

BULLETIN 1.6

1975

### THE CRANES ARE FLYING

Britain's dwindling population of Fairbairn fixed-jib heavy-lift cranes suffered a further depletion recently when a large example at Hartlepool was demolished to make way for dock redevelopment. Cranes of this type, usually with a wrought-iron box-section jib of fixed radius, steam slewing and lifting gear and requiring extensive foundations below the ground, were originally introduced by Sir William Fairbairn and manufactured by his Company, but several other nineteenth-century crane builders took up the design and produced their own versions.

The Hartlepool example, thought to date from the turn of the century and estimated to weigh 400 tons, belonged to a local firm until 3 years ago, when the lease on its dockside site ran out and ownership reverted to the Hartlepool Dock Authority. Its foundations were in a poor state, but proposals were in hand to move the whole structure, possibly at one go with the help of a floating crane, to another site where its future could be assured. Pressure to redevelop the site for container traffic led to its rapid destruction, despite its scheduled status. The Dock Manager at Hartlepool, Haydn Williams, had previously been quoted in "The Sunday Times" as saying "I could tell you what I would like to do with it, but being a gentleman I won't".

One of the earliest surviving Fairbairn cranes is still to be seen at Bristol, where it was erected at Wapping Wharf, City Docks by Stothert and Pitt in 1875. This crane is plated to lift 35 tons, although it regularly lifted up to 50 during its long working life which extended up to less than five years ago. One general problem of Fairbairn cranes was keeping up with the increase in ships' dimensions, particularly the beam. The absence of any luffing motion in the jib meant that placing several loads across the width of a ship's hold often required the ship to be juggled around under the crane and turned right around to achieve the desired positioning.

The future of Bristol's Fairbairn, which weighs 120 tons and originally cost £3,600 excluding foundations and engine house, was threatened recently by the general run-down of the City Docks at Bristol and the transfer of all commercial facilities to the mouth of the Avon. But the City Museum has taken over the crane for preservation on site, and initial restoration will begin shortly with the help of a £500 grant from the Science Museum.

At Aberdeen there is another example, which will either flourish as its heavy-lift capabilities are exploited for North Sea oil traffic, or perhaps disappear as rapidly as that at Hartlepool when the site is required for something bigger and heavier. And Dover boasts a rare hand operated Fairbairn, originally manufactured by Fairbairn's own Company.

### STOCKTON & DARLINGTON TIMETABLE

A wide range of events is planned for the 150th Anniversary celebrations of the Stockton & Darlington Railway. Coinciding with these is the opening of the National Railway Museum at York.

#### August

- 16-23 BR Exhibition Train - Darlington.
- 18-30 Railway Exhibition - Darlington.
- 24-30 The Rail 150 Exhibition and BR Exhibition Train - Shildon.
- 31 Steam Railway Cavalcade - Shildon.

#### September

- 1-27 Exhibition - St. John's Street Ticket Office Museum, Stockton.
- 21-27 BR Exhibition Train - Stockton.
- 20-27 Railway Exhibition - Preston Park Museum, Stockton.
- 26 Lecture 'The Next 150 years' (Prof. E. R. Laithwaite) - Stockton
- 27 Re-enactment of cutting of first sod - Preston Park Museum, Stockton.
- 27 Opening of the National Railway Museum - York.

From 1 July Darlington North Road Station Museum, Darlington Water Works (Beam & gas engines), Timothy Hackworth's Cottage at Shildon and an exhibition 'Railway Images' at Billingham Art Gallery, will be open to the public throughout the summer.

### PUBLICATIONS

**21st Annual Report, Ancient Monuments Board for England.** H.M.S.O. 50p.

Includes a useful review of recent progress in scheduling Industrial Monuments. An appendix suggests some priorities for the preservation of industrial monuments of the iron and steel industry.

**'Waterway Users' Companion 1975'**, British Waterways Board, 45p, (56pp) from BWB, Melbury House, Melbury Terrace, London NW1 6JX (01-262-6711). Index of over 1,000 names and addresses of every organisation associated with inland waterways: conservation, BWB regional offices, boat hire, angling, boat clubs, including privately owned navigations. Add 10p for p&p.

'Oxford Waterways', 75p plus p&p from Oxford Waterways Action Group, 33 Oxford Road, Old Marston, Oxford OX3 0PQ. Published by Oxford Preservation Trust and Oxford Civic Society it reviews history of Cherwell, Isis and Oxford Canal and problems of pollution, conservation and future use.

