GLIAS NEWSLETTER 155

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GREATER LONDON INDUSTRIAL ARCHEOLOGY SOCIETY ISSN 0264-2395

Hon. Secretary : Bill Firth, 49 Woodstock Avenue, London NW11

Hon. Newsletter Editor : Charlie Thurston, 1 Ely Gardens, Cranbrook, Ilford, Essex. IG1 3NQ.

CHRISTMAS GREETINGS TO ALL OUR MEMBERS AND OUR BEST WISHES FOR A HAPPY NEW YEAR.

DIARY DATES

GLIAS EVENTS

WHEN WHAT

1995

GLIAS WINTER LECTURE SERIES

To be given in Lecture Theatre 3 (ground floor) in the New Science Block of St. Bartholomew's Hospital, Charterhouse Square, London EC1. at 6.30 pm on Wdenesddays

Jan. 18 EUROPE'S INDUSTRIAL LEGACY - Speaker: Sue Hayton of GLIAS.

Feb. 15 TEMPLES OF STEAM - Speaker: James Douett of English Heritage.

Mar. 15 THE NATIONAL FAIRGROUND MUSEUM - Speaker: Valerie Bott of the Museum.

Free admission. All are welcome.

Jan.10 Sat. GLIAS/SURREY INDUSTRIAL HISTORY GROUP JOINT MEETING. TRANSPORT IN THE HISTORIC COUNTY OF SURREY. At 2.30 pm at East Croydon United Reformed Church, Addiscombe Grove. Talk to be given by Dr. Gerry Moss and John Bagley. Admission £2.

Jan. 12 Thurs. GLIAS RECORDING GROUP MEETING. To be held at 6.30 pm at Kirkaldy Testing Museum, 99 Southwark St, London SE1. Enter in Prices St.

Mar. 13 GLIAS RECORDING GROUP MEETING. Details as above. All are welcome.

OTHER EVENTS

Dec. 1 Thurs.	STOKE NEWINGTON. An illustrated talk by Peter Foynes at 7.30 pm in Latimer Church Hall, Ernest St, Stepney Green, E.1. Fee 50p. (ELHS)
Dec. 7 Wed.	THE HISTORY OF THE HOUSE OF DETENTION. A talk by Tom Duran at The George, 57 Liverpool Rd,/Tolpuddle St, N.1. at 8.00 pm Tel : 071-833-1541.(IAHS)
Dec. 8 Thurs	CANAL ART AND NARROW BOAT PAINTING. A talk by A.J.Lewery at 7.30 pm at the Canal Museum, New Wharf Rd, King's Cross, N.1. Tel: 071-713 0836.
Dec.10/11 Sat/Sun.	STEAM EVENT. At Southall Railway Centre, at Park Avenue and Merrick Rd. footbridge entrance, Southall, UB2 4PL. Tel : 081-574 1529 for details
Dec. 14 Wed.	THE COST OF 18TH CENTURY STEAM ENGINES. A Newcomen lecture by J. H. Andrew, at the Science Museum, SW7 2DD. At 5.45 pm Admission free.
Dec.17/18	STEAM EVENT. At Southall Railway Centre. Information as above.
1995	
Jan. 11 Wed.	PNEUMATIC TUBE COMMUNICATIONS SYSTEMS IN LONDON. Newcomen lecture by D. G. Clow at the Science Museum, SW7 2DD. at 5.45 pm Admission free.
Jan. 11 Wed.	LIMEHOUSE FROM 14THC. KILNS TO 20THC. LINK. A talk by Tom Ridge at the Ragged School Museum, 46 Copperfield Rd, E.3 4RR. At 7.00 pm For details tel : 081 980-6405. £1 membership fee.
Jan. 18 Wed.	WHO WAS OLD MOORE ANYWAY? A talk by Robin Myers at the George, 57 Liverpool Rd,/Tolpuddle St, N.1. at 8.00 pm Tel: 071 833 1541 (IAHS)
Jan. 27 (Fri)	180 YEARS OF GAS IN SE LONDON : A talk by Brian Sturt, at 7.45 pm at Lewisham Methodist Church, Albion Way, SE13. (LLHS)
Feb. 8 Wed.	THE EVILS OF BREAK OF GAUGE: Newcomen Lecture by E. F. Clarke at the Science Museum, SW7 2DD. At 5.45 pm Admission free.
Feb. 8 Wed.	THE LARGEST SCHOOL IN THE WORLD, SPITALFIELDS. A talk by Dr. Gerry Black, of the Jewish Museum, at the Ragged School Museum, 46 Copperfield Rd, Bow, E.3. At 7.00 pm For details tel: 081 980 6405. £1 membership fee.
Apr.1/2 Sat/Sun.	IRONBRIDGE WEEKEND. Theme :'Closure of Large Scale Industries'. booking form to be sent out later. Free membership to Ironbridge is offered to societies which complete 100 IRIS forms. Further information from Mary Mills, tel : 0181 858 9482.
May 30/ June 4	HOLLAND, AIA VISIT. En suite hotel accommodation, meals, fees and guides, London return by coach, approx. cost £330. SAE for full details to David Alderton, 48 Quay Street, Halesworth, Suffolk, IP 19 8EY.

