



## **MANCHESTER REGION INDUSTRIAL ARCHAEOLOGY SOCIETY**

**NEWSLETTER No.147**

**August 2014**

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### **Editorial**

A rather busy time since the last Newsletter, the 50<sup>th</sup> Anniversary Lecture, on the foundation and early days of the Museum of Science and Technology, presented by its founder (and MRIAS early member) Richard Hills, was very well received. Also over 40 members including 2 of our earliest members - Drs Richard Hill and Bill Slatcher - enjoyed our anniversary dinner whilst cruising from Castlefield along the Bridgewater Canal through Pomona lock to Salford Quays where we disembarked to enjoy a coffee or short wander around before re-embarking to return to Castlefield having first sailed along the rejuvenated Irwell as far as the former Granada studios before returning to Pomona to regain the Bridgewater Canal.

Some good news is that the future of the, former, Mayfield Station may have been secured - as a music/events venue. You may recall that Society member, Tony Wright, recently produced an excellent

history of this building.

Similarly, our application to English Heritage for the Scheduling of the Arkwright mill site on Miller Street may be bearing fruit following a recent visit by English Heritage to the site and on the same lines The Co-operative Group have acknowledged our concerns in writing to me. So there is some hope for the conservation of this unique site.

I have attached a booking form for the AIA National Conference Seminar, on Friday 5th September.

I am also pleased to say that, once again, 'MRIAS' badged polo shirts and fleeces or just the 'badge' (if you want to personalise your own garments, bags, etc.) are now available ; details are shown below. (except not in colour!)

I don't think that it is too early to remind members of their AGM in December.

Finally may I also remind members that the last of our of programme of 'Summer' visits and guided walks - An Amble around Castlefield - is on the 16th August and that our new season starts with our Autumn Social on the 12th September (a booking form is at the end of the Newsletter).

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## Programme 2014

<b>Saturday 16<sup>th</sup> August</b>	Guided Walk around Castlefield, Manchester - Gordon Browne
<b>Friday 12<sup>th</sup> September</b>	Autumn Buffet, Trafford Heritage Centre
<b>Friday 10<sup>th</sup> October</b>	Lecture: Royal Ordnance Factory, Euxton, - Jack Smith
<b>Friday 14<sup>th</sup> November</b>	Lecture: Archaeology of the Water Street Pump House and the Manchester Hydraulic System, - Steve Little
<b>Friday 5<sup>th</sup> December</b>	<b>AGM</b> plus speaker Richard Pink 'Trackless + Trams, Buses and Trolleybuses'

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## Fragments

- This year's Cheshire History Day, will be held on 25 October at the Lifestyle Centre, Winsford, CW7 1AD. The topic will be 'Legacies Of Conflict In Cheshire'.

APPLICATION FORMS; download from [www.cheshirehistory.org.uk/cheshire-history-day.html](http://www.cheshirehistory.org.uk/cheshire-history-day.html)  
For postal applications forms e-mail: [info@cheshirehistory.org.uk](mailto:info@cheshirehistory.org.uk) or telephone 01244 972559

The programme will consist of:

**Rachel Swallow:** *'Cheshire as a Frontier: the Medieval Castles of the Earls of Chester and their Barons'*.

**Simon Ward:** *'The Walls of Chester: High and Broad with many towers and bulwarks'*.

**Linda Clarke:** *'The Home Front in World War 1'*.

**Film Archive:** *'The Home Front in World War 2'*.

**Tony Barrett:** *'Cheshire's Wartime Airfields - Then and Now'*.

Doors will be open from 9:15am with tea or coffee on arrival. The lunch break will be at 1:00pm. The event will end about 4:00pm.

- **Industrial archaeologists should be aware that fist bumping spreads only one-twentieth the amount of bacteria that shaking hands does, according to a study in Wales.**

*When it comes time to shake on it, don't. A fist bump spreads only one-twentieth the amount of bacteria that a handshake does, researchers report. That's better than a high-five, which still passes along less than half the amount as a handshake. What makes the fist bump more sanitary? Mostly, it's the smaller amount of surface area in contact between the two hands, said researcher David Whitworth of Aberystwyth University in Wales.*

Some images from the MRIAS cruise celebrating our 50<sup>th</sup> Anniversary!













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## **MRIAS Membership**

Membership Rates -

Single - £20

Joint - £25

Membership Secretary: Walter Payne, 27 Brompton Road, Poulton-le-Fylde. FY6 8BW. I am always pleased to discuss membership matters with you!

**Walter Payne**

## Projects Report

Summary:

	Project	Lead	Status
1	Mellor Mill	Neil Davies	Ongoing
2	Rakewood Higher Mill contents survey	Peter Bone	Ongoing
3	Members Database	Peter Bone	First draft complete
4	Ashbury's Wagon & Carriage Phase II	Tony Wright	Ongoing

### Members Database

This is essentially complete (with errors I expect) I will bring a copy to our monthly meetings so members can see and amend their entries.

**Peter Bone**

### MRIAS Email List

We have recently activated the MRIAS email (mailing) list to keep members informed on a more immediate basis than the quarterly Newsletter.

Fifty-Four of a potential ninety-four individual/joint members have been included.

If you have not recently received a MRIAS email and would like to be included on the list please send an email to [pwbarchaeology@btinternet.com](mailto:pwbarchaeology@btinternet.com) with the subject MRIAS LIST.

**Peter Bone**

**Several articles related to Industrial Archaeology around Matlock which members visited on our last guided walk:**

### **Hydropathy and the Matlock Steep-Gradient Tramway**

Matlock began its spectacular growth as a Spa Town in the 1840's. John Smedley, a local entrepreneur, having made a fortune from his knitwear business at Lea near Cromford, then spent the second half of his business career building up and running his hugely successful Hydro (Spa) Hotel in Matlock. Smedley had taken a successful, though very cold, water cure in Yorkshire and was so impressed that he introduced hydropathy to his mill workers.

In 1851, Smedley became medical adviser to a small hydro on Matlock Bank. He replaced the tortures of the cold water cure with his own Mild Water Cure and business expanded rapidly.

In 1868 the business expanded into a huge new building on the steep hillside above Matlock. This was to become the world-famous Smedley's Hydro.

