

### BUILDINGS LOST IN WALES

Douglas Hague is the only member of the Association's Council living in Wales, and is fully extended keeping an eye open for important structures under threat of unnecessary destruction, as happens all too often. Douglas has compiled the account which follows as a catalogue of some recent losses in the Principality. Bulletin 2:2 carried a mention of his campaign to save the original GWR stations at Neath (now gone) and Bridgend (threatened with 'rationalisation'). He would welcome support from individual members of the Association.

Neath General Station has now been demolished. This is the sad outcome of a long struggle by conservationists which began by moves resulting in the buildings being spot-listed after demolition had actually started. There followed a period of local council vacillation when our hopes were raised, only to fall when it was decided that no public enquiry was to be held. A great deal of opposition to the demolition had been made and this step seems a weakness in an otherwise happy democratic process, because in a single day enquiry a fair and full exchange of all views can be made. A final volte-face by the council settled the matter and British Rail claimed another success.

Many regarded Neath General Station of 1876 as by far the best and most complete station of its date in the Principality and doubtless its loss will be lamented in years to come. Much as one mourns the passing of steam trains the smoke has gone with them and a station such as Neath, which had not been properly cleaned for a decade, would if painted have been a gem. One wonders whether those who 'signed it away' have ever sampled the 'delights' of the new Port Talbot station.

None of the Nationalised Boards appear to display any pride in the achievements of the organisations they replaced, indeed it would seem that they are imbued with a rigid and doctrinaire policy of destruction which makes them insensible to any massive expression of public opinion, such as the outcry which preceded and followed the destruction of Euston. In Wales this outlook is most sadly illustrated by the destruction of the six Severn Tunnel beam-engines at the Sudbrook pumping station; I doubt whether this century will see a worse or more needless act of vandalism. These six great engines formed one of the grandest and most dramatic groups of steam engines to be found anywhere in the world.

The heavy hands of the 'rationalisers' have fallen on Pontypridd Station and others and now it is to be the turn of Bridgend. Here as a concession it is proposed to leave most of the 1850 building, and add to it a modern square building, but on the Up line, canopy and

Weaver's Warehouse at Swansea



buildings, which are of the same design as those at Neath, are to be swept away. Should a stand be made to retain the last Victorian canopy? Is it worth the effort?

Continuing on a somewhat cynical note, the Merthyr Triangle enquiry was held on 3rd December 1975 and those attending were sanguine of the right decision having been made, which indeed proved to be the case when after the houses had been allowed to deteriorate for a further ten months, it was announced on 5th October that the Inspector was in favour of retaining this unique group of worker's houses. However, the Secretary of State decided to reject these findings. Fortunately there is a ray of hope in the fact that the previous council which was utterly dedicated to the erasure of all Merthyr's industrial past has lost control to a party in favour of salvaging and restoring the Triangle.

Various solutions were discussed at the enquiry and the realisation of these in some form or other is certainly appropriate in the present economic climate when more people are becoming aware of the importance of restoration rather than demolition.

Early reinforced concrete buildings are at last being considered as archaeological specimens of importance, although in decay they are apt to present an unlovely picture. Indeed, an architect of the Third Reich is said to have advised Hitler against the use of the material as 'it made awful ruins'. Weaver's Warehouse and silos in Swansea (SS 66119314) completed in 1898 has been spot-listed in a move to save it from immediate demolition. It was designed and built by the French firm of Hennebique and Le Brun, pioneers in the use of reinforced concrete. The building is in two parts; the earlier mill is of several floors and was built on the ground floor of an uncompleted warehouse of orthodox stone and brick construction, while the second part consists of a battery of concrete silos. A distinctive feature of the first block is cantilevered end bay for loading under cover, but the fabric, particularly the exterior, is very badly corroded and this is due to a great extent to the undesirable slag used as an aggregate. There is no doubt of the historical importance of this building, but its restoration and certainly the re-use of the silos present technical and financial problems of a forbidding and unrealistic nature.