COURSES

Jan. 19th 1995. CITY UNIVERSITY INDUSTRIAL ARCHAEOLOGY LECTURES start at 6.30 pm. This term Bob Carr on LONDON DOCKLANDS. For details 'phone 071 477 8266 or write to Extra-Mural Studies, Centre for Continuing Education, The City University, Northampton Square, London EC1V 0HB.

NEWS FROM CROSSNESS

The Crossness Engines Trust have been seeking a 'site name' for the engine houses and fitting shop. In spite of some rather irreverent names like 'Bazal's Ghetto' and 'Has Beams', the Trust settled for simply : 'The Crossness Engines'.

Those who have been following progress on site may be interested to learn that

the problem of the immovable nut retaining the IP/HP piston to the IP/HP piston rod has been solved. It was with regret, the team working on the intransigent nut were required to remove it by cutting it away. The integrity of the piston-rod thread had to be maintained thus making the operation not only difficult but quite delicate. A drilling template was manufactured for the nut, clamped in place, and the delicate task of drilling the nut on two opposite faces was carried out. Working in very cramped conditions the team then used an angle grinder to join the drilled holes, stopping short of the nut thread. Wedges and hammer were then used until the nut was riven in two, and upon inspection the fracture faces were observed to be crystalline, consistent with wrought iron suddenly wrenched apart. One half of the nut was sent to Fort Halstead for analysis and was declared to be made of 'Lowmoor' wrought iron. The next phase was to lift and remove the IP/HP piston rod (approx.) 27 ft. and weighing about 15 cwt; there was just sufficient clearance between the 'lifting beams' and the top of the cylinder. Once the piston-rod was lowered, horizontal to the floor and 'scotched' the next task was to lift and lower the piston, approx. 33ins. x 8ins. and about 12.5 cwt. The final job was to inspect the internal wall and steam/exhaust ports of the cylinder and retrieve the second half of the nut. The condition of the inside of the cylinder is remarkably good and will require little more than a wipe down and light oiling before a temporary wooden cover is made and fitted. 'TOSHER'

For further information please contact
Mike Dunmow, 8 Yorkland Avenue, Welling, Kent, DA16 2LF. Tel :081 303 6723. 2.

APPEAL

Crossness Engines Trust has recently appointed Peter Taylor as their museum administrator and in an effort to acquire material for the museum to portray a history of sanitation, Peter is seeking donations of items connected with this.If you have any such pieces, old cast-iron lavatory cisterns, wash-hand basins, commodes, old toilet paper dispensers, in fact anything which would help depict the progress in sanitation and you feel you would like to donate it to 'Crossness' please contact Peter Taylor at 29 Osney House, Hartslock Drive, Thamesmead, London SE2 9XA.

NOTES FROM BOB CARR

RICHMOND AND KINGSTON (NL153/4)

The debate over the construction of a new ice rink in West London is becoming more passionate as time goes on. A prominent campaigner is presenting the matter to the European Commission of Human Rights in Strasbourg and in a letter published in the local press the comments of a Richmond Councillor have been described as 'arrogant' and 'dodgy'. It does seem unlikely that a new ice rink will be built on the site of the old one in East Twickenham (the site of the Pelabon Works NL150/6) but there are a number of other proposals under consideration including that for a new rink on the site of Kingston electric power station. There is a scheme for an ice rink in Kingston town centre but this has critics and fears have been expressed that 'a teenage hell hole' might be created there. Japan's only Olympic ice skating champions, Hiro Suzuki and Tomoko Tanaka, began their training at the old Richmond ice rink, staying in the area three years, and giving the West London ice rink issue an international dimension.

