

## Bridging the gap

It has always been a matter of regret to administrators in industrial archaeology that the 'them and us' attitude has existed between considerable numbers of enthusiastic amateurs and the professionals staffing the 'official' bodies, without whose continued support all our efforts would tend to wither. Local IA societies and such organisations as the Royal Commissions have often seemed to be poles apart (although they never have been) and one of the bonuses of the Aberystwyth Conference was the chance for AIA Council members to meet the RCAM (Wales) people at base level (over a cup of coffee) prior to an informal discussion on the work of the Commission and its relevance to practical IA.

During the run-up to the actual conference and in the period afterwards, many AIA members were able to visit the National Monuments Record to see for themselves how the 'official' and the 'tape and pencil' archaeologists integrate easily to form the whole. For the benefit of those who were not in Mid-Wales during September 1984, we have persuaded Stephen Hughes and Hilary Malaws to write a brief account of RCAM (Wales) and its work.

Hilary's article is illustrated by several pictures of King's Mill, Castlemartin, together with an extract from the final report, all of which shows very clearly that basic fieldwork in measuring and photographing fit easily into the jig-saw picture of recording/preservation and make our efforts in industrial archaeology complete.

**Wine, Sea and Records.** The AIA Council were invited to a reception at the offices of the **Royal Commission on Ancient and Historical Monuments in Wales** at the beginning of the last AIA Conference in Aberystwyth. After coffee there was the opportunity to view displays of the Commission's work in the attractive Regency style rooms overlooking the sea that now house the office's drawing department.

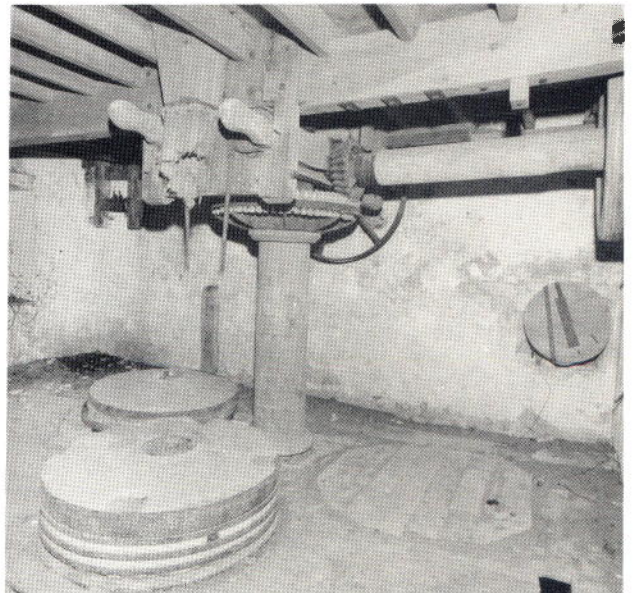
Drawings made as a result of fieldwork in canal and railway archaeology featured in one display, early French industrial espionage was illustrated in another, and the third concerned the National Monuments Record for Wales' work on threatened industrial sites throughout the Principality. This included two thematic surveys: 'The Fulling Mills of Merioneth' and 'The Watermills of Cardiganshire', both carried out in response respectively to direct requests from a local planning department and a regional archaeological society. Also illustrated was an archaeological and historical survey of the

important Frongoch lead mine, undertaken jointly with the Welsh Mines Group; the completed survey is to be published as a monograph. The NMR display included examples of survey drawings and photographs of industrial structures, donated or loaned to the archives by groups and individuals, and it was emphasized that contributions to the NMR are always welcome in order to enhance the information available to the many users, both official and private, of the archive.

Afterwards the Council were welcomed to the Commission's headquarters by Christopher Houlder, the deputy Secretary, who gave a brief resume of RCAM (Wales)' history and work. He explained that staff had been allocated to specialist work in industrial archaeology for well over a decade although he felt more ought to be done by way of rescue recording. Unfortunately, lack of available resources made this impossible at present.

Tony Parkinson, the Commission investigator with responsibility for threatened buildings, then gave a short talk describing some of the wide spectrum of industrial sites recorded over the past few years. He commented that the situation with regard to industrial archaeology surveys in general was far from ideal. Often for example a single threatened beam-engine house on a colliery site would be surveyed when the whole complex merited recording in order to place the individual structures in context.

*Part of a completed NMR Survey: King's Mill, Pembrokeshire. Exterior view of mill, house and cartshed. Interior view layshaft bearings and crown wheel.*



KING'S MILL		NAME	SR	99	NW	Parish	Castlemartin
CLASS		NGR			Quarter	OS MAP	OS Ref. ACAM
12d					Sheet	1:10000	
CO	Inv. No.	No.	92	42	98	68	42
PE							

**Final**

A disused water-driven cornmill with attached farmhouse and outbuildings; farm-buildings adjacent. Documentary evidence from at least 1591; it was leased by the Beede family from then until at least 1633, and is subsequently listed as part of the demesne land of the manor of Castlemartin. In 1786 it was rated for Land Tax at £1.13s.6d. (tenant Henry Hitchings); in 1834 James Ellison held the mill with 34 acres together with 21 acres in Corse Lands and 10½ acres at Cold Comfort. The mill was in operation until about 1910. The mill is in a slight hollow, and was fed by a long narrow pond and leat (totalling over half a mile in length) from a weir on the stream draining into Castlemartin Corse.

The buildings appear to be 19th century; all have walls of local limestone rubble in lime-mortar, partly lime-washed. All the openings have cambered brick heads; with the exception of the chimney between the mill and the house, all the chimneys are of brick. The mill has a decorative cornice of projecting bricks, and its roof is higher than that of the house. The attached cartshed and store is later (c.1860), and has the Cadwor Estate hallmarks of hard red-brick arches and chisel-dressed limestone quoins of considerable size. The actual site is on a slope, so that there is one more floor-level to the north than to the south.

The mill is on four floors; drive-gears on the ground floor, milling floor at first floor, hoppers on second floor and sack-hoist in the attic. All the beams and joists are of very good sawn softwood with a bead-moulding on the exposed arrises; some of the beams have chamfered and stopped props (of oak?). The windows are small-paned sashes. The stair (now partly removed) had turned newels, a moulded hand-rail and thin square balusters. The sack-hoist trap-doors have iron hinges and chamfered battens.

The ground floor is entered from a passage next to the house; a former door by the hurst has been converted to a window. The floor is partly flagged, partly of boards over earth. In the W. wall is a chute from a former corn-drying kiln. At the E. end is the hurst; at its N. end are the five delivery spouts from the wire machine. Under the hurst is the primary drive: a massive octagonal-section wooden axle from the water-wheel carries a cast-iron pit wheel. This engages with a very small cast-iron wellower below a large cast-iron spur-wheel on the wooden vertical shaft; the spindle of the shaft is supported on an unusual arched bearing, under which is the journal bearing of the pitwheel axle. The spur wheel drives two (originally three) wood-toothed stone nuts. Each is fitted over a pyramidal section of the cast-iron spindles, and may be raised out of gear by a screw-jack and collar operated from below the wooden bridge-trees. The

An extract from the final report.

