



Physical Energy by G F Watts, see page 5.



Two-seater pusher military biplane of WWI - Vickers FB 5 Gun Bus
with a propeller at the rear, see page 6.

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Reports & Notices

Details of meetings are reported in good faith, but information may become out of date. Please check details before attending.

SIHG Visits, Details & Updates at www.sihg.org.uk

Surrey Archaeological Society Autumn 2011 Conference Organized by Surrey Industrial History Group

Industrial Archaeology: The Research Framework

Saturday 15 October 2011 The Institute, Leatherhead

See enclosed flyer for the full programme

England's Industrial Heritage At Risk

English Heritage is currently finding out how much of England's industrial heritage is at risk and what can and should be saved. The results of this study will be published in October as the 2011 Heritage at Risk Register.

You are invited to submit photos to the Flickr group.

See [www.english-heritage.org.uk/
industrial-heritage-at-risk/](http://www.english-heritage.org.uk/industrial-heritage-at-risk/)

Old Industries Walks Around Guildford led by Hugh Anscombe

Sunday 24 July at 1100 and Sunday 7 August at 1100

Meet at Tunsgate Arch (which was the Corn Market, built in 1818.)

The walks will last an hour to 90 minutes and go via Racks Close to the Town Mills and the Wey Navigation, then via the Walking Crane to the Rodborough Buildings (previously a Dennis factory) then return to Tunsgate Arch via some more buildings now converted to other uses.

The walk is free and all are welcome. Just turn up or contact Hugh to find out more or to say you wish to join the walk, hugh_anscombe@yahoo.co.uk.

Surrey Industrial History Group Officers

Chairman & SIHG Lectures Organiser: **Robert Bryson**, meetings@sihg.org.uk

Secretary: **Alan Thomas**, info@sihg.org.uk

Treasurer: **Anne Lea**, treasurer@sihg.org.uk

Membership Secretary: **Pam Taylor**, membership@sihg.org.uk

Newsletter Editor: **Jan Spencer**, news@sihg.org.uk

SIHG Newsletter No 182 July 2011

DIARY

The 36th series of SIHG Industrial Archaeology Lectures will start on 4 October 2011

alternate Tuesdays, 1930 - 2130, University of Surrey (Lecture Theatre F)

Enquiries to programme co-ordinator, Bob Bryson, meetings@sihg.org.uk.

Free parking is available in the evening on the main campus car park.

Single lectures at £5, payable on the night, are open to all. Maps at www.sihg.org.uk

New programme enclosed!

The Autumn 2011 Thursday Morning Lecture Series at Leatherhead

will start on 22 September 2011.

Enquiries to Ken Tythacott, Ken.tythacott@btinternet.com, or Geoff Roles, geoffrey@groles.wanadoo.co.uk.

As seating is strictly limited, enrolment is for the whole course only; casual attendance is not possible.

Members' Talks, 7 December 2010

Military Ciphers by *Roy Johnson*

Starting with an early military book cipher, using random number manipulation and some of the terminology used in processing it, the talk then progressed to cover ciphers based on the Telex machine and the punched tape process.

Inevitably the stories surrounding the retrieval of German "Enigma" machines and their setting up procedures from sinking U-Boats during WWII were related which in turn led on to the breaking of the Axis naval codes by the wizardry of British intelligence at Bletchley Park.

The less well known role played by British Post Office engineers working out of their research laboratories at

Dollis Hill, North London was highlighted. The famous 'Collossus' thermionic valve computer which followed the all electro-mechanical 'Heath-Robinson' machine was in fact manufactured at Dollis Hill before installation at Bletchley Park.

The talk was rounded off with photos and diagrams of cipher machines which initially used stacks of Enigma type rotors and then duplex punched tape before. Finally, the early development of an all electronic scrambler. was described.

It is surprising that the deciphering capability achieved at Bletchley Park was not fully divulged until 2004; sixty years after the intelligence successes of 1944. □

Good News for the Newcomen Type Beam Engine at Elsecar

The Newcomen type Beam Engine at Elsecar (Metropolitan Borough of Barnsley in South Yorkshire) has been given the 'green light' by the Heritage Lottery Fund (HLF) for restoration. Plans to restore the site and establish it as a tourist destination have been enhanced with a development fund of £40,500 from the HLF project. Work will begin on securing a grant of just over £400,000 to support a project for the engine and wider village. This engine is the last remaining example in situ anywhere in the world. It is situated in its original

magnificent engine house, where it pumped water out of the Elsecar Colliery from 1795 to 1923, remaining in working order until the 1950s. In July 2010, the engine was put on the Heritage at Risk Register.