Smedley was not the first to recognise and exploit the effects of water treatment on various illnesses, indeed Matlock Bath, endowed with natural thermal water, was a Spa Town of some elegance two centuries before he was born but it was his conviction and enterprise that established Hydrotherapy firmly in Matlock, and for a century made it one of the most celebrated centres of the "water cure".

From 1853, the Hydro progressively expanded until it was able to treat up to 2,000 patients a year from all over the world. As a result, both the railways and trams were built in Matlock and great wealth was created for the region. The hydros brought visitors with money to spend, and shops opened to cater for them. By the outbreak of war in 1939, Smedley's Hydro was world famous, its guests having included Robert Louis Stevenson, Sir Thomas Beecham, Ivor Novello, Jimmy Wilde to name but a few.

A large neglected-looking house on Smedley Street in Matlock is almost worthy of a plaque to show that 'Here lived Job Smith'. A hundred years ago the building was, in fact, Malvern House Hydropathic Establishment, of which the redoubtable Job Smith was proprietor. He was also a church warden of nearby All Saints' church, Director of the Gas Works, Manager of All Saints' schools, Chairman of the Matlock Waterworks, Chairman of the Social Institute and of the High Tor Recreation Grounds.

More to the point, Job Smith was to become Manager of the Matlock Cable Tramway Company, having for some years worked to bring a tramway to the town after seeing the San Francisco cable cars.

In 1890 he achieved assurance of financial backing from a wealthy publisher and native of Matlock, George (later Sir George) Newnes, M.P. (publisher of, amongst other papers, Titbits) for work on Europe's first single-line cable tramway at Matlock in March 1892. The route was formidably steep; with an average gradient of one in five-and-a-half over its five eighths of a mile length, the tramway was then the steepest in the world. The trams' passing loop, half-way up the hillside, was virtually outside the doors of John Smedley's great hydro.

Motive power for the system was a continuously moving 3" diameter steel cable supported in a concealed culvert by a number of specially designed pulleys - its speed fixed at  $5\frac{1}{2}$  mph. Each car possesses a gripper to embrace the moving cable. The gripper has one moving jaw or block, which, upon being raised by the controlling hand wheel, causes the cable to be seized and the car thus to be carried forward by it ; and when the wheel is turned so as to open the jaws the cars remain stationery while the cable travels on.

Newnes had had to deal with steeper gradients in his patent cliff railways at Lynton, Bridgnorth, and Clifton, but in those places the rails were laid on private ground, and the rails being above ground, a good grip brake was obtained by the system of clipping the rail head by hydraulic or other pressure. In the present case a patent emergency slot brake was been introduced which required *'little expenditure of energy by the driver'*.

Motive power was provided by duplicate engines erected in a complex at the corner of Rutland Street and Wellington Street which included the depot, boiler house, engine house, repair shop, ladies' cloakroom and waiting room. Steam was supplied by steel boilers arranged with mechanical stokers and *'special appliances for the consumption of their own smoke, so that the pure atmosphere of the Bank shall not be defiled'*

The whole of the machinery and the line equipment were supplied and laid by Messrs. Dick Kerr and Co., of London and Kilmarnock

There were three double decker tramcars painted royal blue and white, with open tops and external stairs to the upper deck, providing seating for thirty one passengers - thirteen inside and eighteen outside.

A fourth tramcar was introduced - a single decker designed for quiet periods with seats that ran the length of the tram rather than going from side to side across the width. However this apparently caused some interesting mishaps for the passengers who slid along the seats to the rear of the coach on the way up and to the front on the way downhill but this design quirk did not last overly long!

Two vehicles were kept in use each counter balancing the other. Together with a standby vehicle they were garaged on short level sections of track at the depot. That there would be passengers for the new transport system was beyond doubt, for close to its base lay the railway station, and around its summit on Matlock Bank stood over twenty hydros the town's life-blood.

The tramway was proving to be an asset for Matlock Bank businesses, and several hydros began to include in their advertising the fact that trams passed by their premises every ten minutes. A major competitor of Smedley's Hydro - Rockside Hydro - whilst advertising its loftier position, was quick to add 'but any inconvenience from this is entirely obviated by the new cable trams which run right up to the main entrance'. The building trade was also profiting as land that had previously been considered inaccessible was being "*opened up for building purposes*"



*Matlock Steep Tramway - 'depot'*

Over a quarter of a million passengers had used the trams by the end of 1893. The shareholders' first dividend, though, was also to be their last. Initial profits turned to losses, but since the system had come to be appreciated as an important amenity, the council was happy to take it over as a gift from the tramway company in 1898, to which end Sir George Newnes, who had by then been knighted, bought out the other shareholders and decided to transfer the ownership of the Matlock Cable Tramway Company Limited to the Council, as a gift to his birthplace, in June 1898.

Unfortunately, two years later the Council were finding its upkeep to be it rather an expensive luxury and it was proposed to stop the service. A meeting of the Matlock Ratepayers' Association discussed the tramway's figures and commented that since the Council had raised the fares to 2d. per. passenger up and 1d. down, all the year's expenditure were covered in eight month's takings, exclusive of advertising receipts and ticket monies.

It is unclear how long the "penny up, tuppence down" fares,- based on the fact that it was easier to walk down the hill-, lasted but the price of a book of tickets increased in June 1914. There were fare dodgers (and children) who clung on to the back step. Indeed the tram proved to be an excellent way for the youngsters to get back up to the top of the sledging run in snowy conditions, - they tied their sledges to the back for the journey up the hill.(the sledgers took a different route down to central Matlock. no sense in colliding with one of the trams!).

The year 1910 actually saw a £17 profit but by the end of World War 1 the tramway was losing £1,000 p.a., continuing to mount even after a gas plant replaced the expensive-to-run steam engines in 1920

The tramway service ended on Friday 23rd Sep 1927 when the cable broke; it was perhaps an appropriate ending but it was a week before the date the Council had set.

The bus service that was introduced to replace the trams on 1st October 1927 was unable to make the journey up the hill and the bus companies had to find alternative routes to get round the problem of the steepness of Bank Road!

During World War 11 many of the hydros were requisitioned, Smedley's being used as an Intelligence Centre and Military Hospital. It opened again after the war, but the inception of the National Health Service in 1947 doomed hydrotherapy. Its more fanciful treatments never had the approval of the medical profession, and were not prescribed under the NHS. Even the very rich saw little reason to pay large sums of money for treatment of unproven worth, when expert attention was available free. Smedley's closed in 1955 and became the headquarters of Derbyshire County Council.

