



# Sussex Industrial Archaeology Society Newsletter

Number 147

July 2010



Two sections of the Southease swing Bridge were lifted onto the bank of the River Ouse on 8th June for restoration work - a temporary footbridge is in place during the works.

*(Ron Martin)*

## Newsletter 147

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## Editorial

The role of editor is a responsible one, apart from meeting the printer's deadline, there is the need to fill the designated number of pages with subject matter that will be of interest to all - well most hopefully! - of the members and others who pick it up. One could cheat and visit the archives - which can be quite enlightening, but long established members would get a sense of déjà vu.

I do get to see the work and ideas of members which can be worked into these pages, at times it is necessary to follow up the subject - it is important not to publish suspect material - unless under the banner of inspiring further research.

Even in this, our humble offering, we must be seen as a competent society, able to do research and make a worthwhile contribution to the pot of IA knowledge.

I can be the ultimate sceptic, challenging new ideas and old, as contributors will tell you. However this approach has brought forward some new ideas and results, *e.g. Newsletter 146* contradicting field work from 1960s in *Sussex Notes and Queries*.

I have long had an interest in the 'bomb house' at Devil's Dyke, but with nothing to go on. In this issue is the first notice of a recent discovery in the National Archives that will challenge previous views of the areas use in WWI.

## Forthcoming SIAS Events

### Malcolm Dawes

**Wednesday 21<sup>st</sup> July. *Day tour of Hampshire Mills.***

See *Mills Group Newsletter* for details.

**Saturday 21<sup>st</sup> August, 10.00am. *Winchelsea Cellars and Rye Harbour.***

Winchelsea was a major wine port between the 13<sup>th</sup> and 15<sup>th</sup> centuries. Merchants used the cellars of their houses to store the wine. This is an opportunity to visit a selection of wine cellars with a local guide. One of the cellars has only recently been cleared by the local archaeology society. You will need to book your place on the visit to the cellars which will be in the morning. Meet outside the Church. Please send £5 each to Ron Martin for the Cellar tour. Cheques payable to SIAS. In the afternoon we will visit Rye Harbour to view the old and new industries that make up the harbour community.

**Saturday 11<sup>th</sup> September, 10.00am. *Portsmouth and Arundel Canal.***

A guided 3 mile walk of the route of the Portsmouth & Arundel Canal from Barnham to Ford, led by SIAS member Aidge Roberts.

See many excavated and conserved engineering features along the canal.

Parking at Barnham Court Farm, Church Lane, Barnham. 01903 721762.

**Sunday 12<sup>th</sup> September, 10.00am to 4.00pm. *Poyntz Bridge.***

The historic canal swing bridge will be in operation for the day. Situated just 200 yards from the canal basin at Chichester at the end of South Bank. Come and see this unique bridge in operation. A display of artefacts and illustrations of the canal and its history will be on site.

At 2pm there will be a guided walk around the canal basin led by Alan Green featuring the past industrial history that once surrounded the basin. 01903 721762.

**Saturday 30<sup>th</sup> October, 7.30pm. *The History of Rye Bay.***

Illustrated talk by Ron Martin.

West Blatchington Mill Barn, Holmes Avenue, Hove.

**Saturday 27<sup>th</sup> November at 2.30pm.** AGM followed by illustrated talk by Peter Hill *on Mills of the World.*

To be held at West Blatchington Mill Barn, Holmes Avenue, Hove.

#### **Information for members on Heritage Open Days in September.**

Many buildings are opened to the public during September as part of the Heritage Open Days event. Many of these buildings have an IA interest.

Events outside of London run from 9<sup>th</sup> to 12<sup>th</sup> September.

Details from [www.heritageopendays.org.uk](http://www.heritageopendays.org.uk).

Events in London are for the weekend of 18<sup>th</sup>/19<sup>th</sup> Sept.

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

## Events from Other Societies

### Malcolm Dawes

Detailed below are events organised by other societies, which may be of interest to our members. If you have details for future events please send these to:

Malcolm Dawes, 52 Rugby Road, Brighton, BN1 6EB

or e-mail to [malcolm.dawes@btinternet.com](mailto:malcolm.dawes@btinternet.com)

**Weekend 24<sup>th</sup>- 25<sup>th</sup> July. *Toy and Rail Collectors Fair.***

Horsted Keynes Station, Bluebell Railway. 01825 720800.

**Sunday 25<sup>th</sup> July. *Worthing Seafront Bus Rally.*** [www.worthingbusrally.co.uk](http://www.worthingbusrally.co.uk)

**Sunday 25<sup>th</sup> July. *Classic Cars from the 50s, 60s and 70s.***

Amberley Museum. 01798 831370.

**Sunday 1<sup>st</sup> August. *Eastbourne Vintage Bus Rally.***

<http://freespace.virgin.net/ian.smith/buses/CBR/CBR01.htm>.

**Sunday 1<sup>st</sup> August. *Classic Microcar and Scooter Rally, bubble cars, three-wheelers and scooters.*** Amberley Museum. 01798 831370.

**Sunday 1<sup>st</sup> August, 4.00pm. *A History of the Bohemia Estate.***

Old Hastings Preservation Society talk by Heather Grief.

Hastings History Centre, Courthouse St, Hastings. [www.ohps.org.uk](http://www.ohps.org.uk).

**Friday 6<sup>th</sup>- Sunday 8<sup>th</sup> August. *50<sup>th</sup> Anniversary Celebrations.***

*Visit of newly built main-line loco Tornado, Furness Railway No 20 and Blue Circle.*

Bluebell Railway. 01825 720800.

**Monday 9<sup>th</sup> August, 7.30 pm. *Closed Stations.*** Malcolm Stroud will test your knowledge of lost stations. Southern Electric Group, Sussex Branch event.

£2. Deall Room, Southwick Community Centre, Southwick. 01273 462049.