From note in Newcomen Society *Links* 217 March 2011

This may be of interest to those who went on the SIHG Weekend Visit to Sheffield IA Sites in September 2007, or who read my article in Newsletter 159 September 2007, JS. □

Diary August

7 Sun Old Industries Walks Around Guildford led by Hugh Anscombe, see p 3.

7 Sun Rural Life Centre: Classic Late 50s Zephyrs & Zodiaes.

7 Sun - 30 Sun October Rural Life Centre: Riotous Assembly, Luddite Bicentenary.

Diary September

11 Sun Rural Life Centre Old Kiln Museum: Donkey Day Out + Farnham Beekeepers' Honey Show.

18 Sun Rural Life Centre: Classic Vehicle Gathering & Autojumble.

22 Thu Surrey Industrial History Group: Leatherhead Autumn 2011 Course begins.

Diary October

4 Tue Surrey Industrial History Group 36th Lectures Series at Guildford : First Lecture:

The Changing Nature of Innovation - an Historical Overview by Dr John Russell, President Newcomen Society.

Other IA Organisations

- Amberley Museum & Heritage Centre:** next to Amberley railway station, West Sussex, www.amberleymuseum.co.uk.
- Anne of Cleves House (Wealden Ironwork):** 52 Southover High St, Lewes, E Sussex, BN7 1JA; 01273 474610; anne@sussexpast.co.uk
- Association for Industrial Archaeology:** www.industrial-archaeology.org.
- Basingstoke Canal Authority:** 01252 370073.
- Brighton Circle (London, Brighton & South Coast Railway):** www.lbscr.demon.co.uk.
- Chatham Historic Dockyard:** Kent ME4 4TZ; www.chdt.org.uk.
- Cobham Bus Museum:** London Bus Preservation Trust, Redhill Road, Cobham, Surrey KT11 1EF; www.lbpt.org.
- Crofton Beam Engines :** Crofton Pumping Station, Crofton, Marlborough, Wilts, SN8 3DW; www.croftonbeamengines.org, 01672 870300.
- Crossness Pumping Station :** The Old Works, Belvedere Road, Abbey Wood, London SE2 9AQ; www.crossness.org.uk, 020 8311 3711.
- Croydon Airport Visitor Centre:** Aiport House, Purley Way Croydon CR0 0XZ; www.croydon-airport.org.uk.
- Croydon Natural History & Scientific Society:** meetings: Small Hall, United Reformed Church Hall, Addiscombe Grove, E Croydon.
- Cuffley Industrial Heritage Society:** Northaw Village Hall, 5 Northaw Road West, Northaw EN6 4NW; www.cihs.org.uk.
- Didcot Railway Centre:** Access via Didcot Parkway Station; www.didcotrailwaycentre.org.uk.
- Docklands History Group:** Museum in Docklands, No 1 Warehouse, West India Quay, Hertsmere Road, London, E14 4AL; www.docklandshistorygroup.org.uk.
- East London History Society :** Latimer Church Hall, Ernest Street, E1; www.eastlondonhistory.org.uk.
- Enfield Society:** Jubilee Hall, 2 Parsonage Lane, Enfield, EN2 0AJ; www.enfieldsociety.org.uk.
- Fetcham U3A:** <http://fetchamu3a.org.uk/home.htm>.
- Greenwich Industrial History Society:** Old Bakehouse, Age Exchange Centre, 11 Blackheath Village, SE3 (opposite Blackheath Station).
- Great Dorset Steam Fair:** South Down, Tarrant Hinton, nr Blandford, Dorset DT11 8HX; www.gdfs.co.uk.
- Greater London Industrial Archaeology Society:** Willoughby Theatre Charterhouse Square; 020 8692 8512,
- Guildford Museum:** Castle Arch, Guildford, Surrey GU1 3SX; museum@guildford.gov.uk.
- Guildhall Art Gallery,** Guildhall Yard (off Gresham Street), London EC2V 5AE.
- Hampshire Archaeology Society (HIAS):** Underhill Centre, St. John's Road, Hedge End, SO30 4AF.
- Hampshire Mills Group:** www.hampshiremills.org.
- Heritage Walks:** with Iain Wakefield, i.wakefield@tavak.co.uk.
- Heritage Open Days:** 1 Waterehouse Square, 138-142 Holborn, London EC1N 2ST; www.heritageopendays.org.uk.
- Honeywood Museum:** by Carshalton Ponds, Honeywood Walk, Carshalton, Surrey SM5 3NX; www.friendsofhoneywood.co.uk.