**Neil Davies**

## The Dakeyne Disc Engine

In 1785 Abraham Flint, a local farmer, started to build a cotton mill at the bottom of Ladygrove. Whilst having the vision to use the water flowing through his land, Flint lacked the capital to get his mill running. Daniel Dakeyne (b1733) a local landowner, acquired the nearly completed mill. Despite his total lack of experience in the business he immediately set up Daniel Dakeyne & Co, Cotton Spinners with three of his oldest sons as partners. Daniel, persuaded by the efficiency of flax spinning machines, decided, in 1788 that he should broaden his manufacturing base.



*Ladygrove Mill, Two Dales*

He built a new flax mill, the three storey building to the right of the photograph. The original cotton mill is the two storey building in the foreground. and the two mills are connected by a two storey link block. Although this photograph dates from some 70years or so later, it is exactly as the Dakeynes left it except for the new water pipes running to the tower and possibly the removal of a complex of shafts and gearing in front of the tower.

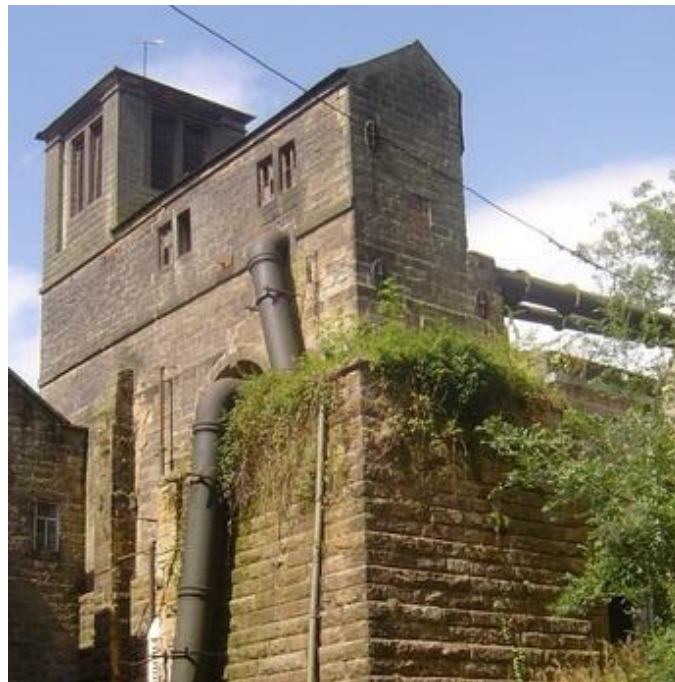
Sydnope Brook runs parallel to the line of but well below the main buildings, and this continued to power what was probably an undershot wheel at the nearest end of the cotton mill. Water from the Regulator was fed via an underground leat to two 30ft diameter wheels driving the flax mill. Three

younger sons, Peter, Edward, and James were employees. In 1794 the latter two patented the "Equalinium", a machine to straighten flax fibres, and a demonstration of their mechanical aptitude that was to become significant in later years. Initially the partners prospered. But In October 1801 they were declared bankrupt.

The mills the dams and houses were offered for sale by auction the next year. The sale failed, so a second auction was conducted in 1804 with the same result. Then followed one of those periods so annoying to historians from which no records survived. What is certain is that some years later James, untainted by the bankruptcy, was back in business running the mill and having recovered much of the family property. The probability must be that he had done a deal with the mortgage holders who saw this as the only option to recover some of their money.

By 1826, partnered by Edward, James had made enough money to build the imposing three storey flax mill on the left of the photograph to the rear of the earlier 2 storey cotton mill.

To get the additional power needed for the new mill he used three water wheels, housing them one above the other in the central tower which is still a prominent feature of the mills. (shades of John Fielden's 3 storey watermill powering Lumbutts Mill which some of us looked at during a walk around Todmorden)