The next talk was given by Hilary Malaws, the curator of the NMR archives. She explained that the NMR had entries for over 70,000 archaeological sites, of which about 7,000 were industrial ones. Gifts or loans to the archive of notes, drawings and photographs pertaining to industrial sites were gratefully received and in the past these had varied from single items to local collections of mine, mill and bridge illustrations; theses and albums of railway photographs.

Finally, a tour of the NMR archives was made, with Council members trying to find which of their favourite industrial sites were missing from 'the Record', with varying degrees of success. Wall displays illustrated several Caernarvonshire slate quarries recently recorded for the NMR in advance of land reclamation schemes.

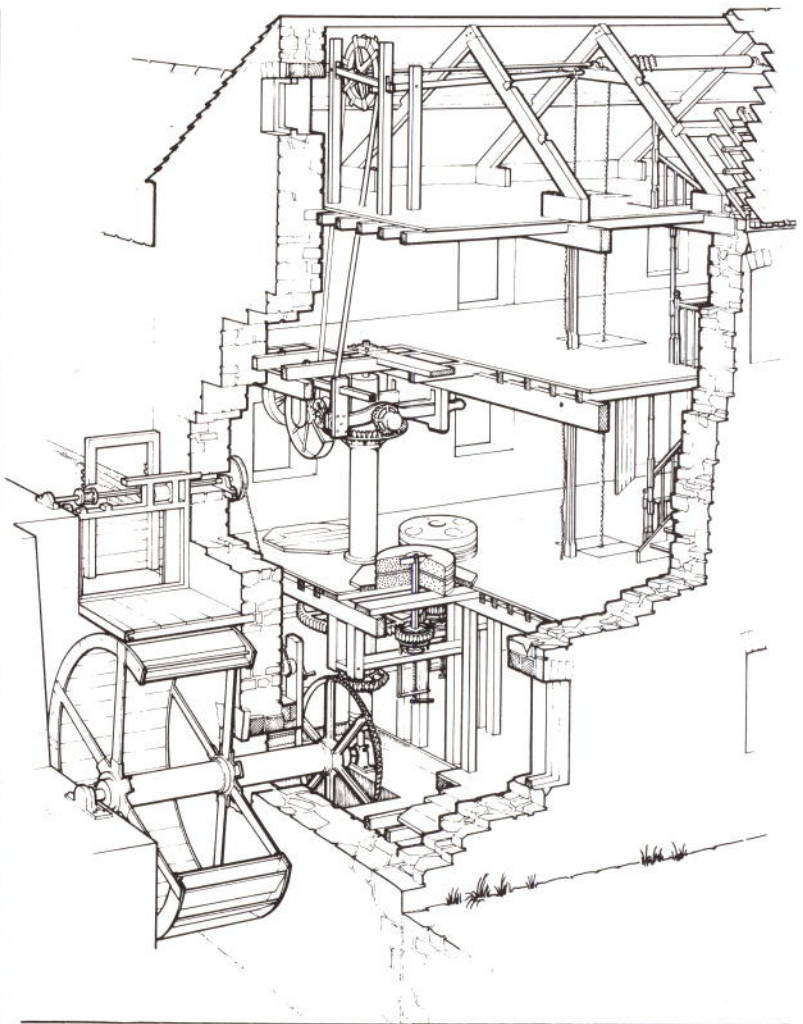
Finally the party enjoyed a buffet lunch provided by the Commission prior to attending a Council meeting. Quite a number of AIA members visited the NMR archives during the conference and some very favourable reactions were received.

Stephen Hughes

**The Royal Commission on Ancient and Historical Monuments in Wales** was founded in 1908 for the purpose of making an inventory of the ancient and historical monuments connected with the culture and civilization of the people of Wales from earliest times and to recommend those monuments most worthy of preservation. (Commissions with similar royal warrants were also established during 1908 in England and Scotland). Thus the central function of the

Welsh Commission has always been to record archaeological and historical sites in an academic manner and to publish this information in a series of county inventories; the preservation and grant-aiding of monuments and buildings, including 'listing' and 'scheduling', are the responsibility of 'Cadw: Welsh Historic Monuments', a joint unit of the Welsh Office and the Welsh Tourist Board.

From 1965 RCAM (Wales) has been responsible for the Welsh Section of the National Buildings Record, originally established in 1940 to make photographic and other records of historic buildings under threat from war damage and later redevelopment. Shortly afterwards the three Commissions extended the NBR to include structures of all periods under the revised title 'National Monuments Record'. The main purpose of the NMR for Wales is to produce and collect information relating to man-made structures of all periods and to make this available for consultation. The NMR now consists of drawings, photographs (including aerial), written records and maps relating to over 70,000 sites in the Principality. A classified card-index gives access to the archives of information available in the NMR and it is intended that this will eventually become an effective source index, including information about records held by other organisations and individuals and about published documentation. The objective NMR classification has provided for over twenty years an extremely effective manual means of cross-referencing and retrieval of information but the nature and extent of the material and the increasing number and com-



Cut-away reconstruction drawing.

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plexity of sites to which it refers (particularly industrial sites) has led to a decision to computerise the index.

Since 1983 the three Commissions have also been responsible for the work of the former Ordnance Survey Archaeology Division; consisting of the maintenance and expansion of the OS 'cards' (a highly regarded source of survey information and bibliographic references) and the depiction of archaeological sites on maps. A team of surveyors has been established at RCAM (Wales) to carry on this work under the new title 'National Archaeological Survey'. The correlation of the OS information with the NMR is a major undertaking and can be best achieved by use of modern technology. With this in mind computerisation of the English and Scottish NMRs has already begun and it is intended that the Welsh Commission will follow suit in the near future. The role of the Welsh NMR as collector, coordinator and disseminator of archaeological information will then be improved and the liaison and information exchange undertaken with the Welsh Office, local planning departments and official and private organisations concerned with archaeology in Wales will be far more effective.

As the national repository for information about archaeological sites of all periods in Wales the NMR has many surveys carried out by the Staff of the RCAM (Wales), however, with available resources it is impossible to record everything. Particularly in the field of industrial archaeology the NMR relies heavily upon donations or loans of material, since in

many cases these may provide the only record of sites now destroyed. Where the site still fortunately exists such material may give vital clues to earlier phases of activity. Any additions to the NMR archives are welcomed, whether in the form of gifts of copies or loans for copying. Information about the holdings of other groups or individuals, whether or not available for copying, would be greatly appreciated. Material in the NMR is looked after carefully but is readily accessible for the use of serious researchers and the copyright of the owners of loaned or donated items is fully protected.