'The Nottingham & Beeston Canal', 50p plus p&p from Tom Huggon, Hon. Secretary, Nottingham Civic Society, 11 Priory Court, Friday Lane, Gedling, Nottingham. Looks at present condition and future potential for improvement.

'Code of Practice of Stone Cleaning and Restoration', 20p post free from Federation of Stone Industries, Alderman House, 37 Soho Square, London, W1. Correct procedures for the cleaning of limestone, sandstone, marble and brick and methods of restoration. Harm and unsightly effects of wrong treatment are stressed.

'Amenity & Urban Planning' by David L. Smith (Crosby Lockwood Staples, 1974 pp 198, £4.50). Account of concept of amenity in British town planning with General Improvement Areas and Conservation Areas taken as case studies. Bookshops or RIBA, 66 Portland Place, London W1 (add 25p for p&p).

'Kettlewell Providence Lead Mine Ore Crusher' (Earby Mine Research Group, 20p). Deals with removal and restoration of crusher. From P. Dawson, 41 Stoney Bank Road, Earby, Colne, Lancs.

'Dorset Bridges: A History and Guide' by A.J. Wallis (Abbey Bookshop, 1974, The Parade, Sherborne, Dorset, (£1.80). Mr Wallis was for 15 years bridge engineer to the Dorset County Council; he anecdotally covers many bridges in the county and details four Bridge Trails).

'Bristol & How it Grew' (Bristol Visual & Environmental Group, 1974, 6 Buckingham Vale, Bristol 8, £1.35). Visual evocation of evolution of Bristol with comment on conservation and future development.

'Dereliction of Land' (Professional Institutions Council for Conservation, 1974, 12 Great George Street, London SW1P 3AD, £1). A forester, archaeologist, surveyor, engineer, botanist and planner formed working party which prepared this report which contains valuable proposals for solutions to problem which 'may be the best way of using both local enthusiasm and professional expertise to the best advantage'.

'The Law of Local Councils' by J. Prophet, (Shaw & Sons, 1974, £2). A new version of the old Parish Councillor's Guide, it covers parish councils in England, community councils in Wales and town councils in both, incorporating the changes brought about by the Local Government Act 1972.

'Remains of a Revolution' by Anthony Burton, photographs by Clive Coote (Andre Deutsch, 1975, pp 255, £5.50). Study in words - largely contemporary accounts - and pictures of Industrial Britain. The book is 'an attempt to indicate ways in which the work of individual archaeologists can illuminate and add to the documentary evidence of traditional research'. Superb photographs and thinnish gazetteer.

## GLIAS OUT FOR MEMBERS

The Greater London Industrial Archaeological Society's new leaflet under the banner headline 'London ALL CHANGE' stresses the continuing high rate of IA destruction in the metropolis and asks for more people to help record and preserve. Further details of GLIAS and its work from Vere Glass, Secretary, 69 St. Peter's Road, Croydon, Surrey CR0 1HS (01-686-4003).

## SUMMER RESIDENTIAL TASKS, 1975

The following IA projects are planned for volunteers by the National Conservation Corps for Summer 1975. All bookings should be made to National Conservation Corps, Zoological Gardens, Regents Park, London NW1 4RY, from which booking forms and further details are available.

Ironbridge Gorge Museum Trust, Shropshire

5 July - 15 July

17 July - 25 July

25 July - 1 August

Main tasks will include clearance at Coalport China Works and footpath/towpath clearance along the River Severn and Shropshire Canal.

