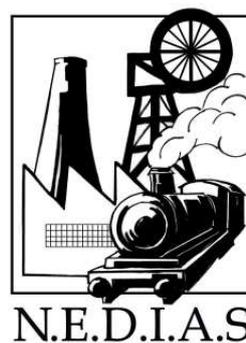


North East Derbyshire Industrial Archaeology Society

NEDIAS Newsletter No. 20 – Nov 2005

Price: 50p (Free to Members)



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Chairman's Comments:

Chairman's Comments

It is not often in these times that sculptures reflect, in a form we can readily understand, the nobility of the character portrayed. It was with some concern therefore that I waited for the statue of George Stephenson to be unveiled on 28 October at Chesterfield Station. Happily, the result is a brilliant portrayal of a man long admired throughout the world and no less so by the people of Chesterfield. It may not have the cash value of Hepworth's pebble with two holes but to my simple mind it will make a more lasting impression upon those passing by. May we have some more like George's please, and in less time than has elapsed since the Haslam & Harvey duo appeared on Saltergate? Perhaps T P Wood, with raised glass in hand, in the Market Place? Or the Markhams, father and son, overlooking 'their' road from the currently vacant plot at the coach station entrance?

Meanwhile, back to the real world, our lecture meetings at Rowland Hill House are settling down well and, hopefully, we will be able to build up attendances and membership thanks to the larger space now available to us. October's talk on Swadlincote by Philip Heath expertly brought a less than well known part of this county in to the limelight and Cliff Lea's September talk on the county's pioneering role in the now receding era of the UK's oil and natural gas production. We still have two more lecture meetings before this year is out and a full programme, as can be seen in this issue, has been organised.

If there is a gap in our activities, it is the need for more individuals to identify the industrial archaeology still around us. It does not need to be time spent scraping away with a minute trowel. The booklet *Castings Around* shows something of what is there beneath our feet on local streets. The seemingly endless onslaught of tin trading sheds – a.k.a. *retail business parks* – and the quest for new housing invariably takes away former industrial buildings, once the workplaces of the many but

now dismissively termed 'brownfield sites' quietly takes away our heritage. So, please, cameras and notebooks out whenever possible, because the proverbial someone else may have missed it! And we need material for our stand at next year's VCH local history fair!

David Wilmot

WHAT'S ON?

NEDIAS Lecture Programme, 2005

IMPORTANT: NOTE THE NEW MEETING VENUE

When: Meetings are usually held the second Monday of each month, starting at 7.30 pm.

Where: Rowland Hill House, Boythorpe Road, Chesterfield (opposite the swimming pool).

- | | |
|-------------------------|---|
| 12 December 2005 | <i>Philip Riden: "Industry before the Industrial Revolution: Chesterfield and Scarsdale, 1600-1750"</i> |
| 9 January 2006 | <i>Gordon Parkinson: "Wortley Top Forge". An account of the history of Sir Francis Wortley's forge, established sometime in the first quarter of the 17th Century for production of malleable wrought iron</i> |
| 13 February 2006 | <i>Mike Bennett: "History of Markhams".</i> |
| 13 March 2006 | <i>AGM and Members Evening, to include British Transport films</i> |

What else is on?

- | | |
|--------------------------|---|
| Saturday 14 January 2006 | Chesterfield Archaeology Day, see IA News, page |
| Monday 26 February 2006: | <i>David Wilmot "Emerson Bainbridge of Sheffield, mining engineer and Chairman of the Lancashire, Derbyshire and East Coast Railway". SYIHS meeting, 7.30 at Kelham Island.</i> |

NEDIAS VISITS

Co-ordinator: Brian Dick, 01246 205720

A number of visits are at the planning stage for the coming year; at the planning stage are a visit to Crich Tramway Museum in June, and a tour of the Good Luck Mine for Saturday 1 July 2006.