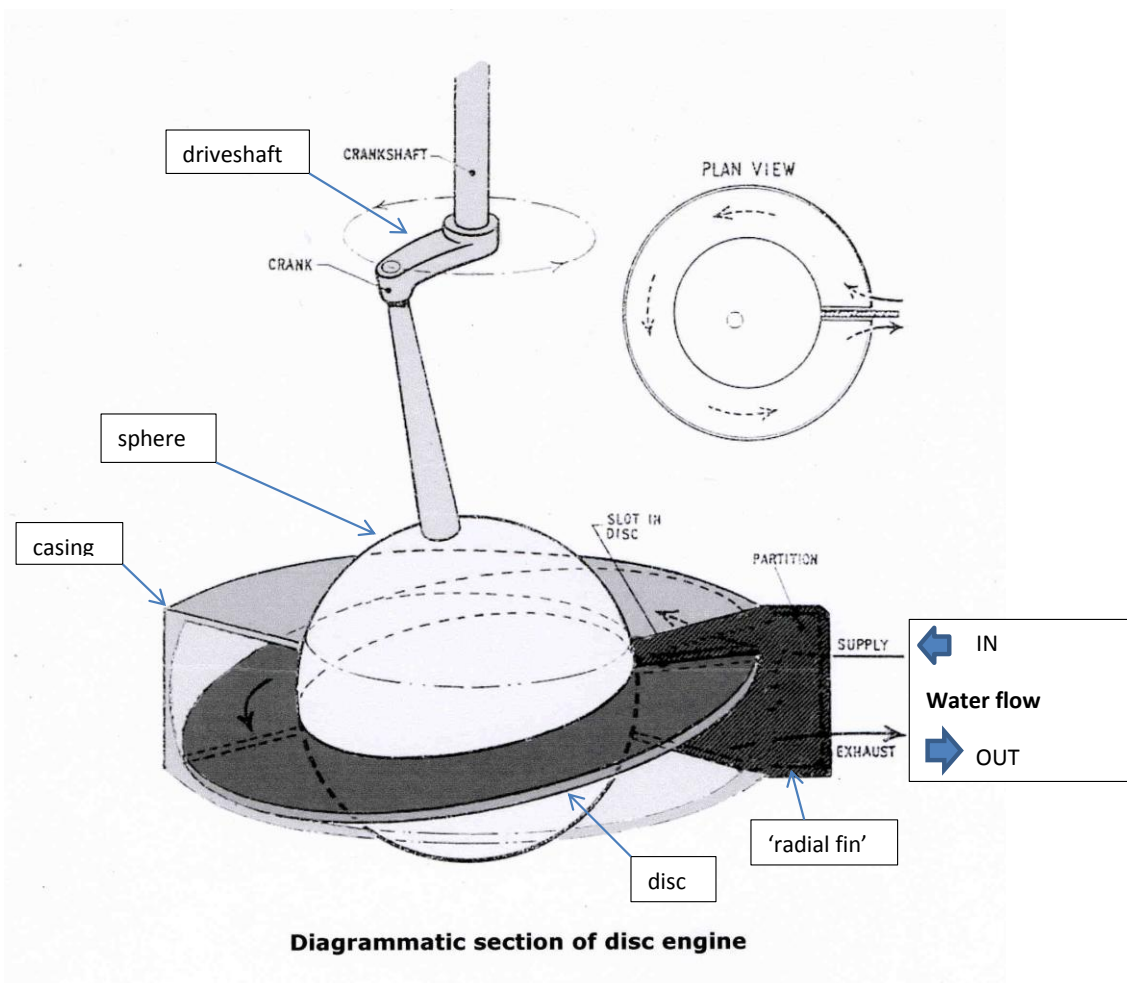


*'Water Tower' - Ladygrove Mill*

But then a major problem arose. The water in the brook was insufficient to simultaneously power the triple wheels at full flow and to allow for water to be diverted from the dam to the wheel at the end of the cotton mill. So they either ran the flax mill at full output whilst not using the cotton mill, or ran the cotton mill with the flax mill working at reduced power. A steam engine could have been the answer. But they considered engines were expensive to install and inefficient. Ideally they wanted to get more power from the brook but without sacrificing the flow over the triple wheels.

By the end of the 18th century there were fountains in some formal gardens including nearby Chatsworth, so the brothers would be familiar with the concept of water pressure they reasoned that, if they could design a suitable engine and install it above the height of the dam top, they could put the used water into the dam without loss to the wheels.

Getting a head of water was simple. All they needed to do was go higher up the valley, behind the mill build a dam and run a pipe down to their yet non-existent machine.



Essentially the engine, as shown above, had two components:

- A sphere
- A disc

The **sphere** was contained tightly within an outer casing and, although, the sphere was free to tilt in any direction in actual fact, the tilt angle was limited by the design of the casing. The sphere was split across the centre line with a **disc** held between the two halves. A drive shaft extended vertically from the top of the sphere.

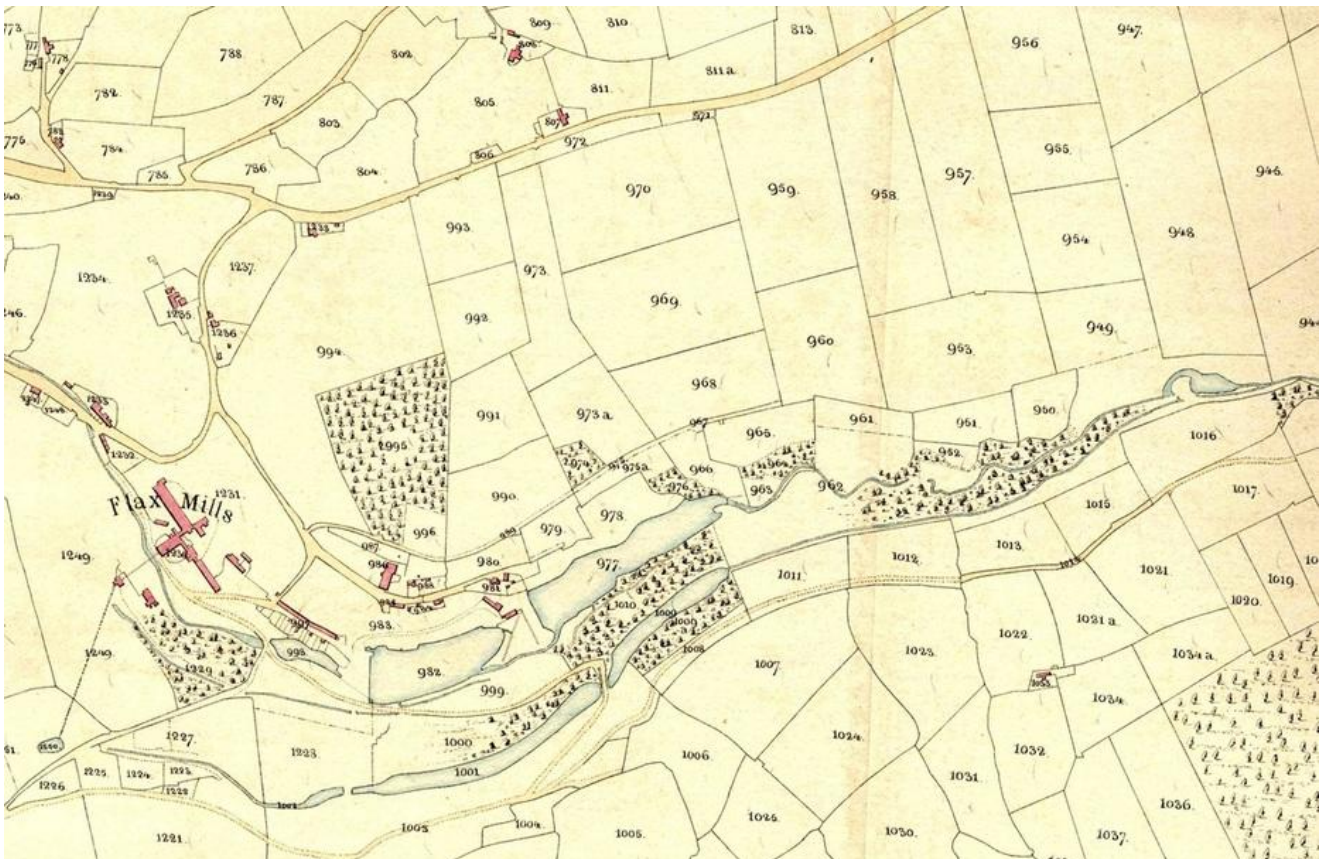
At right across the casing there was a radial web and the disc had a slot to accommodate this radial web. The radial web therefore prevented the disc rotating. As you can see the machine itself is difficult to describe. Frank Nixon, in his book "*The Industrial Archaeology of Derbyshire*" (1969), commented that:

*' The most striking characteristic of this ingenious machine is perhaps the difficulty experienced by those trying to describe it; the patentees & Stephen Glover only succeeded in producing descriptions of monumental incomprehensibility.'*

Little is known of their engine other than from the somewhat unclear description accompanying the patent, which was granted in 1830. Its main castings were made at the Morley Park foundry and it weighed 7 tons and generated 35 horsepower at a head of 96 feet of water.

