

AIA's 1000th

In *AIA Bulletin 11/2* we mentioned that Dr A Freedman of Church Minshull, near Nantwich, Cheshire had been enrolled as the 1000th member of the AIA and it was hoped to make a suitable presentation to him at the Annual Affiliated Society's Conference at Ironbridge in March. John Powell's picture, reproduced below shows that this was done, and on Saturday afternoon March 23rd Dr Freedman received a complete set of *The Industrial Archaeology Review* magazines from AIA President, Bill Thompson. Dr Freedman is on the left.

Six separate docks and a conglomerate of buildings now make up **Portsmouth Naval Base** and travelling between one part and another, constantly crossing land and water, was always difficult from the start in the 17th century. Fortunately Sir Samuel Bentham, who co-ordinated much of the construction in the late 18th and early 19th centuries had the ingenious idea of providing caisson gates at the seaward ends of each basin (except number 5 . . . which confusingly was one of the first to be built) which enabled people to pass over the dock entrances, rather than to have

to go round the perimeter. These 'gates' were tanks or pontoons which were able to be tightly secured against the dock walls, when in use as vehicle or walking ways, and were floated away from the entrance to enable the dock to revert to its main function. Originally of wood, which not surprisingly rotted, they were eventually replaced by wrought-iron structures.

One of these has recently been excavated and surveyed after being hidden for a hundred years and the following report and picture (taken in January 1984) comes from Dr Ray Riley of the Portsmouth Royal Dockyard Historical Society.

In the 1840s the Steam Basin was under construction and such was its size (7 acres) that a wrought iron caisson was incorporated to provide a circumferential standard gauge rail track, operating through turntables at each end of the caisson. The basin was opened by Queen Victoria in June 1848. However, the rapid increase in the size of vessels caused other entrances quickly to be cut, first in 1861 through the combined Nos 7 and 10 docks and then in 1876 when a larger caisson entrance was built in the north-east wall of the basin. Eventually the old caisson was boxed in with granite walling and the space filled with sand and shingle; she was preserved *in situ*.

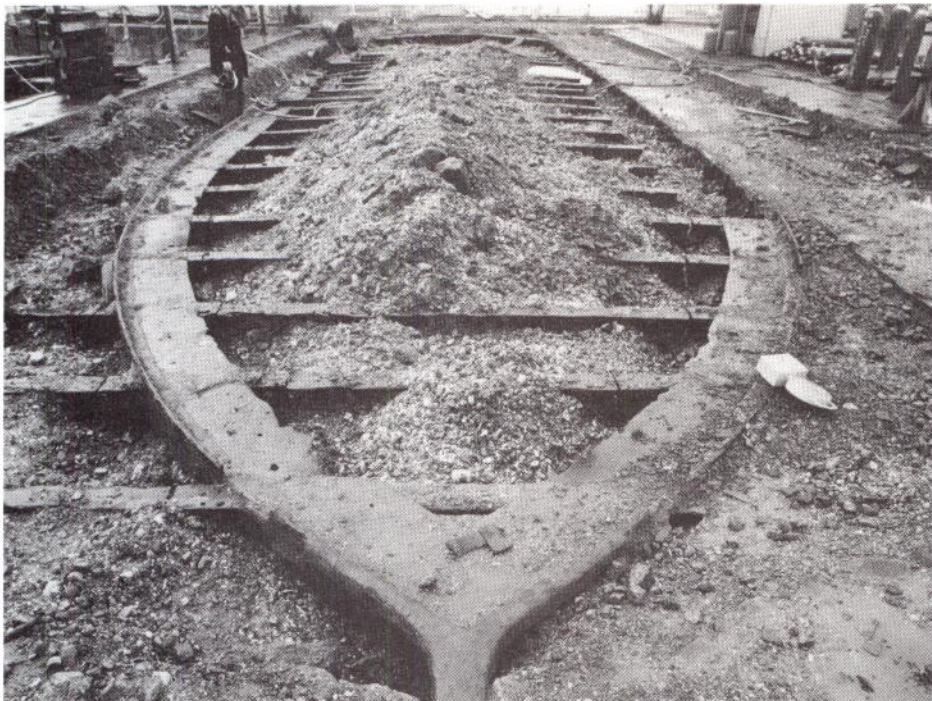
Road repairs undertaken in January 1984 revealed the existence of the old caisson. Contractors found it necessary to excavate a shallow

trench to remove the upper sections of the caisson and this in turn allowed a couple of days for a survey to be prosecuted. Since caissons were required to float through the expulsion of water contained in interior tanks when access to the basin was necessary, they were built with distinct similarities to ships, possessing a keel which was carried upward fore and aft and which was used as a means of positioning the caisson into sill recesses in the entrance, a curved 'bow' and 'stern' and a longitudinal camber. Certainly the first two of these characteristics were plain to see, since the decking which cantilevered out at each end over the 'bows' to provide a rectangular surface to the caisson had been removed at an earlier stage. Equally it became apparent that the techniques employed were those of the early metal shipbuilding era, which owed much to experience gained in wooden ship construction — indeed the foundation stone of the basin was laid in January 1845 only shortly after the launching of Brunel's seminal wrought iron *Great Britain* in 1843.

The caisson is 81 ft long and 16 ft 2 in wide. There are 31 T-sectioned deck beams riveted to the underside of the stringer plate, itself secured in the shell of the hull. To achieve additional rigidity these beams are braced. The decking was of wood and many of the securing bolts remain; they are either square headed or irregularly octagonal and are of two lengths: 5" and 9". In the absence of the decking it is not clear how the rails were pinned, but since the decking was the same height as the adjacent quay surface, it is most likely that the rails would have been mounted on the deck beams. The deck has a slight transverse camber of 2 1/8". An analysis of rivet holes in the deck beams has revealed that the alignment of fibres at the edge of the hole is consistent with punching rather than drilling, indicative of the somewhat imprecise production methods of the day.

In keeping with shipbuilding practice the caisson was constructed with a slight longitudinal camber of 6". The shell plates overlap on their longer, horizontal edges, the union being effected by single riveting at 3" intervals. The shorter, vertical edges of the plates are not overlapped and butt against each other; they are linked by means of a 4 1/2" wide buttstrap through which rivets are driven into the plates, again at 3" intervals. The shell is further stiffened by vertical ribs riveted in position at intervals twice as frequent as the deck beams. The shell plates taper predictably from stern to stern, but somewhat surprisingly the plates are of a variety of lengths, varying from between 4 ft 6" to 9 ft 6", although most are in





Boat shaped caisson, patented by Samuel Bentham in March 1812 (Number 3544)

the region of 6 ft. The justification for this may have been to ensure that the junctions (butts) of the plates did not always fall above and below each other. However, the system employed has resulted in a less than efficient spacing and in one case the butting of the plates in the sheer strake (upper line of plates) and the strake below comes perilously close to making a vertical line of weakness. On each side of the hull 12 apertures 1 ft in diameter have been cut in the sheer strake to provide illumination, but this would have been insufficient for those working at the pumps below where a lantern would have been required. All the plates were found to have been coated with pitch and caulked at their edges. Some indication of the labour intensity involved in the fabrication of the caisson may be derived from the calculation that something of the order of 442 plates must have been used for this relatively small vessel. At the same time there can be no denying its strength or the quality of the wrought iron which has ensured its survival in excellent condition despite immersion in a damp environment for a century or more.

