley Tunnel would have looked like when it was working.*

and later used steam engines. Unfortunately, public access to the underground canal and wharves is not possible now, but we can drop you into it with our 'virtual reality' experience!

### **Butterley Ironworks Visitor Centre**

The Ironworks VR Experience shows and tells the story of how engineering manufacturing on an industrial scale began in the late 18th century at the Butterley site. We will tell you about the 'great and the good' who created and ran the company with such success, but the owners needed a workforce too. We will show you many of the 'blue' and 'white' collar jobs that had to be done by someone, and how all this fed into changes in the structure and organisation of society.

Without lifting a finger, you will be plunged from daylight at the site surface into the darkness of the Wide Hole where the unique underground wharves are. There, with only candlelight to see by, you must manually unload the coal and limestone into the containers for hoisting to the surface, for hours at a time. Or you could be 'legging' the boats through the 2,712m long Cromford Canal Tunnel or, back above ground, stoking the furnaces, or making the moulds for the molten metal to be poured into.

### **A Tourist Hub**

Butterley is at the heart of tourist attractions along Golden Valley to the east the Derwent Valley Mills World Heritage Site to the west at Ambergate.

Immediately across the highway from the Ironworks site is Butterley Station – the main entrance to the Midland Railway which offers rail trips on steam and 'vintage' diesel hauled passenger trains. It also includes the Swanwick Junction complex, a Country Park, and its own Heritage Centre.

To the east of Butterley are Codnor Castle, and the locks of the Ironville flight of Cromford Canal. To the west, the Butterley Company's 'gangroad' went through Fritchley Tunnel, recognised as the earliest surviving railway tunnel in the world. To the north of Bullbridge and Fritchley, the former quarry at Crich is now the location of the Crich Tramway Museum, whilst to the south is Heage Windmill. All of this is within 4 miles of Butterley. We have created circular walks and cycleways for you to enjoy to many of these locations, all beginning and ending at Butterley.

The future is bright for our preserved heritage. For more information, check out the Butterley Ironworks Trust Facebook site. **T**



## A FAMILY PHOTO

### Hugh Potter on another Archive acquisition from USA



*Photo: Courtesy, the family of John Bent and Florence Wallis.*

Not for the first time, a fascinating photograph of our canal has turned up from ‘across the pond’. Virginia Smith, who lives in Boston, Massachusetts, sent this picture and wrote: “The children are my grandfather, Jack Wallis (standing on the right), his brother Arnold or Ted, sister Rose, and the youngest, Florence. The year is probably around 1913, since Jack was born in 1900 and Flo in 1910. They are all children of the journalist/painter John Bent Wallis of Alderwasley (and later, Ambergate,

Fritchley, and Whatstandwell) and Florence Whitehurst of Cromford, who lived at the farm next to Alison Uttley and thought she was “stuck up”(!).

Virginia could not identify the bridge but the sloping stonework on the offside and the concrete structure through the arch identify this as Leshaw Bridge just south of Gregory Tunnel. The bridge is not greatly changed today, but there is no sign of the ‘seat’.

I had first contacted Virginia having read a book written by her mother Brenda Wallis Smith, who lived just around the corner from us in Ambergate. Called *A Pennine Childhood* (and available through Amazon), it had been lent by a neighbour who assured me it was about this area. To me it is a curiously mistitled book as I never think of us as living in the Pennines.

But I am so glad I read it as it gives a fascinating insight into this area in the 1930s to 1950s and also includes a chapter

on the canal. In the days when coal was still delivered by boat to Cromford she recalls taking a ride on one of the boats.

Interestingly she says “When the vessel came to a bridge or the occasional tunnel, the horse, which was too large to continue along the path under the bridge, was unharnessed and led over the side of the bridge.” This is exactly what Alison Uttley describes happening at Gregory Tunnel, although this is not normal practice on most canals. ■

# ANNUAL GENERAL MEETING 2021

We are advised by the Charity Commission that despite holding the last AGM by Zoom in September we should try to return the date of the AGM to April as in previous years. In view of the current Covid Lockdown, and uncertainty for 2021, returning to the April date should give us the opportunity for a delayed or Zoom AGM should this be necessary.

Notice is hereby given that the Fifth Annual General Meeting of the Friends of the Cromford Canal, Charitable Incorporated Organisation Number 1164608, will be held on Monday, 19th April 2021 at the Church Hall, Casson St, Ironville NG16 5NN, commencing at 7.30pm.

Jack Brown, Mike Kelley, David Martin and

Yvonne Shattower retire as trustees and all are available to stand for re-election; there are four vacancies for trustees. Nominations for Trustees must be sent to the Executive Secretary before 14th February to be included on the voting form to be sent out with the next *Portal*.

The Minutes of the AGM for the year ending 31st December 2019, the accounts for the year ending 31st December 2020 and the Trustees' Annual Report will be available on the website from March 29th 2021.

**John Baylis, BEM**, Executive Secretary,  
215 Clipstone Road West, Forest Town,  
Mansfield NG19 0HJ

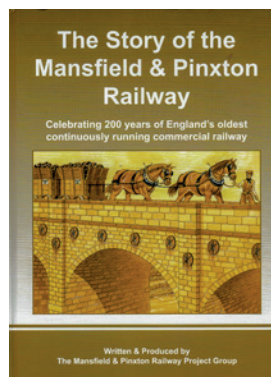
## BOOKS FOR CHRISTMAS

### Mansfield & Pinxton Railway

The Mansfield & Pinxton Railway was inextricably linked to the Cromford Canal, and predated the better known Cromford & High Peak Railway by two decades. Opened in 1819, its story is now told in this hard back A4 book thanks to funding from the National Lottery Heritage Fund. It is accompanied by an A5 softback detailing a series of walks along its route. Remarkably the railway is still in use today, although not quite in its original form!