- Kempton Great Engines:** Feltham Hill Road, Hanworth, Middx TW13 6XH (off elevated section of A316); www.kemptonsteam.org.
- Kew Bridge Steam Museum:** Green Dragon Lane, Brentford, Middlesex TW8 0EN; www.kbsm.org.
- Kingston upon Thames Archaeological Society:** URC, Union St/Eden St, Kingston upon Thames; utas.archaeology@gmail.com.
- Lewisham Local History Society:** Lewisham Methodist Church SE13 6BT.
- London Canal Museum:** 12/13 New Wharf Road, N1 9RT; www.canalmuseum.org.uk.
- London Transport Museum, Acton Depot:** 2 Museum Way, 118 - 120 Gunnersbury Lane, London, W3 9BQ; 020 7565 7298.
- London Underground Railway Society;** Upper Room, All Souls Clubhouse, 141 Cleveland Street, London W1T 6QG; www.lurs.org.uk
- Lowfield Heath Windmill:** Russ Hill, Charlwood, RH6 0EL (TQ 234 407).
- National Trust:** www.nationaltrust.org.uk, 01483 561389.
- Newcomen Society London:** Fellows' Room, Science Museum, Exhibition Road, London SW7 2DD.
- Newcomen Society Portsmouth:** Room 0.27, Portland Building, University of Portsmouth, St James Street off Queen Street, Portsea.
- Open City London (Open House London):** www.open-city.org.uk.
- Portsmouth Historic Dockyard:** www.historicdockyard.co.uk.
- Railway & Canal Historical Society:** The Rugby Tavern, Rugby Street, London WC1; www.rchs.org.uk
- Rotherhithe & Bermondsey Local History Group:** Time & Talents Centre, Old Mortuary, St Mary Church Street, Rotherhithe Village, SE16; www.kingstairs.com/rotherhithe.
- Royal Gunpowder Mills:** Waltham Abbey; www.royalgunpowdermills.com.
- Rural Life Centre,** Old Kiln Museum, Reeds Road, Tilford, Farnham, Surrey GU10 2DL.
- Shalford Mill (National Trust),** Shalford Guildford Surrey GU4 8BX.
- Shere, Gomshall & Peaslake Local History Society:** Shere Village Hall, Gomshall Lane, Shere GU5 9HE; www.sherehistorysociety.co.uk.
- Shirley Windmill:** Postmill Close, Shirley, Croydon CR0 5DY; visitor@croydowntowncentre.com.
- Southwark and Lambeth Archaeological Society:** Housing Co-op Hall, 106 The Cut SE1 8LN (almost opposite the Old Vic).
- Spelthorne Museum:** Elmsleigh Road, Staines TW18 4PN, (access through library), 01784 461804, www.spelthornemuseum.org.uk.
- STEAM - Museum of the Great Western Railway:** Kemble Drive, Swindon, SN2 2TA; www.steam-museum.org.uk
- Surrey & Hampshire Canal Society (The Basingstoke Canal):** Parish Pavilion, Station Road, Chobham; ww.basingstoke-canal.org.uk.
- Surrey History Centre:** 130 Goldsworth Road, Woking, Surrey, GU21 6ND, 01483 518737, shs@surreycc.gov.uk.
- Sussex Industrial Archaeology Society (SIAS):** www.sussexias.co.uk.
- Sussex Mills Group:** www.sussexmillsgroup.org.uk.
- Twyford Waterworks:** Hazeley Road, Twyford, Hampshire SO21 1QA; www.twyfordwaterworks.co.uk/.
- Wanborough Great Barn:** Wanborough, N of Hog's Back, Guildford GU3 2JR; 01483 444751, www.guildfordmuseum.co.uk.
- Watercress Line (Mid-Hants Rly):** Alresford Station, Alresford, Hants SO24 9JG or Alton Station, GU34 2PZ; www.watercressline.co.uk.
- Weald & Downland Open Air Museum, Singleton:** Chichester, West Sussex, PO18 0EU, 01243 811348.
- Wealden Iron Research Group:** Nutley Memorial Hall, Sussex, (North end of village, West side of A22).
- Westcott Local History Group:** Westcott Reading Room, Westcott near Dorking, Surrey RH4 3NP; info@westcotthistory.org.uk.
- Wey & Arun Canal Trust:** The Granary, Fritchfold Farm, Loxwood Billingshurst, West Sussex RH14 ORH; www.weyandarun.co.uk.
- Wings & Wheels at Dunsfold Park:** near Cranleigh, Surrey GU6 8TB; www.wingsandwheels.net.