'To promote the study of Industrial Archaeology'. This phrase, taken from the Constitution of the AIA and appearing in documents relating to virtually every IA society throughout the country, is so obvious in intent to warrant any further comment, yet how do we do it at what is popularly known as the grass-roots-level?

By organising courses, conferences and seminars (of course) by publication of the results of research (naturally) by encouraging improved standards of recording etc etc (it goes without saying) but all of these things tend to 'preach to the converted', to cater for the increasing number of people who have found in IA an outlet for their interest in the history of everyday life. Equally important, however, is the backup requirement of providing a directory, gazetteer, guide, call it what you will, to the industrial archaeology of any particular area, so that people relaxing in front of the television and watching such programmes as *All Our Working Lives* can identify what they are seeing with what remains on the ground in their own district.

Of course there have been many well researched efficiently organised printed books on regional aspects of industrial archaeology but these have become more expensive over the years with fewer publishers willing to take the commercial risk of supporting a book which may not be viable and pushing these above the price bracket of the casual buyer, who merely has an ephemeral interest which could become a permanent study.

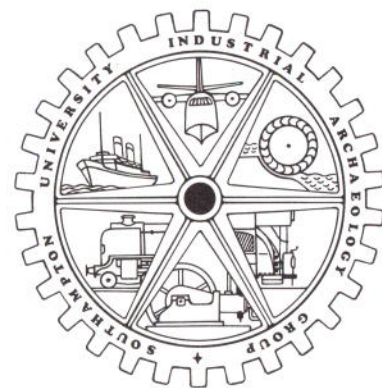
This is where local publications come into their own. Produced by enthusiasts, with the vitality of people doing for pleasure, what they get pleasure from doing, the local society 'Guide to the IA of . . .' is usually of inestimable worth both in content and value for money.

Few districts are without some kind of local guide and a couple of new enthusiast researched publications have recently appeared and are worth considering.

The first is the third edition of *Industrial Archaeology in Gloucestershire*, published by the GSIA and available, price £1.50 from N Hodgkinson of Whithorn, Greenway Lane, Charlton Kings, Cheltenham, Gloucestershire.

It is a 36 page (plus covers) booklet of 9 1/2" x 7" and lists 144 sites. Three maps are included, and sites are numbered, and can easily be located from the National Grid Reference, given in every case. The Gazetteer is divided into some twenty five sections such as 'Waterways', 'Iron Smelting' and 'Stone Mining' to give three examples, plus separate pages dealing with the City of Gloucester and the towns of Cheltenham and Tewkesbury. There are twenty three illustrations, plus the maps and the whole has been edited by the GSIA's president, the Rev W Awdry from information supplied by a couple of dozen contributors. The first edition was produced in 1973, the second a couple of years later and this latest in December 1983. In the boundary reorganisation of 1974 Gloucestershire got smaller (although the GSIA guide is actually larger) but basically the new book is a revision of the earlier ones. The Society have 2,000; they are sure they will sell them, and for anyone holidaying in Gloucestershire, or passing through on the way to the south-west it is a good buy which can also be obtained from booksellers.

A Guide to the Industrial Archaeology of Hampshire and the Isle of Wight



Edited By Pamela Moore

The second book *'A Guide to the Industrial Archaeology of Hampshire and the Isle of Wight'* is published by the Southampton University Industrial Archaeology Group and can be obtained (price £2.75 plus 50p p and p) from Mrs Pam Moore, c/o the Department of Adult Education, the University, Southampton, Hampshire SO9 5NH.

It has 84 pages (plus cover) is A4 (297mm x 210mm) and contains 573 site references, which vary from a dozen words (milestone description) to two and a half pages (and some twenty separate entries) for HM Naval Base at Portsmouth which is almost a town in itself.

The Southampton University IA Group published a Hampshire IA Guide in 1975 (52 pages and 305 entries) and this, edited by Monica Ellis, was fairly quickly sold out. The first one is similar in style to the GSIA publication and I suppose it could be described as a 1970 type IA Gazetteer or even the industrial archaeology of the Hampshire industrial archaeology guide. When it was decided, in the autumn of 1982, to produce a new gazetteer, the people involved, headed by their new Editor, Pamela Moore, decided to bear the old guide in mind but to begin again with open minds. The field work was carried out during 1982 and 83 by thirty two individuals, very many of the sites recorded being visited by more than one person. A uniform approach to the multitudinous subjects was provided by Pam who wrote all the introductions and on receiving site reports from other surveyors, edited or occasionally reworded, as she felt necessary to maintain a corporate identity. Pam selected the sites to be included, with a good cross section, both geographically and thematically, uppermost in her mind, feeling it was very important to have examples of each industry from different parts of the country, to avoid the 'interested observer' having to travel too far.

Pictures, mainly photographs but some old postcards, maps and some excellent line drawings by John Reynolds of the County Architects' Department, are used in profusion and there are actually 98 half-tones, 64 of which are made from photographs taken by Pam Moore. This fact must be of considerable relevance for al-

though Edwin Course, Ray Riley, John Silman and many others have contributed invaluable parts to the whole, Pam Moore's enthusiasm permeates the entire publications. Her introductory sections are brief and contain suggestions for further reading and the book ends with a list of useful addresses, including the AIA, which will point the new recruit to IA, in the right direction.

Pam says she saw the project as principally introducing new people to IA, although she hoped that it would prove to be of interest to those already 'converted'.

An objective review of A Guide to the Industrial Archaeology of Hampshire and the Isle of Wight will appear in the first issue of new *Industrial Archaeology Review* but first impressions are that it goes a long way to help 'To promote the study of Industrial Archaeology'.

The 1984 AIA Conference, as most people know, will be organised by Douglas Hague. As an aperitif to this feast of Welsh culture, we offer a short piece on the Pontarfynach, a bridge archaeologist's dream near Aberystwyth, and a feature of the local scenery.

