



BERKSHIRE INDUSTRIAL ARCHAEOLOGY GROUP

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<http://www.biaq.org.uk>

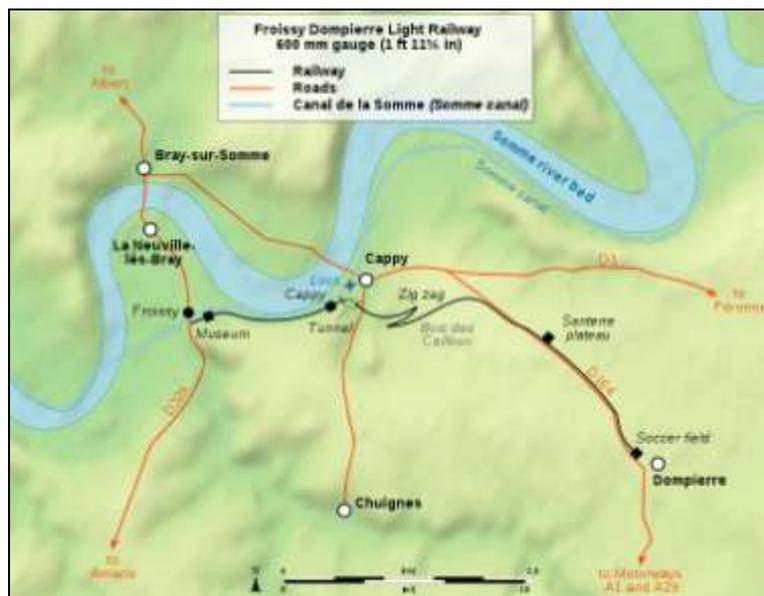
Visit to the Froissy to Dompierre Light Railway in the Somme

Dennis Johnson

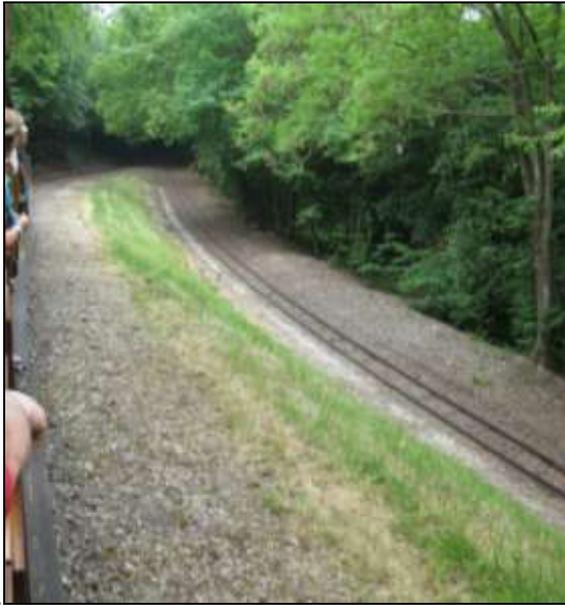
On Sunday 5 June 2011 about half a dozen intrepid BIAG members joined a Reading Transport Group outing to France to visit the narrow gauge light railway near Amiens in the Somme valley. Leaving Reading at 6.00am we travelled by coach to Folkestone and took the channel tunnel crossing to France. We arrived at Froissy about 1.30 pm local time to enjoy warm sunshine, having travelled from Calais through very heavy rain. The local volunteers were running a special event celebrating the 40th anniversary of the "P'tit train de la Haute Somme".

In 1970, some railway enthusiasts decided to save the line that the sugar refinery was about to give up. They rebuilt the track from Froissy to Cappy (1.5 km) with rails remaining from WW1 and hunted for steam locomotives all over France. The very first passenger train ran on June 13, 1971 and the first steam locomotive on July 14 of the same year. The remains of the line include a track alongside the canal which then climbs up through a tunnel and up a zig-zag to the ridge above the Somme.