A Visit to the Watts Gallery: Riddles of the Equestrian Statues

by Alan Crocker

The Watts Gallery at Compton re-opened on 18 June after a £11m refurbishment. Glenys and I took some visiting relatives there shortly afterwards and I became interested in the foundries that were used for casting the bronze statues that Watts created. George Frederick Watts (1817-1904) made his reputation as a painter and portraitist but in the 1860s started to design gigantic public monuments. In 1870 the Marquess of Westminster, Hugh Lupus Grosvenor, asked him to design a bronze equestrian statue of heroic scale to be sited in the grounds of his Eaton Hall estate near Chester. This was to commemorate his 11th Century ancestor, Hugh Lupus, who was the first Norman Earl of Chester and, for some reason, known as 'Hugh the Fat'. It took Watts about 13 years to produce an acceptable life-size model for this statue, mainly because both sculptor and client strove for historic accuracy. For example, they bred a horse from a Percheron mare and an English thoroughbred stallion in order to model an 11th century horse. The statue was cast by James Moore at the Thames Ditton foundry and delivered to Eaton Hall in September 1884, by which time the Marquess had become the Duke of Westminster. In 1983 *Hugh Lupus* was listed as a Grade II* building.

The visit to the Gallery prompted me to look again at Peter Tarplee's schedule of bronze statues cast at the Thames Ditton foundry (SIHG Newsletter 170, June 2009, pp. 16-17) and the *Hugh Lupus* statue is included but without a date. Peter's list also includes a second Watts statue named *Physical Energy* and stated to be cast in 1912, eight years after Watts died, and to be sited in Hyde Park. This was indeed the intended site but the statue was actually erected in Kensington Gardens, where it is still a major feature; it is similar to *Hugh Lupus*.

The full-size model for this statue is on display at the Watts Gallery. It is made from *gesso grosso*, a bulky mixture of coarse plaster, glue and tow (chopped hemp or jute) applied in layers to a wooden armature. The *gesso* was broadly modelled in its plastic state, dried hard, chiselled and filed. Smooth and detailed forms and surfaces were then obtained by adding layers of finer plaster. The corresponding *gesso* model for *Hugh Lupus* was destroyed in 1936.

The first cast of *Physical Energy* was however erected not in London but at the Cecil Rhodes Memorial in Cape Town, South Africa. Watts had painted a portrait of Rhodes, who admired the model of *Physical Energy*, so when he died in 1902 Lord Grey, a former administrator of Rhodesia, proposed placing the statue at his grave in the Matopo Hills in Southern Rhodesia, now Zimbabwe. The model was sent to Alessandro Parlanti's Albion Works in Parson's Green Lane, Fulham. Parlanti had come to England from Rome in 1890 and ran the foundry from 1896 to 1918. He then, in his late fifties, returned to Rome. He had delivered the bronze statue to the Royal Academy courtyard on 20 April 1904 for the

annual exhibition, shortly before Watts died. It remained there until September 1905 when it began its journey to South Africa. After it arrived the task of hauling the huge bronze up to the top of the Matopo Hills proved impractical and it was eventually sent 1,400 miles farther south to the foothills of Table Mountain, overlooking Cape Town.

The Kensington Gardens *Physical Energy* is 12 feet high, weighs 6 tons and took 18 months to cast. As stated by Peter Tarplee, this was done at A B Burton's foundry at Thames Ditton, but it was delivered to Kensington Gardens on 24 September 1907, not in 1912. It is slightly different from the Rhodes statue and the quality of the casting like that of *Hugh Lupus* is much better. It has been suggested that this is because Thames Ditton used the lost wax process whereas Parson's Green cast in sand. Burtons were also employed by the Office of Works to clean the statue bimonthly as the London smog would ruin the patina. The Cape Town statue has suffered through not receiving this attention.

