

AIA Bulletin

ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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As part of its function to air matters of policy as well as reporting events in industrial archaeology, this Bulletin welcomes offers of guest editorials. Douglas Hague, a founder member of the AIA and one whose contributions to annual conferences are particularly appreciated for their good humour and elegant delivery, has occasionally found his views at variance with those of officialdom. We are delighted that he has come forward with a short account of the sort of quandary in which he often finds himself. He has called this **A Moan from Wales**.

In Bulletin Vol 6 No 3, I reported on the impending loss of the Hennebique designed reinforced concrete warehouse at Pothouse Wharf Carmarthen; at the same time I pleaded that with the exercise of a little common sense and imagination the accolade of Listing Grade 2 might have been transferred to it from the slightly earlier but hopelessly dilapidated Weaver's Mill in Swansea, also by Hennebique. One would have to be a naive optimist to expect such action to be taken, and now after putting up a tough fight against the demolishers the Carmarthen building is no more.

With this in mind and similar threats to the Militia Barracks in Aberystwyth, and to the magnificent Maesteg Blast-engine-house and the Oakwood Ironworks balance tower near Port Talbot, I put an edge to my quill and wrote a feature for the **Western Mail**. In this article Saturday 3 November 1979 page 9, signed by

me as a private individual I made no mention of my official position; this I did deliberately, partly because of my natural modesty but also because whatever precautions, brief or fulsome, I had taken to communicate the fact that views expressed were my own and not those of RCAM Wales, a possibly innocent but adroit sub-editor would have elevated my position to at least that of Chairman of RCAM. My little piece was printed in full, only a brief overture from the scriptures and a coda from Shakespeare were edited out. Quite a number of folk complimented me on it, but alas, it fell foul of official circles, largely because I, a meek civil servant had criticized Government Policy by letting slip a mildly derogatory remark about a decision of the Historic Building Council. As one of liberal views who accepts neither the Divine Right of Kings nor the Infallibility of the Pope I believe that Ministers, run-of-the-mill politicians, their

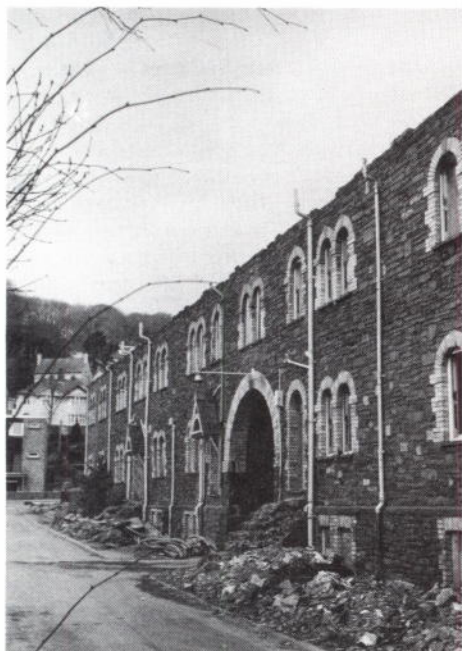


The great engine house at Maesteg

staffs and advisers are mortal and are imbued with the same foibles common to us all. Decisions made by the pundits may be entirely their own, they can accept or reject advice from counsel. Decisions can be wise or foolish; it may be a brave and difficult choice, but equally it can be expedient, doctrinaire and stubborn, or even a great deal worse.

The intention of writing these few words is not to get me into more trouble but merely to raise the question that perhaps now under the EEC 'sunshade' it might not be in order for a civil servant to write openly. Some close friends tell me that had I taken the cowardly and reprehensible step of writing under a pseudonym they would for some reason have guessed its author!

To finish on a realistic note:— the Aberystwyth Barracks are now being demolished,



a shameful and shortsighted act on which even Attila would have had second thoughts. The dramatic yet innocent balance tower at Oakwood Ironworks is now 'safe', an innocuous mound of rubble— but hallelujah! the local authority at Maesteg has withdrawn its application to demolish the great engine-house, and perhaps after all, when one's vocabulary, invective, passions and energies are spent we should resist the temptation to take the easier road of indifference and cynical apathy.

Douglas B Hague
Llanafan, Aberystwyth.

One of the younger IA (if they will pardon the term) organisations, the **Midland Wind and Water Mills Group**, has just published its first Journal. Called *Wind and Water Mills* it has appeared in A5 (210mm x 147mm) format, contains 44 pages, plus cover, about 25,000 words, 16 illustrations (all line drawings) and can be obtained for 75p plus 15p postage and packing. Described as 'an occasional publication' the initial issue; Summer 1980, contains six separate articles, a pair on a windmill, two linked pieces on the mills and watercourses on the Belne Brook, near Kidderminster, and papers on Millstone making on Anglesey and the Turtons of Kidderminster, who were iron-founders, engineers and millwrights. The windmill articles are concerned with 'Bouncing Bess' a tower mill, now converted into a dwelling

house and situated at Rowington Green, Warwickshire and its 'boat-shaped' cap, which has been measured and completely recorded. Copies of *Wind and Water Mills* and details of membership of the Group can be obtained from John Bedington, 188 Merrivale Road, Smethwick, West Midlands, B66 4EA.

Job Opportunities in IA. The Association is frequently asked for advice on careers in industrial archaeology and it is inevitable that, of the hundreds who discover initially through involvement with evening classes or local survey groups, that they would like to devote their working lives to it, the majority will be disappointed, for the number of full-time jobs in industrial museums and on the staff of adult education centres remains limited by the public finance available. In the museum sphere, industrial archaeology is by far the fastest-growing interest, if the 'appointments vacant' section of the monthly **Museums Bulletin** is anything to go by. Posts advertised in the May 1980 issue, for instance, include a museum assistant in the Department of Technology at Bristol Museum, established 12 years ago with Neil Cossons as the first curator of the department, and a trainee post in the Museum of London's Modern Departments where industrial material represents an important element of the collecting policy (the Museum of London's collections are divided by period rather than by discipline). Caudwell's Mill in Derbyshire is looking for a Manager at about £5,000 pa. to develop this water-powered roller flour mill, under the aegis of a charitable trust, and candidates should be capable of any task 'from lecturing to a learned society to clearing out the mill goit'. In the same issue the new Maritime Museum to be opened at Liverpool in its first phase on July 18 seeks someone to take over the direction of this new development as well as being responsible for the Merseyside County Museums' collection of land transport items and industrial and maritime archives. Two other posts are advertised, the scope of which would have seemed unimaginable as little as five years ago; Lancashire County Museums Service wants to appoint a HND-qualified textile or mechanical engineer to maintain in running condition the cotton-spinning machinery, including a spectacular floor of condenser mules, at Whitaker's Mill, Helmshore which ceased production late in 1978 and was shrewdly acquired *in toto* by the County Council, before serious deterioration set in. The building, still virtually fully equipped, will be developed as a museum of Lancashire cotton in conjunction with the water-powered Higher Mill adjacent. And the University of Birmingham advertises a temporary appointment on the Lecturer scale to develop the Institute of Industrial Archaeology being developed in conjunction with the Ironbridge Gorge Museum. Short courses in ia. will pave the way to a diploma course in industrial archaeology, the emphasis of which is likely to lie in the direction of practical conservation work rather than academic studies in industrial and technological history.