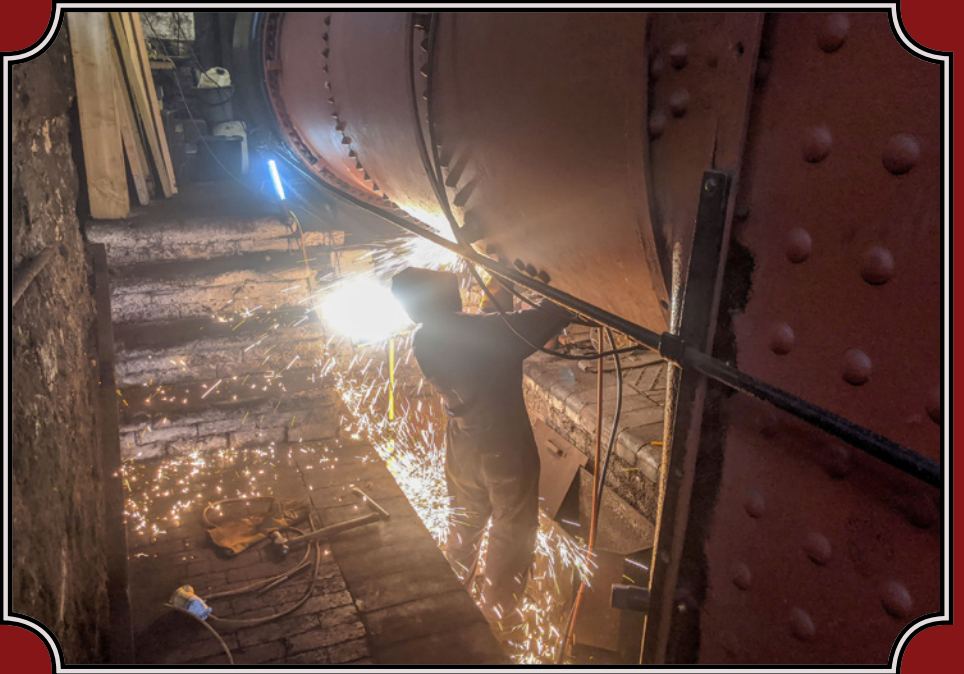
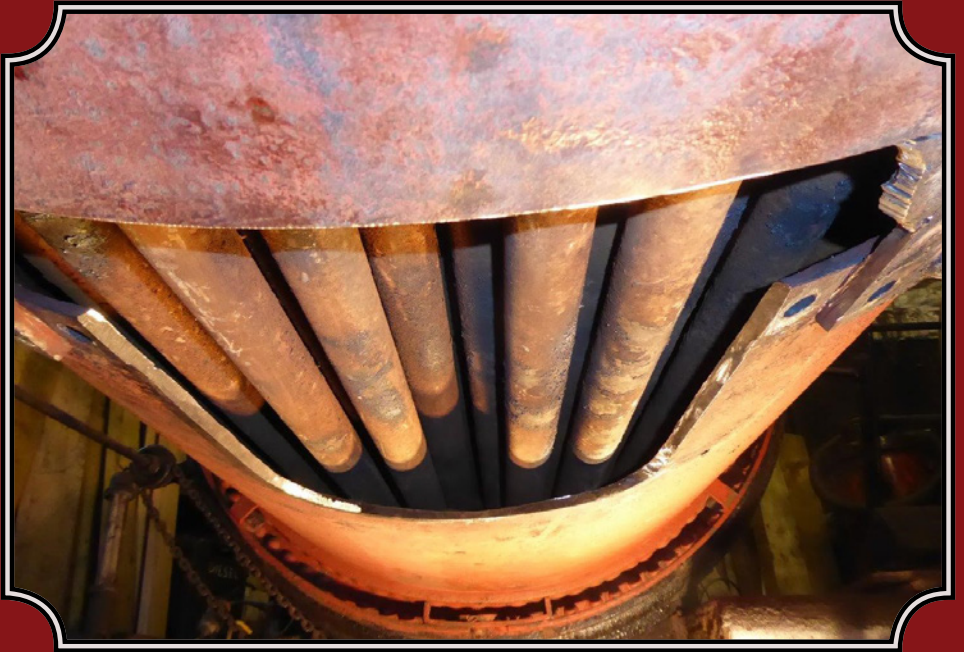
This book explores the railway in its various guises from a horse-drawn coal-carrying railway to offering excursions to see Mansfield Town playing at Chester, to the Robin Hood line of today.

It is available for a donation plus postage and the suggested minimum to cover both is £8 – great value. To order, contact Denis Hill [denishill1066@gmail.com](mailto:denishill1066@gmail.com); 01623 365764.



### From FCC Sales

If you're stuck for ideas, why not check out the FCC shop which is currently available online at [www.birdswood.org/shop](http://www.birdswood.org/shop)? The first-hand recollections of the last boats to operate on the canal, *On The Boats*, has been reduced to a mere £3, the new Walker's Guide is £5, and if you know someone who has not yet got a copy, Simon Stoker's story of the 1970s' restoration *There and Back Again* and Hugh Potter's pictorial history *The Cromford Canal* are both still available at £12.99. **T**



[www.cromfordcanal.org](http://www.cromfordcanal.org)