Stephen Glover, in his *Gazetteer of Derbyshire* (1833), was enthusiastic about the prospects for the disc engine, foreseeing its use in all manner of applications, domestic as well as industrial, not only as a prime mover but also as a pump. He stated that John Dakeyne had also commissioned a disc engine to drive the bellows of an organ in the family's residence, Knabb House; a larger model was constructed to drain lead mines at Alport near Youlgreave and many steam versions were subsequently built by other people.

Compared with the problems involved in the design and development of the engine, supplying water to it was simple. The brothers built a dam at a point where the valley was at its narrowest, some 1/2 ml from the mill and close to the boundary of their land (the swan dipping it's head) on the extreme right of the plan below. A leat led from the millpond to a point above the engine house and from there dropped, in a pipe, to the engine house, some 100ft below..



*Plan - Ladygrove Mill*

There was a subsequent, American revival - when Leonard Meyer submitted his plans to the US Patent Office in 1993 he could not have realised he had reinvented the Dakeyne Disc Engine of 160 years ago. He had, but with the essential difference that his engine was an internal combustion engine. With a partner he founded Kinetic R&D to develop what is now called a nutating engine.

**Neil Davies**

### **'Crich Stand' - the Sherwood Foresters Memorial**

In 1922 Thomas Linthwaite Tudor suggested that, perhaps the site of 'Crich Stand' would make an ideal memorial for the Sherwood Foresters. Brigadier General G M Jackson, the Chairman of the Clay Cross Company Ltd. stated that if this site was selected then the Company would donate the whole of the stonework of the previous tower ( which had been damaged by a landslip in the nearby quarry (the current tram terminus), plus a subscription (£200) and in addition, they would undertake to cart all materials to the site as required by the builder.

The Memorial Tower was designed by Lieutenant Colonel Brewill. The builder was Joseph Payne of Crich and advertisements placed in local newspapers of the time show that he was clearly proud of the fact. It must have been quite a task, for the dome, which sits on the top of the Tower weighs some forty tons. One has to marvel at the men who raised it to the height of 64 feet. The Memorial was erected at a cost of approximately £2382 with the money being raised through public subscription.

The memorial tower, which stands almost a thousand feet above sea level, was officially opened on 6th August 1923

The Regimental Memorial Committee of The Sherwood Foresters installed a 750,000 candle power beacon, a Chance Bros.28-inch searchlight with a luminous range of 38 miles which revolves eight times per minute when illuminated.

**Neil Davies**

# Manchester Region Industrial Archaeology Society

## Castlefield Guided Walk

Saturday 16<sup>th</sup> August 2014

10.30 a.m.

Starting from the Castlefield Open Air Events Arena - accessed from the steps outside the Castlefield Hotel M3 4JR. The hotel is opposite the Museum of Science and Industry (MOSI)

This walk is free. The leader is Gordon Browne (Vice Chairman of the Society)

The walk will be in two parts. Part one will be followed by lunch in a local hostelry (or bring a picnic). Part two will continue in the afternoon, after lunch.

*'Castlefield was named for Manchester's Roman Fort, which was located at the confluence of the Medlock and the Irwell. The area's greatest importance historically and internationally is in the substantial remains of early canal and railway structures. The pioneering Bridgewater Canal reached Castlefield in 1765, and interchange with sea-going vessels on the Mersey came in 1776. When the Rochdale Canal joined the Bridgewater Basin in 1804-6 it completed a canal route linking the west and east coasts. The railway buildings include the world's first passenger railway station and the oldest surviving railway warehouse. The area, designated an Urban Heritage Park in 1982, retains some of the most dramatic industrial scenery in the city. Since that time there has been regeneration with new buildings as well as refurbishment of the old and the visual excitement of the area owes something to both.'*

**\*\*\*Gordon Browne telephone number 0161 445 9124\*\*\***

**Autumn Social and Buffet 2014**

**Friday 12<sup>th</sup> September** starting at 6-30pm

at the Trafford Park Heritage Centre, St Anthony's Centre, Eleventh Street,  
Manchester M17 1JF

The centre is situated at the corner of Eleventh St and Third Ave. To access this, turn off Village Way at traffic lights at the junction with 5<sup>th</sup> Ave, then turn 1<sup>st</sup> Left into Eleventh St. Parking is available at the centre. Maps are available on request

There will be the usual good food, drinks, quizzes and a short presentation.

Also, as per usual there will be a small charge for the evening of **£6.50 per head**, to cover food and drinks

**guests are very welcome and we look forward to seeing you there!**

If you would like to come along, please return the tear off slip below by the 4<sup>th</sup> September to:

Gordon Browne, 622 Wilmslow Rd, Didsbury, Manchester. M20 3QX tel: 0161 445 9124 or

e-mail [gmbrowne59@gmail.com](mailto:gmbrowne59@gmail.com)

Cut here.....

**MRIAS Autumn Social and Buffet**

**12<sup>TH</sup> September 2014**

Please reserve.....places @ £6-50 per person      Total      £.....

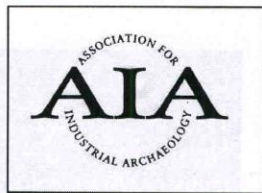
**(please make cheques payable to MRIAS)**

**NAME(s)** (please print) .....

.....

contact tel. ....

contact e-mail .....