With one-third of the 21 vacancies advertised in the May **Museums Bulletin** strongly slanted towards industrial archaeology, we cannot complain that the openings for would-be professionals are limited; even where candidates are required to have already made a career in ia, promotion will lead to fresh vacancies at less senior levels in museums and universities. The **Bulletin** is distributed by post to members of

the Museums Association, most of whom are professional curators, but others who wish to do so may subscribe without necessarily joining the Association. Details of subscription rates from Christina Brockhurst, Museums Association, 34 Bloomsbury Way, London WC1A 2SF.

Ship Shops Shattered. After the completion of the Iron Bridge in 1779, more than 50 years were to elapse before civil engineers made use of iron arches to provide uninterrupted roof spans in large buildings. The best known of these is Paxton's Crystal Palace of 1851. But well before this date, the Admiralty were looking to iron roofs to provide a controlled environment for the building of wooden warships, many of whose lower timbers would already be rotten by the time the ship was launched, if the slipway had been open to wind and weather. Several wooden-roofed covered slipways of the eighteenth century survive at Devonport and Chatham, but the large warships being built in the 19th century required larger building ships and for the span of nearly 90 ft required for the new covered building way at Portsmouth in 1843, soaring semi circular arches of cast-iron, assembled with wrought-iron straps were specified. The two enclosed building slips built at this time at Portsmouth continued to launch ships until well into the present century. Following the construction of a new berthing jetty, Ship Shops No 3 as they were known had their floors levelled for use as enclosed workshops. Plans to demolish these important industrial monuments, the earliest surviving iron arched buildings known anywhere, were announced in 1973, and the faculty of architecture at Portsmouth Polytechnic was among those bodies who made strong representations to the Property Services Agency of the DoE, responsible for buildings within the Royal dockyards, that the Ship Shops were sufficiently important in engineering history to be preserved on site. Successive cuts in defence expenditure provided a stay of execution in the scheme to modernise this part of the dockyard, and the case for preserving the Ship Shops was tossed to and fro until late in 1979, when it was announced that the contract for demolishing the 136 year old building would shortly be let. The case against preservation rested largely on the fact that a similar building of slightly later date survives in the dockyard at Chatham, where it is not currently threatened, and on the location of the Portsmouth building, remote from that part of the dockyard where visitors can be admitted and in which most of the buildings already scheduled as of historic interest are situated. The AIA pressed for a reversal of this decision, stressing the unique significance of the Ship Shops as the earliest iron arched buildings in the world.

When it became clear that the Ministry of Defence held out no hope of retaining them as part of the redevelopment of that part of the dockyard, an offer came from the recently established Chalk Pits Museum at Amberley to dismantle and remove as many roof trusses as could be saved; the columns on which they stood had been grouted 8 ft into the ground when the building was erected and with subsequent levelling of the floor and concrete topping it would have been impossible to extract the original columns except at prohibitive cost. This offer met with a frosty response from the PSA however, who announced that dismantling the structure carefully would involve the use of mobile cranes and skilled cutting gear, at a cost over and above that of straight demolition estimated at £60,000. The Southern Industrial

History Trust obtained promises of all of the extra funds required, but the next stumbling block arose when DoE insisted that the Trust should also bear the administrative costs of the demolition contract being re-negotiated. John Warren, chairman of the Trustees, thought it unreasonable that funds raised for charitable purposes should be used for the internal staff costs of a Government department, and this proved to be the final stumbling block that thwarted the plans to re-erect the roof trusses at Amberley. But it was clear that the decision of the Secretary of State for the Environment, Michael Heseltine, to whom the whole thorny issue had been referred, was influenced by the fear of additional costs if demolition were further delayed. The contractor had also expressed fears for the building's safety if the outer cladding were removed separately, for it

was claimed that without the bracing provided by the outer skin, the brittle old castings would be hazardous to dismantle piecemeal, even with the assistance of a telescopic jib crane (which would certainly not have been available to the engineers who erected the building in 1843). The demolition contractors intended to set explosive charges around each of the supporting pillars, thus bringing the whole of the structure with its cladding down at once and avoiding any possibility of high winds getting under the half-dismantled building. With the loss of the Quadrangle Warehouse at Sheerness still fresh in our minds, Britain's record for preserving pre-eminent examples of the metal-framed buildings with which it led the world in the first half of the nineteenth century is hardly one to be proud of.

Footnote Demolition went ahead in February, and a small explosive charge placed under one corner pillar brought the whole building down in the space of a few seconds. Fragmentation of the brittle cast iron framework was so complete that hardly any components of recognisable shape remain. A few broken pieces have been acquired by the Chalk Pits Museum and removed to Amberley for display.

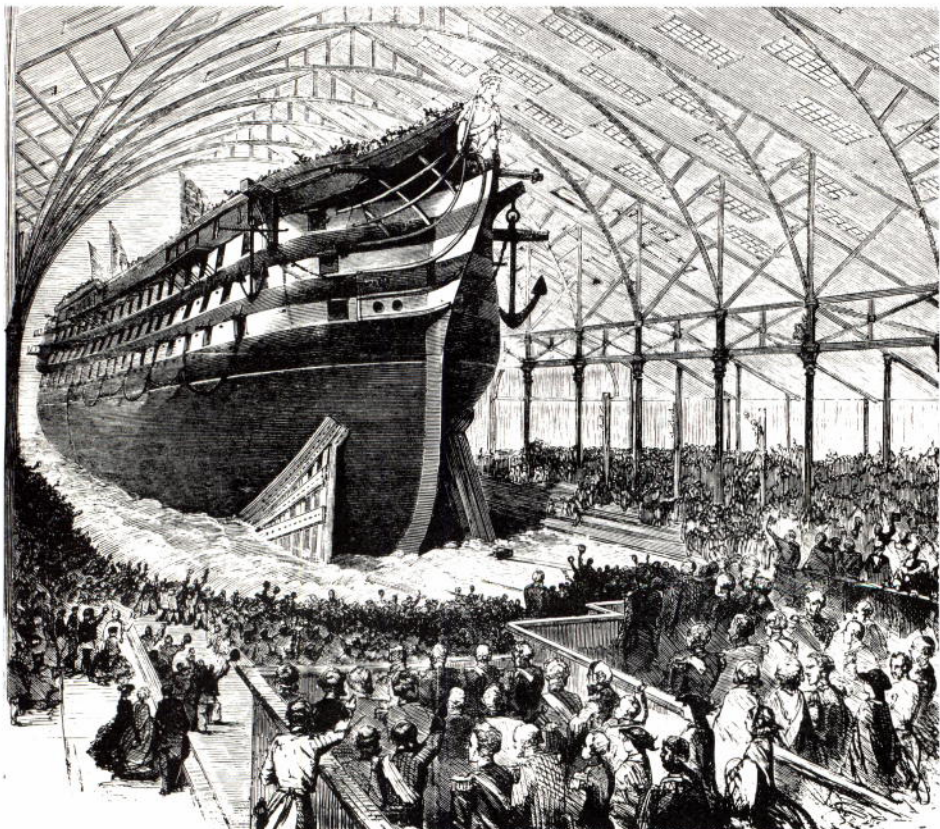
Wilts and Berks Canal Amenity Group is actively involved in maintaining the recreational uses of this closed canal and have recently produced two publications of interest to members. The first entitled **The Wilts and Berks Canal Packet** is a collection of relevant maps and documents about the canal and is well received in schools for its educational value as well as by historians and enthusiasts. It is available from the Sales Department at 3 St Margaret's Road, Swindon, Wilts, SN3 1RU at £1.00 including postage and packing. The group have also published a structure survey drawing as the first in a proposed survey of all existing canal related buildings and is of the wharf house at Dauntsey Lock, Wiltshire where the group has recently obtained a licence to survey the structure and clear the canal. Dauntsey Lock is unique to the canal as it is an example of a canal settlement that grew up around a rural coal wharf and still has most of its buildings in existence. The structures and about two miles of canal are in the hands of descendants of the original owner of the wharf, Joseph Barnes, who came to the canal around 1830 and even eventually formed a company with other traders to buy the canal in 1876. It is fortunate that the group were able to survey the wharf house in its original condition as it has recently been modernised with the demolition of the stable, warehouse and front porch. Work on the site will lead to use of the canal and some of the buildings as a Museum. The group would welcome any local industrial archaeologists who could help in the survey work, photographing, measuring and drawing at locations on the canal from Semington to Abingdon; please contact Pete Boyce at the address previously mentioned.