A third full-size *Physical Energy* was unveiled in 1960 by the Queen Mother at Lusaka, Zambia (then Northern Rhodesia). It had been cast in 1959 by the Corinthian Bronze Company, at Consort Road, Peckham, which specialised in sand casting. This firm was established in 1927 by Leonard Grist (1879-1964), who had previously worked at Thames Ditton. In 1958 it advertised that it made colossal statuary, statues, statuettes etc. In Lusaka the indigenous population hated Rhodes and one night shortly after it was erected it was decorated with a hat, a jumper and a brassiere. Then when Zambia was established in 1964 the statue was dismantled and then sent to Salisbury in Southern Rhodesia in 1965. There it was erected on the Old Racecourse on the outskirts of the city and stayed there until 1980 when black majority rule was granted under the leadership of Robert Mugabe and the country was renamed Zimbabwe. In 1981 the statue was dismantled and moved, very appropriately, to the grounds of the National Archives at Harare, the new name for Salisbury.

Much smaller versions of *Physical Energy* have also been cast. One is at the National Archives at Harare, one at Rhodes University, Grahamstown, South Africa, and one at the Watts Gallery, Compton. A scheme to have a full-size statue at Compton was proposed in 1957 but has not yet come to fruition.

The source of much of the information in this article is Stephanie Brown's book *G.F. Watts, Physical Energy, Sculpture and Site*, Watts Gallery, 2007. *The Thames Ditton Statue Foundry*, compiled by Tony Stevens, SIHG, 1994, was also very useful. In addition various internet sites have been used including:

www.npg.uk (National Portrait Gallery) and
www.britishlistedbuildings.co.uk. □

Claude Grahame-White (1879 – 1959)

by Celia Gregory

Claude Grahame-White, the aviation pioneer born in Bursledon, Hampshire, was initially interested in motoring. He learnt to drive in 1895, was apprenticed as an engineer and later started his own motor engineering company.

In 1909 he attended the aeronautical meeting at Rheims. There he decided to buy a duplicate Blériot Model XII, so he enrolled as a worker at Blériot's factory to understand the plane's construction. Next he learnt to fly, receiving his French licence in January 1910 and three months later, his British one, number 6. Unfortunately the plane he bought was short-lived.

In July 1910, in a Farham biplane, Grahame-White won the first prize of £1,000 at the Midlands Aviation meeting for a duration flight of 1 hr 23 min 20 sec. On a tour of America later that year, he won the Gordon Bennett Aviation Cup and was awarded the Gold Medal of the Royal Aero Club. On landing his biplane near the White House one day he invited President Taft (who weighed 21 stone) up for a flight. Fortunately the President declined the invitation!

In 1911, Grahame-White returned to England, where he was well known for his dramatic dash in the dark in the London to Manchester race, where 183 miles had to be flown over within 24 hours. (In this event he was narrowly beaten by the Frenchman Louis Paulhan.) He bought 220 acres of pasture at Hendon to establish a teaching school. This site became London's first aerodrome. Weekend flying displays held there were great attractions before the onset of WWI.

CW 'Boxkite' Variant, c 1912



When the war broke out, Grahame-White joined the Royal Naval Air Service to attack German ports, but he resigned to manage his company when it grew to 1,000 staff by gaining war contracts.

At the UK's first aircraft factory, which he built in 1917 at Hendon, he designed and constructed aircraft that were box kite variants, later renamed pilot trainers, in the Type XV series. The planes gradually evolved from 1912 - 1917, losing the front elevator and gaining a cockpit nacelle, aileron balance cables, top wing extensions and dual controls. These planes were the first to be used to demonstrate aerial bombing, strafing and night flying.

His Hendon Aerodrome was first lent to the Admiralty in 1916 then transferred to the RAF in 1919.

It was eventually purchased by the RAF in 1925, after a protracted legal dispute. Grahame-White lost interest in aviation and eventually retired to Nice, where he died, having made a fortune in property development in both the UK and the USA.