At 11 a.m. on Sunday October 16th 1994 the two 250 feet high 32-sided chimneys of Kingston B power station were satisfactorily demolished, using explosives by the contractors Brown & Mason. Water was sprayed to reduce dust and vibration levels were low. The first chimmney to be demolished was that to the south followed shortly by the northern one. The Surrey Comet newspaper of 21st October

contains a dramatic souvenir centre-page spread photograph of the event. In this picture the two chimneys are seen simultaneously toppling towards each other - a dramatic use of digital electronic technology enabling a compilation of several photographs to be published as one. If members would like a copy of the souvenir edition of the Surrey Comet these are presently available at a cost of £1.00 including postage, telephone 0181 687 4371.

The first Kingston power station, Kingston A, with initially a power of 225 kW and equipment supplied by Siemens Brothers, opened in November 1893 and was situated in Down Hall Road. Close by was the Native Guano Works dating from 1888 and a special peculiarity of the town. Here local sewage was dried and the residue sold for fertiliser. Needless to say there were complaints about the smell. Kingston B electric power station was later built on this site.

With the usual rebuilding and installation of new plant, Kingston A had a long life, not finally closing until August 1959. Planning for the new Kingston B power station started just prior to World War II and following delays the new station was finally officially opened on 27th October 1948. Unusually this was a Royal Event, the ceremony being performed by King George VI with Queen Elizabeth. Being close to the Thames, cooling water was to be had in abundance (hence no cooling towers) and coal came up river by barge, ash being sent away using the same means. Cont'd.

At one time Kingston B occupied third place in the power station league table but became uneconomic as years went by. The station finally ceased generation in the Autumn of 1980. Most plant remained on site and the station was almost complete until relatively recently. Quite serious proposals were put forward to preserve Kingston B as a museum project but this was not to be. The turbines and condensers had already gone by the date of the chimney demolition and at the time of writing the boiler house to the east has lost much of its cladding and the removal of what is left of the boilers should not take long. A power station museum in such a residential West London locality was perhaps never much more than a dream, although it was quite recently claimed that Kingston B was a classic example of its kind and the only one still in an almost complete state. For a time there were three chimneys at Kingston, two for Kingston B and one for the old A station.

WHITEWEBBS PUMPING STATION

Whitewebbs pumping station, Whitewebbs Road, Enfield, Middlesex, (TQ 318 998) was one of a number of water pumping stations built to extract ground water and add it to the flow of the New River as demand for water in London increased. It is situated close to the Cuffley Brook and a short walk from Crews Hill railway station. Dating from 1898 the architecture is characteristic of the late Victorian period and similar to several other stations constructed in the area to house water pumping engines. Water from a 14 feet diameter shaft was added to the New River via one of its abandoned loops, the earthwork remains of which can still be seen in Whitewebbs Park to the east.

In 1961 the Enfield and District Veteran Vehicle Society was founded, its object being the preservation and maintenance of historic road transport vehicles. This society now has about 300 members who between them own about 80 period motorcycles,

cars, commercial and public service vehicles. From this Veteran Vehicle Society grew up the Enfield and District Veteran Vehicle Trust which became a registered charity in 1979 with the aim of establishing a local transport museum. The Trust purchased the Whitewebbs pumping station in 1985 from the Thames Water Authority and has obtained detailed planning permission for its conversion. The pumping station buildings are on the local list of buildings of architectural and

historical importance.

Water pumping station buildings are fine for housing the original machinery they were built for, but finding alternative uses once their original purpose has become defunct has been a difficulty. At Whitewebbs quite substantial interior modifications are being carried out with the addition of extra floors to display the road vehicles and other items the Trust intends to exhibit. Rather than just road transport, the new museum is now to encompass other areas of interest and the group of buildings is to become a Museum of Transport and Local Industrial Archaeology, displaying tools, products and artefacts relating to the district's earlier manufacturing industries. Upstairs there will be a library and research facilities.

At Whitewebbs there is the main pumphouse with adjacent boiler house, and an office. A short distance away the architecturally attractive valve house is to become a tea room and there is a coal weighbridge and bunkers. The yard at present contains a number of items, some undergoing restoration. Of particular interest to GLIAS members is a mobile boiler (mounted on wheels) dating from 1871. A railway station roof with decorative valance salvaged locally from Chase Green forms an attractive shelter for further historic items being worked upon. The original water pumping plant consisted of two compound steam engines by Richard Moreland & Son dating from 1899. Cylinder dimensions were 23 and 46 inches diameter with a stoke of four feet and the pumps were driven via long connecting rods. Two steel Lancashire type boilers provided steam at 120 psi. The engines had Corliss valve gear and 3 mgd could be pumped from a depth of 200 feet. George Watkins paid a visit to this station and took photographs (ref. visit 770). It seems the steam engines did not have much work to do and one was taken out, going to the Shortlands pumping station, Bromley, in south east London, about 1910. The other lasted till 1964. The steel boilers were probably broken up about the same time.

