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Industrial Archaeology took root in Bristol in the Autumn of 1964 when Angus Buchanan and Neil Cossons inaugurated a series of lectures under the auspices of the Department of Extra-Mural Studies of the University of Bristol. Those lectures were the first of many, creating an enthusiasm and a basis of knowledge in the subject, from which BIAS was eventually established in the Autumn of 1967. The Extra-Mural Lectures have continued to form an important function in the pursuit of the main objectives of our society, bringing experts from all parts of the country to Bristol in the promotion of research, recording and field work to the highest possible standards. Over the years a large proportion of our membership has been recruited from this source. Next year, the Winter Series of lectures will have been running for twenty years. Perhaps it is an appropriate time to recognise the valuable role which the Department of Extra~Mural Studies has played in supporting the interests of industrial archaeology in Bristol.

The Bath Stone Quarry Museum

BIAS member David Pollard has been heavily involved in his spare time in plans for a new Wiltshire museum which has been gradually making progress since its inception at the end of 1982. He writes:

A project is well under way to set up a museum of Bath stone quarrying at the Pickwick and Traveller's Rest Quarries at Corsham, Wiltshire. The main objective of the museum will be to illustrate the history of quarrying, transporting and working Bath stone and other similar oolitic freestones, such as Nailsworth, Barnsley (Glos) and Guiting. However, other aspects of the quarries will be covered, such as wartime ammunition storage, mushroom growing and wildlife. Plans for the 2.7 acre surface site, include an exhibition hall containing static displays to explain the geology of the stone, outline the history of its use and the evolution of quarrying techniques and the associated equipment, such as tools, crab winches, cranes, winding engines and tramways. The gravity operation of trollies laden with block stone will be demonstrated by reinstating the tramway and extending it to serve a stacking ground complete with crane. A small working traditional type masonry yard will show how block stone was converted into finished products. It is hoped to obtain a petrol driven 'donkey saw' of the Combe Down type to work in the yard. The stone chimney of the winding engine house still stands in excellent condition, the house itself was demolished but it is intended to excavate and rebuild it to its original appearance. Two wartime 'Pill Boxes' will also be retained.

Underground in the Pickwick quarry it is planned to create a hand-worked heading to demonstrate working methods typical of the 1850-1939 period. Entry to the quarries is by the c1899 slope shaft. These are some of the oldest quarries in Corsham and were active at various times from the 1840s

until 1958, and also used for ammunition storage during the second world war. Access was originally via two vertical shafts, now capped.

Charitable status has been sought for the project and planning approval given to develop the site as a museum, and to erect temporary exhibition, office/shop, refreshment and toilet buildings. The project has been allocated 10 workers sponsored by the Community Council for Wiltshire under the Manpower Services Commission's Community Programme Scheme. Much hard work by project members, aided by the generous loan of earth-moving equipment by Isis Plant Ltd, has enabled a good start to be made on landscaping, and clearing parts of the site, which were covered entirely with stone waste from the quarry, the service road has been extended and a 9 ft gauge railway track laid down for the stacking crane. Progress underground includes the removal of tons of rubble from the quarry floor and the dismantling, taking down and transporting of a wooden face crane for the demonstration heading.

Donations of historic equipment to the project include the oldest known Stothert and Pitt crane, believed to date from 1864 and originally used for stacking block stone at Box Wharf, In 1940 it was sold to a timber yard but later returned to quarry use at the Clift, Box. Stothert and Pitt have given the jib and mechanism of another crane built by them in 1909. Other gifts and loans include a stone crusher (from Combe Down), trollies, plate rails, tools and a mason's truck.

The Lighter Touch

John Robinson at the Science Museum, who is keenly interested in maritime matters, has given permission for us to use this account written for the AIA Bulletin.

The outbreak of war in 1939 found the Royal Navy underequipped with many types of ships and in particular the smaller auxiliary vessels found to be necessary in ports and anchorages to service the fighting fleet. This shortfall frequently had to be met by requisitioning merchant ships such as Clyde puffers and steam trawlers. In many cases these proved to be so satisfactory in their new roles that when the Navy came to draw up designs for purpose-built vessels for the same roles, the new builds turned out to be close imitations of the makeshift requisitions they were to replace.

When the fighting fleets were so numerous that they could not all enter a Naval port at once and had to be stored and ammunitioned at anchor, water tenders had an important duty in keeping them supplied regularly with many tons of fresh water. As late as 1947, self-propelled water lighters were still being laid down to a design almost identical with that of pre-war steam trawlers. Until recently several of these unassuming but smart little steamers survived in service in the Naval ports - now their role is carried out

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where necessary by dumb lighters. One of them, the *Freshspring*, passed recently to a private owner in Bristol, Oswald Burger, who is working with friends to keep it smart and seaworthy. Help from like-minded enthusiasts would be welcomed by Mr Burger and his team. So if the idea of working and eventually going to sea on a 1947 triple expansion steamer of 290 tons appeals to you, contact Oswald Burger at 21 Sandringham Avenue, Downend, Bristol BS16 6NO, or simply make yourself known to anyone you see working on the *Freshspring* at Wapping Wharf, Bristol (near the Industrial Museum).