**Wednesday 18<sup>th</sup> August, 7.45pm. *Railways on Picture Postcards.***

Sussex Transport Interest Group talk by John Hollands. £2. London Road Station, Brighton. 01273 512839.

**Friday 20<sup>th</sup> August, 7.00pm. *Brighton from Fishing Village to Railway Town.***

Polegate and Willingdon Local History Society talk by Trevor Povey. £2 visitors.

St. John's Church Hall, High Street, Polegate. 01323 485971.

**Weekend 21<sup>st</sup> - 22<sup>nd</sup> August. *Vintage Transport Weekend.*** Vintage cars, traction engines and trains. Bluebell Railway. 01825 720800. [www.bluebell-railway.co.uk](http://www.bluebell-railway.co.uk).

**Weekend 21<sup>st</sup> - 22<sup>nd</sup> August. *Shoreham Air Show.***

Shoreham Airport. [www.shorehamairshow.com](http://www.shorehamairshow.com)

**Sunday 22<sup>nd</sup> August. *Commercial Vehicles Rally.***

Amberley Museum. 01798 831370.

**Monday 30<sup>th</sup> August, 10am to 4 pm. *Special Bank Holiday Event Day at the Brede Steam Engines.*** Steam and working industrial engines. Situated 6 miles from Hastings on A28 to Ashford. 01323 897310.

**Thursday 2<sup>nd</sup>- Sunday 5<sup>th</sup> September. Amberley Beer festival.**

Over 60 real ales, many from Sussex. Food demonstrations and crafts during the weekend. Amberley Museum. 01798 831370.

**3<sup>rd</sup> - 9<sup>th</sup> September. Association for Industrial Archaeology Conference in Falmouth.**

Details of programme and booking form at [www.industrial-archaeology.org.uk](http://www.industrial-archaeology.org.uk).

**Monday 6<sup>th</sup> September. Sailings of Waverley Paddle Steamer.**

First of two cruises from Worthing during September.

[www.waverleyexcursions.co.uk](http://www.waverleyexcursions.co.uk)

**Wednesday 8<sup>th</sup> September, 7.30pm. Early Radar in Sussex.**

Chichester Local History Society talk by Brian Worsfold. £2.

New Park Centre, New Park Road, Chichester. 01243 784915.

**Saturday 11<sup>th</sup> September, 10.30am to 3.30pm. Tours of St. John's Chapel.**

St. John's St, Chichester. Guided hourly tours of the Chapel by Alan Green.

Heritage Open Day Event.

**Saturday 11<sup>th</sup> September, 10.00am to 4.00pm. History Event at the Guildhall,**

Priory Park, Chichester. Hands-on archaeology, history, music and an exhibition of the building. Heritage Open Day Event.

**Weekend 11<sup>th</sup> - 12<sup>th</sup> September, 10.30am to 5.00pm. Fernhurst Furnace**

**Open Days.** Tours of the furnaces, charcoal burning, musket and cannon demonstrations, cookery and refreshments. 1 mile west of Fernhurst. SU879283.

[www.fernhurstsociety.org.uk/furnace](http://www.fernhurstsociety.org.uk/furnace)

**Sunday 12<sup>th</sup> September. Amberley Bus Show.** Ride on buses dating from

Edwardian era to recent times. Amberley Museum. 01798 831370.

**Monday 13<sup>th</sup> September, 7.30 pm. Vintage EMU Photographs.**

Southern Electric Group, Sussex Branch presentation by Richard Larkin. £2. Deall Room, Southwick Community Centre, Southwick. 01273 462049.

**Wednesday 15<sup>th</sup> September, 7.30pm. Convoy Peewit.**

Conflict in the English Channel during the Battle of Britain. Sussex Military History Society talk by Andy Saunders. £3 non-members. Function Room, The Royal Oak, Station Street, Lewes. [sussexmilitary.org.uk](http://sussexmilitary.org.uk).

**Friday 17<sup>th</sup> September, 7.00pm. Memoirs of Chichester Harbour.**

Chichester District Museum talk by Judi Darley. Ravenna Suite, Westgate Leisure Centre, Chichester. Tickets 01243 784683 or on the door.

**Weekend 18<sup>th</sup> - 19<sup>th</sup> September. Miniature Steam and Model weekend.**

Over 60 model steam engines in action. Amberley Museum. 01798 831370.

**Sunday 26<sup>th</sup> September. Craft Day, Traditional Skills and Crafts.**

Amberley Museum. 01798 831370.

**Weekend of 9<sup>th</sup> - 10<sup>th</sup> October. Austin Counties Car Rally.**

Vehicles on show at Tenterden Station. Kent and East Sussex Railway. [kesr.org.uk](http://kesr.org.uk).

**Sunday 10<sup>th</sup> October. Autumn Vintage Vehicle Show.**

Vintage cars, motorcycles, buses and lorries. Amberley Museum. 01798 831370.

**Sunday 17<sup>th</sup> October. Industrial Transport Day.**

Amberley Museum. 01798 831370.

**Friday 22<sup>nd</sup> - Sunday 24<sup>th</sup> October. Giants of Steam Weekend.**

Running of larger locomotives plus a visiting engine. Free Vintage Bus Service on the Sunday. Bluebell Railway. 01825 720800. [www.bluebell-railway.co.uk](http://www.bluebell-railway.co.uk).

**Sunday 7<sup>th</sup> November. London to Brighton veteran car run.**

*Do please check details before travelling.*

*The details of these meetings and events organised by other groups are only included as a guide and as a service to members: inclusion here is not intended to be seen as an endorsement.*

## Missing Toll Gate

### Brian Austen

In 1812 a toll road was authorised from Ditchling to just short of Offham (junction with A275). Returns submitted to Parliament and published in 1840 and 1852 show that the Trust maintained Two gates and One side bar. One of these was at Plumpton Court (actually in the parish of St. John Sub Castro, Lewes) near the commencement of the turnpike, but where was the other? The side bar could not have been at this location as no side turning enters the Turnpike here.