Richard Moreland & Son, Hydraulic and General Engineers, was the subject of the GLIAS AGM lecture by Dr. Denis Smith on 27th April 1991. Moreland's works were in Old Street London EC1, but at the time the engines for Whitewebbs were being built a move to Silvertown was about to take place. There the firm diversified into structural engineering. If members would like to visit Whitewebbs pumping station, please speak to Mr Moss, telephone 0181 367 1898. Note however that for the time being only group visits can be accommodated and Mr. Moss is very busy during the first part of the year organising the May Bank Holiday Enfield Pageant of Motoring, which is a major fund-raising event.

CLIMBING UP THE WALL AT STOKE NEWINGTON PUMPING STATION

When you see the Castle pumping station at Stoke Newington, does it make you want to climb up the wall? Apparently Nicholas Grimshaw thinks it does. A means of reusing the Castle pumping station in Green Lanes, N.4. has been devised by architects Nicholas Grimshaw & Partners. Listed building consent and the approval of English Heritage has been obtained to convert the building into an indoor centre for mountain climbing enthusiasts, which is due to open in the winter of 1995. Planned features include a 24 metres high overhanging competition wall, and a 34 metres high abseiling and rope training tower. There will be a dance studio, lecture hall and public cafe and bar overlooking the climbing wall. It was noted in the last Newsletter that the scheme had been approved by the local authority, Hackney.

The Castle pumping station, dating from 1856 and listed grade two star, was designed by William Chadwell Mylne FRS, engineer to the New River Company 1811-61. The family name MYLNE is repeatedly emblazoned in gold letters around the base of the building. At the back was a boiler house supplying steam to six

rotative beam pumping engines housed in the castle itself. The external buttresses are not merely decorative but contain slots, each of which accommodated a flywheel shared by two of the beam engines. In the planned adaptive re-use, the idea is to exploit the features of the building without altering any of its structure. The climbing enthusiasts have backing from the City and government agencies.

BOB CARR

FRIENDS OF HACKNEY ARCHIVES

The Friends of Hackney Archives offer a prize of £150 for the best written report of up to 3,000 words, based on original research on any historic topic relating to Hackney. Closing date July 31st 1995. For full details send SAE marked HISTORY PRIZE to: Friends of Hackney Archives, 43 de Beauvoir Road, London N1 5SQ.

'DICKENS' CHRISTMAS WORLD'

There will be an Exhibition on Dickens' Christmas World looking at Victorian Christmas customs as depicted by Charles Dickens from November 15th to January 11th 1995, at the Ragged School Museum, 46 Copperfield Road, Bow, E3 4RR. For full details telephone : 0181 980 6405.

NOTES FROM BILL FIRTH

HILLS, PLAINS AND THE SEA (The Industrial Heritage of North West England) Looking ahead to Summer 1995, the University of Liverpool, Centre for Continuing Education, is running a Summer School under the above title, from 15th to 22nd July 1995, at Chester College. The fee is £325 per person.

Details from : Mrs Lesley Crombie, Centre for Continuing Education, University of Liverpool, 19 Abercromby Square, Liverpool L69 3BX. Tel : 0151 794 2550.

WESTMINSTER CITY ARCHIVES & LOCAL HISTORY COLLECTIONS
Westminster City Archives and Local History Collections are moving to new premises at 10 St. Ann's Street, London SW1P 2XR, telephone : 0171 798 2180.

By the time readers receive this Newsletter the archives and collections at the Victoria and Marylebone libraries will have already been closed for the move (November 14). The new premises will re-open at 9.30 a.m. on Monday 16th January 1995. Opening hours will be Monday to Friday 9.30 a.m. to 7 pm and Saturday 9.30 a.m. to 5 pm

BILL FIRTH

OBSCURE EAST LONDON GAS WORKS NO. 3

A demonstration of gas lighting took place in London in 1789. One of the witnesses to it was Joseph Cotton. His son, William, was to become the managing partner in a Limehouse rope works which may have been the site of one of the earliest gas lighting plants in London. His partner was Joseph Huddart who had patented a new method of making rope. They had already purhcased a steam engine from the Birmingham partnership of Boulton and Watt, and it was to them that they went for gas making plant sometime after 1807.