For further information about the work of the Welsh NMR, its detailed classification system or about specific industrial sites please contact:-

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National Monuments Record for Wales,  
RCAM (Wales),  
Edleston House,  
Queen's Road,  
Aberystwyth,  
Dyfed SY23 2HP.  
(Telephone 0970 4381).

*Hilary Malaws. February 1985*

**All is not gold that glitters.** The DoE's national survey of **listed buildings** has reached **Liverpool** and the draft list has been issued for (very) limited consultation. It contains the following new entry: '**Albert Pierhead; gate keeper's lodge: brick with stone dressings, slate roof. Square lodge with pyramidal roof set diagonally in stone-coped wall, circa 1846.**'

Unfortunately there is an error in the text. The date is wrong, or at least stretches the scope of 'circa' to its limits. It should read 1984 (circa April)!

The adjacent Albert Pierhead buildings (circa 1846) have been painstakingly restored by Merseyside County Council, and so when the Merseyside Development Corporation needed to erect a new control room for the operation of the new hydraulic gate to Albert dock, the architects were faced with the problem of designing a little building which would fit in well with the historic environment. Hopefully, they thought, the layman might believe that it was part of Jesse Hartley's original design. It seems that they succeeded.

*Kenneth Catford*

**The Grahame-White Aviation Co, Hendon.** On Saturday July 28th 1984, by permission of RAF Hendon, The Hendon Archaeological Society and Croydon Airport Society held a joint visit to the former factory and aerodrome founded by aviation pioneer Claude Grahame-White and taken over by the Air Ministry in 1925. Much of the aerodrome is now occupied by The Grahame Park Estate and the RAF Museum but the roundabout near the main RAF gate marks the site of Louis Paulhan's shed used by him for the first London to Manchester Air Race in 1910.

The first building visited was the Hotel built in 1917 for VIP's in black and white half-timbered style. This is a three storey building and now serves as the officers' mess. Inside is much light oak wood panelling and in the ladies' lounge timber posts, beams and stone fireplace. The entrance hall exhibits a number of Grahame-White plaques and illustrations of the Fairey Hendon night bomber etc.



*The rib-assembly shop in the Hendon factory 1918. This picture was originally published in 'Claude Grahame-White' by Graham Wallace, published by Putnam's in 1960.*

Also surviving are the gates, gatekeeper's house and 1915 company office with portico and roundels plus GW insignia. Of the Factory — perhaps one of the earliest purpose-built aeroplane works extant — about eight single storey workshops remain which have slate and glass roofs partly fabric covered. These were wood-work, dope and fabric shop. In front of the works blocks overlooking what remains of the aerodrome and hangars is the original control tower and flight office. These are faced in pebble dash but not as yet listed buildings. Below the tower there is an upper balcony or roof grandstand. Inside is Grahame-White's observation lounge with the monogram CGW in iron letters above the fireplace. French windows open out to a covered balcony with balustrade used by distinguished visitors at the air pageants.

Another important survival though somewhat derelict, is the tall four-bay corrugated iron assembly hangar with admin offices on the end opposite the doors and an internal balcony giving access to further rooms/offices on which is painted **The Grahame-White Company Limited** in large white letters. At the opposite end is an extension supported by a four-section Belfast roof truss part resting and part bracketed to the side walls. Of the former flying school sheds or their later replacements on the same line as the hangar six bays split in two halves painted green exist.

From 1930 the RAF added new stores, a barrack block etc, in Georgian brick style. Grahame-White's Buildings were used as part of an operational air base up to the 1950s but it is believed they are all now to be surrendered and would become available as possible extensions to the RAF Museum.

*A D George*

**SS Great Britain — Restoration Progress.** Although steady progress has been maintained,

the most recent spectacular improvement in the ship's appearance resulted from the hoisting of the two yards on the mainmast. Made in timber at Spencer Thetis wharf in Cowes, the course yard is 80 feet in length and rigged with stun'sl booms exactly as in the Fox Talbot photograph of 1844. The mainmast is outside the radius of the crane so that the hoisting operation had to be carried out using hand winches.

Other changes to the ship's exterior include the addition of the oarheads and of the first new portlights at the after end on the port side. Work is proceeding upon the completion of the decorative features on the stern and quarters including preparation of the base boards and moulds.

Various components of the replica engine have been completed, notably the main engine frames which will support the crankshaft. To date, the plate decking of the upper 'tween level abreast the engine room has been substantially completed, together with a new viewing platform, forward of the boiler-room bulkhead, from which visitors are able to inspect the bare structure of the forward end of the ship.

Plans are well advanced for the restoration of the interior of the after section of the ship which will include the promenade deck, dining saloon and representative cabins. The beams at the dining saloon level have been restored and the three lines of pillars re-established in their 1843 positions.

Two more masts will be erected and possibly the first lifeboat hanging at davits, but the main task will continue to be unspectacular structural work in preparation for the re-building of the engine and for the fitting out of the accommodation spaces.

*James Richard*

**A Dossier on Vacant Buildings.** In a commendable effort to disseminate information on

important buildings which are disused and in danger of falling into dereliction, the North West Civic Trust has published the first digest in its 'Regional information service on vacant buildings'. Practical information is given, aimed at those who may be interested in taking over a building of character and converting it to a new use. The dossier includes clear floor plans, descriptions, indications of refurbishment costs, and contacts of owners and agents. Nearly half of the first selection of forty buildings are of IA interest, spread from Whitehaven to Worksop (well, even Worksop is north-west of somewhere!).

In fact the Worksop example is Bracebridge pumping station with its engine house and impressive chimney, adjacent to the Chesterfield canal. A suggested conversion to a pub/restaurant is shown, in order hopefully to give inspiration to some-one. Several warehouses are included, such as the Cheshire Lines Committee's massive structure which is a prominent feature of Warrington. Also described is the Regent iron foundry in Macclesfield, and predictably several textile mills are detailed. These include Mount Pleasant mill in its factory village of Nangreaves (now a conservation area) near Bury, and Jubilee cotton mill at Padiham with its two huge weaving sheds (and still in situ its 1888 Yates compound engine which is scheduled as an ancient monument).

Skerton bridge over the River Lune at Lancaster was built in 1783-88 to the design of Thomas Harrison who also presumably designed a symmetrical group of three cottages facing the bridge, and which are in need of restoration. (Skerton bridge, incidentally, is said to be the first bridge of its type to carry a completely level road without a hump — it has five graceful stone arches). Canalside structures for which new uses are sought include groups of buildings at Eanam Wharf, Blackburn, on the Leeds and Liverpool canal, and Portland Basin at Ashton-under-Lyne. In the latter case, restoration is already under way to create a heritage centre (yes, another one), but commercial interest is being sought for a marina, workshops and ancillary activities.