Devil's Bridge Dyfed. For at least two hundred years the name Devil's Bridge has been applied to Pontarfynach, a small masonry bridge spanning a spectacular gorge through which the river Mynach flows to fall by way of the Mynach Falls to its confluence with the river Rheidol. Wordsworth's sonnet, 'To the Torrent at Devil's Bridge' captures perfectly the scene in 1824, and it will be seen in much the same light by any romantic viewer today, unless his visit coincides with August Bank Holiday. Wordsworth's query . . . 'Can such force of waters issue from a British source, or hath not Pindus fed thee! . . . produces a similar incredulity when one reads the following facts given by

the present River Authority. *At a recording weir a little below the falls the volume of water in cubic feet per second is stated to be as follows: average summer 10, average winter 75, August 1976 1, and incredibly, August 1973 6750!* As Wordsworth was in Llangollen in September perhaps we have here evidence of the Welsh late summer monsoon of 1824.

Having been a famous beauty spot, much frequented by tourists since the late 18th century, it has gradually acquired traditions and history which should be viewed with some circumspection. Any remote and humble medieval structure in Wales, where public and private records are meagre is unlikely to have any supporting documentary backing, and the statement on a painted board that the bridge was built in 1087 should not be taken seriously, we are indeed lucky to have a few mentions in the Quarter Session Accounts.

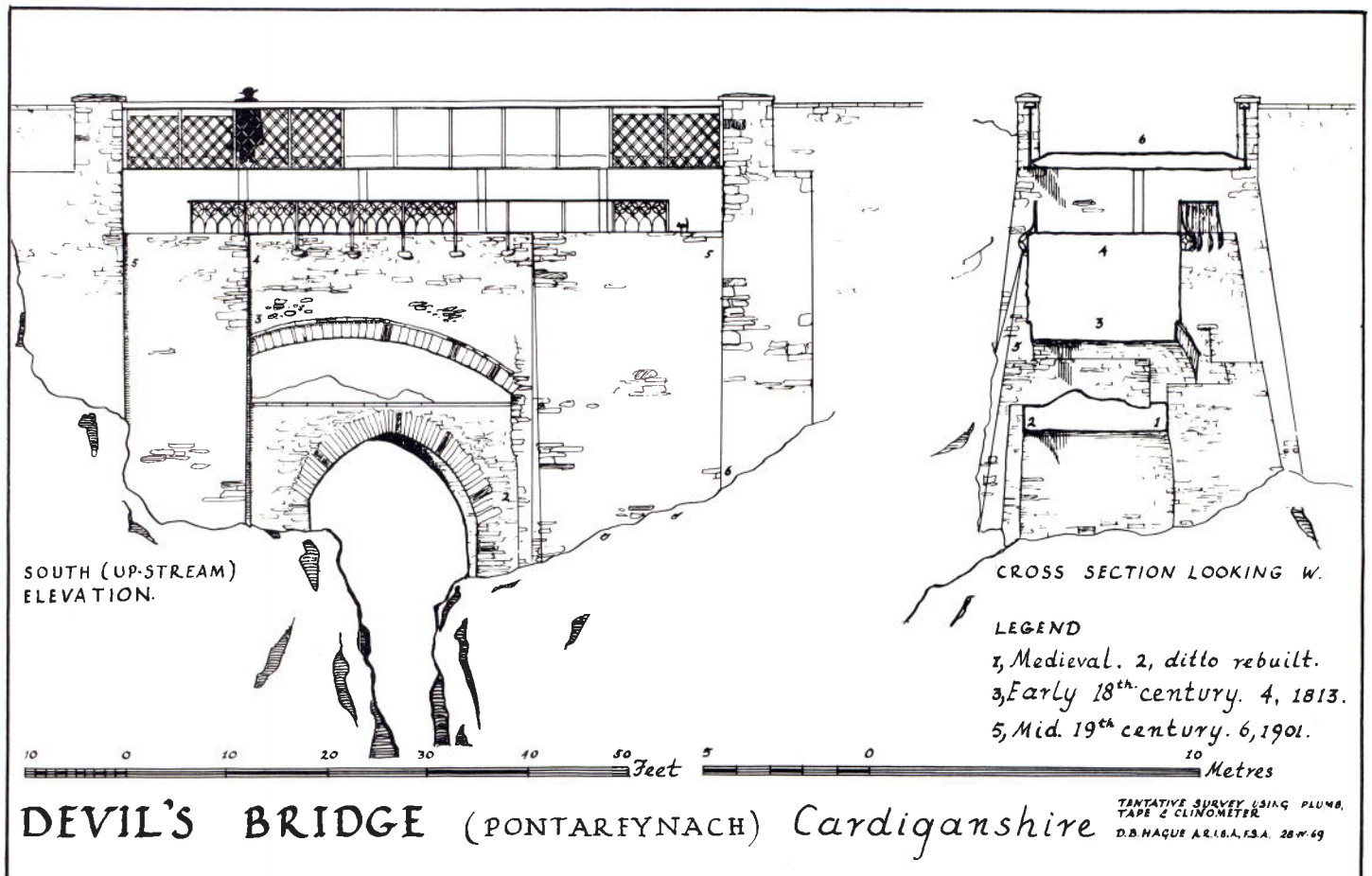
However, a recent examination and survey of the bridge has revealed that it is not only an interesting and ancient one, but one well worthy of preservation. It has no ancient recorded history, but the traditional association with the Cistercian Monastery of Strata Florida is by no means improbable. The bridge is 7 miles north of the Abbey, 3½ miles north of the Yspytty Ystwyth and 1½ south of the other hospice of Yspytty Cyfnyn. All these were clearly on the upland 'pilgrim' route which presumably continued to Ponterwyd and then north to the hospice at Gwanas and Cymmer Abbey.

Strata Florida was commenced ca 1184, although an earlier site did exist. However the provision of a bridge over the Mynach is most unlikely to have exercised the monks until long after they had completed their own immediate building programme. Any very early bridge would almost certainly have been a primitive wooden construction, there being plenty of timber around and the actual span of little more

than 14 feet would present few problems.

Devil's Bridge consists of three superimposed bridges, although the building periods exceed this number. Not unnaturally the earliest is the lowest, and this is in the form of a single roughly pointed rubble build arch about 16 ft 6 ins in span. The height of the parapet is about 17 ft above the base rock foundation of the NW side which is lower than the opposite bank. The arch is formed of thin slab voussoirs which on the up-stream side has been rebuilt. This is the side visible to the many thousands of tourists who pass through the turnstiles and descend the tortuous steps to the abysmal depths of chasm. Whilst in this advantageous position and before climbing up to road level the visitor will notice that the under-side of the arch is of original masonry, as indeed is the downstream arch face.