Plans for the plant at the Limehouse ropeworks were drawn up by Boulton & Watt's gas equipment design team. The drawings, as fresh as if they were prepared yesterday, have pencilled in alterations which look like the result of working discussions. Boulton & Watt's team sited the gas making plant alongside the steam engine and boilers already supplied by them and perhaps they saw the ensemble as one installation of power raising plant.

In the first set of drawings, dated 1809, 2 retorts and a gasometer pit are

situated next to the boilers with the engine at right angles beyond them. A wall was built between each part of the installation. Between the retorts and the 'gasometer' is a 'condenser' with pipes going to a 'tar pit' and a 'drain for waste water' sited below the retort and alongside the 'ash hole' for the boilers. There is also a 'rat trap'. Everything is together in a building adjacent to the main works.

The gas making plant was apparently not installed in 1809; a note of 21st June 1811 gives instructions : 'Huddart & Co. Desire their Gazometer, Retorts, etc. to be sent as soon as possible'. Details instructions and plans are included for the lighting installations in the ropewalk and factory. For the rope walk itself - 'a pipe to join 2 cistern pipe and reserve 1 3/4 iron pipe, upright. 160 feet 1 3/4 inch pipe 2 (angles). 6 burners to fit 1 3/4 pipe.' The run of pipework is shown going from the 'gasometer' down the length of the ropewalk, with a branch to a three storey building and 'cable warehouses' and another to the 'cordage warehouses' and 'turners shop'. The position of burners is marked throughout.

The fate of Huddart's gas making plant may not be known. I will leave it to other GLIAS members to describe present circumstances on the ropewalk site. For more about Huddart see : William Cotton, A brief memoir of the late Captain Joseph Huddart FRS & an account of his inventions in the manufacture of cordage, School Press, London, 1885; and William Huddart, Uncharted Waters, London, 1989. I would also be grateful for anyone who feels able to interpret the drawings further for me - with particular reference to the steam engine!

FURTHER NOTE ON LAST MONTH - GAS MAKING PLANT AT HAWES SOAP WORKS. I always seem to come across things after I have written them. An obituary of George Russell of Longlands, Sidcup, dated May 1804 (Gents. Mag.) says that the Old Bargehouse Soap Works was built by him. He sold it (presumably to Hawes) just before his death.

MARY MILLS

ELECTRIC CABLE MANUFACTURE IN GREEN STREET GREEN

By the time you read this article another piece of industrial history will have vanished; flattened by a 'Syd Bishop' team of demolition experts to make way for a residential development of 52 houses in Green Street Green High Street near Farnborough in Kent. The story began in the 1930s when small quantities of radio relay cables were made by the Telegraph Construction and Maintenance Company at their Greenwich factory. These cables were used to distribute broadcast programmes from a central receiver to private subscribers. Production increased rapidly and the department concerned expanded with the advent of 'Polythene' insulation and the approach of the second World War. Without the new high-frequency cables designed by the Telcon Company, and using their own 'Telcothene' compounds, radar techniques would have been impossible in the form used so successfully by the Allied Forces. During the Battle of Britain in particular, the Air Ministry was in dire need of every inch of cable as soon as it emerged from the production line. It became obvious that the Greenwich factory could not meet all the requirements of the Services and so, an old brewery was acquired at Green Street Green, where eventually most processes could be duplicated.

This brewery, called the Oak Brewery, was originally built for Fox & Sons of Oak Farm several years before Queen Victoria's Jubilee celebrations but closed in 1909 due to lack of financial support. From then until the outbreak of the first World War, part of the old brewery was used as a store by Messrs. Golding of Sevenoaks.

The buildings had a new lease of life as a barracks for troops between 1914 and

1918, then remained empty until 1937 when some sections were demolished for safety reasons.

Because in 1940 the Greenwich area was so vulnerable to air attack, plant for the manufacture of submarine cables was also installed at Green Street Green by the TCM company. The cellars in the brewery being intact were just the place for important war work. What buildings were left of the old brewery were renamed the 'Frequency Works'. Despite many incidents, the factory was fortunate in having none of its activities stopped for any serious length of time. Eventually the production of cables, including the high frequency types, at Green Street Green ended in 1953.

New buildings were raised upon the site, new products were turned out and memories of cablemaking began to fade. The overall business of the Telegraph Construction and Maintenance Company was acquired by British Insulated Callender's Cables in 1958 but the name 'Telcon Plastics' lived on in the High Street until recently. The factory site became part of Medway Packaging before being sold to a private developer, Woolwich Homes. Soon the fact that the new estate stands on the site of a once thriving factory will be forgotten. Next door in the High Street however, is one private dwelling house bearing the name 'Frequency Cottage' which brings to mind the tremendous human efforts made by the people of this country half a century ago.