A Reminder

Subscriptions for the Society become due at year-end. Renewal form is enclosed with this Newsletter

It wasn't until Pat & I moved 'oop 'ere from dahn sarf in 1999 that the term Industrial Archaeology really came into our vocabulary. Essex isn't renowned for its industries (thinks: hope that doesn't open the floodgates from those who think otherwise) whereas in this neck of the woods the picture is quite different. NEDIAS is slowly assisting us in our efforts to find out what has gone before.

So, when the letter from Chairman David asked if I would be available on 7th September to assist in chaperoning the 30-plus A.I.A. members around the four sites to be visited, my initial reaction was: 'panic - would I need to know anything; be asked any questions!' "Oh, don't worry", said David, "I'll be there and so will David (Rance)". Phew!

We gathered at Pleasley waiting for the coach to arrive from Nottingham, with David eyeing his watch as he had put in a lot of work organising NEDIAS' part in making the day run smoothly, so had a schedule to keep. It finally turned up 30 minutes late due to traffic and we all assembled round Bob Metcalfe, chairman of the Friends, who gave us an in-depth account of events at the site - opened 1873 by Stantons, rebuilt 1922, closed 1983 - and left to the elements. Bob and some enthusiastic volunteers arrived on the scene in 1996, and with money from English Heritage the buildings were reinstated, then work began on the Lilleshall winding engine. Now restored and powered by electricity the giant winding drum runs at 4.5 revs, not 65 as it did when the colliery was in production. A fascinating sight. It is hoped to start work on the other, Markham, engine some time in the not too distant future.

On next to Bolsover, David indicating points of interest as we progressed. Lunch was next on the menu but first he did his best, against the noise of passing traffic, to tell the story of New Bolsover and then led us on a quick tour of the village itself. Meanwhile, David's wife, Diana had been very busy and we all enjoyed an excellent buffet lunch in Bainbridge Hall, named after the man who created the Bolsover Colliery Company. Built originally as an orphanage for miners' children, it was used during the 1926 strike to billet police from Manchester.

Suitably refreshed, our next stop was Clayton's Tannery, dating from 1875, rebuilt 1913 after a serious fire. I'm afraid my thoughts, as I entered the premises, were 'What must it be like to turn up here for work on a hot summer's day - or gloomy winter's one for that matter - possibly feeling a trifle jaded after the previous night's excesses, to be greeted with that pervasive whiff - yuk.' However, after being warned to watch our footing on the dubious mixture covering some of the floors, we were shown over the premises, and unlike our evening visit a year or so ago were able to see some of the processes taking place, though daylight did not make the place any less grim and forbidding. Still, it's gratifying to know that this Dickensian (my opinion) factory still produces quality leather - a good example being the covering on the cricket balls that helped England regain the Ashes recently!

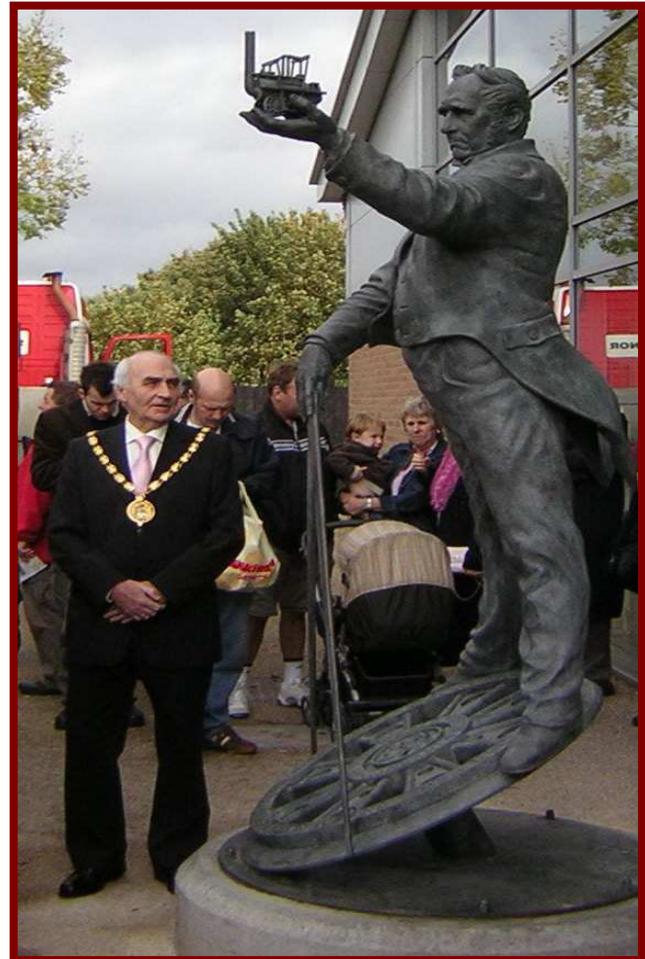
Final destination of the day was the 1870's Summerley Coke Ovens, at Unstone. We were greeted by Pam Staunton, who led us to the 48 ovens, 24 back-to-back and in use until 1921. Again, English Heritage have come to the rescue, up to a point, by shoring up several of the structures but the whole site is very overgrown as I think those brave souls wearing shorts would testify to.