Council for  
British Archaeology  
North West  
Industrial Archaeology Panel

**AIA 2014 Chester Conference**

**'The Archaeology of Chemicals & Textile Finishing'**

**Seminar Programme**

**Friday 5<sup>th</sup> September**

**Venue: Chester University**

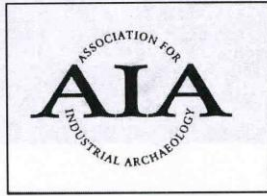
**10.00 Introduction**

- 10.10: The Archaeology of Salt in Cheshire – Andrew Fielding
- 10.50: Roman Salt Production at Middlewich – recent excavation work - Oxford Archaeology
- 11.30: The Chemical Industry in Cheshire - Peter Bone
- 12.10: Wallsuches Bleach Works: A Typesite for Textile Finishing – Michael Nevell, University of Salford
- 12.50: Questions

**13.00pm to 14.00pm Lunch**

- 14.00: Dyeing and Finishing for the East Midlands Hosiery Industry – Mark Sissons, AIA
- 14.40: Hand Dyeing in the Fes, Morocco - Marilyn Palmer, AIA
- 15.00: Excavating the Clayton Aniline Chemical Works – Ian Miller, Oxford Archaeology
- 15.40 The Salford Sewage Works – Craig Brisbane, CBA North West
- 16.00: Questions

**16.30 Close**



Council for  
British Archaeology  
North West  
Industrial Archaeology Panel

**BOOKING FORM FOR SEMINAR**

**AIA & CBA NW Industrial Archaeology Panel Seminar**

**'The Archaeology of Chemicals & Textile Finishing'**

**Friday 5<sup>th</sup> September 2014**

**Venue: Chester University**

**Cost: £31**

**Please reserve.....places**

**Completed form to be returned with full payment to:  
Stephen Miles, Rose Cottage, Lower Durston, Taunton, Somerset TA3 5AH**

**I enclose a cheque made payable to the Association for Industrial  
Archaeology**

Title.....

Surname.....

Forename.....

Address.....

.....

Post code.....

Email.....

# THOUGHTFUL GESTURES

## Mens Polo Shirt Colours:

Yellow  
Orange  
Pink  
Red  
Maroon  
Sky Blue  
Royal Blue  
Navy Blue  
Purple  
Light Green  
Dark Green  
White  
Light grey  
Dark Grey  
Black



Sizes: Extra Small, Small, Medium, Large, Extra Large, 2XL, 3XL, 4XL

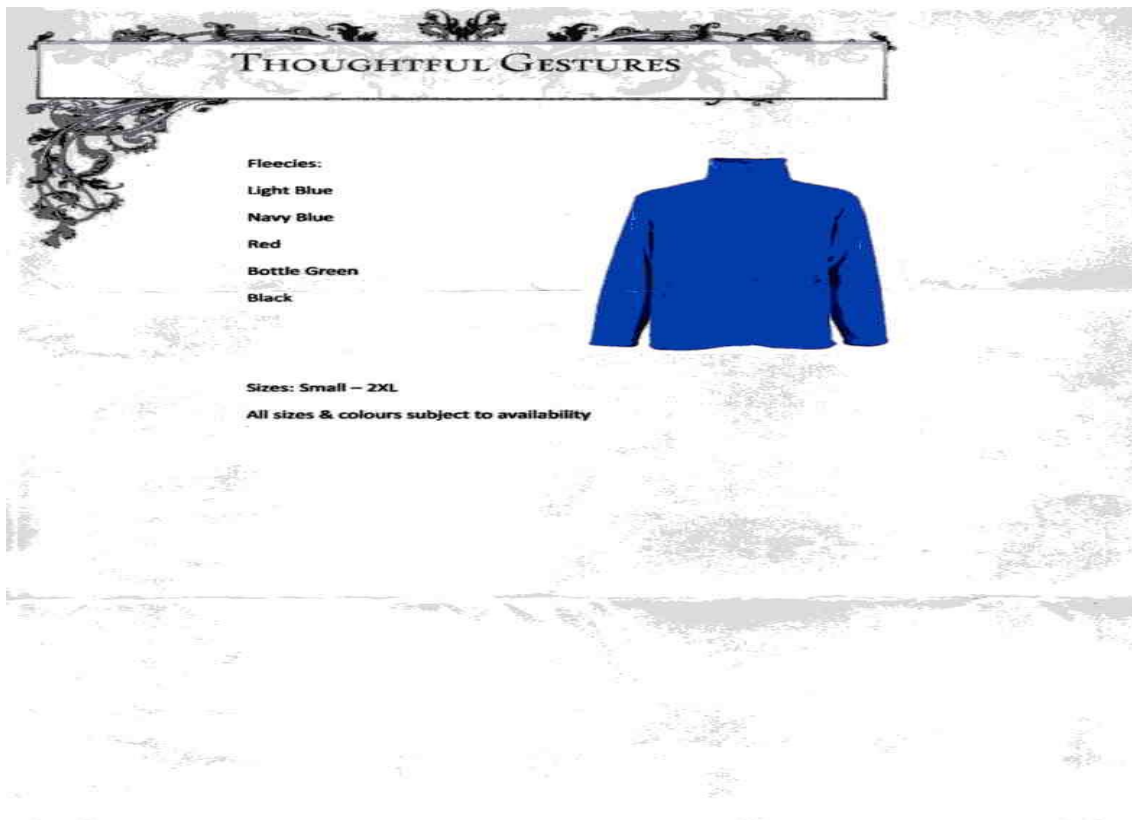
## Ladies Polo Shirt Colours:

Yellow  
Pink  
Red  
Maroon  
Sky Blue  
Royal Blue  
Navy Blue  
Purple  
Light Green  
Dark Green  
White  
Grey  
Black



Sizes: 8 – 22

All sizes & colours subject to availability



**MRIAS Badged Polo shirts - £17**

**MRIAS Badged Fleeces £30**

**MRIAS Badges £10**

**If you want any of these contact Neil Davies - cheques payable to MRIAS**

**\*\*\***

### **archaeologyuos**

Dr Mike Nevell - Head of Archaeology - The Centre for Applied Archaeology,  
University of Salford

### **From Euston Arch to Stephenson's Bridge**

I visit London by train at least five or six times a year for a variety of reasons. Yet, whatever the cause of my trip to what is one the great cities of the world two things always strike me as notable. Firstly, the drama of the landscape of the journey, which starts with industrial Manchester, develops into the rolling foothills of the Peak District, takes in the flatter fields and increasingly large towns of eastern-central England, and finishes with the suburban, then industrial and commercial sprawl of London. Secondly, the shock of Euston Station: from the lead-in of the deep, brick-lined, cutting with

its multiplicity of rail tracks, the rectangular canopy of the station building which seems to press down on the long platforms, to the waiting-cum-booking hall which seems designed to intimidate the traveller with its brutalistic concrete architecture.(1) Finally, there is the shock of the exit which is hidden by a group of non-descript office blocks, clustered, seemingly, to hide the embarrassment of the 1960s terminal station from the Euston Road. It is not a building I have any sympathy for....at all.