Public Enquiries. Decisions are expected shortly on proposals to demolish two important Victorian structures. In March a public enquiry in Clevedon considered the proposal by Woodspring District Council to demolish the town's 112 year old pier as beyond economic repair (see Bulletin 7 : 1). And on 15 April it was the turn of the old railway station at Newmarket, built in 1848 and now disused. The station, sharing some features of style with the better-known railway terminus at Gosport and described as 'the most sumptuously baroque station of the early Victorian decades in England' is listed Grade II but property developers would like to demolish the elaborately-detailed stone building and rebuild on the site.

Clwyd Archaeological Volunteer Register. Clwyd in North Wales is a county with several archaeological sites of major importance to its credit. The site of Wilkinson's iron works of ca 1763 at Bersham was excavated in some detail by the County Council between 1976 and 1979, and a report of these excavations has been produced by the County Planning Department under the title '**Archaeology at Bersham**' (available from Shire Hall, Mold, Clwyd CH7 6NB by post, price 75p). Further north at Holywell



Number 3 Ship Shops in 1980



Number 3 Ship Shops in 1859. The launch of HMS Victoria

the Delyn Borough Council has cooperated with the County Council in sponsoring excavation of an important series of water-powered metal-working sites along the Greenfield Valley, with a good deal of professional archaeological advice from Ken Davies of Bangor University's Extra Mural Department (details in **The Greenfield Valley** K C Davies and C J Williams, published Holywell Town Council, available from Clwyd Record Office. The Old Rectory, Hawarden, Deeside CH5 3NR £1.05 including postage). With the likelihood that other sites of archaeological importance will have to be excavated swiftly and efficiently in the face of new road-building and other development, the County Planning Department has established a Register of archaeological volunteers who, as well as receiving invitations to take part in excavations relevant to their particular field of interest, will receive periodic information on the archaeology of Clwyd and an annual booklet summarising recent work in the County. If you live near enough to be able to help, write stating your special interests to: Clwyd Archaeological Volunteers Register, County Planning Department, Shire Hall, Mold, Clwyd CH7 6NG.

Forest of Dean Tramroad Viaduct. David Bick writes: Built in 1832 for the proposed Purton Steam Carriage Road in anticipation of an authorising Act which never materialized, this little known three-arch viaduct a mile south of Blakeney is to be cleaned up and made safe by voluntary labour.

The project will preserve one of the finest tramroad structures in Britain, and is being organised in conjunction with the site owner, the Gloucestershire Society for Industrial Archaeology, and the local authority. The latter has kindly offered to provide sand and cement for pointing the masonry.

Weekend work is due to begin on May 18th and will continue through the summer until completed. A successful outcome will depend on a sufficient number of helpers, and anyone able to lend a hand would be most welcome. Please contact David Bick, Pound House, Newent, Glos. Tel. (0531) 820650.

The Irish Railway Record Society, a lively association with a catholic taste in railway history, publishes an excellent Journal, now in its fourteenth volume, which might well be the envy of any national association. The whole is printed on art paper in Wick low where non-sense letterpress printing still maintains its dominance over new-fangled photolithography, and justice is thus done to some of the old photographs which are re-produced to a high standard. The Journal is comprehensively indexed each year (an example to our own Bulletin) and well deserves its growing reputation as an authoritative and scholarly publication. The Society has nearly 700 members of whom 236 are in Britain and it has a flourishing London Branch. It has been in existence for 33 years and details of membership, which brings automatic entitlement to the Journal, are available from: Norman J McAdams, 9 Pinewood Crescent, Dublin 11, Eire.

The Polytechnic and the Great Railway Exposition. The focus of activities in Manchester of the celebrations to mark the 150th anniversary is the Liverpool Road Station now undergoing restoration by the joint efforts of

the Greater Manchester Council and the Liverpool Road Station Society. On two week-ends in March, students of the Engineering Departments of the John Dalton Faculty helped with the vital track work which must be made good to receive the replica rolling stock and historic locomotives which will be on display during the summer.

The renovation of the Freight Office as a bookshop, display area and visitor centre is being assisted by students of the Manchester College of Building, whilst a group on the Dip HE Course are mounting a photographic exhibition about the history of the station and Manchester in 1830.

A group of staff of the Department of General Studies and Educational Services have produced a tape-slide presentation, the basis of which was an HND Maths, Stats and Computing 1st year group project of 1978, with additional material provided by members of the Station Society. This will introduce visitors to the site before they enjoy a conducted tour during the celebrations in August and September.