Hendon Aerodrome became RAF Hendon. Flying ceased there in the 1960s and the site was redeveloped for housing and the setting up of the Royal Air Force Museum. Much of the 1917 Grahame-White aircraft factory was relocated there, using all the original metal roofing, doors, windows and other fittings. New brickwork needed was laid, using the original bonding.

This listed factory building now houses the oldest aircraft in the museum, many of which were manufactured in the same period as the factory. These include the Bristol M1c, the Caudron G111 and the Sopwith 'Pup'.

On a recent SIHG visit to the RAF Museum at Hendon, two other aircraft caught my attention, and they were photographed for the Newsletter by Roger Griffiths, see page 20. I hope that these photos recall fond memories for members. □



SE 5a, Royal Aircraft Factory, Farnborough, serial no F-938.

SIHG Lecture 23 November 2010

Start, Stop & Start Again: The Oxted Line - South Croydon to Oxted

by Paul W Sowan

Construction Phase 1 - 1865-67

The engineering works contractors on the Surrey and Sussex Junction Railway during 1865-67 were Messrs. Warings. The works were then abandoned unfinished from 1867 to 1880 as a result of the Overend Gurney bank crisis. However, the unfinished works were recorded by the Ordnance Survey, the amateur geologist Caleb Evans and hydrogeologists at Croydon.

Construction Phase 2 - 1880-84

The Croydon Oxted and East Grinstead Railway employed as contractor Joseph Firbank. (The Hurst Green to Groombridge line was completed later.) Civil engineering works lasted from 1880-84 and the line opened in 1885 on completion of signalling and stations. The completed works were recorded by the Ordnance Survey, the 1881 Census and hydrogeologists at Croydon.

The Oxted Line: South Croydon to Oxted : Why is it Especially Interesting?

1. The Oxted tunnel (2,266 yards) was designed to be curved throughout its length, an extremely unusual feature in the 1860s - raising interesting questions relating to land-take and surveying.

2. The abandoned works of 1865-67 were recorded in detail by the Ordnance Survey and Caleb - throwing light on contractors' methods of working at that time - especially with reference to the tunnelling-and-shoot-hole technique for digging cuttings.
3. The contractor for the resumed work made Contract Plans and Sections and an engineering drawing of the unfinished Oxted tunnel 'as found' which survive.
4. The Oxted tunnel intersected the North Downs aquifer, taking two square miles out of the Wandle catchment and diverting it into the Darent basin in the Weald.
5. The 1881 Census recorded identifiable elements of the contractors' workforce and their specific occupations.
6. The effect of the driving and opening of the tunnel on the River Wandle catchment area, and the concerns of the engineer to the Croydon Local Board of Health, and of mill owners on the river Wandle, are on record.
7. Within a wider context, the Oxted line railway route (and limited civil engineering work in the 1830s) has an interesting history as an abandoned line for the South Eastern Railway's first main line to Dover and, much later, as a candidate alignment for the Channel Tunnel Rail Link. □

Obituary

John Day, BSc(Eng), C.Eng, M.I.Mech.E.

John Day, who was a founder member of SIHG, died in June. He lived at Capel with his wife Mary and until recently they both regularly attended the SIHG lecture series at the University of Surrey. John gave several talks at Members' Evenings including one I remember from many years ago on a wonderful visit he had made to Afghanistan. Some talks were on engines, on which he was a great authority. Indeed, in 1980, having retired from the Patent Office, where he was Principal Examiner in charge of all forms of mechanical power transmission, Hamlyn published his very well illustrated, large format, authoritative book entitled *Engines, the Search for Power* (ISBN 0 600 33167 9). It covers water, wind and steam power, gas, oil, petrol, hot air, rocket engines, gas turbines and 'odd' engines.

The jacket of *Engines* gives interesting details of John's career. He was an engineering apprentice at the Royal Ordnance Factories, Woolwich, and during the Second World War was responsible for all the Air Ministry instruction books on Rolls-Royce piston engines and gas turbines. After the war he published many articles on motorcycles, cars and the history of engineering in leading magazines. In 1975 the Guild of Motoring writers awarded him the Montagu Trophy for the best researched and original history of the motor car. He served as a Council member of the Newcomen Society and of the Road Locomotive Society and was a member of many other societies. However, he would rather carry out research, work in his own engineering workshop and write, than take

part in committee work.