Research using the tithe award maps for all the parishes along the line of the road has not identified a second toll house. On rare occasions, when the toll house was built into the road and had no garden, their presence is not indicated on the tithe award.

The most likely locations would appear to be Ditchling (possibly the junction of East Lane with the B2116, or at Westmeston.

If any member is able to assist in locating the second toll gate please contact Brian Austen at [brian.austen@zen.co.uk](mailto:brian.austen@zen.co.uk) or telephone 01444 413845.

## 100 Not Out

The East Grinstead Society has just published their 100<sup>th</sup> *Bulletin*, achieved over 41 years of continuous production.

They are to be congratulated for being able to maintain the quality and variety of articles. Particularly having only a limited geographic area to cover, albeit their scope is not restricted to one topic.

## IA and Me

### J. W. Crawshaw - Life member

As a parasitic (sorry but it's true!) member of SIAS, I am eternally grateful and in admiration of all the members and committee who spend a considerable time researching, recording, and organising talks and events for the membership, including those almost as lazy as myself, to enjoy. This is to say nothing of the work they carry out maintaining and protecting existing artefacts.

When I saw the editor's idea for asking members why they are interested in IA, I wondered why these most active members actually do what they do. Surely it cannot just be for the satisfaction of operating a society, or for educational purposes. Maybe one of my feelings is so obvious it does not need stating or perhaps it is unfashionable to state or perhaps it is not what many other members do feel. But I suspect, deep down, they do. I would love to know!

I am referring of course to nostalgia for the past; a past that has gone but one yearns to re-live in some way. Being of the older generation, we all know the past was pretty grim. The houses were often draughty and badly insulated, the cars were not really better (whatever we like to think now!); they were cruder and unreliable – and the wars were terrifying - but that is not the way we like to perceive it. By looking at the remnants of the past, we can get a sense of stability and permanence – something to hang on to.

When I started work at a steel plant in the Midlands in 1958, I had no sense that my factory would be gone by the late 70s – but of course it has. The site is now covered with a decaying industrial park (not real industry but wholesalers and general warehouses). When now I see, say, a supermarket building or a block of flats, they may actually be well designed and efficient structures – but I do not expect them to be allowed to last many years. Consider the old toll tariff signs put up on bridges and tollhouses; the fact that they were cast in iron is proof enough of the supposed permanence of the toll charges – not to mention the bridges themselves.

Some many years ago I restored a 1932 Austin 7, that I found being used as a chicken house on a farm. A rusty and worn out wreck; I'm sure I didn't bother to fully analyse my motives when I bought it for a song. But having restored it to good running order with much work and a lot of new parts, and ran it for some time, I realised it was not actually a very good car. I bought it because I didn't want to see it destroyed, I wanted to 'make it better'. But, in fact, I destroyed it anyway. Once I had rebuilt it, it was no longer part of a past I wanted to remember but a badly designed car made up of a lot of remanufactured components!

And another interesting thing is: when one visits a steam rally or vintage car show, people will look at the concours entries and make appreciative noises of the efforts of the owners but, if there is an old vehicle that has been pulled from a barn, in whatever state, but untouched from the day it was last used, the attention it receives is far more intense and, I feel, genuine.

So, if you feel nostalgia for the past, I do not consider there is anything to be ashamed of. It is an emotional thing; not easy to define. The imagined memories can go back beyond ones own lifetime. But they can still feel very real; and comforting in a sad sort of way.

## SERIAC 2010

**John Blackwell**

This year's SERIAC was hosted by Surrey Industrial History Group (SIHG) and held in April at Chertsey.

Our first speaker was transport historian and former Chairman of SIHG **Gordon Knowles** whose talk was entitled ***Brooklands and the World Land Speed Record***. In 1898 the record stood at 39.3 mph and was held by a Frenchman driving an electric car but by 1904 the 100mph barrier had been broken, by then using internal combustion again by a Frenchman. Brooklands opened in June 1907 taking only 12 months to construct and British drivers, based there, dominated the record until the early twenties when a straight run rather than a circuit became the norm for record setting, principally at Pendine Sands and Southport in the UK. British drivers continued the record breaking including Segrave and his Sunbeam, Parry-Thomas and *Babs*, Campbell with a succession of *Bluebirds* (which although built at Brooklands never ran there, the track being too bumpy for the low chassis). In the 1930s Eyston and Cobb with their *Thunderbolt* and *Railton* respectively continued the dominance. The presentation moved at a "cracking pace" being well illustrated with period photographs. Brooklands is well worth a visit and several of the cars mentioned are on display, as is part of the banked circuit. When repeated, do not miss James May's programme on BBC where he recreated the whole of Brooklands 4 mile circuit in situ in Scalextric.

Following a coffee break **Steve Capel Davies** from Berkshire IAS presented ***Life on the Thames – A Look at how people earned a living from the River over the last 100 years***. Looking first at the non-tidal upper Thames, this provided a highway for timber and grain from riverside water mills, natural resources such as reeds and rushes provided for basket weaving, particularly eel traps for those fishing the river, bricks were needed for lock building and the construction of crafts used for both trade and pleasure abounded. On the lower tidal Thames the story of enclosed docks, to save time in discharging cargoes and prevent pilfering, and their decline was told. Hundreds of flat bottomed Thames sailing barges serviced the shoreline warehouses and towns of the Thames Estuary and Medway, and ship building became a major industry. The presentation was illustrated by some fabulous images.

For the final morning session our own **Trevor Povey** reprised his ***Railways of the Devil's Dyke*** which was reviewed in *Newsletter* 138 April 2008 and was well received by an appreciative audience.