BILL MCNAIR

LONDON'S JOINT USE UTILITY SUBWAYS

The description of the Victoria Embankment in the recently reissued GLIAS IA WALK No. 4 mentions Bazalgette's sewers and the District Line as part of the Embankment's structure. The iron grills at intervals in the pavement are evidence of a third important provision. The often-reproduced illustrations of the construction of the Victoria Embankment (1870), Holborn Viaduct (1869), and the Kingsway tramway tunnel (1904) show that 'pipe subways' were an integral part of the works. These subways are examples of over 30 lengths of brick-built subway which were included in the construction of completely new streets driven through central London in the second half of the 19thC and the early 20thC, and which continue to provide a valuable service. The objective behind their provision was succinctly expressed in the Metropolitan Subways Act of 1868. 'In order to prevent inconvenience to the public by the frequent breaking up of streets and roadways'. The subways were originally intended to carry gas and water pipes but other services were later added.19 subways were constructed between 1861 and 1904 as part of the major improvement works initiated by the Metropolitan Board of Works and continued under the LCC; the Corporation of London also constructed a number of similar subways from 1867. They were incorporated in the construction of new thoroughfares, the first being Garrick Street in 1861, followed by others such as Shaftesbury Avenue (1877-86), Charing Cross Road (1887) and Queen Victoria Street (1871).

The subways were built by the cut-and-cover method and generally just below the surface of the street, the cover being typically about 3 ft. They are of brick construction with an arched roof, the largest size being 12 ft wide by 7 ft. 6 ins. high and the smallest 7 ft. 6 ins. by 6 ft. Natural ventilation is provided by grills in the roof of the subway, and appear either in the footway (as in Victoria Embankment) or in islands in the centre of the road (as in Shaftesbury Avenue). Arched side passages connect either to distribution pipes and cables in the footway or individual buildings. The subways were originally earth-floored to minimise the risk that nails on footwear or tools striking a solid floor might generate a spark and cause a gas explosion. The combination of earth floors and ventilation grills combined to give a poor working environment -

often very congested, dark, dirty, dusty, smelling of damp, and a rat run. To make matters worse, the subways were used by a number of different organisations who each looked to their own interest to the exclusion of the others. For example, it was found a few years ago that safety standards varied greatly - one utility would be working to strict 'confined space' rules suitable for a potentially hazardous atmosphere, while just down the subway another utility would be happily working using naked flame! In recent years order has been imposed, floors have been flagged, access and working practices normalised, and tight controls established for safety and housekeeping.

Although the subways were originally intended for use by gas and water pipes, telegraph cables were first installed in 1880. Other occupants have included hydraulic mains, PO telephone cables, pneumatic telegraph tubes, electric lighting and power cables, and commercial telegraph company cables. In 1893, an Act was passed enabling the LCC to compel the utility services to use the subways albeit with certain defined exceptions. A similar bye-law was passed in 1904 to cover the City subways. A concern often expressed about the subways by the public utility services has been that mutually incompatible services were being carried - the catastrophic failure of a gas or water main, electricity cable or high pressure hydraulic main could lead to major disruption of all services - all eggs were in one basket! That this fear was no idle speculation was demonstrated in 1928, for in January of that year, London experienced its highest-ever recorded tide - several people were drowned and many buildings flooded.

The Embankment subway was also flooded, and the large gas main floated from its supports 'drawing' some of the joints and a major gas escape ensued, but fortunately without serious consequences. However, several electricity and telephone cables were badly damaged by the flood water. A much more serious incident took place in September of the same year. The Post Office suddenly and completely lost communication between several telephone exchanges, the cause becoming quickly apparent for a major fire was raging in the subway. When the fire was eventually extinguished the Post Office faced chaotic mess for the fire had melted the lead sheathing of the cables and several tons of lead, copper conductors and cable supports were all welded together in a most intractable mess.

The subsequent inquiry attributed the initiation of the fire to a defective cut-out on the cable feeding the LCC street lighting, presumably the gas leaks from the January flood had not all been sealed adequately and the escaping gas was then ignited by an arc. Before all the repairs had been completed, another fire broke out on 6th June 1929 not far from the site of the previous one. This time, prompt action by the fire brigade limited its spread, but nevertheless 20 large Post Office cables and several small ones were destroyed. A further enquiry took place and again the cause was identified as a defective component on the street lighting cables, these cables were then removed completely from the subway.