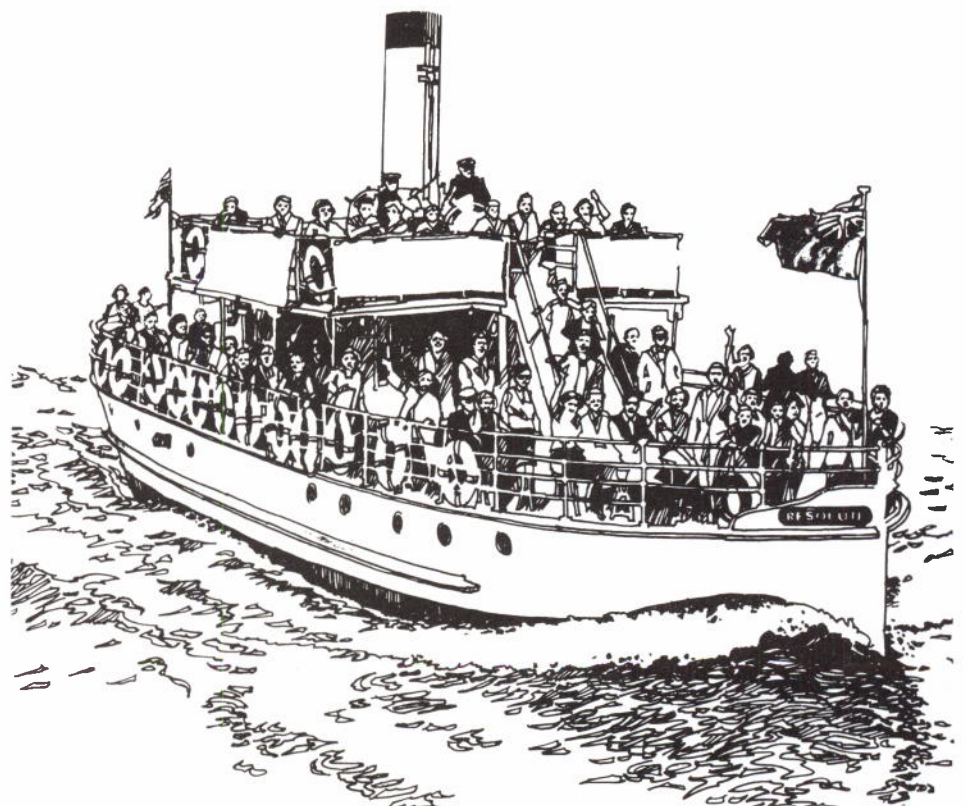
A booklet on the history of the station went on sale in May to which staff have contributed chapters on the story of Liverpool Road as a goods depot and freight innovations on the line.

A D George

Help Keep Resolute. East Anglia has witnessed the decline and disappearance over the past decade of the characteristic river steamers which loaded to the gunwales with summer visitors used to ply the Norfolk Broads and rivers until the growth of private motoring and holidaymaking in Spain helped to make them uneconomic. Where their routes were confined to sheltered inland waters, they were allowed passenger loadings which, in the case of coastal vessels would have been considered excessive. Of those built during the heyday of pleasure steamers around the turn of the century, many survived both World Wars and were still in service well into the 1960's. But falling revenue and the rising cost of coal and

upkeep have steadily driven them all out of business. One of the last to go was the *Queen of the Broads* of 1889, broken in in 1977 (see Bulletin 3:4). Some survive in other roles; the *Yarmouth*, originally employed on the Yarmouth-Gorleston ferry service when built in 1895, was acquired by Taylor Woodrow Ltd in 1973 for 'preservation' as part of their St Katherine's Dock development in London where she is now featured as part of the nautical ironmongery that is an architectural feature of the housing, trade and leisure complex being developed there. Exhibited as she is out of the water and set in concrete clocks on the quayside, the *Yarmouth* displays one of the unusual features of Norfolk river steamers, the double-ended propulsion arrangement with a propeller and rudder at each end, which avoided the necessity to turn around in narrow rivers and helped to save time on busy ferry routes. A similar vessel still afloat, although much altered in other respects and hardly recognisable as a Broads Steamer but for the rudder faired into her stem, is the *Regal Lady*, usually moored close to Norwich railway station. But the last example afloat still with original steam machinery is likely to be broken up soon unless a preservation group can take her over. The 73' steamer *Resolute* was built at Millwall in 1903 and fitted with a 17 nhp compound engine by Plenty of Newbury, its cylinders nobly clad with polished mahogany and brass straps. An unenclosed steam generator by Robey supplied electricity at 100 volts, and there were a telegraph and wheel at each end to make her completely reversible.

When the *Resolute* was retired in 1968 she was purchased by the Veteran Steamship Society Limited, formed specifically to save her and other vessels of her type. Membership of the project has however remained disappointingly low, partly because of the scattered population and the distance which members have to travel to work on the steamer berthed near Norwich. One of their principal achievements was to replace the Scotch boiler acquired with the steamer in 1961 with a similar twin-furnace coal-fired boiler



with a better expectation of life. The efforts of the Society members have been fully occupied in arresting further dilapidation and the officers have expanded a great deal of time in an unproductive and ultimately futile wrangle with the Department of Trade on whether relaxation to the normal safety requirements for passenger-carrying vessels could be permitted, in the hope that the *Resolute* could go back to earning her keep without expensive modifications, particularly the improvement of watertight sub-division. Last year local brewers Geene King and Sons generously promised to match every pound raised by the Society and to offer a bounty for each new member recruited, up to £1,000. Plans were made by the Society to rejuvenate the project with the creation of a 'Resolute Restoration Trust'. But having failed in its target of raising before the end of last year a quarter of the £20,000 needed for repairs to *Resolute's* hull, the Veteran Steamship Society has resolved to offer the vessel to any other preservation group competent to take her on, for £2,500. If there are no takers, the Society will reluctantly scrap her, offering the steam engine and 8' boiler, telegraphs and other fittings for sale to preservation groups. If you have any ideas or suggestions write to R C Plenty, chairman of the VSSL at 32 The Vale, Brentwood, Essex. Tel (evenings) 0277 218344.

Museum Developments. The preservation of historic fire appliances has recently achieved a measure of national co-ordination with the formation of the **Fire Services National Museum Trust**. A site has been allocated near the Fire Service Technical College, Moreton-in-Marsh, Glos, and outline planning permission is being sought for a building which will make it possible to bring together appliances at present preserved on an individual basis all over the country. Cambridgeshire Fire and Rescue Service has presented the Trust with its first acquisition, a Bedford SB/Wilsdon pump with Birmingham style bodywork, dating from 1953. Offers of assistance or news of possible acquisitions would be welcomed by the Trust. Its Honorary Secretary Maurice G Cole of 9 Morland Way, Manton Heights, Bedford, MK41 7NP, tel 0234 55453.

The **National Model Museum Trust** is seeking to establish a national museum of models and modelling in all its forms. This project, formerly known as the Clarendon Museum Trust, is looking for a suitable building in which to accommodate its collections of models, and would particularly like to occupy a small country house, or water-mill or other building of industrial or archaeological interest. The Trust requires about two thousand square metres of display space, with about 10-20 acres outside adjacent to a trunk road or motorway, preferably in the area bounded by Oxford, Bath, Salisbury and Slough. An Association of Friends of the National Model Museum was launched last year and professional fund raisers have been consulted, with a view to raising the £350,000 required to repair and convert a suitable property. Benham House near Newbury was favoured but the Trust was outbid; more recently enquiries have centred on the Officers' Mess at Old Sarum Barracks and on Stanmore Hall, Middlesex. Although a site in the Home Counties is sought initially, those living further north have not been forgotten and accommodation is expected to be provided for a second centre at Beamish Museum in about 6 years' time. Anyone who can suggest a suitable

base for the museum should write to Lt Col J E Kitching RE, National Model Museum Trust, Old Meadows, Pitton, Salisbury SP5 1DH.