Situated south of Albert on the plain of the High Somme the "Petit train de la Haute Somme" is the last remaining section of a large network of 60cm railway lines built by the British and French armies in 1916 to supply their lines in the First World War. The site is situated right in the zone of the battle of the Somme (July to November 1916) where Allied armies prepared for the offensive of July 1st 1916. After the war, many of the lines were re-laid to serve civilian purposes, but most inevitably fell to competition from road transport and closed during the 1940's and 1950's. This line survived as it was first used to help reconstruct damaged villages in 1924, and then until 1971 was used by a sugar-beet factory to take products between the plants at Dompierre and the quay on the Somme canal at Froissy.



The line itself follows the prettily wooded route of the Somme canal from the HQ at Froissy, going through an impressive 230m long tunnel, before rising through a zig-zag that sees the train reverse and reverse again up a series of steep inclines to reach the plateau of Santerre



Here the scenery changes to open fields as the train follows a road towards the terminus at Dompierre. In order to meet the demands of the large number of visitors during the special week-end the train terminated at the Santerre Plateau loop.



As there were no railway buildings along the line, the society members built a shed, then a little station at Froissy.

On show in the museum were 38 steam or diesel engines and about 120 wagons. For the special event there were 8 extra working steam engines on the tracks. Among them were:



0-6-0T Decauville No1770/1920 (red) from Chemin de Fer des Chanteraines (Villeneuve-la-Garenne - France). Built in 1920 for Morillon et Corvol company, it was later sold to the Origny Sainte Benoîte cement works. **N°7: 0-4-0+T Borsig "Geneviève"** (green).



4-6-0T Baldwin No.44656/1917 from the Leighton Buzzard Railway. One of 495 locomotives built by Baldwin for UK War Department Light Railways. They operated on the thousands of miles of narrow gauge tracks that supplied the front line trenches in the First World War. It then worked in India until the 1980s, finishing at the Upper India Sugar Mills in Uttar Pradesh.



0-4-0T B Class (built in 1889) for the Darjeeling Himalayan Railway (India). It worked for 71 years on the DHR. Its present owner, Adrian Shooter, purchased it in late 2002 and sent it to the Tyseley Locomotive Works, Birmingham, where it was completely overhauled. It now runs on the private railway, the Beeches Light Railway.

0-4-0T Leary. Built and owned by a group of Ffestiniog Railway volunteers. Leary is a new 0-4-0 vertical boiler tank locomotive that was built in Nelson, north-east Lancashire, in 2010 along the lines of the nineteenth century products of De Winton in Caernarfon that were used in local slate quarries.



Photo D. BLONDIN
Coll. APPEVA

View of the Museum at Froissy

At Froissy, there's a very good museum, with lots of locomotives and other exhibits about the development of 60cm railways, and the role they played in both wartime and in peace.

BIAG visit to Stroud Valley mills

Ben Weiner

On Saturday 9 July a large contingent of BIAG members descended on the Stroudwater Valley to discover the industrial archaeology secrets it held.

The journey into the valley sets the tone of adventure: approaching from the south west by road, the traveller crosses miles of rolling Cotswold landscape which without warning drops down into a steep sided valley where the road takes on a suitably sinuous character.

We started in earnest at Gigg Mill in Nailsworth. Most of this unassuming pebble dashed building is occupied by other businesses but by taking a grassy path around the side and over the leat we reached a single-storey extension which is rented by our hosts, the Stroudwater Textile Trust. In this extension, known as the Weaving Shed, we were treated to a most comprehensive demonstration of the techniques of weaving on the loom. The shed contains several small modern hand looms which are very good for demonstrating the fundamental tasks involved and the way that machinery has been created to serve each task. Volunteers from the group helped to weave a cloth, calling out the sequence of sheds to open from a pattern book and pulling strings to open the appropriate sheds before the weft was passed through and beaten by our tutor.

There are two much, more substantial looms in the Weaving Shed. One is a 1860s wooden foot-and hand-operated loom with a flying shuttle. The machine is impressive in its size and complexity and we were treated to a demonstration which showed how the shuttle is propelled from side to side and how the sheds are automatically raised using a 'dobbie' – a system almost like a musical box which balances precariously on the top of the frame. The other loom dates from the 1950s and is entirely automated, driven by an electric motor. It too was demonstrated, making a considerable cacophony.