However a very different situation is to be found regarding another similar reinforced concrete warehouse in Carmarthen town. The WCA Warehouse (SN 40951978) on Pothouse Wharf was built by the same firm in 1902. It is much smaller than Weaver's and much better built and also has a cantilevered end bay. Apart from damage done to a roof beam due to water seepage from the roof, and the decay of the iron windows, the building is in excellent condition. At a fraction of the cost of a new building this could and should be restored and used either as excellent well-lit office accommodation or for light industry. Depending on the fate of Weaver's this could well turn out to be the oldest reinforced concrete building in the contry and its importance cannot be over stressed.

## TYNE AND WEAR INDUSTRIAL MONUMENTS TRUST

The recent bulletin of the Trust starts off on a pessimistic note with the notification of the demolition of several significant industrial monuments in the North East. Plessey Wagonway Bridge NZ 264788 which is probably the second oldest railway bridge in the world was demolished during 1975 without any enquiry as to its historical merit. The demolition of Close Power Station NZ 248636 was similarly carried out without the consultation of the responsible authorities. This power station built in 1902 by the Newcastle and District Electric Light Company Limited on the north bank of the Tyne was replaced by the nearby Forth Banks Power Station in 1904. This last year also saw the demolition of the quayside hydraulic engine house NZ 259641 at Tyneside which was one of the most famous relics of the work of Lord Armstrong, one of the fathers of hydraulic engineering. This power house and accumulator house built in the late 1870's to power hydraulic cranes on the Corporation quay were demolished during this year. The article continues by mentioning the demolition of the south pier steam crane NZ 383685, Richardson's Tannery NZ 237631, Adamsez Factory NZ 200638, and Kibblesworth Haulage Engine House NZ 241563. In spite of this depressing news the bulletin also contains cheerful reports on the preservation schemes at Corbridge old pottery and also further work at the Bowes Railway. For further information about the trust please write to the Tyne and Wear Industrial Monuments Trust, Sandyford House, Archibold Terrace, Newcastle-upon-Tyne, NE2 1ED.

## INDUSTRIAL ARCHAEOLOGY IN SNOWDONIA

The Snowdonia National Park Study Centre are holding a Conference between 11th and 16th July, 1977 on the Industrial Archaeology of this surprisingly heavily industrialised part of Great Britain. The course will cover topics ranging from mining to milling, from road to rail and will look at a broad range of relics in the field and will attempt to relate them to the Social Revolution of the times. The course fee is £28 and the Centre is Plas Tan y Bwlch. The programme is a mixture of lectures and visits to sites in the area. For further details please write to Mr E A J Buckhurst, Principal, Snowdonia National Park Study Centre, Plas Tan y Bwlch, Maentwrog, Gwynedd LL41 3YU.

Apart from this course, the Centre also offers other courses on Industrial Archaeology, and similar courses on Geology, Natural History and Gold Mining! Please write to the Centre for full details.

## MATLOCK WEEKEND CONFERENCE, 25-27 JUNE 1976

Robert Irving, who attended the AIA weekend symposium at Matlock during the summer, has provided the following report of the detailed visit which his group (one of three into which delegates were divided) made to Belper, together with a series of recommendations.

### BELPER NORTH MILL AND THE STRUTT FACTORY COMMUNITY

A report by the group visiting Belper on Sunday 27th June 1976 as part of the Weekend Seminar on Industrial Preservation. Eleven members of the Seminar participated in this visit, under the guidance of Pat Strange, to whom we express our thanks.

The particular structures seen were the North Mill, by William Strutt, the houses of North and South Row, the Cluster Houses, and their respective environs.

The North Mill truly 'represents a milestone in the development of iron frame construction;' it is also excellent in showing early solutions to factory design problems like heating; rain water disposal; personnel circulation, supervision and education; sanitation; and of course, power utilisation.

The Houses are interesting in themselves in exhibiting several different types of employee accommodation, eg. terrace housing of different materials, plan-types and construction techniques. They are not unique but are distinctive and, indeed, quite distinguished.

Together the mill complex and the Strutt houses are truly significant in representing an 18th century factory community. There was unanimous enthusiasm in the group about its worthwhileness, and in favour of its preservation in toto.