John enjoyed photographing and filming engines. For example he made a film of Bottings corn mill at Albury shortly before it closed and one of the Catteshall water turbine being loaded on a lorry to be moved from Godalming to the Ironbridge Gorge Museum. This involved using a crane to lift the turbine, which is 12 feet across, over the roof of a building at Westbrook Mill. He also provided me personally with much valuable information. This included a book on the paper industry established in India by Gandhi in 1934 as part of his All India Village Industries Association. He also sent me original prints from Diderot's *Encyclopédie* and copies of woodcuts from a German magazine, which proved that the originals date from the 1550s rather than the accepted 1662 (see SIHG *Newsletter* 153, Sept 2006, pp. 8-10).

So I will miss John very much and I am sure that this will also be true for many others interested in industrial history and archaeology. It is of course a very sad time for Mary. She herself has a very deep knowledge of local history and has also provided me with key information. In particular, with a colleague, we co-authored an article, which appeared in *Surrey History* last year, on a papermaker's will dated 1728. Another article on a water engine house, for which she produced historic illustrations painted by one of her ancestors, is due to appear in the same journal this autumn. □

Alan Crocker

Industrial Archaeology News No 157; Summer 2011

report by Gordon Knowles

Among the national news items is a report by Carolyn Able on the transformation of the Snibston Colliery museum in Leicestershire. The colliery closed in the 1980s and reopened as a museum in 1992. Now the *Transform* project, funded by the Arts Council, has helped to regenerate the site. It has illuminated photographic projections of the buildings on this Scheduled Monument site. It is hoped that local artists will contribute to the displays much as in examples found in the Ruhr Valley.

Tony Crosby reviews the many 'quangos' related to IA which are likely to be abolished, or their roles reduced, in due course. These include English Heritage and several historic advisory bodies. Peter Brown makes detailed comments on British Waterways, which is on the list. It is to become a charitable trust in 2012 and will then seek its own funding. Government grants will fall by 24% to £39m in 2012/13. Peter notes that British Waterways has over 2,700 listed buildings, only exceeded by the Church of England and the National Trust.

Robert Carr has several entries in this issue. First he notes the bi-centenary of the birth of William Armstrong, one of Britain's most influential engineers, though less well remembered than others. He founded the Armstrong Whitworth shipbuilding and armaments business in Newcastle and had earlier developed the application of hydraulic power to cranes, together with the invention of the accumulator, which paved the way for the widespread use of hydraulic power. He also designed a breech loaded rifled gun for the army and navy and utilised electricity in his house at Cragside generated by a water turbine, the first private house to have the new form of lighting.

Robert also writes on the ongoing construction of London's Crossrail project, commenting on the effects on Centre Point, the area around Charing Cross Road and in the West India Docks. Meanwhile Michael Bussell describes the developments through Crossrail of the former GWR locomotive depot at Old Oak Common where, prior to the construction of a new maintenance depot, an extensive

physical and documentary research has been undertaken. The 1953 79 foot turntable by Cowans, Sheldon has been moved to the Swanage Railway where it will be brought back into use once more.

Robert also reports on a meeting of TICCIH (The International Committee for the Conservation of the Industrial Heritage) held at the Imperial War Museum site at Duxford where a variety of papers were presented by, and to, a large number of delegates both from Britain and overseas. Robert notes in passing that the three surviving Belfast truss hangers at Duxford are now listed Grade II*, the fourth was blown up during the making of the Battle of Britain film in 1968. How attitudes have changed over 40 years. Robert reports on twentieth century buildings at risk noting that the sixties and seventies concrete buildings are not considered environmentally friendly yet their bulk provides insulation from winter cold and summer heat. City centre buildings of the period in Slough, Aylesbury and Newcastle are under threat of demolition. Listed buildings of any age remain exempt from carbon emission targets.

Other south east news reported is that the London Underground Headquarters in the Charles Holden designed building by St James' Park tube station in Broadway, Westminster, has been upgraded to Grade I listing on account of its outstanding architectural interest. (*I can vouch for this having recently been in the building to give a lecture to the retired staff association in what is the former oak panelled board room. GK*)

Good news is that there are positive moves in Kent to set up a committee, under Jim Preston, to cover industrial archaeology in the county, as a subsection of the county Archaeological Society. (*This is to be welcomed as it is the only county covered by SERIAC which does not currently have a county organisation. GK*) □

SIHG Membership Renewal

The SIHG membership database has been merged with the recently established Surrey Archaeological Society database.