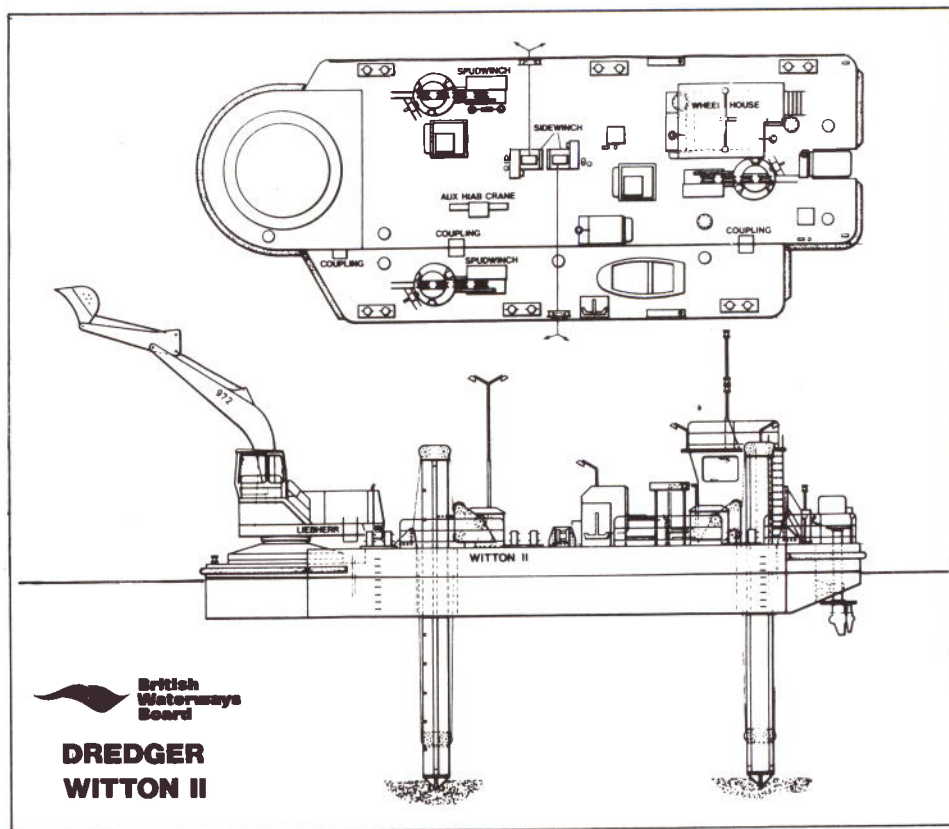
The North West Civic Trust is to be congratulated for this initiative, as is the DoE which largely financed the project. An annual subscription to the quarterly digest costs £40 and information can be obtained from the Trust at Bolton Road, Swinton, Manchester M27 2UX.

*K E Catford*

#### **Innovative Dredger for the Weaver Navigation.**

A new half million pound dredger has started work on the Weaver Navigation in Cheshire, one of BWB's Commercial Waterways, after being received from the builders, De Donge Shipyard. The new dredger, named *'Witton II'*, replaces the life-expired bucket dredger *'Witton'* which was commissioned as a steam dredger in 1896 and was converted to diesel operation in 1957.

The new machine, known after its method of operation as a 'back-hoe' dredger, was chosen after an extensive study into the dredging needs of the Navigation and together with other dredgers on the Weaver should provide the flexibility needed for years to come. It is particularly suited to removing all kinds of debris including tree stumps which can become embedded in the silt of the bed of the channel following floods. Dredging is performed by a Liebherr 972 excavator mounted on the pontoon hull.



*'Witton II'* is fitted with a three cubic metre bucket, and can be expected to dredge a minimum average of 75,000 cubic metres of spoil per annum. This is some fifty per cent more than the maximum capacity of the bucket dredger which it replaces. While dredging, the unit rests on three 'spudlegs' which are lowered to the bottom of the channel and provide a firm base for the unit.

The dredger incorporates many features which are designed to assist the efficiency of operation. There is an electronic 'observer' which allows the operator to set a profile for dredging and thereby avoid any unnecessary removal of spoil. Unlike her predecessor, which required tugs for navigation as well as lines and ground anchors for movement while dredging, *'Witton II'* is self-propelled and can move out of the way of traffic on the waterway relatively easily. There is a wheel-house for normal navigation but when dredging is in progress, the operator has all the necessary controls for navigation in the excavator cab from which he controls the dredging.

Power for dredging, propulsion, steering, 'spudleg' operation and mechanical ancillaries is hydraulic throughout. This is provided through take-off manifolds fitted to the six-cylinder 335 BHP turbo-charged Cummins diesel engine, which is fitted in the body of the Liebherr 972 excavator.

**Conservation of Archives.** The Association has been in correspondence with British Rail concerning the preservation of its records both at Paddington and elsewhere. The subject is to be actively pursued in view of the forthcoming 150th anniversary celebrations of the Great Western Railway.

The Association has also been in contact — as a result of fears expressed to Council members — with the British Waterways Board. Apparently, the curator of the Waterways Museum at Stoke Bruerne, Northants (Mr A J Conder) has over recent years inspected many

of the British Waterways Board archives which are unfortunately in various locations around the country. At Gloucester, for instance, certain plans and documents have been rescued from unsatisfactory conditions and are being catalogued and restored at the museum at Stoke Bruerne. Others have been transferred on loan to the Gloucester Record Office. Eventually the Museum hopes to have achieved an overall survey of the Waterways Board archives with a central catalogue on computer at Gloucester. Ideally, this should include documents already outside the Board's holdings. The policy is that collection of material would be on a rescue basis only — and involvement of local county record offices is being encouraged. At the moment the Museum is concentrating on securing the preservation or rescue of Waterways Board's records at the smaller sites where they are perhaps most at risk. The Curator would be happy to try to locate known documents for members if there is any real problem in tracking them down.

#### **The Mining and Working of Green Slate at Honister.**

The well-known green slates of the Lake District have been quarried at the head of Honister Pass since at least the mid-seventeenth century. These quarries, which two years ago faced closure, have been rescued and revitalised since being purchased by mining enthusiast Bernard Moore who has taken over as Managing Director. Since January 1982, he has expanded the workforce (from 13 to 28), invested in fresh plant, and built up a full order book from the home market. Particularly encouraging has been the success of keeping on as apprentices a number of youngsters who first went to Honister under the Youth Training Scheme. They are learning the traditional methods of preparing the rock and dressing the slate by hand. Recently a party on a study holiday in north Cumbria (including members of the Manchester Region Industrial Archaeology Society) saw this craftsmanship at work, and the other processes involved in preparing and finishing the slate and ornamental stone. We were fortunate to be shown round by

Mr Moore and his Works Manager, Mr Brownrigg, an employee with 57 years service. Such guided visits can be arranged for about 60p per head, and are excellent value.