No prudent architectural historian would be prepared to date this arch either by its form or construction: such an arch could be placed as late as the 17th century. However a convincing medieval parallel can be found within ten miles at Llanddewi Brefi. Here the parish church, when built in the 13th century was an ambitious building for Cardiganshire. Originally with transepts, all that now survives of the ancient fabric is the central crossing tower. On its north and south sides the lofty blocked pointed arches can be seen, internally the west and the east arches which form the church entrance are both still exposed. Both are of 13 ft 10 ins span, are pointed, and considered with the church plan are undoubtedly of the early 13th century. The simple vault under the tower is 16 ft 5 ins wide and is of the same profile, quality, character and span as Devil's Bridge. As it is an integral part of the 13th-century church, a date as early as this can well be ascribed to the bridge. The tradition that it was this bridge that Giraldus Cambrensis crossed in his itinerary of 1188 should not be dismissed out of hand although it is an unlikely



event: one in fact more acceptable had Giraldus postponed his trip for a hundred years.

There seems no reason to doubt that the medieval bridge continued in use with the normal maintenance and repairs until superseded in the 18th century, by a bridge about 12 ft higher and with span of about 32 ft. Its width of approximately 15 ft was about a foot wider than the earlier one. The arch is well constructed of large voussoirs a little recessed below a course of slabs. In order to provide good abutments the approaches to the earlier bridge were cut through vertically and the new masonry built up from the rock. This is now visible on the north side only, but the operation was not without difficulties as it was clearly advantageous to retain the earlier bridge to support the centring of the new arch and also to give a measure of stability to the new abutments. With its higher roadway the approaches to the new bridge must have been much easier to negotiate, especially by any wheeled vehicle.

The date of this work is open to some argument, since the late 18th century most writers have repeated a date of 1753, whilst on a modern painted notice board displayed on the site is the date 1708. Although stylistically a date of 1753 is more acceptable, it is totally unsupported by the extant quarter-session accounts. Alas these records in the National Library of Wales only survive from 1739, and whilst the bridge was inspected in 1750 and very minor repairs paid for in 1751 and 1773 there is absolutely no evidence of a major rebuild at this time. In the light of recorded expenditure of £290 in 1814 for raising the roadway and providing a decorative cast-iron parapet, the best explanation is that the rebuild took place before the earliest surviving records. Therefore, this so far unsupported date of 1708 could well be correct. Although the Aberystwyth guide of 1815 states that the 1814 work was done by Thomas Johns this seems unlikely, as at this time only two years before his death he was in the course of leaving Hafod in extreme financial difficulties. In 1812 £37-0 was spent on cleaning and repairing both ends of the bridge and in 1813 it was said to be out of repair and early in 1814 £35-0 was spent on repairs. On July 13, 1814 an order was made to pay Mr George Aneston £290-0-0 for repairing Devil's Bridge. Unfortunately only the order books survive and no details are given, but an expense of this kind certainly indicates a major operation.

This work consisted of building on top of the earlier masonry about 6 ft above the old parapet. The new road was level which would enable coaches to cross with ease. It also had an open gothic cast-iron balustrade, made in 5 ft bays each stiffened by a scrolled bracket carved in a stone corbel. This attractive feature, clearly designed to open up the view, add zest and give the traveller a more vivid impression of its height above the gorge. It is unfortunately inaccessible without ladders and cannot be examined in detail, but fortunately when repairs were being done in 1971 and the whole structure encased in scaffolding I was able to reach most parts. A clear inscription records that the ironwork was cast at Aberdare Ironworks in 1814.

It can be assumed that the next work carried out on the bridge (which might be discovered after a lengthy search through the more bulky later records) took place about the middle of the 19th century. Due to increased traffic and perhaps to bad infilling and poor workmanship in 1814 the abutments of the 18th-century

bridge showed failure. Battered buttresses were built on both faces. On the west side it was found necessary to enclose the springing of the 18th-century arch and return the new masonry under about three quarters of its soffit. These battered buttresses were continued up to the level of the 1814 roadway. Around 1900 concern was felt for stability of the whole structure, including the undressed medieval arch. In 1901 a 60 ft lattice iron girder bridge was erected having its 21 ft wide road about 7 ft above the earlier one. It was carved on entirely new abutments, the increased width of the bridge was extended on the downstream side.

In comparatively recent times this modern bridge has been strengthened by a number of vertical wooden props carried on the 1814 roadway. At an (as yet) unknown date, but presumably ca 1900 the upstream face of the medieval bridge was rebuilt. The condition of this and the original medieval downstream side seem satisfactory, as indeed does the whole structure after the recent repairs.

Douglas Hague

RCHM(E) Survey of Architectural Surveys. The Royal Commission on Historical Monuments (England) is currently undertaking a survey to assess the extent to which buildings are being recorded by private individuals and local groups.

The information which we receive will be of great use in helping us to decide how our own record making and collecting policies might be most profitably directed in the future. We should be most grateful if AIA members could kindly write to inform us of their activities in this area, giving us an indication of the type of record made and the number of buildings or sites recorded.

Please write to: John Bold, Royal Commission on Historical Monuments (England), Fortress House, 23 Savile Row, London W2X 1AB.

Thames Tunnel Mills, Warehouse, Rotherhithe, London. Warehouse converted into single person housing. This £2m scheme designed for the London and Quadrant Housing Trust by architects Hunt Thompson Associates will provide fair rent housing specially designed for single people — a group for which a particularly acute shortage of housing exists. The scheme provides 71 units (either bedsits or flats designed for sharing by two or four people) for 119 tenants for whom a common room, a laundry, a riverside terrace and a roof garden are also provided.

Built in the nineteenth century as a flour mill, its seven storey brick elevations rising up sheer from the river wall on the one side and Rotherhithe Street on the other, Thames Tunnel Mills is typical of the Thameside warehouse architecture of the Victorian period. With the rapid decline of the London docks most of these buildings were abandoned and the pace of demolition over the last ten or so years has been such that there are now few places north or south of the river where a complete group of such buildings remains. It is for this reason that the buildings around the early 18th Century St Mary's Church were designated an 'Outstanding Conservation Area', meaning that demolition of buildings is not permitted without listed building consent, and that special grants toward the cost of renovation work are available. In the case of Thames Tunnel Mills a very substantial grant of about £200,000 by the Historic Buildings Council has been critical in bringing the project to fruition.

The buildings were empty for over ten years before work started on the project; vandalism and fires on three separate occasions left the building in a derelict state, and cost studies showed that it would be cheaper to build a new structure within the shell of the existing than to retain and repair the original internal structure of columns, beams and timber floors. A new structure also meant that it would be possible to achieve higher standards of construction, and compliance with regulations (such as those for minimum ceiling heights) which would not otherwise be achievable.

