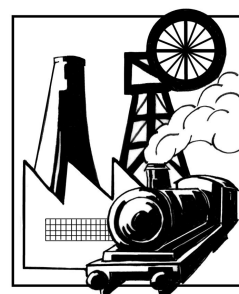


# North East Derbyshire Industrial Archaeology Society

**NEDIAS Newsletter No. 14 – May 2004**

**Price: 50p (Free to Members)**



**N.E.D.I.A.S**

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## **Chairman's Comments:**

Another AGM took place in March and our April meeting was treated to a virtual tour of Derbyshire by Hulley's buses, thanks to Andrew Firth. Our summer visits programme is being launched and I hope it will be well supported. Your committee has worked hard to provide what we believe is an interesting programme but the acid test, as always, is participation of our members and their friends.

Those present at the AGM will recall that two members of our committee, Paul Smith and Malcolm Fisher, stood down. Their efforts for NEDIAS in our early days are much appreciated. I am pleased to say that since the AGM, Stuart Kay has volunteered to join the committee and has been so co-opted.

In the February Newsletter I mentioned the celebrations in 2004 of the two-hundredth anniversary of the World's first known steam locomotive, Trevithick's "Pen-y-Darren". Another celebration in railway circles during 2004 is the centenary of the Great Western Railway's locomotive "City of Truro" reaching 100 miles per hour on a mail train near Taunton. That the railway fraternity still debates the veracity of the record to this day, questioning the accuracy of stop-watches in 1904, the accuracy of the placing of lineside mileposts, the reaction times of the recorder, Rous-Marten, should not detract from what was a remarkable achievement.

At the time of writing this piece, NEDIAS is about to enjoy another remarkable achievement. Following the news that Ken Horan would be unable to give a talk to us on 10<sup>th</sup> May, Greg Lilliker has kindly agreed to step in at unavoidably short notice with a talk on "One Hundred years of High Speed Trains". We have been very fortunate that this is the first time we have encountered such problems and I am hopeful that Ken will be able to give his talk in the not too distant future. Meanwhile, thanks are due to Greg, also to Darrell Clark whose connections and persuasive powers should not be underestimated!

News that the County Record Office at Matlock has recently received documents of the Renishaw Ironworks Company from 1902 reminded one of a number of similarly based concerns that prompted the formation of NEDIAS; the rapid transformation of the Renishaw site into a housing development. The need to record our disappearing industrial and transport related sites does not diminish. The past twelve months have seen the loss of the trolleybus depot at Thornfield, part of the Stonegravels bus complex, the former fire station on the corner of New Beetwell Street and Tontine Road, shortly to be followed by the coach station and the Victorian slipper baths in South Street.

The passing of some of these may not be mourned, and some are not industrial or transport based, but they have been part of our heritage for a good few years and ought to be recorded. Much of Robinson's works has been cleared and the former tannery site on the north side of Hollis Lane (behind the Bridge Inn) also appears to be ready for redevelopment. Will evidence of our industrial era visible on the ground soon be as rare as the proverbial hens' teeth or a cast-iron K6 telephone box in Chesterfield?

So, to members one and all, do please take your cameras, tape measures, notebooks, pencils, lap-top computers or whatever else you need to see and think with, and record what is there now, for it may not be there tomorrow. Our Field Study Group will welcome all contributions. Enjoy the summer!

*David Wilmot*

## **WHAT'S ON?**

### **NEDIAS Lecture Programme, 2004/2005**

**When:** Meetings are usually held the second Monday of each month, start time 7.30.  
**Where:** The Friends Meeting House, Ashgate Road, Chesterfield (junction of Brockwell Lane).  
**Cost:** Free to NEDIAS members but a donation of £2 for each meeting is welcome from visitors.  
**Further details:** See our special NEDIAS Lecture Programme information brochure.