The group considered that it is most desirable to continue the existing uses of all the inspected buildings — the Strutt mill as a storage adjunct to the present mill buildings; the houses as predominantly owner-occupied residences. The possibility of using the mill as a public space such as a museum or an exhibition area, such as would attract tourists was rejected mainly because of the intrusive scale of traffic that would follow. In respect of the houses the group offered no alternative to the present ad hoc inspection by visitors of the exteriors and public spaces only. The consensus was that Belper is best left alone; our discussions therefore turned to ways and means of preserving and presenting the village substantially as it is now.

Two difficulties seemed evident:

- Not all of the essential parts of the village are within the present Conservation Area, nor have those buildings which deserve it been listed; and
- Many unsympathetic, often petty, alterations have been made or are being made to many of the houses. Others will undoubtedly follow as occupiers seek to improve their property.

The group offers the following comments:—

- There is a need for a well-publicised overall plan of the village which identifies, records and evaluates all the parts having historical

or other significance, with accompanying documentation such as terms of reference. Perhaps such a scheme has already been completed or is under way by the existing Advisory Committee. Only by the standards of an overall evaluation can incursions and alterations be judged; eg. what of the church near the Triangle, or of alterations to the paving in Long Row, or the electrification of old gas street lights? It was thought that only by such a plan could the relevance of gap-filling applications or car parking problems be seen in sufficient context.

- b. In discouragement of unsympathetic alterations such as window enlargements or the addition of bay window frames, and as part of a kind of resident education programme of appropriate form, the group suggested consideration of:—
- i) Publicity statements about the national and even the international value of Belper Village in the appropriate historical context;
  - ii) Making available to residents (and publicising it accordingly) the help and expertise of the present Advisory Committee or its nominees; and
  - iii) The publication of a bibliographical review of the available literature of good building alteration and adaptation — books, journals, articles, leaflets, design guides etc. If residents knew that advice such as that given in the Design Guide published in Durham was available, they might seek and use it. A similar purpose is seen in publication of the ways and means of grants and financial assistance for appropriate alteration or up-grading of houses, thereby also encouraging house owners to alter in the best way.

There is a possibility here of AIA involvement, particularly in (b)(i) to (b)(iii) above. This group now recommends that AIA Council give consideration to the publication and circulation of the review (iii) suggested above.

#### Editors Note

The preparation of a bibliography as suggested in (b)(iii) is under discussion by your Council.

### AIA CONFERENCE — SOUTHAMPTON 1976 (MEMBERS CONTRIBUTIONS)

#### 1. B WOODRIFF — KINGSTON POLYTECHNIC IA GROUP FILM — 'KINGSTON COOPERAGE'

A black and white film, lasting approximately 12 minutes, with sound, showing the stages in making a small barrel. These barrels were being made from parts of scrapped larger barrels. All the stages were clearly described and shown.

#### 2. J DAY — BRISTOL IAS (BIAS) STOTHERT AND PITT'S 'FAIRBAIRN TYPE' STEAM CRANE

A series of slides showing the restoration of this crane at Bristol City Docks, to full working order, from its original to final state. Slides shown indicated the very poor condition of the cab and some of the working parts, and the process of repairing and restoring them. Other slides showed the construction and machinery details. One slide showed the S & P works, with window carrying in them a small 'rosette' crest, which helps to identify S & P products.

#### 3. D W WARREN — SOMERSET IAS — THE MILLWRIGHTS WORKSHOP OF J CHIDGEY, WATCHET

A series of slides showing the millwrights workshops, with hundreds of patterns and parts, machine and hand tools, foundries etc. The society is clearing and cataloguing them all, and they are going into the County Museum. Also found under the 'rubbish' were the remains of a model 'T' Ford and a 'Ruston' car — which are awaiting collection by the National Motor Museum. Ledgers and day books have enabled the society to cost many mill installations in the county from 1850s to 1920s. Some slides were shown of mills and equipment supplied by the firm. The original buildings are not likely to be preserved.

#### 4. D ALDERTON — NORFOLK IAS — VITRIOL AND MANURE WORKS OF FISONS, AT THETFORD

A recently demolished works, of which only a photograph record

was taken, but Fisons have some documentary evidence. The works was close to the R Ouse and the GE railway. It produced Vitriol (Sulphuric Acid) and made superphosphates. Slides were shown showing the buildings pre-demolition. The plant had ceased production in the late 1930s and had become a storage and bagging plant.