The slates occur as a band 300 ft thick in the Middle Tuffs of the Borrowdale Volcanic Group. Since they are fine grained and have a high chlorite content (chlorite is a soft, green, flaky material) they tend to be strongly cleaved with that regular persistence necessary for economic slate working. They were originally fine volcanic ash deposits, deposited in water; hence they show small scale bedding features such as ripples, cross bedding, and graded bedding, which makes the rock so valuable for ornamental purposes. Following deposition and consolidation, folding and compression (associated with the formation of the mountains) produced the cleavage planes which cut the bedding at a high angle.

The slate lies high up on the top of the crags above the Pass, at Honister, Yew Crag, and Rigg Head. Early quarrymen used sledges or 'barrows' for bringing down the slate to the workshops and made up to eight journeys a day down the rock and scree with loads weighing a quarter of a ton. They became expert sledge riders downhill; but there was no quick way back — just a circuitous slog uphill with the sledge on your back. After about 1878, self-acting tramways were built and although these have been replaced, their inclines are still visible and so are the hawser marks and channels cut into the rocks. Today, lorries make infrequent but still rather hazardous, journeys up the crags by a zig-zag roadway.

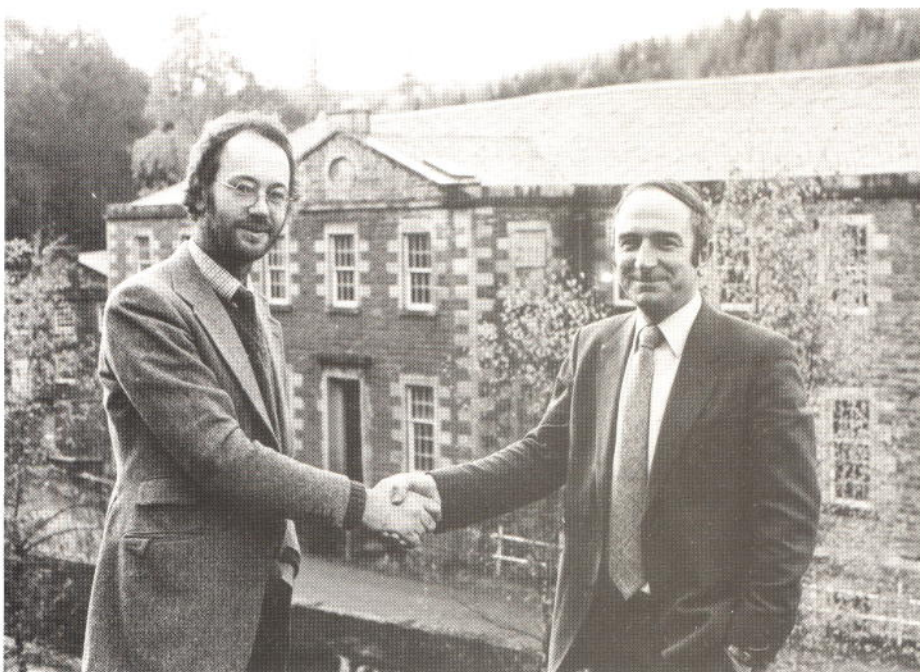
The mountains on either side are partly hollow — riddled with vast underground quarries and interconnected tunnels; at Honister there were once 10 levels and at Yew Crag there were 6. There are currently seven miles of tunnels at Honister and the development taking place is the first for over 15 years. New quarries have been opened out, railway tracks renewed, and tunnels widened. There is great potential for underground visits, which eventually it is hoped can be developed. Meanwhile, the size of the reserves, the quality of the stone, and the buoyant demand is enough to ensure the successful continuation of this famous industry while it remains in such enthusiastic hands. At the same time, it presents an opportunity for us to see at work a craft which carried with it much of its 300 hundred year-old traditions. Contact: General Manager, The Buttermere and Westmorland Green Slate Co Ltd, Honister Quarries, Borrowdale, Near Keswick, Cumbria, CA12 5XN. National Grid Reference: NY 225135.

**New Lanark Conservation.** Stephen Kay has been appointed Development Manager by the New Lanark Conservation Trust. The post is jointly funded by Scottish Tourist Board, Scottish Development Agency, Strathclyde Regional Council and Clydesdale District Council, and Mr Kay will be responsible for developing and marketing the historic mill village, which since the compulsory purchase of the industrial buildings is now totally in sympathetic ownership and under restoration.

1985 sees the bicentenary of the village, and Stephen Kay's initial task will be to organise a season of events to celebrate the first two hundred years of New Lanark.

Mr Kay was formerly keeper of Shipping at the Scottish Maritime Museum, Irvine.

**And Community Programme.** On his first official visit to Scotland in early December,



*Village Manager Jim Arnold (right) welcomes Stephen Kay to New Lanark. In the background is Robert Owen's famous School.*



*Left to right: Jim Arnold, Harry Smith (New Lanark Conservation Trust Chairman), Bryan Nicholson and Glen Duncan MSC UK operations director.*

Mr Bryan Nicholson, the new chairman of the Manpower Services Commission, chose to visit the historic village of New Lanark. The village, employs 95 adults on a Community Programme, and 50 youngsters on Youth Training Schemes, on restoring the grade 'A' listed mills and houses.

Those of us who have an interest in the industrial archaeology of the recent past often find that documentary and physical remains are quite difficult to find. The IA of the cinema is a case in point for whilst many 'picturehouses' still exist, albeit in a different form, practical details of how they operated are comparatively rare. We are delighted therefore to re-print two short articles from the *Newsletter of the Surrey Industrial History Group* (by kind permission of the Editor: Glenys Crocker) the first written by Harry Fowler, Operator/Manager of the Regal Cinema, Cranleigh and the second

by R E Kilsby.

**Cinema in Cranleigh near Guildford.** Because of its isolated position and the dependence of the original villagers upon low wages in agriculture and brick-making, there has been a cinema in Cranleigh since the early 1900s. The first was run by Mr Pirie, of the bakery by St Andrew's Church (now demolished), and was little more than a wooden barn adjacent to Cricketfield Stores. This was an early hand-cranked effort, and was succeeded by the 'Central' — still standing — go into Budgen's car park, and there it stands, red tin roof and all! The Co-op have extended their store into the auditorium, and the other part is their warehouse — the portholes are clearly visible if you look through the door by their delicatessen department.

The Central opened in about 1912 and ran until the fire department condemned it as a fire hazard in 1935. This spurred a group of local

businessmen to form a limited company and build a brand new cinema, the Regal. Harry Weston, an architect and a pioneer in reinforced and prestressed concrete, was one of the three, Mr Hayman was another, and it was on his ground (his orchard) that the Regal was built brick by brick as funds came in, purely by local unemployed as there was a deep recession at the time.