There are some more recent joint use subways in London, mostly built of reinforced concrete when underground stations have been reconstructed, but the lack of new road construction, with the exception of the post-2WW London Wall, has not provided the opportunity to construct long lengths of subway. The Metropolitan Board of Works report for 1880 by Joseph Bazalgette recognised the fundamental problem limiting their construction: '..we have introduced the system of subways in the main thoroughfares in order that the gas and water pipes may be laid in the subways under those thoroughfares and the streets may not be pulled up from time to time afterwards. It will only do in important main streets because it is costly, but it is a great improvement.'

The London sub-surface is now far more congested with pipes and cables than in Victorian times and, however beneficial the end result might be, building a subway in an existing city street would be an extremely complex, highly disruptive and phenomenally costly operation.

Sources:

P.J.Edwards 'History of London Street Improvements.1855-97'. LCC. 1898.

J.G.H. 'Damage to Post Office Cables by Fires'. Post Office Elect. Engrs. J. Vol.22. Pt.3. October 1929.

DON CLOW

THE NATIONAL MONUMENTS RECORD - LONDON SERVICES

Following the relocation of the National Monuments Record (NMR) to the RCHME's new National Monuments Record Centre in Swindon (NMRC, Kemble Drive, Swindon SN2 2GZ),

readers of the Newsletter might be interested to learn of the services remaining in London. The London public search room of the NMR retains the photograph collections of buildings for Greater London, the computerized index to the buildings files, London material from specialist collections such as the Rokeby collection of railway stations, together with the RCHME's Inventory files for London and Middlesex. The library in the search room offers a full set of RCHME publications and Survey of London volumes, in addition to general works on London history and topography.

A complete set of DNH statutory lists of historic buildings and the Register of Historic Parks and Gardens for England can also be consulted. MONARCH, the NMR database of architectural and archaeological information can be accessed and a high quality fax link connects the London and Swindon search rooms so that copies of photographs of buildings in the rest of England can be transmitted to London rapidly.

From 3rd January 1995, the collections can be consulted in the search room of our new London office, 55 Blandford Street, London W1H 3AF (Tel : 0171 208 8200/8201,Fax : 0171 224 5333) which we will be sharing with our colleagues who work on the Survey of London (including London emergency recording) and other London survey projects. In the meantime, any GLIAS member seeking further information should telephone 0171 973 3091.

SARAH BROWN,
Head of London Architectural Record.

The National Monuments Record is the Public Archive of the Royal Commission on the Historical Monuments of England.

THE GREAT WESTERN RAILWAY

The Great Western Railway Preservation Group Ltd. opened the Southall Railway Centre in the old locomotive sheds in Southall at Easter 1994, with the official opening by the Mayor of Ealing on the first Bank Holiday in May. The site is based in the locomotive sheds which were rebuilt in the 1950s and closed by British Rail in the 1980s. The stock is varied - mainly GWR stock (loco's) and BR carriages, along with a 'wagon-lit' restaurant car from Italy, of 1926. The next open days with steam are 10th/11th December and 17th/18th December 1994. Further information from Bob Gorringe on 081 - 574 1529.

PAUL PHILLIPS

LETTERS TO THE EDITOR

From Mr. A. B. Knight, who writes:

Thank you for your contribution to this month's GLIAS Newsletter, to which I thought I would reply directly. I have visited Bradwell once, and my friends many times, so I will pass on their memories. My only curiosity was a nearby hill, albeit short, with the single arrow on the O.S. map indicating a steepness greater than 1 in 9. My friend's husband worked for the CEGB, and one of the perks was a free holiday cottage (with free electricity) at Bradwell. It was on the land when the power station was built and I suspect was compulsorily purchased during the war when the airfield was built. I believe both Harwell and Dounreay were also built on old airfield sites; crown land, no purchase or planning permission required.

The water warmed by the power station was fine for swimming (high tide only) though two men with a meter checking radioactivity reminded the family of the possible dangers therein. As you say it is a delightful area to visit and my friend had many happy holidays there. I believe the ancient chapel has a service once a year, and is maintained by a group from London. Thank you for your excellent detailed contribution. For access to the power station I believe a new pier was built and the approach roads much up-graded from country lanes.