***St Pancras International: From Cathedral of Steam to High Speed Rail*** a presentation by **Rod Shelton** who was the Heritage Consultant for the



redevelopment of St Pancras as the terminus of the Channel Tunnel Rail Link. By the 1860s the route into London by the trains of the Midland Railway was congested and slow, running on Great Northern metals into King's Cross. The Midland embarked on an ambitious scheme for their own route terminating in the superb train shed, opened 1868, and fronted by the magnificent Midland Hotel, designed by Sir George Gilbert Scott and showcasing building materials from the Midlands which opened in 1873. By the 1930s the hotel's shortcomings were obvious; 300 bedrooms but only three bathrooms, the days of servants carrying hot water to one's room had finally gone! In 1935 it became offices and by 1966 demolition was threatened. Mercifully, listed Grade I in 1967, it remained a deteriorating white elephant until the recent transformation into St Pancras International. Rod's presentation showed us how W. H. Barlow's train shed was reglazed and the Butterleys Company's ironwork was repainted in its original sky blue colour and how the cellars, originally for storing beer barrels from Burton, now house the ticket office and a ubiquitous chic shopping mall. The hotel has been meticulously restored using, where possible, materials from their original sources (anything from the original fabric that could not be used had to be kept and recycled). It will eventually comprise 67 highly desirable apartments (the cheapest has been sold for £1m.) on the top floors and 52 hotel rooms on the lower floors plus a 193 bed extension fronting the British Library in keeping with the hotel. All-in-all a fascinating story well told and illustrated.

**Peter Teagle** who is Chairman of A. V. Roe Heritage Group then told the story of *A Triplane for the 21<sup>st</sup> Century*. In 2005, a group of retired aircraft engineers and designers decided to build a replica of Alliott Verdon Roe's triplane, the first successful all-British aircraft to fly - flying 900 feet at an average 20 feet off the ground on July 23<sup>rd</sup> 1909. With the support of the Roe family and the aid of the Manchester Museum of Science and History the new triplane was built with a 1912 V-Twin J.A.P. motor cycle engine almost identical to the original. We heard of its trials and tribulation and were shown footage of its test flight(s). Almost airborne it refused to lift off and the conclusion was that a more powerful engine was needed. To view see: [news.bbc.co.uk/2/hi/uk\\_news/8327754.stm](http://news.bbc.co.uk/2/hi/uk_news/8327754.stm) Good luck, when later this year the re-engined aircraft attempts to fly!

For the last lecture of the day we welcomed **Paul Sowan** with *The Croydon Canal (1809-1836): A view from Croydon*. The Croydon Canal terminated at a basin in what was a residential part of Croydon North End in 1809. It was not until a tramway extension in 1811, to the final terminus at Pitlake (Croydon Old Town), that it connected with the industries there, principally a bleaching works at the former Archbishop's Palace. There it formed a three way junction with the Surrey Iron Railway (SIR) (1803-1846) and the Croydon, Merstham & Godstone Iron

Railway CM&GIR (1805-1836) providing a transport link between east Surrey and the river Thames (it also took a lot of trade away from the SIR). After examining the development of the bleach works Paul detailed his on-going studies, from unpublished histories, including a water shortage to the 26 locks that were needed to climb the 160 feet to Forest Hill, the embankments carrying the canal over Norwood Common and two further locks up to the summit level a further 14 feet, to the basin (the site of which is now West Croydon Station). As usual Paul illustrated his talk using a trusty OHP and an array of interesting transparencies.

This was an extremely well organised conference with excellent speakers covering diverse topics. We have a hard act to follow when SIAS organises next year's event. This will be held at the University of Sussex on Saturday 16<sup>th</sup> April 2011, so make a note in your diaries now.

## **Gordon Thomerson 1923 – 2010**

### **An Appreciation**

**John Blackwell**

Members will be sad to hear that Gordon passed away in April. After a working life plotting the routes of oil tankers around the world Gordon was not prepared to sit back and relax but threw himself into the work of our Society for 30 years. After assisting the late Ted O'Shea in the restoration of both Piddinghoe kiln (see 'SIH No12' 1982) and Hangleton Manor Dovecot he joined the Committee and became our Newsletter Editor (though he would never accept that title, pointing out that he merely collated other's work) from 1984 to 1995. Many contributors will recall the always polite and unassuming telephone request that the deadline for the next issue was approaching and had we any material; few could turn down such a request. Gordon was one of the first to complete record sheets of industrial sites in the area in which he lived namely Haywards Heath, Lindfield, and Hurstpierpoint. He was conference manager for the first SERIAC to be hosted by SIAS in 1984 and set the standard for the future. He was a regular attendee at these conferences until two years ago and I recall one occasion when I caught him having a quick nap during a presentation, to which he replied that he was giving it "the attention it deserved" – he was right! Latterly he was invited to be a trustee of Amberley Chalk Pits Museum a position he held for ten years. Gordon was also a very proud member of the Burma Star Association, having served in that theatre during the Second World War and his passing was recognised by the lowering of their flag at his funeral service. Our thoughts are with his widow Joan, who would often be found at his side dispensing refreshment at the AGMs, and all his family. Gordon was always willing to give freely of his time to support the activities of our Society, which was much appreciated. He was a true gentleman and I shall miss him.

## Bluebell Railway to receive Engineering Award

David Jones

On August 22<sup>nd</sup> 2010 the Bluebell Railway is to be presented with the latest Engineering Heritage Award by the Institution of Mechanical Engineers in recognition of their pioneering 50 years of railway preservation, the first preserved standard gauge passenger railway in Great Britain.

This scheme, formerly known as the Engineering Heritage Hallmark Scheme, was established in 1984 to help recognise the value of this nation's engineering excellence. As well as engineering highlights of the past, modern icons are also rewarded such as the JCB Dieselmex record breaking car and the Jubilee Line Extension.