#### 5. F BROOK

A brief description of the town of Worcester and its IA, including bridges, canals, railways, hop merchants stores, glove factories, a fine corn mill, warehouses and the Worcester Pottery. A slide shown indicated a very good conversion of a corn merchants store to an office block.

All contributions were of a very high quality indeed, both in content and delivery.



The Stothert and Pitt steam crane in Bristol Docks.

### KILNS OF THE POTTERIES; A SEMINAR

The London Kiln Study Group are organising a two day seminar on the above topic at Gladstone Pottery Museum, Stoke-on-Trent, on Saturday and Sunday the 23rd and 24th April 1977. The aim of this group is to encourage the archaeology of and documentary research about kilns, and it has already held two Seminars.

The following have already agreed to participate in this two-day seminar:—

Paul Atterbury  
Brian Bloice  
Dr F Celoria  
John Cherry  
Sally Coles  
Gordon Elliott  
Joy Greaves  
James Kelly  
Terry Lockett  
Arnold Mountford  
Lorna Weatherill  
Dr J D Wilcock

Chairman  
Historic Kiln Sources  
Terminology  
'Longton Hall' Porcelain Kilns  
Newcastle-under-Lyme Kilns  
'Technology'  
Chairman  
Medieval Kilns  
Chairman  
Chairman  
Social and Economic Background  
Ceramics and the Computer

Cost: £7.00 which includes £1.00 non-returnable Registration Fee tea and coffees, but not meals.

For further information contact: The Secretary, The Kiln Seminar c/o The Cuming Museum, 155 Walworth Road, London SE17.

## ARCHITECTURE IN YORKSHIRE

The Yorkshire Arts Association's next publication will be a survey of the Industrial Architecture of Yorkshire. Further details from Chris Stafford, Publications Officer, Yorkshire Arts Association, Glyde House, Glydegate, Bradford 5.

### IRONWORKS EXCAVATIONS OLD PARK 1976

#### Summary

The Blast Furnaces at Old Park, Telford, Shropshire, were in blast between 1790 and 1877 by the Botfields. At one time they were stated to be the second largest ironworks in the country. The area is a part of Telford New Town and during open cast workings the site of the furnaces was discovered. Excavation took place in November 1976, which uncovered important remains of the Old Park Ironworks.

#### HISTORICAL

The works were begun in 1790 on the land of the Hawkins Browne family and it was probably owned at that time by a partnership between that family and their agent Thomas Botfield. Before long the works was in the ownership of the Botfield family. Originally there were two blast furnaces but by 1801 there were four together with extensive forges and rolling mills. The Boulton and Watt list of ironworks in Great Britain in 1806 shows that Old Park was then the second largest in the country, only the Crawshay family's Cyfarthfa works being larger. By 1797 there were three steam engines in the ironworks, which from 1801 were supplemented by two large Boulton and Watt engines. There was a large mine pumping engine in the area in 1897, together with two steam winding engines. Old Park ironworks closed in 1877, and the site has subsequently been cleared of almost all visible structures, and in the inter-war period large quantities of slag were taken away for road making. A plan of the site in 1874 shows a large ironworks with a brickworks and two pools. The first edition Ordnance Survey of 1882 does not even indicate the remains of the ironworks. Griffith's Guide to the Iron Trade published in 1873 indicates that there were four furnaces at Old Park of which two were in blast, thirty puddling furnaces and three mills and forges.