Cheques payable to 'Surrey Archaeological Society' please, to Castle Arch, Guildford GU1 3SX
The membership form is available on our website,
or please contact Pam Taylor (see p 2) for a printed form.

The deadline for **submitting copy** for the next Newsletter is **10 September 2011**.
Submissions are accepted in typescript, on a disc, or by email to news@sihg.org.uk.

Anything related to IA will be considered.

Priority will be given to Surrey-based or topical articles.

Contributions will be published as soon as space is available.

Readers are advised that the views of contributors are not necessarily the views of SIHG.

Website: **www.sihg.org.uk**

Surrey Heath Archaeological and Heritage Trust Receives Conservation Award

press release by Alan Thomas



29th Annual Conservation Award - Robert Bryson (left) presenting the plaque to Malcolm Henderson..

The 2011 Conservation Award of the Surrey Industrial History Group was presented to the Surrey Heath Archaeology and Heritage Trust on Saturday 9 July 2011 in recognition of its rescue and maintenance of the former County Police Station at 4-10 London Road, Bagshot, and its adaptation and use as the Surrey Heath Archaeology Centre. The award was commemorated by the presentation of a plaque by Mr Robert Bryson (Chairman, Surrey Industrial History Group) to Mr Malcolm Henderson (Chairman, Surrey Heath Archaeological and Heritage Trust), see photos on page 1. The award is the 29th in the series of annual awards made by the Surrey Industrial History Group.

The **Surrey Heath Archaeological and Heritage Trust** was formed in 1989 from a branch of the Surrey Archaeological Society. It was given a 20-year lease of the Bagshot police-station building by the Surrey County Council, at a peppercorn rent (later increased to £300 p.a.) while the Trust restored it

The present building succeeded one built in 1849. It was built on land provided by the Duke of Connaught for use in perpetuity by the police or the county. It contained not only police offices and cells but accommodation for three officers and their families. In 1985 the building was no longer required by the police, and it became very dilapidated. Various grants for the restoration were made, including one from ADAPT (Access for Disabled People to Arts Premises Today)

The Trust was awarded a Gulbenkian Award for Museums and Galleries for "Most outstanding improvements achieved with limited resources". It has created an Archaeological Centre with galleries, storage, facilities for the conservation of artefacts, processing rooms, an audio-visual lecture room and a library (now with some 2,000 books).

Many finds have been made in and around Bagshot, ranging in date from prehistory to the 17th century - see below for a list of some of the items.

The Trust fosters archaeology in the community, and provides facilities for its Young Archaeologists Club (opened by the Duke of Gloucester), for the Camberley U3A, the North-east

Hants Historical and Archaeological Society, Duke of Edinburgh awards and various school activities. Several awards have been won for projects (see below for details).

Experimental archaeology has included the construction of an iron Age round house by the YAC and a working iron Age loom (see also below).

Parts of the old police station are open to the public on Heritage Days or by appointment. Its history is set out in a booklet published by the Trust and available from the Surrey Heath Museum.

All the work the Trust has done has been carried out voluntarily by its members, using donations and grants. The work is under threat at present because the Surrey County Council is demanding a commercial rent of £10,500.

For further information see www.bagshotvillage.org.uk/tour/arch-ctr.shtml

SHAHT Finds:

Flint hand-axes and arrow heads. An Iron Age and Roman iron-smelting site, yielding 4 tons of slag.

A gold-plated half-stater from the reign of King Addedomaros (c. 25 BC). 16th century tanning pits, leading on to Roman finds, including a jet ring engraved with a Christian rho-cross symbol (about 400 AD).

Exotic medieval pottery from France and Spain. Surrey/Hampshire borderware (found also in large quantities in London and exported.)

Medieval tools, weapons, chain-mail, wood and leather items and ceramics of all periods.

A hoard of early 17th C. English-made Venetian glass, attributed to Mansell.

Quantities of clay pipes, sufficient to form a reference collection for the dating of finds.

Awards for Archaeology in the community:

Graham Webster Laurel Award for education for the public in archaeology.

Prince's Trust Award for the experimental construction of an Iron Age round house.

Numerous Margery Awards for displays at the Surrey Archaeological Society's symposiums. ☐