Harry Weston was architect of the 'Gaumont', Chichester, which was built simultaneously with the Regal, and there are many similarities (and I don't mean because the Gaumont is now a swimming pool), such as the ornamental lighting grilles in the auditorium, the enormously heavy solid teak doors in the working areas, etc etc, all of which are more than is normally found in a village cinema.

From the flat-floored, tin roofed Central to the raked floor and general air of luxury at the Regal was a huge step, and one wonders at the temerity of the men who built a 500 seat cinema in a 3,000 population village — they even built it high enough internally to accommodate a circle at some future date — but that date has not arrived yet, and we have reduced the capacity to 200 seats to give more leg room, and give perimeter gangways.

As built, the heating was by coke-fired boiler. This same boiler, adapted to oil, survived until 1979 when it was replaced by two gas-fired heat exchange units. Unusually for such a small hall, it is equipped with a plenum plant ie we can pump fresh air (heated in winter) into the auditorium, as well as extracting the smoke and foul air. The plenum equipment and the front stage curtain are the only original equipment still in situ. The screen curtains proper were done away with when the Andrew Smith Harkness curved Cinemascope screen was installed in the early 1950s, since when the house tabs have served as screen tabs.

The original projection equipment was Gaumont British, replaced in 1949 with Ross projectors and arcs on RCA High Fidelity Sound. The arcs were superseded in 1952-3 by a pair of Peerless Magnarcs (to give more light for the cinemascope screen). I believe they came from the cinema at Westerham which closed in 1951. The Ross projectors were replaced in 1968 with a pair of Westrex heads, a quieter enclosed mechanism for which spares were, and still are, readily available, unlike the Ross equipment. We have modernised and modified the equipment to take 7,000 feet spools, meaning we can achieve 80 minutes per machine against the old 2,000 feet. The present equipment comprises the Westars of 1968 on the RCA sound heads of 1948 (there has never been a better head made) and lit by the Peerless Magnarcs of Westerham. The quality of the sound is amazing for a village cinema and it is attributable to a Western Electric amplifier which replaced the rather high-pitched RCA amplifier in 1968.

We pride ourselves that our picture, sound and projection is the finest in the country — yes, I do mean that — and it is all done by Bernard Tonks, 25 years in the West End cinemas, and myself, 47 years in a projectionist.

*Harry Fowler,*

It is now widely accepted that cinemas and other places of public entertainment are a proper concern with Industrial Archaeology. It may be of interest therefore following the recent interesting article on the cinema in Cranleigh (Newsletter 20) to deal with another aspect of places of public entertainment in Surrey.

There have long been national controls on theatres and more recently, early in this century, we have the first Cinematograph Act to control the exhibition of moving pictures. Like other Home Counties and especially the then London County Council, the Surrey County Council took extensive and special local powers to impose much more detailed controls on most buildings used as places of 'Public Entertainment for Music, Singing and Dancing'. Indeed, following the 1974 re-organisation of local government, the powers passed substantially unchanged from the Surrey County Council to the new District Councils such as Guildford, so that if you look at Guildford's Civic Hall, you will find that it still carries the same statutory notice that it is licensed at its entrance. Under the powers granted by these local acts, detailed regulations were made; mainly they dealt with the design and operation of cinemas, dance halls etc so as to ensure that there were no obstacles to the evacuation of the buildings in case of emergency, especially fire.

In the case of a cinema such as that at Cranleigh the regulations would require that the gangways were of a certain width and that no seat was too far from a gangway so that the building could be evacuated in two minutes. Special emergency lighting would be provided, powered by battery or gas, in case the mains electricity failed. Every building had to have an adequate supply of fire extinguishers and, in the case of many cinemas, actual hose reels.

Other requirements were incorporated into the design of the building. Exits had to be of a specified width; escape routes could not have a double door which led to a narrower single door; flights of steps were limited in number because in a crush people fall on very long stairs and trip others behind them. In theatres, the Surrey Fire Brigade would check that all scenery was fireproofed and would check that the special fire-proof curtain could operate and seal off the stage, an area of greater hazard because of the heat from lighting and the large amount of power in use.

Staff from the County Council would visit buildings at random, often late on a Saturday night, to ensure that the gangways were not blocked; exit ways alongside cinemas were clear and not filled with pedal cycles, dustbins or what have you. Chairs had to be joined together even in small halls for loose chairs get jammed together in an emergency. Requirements were much more lax in the provinces. I was for a time in the 1970s responsible in Surrey for these and other matters and I used to be appalled at what I saw elsewhere. I remember going to a Welsh sea-side town and visiting their Summer Show. When the seats were full, they thought only of the box office and put a lot more loose chairs in the gangway until it was just a narrow passage. Was Surrey being unduly 'nannyish'? I think not. The sort of death tolls that have occurred in some recent fires show what can happen if people do not think about these problems.

Under these same local acts, Surrey also had power to censor films. Together with members of the Public Control and Licensing Committee, I used to view films that had been refused a licence by the British Board of Film Censors in the hope, usually misguided that Surrey would take a more liberal view than the B B F C and permit 'banned' films to be shown on a special Surrey licence. But that's another (censored) story!

*R E Kilsby*



**A Loo with a View Unveiled.** An 18th century three holer earth closet was informally opened at Avoncroft Museum of Buildings, Stoke Heath near Bromsgrove, Worcestershire by Mr R L Tagg, Managing Director of Portasilo Limited and Mollie Harris (Martha of Archers fame).

Both are appropriate unveilers! Portasilo Limited, makers of 'Portaloo' the portable toilet unit, have given financial help towards the rescue and restoration of the earth closet, and Mollie Harris, as well as her fame in the Archers, has recently written a book called '*Cotswold Privies*'.

This delightful little building previously stood derelict in the garden of a grand house on the outskirts of Leominster in Herefordshire. Much of the original joinery was salvaged before the closet was carefully dismantled to make way for housing development. It has decorative panelling on the wall facing the occupant(s), and sash windows and a glazed door to enhance the enjoyment of a view of the garden.



The three holes are set into a box bench over a deep cess pit, the only way into which for the night soil men who had to empty it, was through a trap door in the floor. During the rescue operation, an early shovel was found at the bottom of the pit.

Earth closets, or privies, were widely used until the end of the 19th century and indeed, in certain areas, until relatively recently, even though Sir John Harington, godson of Queen Elizabeth I, invented a water closet, an example of which was installed for the Queen at Richmond Palace in the late 16th century.

Help towards this project has been given by Portasilo Limited, the Victoria and Albert Museum, West Midlands Area Museum Service, Leominster District Council, Hereford and Worcester County Council and Dansk Pressalit A/S. The building was given to the Museum by G P Thomas and Sons Limited.