<b>13 September 2004</b>	<b>Trevor Lodge:</b> <i>Coal Coking &amp; By-Products</i>
<b>11 October 2004</b>	<b>Nigel Carabine:</b> <i>The Peak Rail Story</i>
<b>8 November 2004</b>	<b>Dr Martin Whalley/ Ian Edgar:</b> <i>The Restoration of Bugsworth Basin</i>
<b>13 December 2004</b>	<b>Cliff Williams:</b> <i>Clay Cross Works Paternalism</i>
<b>10 January 2005</b>	<b>Peter Machen:</b> <i>The Sheffield Flood</i>
<b>14 February 2005</b>	<b>Catherine Wilson:</b> <i>Lincolnshire Windmills – their history &amp; development</i>
<b>14 March 2005</b>	<b>AGM &amp; Members' Evening</b>
<b>11 April 2005</b>	<b>Martin Sanderson:</b> <i>A History of the Bryan Donkin Group</i>
<b>9 May 2005</b>	<b>Ann Hodson:</b> <i>The Derwent Dams &amp; Birchinlee Village</i>

### **NEDIAS Summer Visits Programme**

**Monday 21 June - Pie & Pea Supper Special – meet 6.45pm at Butterley Station.**

Travel by special train (in Midland Railway Centre's heritage diesel multiple unit) from Butterley station to Swanwick Junction station for a guided walking tour of the Matthew Kirtley Museum complex, followed by a Pie

& Pea supper in the Johnson Buffet, then return by train to Butterley station. A vegetarian option will be available (if booked in advance) and the total cost for the evening will be a very reasonable £8.50 per person.

**IMPORTANT: ADVANCE BOOKING & PAYMENT DIRECT TO DAVID WILMOT NOT LATER THAN 31 MAY. Phone DRHW on 01246 854180 for more information.**

**Saturday 26 June - Cromford; guided tour of Arkwright Society's Mills and Village, led by Darrell Clark.**

Meet at 10.30am, Cromford Mill courtyard for site tour, followed by afternoon visit to corn mill (unrestored) and Slinger Cottages (in course of conservation). Includes sandwich lunch and tea in Gothick warehouse, £6.00 per person, including donation to AS, payable on the day. Advance booking is essential on NEDIAS List or to Cliff Lea, 01246 234 212, to ensure the right numbers of lunches are pre-booked.

**Monday 12 July - Evening walk; to Unstone Coke Ovens, following railway and tramroad trackbeds, with Pam Staunton.**

Meet 7pm at long lay-by on east side of A61, between Unstone railway bridge and Dronfield. The coke ovens are currently in course of conservation by English Heritage.

Advance booking not required but please put names and numbers on NEDIAS List, or contact David Wilmot to advise number.

**Saturday 7 August - Wortley Top Forge Rockley Furnace & Elsecar.**

Meet at Wortley Top Forge (£3 entrance) at 10.30am for guided tour of site. Lunch (not included) available at local hostelry or bring sandwiches. The afternoon will include visits to Rockley Furnace (preserved remains of 18<sup>th</sup> century charcoal-fired blast furnace) and to Elsecar where we will be able to see inside the engine house of the oldest Newcomen atmospheric pumping engine, the oldest still in its original location. Entrance payable on the day, but please pre-book on NEDIAS list or direct to David Rance on 0114 236 3719.

**Private Power Generation at Chatsworth**

**by Derek Grindell**

*The following short article summarizes a more comprehensive and detailed paper that is in course of research and preparation, and which it is hoped can be published later in the year.*

Joseph Paxton, the seventh son of a Bedfordshire farmer, was born in 1803 at Milton Bryan close to Woburn. Starting as a garden boy on a local estate he became acquainted with the Sixth Duke of Devonshire whilst working for the Horticultural Society at Chiswick and so impressed him that by May 1826 he was on a coach heading north to take up the post of Head Gardener at Chatsworth.

In 1843 he entertained Queen Victoria and her visiting party by illuminating the Great Conservatory and the water features in the Chatsworth Garden with thousands of lanterns. The Duke of Wellington, curious to learn how such effects had been achieved, took an early morning stroll but was amazed to find no vestige of the display. Paxton had set his men to work through the night to remove all traces of the show.

In December of the same year Paxton initiated a survey of the high ground above the House from which he was able to design the means of supplying the reservoir he needed in order to power a majestic fountain, which he had calculated would play to an altitude of 267 ft. and outperform all others. This was devised to honor and impress the Czar, who was to visit Chatsworth the following summer. The conduit he devised ran for 2400 feet and had a total fall of 381 feet. The entire project was completed within six months, a remarkable achievement despite the availability of Chatsworth's 400 retainers.