Since 1984, many varied engineering artefacts, locations, collections and landmarks have been recognised, and plaques been given to be displayed for all to see. A selection of past winners, of interest to SIAS members, have been the Ffestiniog Railway (1985), Eling Tide Mill (1986), Tower Bridge (1987), *Locomotion No.1* (1988), Hawker Siddeley Harrier (1990), Thames Barrier (1991), Tees Transporter Bridge (1993), Penydarren Locomotive (1996), Kew Bridge Pumping Station (1997), *SS Great Britain* (2000), Bessemer Converter (2004), Vickers Wellington Bomber (2007), Great Western Society, Didcot (2008), Crossness Engines (2009) and A1 Class *Tornado* (2009).

The award to the Bluebell Railway, which is the Institution's 57<sup>th</sup>, is to be presented on Sunday August 22<sup>nd</sup> at 12 noon, after which members and guests of the I.Mech.E. will have lunch on the *Golden Arrow* Pullman train, chartered specially for the occasion. In the morning, the main Works and *Atlantic House*, where No. 32424 *Beachy Head* is being reconstructed, will be open so that the engineering facilities at the railway can be seen.

The plaque presented last year to the Crossness Engines at Abbey Wood, London SE2  
*Shown as an example*



## **New revelations on the contribution of the Devil's Dyke to WWI**

**Martin Snow**

Recently further researching the 'Bomb House', *Newsletters* 89 & 91, I found the following on the National Archive's website. This appears to contradict previously held wisdom concerning the bomb testing station in the area.

### **“H.M. OFFICE OF WORKS, &c. REPORT for fortnight ended 24th May, 1918, for the information of the Prime Minister<sup>1</sup>**

*Relevant extracts only:*

24-05-1918

#### **BRIGHTON BOMB TESTING STATION**

The scheme, total estimated cost £5,000 includes the provision of standard gauge trolley tracks, 200 yards in length to run on each side of the Dyke, across which steel cables will be slung and attached to bogies running on the track.

The cables will have wire and pulley attachments and release for running and dropping bombs into the valley of the Dyke.

An inspection shed and proof yard with a dug-out adjoining are to be erected and the existing Camera Obscura will be converted into a small Magazine

07-06-1918

#### **BRIGHTON (THE DYKE) BOMB TESTING STATION**

*(subsequent fortnightly headings omitted)*

Work has been commenced with the construction of the 200 yards standard gauge trolley tracks to the North and South sides of the Devil's Dyke.

Surface concrete has been laid to the existing building to be converted to a Magazine. Brickwork is being built to Changing Room, and excavation proceeding to form Proof Yard.

21-06-1918

The brickwork of Magazine has been completed. The Northern Track is ready for sleepers.

05-07-1918

The Detonator Magazine Inspection Shed and Proof Yard are practically finished.

The rail track to North side of Dyke is completed and that to south side is nearing completion,

19-07-1918

The Detonator Magazine is complete; work is proceeding to Shed and Proof Yard; "finishings" only remain to finish the former building. The tracks to both sides of Dyke have now been laid.

The remainder of the work is proceeding rapidly.

02-08-1918

The Inspector's Shed has been finished and Proof Yard completed.

The remaining work to Observation Dug-Out and gear to Rail Track is proceeding.

16-08-1918

Both rail tracks for the Bomb holding gear have been completed together with Observation Dug-out.

30-08-1918

All work is nearing completion.

13-09-1918

The observation Dug-out has been altered according to Instructions and is now ready for use.

27-09-1918

The work of erecting fencing round Proof Yard and Dug Out is proceeding.

The ropeways for carrying bombs releasing apparatus are being hauled across the Dyke.

11-10-1918

Progress satisfactory.

25-10-1918

The work here in spite of bad weather is approaching completion.

08-11-1918

Complete except for the fencing.”

Much remains to be uncovered, both from the Archives and on the ground, but I felt that what has been discovered so far should be aired to encourage others to visit and look for themselves.

I find it interesting just how optimistic these reports to the Prime Minister appear when reading them altogether here. It would appear that, with final completion in early November 1918, no contribution to the war effort could have been made. Whether any actual testing took place remains to be discovered. Little damage to the floor and sides of the Dyke Chasm is apparent today, though nature is a great healer of man's destruction.

By the start of this project in May 1918, the war 'that would be over by Christmas' (1914) must have appeared interminable, as further evidenced by the 'Mystery Towers' that were under construction at the war end, sited at the entrance to Shoreham Harbour<sup>2</sup>.

Some questions arise from what is reported, no doubt due to their being condensed by civil servants not intimately involved with the terms employed.

All previous writers and verbal accounts have described the 'Bomb House' as a munitions store and the use of the old aerial ropeway for test 'drops'. I was surprised to find that these fortnightly reports do not appear to have been referred to nor reported by anyone before, particularly as it took just a few minutes with the online National Archives search engine and a little longer to download the files.

Maybe others will now be encouraged to find previously 'hidden' facts with the expanded availability of such records and searching through the internet.<sup>3</sup>

To confirm aspects of this virtual discovery, a ground proving visit was required and I was fortunate to walk through a gate onto the south side of the 350 foot deep Dyke and immediately see the trackbed of the 'trolley track', (of course I knew what I was looking for! In the 90 years since countless people will have walked

past or over these features, including archaeologists) further west is a concreted area, this straddles the trackbed and a footpath crosses it.

Subsequent re-examination of post-WWII RAF aerial photography (1946)<sup>4</sup> of the southern area, shows two light coloured areas, one of which is where the slab of concrete now lies, buildings (?) on the trackbed at the western point that the 200 yards of track begins, knowing what it is, it is possible to easily identify and follow the trackbed on these vertical images.