What is missing, is, of course, is the Euston Arch to give the entrance to the station the dramatic presence of St Pancras or King's Cross stations, ten-minutes-walk away. Euston Arch was one of the first great monuments of the railway age. Built as a classical triumphal arch in 1837 to a design by Philip Hardwick for the London and Birmingham Railway it marked the entrance to the first great terminal station in London, hiding the mechanical age behind this classical facade. Yet, it was demolished in a hurry without any consultation in December 1961, though amid widespread protest.

The Architectural Review criticised the cynical means employed by British Rail in achieving the demolition of the arch: 'Its destruction is wanton and unnecessary - connived at by the British Transport Commission, its guardians, and by the London County Council and the Government, who are jointly responsible for safeguarding London's major architectural monuments, of which this is undoubtedly one. In spite of [...] being one of the outstanding architectural creations of the early nineteenth century and the most important - and visually satisfying - monument to the railway age which Britain pioneered, the united efforts of many organisations and individuals failed to save it in the face of official apathy and philistinism.'

Fast-forward 53 years to Network Rail's northern hub proposals to significantly improve railway capacity between Liverpool, Manchester and Leeds. This involves building a new line called the Ordsall Chord between Manchester's Victoria, Oxford Road and Piccadilly Stations. Central to this is a viaduct across the River Irwell which in all its various options will impact on the view and fabric of Stephenson's classical-inspired 1830 railway bridge, built for the Liverpool to Manchester Railway: the first intercity railway in the world. The proposals will not demolish the viaduct, although it will cut off the rail access to the Manchester Science and Industry Museum, lead to the demolition of two other bridges, one of which is Grade II Listed, and impact on eight other listed structures.

In contrast to the hurried demolition of the unprotected Euston Arch, the alterations to the Grade I Listed Stephenson's skewed masonry River Irwell Bridge, and the other industrial structures around Liverpool Road Station, are part of three phases of consultation including a public enquiry. This finished gathering evidence at the beginning of June and is due to report its findings in the autumn. I might not agree with the particular option favoured by Network Rail, indeed nor does English Heritage, but the discussions and consultation at least fully recognise the importance of the industrial archaeology of the Liverpool Road Railway Station site, and there is no thought of wholesale demolition in the 1960s style. Progress, then, of sorts in the conservation of our industrial past, and recognition of the central importance to the Industrial Revolution of the building of the railways. As for the Euston Arch, it's just possible that it might be rebuilt (2) as part of the London terminal for the

controversial High Speed 2 line. The Transport Secretary Patrick McLoughlin announced in March 2014 that he had asked '...HS2 Ltd and Network Rail to develop more comprehensive proposals for the redevelopment of Euston, working with the rail industry and the local community. This work should include proposals for the Euston arch, which should never have been knocked down and which I would like to see rebuilt'.(3) Let us hope that we won't be regretting the damage to the Liverpool Road Station site in 50 years times.



Stephenson's skewed River Irwell railway bridge of 1830 seen from the river.

- 1). For a fantastic even beautiful piece of modernist concrete architecture take a trip to Preston to see the bus station cum multi-storey car park.
- 2). Roughly 60% the stones from the arch were found dumped in the bed of the River Lea, at the Prexcott Channel in eastern London in 1994; "Euston Arch found at bottom of river". The Times. 4 June 1994.
- 3). [www.constructio-mnanager.co.uk/news/euston-andc-crewe-could-benefit-from-hsS2-rethink](http://www.constructio-mnanager.co.uk/news/euston-andc-crewe-could-benefit-from-hsS2-rethink)

## Blackpool's Hidden WW1 Trenches - Part 1



*The hunt for the hidden WW1 trenches: Trench 2 at Watson Park, Blackpool, being opened on July 8th 2014*

As part of Blackpool Council's wider commemoration of the centenary of World War One it has brought together a number of partners to create a community archaeology project to uncover sections of the buried training trenches under Watson Road Park, dug in 1915 and 1916. These were used for just eight months by the army.

An integral aspect of the project is the involvement of local volunteers who will be working with professional archaeologists from the University of Salford and Neil Archaeological Services to help understand how the trenches were constructed, and what evidence remains for their probably unique use as a visitor attraction later in the war.

There are very few images of the trenches even after construction and many of these come from newspapers or postcards and so are rather dark and unclear. However, we have been lucky enough to find aerial photographs that show the filled-in lines of those very trenches.

The star find of day one was the remains of a shot gun cartridge, whilst several dark linear stains in our two trenches suggest that we have already hit the line of the WW1 trenches. Although the weather over the first two days was damp the rain has helped keep the sandy soil moist enough to see these features and has not dampened the enthusiasm of the volunteers. We even have our own war artist, Ria Teunisse, one of our volunteers, who has been recording all the hard work do so far.

The Watson Road project will allow the people of Blackpool to confirm the accuracy of the contemporary trench maps and enable the archaeologists to give more detailed information on the depth, construction and ground conditions of the site. There will be open days on the 20th July and the 4th August and then the excavation will have to be back-filled. However, a permanent exhibition has already been set up in the Watson Park Pavilion, kindly managed by the Friends of the park and our dig HQ for the next two weeks and there will be an interpretation panel at the main entrance to the park allowing people to understand the important part Blackpool played during the First World War.

# The first MRIAS Newsletter from 1969!

## MANCHESTER REGION INDUSTRIAL ARCHAEOLOGY SOCIETY.

NEWSLETTER NO: 1

Spring 1969.