From Gigg Mill we went to lunch in Egypt Mill, another former textile mill in which waterwheels and two grindstones from later use grinding corn are on display; thence to Dunkirk Mill. This is a mill very much at the opposite extreme from Gigg Mill. The first building to form part of the mill dates from 1798 but by 1818 its success enabled the owners to expand significantly. In its working life, sections of the building changed use and some were rebuilt. Now, it contains flats and its appearance, dominating the valley, must add significant appeal to prospective residents.



Dunkirk Mill - Nailsworth

The Trust has negotiated space in the redeveloped mill where some of the machinery and techniques of preparing cloth can be shown. This space is at the north end of the building which was rebuilt following a fire in the early twentieth century and it contains two waterwheels, one of which can be brought into use and is linked by line shafting to a couple of the machines. These machines are firstly a fulling machine, which is used to shrink and

condition the cloth by crushing and stretching it in a chemical broth, and secondly a carding machine, which contains paddles fitted with teazles which raise the nap of the cloth to give it a soft surface. The roar of water as the wheel is brought into use is quite impressive; I recollect that more than a ton's weight of water is needed in the first bucket to make the wheel start to turn. The space also contains a cloth shearing machine about whose provenance our hosts seemed unsure of – though the fact it had an ornate iron framework suggested to them that its country of manufacture was France.



Gigg Mill- automated 1950s loom



Dunkirk Mill – carding machine

We were also shown the two waterwheels in the centre of the building which are being restored by residents in the block. It seems remarkable that these people are keen to be involved with the industrial archaeology directly beneath their feet, but what an inspiring note on which to end our visit. We are greatly indebted to Ian Mackintosh and other members of the Stroudwater Textiles Trust for a most enjoyable day.

Editorial Note: The Stroudware Textile Trust runs a series of mill visits in the Stroud, Nailsworth, Stonehouse and Chalford areas during the summer months from April to September. Further details can be obtained from their website www.stroud-textile.org.uk . There are also Mills Walks maps obtainable at the Nailsworth Town Information Centre.

EDITOR`S NOTE:

Thanks to Dennis Johnson, Ben Weiner and Walford Lewis for their contributions this month – and a continuing plea to please keep sending me letters, articles, trip reports etc., that can be included in future editions!

John Coulson

MEETING NOTES

C. Walford Lewis

21st February 2011. The Life and Times of a Miller at Mapledurham

Mildred Cookson.

The first record of a mill at Mapledurham is on a map dated 1723. Dendrochronological testing to assess dates gives 1626 with the Thames side wheel at the beginning. There was a down stream extension in 1746 and in 1823 there was a plan to demolish and redevelop but it did not happen.

Millers were often dishonest with a common trick of having a false bottom in the measuring barrel that was inserted when measuring milled goods for sale and removed when measuring grain to be purchased. The April to June quarter was usually quiet after the winter milling. The miller also controlled the flash lock and would wait until 6 to 8 boats could be let through on one flush to conserve water for the mill. All mills were tenanted from the estate with the miller at Mapledurham having a seven bedroom house.

A third mill wheel was incorporated on the river side that worked trip hammers for fulling cloth and was later used for wire pulling. In 1924 the first waterwheel was removed to be replaced by a Gilkes Turbine driving an electricity generator; and there was also a saw bench driven by a water turbine. A water pump was installed pumping fresh water from an aquifer under the river to cattle troughs on the estate.

The early 1900's saw the import of bulk grain from Canada and the development of bulk grain silos at the dockside of major UK ports. This was followed by building very large steam powered mills at the dockside leading to a decline in small local mills.

There was a major fire at Mapledurham in 1944 that led to the closure of the mill until 1976. A film company wanted to buy the mill for a set which would then be burnt so they built an extension and destroyed that in the film and, as a result, funds then became available for refurbishment of the mill.

All gearing in the mill is arranged with the driving cog in cast iron and the driven gear teeth made from timber so any failure was in the timber that the miller could repair.