Action at Painters Pit, Golden Valley

Past coal-mining activity in the Golden Valley, near Bitton, was brought to the attention of BIAS members by the late Mat Southway as far back as 1971, in his 'Kingswood Coal' Journal 4 article and, later, in Society site visits. interest developed as documentary research slowly progressed, but this has been given a boost during the last year with the BIAS working parties led by John Cornwell. These efforts have concentrated on rescuing a surviving feature of early mining technique from imminent dereliction. At Painters Pit a ventilation furnace and chimney, believed to be one of the last of its kind, has been saved from the dangers of an enormous growth of ivy which completely obscured it. The structure has been successfully repaired by the use of two Dowty hydraulic pit props, which supported the stack while shattered and missing brick and stonework was replaced in the firebox and chimney.

As underground workings became deeper and more complex during the eighteenth century it sometimes became necessary to open up a second shaft to improve ventilation. In some cases a furnace was built at the base of the second, or upcast, shaft to create a stronger air current and improve ventilation still further. Less often, a firebox and chimney was placed to the side of the shaft at surface, connected by a sloping air duct, or drift. The remains of such an arrangement was discovered a few years ago by John Cornwell at Cock Road engine house, connecting with a shaft that has now been filled. At Findall Iron Mine in the Forest of Dean, a semi-derelict ventilation furnace and chimney was repaired, by a working party led by Ian Standing, from the Gloucestershire society, which was photographed, drawn and reported in the GSIA Journal 1979.

At Painters Pit the furnace drift was found to enter the shaft some 7-8 ft from the surface, the overall design being somewhat unusual in having an airduct which bypassed the firebox which would have improved draught efficiency. When continuing to clear the surrounding undergrowth the group found that a previously unsuspected but wellpreserved horse-gin platform was revealed with further remains of the heapstead, giving added interest to the site as a whole. The earliest known documentary records of mining in the Golden Valley date from 1726, when permission to work all 'mynes and veins of cole' was granted to one Thomas Edwards. The Brain family became involved in a partnership which took over the site in 1798, for the purpose of working Old Pit. From research carried out by a descendant of the Brain family it has been established that Aaron Brain was authorised by his partners, in 1808, to purchase 20 to 40 fathoms of second-hand shides and rods,

and a boiler 'for the further prosecution of the work'. In 1819, an atmospheric engine was purchased, for £213 exclusive of house spring beams and shears, from Peterson and Boult at Staple Hill. By 1821 it was decided that a whimsey (steam beam-winding engine) was needed, of greater power than the one already in operation, and Aaron Brain was again authorised 'to obtain one on the best possible terms'. Probably the activities at one of these dates indicates the opening of New Pit on the other side of the valley. When this occurred, it is believed that the shaft of Painters Pit, close to Old Pit, was relegated to the air shaft. It had become the site of the ventilation furnace by the 1840s. New equipment was still being purchased by the company from Paulton Foundry in 1878, but the colliery was finished and the site up for auction in 1898. The completion of the BIAS project will ensure that this small complex, which illustrates early mining techniques so well, will remain a feature of the landscape for future generations. We hope that drawings and a report of the work carried out will be available for the next Journal.

Dundas Aqueduct

There are renewed hopes that it will soon be possible to resume navigation between Bath and Bradford-upon-Avon on the Kennet and Avon Canal now that repairs at Dundas Aqueduct are underway once again. After the failure of earlier efforts it is understood that current plans by the K & A Canal Trust now involve the insertion of a waterproof concrete membrane to line the leaking bed of this famous Rennie structure. The repair scheme also includes the construction of stop-plank grooves at the old entrance to the Somersetshire Coal Canal at the Bath approaches to the aqueduct. This additional facility will enable the reopening to go ahead of a quarter-mile section of the coal canal as boat moorings, as proposed by its owner, Tim Wheelden. This section is through the grounds of his home at Dundas, the filled-in entrance lock forming part of his vegetable garden. Mr Wheelden is not new to enthusiasm for canal navigation. At present he operates the John Rennie pleasure boat from Dundas.

Claverton Pumphouse

In close proximity to Dundas the small group of committed volunteers continue to work at maintaining the unique water-wheel operated pumping equipment at Claverton. It came as a shock, however, to have to set about replacing the time of their huge waterwheel, the elm boards of the paddles, the oak starts (or paddle supports) and other components which had been newly-refurbished in 1974. The occasional running of the machinery had left the wood standing damp rather than wet causing it to rot more quickly than originally expected. (Perhaps a lesson to other conservation projects?) The Timber Research and Development Association advised that replacement with the Indian teak, iroko, would solve the difficulty, and the daunting task was undertaken. Neil Hicks, one of the volunteers, supplied these details of the work which included fitting 192 boards - the paddle boards weighing 75 lbs each and 288 starts all of which had to be fitted separately to match six different-sized slots in the various parts of the waterwheel. 1152 old bolts were boiled to secure the new boards, and four gallons of varnish, eleven gallons of creosote and 12092 lbs of timber later; the pump was in

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operation just in time for the 1982 season's new influx of visitors.