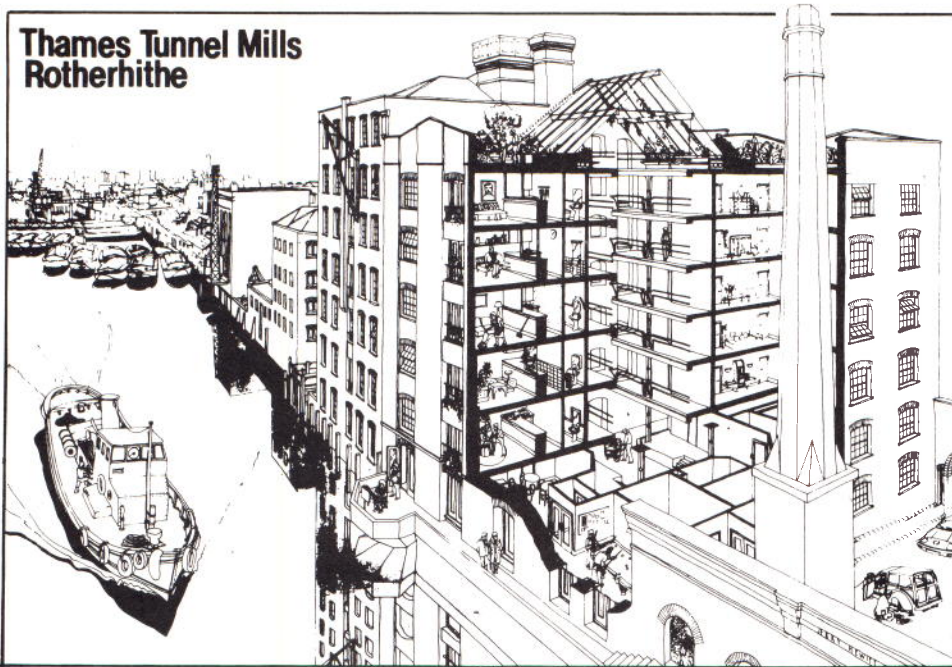
As a construction project the scheme represented a considerable challenge. A tower crane was erected in the centre of the building. Then a temporary support system consisting of scaffold towers linked by flying shores was threaded through the existing structure; when the walls were secured in this way the columns, beams and floors were dismantled and lifted out by the crane, leaving two massive gutted interior spaces, each a forest of scaffolding. Within these spaces piled foundations were bored into ground thick with heavy obstructions dating from the industrial past of the building's history. Then the new structure of brick walls and concrete floors rose up; as each floor was constructed so the scaffolding shore below could be dismantled.

The design has been governed by the position of existing walls and window openings, and by the exceptional building depth which — at seventy feet — is over double that usually found in housing projects. The problem is that there is much more unlit space at the centre of the building than normal. The disposition of this interior space is therefore critical to the design. Right at the centre of the plan in one half of the building therefore, the original silo structure has been retained for lift, stairs and refuse chute. At the centre of the other half of the building an open atrium space rises through seven storeys, topped by a glazed conservatory which brings daylight right into the centre of the building. Wrapping around the silo and atrium is a ring of corridors or balconies, off which the flats are entered. Within the flats is another band of interior rooms — entrance lobbies, bathrooms and some kitchens; living rooms are then arranged around the periphery. The caretaker's office, his flat, the common rooms leading to the riverside terrace, and the laundry are all grouped around the bottom of the atrium; while the conservatory at the top of it gives onto a roof garden.

The design aims to retain and exploit as much of the character of the existing building as possible. The existing walls inside will be left unplastered, and the detailing aims to differentiate clearly between old and new construction. Massive timber beams and cast iron columns salvaged from the original will have been incorporated in the design of the atrium, and external features such as the crane, the cast iron water tank and the eighty foot high free standing chimney are all retained.

Architects	Hunt Thompson Associates 69 Parkway London NW1 7PP
Consulting Engineers	Ove Arup & Partners 13 Fitzroy Street London W1P 6BQ
Main Contractor	Eve Construction Ltd

Thames Tunnel Mills Rotherhithe



When it was built in 1930, the **OXO Tower** dominated the southern approach to Blackfriars Bridge over the Thames and was the second highest commercial building in London. Taller buildings sprouting up in the subsequent half-century have long robbed it of that distinction; but this whimsical piece of commercial architecture, broadcasting the merits of beef extract in four directions from the pierced stonework of its upper storeys, continues to provide an attractive and unexpected visual feature in an area of otherwise undistinguished rectangular commercial buildings. Recently the OXO Tower was submitted for listing but was turned down by the DoE leaving it open to the risk of demolition overnight. **The Thirties Society** rallied to the defence, describing it as 'a witty and successful piece of riverside architecture'. **The Association of Waterloo Groups** is leading a campaign to restore the Tower, and to convert neighbouring warehouses into flats and light industrial or craft workshops. Whatever one's attitude to Art Deco architecture, there is no doubt that this jolly piece of whimsy succeeds in cheering up an otherwise grim stretch of the river. With all the attention currently being paid to saving Georgian and Victorian buildings, it is easy to let more recent but equally historic structures slip through the net. If you would like to see the building saved, write to: Save the OXO Tower Campaign, c/o 22 Roupell Street, Waterloo, London SE1.

The British Archaeological Awards. In the past this series of awards received wide publicity. A committee has now been established to reconsider the basis on which the awards are organised, with a view to establishing a biennial award system with the first to be made in 1985 on work carried out over the period 1982/84.

The following categories will be eligible for consideration:

The best project carried out by volunteers.

For public service in Archaeology by a commercial, industrial, or business firm in the UK.

For public service in Archaeology by a local authority or public body in the UK.

For the encouragement of Archaeological work by young people.

For the best commercial book on British archaeology.

A committee has been established to administer the awards and Mr Victor Marchant will act as Honorary Secretary. All correspondence should be addressed to him at 112 Kennington Road, London SE11 6RE (telephone 01-582-0494).

Affiliated Societies are eligible with their own preservation or recording projects. Companies restoring their own premises in the Society's local area — or indeed local authorities carrying out work under Manpower Service Commission schemes — could be nominated by a local Affiliated Society.

New Industrial Museums in Scotland. The decline of Scotland's major traditional industries has emphasised the need to preserve evidence of them — and of their social impact — before it is too late. The result has been a dramatic increase in the number of proposals to set up large-scale new industrial museums — often using historic industrial sites — at Bo'ness, Irvine, Livingston, Newtongrange, Motherwell, Airdrie and elsewhere. In response to these developments, the Council has set up an Industrial Museums Advisory Panel, bringing together experts both from museums and other national funding agencies.

It has become clear that a national policy and a national framework for industrial museums is now essential if wise decisions on the allocation of scarce finances are to be taken. The framework the Council proposes is a network of industrial museums which between them will tell the entire story of Scotland's industrial heritage in a way in which one individual museum could never do. Central to the network would be a new Museum of Industry for Scotland, presenting an overview of Scotland's industrial development — this new national museum could and should be largely self-financing. But it would not tell the whole story. Linked to it would be a small number of local museums each interpreting a major industrial theme in greater depth. Some of these museums already exist, the Scottish Maritime Museum at

Irvine, or the Scottish Mining Museum in East Lothian, for example.