**CBA Industrial Research Forum 1984.** The Annual Open Forum of the CBA Industrial Research Committee was held on October 13th at Southampton University, organised jointly by the University Department of Adult Education and Southampton University Industrial Archaeology Group. Delegates from such areas as Wales, Cornwall, Merseyside, Yorkshire and East Anglia were represented.

The proceedings were opened by Edwin Course, who welcomed those attending and gave a brief introduction to the area, before handing over to Michael Robbins, Chairman of the CBA Industrial Research Committee. The first contribution was by Philip Turner, Assistant County Planning Officer for Hampshire County Council



who spoke on the subject 'The Hampshire Buildings Preservation Trust', a topic which aroused considerable interest. This was followed by Edwin Course, who provided the audience with a most interesting insight into the Farm Buildings Survey at present being undertaken by SUIAG. The morning session closed with a talk by Pam Moore about the restoration work being carried out on the Golden Lion Brewery, Southwick.

After lunch, an 'Open Forum' was held, and lively discussion ensued, on a wide range of topics. This provided a most useful opportunity for the exchange of ideas, which continued until the Chairman closed the meeting at 5.30 p.m.

That evening, SUIAG hosted a 'Cheese and Wine Party', which enabled the group, and CBA delegates to meet socially. This was attended by more than seventy people, and proved most enjoyable.

On the following day, a party of visits was arranged for the delegates. At Bursledon Windmill they were able to view the restoration work taking place, which, it is hoped, will culminate in the production of flour sometime in 1985. The group then proceeded to Twyford Waterworks, where they were conducted on a tour of the site, and heard of the proposals to establish a museum of water supply there. At the Golden Lion brewery, Southwick, they were able to see at first hand the work done by SUIAG, the Hampshire Buildings Preservation Trust, and Southwick Estates, and to take lunch in the adjacent hostelry. The final visit of the day was to Portsmouth Dockyard, where a tour was provided of the fascinating collection of docks and historic buildings in the heritage area.

*Pam Moore*

**Publicity and Press Officers.** At its November Council Meeting the Association co-opted Bob Clarke and Larissa Rimmel from Chatterley Whitfield Mining Museum to act as the Association's Publicity Officers. Bob and Larissa have already prepared and circulated to the press a notice relating to the Dorothea Award, and will be issuing further releases and seeking greater publicity for the Association as the opportunity arises. Any member or local society secretary who thinks that any particular area of the Association's work, or any specific topic of national or local interest deserves a response from the AIA should contact Bob and Larissa at Chatterley Whitfield Mining Museum, Tunstall, Stoke on Trent, Staffs.

for the rotten borough were solemnly held'. Frank Knox's booklet (1984) claims this was 'the first time ever' that cast iron was used in a building. Can any member substantiate this claim, and/or identify the source of the iron?

*Paul W Sowan*

**BBC Open Space Programme.** This weekly series on BBC2 attempts to meet the demands, needs and interests of members of the public who feel that their views do not get a proper airing on television. This aim could well be a forum for local societies interested in individual industrial, archaeological projects in their areas. A helpful leaflet is available from Open Space, Community Programme Unit, BBC TV, London W12 8QT (01-576-1513).

**'Glasgow's Miles Better'.** This is the slogan of Glasgow's publicity campaign — which appears to be successful as a record number of visitors (325,000) visited the city in 1983. Buildings are being cleaned, and development is taking place — a visit to the AIA conference in 1985 will present a very different picture if you have not visited the city for some time. At the present time there are two rival schemes for city centre development as well as the new exhibition centre which is rapidly approaching completion. The Scottish Development Agency has had plans for a £55 million shopping plaza at Enoch Square — although conservationists believe that the St Enoch's station should have been preserved. Sign up early, and come with the AIA to 'the Empire's Second City'.

**Industrial Archaeology in France.** Under the title of CILAC — *Comité D'Information et De Liaison Pour L'Archéologie L'Etude et la Mise En Valuer Du Patrimoine Industriel* — the Association has made contact with industrial archaeologists in France. The organisation's address is 48 Rue Saint-Lambert, 75015 Paris, and personal subscriptions are fixed at 80 francs per annum. CILAC produces a bulletin/journal, having the following contents:-

July 1983 — A regional itinerary of industrial archaeology in Picardy, the establishment of a centre of science and industry at La Vilette, a stationary steam engine at D'Arc-en-Barrois in Aute-Marne, and a hydraulic power plant at Anney.

May 1984 — An ironworks at Forges De Buffon in the Cote D'Or, a papermaking site in the valley of the Couze near Bergerac in the South West of France, and an industrial town in Catalonia.

The journal is in A5 format, with relatively short articles. The later issue contains photographs and plans of the sites discussed. For those seeking comparisons for industrial processes no doubt membership will prove valuable.

**Whence the Iron for Gatton Town Hall?** Gatton Town Hall, besides being a very English and a cynical political joke, is claimed (in a recently published booklet on the history of the church and parish) to be an IA 'first' for the use of cast iron in a building. In Pevsner's words the Town Hall, built in 1765, is 'An open Doric temple on a knoll in the park, six columns (of iron incidentally) and pedimented roof, under which 'elections' (nominations, more accurately)



Father Christmas brought me a bumper contribution for the **Society profiles**, in the form of the **BIAS** account printed below. My thanks go to Roy Day for saving this element of the column from temporary oblivion, since it was the only delivery from Santa; if you haven't done one, and would like more publicity for your group, it's never too late for one to be sent.

**BIAS, the Bristol Industrial Archaeological Society**, has its origins in an IA winter lectures series given in the Folk House, Bristol by Angus Buchanan and Neil Cossons during 1964/65/66. Supported by the University of Bristol Department of Extra-Mural Studies these attracted some three dozen or so people who were fascinated by illustrated talks on wind and water power, the development of the steam engine, the features of the Port of Bristol etc etc. So much so that when the formal course disbanded, each spring its members went on meeting at such places as St Fagan's Folk Museum, the Forest of Dean, Dundas Aqueduct and Ironbridge.

Inevitably there was a move to form some kind of Society and in March 1967 an ad hoc committee called a meeting in Bristol City Museum and BIAS resulted.

Angus Buchanan became the first Chairman (BIAS has never had a President); Neil Cossons the first secretary and Roy Day the first treasurer, and within six weeks BIAS members had

carried out a survey of lead mining remains on Mendip. A month later, in June 1967 forty-two BIAS members began an intensive survey of turnpike road remains in south Gloucestershire and north Somerset. Over 900 miles of road were surveyed and 366 separate items of turnpike history were re-discovered. These, toll-houses, boundary-posts and milestones etc were collated and tabulated with grid references, for publication in *BIAS Journal*, the first volume of which appeared in March 1968.