Paxton was denied the satisfaction of seeing the Czar's reaction to his remarkable water feature, which became known as the Emperor Fountain, since the visit was cancelled but in 1893 the availability of the pipeline was identified by consultants as a means of generating electricity and Chatsworth joined a growing list of estates using

Vortex Turbines by Gilkes of Kendal. In 1936, with an increasing electrical demand and the availability of a more reliable mains supply, the 19thC system fell into disuse but interest was rekindled in private generation when the Thatcher Government set out to privatize the electricity generation and distribution industry. On Saturday, 28<sup>th</sup> January 1989 His Grace the Duke of Devonshire formally opened Chatsworth's newly refurbished generation plant, equipped with new turbines and modern control equipment but entirely reliant upon the water resources marshaled so skillfully by Paxton some 145 years previously.

**Derek Grindell**

*Ed: Derek has kindly agreed to try to set up a site visit to Chatsworth for NEDIAS members in the late-Autumn/ early-Winter. Details in the next Newsletter.*

## **Cannon Mill, Brampton**

**by Richard Robinson**

A number of members of NEDIAS have been showing concern about the future of Cannon Mill. The following article sets out a number of points detailing the current position, and looks at possibilities for the future.

### **1 Urgent Repairs:**

The building is a Grade II listed building and had been in need of repairs to the pantile roof in two areas on the East Side. These have now been completed

**2 Setting up a Trust:** In principle Robinson is willing to put Cannon Mill into a Trust. This will enable the Trustees to obtain grants and earn income that is not possible while the Mill is privately owned. However this cannot be done until there is a reasonable chance of the Trust being able to be self-financing once it is set up.

**3 Architect's Reports:** An architect accredited for Listed Buildings has recently carried out an initial survey. He has reported that the "building is in a very poor condition" and that a "Conservation Plan" is required, part of which should include "An extensive archival investigation". However he thinks that the building itself has "limited architectural interest." A very recent survey has found serious decay in the roof trusses and wall brackets, which will cost at least £17,000 to restore. Also the western wall has been pushed outwards.. At this stage the architect cannot estimate the complete cost of a Conservation Plan until the future use of Cannon Mill has been agreed

**4 Archival Investigation:** I have started this investigation and have already found a lot of useful information. This has been mainly from Phillip Robinson's book "The Smiths Chesterfield" and also from other Robinson archives. Most recently David Wilmot has loaned me Dr Phillip Riden's book on Blast Furnace Statistics 1790-1980. This shows the dates coke fired furnaces were established across the UK and confirms that Cannon Mill was amongst the earliest ones in Derbyshire and Yorkshire. Some useful information has also been found via the Intern



*Plan of Griffin Foundry 1788 (The "New Casting House" on Dr Strange's copy of the Fairbanks's survey is what is now called the Cannon Mill)*

**5 Archival Documentation:** Attached is a copy of Haydn Jensen's impression of what the Cannon Mill might have looked like based on the Fairbank's survey of 1788. Records suggest that 500-600 people were employed across the Chesterfield, Adelphi, and Calow Ironworks including the Newcross Foundry in Manchester. (SoC p47) but at its peak they employed 1200 (SoC p58)

The plan shows the position of the two blast furnaces west of the Cannon Mill and would support the suggestion that the waterwheel drove the bellows in the adjacent Bellow House that smelted the charges in the furnaces.

The Furnaces and other buildings, with exception of the Casting House, must have been demolished by 1893, since an Engine House is adjacent to the west wall on the plan of that date.

#### **6. English Heritage (EH)**

I have made contact with the EH Case Officer for this area, Ann Leonard, who has given some helpful advice. It has also been suggested we could apply to have the site of the furnaces "Scheduled" as a monument, which might also help our cause with the heritage Lottery Fund. EH are able to give advice and supervise the work of restoration, if requested, but unfortunately are unable to offer any grants at present. David Wilmot has put me in contact with John Oake, Chairman of the Sharpe's Pottery Trust at Swadlincote. He should be a useful source of advice in obtaining grants from various funding sources and surmounting the various hurdles in our path!

#### **7. Heritage Lottery Fund. (HLF)**

The local officer in Nottingham is Erica Clugy. She has been very helpful and has made the following comments relating to Cannon Mill:-

1. **Heritage Value:** We need to set out what we believe are the "heritage values" of Cannon Mill and describe the quality of the building and define its potential value to the community.
2. **Community Support:** We need show that its conservation (and / or development into a museum) would be supported by as wide a cross section of the community as is possible.
3. **Conservation Plan:** HLF would need to see a costed plan of any alternatives proposed
4. **Formation of a Trust:** A Trust with its own constitution needs to be formed before any application can be made to the HLF for funding
5. **Funding:** Stage 1: For £5-50k Small projects. This could be towards basic conservation of the existing building. Stage 2: For £50+k For development of the site with café and toilets, staff office etc. (NB. there are many Competitors for this fund)
6. **Maintenance:** HLF would need to see a Business Plan showing how the Museum would be funded and maintained after restoration. The importance of building up Revenue Income by selling things to visitors e.g. crafts items relating to the area or the re-creation of items of Brampton Pottery etc, have been stressed by a number of people I have talked to.