#### THE EXCAVATIONS

During 1973 the Telford Development Corporation announced their plans in conjunction with the National Coal Board Opencast Executive, for the opencasting of the Old Park Area. The Ironbridge Gorge Museum Trust submitted a report in which it was pointed out that the site might reveal important remains of both early coalmining and also the ironworks. As nothing of the ironworks was visible above ground, there was no reason to advocate the preservation of the site. Throughout the course of the open-casting, the mining engineer for the Telford Development Corporation, Dr Ivor Brown, informed the Museum of any finds and ensured that they were delivered to the Museum. On 19th November he informed the Museum that part of the ironworks had been discovered by the operations and a visit by the Museum's Director, Curator and Archivist, ascertained that excavation of the site would be worthwhile. It was agreed with the representative of the National Coal Board Opencast Executive Mr R Blower, and the agent for the contractors, Mr R Carling of Messrs A F Budge, that a fortnight's delay on the excavation would not hinder the operation of the site. The Development Corporation kindly made available a sum of money for the excavation of the furnaces and for their recording. The Museum immediately hired a Priestman Mustang Mark II excavator from a local plant hire contractor, Messrs Anslows, whose drivers had worked on archaeological work for the Museum on many previous occasions. This particular machine was chosen because of the large volume of material to be moved and also the difficult terrain over which it had to pass to reach the site. A digging machine could also expose features that a bladed machine would miss.

Excavation work commenced on Tuesday 23rd November, under the supervision of the Museum's Curator of Technology and Workshop Manager. Daily photographs were taken by Mr Reg Preedy, a local freelance photographer. The excavation continued for six days under very bad weather conditions and with the constant supervision of Museum staff. As features were discovered by the excavator, a certain amount of hand clearance was done to reveal them better for the photographer.

On Wednesday 1st December, the excavation came to an end and all

finds were removed from the site together with samples of the slags and furnacebeams. The site was then returned to the contractor with no delay to his programme.

#### RESULTS OF THE EXCAVATION

The first feature revealed by opencasting was the base of one of the blast furnaces and the semi-dressed stone retaining wall to the charging area. Using this wall as a base line, the Priestman followed the wall along carefully revealing features. Unfortunately the opencast operations had removed all the material around the base of the furnace to well below tapping level but as a result the striking foundations for the furnace were revealed. The furnace had been built on top of a four foot thick layer of sand which due to the effects of heat varied in hue from bright red to purple. This sand had been contained by a double ring of firebricks on which was placed the massive sandstone bed of the furnace. This bed of course had become fused with the molten iron and slag during its operation. The furnace core was surrounded by sandstone rubble loosely mortared together on which the furnace stack would have been built.

To the west of the first furnace was found a pair of large sandstone blocks with no evidence of any heat effect. After initially thinking this was an engine base, quickly those directing the excavation realised that these blocks, approximately five feet square and two feet thick were the base of a furnace which had not been commissioned. The firebrick walls which were adjacent to them were mortared with clay which had not been subjected to heat and the two walls leading up to this block from the retaining wall appeared to be the entrance to a tuyere arch. At the base of the retaining wall was a two foot diameter brick culvert which could have served either for drainage or as a blast main.

Further to the west of this unfinished furnace were the remains of three brick buildings all at right angles to the retaining wall. The two nearest the furnace base had been barrel arched whereas the third, which lay outside the retaining wall, had brick piers around the walls at approximately five foot intervals. The function of these buildings is not known but presumably the latter building housed a blowing engine.

The site revealed the presence of four 'bears', the last charges of old furnaces which had been rolled from their original positions and buried. Two of the bears were relatively small, about seven feet long by four feet diameter but the other two were much larger approximately ten feet long by six feet diameter. These bears were a mixture of iron, sandstone, slag, and brick, and samples of each were taken. Although they were extremely irregular, they must have weighted in the region of 30 - 60 tons each.

Further to the West of the site were the remains of the brickworks with elaborate culverts and to the East there were the substantial remains of other buildings but not furnaces. These were on the line of the main roadway of the opencast site. To the South of the site were deep ash layers which would be appropriate for a calcining and coke burning area.

#### CONCLUSIONS

Although the excavations did not discover the remains of any steam engines the bases of at least two furnaces were revealed. The base of the furnace stack must have been approximately 36 feet square. During the excavation a furnace beam was found and also two sections of plateway one with the inscription "OLD PARK IRONWORKS", and the other, " and B BOTFIELD". These are now being restored by the Museum prior to display. A lengthier report will be produced when the samples have been analysed.

S B Smith, MSc AMA, Curator of Technology, Ironbridge Gorge Museum, Council Member AIA

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