And so, after an interesting and I'm sure, informative day for everyone we said our goodbyes, the Conference organisers, the Derbyshire archaeological Society, showing their gratitude by handing each of us a copy of their new publication, "*A Guide to the Industrial Archaeology of Derbyshire*". An ideal gift for me - from it I gleaned a number of dates and other details of the sites we visited! One day maybe I'll dispense with such cribs and be able to reel off relevant facts just like David, and others of course - don't hold your breath though!

Brian Dick

Friday 29 October 2005 saw the unveiling of the long-promised statue of George Stephenson at the entrance to Chesterfield Station. It was a modest ceremony without fanfares, procession or ceremony other than speeches by the Mayor of Chesterfield, the Leader of the County Council and the local Member of Parliament, Paul Holmes. The National Railway Museum’s *Rocket* replica, mounted with tender and carriage on Heanor Transport’s low-loader, managed a puff or two of smoke and the red cloth came off to reveal a powerful bronze image of George, sternly gazing in to the distance, surveyor’s dividers in one hand, a model of *Locomotion* in the outstretched palm of the other.

A great deal has already been written about George Stephenson, both during his lifetime and since and it risks being presumptuous to devote an article in the NEDIAS Newsletter to the man many perceive as a genius while others see him more as an important player during the formative years of railway engineering and development. Yet discussion continues to this day on almost every aspect of the innovations attributed to George as to the extent to which they were his own ideas or had been based upon the work of others. Even so, from the time of George’s arrival in Chesterfield for construction of the North Midland Railway through to the present day, the local populace has held him in high esteem.



Born at Wylam beside the river Tyne in 1781, George Stephenson pioneered the construction of steam railway locomotives in any quantity and laid down several of the first railways designed for steam traction from the 1820s to the 1840s. George Stephenson was not the first to build a steam locomotive, an honour due to Richard Trevithick with his well-known locomotive for the Pen-y-Darren ironworks in South Wales of 1804 and his lesser-known ‘Ironbridge’ locomotive of 1803. Others were also involved in this field at that time, particularly Blenkinsop (1812) and William Hedley (*Puffing Billy* of 1813).

The first locomotive attributed to George was the *Blucher* of 1814 for the Killingworth colliery wagonway. Between that and the advent of the more famous *Rocket* of 1829, George built around twenty locomotives, latterly at the works at Forth Street in Newcastle at which the firm Robert Stephenson & Co. had been established in 1823. It was at this works that two locomotives, *Locomotion* and *Hope* were built to haul coal on the Stockton & Darlington Railway upon its opening in 1825. However, by the time of *Rocket*, locomotive design was largely in the hands of George’s son, Robert. George was tied up with many demands for his services as a civil engineer

defining the large number of separate railway schemes, many of which would go on to form the nucleus of Britain's railway network.