A. B. KNIGHT

NEWSLETTERS FOR DISPOSAL

GLIAS member Mr. Oliver James, Keston Cottage, 14 Commonside, Keston, Kent, BR2 6BP has written to say that he has for disposal Newsletters Nos. 76 to 150 (inclusive) i.e. October 1981 to February 1994. They are available to anyone who would pay the postage plus a small donation to the Multiple Sclerosis Society. Please contact Mr. James if you would like to have these.

And finally a letter from W. T. MCNAIR:

Thanks for another interesting issue of the GLIAS Newsletter (154).

May I point out a typing error on page 9 relating to my letter about the first cremation in Great Britain. The correct date in the last line of page 9 should of course be March 1885

W. T. MCNAIR

BOOK REVIEWS

HISTORY OF TECHNOLOGY Publications from the Science Museum.

GUIDE TO THE HISTORY OF TECHNOLOGY IN EUROPE 1994. Compiled by Betsy Bahr, Timothy Boon, Nicholas J. Wyatt, and Robert Bud. Paperback. 208 pages. £9.95.

The second edition of this work provides an improved, updated directory of over 900 individuals and organisations involved in the history of technology, invaluable to academics, researchers, museums and the media, the directory 'has a place on the desks of all those engaged in the history and development of technology.'

HISTORY OF TECHNOLOGY Index 1992. A Sources List of journal articles. Edited by Nicholas J. Wyatt. Paperback, 136 pages. £12.95.

A detailed bibliographic listing of more than 1,500 articles from over 300 journals received by the Science Museum library. An accessible and up-to-date reference too for historians, both academic and amateur.

PERCEPTIONS OF GREAT ENGINEERS: FACT AND FANTASY. Edited by Denis Smith. Paperback. 192 pages. £9.95.

'This book, made up of papers from a conference arranged by the Newcomen Society in 1993, examines in detail two historiographical problems; the selection of engineers for immortalisation (remarkably constant since Samuel Smiles); and the accumulation within engineering biography of folk traditions affecting scholarly work as well as popular history.'

CIVIL ENGINEERING HERITAGE. Thomas Telford Ltd.

The Civil Engineering Heritage series consists of four books covering Southern England, Eastern and Central England, Northern England and Wales & Western England.

Each volume is designed specifically as a guide book to the exploration of the civil engineering landmarks and to give a background of Britain's engineering history.

Southern England: £12.50 Eastern & Central England: £12.50

Wales & Western England: £8.75 Northern England - available in 1995.

From: Thomas Telford Services Ltd, 1 Heron Quay, London E14 4JD. Tel : 0171 987 6999. Fax: 0171 538 4101. Or from Thomas Telford Bookshop at the Institution of Civil Engineers, 1-7 Great George St, London SW1P 3AA.

The CBA has recently published a number of books on early industrial sites:

IRON AGE AND ROMAN SALT PRODUCTION AND THE MEDIEVAL TOWN OF DROITWICH. Ed. Simon Woodiwiss. (Ref. RR81) £32.00.

THE BEDERN FOUNDRY. (13th-16th century York). J.D. Richards. (Ref.AY10/3) £12.00.

AN ANGLO-SAXON WATERMILL AT TAMWORTH. Philip Rahtz & Robert Meeson. (Ref.RR83) £28.

A MEDIEVAL INDUSTRIAL COMPLEX AND ITS LANDSCAPE. (Bordesley Abbey). G.G. Astill. (Ref. RR92) £32.00.

WELSH INDUSTRIAL HERITAGE: A REVIEW. C.S.Briggs. (Ref.RR79) £32.00.

Prices include postage and packaging from:
CBA, Bowes Morrell House, 111 Walmgate, York, YO1 2UA. Tel: 0904 671417.

BILL FIRTH

BYGONE EAST HAM By Brian Evans and STRATFORD. A PICTORIAL HISTORY By Stephen Pewsey.

These two books were published in 1993 by Phillimore in the similar hardback format at £11.95 each. Illustrations predominate - 170 for East Ham, 155 for Stratford. 'Stratford' is something of a misnomer as the book covers West Ham as a whole. In this volume, about a third of the illustrations are of direct IA interest but rather fewer for East Ham - perhaps a reflection of the industrial importance of the two halves of present day Newham? A spate of letters to 'Dockland News' pointed out that in the East Ham book the caption to illustrate 112a states the street scene was in East Ham, when it was in Canning Town.

The quality of the photographs in both books is quite acceptable at the price - that could not be said of all the 'old and new' picture books flowing in recent years from publishers.

DON CLOW

FEBRUARY NEWSLETTER

Please note that contributions for the February Newsletter should be with the Editor by 8th January if possible.