A British-built 4-8-4 locomotive still at work in China has been donated to the **National Railway Museum**. During a tour of the Museum on 18th November last year, the Chinese Minister of Railways, Mr Guo Weicheng, presented the Keeper, Dr J A Coiley, with a certificate recording the fact that the Ministry of Railways of the People's Republic of China was making the donation as a gesture of friendship between the Chinese and British people.

The locomotive concerned is one of the class 24 mixed-traffic locomotives built by the Vulcan Foundry (now part of GEC Traction Ltd), the first of which left Birkenhead Docks in November 1935. Ten were supplied for the Canton-Hankow section, and six for the Nanking-Shanghai line. They were the largest non-articulated steam locomotives built in this country, and in working order weighed nearly 193 tons including their 12-wheel tenders. The locomotives were designed by Col. Kenneth Cantlie, who was at the time technical adviser to the Chinese Minister of Railways and is now living in London, having celebrated his 80th birthday earlier this year.

As the locomotive is still in service in China, it is not possible to indicate how soon it is likely to return to this country to go on exhibition at the National Railway Museum. Interest is also being shown in repatriating one of the surviving Beyer-Garrett class 59 articulated locomotives still at work with freight traffic on Kenya Railways. These are the locomotives which made it possible to haul trains of 1,200 tons on the severely-graded metre-gauge routes linking East African ports with the elevated agricultural areas up-country.

Virtually no original textile machinery has survived at **Quarry Bank Mill**, the model cotton mill established in the secluded valley of the River Bollin at Styal, Cheshire in 1784 by the philanthropic industrialist Samuel Greg. The founder's great-great grandson Alec Greg gave the mill and adjacent model village to the National Trust twenty years ago. Initially the Trust attempted to finance preservation by letting sections of the mill to small businesses, but by 1970 old age had finally caught up with the structure and major repairs were necessary. In line with the Trust's new policy of including industrial buildings within its ambit, a major project was launched two years ago to restore Quarry Bank Mill. David Sekers, well-known for his dynamic and imaginative work at the Gladstone Pottery Museum, Stoke-on-Trent, was appointed the first Director, and a separate Development Trust was set up to raise finance for the establishment of a major new textile museum in the eighteenth century mill buildings at Styal. With the Lancashire cotton industry sadly weakened and undermined by overseas competition and the substitution of artificial fibres there has been no shortage of opportunities to collect looms, mules and other machinery in sufficient numbers to re-create in the spacious mill at Quarry Bank some impression of the vast scale of identical rows of machinery, supervised by highly skilled spinners, weavers and tenters, which characterised Lancashire cotton manufacture in its heyday. Power to drive Greg's spinning and weaving machinery came from a 44 ton suspension waterwheel by Fairbairn of which now the shaft only remains, turbines having been installed as an alternative

early in the present century. The surviving turbine will be re-erected adjacent to the wheel-pit and a rare suspension wheel similar in size and type to the original has been acquired in Yorkshire for re-erection at Styal. Local sub-aqua clubs are helping to clear the ¾ mile underground water channel, silted up over the past twenty years, and David Sekers looks forward to presiding over the most powerful waterwheel on the British mainland. The mill's proximity to Macclesfield and the Director's strong family connections with the silk industry will ensure that silk manufacture is also properly represented. Vast quantities of archival material have survived from the Greg era, and local people are being encouraged to record their own reminiscences of work in the mill before it wove out in 1959 (the last products were laundry bags). An initial target of £¼ million has been set for funding the work necessary to complete the museum which will eventually be self-financing. With no single major source of support to fall back on, the project is having to exercise the same spirit of self help which Samuel Smiles would have admired in the astute and progressive Mr Greg when he saw the possibilities for industrialisation which the secluded and wooded Bollin Valley offered in 1784.

Successor to David Sekers at the **Gladstone Pottery Museum** is Dr Francis Celoria, a leading authority in the history of ceramic technology who has worked there for several years leading industrial archaeology fieldwork projects and as an honorary consultant and adviser. Dr Celoria's previous experience includes work working at the London Museum, in publishing and lecturing in archaeology at the University of Keele. He has worked in North Staffordshire since 1965 and comes originally from London.

The fastest-growing industrial museum in Britain at present must surely be that established at Amberley in Sussex. Two years ago the small group toiling to establish a focus for industrial preservation in South East England under the chairmanship of Horsham



Pottery kiln at Gladstone Pottery Museum

architect John Warren, was still negotiating with the West Sussex County Council for a lease on the chalk pits adjacent to the railway line at Amberley. Within a few months of the first voluntary working parties obtaining access to the site, dangerous buildings had been demolished, undergrowth cleared and workshops established.

Open days followed, and now the Southern Industrial History Centre, colloquially shortened to the **Chalk Pits Museum**, has a full-time Director as well as a professional craftsman employed on restoration, and is offering homes to a variety of large industrial structures which cannot be preserved on site. Each of its chalk pits being separately excavated into the hillside and naturally screened from its neighbours, the museum is uniquely well suited for creating a variety of industrial scenarios which will not intrude one upon another. Another singular feature among open-air museums is that the Chalk Pits Museum has an operating passenger railway line on its very boundary, with Amberley station adjacent to the museum car park. The proportion of visitors arriving by train is not yet significant, but joint marketing with British Railways could change the picture. As for the signal box adjacent to Amberley Station, the Museum plans to take this over as an exhibit as soon as it is superseded in the course of the Southern Region's programme of modernisation of railway signalling. Limekilns surviving on the site have been scheduled as Ancient Monuments; an unusual survival is a de Wit patent draught kiln built about 1904 to a Belgian patent with 18 chambers to permit continuous chalk-burning, but this was altered to operate in a more orthodox manner by 1910. The Southern Industrial History Centre Trust launched a major development appeal last November, and bravely offered a home to the historic Ship Shop from Portsmouth Dockyard when it became apparent in January this year that they could not be preserved on site. Despite obtaining promises for the £70,000 required to dismantle and shift the dockyard building, transfer to Amberley was vetoed at Ministerial level; the resultant publicity, if it has achieved nothing else, has helped to put the Chalk Pits Museum on the map as a progressive and imaginative organisation in industrial preservation. Details of the 1980 programme and of opening hours are available from Chalk Pits Museum, Amberley, Arundel, West Sussex Tel 079 881 370.