Today grain is delivered from Basingstoke in paper sacks and fed in to hoppers on the top floor with a warning bell operating when the grain in the hopper is running low with the possibility of the stones touching and making sparks that could cause an explosion.

For years the flour was sifted by hand but cylindrical rotating sieves were then introduced with varying mesh sizes using brushes to move the ground material down the sieve. The brushes were originally horsehair but now nylon brushes are used. However, it is still a very difficult job to clean the sieves.

Stone cranes can be swung over the millstones to allow them to be separated for dressing that is done twice a year. Dressing hammers are now tungsten tipped which have a much longer life than earlier steel hammers between sharpening. Stones are made up of millstone grit sections, sourced from France grouted together and gripped by a metal band. They usually last about 50 years.

Algae that builds up on all timber in contact with water has to be removed twice a year which is another messy job. The presentation finished with a video that showed all stages of the milling process.

The Gilkes Turbine that was housed in the turbine house on the riverside of the mill was removed in 2010. All the timbers were burnt after careful recording of all details and the turbine and generator is being replaced with an archimedean screw driven generator, which is more amenable to fish passing up and down river through the mill. The works can be visited between April and September 2011 but the mill will be closed during this construction work.

21 March 2011. The Kennet and Avon Canal – the Water Road to Bath

Richard Poad

The speaker was a boat owner from the Maidenhead Heritage Centre. The start of the waterway is at Blake's Lock which is the only "Thames Lock" not located on the river. The Kennet Navigation from Reading to Newbury was opened in 1723 being basically an improvement of the river Kennet over this length and the K&A Canal is strictly from Newbury to Bath.

The canal was treated as a line of defence during the 1939-1945 war with pill boxes located all along the length with the canal being used as an anti-tank ditch.

County Lock in Reading only has a 12 inch rise. Aldermaston bascule bridge does not operate during the morning and evening rush hours to avoid major traffic hold-ups.

Newbury is the beginning of the K & A Canal and from the start was in better condition than the Kennet Navigation. Charles Dundas was the Chairman of the K & A and is recognised by the Dundas Aqueduct near Limpley Stoke, and the Dundas Arms at Kintbury. In 1868 the toll on the canal was 2p per ton. Bath stone was delivered as far east as Hungerford.

The original planned route for the canal was Marlborough, Calne Lacock, Melksham, Bradford on Avon but the eventual route was Hungerford, Great Bedwyn, Pewsey, Devizes, Trowbridge to Bradford on Avon. There is a 40 foot rise at Crofton serviced by Crofton Pumping Station and the canal goes through the Bruce Tunnel that is about 500 yards long. The 15 mile Long Pound takes one to Devizes and into the Caen Hill Flight with 16 locks in the flight. You are not allowed to stop on the flight which is now maintained by back pumping up to 300,000 gallons/hour. For safety reasons the flight is only open from 0800 to 2000 hours and you cannot enter the flight after 1700.

Near Limpley Stoke there are two aqueducts taking the canal across the river valley where it connects to the Somerset Coal canal. The stretch from Bradford on Avon to Bath is level and is fed by Claverton Pumping Station which has worked continuously for 140 years driven by a very wide water wheel but is now augmented by an electric pump. The stretch from Bathampton to Bath is now a long boat park.

At Sydney Gardens in Bath the headquarters of the K and A are built above a masonry arch over the canal and there are two cast iron bridges that were cast at Coalbrookdale. The final locks down to the river Avon in Bath have been modified comparatively recently to accommodate change in road layouts with two locks being merged into one with a rise, or fall, of 19' 6".

16 May 2011. 400 Years of Stroudwater Textiles

Ian Mackintosh

The speaker was from the Stoudwater Textile Trust and gave a preview of the history of textile mills in the Stroudwater area. This was given as a preview and "appetiser" before the planned visit to the area which is reported more fully earlier in this Newsletter.