### 1. Purpose and Content.

The Newsletter will be edited by the Society's field Secretary. It is designed to keep members informed of recording and research work in progress, to provide a forum for the exchange of news, notes and brief reports and to publicise society lectures and excursions. Contributions will be most welcome.

### 2. Membership and Subscriptions

It is proposed to re-organise the card index of members and subscribers and to list interests in order that those with similar ones may be put in touch. Will all those individuals, libraries and institutions at present on the circulation list who wish to continue to be notified of meetings and to receive future numbers please indicate on the form below and forward subscriptions (if they have not been paid this year) as soon as possible to

Hon. Treasurer. Miss D. Winterbottom  
7 Welbeck Road,  
Worsley, MANCHESTER M28 4SL.

### 3. The CBA Report Cards

A check list is given here of all Site reports received to date by the Secretary. These are available for inspection on application to Dr. Hills. If members have any completed cards which they hold would they please send them in or hand them to the field Secretary:

Mr. A. D. George,  
Room C.19,  
Department of Education,  
John Dalton College of Technology.

Acknowledgements will be published in the next issue of this bulletin.

### 4. Central Manchester Area.

The Society has been approached to notify significant industrial buildings of historic importance to the City Planning Dept., in order that the information may be taken into account in future re-development proposals. In addition to Watts Warehouse and York House which have been the subject of discussions, there must be quite a number worthy of note. Mills, canal warehouses, aqueducts, locks, stations and goods depots, engineering works etc: Suggestions would be welcomed.

### 5. Ancoats - Ardwick Survey (Area scheduled for redevelopment by 1972).

Mr. H. Milligan has kindly produced prints of the early ordinance survey sheet for this important area, which together with his photographers will form the basis of the Society's next organised project. This should commence about April. Would members who wish to assist the work of recording at weekends please notify the Field Secretary?

### 6. The Coal Mines Survey

This took place during August 1968 and the preliminary findings were given at a meeting of the Society in February. A summary by Dr. R. Hills of the information received is attached. Our thanks are due to Cecil Fazackerley and Jean Singer also Mr. R. Higginson who each took charge of a colliery for the purposes of detailed report.

### 7. Summer Excursions Programme:

Please book the following dates and times: (Provisional). Details/Prices will be circulated.

1. Sat. 17th May - trip to Wortley Forge and Sheppard Wheel Sheffield etc
2. Weekend in June, - East Midlands area or Durham.
3. Sunday 21st September, Cheshire Water Mills.

### Reminder

8. Lecture by Dr. w. H. Chaloner - "Trade Tokens"  
Thursday March 13th at 7. pm. Roscoe Building

Check list of C.B.A. Report Cards received.

Group One - Power etc:

Waterwheel Corn Mill	Cromford, Derby	R. Hills	Oct. 1965.
" "	Mittersdale "	" "	Nov. 1965.
Triple Expansion Mill Engine	Cedar Mill, Ashton	" "	Jan. 1969.
Tandem Compounds	Magnet Mill, Chadderton	" "	" "
Cross.Compound	Ace Mill, Hollinwood	" "	" "
" "	Kent Mill, Chadderton	" "	" "
Tandem Compound	Wellington Mill, Leek	" "	" "
Beam Engine	Eastburn Mill, Yorks	" "	" "
Cross Compound	Mann's saw mill, Bradford	" "	" "
Tandem Compounds	Dee Mill, Shaw	" "	" "
Cross Compound	Saxon Mill, Droylsden	" "	" "
Tandem Compounds	Dawn Mill, Shaw	" "	" "
Triple Expansion Engine	Hawthorne Mill, Chadderton	" "	" "
Tandem Compound	Rose Hill Mill, Burnley	" "	" "
Tandem Compound	Walshaw " "	" "	" "
Beam Engines	Sewage Works, Shrewsbury	" "	" 1968.
Cross Compound	Wye Mill, Shaw	" "	" 1968.
Tandem Compound	Bamford Mill, Derby	" "	" 1969.
Tandem Compound	Eckersleys Mill, Wigan	" "	" "
Tandem Compound	Shawclough Mill, Rochdale	" "	" "
Triple Expansion Engine	Briar Mill, Shaw	" "	" "
Tandem Compound	Firgrove Mill, Rochdale	" "	" "
Triple Expansion Engine	Ellen Road, New Hey	" "	" "
Cross Compound	Spring Mill, Earby Yorks	" "	" "
Cross Compound	Elm St. Mill, Burnley	" "	" "
Cross Compound	Mons Mill, Todmorden	" "	" "
Cross Compound	Wiseman St. Burnley	" "	" "
Verticle Triple Expansion	Regent Mill, Failsworth	" "	" "
Double Beam Engine	Nile Mill	" "	" "
Tandems Cross-coupled	Fern Mill, Shaw	" "	" "

2.Winding Engines	Sutton Manor Colliery	J. Singer	Aug. '68.
2 Air Compressors	" " "	" "	" "
Fan steam engine	" " "	" "	" "
Steam Winding Engine	Huncoat Cilly Accrington	O. Ashmore	Nov. '65.
Winding Engine	Middleton, Derbys.	D. J. Turner	Apr. '68
Turbine House	Bickershaw, Leigh, Cilly.	A.D. George P. Hough	Aug. '68.

GROUP 2. Transport.

Canal Basin	Worsley, Lancs.	R. Hills	Oct. '65.
Tramway	Peak Forest, Chapel-en-le-Frith	D. Turner	May '68.
Tramway	Kerridge, Macclesfield	D. Turner	Apr. '68.
Tramway	Cheadle, Staffs.	D. Turner	May. '68.
Canal Branch	Fairbottom, Ashton.	D. Ashmore	May. '67
Tramroad	Ashton	" "	May. '67.
Railway Bridge	" "	" "	" "
Railway "	Hulme, Manchester	J D C of T.	Mar. '68.

Group 3. - Raw Materials

Colliery	Sutton Manor, St. Helens	J. Singer	Aug. '68.
Lancs Boilers	" " "	" "	" "
Colliery	Astley Green, Lancs	R. Hills	" "
Colliery	Wood, Haydock " (2)	D. George/ R. Higginson	" "
Colliery	Parsonage, Leigh	C. Fazackerley	Apr. '69 (Report).



# The Manchester Region Industrial Archaeology Society

## Starting the North Western Museum of Science and Industry

By Dr. Richard L. Hills



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