Firms involved in cider manufacture in Britain have co-operated to establish the **Museum of Cider**, with a very large proportion of the resources being provided by H P Bulmer Ltd whose erstwhile head office building in Hereford was recently handed over to form accommodation for the new museum. The premises include the first building put up by the founding Bulmer brothers, Fred and Percy in 1889 two years after starting to make cider commercially at their father's vicarage. In the basement are extensive cellar areas. Herefordshire cidermaking will naturally take pride of place, but the traditions of other areas including Devon, Somerset, Surrey, Kent, Norfolk, Channel Islands and North-West France will also be featured. Material from most of these areas is already being assembled, and major acquisitions include a bottling machine from a Showerings factory in Eire, and a massive wooden beam press and elaborate copper still for making calvados, both from France. Michael Quinion, an ex-BBC radio producer and presenter well-

known to the museum world through his widely-admired audio-visual programme, was appointed the first Director of the Cider Museum nearly three years ago. Extensive help from job-creation schemes enabled the museum to research and comprehensively index local newspapers since 1860, resulting in a versatile and detailed archive of cider-making. With farm cider-making having virtually disappeared since 1960 as a result of rising labour costs and the shift away from sharp and cloudy 'scrumpy' towards mass-produced brands, the old techniques will soon be extinct and Quinion's team of researchers have

first excavated in 1970 and soon proved to be one of the richest sources of medieval finds in Britain. Realising its potential and importance, the Runcorn Development Corporation made provision for the preservation of the Priory in developing the adjacent New Town, and has given its full backing to the establishment of a site museum. Among features uncovered during excavation were 80 square metres of 14th century tiled pavement together with the remains of the kiln in which they had been fired, and a replica kiln was built in which 700 similar tiles were successfully made, using 150 faggots of



DH 60 Moth c. 1928

gathered a great deal of information and recorded reminiscences. The Hereford Cider Museum Trust has been set up with charitable status to raise funds, mainly by a highly popular local lottery (a resort not yet widely adopted by museums although lotteries launched the British Museum nearly two hundred years ago). Proximity of the new museum to the Bulmer factory will make it possible for visitors to compare old techniques with the present method of cider-making. The museum will open in Spring 1981. Further details from Hereford Cider Museum, Ryelands Street, Hereford. Tel 0432 6411.

An appeal was launched last autumn by the **Shuttleworth Collection** for funds to establish a de Havilland flying centre at Old Warden airfield near Biggleswade, the all-grass aerodrome from which the Shuttleworth Trust operates Britain's largest collection of flying historic aircraft. A new building is required to house the fifteen types of de Havilland light aircraft to be based there, together with Gipsy engines and other associated items. An anonymous donor has already promised £3,000 towards the £35,000 required for this project. Further details of this scheme, which will perpetuate the name of Britain's most important light aircraft marque and its contribution to training the pilots who won the Battle of Britain, will be provided by David Ogilvy, General Manager, The Shuttleworth Collection, Old Warden Aerodrome, Biggleswade, Beds. Tel. 076 727 288.

A medieval monument with a strong line in experimental archaeology is **Norton Priory** at Runcorn. This 13th century monastic site was

brushwood to achieve the 1100°C necessary to fire them, some of the replicas being sold to visitors while others have been laid in an 18th century summer house on the site. Discovery of the remains of a bell mould similarly prompted Barry Johnson the conservator at Norton to reconstruct the mould as accurately as possible. Although all the crafts used in building the Priory would originally have been carried out on the spot, a Widnes foundry was approached to cast a trial bell from the mould. The process will be repeated on the site with the experience thus gained, and it is even planned to make replicas of the stone sarcophagi found on the site, stone being brought in authentically by horse and cart. Through these and similar experiments, much is being found out about medieval techniques of industry. The Priory is open to visitors on Mondays, Tuesdays and Wednesdays from 1-5 pm and Saturdays, Sundays and Bank Holidays from 1-6 pm from April to September, with additional opening on Thursdays and Fridays 1-5 pm in August only. Winter opening from October to March is 1-4 pm on Sundays only.

The gas industry's record of preserving its past is uneven with some Area Boards taking a responsible and constructive attitude towards preservation while others are glad to see old machinery and archives swept away irretrievably. The East Midlands Board's record of preservation deserves to be better known. At their Emgas Service Centre, Aylestone Road in Leicester their **John Doran Museum** welcomes visitors 12.30 - 16.30 on Tuesdays to Fridays to look

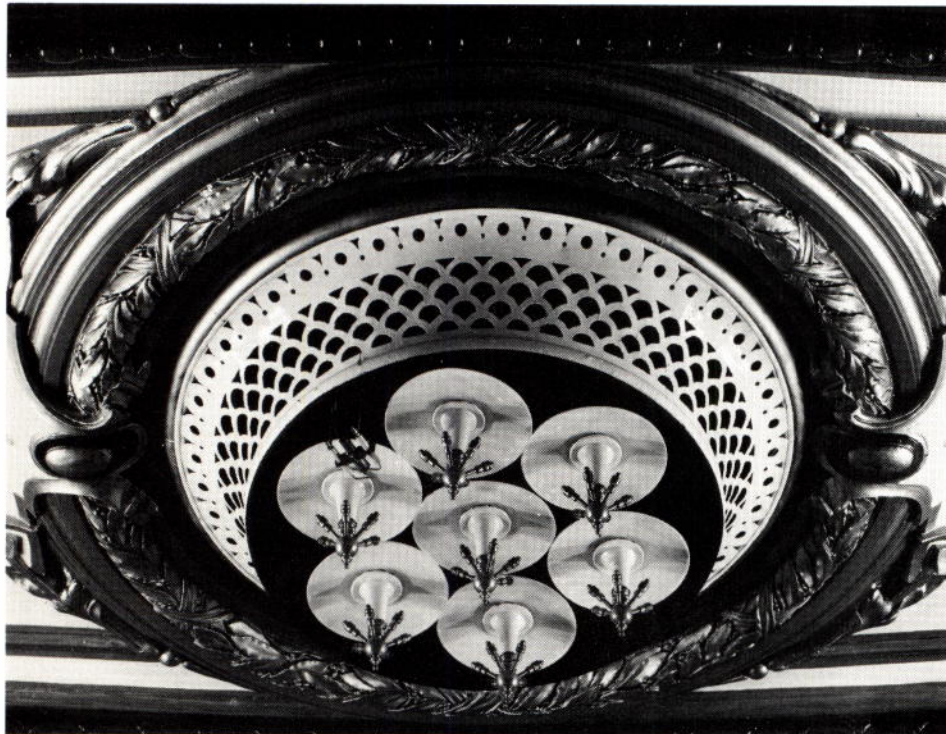
around their collections of gas history, particularly of the East Midlands Region. There is no charge for admission, and offers of additions to the collection would be welcome. Prior notice of intended visits is requested — telephone 0533 549414 ext 2192 for further details. Correspondence should be addressed to N F Trotman B Lib, Librarian, East Midlands Gas, PO Box 145, De Montfort Street, Leicester LE1 9DB.