#### **8 Advice from the Arkwright Society.**

The Trustees of the Society have recently agreed that its Director, Christopher Charlton, can be available to give us advice on how to take advantage of the "Grants Maze" and hopefully avoid most of the numerous pitfalls in our Path. I hope to meet both him and Dr Strange on Tuesday 25<sup>th</sup> May. to discuss alternative ways of moving forward.

#### **8. Features relating to the National Importance of Cannon Mill**

I think that the following factors could help us either to increase the grading from Grade II to II\* or to obtain grants for its restoration:-

1. The importance of the Griffin Foundry as **the first coke fired furnaces in Derbyshire, in operation in 1777**. It preceded the furnaces at Wingerworth, Staveley, Morley Park, Renishaw and Butterley/ Outram et al. In Yorkshire it was preceded by Holmes (Later Park Gate Iron Co.) but was earlier than Chapeltown, Elsecar Low Moor and Low Mill.
2. The absence of any museum in Derbyshire and the Midlands to interpret such a site
3. Its relevance to the early years of **Coal and Ironstone Mining** in the area. Each ton of pig iron smelted required at least 6 tons of coke (or 8 tons of coal) and 3 tons of ironstone, so that in 1806 Cannon Mill would have had to transport at least 13,600 tons pa of coal locally and 5,100 tons pa of ironstone. We have identified at least 18 Collieries within the existing Chesterfield boundaries between the 1800s and 1880s and there are also at least 900 recorded shafts of ironstone, coal and clay in the area
4. Its **connections with the Strutts Mill** at Belper through the supply of the **iron beams for the floors of the West Mill**; the Smiths' collaboration with Francis Thompson of Ashover in making steam engines and pumping machinery. They also collaborated with **Boulton and Watt and made the pumping engine in 1791 that worked for 125 years at Pentrich Colliery**, and is now on display in the Science Museum. We

have some information on Francis Thompson from the Internet but would like further information on him- especially as to which Lead Mines had his engines besides Yatestoo. Can anyone find out from the Lead Mining Museum in Matlock perhaps?

5. **Napoleonic Wars.** Griffin Foundry made large quantities of cannons, cannon balls and other armaments and a diorama of Waterloo would be very popular –at least with male visitors!



We would prefer that any museum would also be a “**Museum of Bampton**” and hopefully would include displays relating to the Robinson connection with Florence Nightingale through the manufacture of lint and bandages during the Crimean war. Bampton’s connection with the Pottery and Brickmaking Industry is also very important - there were 10 businesses in Bampton over 100 years! There were also 13 Hat making establishments in Chesterfield in 1833. The Chesterfield Canal is also a subject worthy of display, as are George Stevenson’s connections with Chesterfield-via models of Locomotion perhaps.

*Richard Robinson*

## Mag Clough Waterworks

by David Rance

### Introduction

The NEDIAS Field group have paid two visits to the above site at the invitation of Mr John White, in February and March 2004 when the group were able to examine and record the present state of the building, plant and waterworks.

### Mag Clough Waterworks.

The waterworks with its pumping station is situated on private land, with no public access, at Mag Clough, Grindleford, Derbyshire and was constructed in 1937 as part of Bakewell Rural District Council’s improvements to the local water supply. The pumping station is a single storey building and has survived in a reasonable condition through to the present day.

Although the roofing slates have been removed a significant area of the wooden roof lining remains and this has enabled the pumping plant to survive.

The exterior stonework is randomly laid with cement bonding and the interior is brick lined; the approximate floor dimensions are 7.2 by 5.0 metres and height at the pitched gable ended roof is 5.0 metres. Entry is by a single doorway, minus door, and there are three windows – the wooden outer frames are in place and two metal glazing frames are still in place but without any glass.

The good news is that the two original Tangye pumps have survived along with some ancillary galvanised storage tanks and a belt-driven mixing machine. Sadly the two engines that provided the power supply to the pumps have been removed from the site.

Various pipes and valves are interconnected within the building and externally there is an underground fuel tank and a water reservoir approximately 5.0 by 4.0 by 2.5 metres and a further pipe leading uphill from the pumping station in the direction of a reservoir on the other side of the woods.