After the Stockton and Darlington line, George was to overcome both technical and professional challenges to succeed as engineer of the Liverpool and Manchester Railway, opened in 1825. The next tranche of lines included the London & Birmingham for which his son, Robert, became the engineer. The Grand Junction was planned to continue the railway northwards from Birmingham, via Crewe, to connect with the Liverpool & Manchester near Warrington but on this line George lost out to the budding engineer from Barnsley who had trained under George, Joseph Locke. George did gain the Birmingham & Derby Junction as well as the line which put Chesterfield on the railway network map, the North Midland Railway between Derby and Leeds. Add to that the York & North Midland and the Sheffield & Rotherham lines, to name but a few and one can see that, by the late 1820s with George approaching his sixtieth year, he was putting his name to a heavy workload, even



before considering his coal mining and industrial endeavours at Snibston in Leicestershire, plus those around Ambergate and Clay Cross.

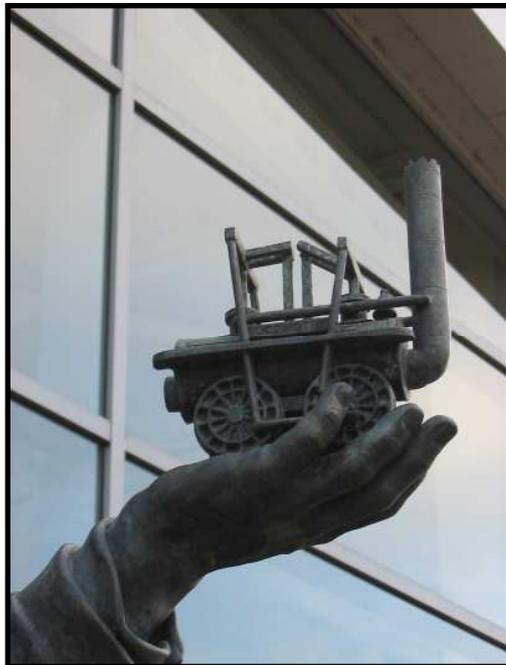
The popularity of George owed much to his projected image of the man who, by dint of hard work and despite several hardships, had risen from a humble background to become a national symbol of the prowess of Britain's engineering profession. He became the first President of the Institution of Mechanical Engineers but never held membership of the Institution of Civil Engineers. In later life, while living at Tapton House, he seemed proud of not having membership of the Civils and of having turned down a knighthood on more than one occasion.

George had married Frances 'Fanny' Henderson in 1802 who gave birth to George's only son, Robert, in 1803 but she died as early as 1806. After several years tied up in his business activities, George married Elizabeth Hindmarsh in 1820 but

they had no children and Elizabeth died in 1846. The memorial tablet in Chesterfield's Holy Trinity church would have George's name added just two years later. In March 1848 George married for the third time, the somewhat younger bride being his housekeeper at Tapton, Ellen Gregory, from Bakewell.

When George died on 12th August 1848 at the age of 67, his railway activities had long been supplanted by his greenhouse and gardening interests. As the engineer for the Stockton & Darlington Railway of 1825 and the Liverpool & Manchester in 1825, as well as reputedly driving *Rocket* at the latter's opening, George ensured his place in the history of Britain and the World's railways. Yet perhaps his greatest achievement was the engineering of the North Midland Railway, between Derby and Leeds, opened in 1840? In that work George had the assistance of Frederick Swanwick, one of his students from the days of the Liverpool & Manchester, who was to become a long-term resident of this area and one who contributed much to the promotion of local interest in all aspects of engineering.

But it was the work on the North Midland Railway which brought George Stephenson to Chesterfield and to the founding of his north east Derbyshire industrial interests. Sadly, nothing much has survived in Chesterfield from that era; Francis Thompson's original station building has been replaced three times over and a very small building now serves as the sole reminder of the railway's historic arrival in the town. So the statue now in place at Chesterfield station has to be an important reminder of the achievements of one of Britain's pioneering engineers in terms of benefits to our lives today.