One function of the Museum of Industry would therefore be to advise, co-ordinate and support this network of local industrial museums. To develop this concept, the Council has urged Government to commission an authoritative report on the role and cost of a Museum of Industry of Scotland. In tandem with this development, the Council is establishing an Industrial Collections Research Unit to record all industrial collections in public and private ownership in Scotland. This will be a vital first step towards ensuring their preservation, avoiding duplication, and filling gaps in the nation's preserved industrial heritage.

Extract from 1983 Annual Report of Council for Museums in Scotland.

National Stone Centre Launched. The formation of a National Stone Centre took a significant step forward on 25 November 1983 when the project was officially launched by Sir George Young, Parliamentary Under-Secretary of State, Department of the Environment.

The Centre, to be established at Wirksworth, Derbyshire, is envisaged as an information point for both the public and all those connected with the stone industry. It will relate to all types of stone quarried in the United Kingdom, whether it is used for building or, in crushed form, for the production of concrete, the making of roads or in industrial processes.

The site earmarked with the Centre — The Colehill complex of six abandoned quarries and limekilns — was selected from nearly a hundred other locations, using a stringent set of criteria. The area is already well known to geologists and provides many opportunities to explore the history of the industry and its modern counterparts.

It could not be better situated, located as it is in the largest stone producing county with further important centres to the north and south, within two hours travelling time of half the population of England and Wales and within 50 miles of over 30 universities, polytechnics and colleges offering courses relevant to some aspect of the industry. In the local context, the site straddles possibly the most



Part of the SMM logo depicting miners of 1880s, 1930s and 1960s

heavily used footpath in this tourist county, is flanked by active quarrying operations and lies on the outskirts of Wirksworth, the town which last year won the Europa Nostra Award.

The National Stone Centre is seen as an attraction for both day visitors and longer stay tourists, for researchers, for educational visits by schools and colleges, a venue for exhibitions, demonstrations and permanent displays, a reference centre for technical and historical information and, in the longer term, perhaps a potential site for trade federations and professional bodies associated with the industry. Alongside the Stone Centre, it is proposed to develop a Stone Trade Centre, as a national shop window for industry's products and as a base for those servicing this sector.

The Study Group, which has been laying plans for the Centre since 1981, includes representatives from Derbyshire County Council, from the educational architectural and industrial fields. Their work has been actively supported by all the main sectors of the stone industry, local government at all levels, central government agencies and various interest groups. Representatives of all these bodies have now joined together to form a Promotion Committee which includes amongst its members Her Grace the Duchess of Devonshire and Lord John Manners.

It is proposed that Derbyshire County Council will acquire the 50 acre site next year in order to undertake sensitive reclamation work and make rock faces safe before handing it over to the Stone Centre on a long term lease.

Pennine Heritage Network Keynotes and Booklets. The Pennine Heritage Centre has produced a series of card folders (keynotes) and associated booklets about the landscape, industrial and transport history of the South Pennines, including scenery, houses, villages, canals, roads, railways, mills in their setting and textile and transport museums. The Keynotes tell the story chronologically. The maps and illustrations are necessarily small scale but some titles offer 35mm transparencies also. These publications should appeal to teachers and children and ought to have a market amongst younger members of local history and industrial archaeology groups.

Keynotes: Fabric of the Pennines
Man and the Pennine Landscape
Pennine Ways
People who made the Pennines

Booklets include: Turnpikes and Canals
Steam and the Wheel
(Railways)
Clothmaking (New ways,
new cloths)

Prices and order form from Pennine Heritage Network, 9 The Birchcliffe Centre, Hebden Bridge, W Yorks HX7 8DG.

Tool and Trades History Society. Members may be interested to hear that a Society has been established to further knowledge and understanding of hand tools, of their use, and of the trades and craftsmen that used them. Their first newsletter has been published.

Further details of the Society and its activities can be obtained from The Secretary, Tools & Trades Historical Society, Winston Grange, Debenham, Stowmarket, Suffolk.

ATA Society Spot

Some time back a request was made to local groups for examples of industrial buildings in the Societies' areas so that a register of such conversions could be available to anyone needing ideas for such re-use. So far the response has been slow (my thanks to secretaries who have responded) and this is by way of a reminder that we are still interested. With the number of affiliated societies we now have, it should be possible to provide a wide geographical coverage of re-use of buildings.

Profiles of two Societies both in different ways heavily involved in practical work:

The Wealden Iron Research Group is more concerned with excavation work than many IA Societies; the group aims to undertake well defined and thoroughly executed projects, supported by professional assistance where necessary, and using established and growing contacts with other historical and archaeological groups in the Weald. The excavations are well supported. Winter lectures are held, together with field group activities on the last Saturday in the month from October to April. These activities include visits to sites, surveys and investigations. Recent excavations have been undertaken at a medieval site at Huggetts Farm, High Hurstwood, and at Great Cansiron Farm, Hartfield, both of

which will be continuing projects. The group has maintained its series of bloomery experiments, undertaking the 50th in September last year. A recent exhibition mounted by the group on Wealden Iron at the Ashdown Forest Centre attracted over 10,000 visitors in eight months; it ran altogether for a year. The group maintains an active interest in the Wealden Iron Museum at Haxted Mill, Edenbridge. The group publishes a Newsletter, and a Bulletin in which the results of their work are recorded. Further information from the Secretary, Mrs S Swift, Hamfield Cottages, Withyam, E Sussex.

The Thames Barge Sailing Club. The objective of the Club is to maintain and operate Thames barges. The Club owns two sailing barges: 'Pudge' built in 1922 and 'Centaur' built in 1895. Whilst 'Pudge' is reasonably sound much of 'Centaur's' original timbers are rotten. As every year sees a decrease in the number of sailing barges the Club decided in the late 1970s to commence major restoration programme on 'Centaur' which, when completed, would ensure the life of this barge well into the next century.

During 1980-82 'Centaur's' stern and bow were completely restored. The work, which was carried out by Club members working at weekends throughout each winter and with the assistance where necessary of a shipwright, was phased so that a section was completed during each winter and in the spring the barge was refitted and rerigged in order not to lose revenue from having the barge laid up during the sailing season. To date the work has cost £40,000 in materials and shipwrights costs, but this sum would have been doubled if a shipwright had been employed to undertake the whole project. The stern and bow restoration were entered for



Picture: Elizabeth Wood

Thames sailing barge Centaur, racing in 1979 Medway Match.

the Conservation Foundation's 'Heritage' Award in 1983 and won the Award which carried with it prize money of £2,000.

The Club is currently trying to raise funds to continue the restoration and hope to recommence next winter with the midship section. It is estimated that a further £60,000 is required to complete the restoration and if there are sufficient funds to undertake a further phase each winter the work should be finished by 1990.