The Mag Clough water rights were purchased from Mr J F Woodward for £1,000 as part of the Eyam water improvement scheme in 1935. In 1937 Messrs Z & W Wade were awarded the contract to build the Mag Clough waterworks and Tangye Ltd paid £1,026 on account for the pumping plant.

### **Conclusions.**

The Field group will be carrying out further research into the history of the waterworks; how it operated, who were the supplying authorities, who they supplied and when was it decommissioned? And the future, the building will remain but the Tangye pumps could be preserved and restored on another site.....watch out for further developments !

*David Rance*

## **Letters to the Editor**

### **From David Edwards**

I noted the interesting footnote “*And Finally*” in the last NEDIAS Newsletter, No 13, and mention of **Earl Fitzwilliam**.

There was once actually a small coke oven plant at Noumea in New Caledonia, operated by a firm called Le Nickel. Presumably the coke was used for smelting the laterite nickel ore found in that country, but no doubt the coal had to be imported. However it's not inconceivable that it could have been found nearer to hand, there is coal of a sort in the Philippines for instance.

Regards  
*David Edwards*

*Ed: See also the note below.*

## **IA News and Notes**

### **News from Crich**

Don't miss Crich Tramway Village's special ‘**TRAMATHON**’ on 20 June, a rare opportunity to see all the Crich trams working.

### **Bestwood, Notts**

At Bestwood on 17 July, 11am to 3pm, there will be guided tours around the now redundant colliery engine house, with its headstocks and horizontal steam-winding engine still in situ. Other events, celebrating Bestwood's industrial past, present and future, will include Bestwood Black Diamonds Brass Band. Venue - Old Bestwood Colliery, Park Road, Bestwood. Admission is free, and for more information tel: 0115 927 3674. [From the roundabout at the south end of Hucknall bypass (A611), follow signs for the Leen Valley Country Park. Park road is on the B683 immediately opposite the country park's entrance.]

### **The Lumsdale Mills Project**

Those members who toured the Lumsdale site last year will be interested in news of planning proposals for the redevelopment of Tansley Wood Mills now before DDDC, said to be the largest development in the valley since the 18<sup>th</sup> century. This includes an information centre at Gartons Mill for displays of the Lumsdale heritage, and the Sir Joseph Banks connection.

### **The Last Cuckoo ?**

With news that remains of the last Cuckoo, as Chesterfield Canal boats were known, is languishing at Ellesmere Port, there are suggestions for restoration and return to water on its home canal. Costs would be enormous, but the unique design would make this a worthy exercise. And this is an exercise where we should give the Chesterfield Canal Trust our full support.

### **Coking Industries**

David Edwards has kindly sent to the Editor a fascinating contribution on coking and coke ovens, which due to space limitations will have to await the next Newsletter. This will very much complement our first lecture of the new season, so please contain your enthusiasm!

### **IS THERE A CONTRIBUTION *FROM YOU* FOR THE NEXT NEDIAS NEWSLETTER?**

A short article or observation, which would be of interest to the membership? Maybe something for the letters column? Then please send to Cliff Lea, 15 Kelburn Avenue, Walton, Chesterfield S40 3DG (Tel; 01246 234212, email; [c2clea@tiscali.co.uk](mailto:c2clea@tiscali.co.uk)).

***Deadline: Contributions for the next newsletter before 25 July please.***

### **And Finally ...**

#### **Reined In (by the Health & Safety Executive?)**

In April 1918 Bakewell Rural District Council minuted the award of an omnibus and hackney carriage licence to one H Harrison of the George Hotel, Tideswell. Harrison was an employee of W Needham who held licences for four vehicles, seating 18, 10, 7 and 4 people. Two months later, in June 1918, the Clerk to the Council drew attention to Omnibus Driver H Harrison being only 14 years of age. The Council then resolved "that the proprietor be **requested** to employ him in drawing conveyances drawn by one horse only".

***Spotted by David Wilmot***

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**NEDIAS Committee:** - *Chairman* – David Wilmot; *Secretary* – Patricia Pick; *Treasurer* – Pamela Alton. *Membership Secretary/Assistant Treasurer* – Jean Heathcote; *Publicity & Newsletter* – Cliff Lea; *Lecture Meetings* – David Rance; *Archivist* --Pete Wilson; *Committee Members* – David Hart, Stuart Kay, Paul Smith, Jack Smith

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