The funeral of George Stephenson took place on 17th August 1848. Chesterfield shops closed for the afternoon and a large crowd of local people gathered to pay their respects. Perhaps because of George's long period of semi-retirement, there were few mourners from further afield. As well as Robert, there was Edward Pease, travelling from Darlington although aged 81 to attend the funeral of his long-standing business friend. It was Pease who had been responsible for appointing George as engineer to the Stockton & Darlington, so marking the first major milestone of George's railway engineering career.

George's name was added to the memorial tablet to his wife, Elizabeth, and Robert later donated a window to the chancel of the church in his father's memory. Robert did not maintain a connection with Chesterfield and disposed of his inherited interest in what became the Clay Cross Company soon after George's death. Sadly, Robert died just eleven years later, in October 1859 and only four weeks after the death of Isambard K Brunel.

There is an imposing statue to George Stephenson at the entrance to Newcastle station and one to Robert in a corner of the bland concrete forecourt at London's Euston station. Unlike the famous 'Doric Arch' the statue of George escaped intact from the 1960s rebuilding of Euston, being removed from the Great Hall when that was demolished and now resides in the National Railway Museum at York. Elsewhere, there are countless Stephenson streets and probably more than one building dedicated to him than Chesterfield's Stephenson Memorial Hall. Yet nothing can prompt us to reflect more upon the achievements of the man than will the statue of George looking solemnly at those about to travel upon 'his railway'.

Further Reading

Hunter Davies, *George Stephenson, a biographical study*, London, 1975.

Derrick Beckett, *Stephenson's Britain*, Newton Abbot, 1984

Adrian Jarvis, in *The Oxford Companion to British Railway History*, (eds. Jack Simmons & Gordon Biddle) OUP, Oxford, 1997.

Wall, John, *First in the World, the Stockton & Darlington Railway*, Sutton Publishing, 2001

I.A. News and Notes

John Varley Memorial

Hot on the heels of the recent unveiling of the Stephenson statue, thoughts are emerging of a memorial at Harthill to commemorate John Varley, the canal engineer so involved in planning and construction of the Chesterfield canal. The year 2009 will be the 200th anniversary of his death, and certainly an appropriate time. More Information from Chesterfield Canal Trust

Castings Around

October saw the publication of the results of the survey of types, locations and origins of the various cast iron architecture in the area, carried out by the Chesterfield & District Local History Society and David Wilmot's WEA group. David has copies available at a very reasonable price of £3 each, and these can be purchased at next NEDIAS meetings.

Blue Plaques

There is no shortage of historical famous names in the East Midlands, and there is certainly no shortage of famous engineers and scientists. English heritage are seeking nominations for suitable names and associated sites where the siting of Blue Plaques can be considered. For more information, or to make a nomination, see www.english-heritage.org.uk/blueplaques, or phone 020 7973 3794.

News from Kelham Island

Over one million pounds has been spent at Kelham Island Museum, with a revamp, and in particular the opening of new transport gallery. A visit is clearly a *must* during the dark winter months

Chesterfield Archaeology Day – Saturday 14 January 2006

For those who have not attended a previous “Chesterfield Archaeology Day”, the editor can strongly recommend attendance. The event comprises about 8 half hour presentations spread out over the day, on a variety of subjects/ research/ surveys looking at important sites from the ‘Lithics to very recent times, and usually includes one or two “industrial” items. This year includes a talk on the Chesterfield Canal from Geraint Coles, and thoughts on use of coal to mine lead from John Barnatt, which could be a real gem! Over the years the event has become very well attended, and will be run at the Pomegranate Theatre on Sat 14 January. Booking forms available from the Museum and usual information offices.

BBC Radio Sheffield Family & Local History Fair

October 14th saw the Derbyshire VCH, Scarsdale Local History Fair emerge with the support of the BBC as a family history event in addition to the usual local history theme. From an upstairs room in Bolsover Library, through the Arkwright Centre (Arkwright Town) to the Winding Wheel in Chesterfield, the event has grown in popularity year on year. Even with the larger venue, some societies found themselves in an upstairs room; such was the size of this year's event.