FORTHCOMING 2011 MEETINGS PROGRAMME

19/9/11	STEAM MECHANISATION OF AGRICULTURE 1840 – 1920	Jane McCutchan, MERL
17/10/11	32nd ANNUAL GENERAL MEETING followed by Members` Evening Please let Ron Neal know if you have a contribution to make (01635 34342)	
21/11/11	MALTING AND BREWING AROUND WALLINGFORD	Stephen Capel-Davies
12/12/11	NEWBURY & DISTRICT BUSES	Paul Lacey
19/1/12	THE CONSTRUCTION OF HS1	Douglas Irvine
20/2/12	STEAM AND STEEL IN THE VALE OF THE WHITE HORSE	Tony Hadland
19/3/12	IA FILM EVENING	
16/4/12	RAILWAYS AND ART	Mark Casson
21/5/12	To be announced	

Meetings will now be held in the Garden Hall of Watlington House, 44 Watlington St, Reading RG1 4RG where all the facilities used by BIAG will be on the ground floor. All meetings are held on Monday evenings and will start at 7.30pm. Watlington House has a web site with a map: www.watlingtonhouse.org.uk

FORTHCOMING EVENTS

Heritage Open Days – Reading (8-11 September 2011)

Details are in a leaflet available from libraries, Civic Centre or 0118 937 2373 or via web addresses below.

Activities include:

Industrial Heritage of Reading Walks from Queen Victoria's statue, Town Hall Square:(Fri 9.Sept 14.00 – 16.00, Sat 10 Sept 10.00 –12.00). Booking essential 0118 959 1692.

Otherwise general details on web: www.heritageopendays.org.uk or www.reading.gov.uk

Visits (Enquiries to John Parish email: john.parish2@ntlworld.com or phone 0118 967 6323)

October 2011 Albion Dock, Bristol, rebuild of the *Medway Queen* + other places of IA interest (possibly the *Clifton Rocks Railway*)

(Note. Tues 21st February 2012 K & A, Reading

Restoration of the paddle steamer *Medway Queen*, Grange Free Church Hall, Southcote, RG30 3HD)

Thursday 17th November

Farnborough Air Sciences Museum

South East Regional IA Conference (SERIAC) April 2012

The South East Regional Conference (SERIAC) will be held in 2012 on Saturday 28 April 2011 in Newbury at St Bartholomew's School, and is being organised by BIAG. The event is being fronted by Graham Smith who will need help from others to act as stewards. Please offer Graham support; he is at most evening meetings of BIAG.

CHAIRMAN'S COMMENTS

The arrangements for the SERIAC Conference which is being held in Newbury next year are progressing well, thanks to the effort of Graham Smith. The programme of lectures is largely mapped out, subject to confirmation by the speakers. The venue of St Bartholomew's School is impressive. It has recently undergone a £38 million development. The facilities are excellent, with modern audio-visual aids. All we need now is the effort from you, the members, to make it a success.

We will need help putting up direction signs before the conference, stewards for guiding delegates on arrival, and a team to book in these delegates. Please step forward and offer your assistance.

Dennis Johnson

INDUSTRIAL ARCHAEOLOGY SYMPOSIUM 2011

9:45 am, Saturday, 5 November, 2011

A daylong symposium on the industrial archaeology of Wiltshire takes place at the Wharf Theatre, Devizes (SN10 1EB), commencing with registration at 9.45am and finishing at 4.30pm.

The subjects and speakers will be:

- * Milling, paper and brewing at Slaughterford - the history of a small industrial village, by Mike Stone.
- * Cold War Monuments in the West Country, by Bob Clarke.
- * History of the Nestles Factory at Staverton, by Peter Lavis.
- * Quarrying Bath Stone underground at Monk's Park in the 1990's, by Mike Dodds.
- * Recent Work on the Wilts and Berks Canal, by Chris Coyle, Company Secretary of the Wilts and Berks Canal Trust.

Contact the Bookings Secretary:

- * Tel: 01380 727369 (10am to 5pm Monday to Saturday)
-

For general BIAG business, please contact the Secretary:

PETER TROUT (Tel: 01491 682002)
7 WEST CHILTERN, WOODCOTE, READING, RG8 0SG

Submissions to BIAG News are welcome in any format. Please send your contributions with an IA theme such as articles, letters, pictures, jokes, cartoons, cuttings from journals etc. to:

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or e-mail jcoulson@theiet.org