Another aspect of twentieth century archaeology in danger of being overlooked is the history of broadcasting. The golden jubilee

House, for whom the architect was Frank Matcham, designer also of the Hammersmith Lyric and of the Theatre Royal at Glasgow. Few communities the size of Buxton have succeeded in sustaining their opera houses up to present time; Wakefield's for instance has had to resort to bingo. But the new Buxton Festival has provided a new role for Martcham's **art nouveau** building, used until recently as a cinema. Restoration consultants were Arup Associates who have restored the building as far as possible to its original 1903 layout; a tight budget dictated that lavish new lighting,

firm of carpet weavers who were traced from a faded sample of blue carpet found beneath the floor covering of one of the boxes, Messrs Firths of Brighouse, undertook to weave carpets on the same looms that had woven the originals in 1907. The colours in this pattern have provided the colour scheme for the rest of the interior decorations in the building.

If any improvement on the original specification has been achieved, it is in the acoustics. Tests carried out by the University of Salford's Department of Applied Acoustics showed that the auditorium's powerful direct response is particularly suitable for opera. Carpeting has been confined to the aisles to maintain a rapid reverberation, and even the weave of the new carpet was conditioned by its acoustic qualities: it has an absorbercy co-efficient of only 0.2. Outside traffic noise is being eliminated by unobtrusive sound insulation in the windows and ventilator grilles. To achieve authenticity of style in this Grade II listed building, the designers have specified an adapted Edwardian block lettering for the 150 odd signs and notices which have to be sign-written for the opera house. A tight budget has meant that conservation of existing features has been a strict necessity rather than a designer's fad in bringing back to life this opera house in England's highest borough, more than one thousand feet above the sea. Within easy reach of both South Yorkshire and Manchester, both with strong musical traditions, Buxton intends to host regular operatic productions and to become established as 'the Glyndebourne of the North'. Having shown its concern for the historic features of its baroque opera house, the town now deserves patronage from those who approve of the sensitive and scrupulous restoration which has saved the building from the fate of so many of its contemporaries whose acoustics are tested by nothing more exacting than the bleat of the bingo-caller.



The Buxton gas sunburner Picture Arup Associates/Martin Charles

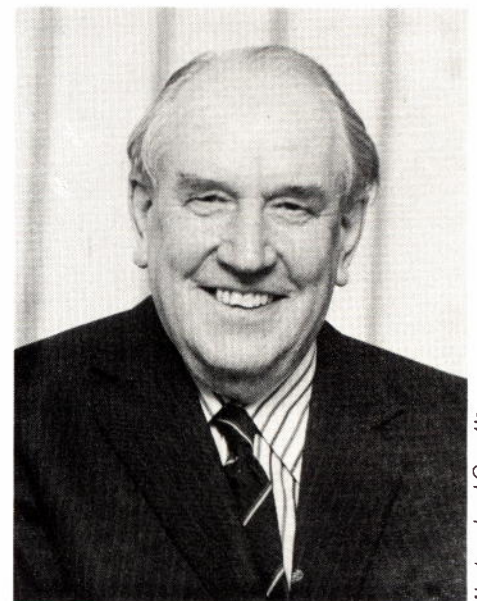
of television broadcasting is being celebrated this year, but much of what ought to be preserved in this rapidly-changing field is being lost for want of somewhere to show it. An important collection built up under the aegis of BBC Bristol by Peter West over many years can still not be comprehensively displayed, and the Ham collection of radio receivers is of necessity crammed into an inadequately large hut at the Chalk Pits Museum. Broadcasting has had a social effect in the twentieth century comparable with that of railway travel in the 19th, and will merit the same degree of attention from future historians. The world's first high-definition TV broadcasting began in 1936 from the BBC's Alexandra Palace studios, now the home of Open University broadcasting. When the BBC moves this operation to Milton Keynes in a few years' time, they will leave behind the original 1936 studios where Baird's mechanical television competed with the electronic system of EMI which eventually won the day. A recent edition of GLIAS Newsletter launched a campaign to establish a **Museum of Broadcasting** at Alexandra Palace, a scheme which has the backing of the Royal Television Society. Further details from GLIAS member Alan Burkitt on 01-733 0300.

Opera by Gaslight. Buxton Spa never quite fulfilled the expectation of the 5th Duke of Devonshire that it should overtake Bath as England's most fashionable spa. The Duke's efforts to promote Buxton began about 1779, and by the turn of the present century its clientele justified the building of an Opera

ventilation and heating systems could not be afforded in any case. Although electricity provided the main lighting when the building was first opened, a parallel gas system was also fitted, for some producers preferred the softer and more atmospheric effect of gas footlights. Ellen Terry wrote that the 'thick softness of gaslight, with the lovely specks and motes in it, so like natural light, gave illusion to many a scene which is now revealed in all its naked trashiness by electricity'. The magnificent gas sunburner high over the main auditorium at Buxton was superseded by electric lighting in 1938, but was left intact. Arup Associates have arranged for this splendid feature, unique in Britain and probably in Europe, to be recommissioned providing silent ventilation for the auditorium (a facility which had to be made up with noisy forced-draft ventilation when theatre gaslights gave way to electric lamps whose powers to promote convection were negligible) as well as casting the soft light which Victorian stage directors were so sorry to lose. The problems of converting the old burners to natural gas were tackled and solved at the North West Gas Industrial Development Centre at Stretford and it is a measure of the goodwill inspired by this project that a customer of North West Gas, the firm of Enamellers (AUL) Ltd of Ashton under Lyne undertook to re-enamel all the vitreous enamel parts of the sunburner by hand at extremely short notice.

The work carried out by NW Gas was done at no cost to the theatre renovation contract. Similarly determined to give of their very best in re-equipping this delightful opera house, the

Obituary



Westmorland Gazette

Paul Wilson died on 24 February, and was a distinguished engineer who, amid an active professional life and heavy demands on his time for public service in various fields, found time to involve himself with industrial archaeology and to publish, particularly on the history of water-power. The son of N F Wilson, a civil engineer, Paul Norman Wilson read mechanical sciences at

Cambridge and worked in South Africa for Stewarts and Lloyds from 1930 to 1934 before coming home to join the staff of Gilbert Gilkes and Gordon, successors to the Kendal agricultural engineers Williamson Bros who helped to light up the Lake District when they began to manufacture water turbines in 1856. At the age of only 25 Paul had stood in for the Chief Engineer of Stewarts and Lloyds in South Africa during a 3 month leave period, and within a very short time of his return to Kendal he succeeded his father as joint managing director. His career with Gilbert Gilkes and Gordon was interrupted by war service in the Royal Navy, and he was awarded the DSC in 1945 in recognition of his outstanding record as an engineer officer in capital ships, with the survival of the ship sometimes depending on his ability to improvise repairs in appalling circumstances. On demobilisation he went back to his firm in Kendal, continuing as managing director from 1934 to 1967 and as chairman from 1954 to 1978. Under his direction the company, operating from its works at the former terminal basin of the Lancaster and Kendal Canal, remained in the forefront of hydraulic engineering and its important export achievements earned the Queen's Award for Industry in 1969. Paul Wilson was himself the patentee of an ingenious and delightfully simple device for safe load-shedding on high head reaction turbines.