NEDIAS was fortunate in having a stand in the main hall, close to the entrance and a lot of visitors found their way to our stand. The display of photographs, particularly those by Patricia Pick, found a ready audience. Sales included *Castings Around* booklets, launched that day, and some of our Newsletters but the main job was explaining the role of NEDIAS. While family historians were there in some numbers, their interest in the NEDIAS display often stemmed from curiosity about the work of their forebears in our local industries. Interests ranged from an early brickworks at Hasland to an ancestor once working at Hardstoft oil works. So now we need more material for Scarsdale 2006!

Erratum: Spot the deliberate ...

from David Wilmot

No sooner had the August Newsletter gone to print it was realised an error had been made! The tailpiece referred to a rolling bridge having been made by Markhams but, on another visit to Caernarfon harbour, it was realised the example bore the name of *Oliver's* of Chesterfield – so is even older than we first thought.

And Finally

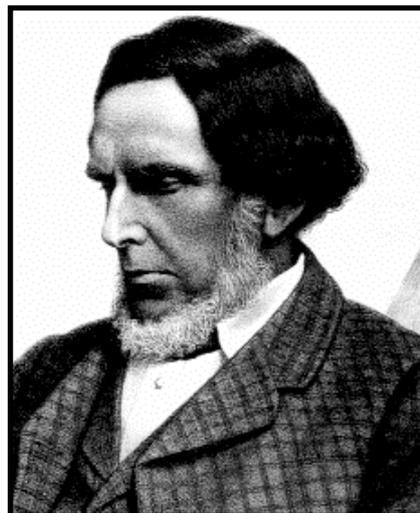
STANDING ON THE SHOULDERS OF GIANTS...

Cliff Lea

I was looking through some early notes of the Chemical Society, spotting a mention of one Robert Mushet in records of 7 April 1860.

Many will know that Mushet was one of the handful of giants and famous fathers of the steel industry; born in 1811 he was the son of a Scottish ironmaster, and he himself worked and experimented at the Darkhill Ironworks in the Forest of Dean. His invention of a type of air-hardened steel using Tungsten as alloying element, made by his own Bessemer-Mushet process, was the very first of what came to be called High Speed Steels, or HSS, which revolutionised the tool industry, and had great influence in the growth of the tool industry in Sheffield. The Sheffield tool industry thrived on it, all the great names came to depend on it, and it's worth mentioning that HSSs are still the most widely used tool steels in the world.

Interestingly, it is said that Mushet never visited Sheffield himself, secretly initially producing his "Mushet Special Steel" in Gloucestershire; he did however form a partnership with Samuel Osborn in Sheffield in 1871, to be called Osborn Mushet Ltd., for the manufacture of tools, twist drills, etc., a business which remained until the early 1990s when it was purchased by competitor Clarkson. Now called Clarkson Osborn, they are actually just about surviving to produce HSS twist drills at the original works, now listed, and backing onto the River Don in the Penistone Road area.



*One of the fathers of the steel industry:
Robert Mushet*

The influence of Mushet on steel production, steel alloys and use for tool production is of world significance, and he was awarded the Bessemer Gold Medal in 1876.

He was one of the giants of the steel industry!

Imagine my surprise therefore to read the tone of a highly deprecating account published in April 1860 by the Chemical Society, a leading scientific society of the day, of Mushet's early original patent.....the account affects amazement that the patent simply should simply cover the mixing of wolfram with various quantities of iron ores..... the very simplicity of it..... Inferring that there was no merit..... even suggesting that there could be no benefit or application!

Perhaps the author should have returned to the subject ten years later to assess the impact on the steel industry! His tone might have been a little different.

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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, *Visits Co-ordinator* – Brian Dick; *Archivist* --Pete Wilson; *Committee Members* – Derek Grindell, David Hart, Stuart Kay, Tony Marsh

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