Likewise visiting the trackbed on the north side of the Dyke some 1,000 feet distance, though not so obvious from the vertical imaging, as there are a number of roughly parallel tracks aligned on the embankment of the hill fort. On the ground the line of the trackbed was readily identified from the others.

It will be seen from the photograph that the tracks are not 'parallel' as one might expect, but follow the lie of the land to achieve a slight fall to the east. They are not the exact same height either, the northern track being some 25 to 30 feet lower.

The method of propulsion for the trolleys under test has yet to be determined - manual, electric or how?

The reports state that a former (1885?) Camera Obscura from the Dyke (Pleasure) Park was to be converted to a small (detonator?) magazine - for the munitions to be tested? I have concluded that this building would have had to have been on the top of the ridge, east of the hotel, adjacent to the modern car park extension as a 360° view has been reported on the circular walls inside the probably square or rectangular building, to obtain such a view the top of the ridge would have been best. Such a location for explosives, distant from the other buildings would appear wise.

The construction of several features are mentioned; Changing Room, Proof Yard, Detonator Magazine, Shed, Inspector's Shed and an Observation Dug-Out, These remain to be located on the ground.

It might be concluded that the Proof Yard (presumably an open, concreted, area) and Observation Dug-out were sited together and fenced for safety, but remain to have their location determined, presumably a safe distance from other installations if live firing was involved.

This all leaves my original questions regarding the Bomb House, not satisfactorily resolved.

Was it the 'Magazine' for the actual bombs, there being a separate detonator magazine converted from the camera obscura.

But why a small room with concrete roof that I have been told was for the detonators. Why are the external walls finished in such a way that would suggest that there was no roof to the whole when it is said that there was a light roof that could easily blow off in the event of an accident.

As seems so usual when doing research, answering one question raises many others, I hope that members will be inspired to apply their knowledge of the area, now and in the past, to locating the various features as yet not located.

Much Bulldozing of the whole area was done post WWII to 'clean up' after the Canadians live firing training use, so it may not now be possible to find the clues on the ground. Maybe early Ordnance Survey aerial photography may hold some answers.

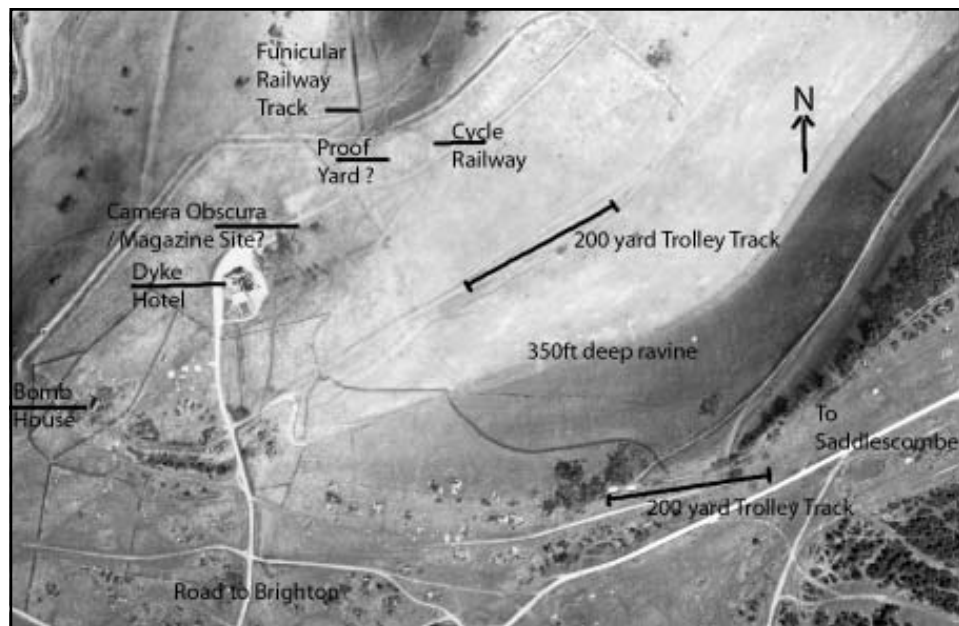
I do have further leads into the archives, but as they are not available online in digitised form, these require either a visit or a wait for staff to photocopy.

For anyone wishing to see the features on the ground, I am leading two tours; Brighton & Hove Archaeological Society @ 7.00pm on 21<sup>st</sup> July (my contact details are on page 23)

Sussex Archaeological Society @ 2.00pm on 25<sup>th</sup> September, £5.00 - to attend contact their membership secretary - members@sussexpast.co.uk

#### References:

- <sup>1</sup> The National Archives Catalogue Reference: CAB 24/52, 53, 55, 57, 58, 60, 61, 62, 63, 65, 66, 68, 69
- <sup>2</sup> <http://mystery.adur.org.uk/>
- <sup>3</sup> [www.nationalarchives.gov.uk/a2a/](http://www.nationalarchives.gov.uk/a2a/)
- <sup>4</sup> [www.geog.sussex.ac.uk/grc/info/airphotos-historic/](http://www.geog.sussex.ac.uk/grc/info/airphotos-historic/)



Interpretation of WWI features, over-laid on 1946 RAF aerial photo.

## **Thirty Years Ago – Recollections of a Memorable Opening day at Coultershaw Beam Pump Chris Bryan**

Friday July 4<sup>th</sup> 1980 was a significant day for the SIAS. The Beam Pump at Coultershaw was ceremoniously started by Lord Egremont after four years of restoration by volunteers. This was the first major restoration by the SIAS which has steadily moved on with great success from the initial work led by Alan Allnutt, then Mike Palmer and now under the excellent management of Robin Wilson.