Details from the Secretary, B Dawson, 17 Harewood Avenue, Hawkswell, Essex.

Manchester Region IA Society recently undertook the excavation of the site of the Newcomen engine which is now in the Henry Ford Museum at Dearborn, Michigan. The engine worked from about 1760 to 1830, and was then abandoned until its removal.

The dig was undertaken at the request of the Medlock and Tame Valley Conservation Association to see what, if anything, remained of the engine, boiler or other parts as a result of the removal by agents of Henry Ford in 1930. In the absence of site plans or records, reference was made to the two photographs on pp135-6 of the Rolt and Allen book *'The Steam Engines of Thomas Newcomen'* 1977 edition.

The area of the boiler setting was first staked out, as adjudged from the position of the chimney, and a large number of bricks and stones which had fallen away from the stack were removed from the surface, some to be used in its repair. Digging began through soil, mortar, rubble and broken firebrick. Tree roots proved difficult, although not impossible, to deal with. The brick floor of the boiler 'house', boiler flue, supporting side walls and ashpit were exposed; the corner stones from the ashpit end had tumbled over the rear of the pit. On the opposite side of the brick floor from the chimney was a paved area which may have been the fuel or firing area or the floor of an earlier installation. The ashpit was taken down to a

brick floor level and a drain to the river partly uncovered. There were some interesting small finds — bolts, rotted plate, iron bars, as well as the usual domestic fragments and objects which probably came from the two cottages nearby.

Probably the most interesting feature, apart from the chimney, is the curved brick back wall of the boiler floor which appears to be also part of the foundations for the stone base of the cylinder which was presumably removed to Dearborn. When we came to excavate this level and that of the beam plinth (also taken stone by stone to the Ford Museum), there was disappointingly little remaining except some large blocks of dressed stone delineating the west and north walls, some flat stones near the hole where the cylinder had been taken out, an area of brick and rubble foundations, and a broken wall of stones on the edge of the capped pump shaft. Only one small piece of iron was found on this level. It was clear that Ford's men had done an effective demolition job.

The reputed date of the engine of c 1760 would not have suggested the arrangements described here so it may have been removed to this site and given the replacement wagon type boiler.

Subsequently, Mr Wilf Lawton produced three pieces of rotten wood with iron fastenings which were found in the bed of the stream and may be parts of the wooden beam.

Thanks are due to Steve Roman, Arthur Clarke, Jean Singer, Bill and Andrew Thompson, Eric Huddy (all MRIAS) and George Graham, Carolyn and Raymond Blain and other members of MTVCA who took part.

A D George

New Publications notified by Societies include:

Steel Wheels to Deeside by John Gahan. Edge Hill Railway Trust, £2.95. The third in a series; the story of the Wirral Railways from Birkenhead Park to West Kirby, New Brighton & Seacombe.

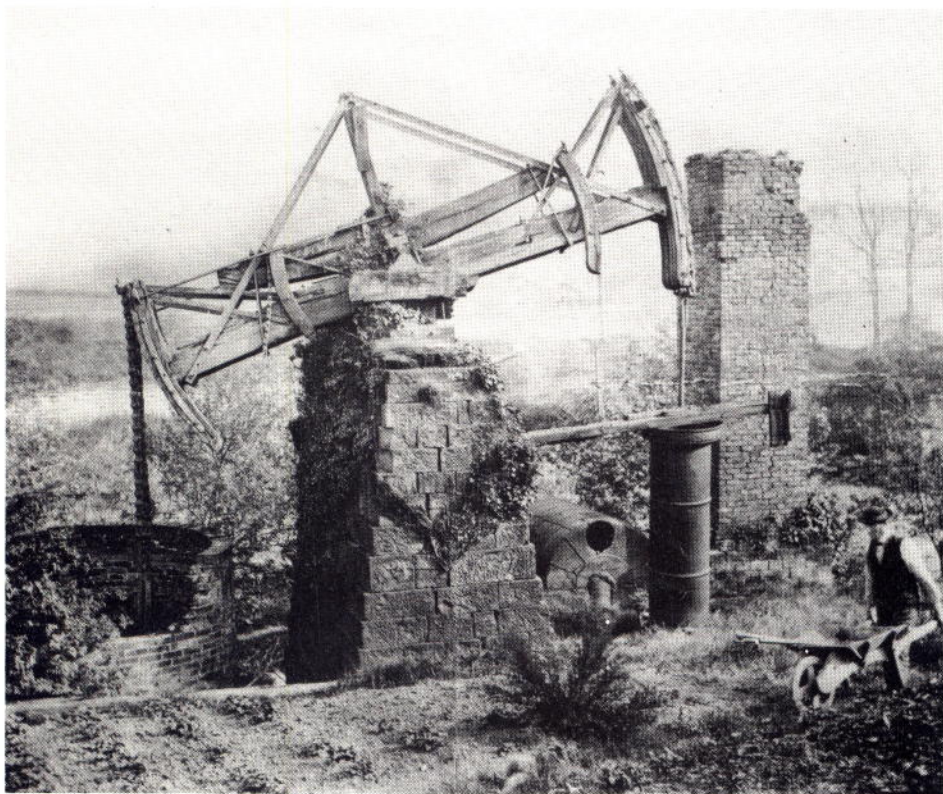
Nottinghamshire Industrial Archaeology Society have published **Volume 9 Part 2** of their *Journal* containing articles on Bilby Mill near East Retford and the Industrial Archaeology of Ashfield. Details of the Society can be obtained from the Secretary, Mrs Joan Hodges, 44 Wadham Road, Woodthorpe, Notts.

GLIAS. The February Bulletin of our London Group has brief notes on Hendon Aerodrome, a visit to Hampshire and contains an enquiry about Joseph Lucas, of Tooting Graveney (1846-1926) who has been described as the founder of hydro-geology. The gazetteer of London sites now continues up to 482 and enclosed with the Newsletter is a report on the London Transport Food Production Centre, Progress Way, Waddon, Croydon. This centre which closed recently prepared the food for 185 London Transport canteens which at one time served 100,000 staff. For further details of GLIAS and its activities contact the Honorary Secretary, Brenda Innes, 9A Upper Park Road, Bromley, BR1 3HN.

AIA Local Societies' Conference Report, March 24/5 1984 at Ironbridge. The AIA Council working weekend and local societies' conference took place with twelve societies represented, and material sent by a further three groups for display; other groups sent comment. The weekend provided an opportunity for socialising and sampling the delights of the New Inn at Blists Hill, everyone enjoying dinner there on Saturday evening and the members' contributions which followed. We were also pleased to welcome our 1000th member, Dr Freedman, and his family.