Nailsea Glassworks

An excavation of part of the extensive glassworks site at Nailsea was initiated by ACCES (Avon Community Conservation and Environment Scheme, sponsored by Avon County Council Planning Department) when, earlier this year, projected road works were thought to threaten the last remains of this industry. By the close of the year this scheme, using Manpower Services Commission resources, has achieved its main objective by revealing foundations, flues and ancillary buildings of one of the great glass cones of this historic works complex. At the same time, a large amount of information has been collected on many different aspects of the industry to assist in the interpretation of the work carried out, and detailed drawings and records have been prepared for all phases of the project.

An empty bungalow has prevented the exposure of the central furnace area but it is possible that work may continue here, if the planned demolition of this building proceeds. The future of the original road scheme is now a little obscure as a result of heavy local opposition, but whatever the outcome of the site at Nailsea, this project will have provided much new and well-documented information on this important local industry, which has been managed by BIAS member, David Pollard. As the digging season drew to a close a surprisingly large number of people responded to an invitation for a public inspection of the project, underlining the strong local interest. Members may like to refer to the late Basil Greenhill's article on 'Nailsea Glass Works', in BIAS Journal 4 for further historical background. We plan to include an excavation report on the project in a future Journal.

BIAS Gazetteer

In last year's BIAS Views details were given of the launching of a new project, to produce an updated gazetteer of industrial sites within our area, in which members were being asked to collaborate in a combined effort. Some twenty or so members volunteered to take part in checking sites already recorded and adding new ones where possible to those listed in the Neil Cossons pamphlet *Industrial Monuments* in the Mendip, South Cotswold and Bristol region. At the end of 1983 well over a hundred completed record forms have been returned including details of several new sites so the project has already proved its worth. In many cases it is apparent that new categories of features from our industrial past, not previously included, are now thought worthy of recording. This is a highly satisfactory state of affairs, for surely our view of industrial archaeology should show progress as the years pass.

Our project still has room for progress and improvement, however, as a number of our volunteers have still yet to produce their promised results, and so gaps are left in the overall coverage. Clearly it would be helpful to receive any outstanding record material, or to know of particular cases where it is no longer possible for promised results to be completed. In contrast some early volunteers have returned batches of information and taken new forms to continue working, and there is still scope for new helpers to make a

valuable contribution to the scheme, particularly in the field of our transport history which at present, is only poorly covered. Details and forms can be obtained from the editor, who would be pleased also to receive the results. The allround co-operation of members could convert the present 'worthwhile effort' into a positive success, from which the original objective of an updated gazetteer could be easily attainable. If BIAS members wish to have a new gazetteer available it is up to each individual to play a part in making it possible.

Obituary

We regret to report the loss of two prominent BIAS members during the last year, both recent contributors to *BIAS Journal*, who were national figures in their own spheres of industrial history.

Kenneth Ponting, author of a number of books on the history of woollen textiles, contributed an article on West Country textile inventions to last year's *BIAS Journal 15* As a young man he had followed his father in the woollen trade at Trowbridge, becoming a director of Samuel Salter and Company before his retirement in 1970. In that year he was appointed research director of the Pasold Research Fund established to promote the study of the history of the textile industry. In addition, he lectured for the Extra-Mural Department of the University of Bristol and had taken part in recent BIAS Winter Lecture Series. He died suddenly, aged 76, while on holiday earlier in the year.

Charles Ralph Clinker, or C R Clinker as he preferred to be known, was a prolific and widely respected author who also started his working life in the industry in which he was to become so prominent as a writer. He joined the GWR in 1923 on the staff of the Superintendent of the Line but subsequently assisted E T MacDermot in the preparation of his great history of the railway. His response to this impetus, was a long list of his own publications and the revision of other works, eventually including MacDermot's *Great Western Railway*. He contributed a short article to *BIAS Journal 14* on the Avon and Gloucestershire Railway, after visiting Bristol to speak to BIAS members in the Winter Lecture Series. Later he joined us in a society visit to Temple Meads Station. C R Clinker died, aged 76, in April, after a long illness.

As we go to press at the end of 1983, we have just learned of the death of one of our society's founder members, Austin H Parsons of Bishop Sutton. Mr Parsons lived at Timsbury as a boy and worked as a carting boy using guss and crook in Bromley Colliery.

He wrote vividly of his recollections there in *BIAS Journal 3*, 1970. After a variety of other experiences, including helping to found and becoming first president of the archaeological society at Wotton-under-Edge, he moved to Chelwood as sub-postmaster, where he published a booklet, *Notes on Chelwood*. He continued his interest in local history and industrial archaeology after his retirement when he moved to Bishop Sutton, in particular carrying out investigations into the Bilbie bell-founding family and the early glass industry at Stanton Wick. Mr Parsons always made a special effort to attend the BIAS Annual General Meeting and it is from those occasions that most BIAS members will remember him.