Further surveys followed at regular intervals, paper-mills, colliery sites, dockside bollards, Somerset windmills, the Bristol brass industry and port of Bristol hydraulics to name but a few, with resumés of research findings published in *BIAS Journal*. In fact, publication was planned as a major part of BIAS activities with a newsheet, *BIAS Bulletin* issued in May, August and November of each year, and *BIAS Journal* every March. The latter contained research papers, book reviews and permanent recognition of the more important events taking place during the year under review. As BIAS enters its 18th year, 54 *BIAS Bulletins* representing over 95,000 words of ephemera, and 17 *BIAS Journals* with some 650,000 words of research information have appeared, making a significant contribution to industrial archaeological knowledge in the Bristol area.

To commemorate its 10th anniversary *BIAS Walkabouts* were introduced. These are a series of industrial trails designed to introduce the general public to the more important sites in the maritime and commercial area of central Bristol. There are now five of them produced to a similar format, and sold at 15p each in the summer months in conjunction with pre-advertised guided walks. Since 1977 over 3,000 people have been introduced to these Walkabouts on site and a further 9,500 leaflets sold through the City Museum and Information Bureau.

Activities such as these require a reasonably stable membership and in this respect BIAS has been fortunate. After the initial launch, membership rose to 120 by the end of 1969 and thereafter by a remarkably consistent 13% per annum to 1977 when it stood at a little over 350. It then slowed down to around 6% per year, peaked at 465 in 1982 and has remained fairly constant since with BIAS entering 1985 with 443.

In order to maintain membership it is essential to have an active 'IA front' existing and seen to be existing, in the local area. BIAS has achieved this with the co-operation of the University of Bristol Department of Extra-Mural Studies through an annual University Winter Lecture Series which has recently entered its 20th year. This now takes the form of twelve fortnightly lectures by IA speakers from all over the UK and has gained a considerable reputation. It runs from October through to March, and in the past has attracted a paying audience of upwards of 70 (1979). In common with everything else, it has now suffered from the inflationary spiral, but still has about forty students on the register. This regular University of Bristol/BIAS course has never yet failed to produce additions to the Society's membership list. For those interested in joining the Bristol Industrial Archaeological Society through the more conventional channels, the Membership Secretary is Roy Webber of 9 Long Acres Close, Coombe Dingle, Bristol BS9 2RF, telephone 0272-681954 whilst enquiries for back (or current) copies of *BIAS Journal*, should be made to Mrs Joan Day, 3 Oakfield Road, Keynsham,

Bristol BS18 1JQ.

Elsewhere in the Bulletin you will observe a note about a new idea, the publication of IA Trail Guides. If there is any interest in the idea, the AIA would consider supporting these publications, but we would be grateful for some feedback from local Societies first. Do you already publish one, and if so, how successful is it? Or have you thought of doing one for a particular site or process in your area? Does some other body locally already do them? Have you tried, and failed, to persuade someone to write them? Examples of trails, or comments on the idea, are all gratefully received.

At the last March working weekend, and at the Aberystwyth Conference, lengthy discussions were held on recording techniques. At its subsequent Council meeting the Association decided, on the basis of these discussions, that it would recommend to affiliated societies and members of the Association that A4 sheets should be chosen as the medium for recording work, and I hope to have an AIA record sheet prepared in line with the needs expressed. It will eventually be printed for sale to affiliated societies and members if there appears to be sufficient demand.

Two Societies have, I note, formalised the need for work on records recently; the Suffolk IA Society now has a Records Officer in the person of Alan Greengo, and the NWSIAH has established a **Documentary Research Group** to ensure that sites needing research are properly documented and that their various members' records are indexed — possibly even computerised! It may be that there will be a growing need for such groups as the pressure to dispose of industrial buildings intensifies.

You will probably have noted the appointment of Bob Clarke and Larissa Rimmel as publicity officers; they are respectively Director and Assistant Director of the Chatterley Whitfield Mining Museum, and can be contacted there. I will liaise with them over information sent to me which could well reach a wider public, but I would urge local societies to contact them directly for publicity on matters of importance or general interest.

By now all representatives should have received preliminary notice and booking forms for the working weekend at Ironbridge (March 22-24). The main theme this year will be planning inquiries — with, we hope, plenty of practical advice on what to expect, and what to do if your Society wishes to give evidence or take part. There will be parallel working groups for Council members, and the usual social facilities which make the weekend both useful and enjoyable. If any Affiliated Society members other than representatives wish to attend, get a copy of your rep's booking form and send it in.

The AIA also has available some cogent notes on the report 'Mills in the 80s'. It is a thought-provoking paper on the likely fate and possible re-use of the surviving mills of Greater Manchester and West Yorkshire; some copies have been distributed to local societies in the affected areas and it is essential reading for anyone interested in the future of these buildings. We hope to find time to discuss it in March; written comments can always be sent, if you can't attend.

Janet Spavold

**EMIAIC 29.** The first East Midlands IA Conference for 1985 is organised by Leicestershire Industrial History Society to follow the official opening of

the Interpretation Centre and Museum at Moira Furnace on Friday 17th May 1985. The Furnace was scheduled as an Ancient Monument in 1971 and LIHS, with the assistance of the National Coal Board, carried out survey and recording work between 1976 and 1978. They wrote the **Moira Trail** in 1982, and shortly afterwards North West Leicestershire District Council purchased the Furnace and adjacent land with the idea of creating a coal and iron museum at this important site. A large Manpower Services Team has been at work there since, including a team of three archaeologists which was led by David Cranstone. Considerable consolidation and landscaping work has been carried out, and the old bridge over the now infilled Ashby Canal rebuilt.

The Furnace was built between 1804 and 1806 by Francis Rawdon-Hastings, 2nd Earl of Moira, as part of his efforts to develop the mineral potential of his estates. The Ashby Canal was opened in 1804, and the Furnace is carefully sited below it so that the charge of coke, limestone and iron ore could be wheeled over the bridge to the top of the Furnace. It never worked very successfully: it is known to have been in blast for only two short periods, although there may have been other occasions which were not documented. By the 1850s families were occupying the houses alongside the Furnace and the Engine House, which had previously housed a blowing engine.

The Earl also opened up coal mines from 1804 onwards, and a splendid Newcomen engine house survives. There is also a battery of seven lime kilns opened in 1812 and currently undergoing restoration work. The mines produced not only coal and ironstone but also clay, leading to the establishment of the South Derbyshire pottery industry. At Donisthorpe Colliery a steam-powered winding engine survives, one of a pair probably built by Jessops of Leicester. This only ceased operation in the 1970s and a visit will be made to this as well as to a local pottery if time permits.

The Conference will include lectures by Marilyn Palmer on the history of the Furnace and by David Cranstone on its excavation and restoration. There will be a coach visit to Moira and adjacent sites during the afternoon, and the usual displays and bookstalls will be on view during the Conference.

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## AIA Bulletin

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