It was a memorable occasion for a number of reasons, not least making sure that everything was working perfectly prior to the event. The wheel was running for the first time after restoration on 16<sup>th</sup> March 1980. The wheel, pump and fountain were first working together on May 11<sup>th</sup>. All was working perfectly apart from a troublesome inlet valve. This was to lead to something unexpected happening on the opening day which I have not witnessed before or since. It was the first time I had taken annual leave from work for an SIAS event. I was keen to be the first on site, unlock and check everything out. At first sight, in the pump area there appeared to be a number of elvers (young eels). On closer inspection, the inlet valve had allowed water to stay in the pump to the water level behind the penstock gate so there was a small pool of water above the piston on one of the cylinders. Within this small pool of water were up to six elvers whose only route of entry would have been up the side of the cylinder barrel! The scene was recorded with a photo (I had only a camera with a black and white negative film that day). Work then proceeded to get the installation running for the big event and leave the elvers to disperse back to the river. Among the many guests for the opening was Mr. Philip Green, Chairman of the WSCC Coast and Countryside Committee. He and everyone else was focussed on the event of the day, seeing this wonderful piece of historic machinery back in working order. At the time I expected the elvers to be regular visitors, but have only seen one solitary elver at Coultershaw in the ensuing 30 years. For me, it was a special day in more sense than one. The opening event was reported in *SIAS Newsletter* number 28, October 1980. As photographs did not appear in the Newsletter until 2005 I have included one for the 30<sup>th</sup> Anniversary. Regarding the inlet valve, it was repaired in March 1981 and failed again in 1986 when it underwent replacement of the major internal parts.

Sunday July 6<sup>th</sup> 1980 was the first open day to the public with the wheel, pump and fountain all working. The site hut had been moved in the spring of 1980, to enable work to start on the roof support pillars, and served as the first visitor reception. Work on the building made rapid progress. By 14<sup>th</sup> September two of the roof trusses were in position and by the end of 1980 the roof was complete except for the tiling, thanks to the excellent support of a local builder, Roy Pocklington.





Coultershaw Beam Pump – First public open day. First amateurish efforts at informing and directing the public!  
*(The Terry Allen collection)*

Lord Egremont (left) discusses technical details with Gerry Nutbeem (right) at the Coultershaw Beam Pump restart 4<sup>th</sup> July 1980



Elvers in the pump cylinder at Coultershaw 4<sup>th</sup> July 1980



## **SIAS Winter Lecture 30<sup>th</sup>, January 2010**

### **Building Railway Bridges**

**Alan Green**

For the first meeting of the 2010 season, which as always, takes place on the evening of the Brighton Circle meeting at West Blatchington, we welcomed Society Member Chris Fry, who gave a talk on building railway bridges. Chris, who is now Head of Bridge Engineering for the South East Territory of W. S. Atkins Rail, joined the former BR Southern Region in 1968 as an undergraduate trainee and remained with British Rail until privatisation when the design office business was acquired by W. S. Atkins. He began his fascinating talk by showing us his copy of an Ian Allan "ABC" on railway bridges (price 3/6d) that had inspired him as a boy. I for one had never seen this booklet before and I wonder whether any other members have.

Chris then gave an historical view of bridge construction starting, not with a railway bridge, but with Telford's iconic Pontcysyllte aqueduct on the Llangollen Canal, a structure that was to provide the inspiration for the major structures that were to emerge in the ensuing railway age. He discussed several major historic railway structures including two amazingly-lofty viaducts whose superstructures and piers were made entirely of wrought-iron, namely those at Belah and Crumlin. Closer to home he looked at the impressive Ouse Valley Viaduct, with its 37 brick arches striding across the Sussex countryside and adorned with four classical pavilions at each end. Much wry amusement was caused by the blatant lack of health and safety considerations in some of the early photographs, one in particular was a wartime publicity shot of a group of women painting the soffit of an underbridge near Waterloo. They were working standing precariously on a single plank supported by three lofty trestles sited in the middle of the road!

The methods for constructing some more-recent structures were illustrated by some bridges built to accommodate new roads passing beneath the railway. One, under the four-track South Western main line at Farnborough, had its substructure formed of pre-cast concrete boxes that were thrust beneath the operational railway. The spoil inside the boxes was removed by men wielding Mark I shovels as the thrust progressed – a nice juxtaposition of new and very old technology.

Major railway investment schemes such as the Channel Tunnel also brought about much reconstruction of existing bridges and Chris described the Canterbury Music Hall Bridge at Waterloo and the ingenious way the new structure was slid sideways into position once the old one had been taken out. Chris ended the talk by illustrating some of the most recent plant and techniques at a bridge engineer's disposal.

The underlying message in this excellent presentation was that of the ingenuity and inspiration that was, and still is, required in the design of railway bridges; the starting point for the remit always being the need to design something whose construction reduces to an absolute minimum the disruption to railway operation.

Chris Fry spoke with true passion for his subject which, with the interjection of much humour, made for an informative and entertaining evening.

## Devil's Hole Lock

Martin Snow

The Wey and Arun Canal Trust has recently celebrated a further step in their aim to restore the whole length of the former canal. On Saturday 17th April 2010 the restored and extended Devil's Hole Lock was opened in the presence of representatives of the Canadian Army who had used it to practice laying explosives before the raid on Dieppe in 1942, leaving the northern end partly demolished.

Why does it seem that the Canadian Army succeeded in doing more damage to Sussex heritage than Hitler's bombers ever achieved? Second only perhaps to that done by subsequent planners and road builders, all in the name of progress!

The lock is next in line northwards from Loxwood, where the canal pound has been lowered to pass under the reinstated road bridge and a new lock added near to the *Onslow Arms* where regular boat trips are run southwards.

Much remains to be achieved, but the Trust has come a long way from when I first visited it in 1974, when Rowner Lock was the target of the restorers.

For more information refer to the Trust's website - [www.weyandarun.co.uk](http://www.weyandarun.co.uk)



Devil's Hole Lock, newly restored by the Wey and Arun Canal Trust.