For many years he chaired the Wind and Watermill Section of the Society for the Protection of Ancient Buildings, whose meetings in London he presided over with wisdom and good humour. He was a Governor of the BBC from 1968-72 and was closely involved with the first BBC TV 'Chronicle' ia. competition which first brought industrial archaeology before a mass audience. He served for many years on the Council of the Newcomen Society, being President from 1973-75 and again in 1977. His services to local history were marked by his election as President of the Cumberland and Westmorland Antiquarian and Archaeological Society from 1975-78. He was Lord Lieutenant of Westmorland from 1965-74, and a Lord Lieutenant of the new county of Cumbria following re-organisation. His allegiance to his home town was a strong feature of his life and when created a Life Peer in 1976 he took the style Lord Wilson of High Wray, a little village above Lake Windermere from which his family had sprung.

He served on the Science Museum's Advisory Council, and from its inception in 1973 until 1978 he chaired the Committee which oversees the Museum's Technology Preservation Fund, for assisting with preservation projects throughout England and Wales. He wrote the Museum's standard publication on water turbines and contributed a chapter on the subject to the Oxford History of Technology. On taking his seat in the House of Lords he made the interests of water power users his particular concern, and his maiden speech pungently attacked some of the worst features of the Water Resources Act of 1969. He prized plain speaking and deplored pomposity, whether in Government offices or in the local institutions of his home town. Earlier this year an appeal from him for clear English in export sales literature was published in which he pointed out: 'Jesus Christ did not say "It is necessary that the sphere of amicable relationship should be indefinitely extended". He said "Love one another".'

Until his final illness overtook him, Lord Wilson was working on a treatise covering the

history of Roman watermills from 100 BC to 500 AD, based mainly on a fresh examination of physical remains. He hoped to offer this eventually to the Society of Antiquaries, of which he was a Fellow. He joined the AIA not long after its foundation. He favoured the teaching of the history of technology to young engineers, not only in order to build an appreciation of the foundations on which modern mechanical and civil engineering are founded, but more practically because many of the problems being tackled by engineers today will already have been solved by their predecessors in earlier centuries. Although in his bluff manner he would have rejected the idea, Paul Wilson was one of a dwindling band whose field work recording and research, often carried out alone and with little prospect of publication laid the foundations for modern studies in industrial archaeology long before the term was coined. To his widow Valerie we extend our sincere sympathy.

Sir Edward Muir. Coinciding as it did with the murder of Lord Louis Mountbatten on 26 August last year, the death of Sir Edward Muir was not widely noted at the time. Our thanks are due to him, however for his important role in bringing to the statute book much of the legislation which now protects historic buildings and monuments. Born in 1905, he joined the then Office of Works straight from Oxford University in 1927. He was involved in drafting the Ancient Monuments Act of 1931. He was promoted Under Secretary in the Ministry of Works in 1946 and as Permanent Secretary oversaw its transition to the Ministry of Public Buildings and Works in 1962. The recognition by that Ministry that industrial monuments should enjoy the same measure of Government protection as more orthodox ancient monuments was largely due to Sir Edward's persuasion, and through his intervention the Director of the Science Museum, at that time Sir David Follett, was invited to take a seat on the Ancient Monuments Board. After his retirement as Permanent Secretary of the MPBW in 1965 Sir Edward served as Chairman of the Ancient Monuments Board until 1978, thus completing more than 51 years service to the Government department with responsibility for ancient monuments legislation. But for his intervention, the newly introduced listing procedure might have become the responsibility of the Ministry of Housing rather than the MoW in 1944, with consequences that we can only imagine. He was a member of the Standing Commission on Museums and Galleries, and sat on the Working Party which in 1971 produced the report and recommendations on the Preservation of Technological Material which secured Government support for preserving significant industrial and scientific relics. He was elected FSA in 1959 in recognition of his role in strengthening the Ancient Monuments acts. Until shortly before his death he served as Vice Chairman of the Committee advising the Science Museum on the administration of its Grant in Aid Fund. In the course of a long life in the public service, he had the satisfaction of seeing the Government accept responsibility for protecting industrial monuments for which, in his earlier career he had been obliged to campaign as a lone voice.

Demise of 'Industrial Archaeology Magazine' 'Industrial Archaeology Magazine' issue number 1 appeared in the Summer of 1979 at a price of 65 pence . . . and is no more. Comprising 36 pages with colour photography and articles on

the Festiniog Railway in Wales, the Norwegian Railway Museum at Hamar, patent extracts from **The Engineer** of 1907 and general information about industrial exhibitions, museums and societies it apparently failed through inability to obtain distribution facilities.

The track record of journals and magazines relating to industrial archaeology is not good, with a patchy record for 'Industrial Archaeology' 'Industrial Archaeology Review' published by the AIA is well established as is 'Industrial Past' and both these cater for different markets and do not compete. It might be thought that a mass circulation low-priced magazine such as 'Industrial Archaeology Magazine' should also have had a place, and it is sad that the enterprise shown has not been better rewarded.

John Keavey, who produces 'Industrial Past' from his home as a quarterly publication has been finding that more and more of his energies have been occupied with the mechanics of printing, assembling and distributing this lively periodical, and circulation could only continue to grow at the expense of editorial effort. It is encouraging to know that a national publishing house, already well known in the field of enthusiast publishing, is interested in co-operating with John Keavey is handling distribution, advertising and marketing as well as some aspects of the layout of 'Industrial Past', leaving the editor free to develop the magazine's coverage and content. The existing principle of ploughing back a proportion of profits into ia. and preservation projects would continue.

School Visits. The Inner London Education Authority proposes to publish a booklet for teachers on the organisation of school journeys, holiday projects, educational visits and activity schemes. Pupils from London schools are likely to benefit particularly from contact with other people's lifestyles outside their own normal area of experience. With swift motorway travel and official support for holiday journeys of a week or more, most industrial archaeological sites in Britain can consider themselves potentially accessible to school parties from London. The proposed publication is also likely to be useful to teachers in other areas. Museums and societies wishing to be featured should write to the compiler, Trevor Rawlins, at ILEA Teacher's Art Centre, Oswin Street, London SE11 tel 01-735 8206. For those with strong views on how school parties should be organised, now is your chance to air them!

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AIA Bulletin is published by the Association for Industrial Archaeology. The Association was established in September 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, publication and conservation. It aims to assist and support regional and specialist survey and research groups and bodies involved in the preservation of industrial monuments, to represent the interest of Industrial Archaeology at a national level, to hold conferences and seminars and to publish the results of research. Further details of the Association and its activities may be obtained from the Membership Secretary Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Salop TF8 7AW England (095-245 3522).