The main topics discussed were the recording of sites, and publications. Miss J D Stewart described the **Museums Documentation Association's** system, pointing out the flexibility of their cards to record locations, buildings, plants or objects, and explaining the use in particular of their **Field Card** and **Museum Summary Card**. The system can, with proper keyword structures, allow for computerised recording. Field cards are intended for site use, with spaces for description and for sketches; summary cards give all basic details on a site in one place, and allow cross-reference to other sources. Miss Stewart emphasised that local groups need to decide how members will use such a flexible system themselves; general instruction booklets are supplied with the cards as guidance. The MDA does not hold collections of cards but many local groups store cards with their museum or records office, purchasing through them, and thus gaining access to the MDA's services. Cards can be returned to the MDA if the group wants the MDA to computerise for them, but this is expensive for small societies — up to £2 per card. Cards can be purchased from the MDA at Duxford Airfield, Duxford, Cambs CB2 4QR for £4 per 100 by non-members of the MDA. If affiliated societies are interested, the AIA would be prepared to arrange membership.

Subsequent discussion showed support (though not unanimous) for the MDA system among Conference members and a willingness to investigate further. It was strongly suggested that suitable repositories for cards should be the society itself; the record office or museum locally, and the local Sites and Monuments Survey. The differences in operation of the NMR in England, as opposed to Wales and Scotland, were noted.



'Newcomen Engine at Fairbottom Bobs Colliery, Park Bridge, near Ashton-under-Lyne. Photograph probably late nineteenth century. Reproduced courtesy of the Science Museum'.

The new AIA publication system for the Review was outlined by Dr Marilyn Palmer, and comments on the way the Bulletin will work with it were made by Roy Day. John Powell described the abstracting service he has set up for the Review, and sought the co-operation of Societies in completing forms for the abstracting of articles from local society journals so that they gain wider circulation. If local society editors were willing to fill in the short forms, a valuable service could be provided: John would distribute forms, with a covering letter, to all secretaries. The suggestion met with general agreement.

Members present outlined the many and varied ways of publishing newsletters and journals, covering financing, printing and distribution as well as frequency and the problems of obtaining suitable material. Most groups distribute to members free, and sell outside at a differential rate; many rely heavily in publishing on specialist services offered by members. Some obtained financial help from charitable bodies, Arts Associations, local authorities or the WEA where appropriate. The question of the purpose of the publication was discussed: for members, for general interest, or for recording research; approaches varied considerably. The format of journals was also discussed, especially size and cover type; it was noted that the format must be attractive and the size manageable if societies wished to sell commercially. Computerisation of material and the use of word processors were considered, though as yet few societies used these methods. It was noted that printing costs could be much more reasonable abroad than here.

In view of the wide range of publication methods, and the concern expressed, the idea of a comparative guide for circulation to local societies on methods of publication and financing of journals arose. If societies send details of their methods to me, I will compile one.

Council noted the general points which emerged at the plenary session and will act appropriately. We would all like to record our thanks to Stuart Smith and his staff at Ironbridge for all their work.

Please note the date for the next Conference now – it is 23/4 March 1985, at Ironbridge.

Janet Spavold

Frank Holland Receives a Special Award. In September 1983, player piano enthusiasts descended on the Musical Museum at Brentford for a special party given at the Museum as part of the 20th Anniversary celebrations. The enthusiasts came from all parts of the country, South Wales, the North-East, and the Home Counties, and enjoyed an evening of music and entertainment. The music varied from Rubinstein playing Chopin recorded on a music roll over 50 years ago to the vocal talents of a group of people singing mightily to the song rolls such as 'Smiles' and 'Avalon'.

Frank Holland founded the first group of player piano enthusiasts in 1959. Four years later he started the Musical Museum. Since then interest in automatic musical instruments has grown enormously.

During the celebrations, Ralph Heintz, a Past President of the Music Box Society International, presented Frank Holland with an award from the Society, the citation reads :

'Trustee Award 1983. Presented to Frank Holland, MBE by the Music Box Society International for outstanding contributions to the field of automatic music.'

AIA Calendar

**N Western and Yorks
IA Conference No 14**
May 12 1984

**AIA Annual Conference
in Aberystwyth**
September 14-16 1984

**1st WMIAC
IA of the Trent Valley**
October 13 1984

Rochdale Canal Restoration & Mill Engine Preservation: the next phases are the topics for this conference in Rochdale. Fee £4.50 including lunch. Details from W J Thompson, 71 Albert Road West, Heaton, Bolton, Lancs. 0204-45504.

Book the date now. Details have been circulated.

Staffs IA Society are hosting this at the Spode Centre, Rugeley. The conference will look at the development of the Trent Valley's transport systems, the Stafford shoe industry, the Elizabethan iron industry on Cannock Chase and its later coal mines. The aquiferous geology and associated pumping stations are included. Details from Elaine Crabb, 4 Longstaff Croft, Lichfield, Staffs. Lichfield 55030.

The following courses have been notified; details obtainable from the addresses given.

West Country Railways and Waterways.
23rd – 30th May 1984; details from The Director of Studies, Leonard Wills Field Centre, Williton, Taunton.

IA – Gold, Lead & Coal.
6th – 8th July 1984. Details from John Jones, Director of Studies, Danywenallt Study Centre, Talybont-on-Usk, Brecon, Powys. Cost: £30.

The following six courses are to be held at the Snowdonia National Park Study Centre, Plas Tan-y-Bwlch; write for details.

Mining in North Wales: Minerals and IA, old mines and new.
16th – 23rd June 1984.

Mines, Mills & Furnaces: survey of recent work in IA in Wales.
28th July – 4th August 1984.

Narrow Gauge Railways in North Wales: historical background and survey of their present state.
11th – 18th August 1984.

Practical IA: continuation of work begun last year to survey the Diffws Slate Quarry. With Dr M Lewis.
11th – 18th August 1984.

Practical Surveying for Archaeology: learn how to do it.
23rd – 28th September 1984.

Michael M Rix, the man who first used the term 'Industrial Archaeology' in print, has been honoured by the Ironbridge Gorge Museum Trust. On December 22nd 1983 a plaque to commemorate Mr Rix was unveiled at the Coalbrookdale Furnace Site and Museum of Iron by Mr E Bruce Ball, member of the Museum Trust Board. Mr Rix, who taught in the extra mural studies department of Birmingham University, was a founder member of the Ironbridge Gorge Museum Trust. Throughout his life he had been a keen industrial historian and an enthusiast of the whole Ironbridge project. He died in 1981.

At the ceremony were his widow Mrs Marjorie Rix, his son Mr Michael John Rix, and daughter Joscelyn, also present were Mr Philip Trevor-Jones, Chairman of the Museum Trust, Mr E Thomas, Secretary to the Museum, Mr Dennis Roberts, member of the Museum Trust Board, and Mr Michael Darby, Vice President of the Museum Trust and a descendant of the historic Darby ironmasters, and his mother, Mrs Darby.

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