Note the cill at the far end of the lock chamber, the gates will rest against this when the pound, visible beyond and not yet restored, has been filled with water. (Martin Snow)

## **SIAS visit to Bexhill and Hastings (The Seaside Tour)**

### **Malcolm Dawes**

On a sunny May morning members of SIAS gathered at Bexhill West Station for what was to be an excellent day of IA, organised and led by John Blackwell.

Bexhill West Station remains an impressive building despite the Station having closed in 1964. It was the terminus of the South East and Chatham Railway's branch line to Bexhill and they obviously wanted to impress the residents of Bexhill. Built in 1902, it has many fine architectural details with decorative brickwork and tiling and a clocktower under an ornate cupola. The platforms and goods yard have been replaced by an industrial estate although the former engine shed is now part of an industrial unit. We completed our tour of the station by visiting the original refreshment room which now houses a restaurant called aptly *Doctor Beeching*.

We only needed go a short distance to the LB&SCR's Bexhill Central Station. The two railway companies were great rivals and the LB&SCR rebuilt their station also in 1902 in response to the construction of their rival's. Our trip around this Edwardian extravaganza took in the booking office with its high lantern roof followed by a walk to view the exceptionally long access ramps, canopies and platforms. The listed status of the station led to a major restoration of the buildings although unfortunately the canopies were shortened at the western end. However the restoration is of high quality, particularly the reconstruction of all the windows of the access ramps. We concluded our visit by accessing the gent's toilets where we able to admire a set of urinals with an unusual spreader system for the water spray. Apparently only three of these types of urinals now exist on the British railway system.

Our next visit was to the Bexhill Museum where the curator, Julian Porter, gave us an expert description of the IA related exhibits in the museum. The museum now has a new exhibition gallery for displaying racing cars that have taken part in Bexhill's motor races and speed trials that have been run along the sea front since 1902. It was interesting to note that the cars did not have any seat belt as evidently the drivers preferred to be thrown out in the event of a crash – a somewhat different take on today's attitudes on health and safety.

After lunch it was time to get out of the sun as we all met in the underground car park under the sea front. Underground car parks stretch along much of the sea front and were created by Sidney Little, Hastings's Borough Engineer from 1926 to 1960. He became known as "Concrete King" due to his involvement with so many reinforced concrete structures in Hastings. During his time as Borough Engineer he transformed the sea front by extending the esplanade, creating covered

walkways and building underground car parks. He reconstructed the White Rock Baths, designed the open air Lido at St Leonard's and was responsible for many other municipal projects, including water supply and reservoirs.

Our visit to the underground car park included a look at the original sea wall that was used as one of the main supporting walls and the layout of reinforced concrete beams that was regarded as extremely innovative at the time. The underground car park was the first to be constructed in the UK and Sidney Little's designs and construction methods were regarded as ground breaking.

We returned to the surface and had a walk along the esplanade to look at the stylish air vents for the car park which are used as sea front shelters. Further along the esplanade we reached the covered walkways called Bottle Alley as the walls were constructed using coloured bottles on the outer surface. The effect is striking and it is hard to believe that it has survived 80 years of salt spray.

Our concluding visit was to the Old Hastings Preservation Society's History Centre in Courthouse Street in the Hastings Old Town. We were welcomed by Sue and Jill who told us about the work of the Society. They had kindly set out a display of the work of Sidney Little and also provided refreshments for us all. A very pleasant ending to an extremely interesting day.



The unusual spreader system in the gent's facilities at Bexhill Central Station  
(*Malcolm Dawes*)

## When Eastbourne's Tap Water Ran Green

John Blackwell

Several members were intrigued when I made above the statement at my "Seaside Holiday" talk. A decade after the arrival of the railway in 1849, the Duke of Devonshire being the major landowner, commenced development of Eastbourne as a high class resort. In 1831 the population, mainly resident in the 'old town', was 2,726 but by 1881 it had expanded to 22,014. The original pumping station of 1857 located in what is now Susan's Road was inadequate. A new source of water had been located, fed by several springs, at Bedford Well on the west side of the railway half a mile north of the station where a new works, Bedfordwell opened in the early 1880s.

It was in the summer of 1895 that complaints of the water tasting hard and salty began. The owners, The Eastbourne Water Works Company, a concern chaired by the Duke of Devonshire responded that this was not so but the Town Council was not satisfied and it's analyst after an inspection reported that one spring was contaminated with chlorine (or chlorides) so it is possible that the tap water did indeed run green and the population were drinking a (diluted) bleaching agent. Unsurprisingly the Eastbourne Medical Committee said it was not fit to drink.

The remainder of the saga is more difficult to interpret as it would appear that the Water Company instead of immediately shutting off the supply from the spring in question were more than a little tardy knowing that this would cause a water shortage as the population had increased by a further 10,000 since construction. However by October 1896 a large pumping engine had been built at Holywell (immediately east of Beachy Head) but so alarming was the shortage that the Council asked the Water Company to lay pipes from this new source through the streets, so that inhabitants could collect water in buckets from standpipes and carry them to their houses, which the company did.

The Council were still concerned about the lack of progress of a permanent supply and took the dispute to the House of Lords which unsurprisingly found in favour of the Water Company and the Duke! All however appears to have been forgiven as, after the two years of disagreements, the new supply was formally turned on by the Duke in August 1897 and he graciously accepted the town's invitation to become Mayor. The original Bedfordwell buildings are now a corporation depot.

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The Sussex Mills Group also produces a Newsletter that is sent to members with this Newsletter.

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Chairman John Blackwell  
in character (*Martin Snow*)



Former Bexhill West Station on the Seaside Tour  
(*Malcolm Dawes*)



The restored Devil's Hole Lock on the Wey and Arun Canal, Loxwood.  
Note the lighter coloured stone of the extended lock. (*Martin Snow*)