Sluggan Bridge, Badenoch and Strathspey

1 July - 8 July

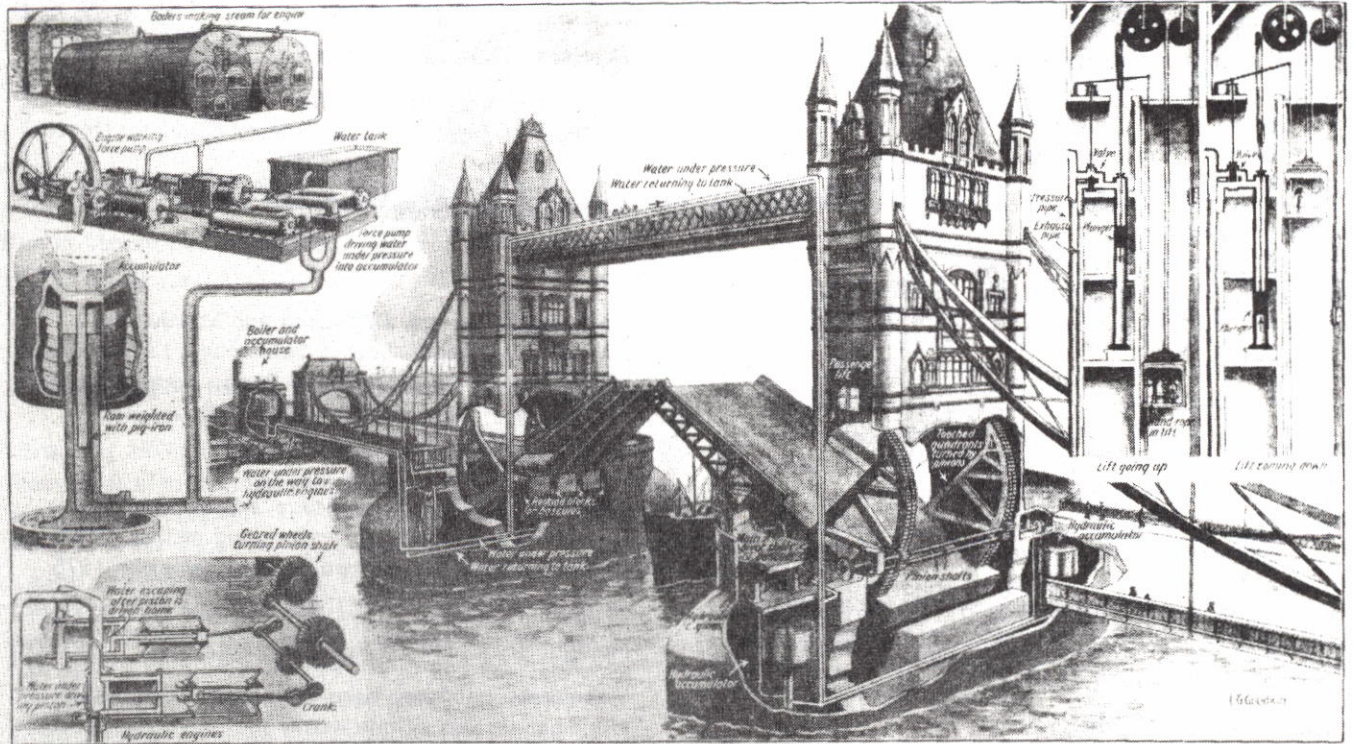
Rebuilding of abutment wall of approach ramp to this Wade bridge and removal of boulders from bed of River Dulrain to prevent erosion of foundations.

## TOWER BRIDGE MACHINERY PRESERVED

Modernisation of London's Tower Bridge by the installation of electrically driven oleo-hydraulic machinery at a cost in the region of £1 million has necessitated the removal of some of the original steam-hydraulic plant of 1894 which would still be giving trouble-free service today were it not for the need to economise on labour. The original hydraulic engines by Armstrong - Mitchell, each weighing 20 tons, were operated from the Bridge's own hydraulic pumping station under the southern approach road. They were installed before the superstructure of the tower was complete, so removal has presented several problems because of the limited working space in the piers. The engines were offered for sale by the City Engineer (there were no takers from Lake Havasu), and one is reported to have been sold to the managing director of a motor agency in Hornsey who plans to show it abroad as an example of British engineering.

A steam operated hydraulic pump, installed by Vickers Armstrong in 1941 to supplement the two original pumping engines under the southern approach, has been removed to Dr. Rowan Francis' private steam museum at Forncett St. Mary, near Norwich. The Corporation of London, which administers Tower Bridge plans to open the pumping station, with its two original pumps, and one of the four engine rooms in the bases of the towers, as a visitor attraction when conversion work is complete. Specimens of the eight hydraulic engines will be retained in situ.

# The WONDER BRIDGE of LONDON and HOW it is WORKED by the MOVING of a LEVER



The hydraulic machinery of Tower Bridge. From the magazine 'This and That', 22 November, 1930 with acknowledgements to I.P.C. Magazines.

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## NORTHERN IRELAND

1975 and '76 promise to be important years in Northern Ireland. For EAHY 1975 four model conservation schemes have been initiated, in Londonderry, Armagh, Hillsborough and Cushendall. It has also recently been announced that with the addition of 73 listed buildings in the North Down area the total for the Province now exceeds 300. For 1976 the work of the Northern Ireland Bicentennial Liaison Committee, set up to co-ordinate a range of activities in the Province to mark the 200th anniversary of the birth of the United States, is centred around the establishment of an Ulster-American Exposition and Folk Park at Camphill in County Tyrone. The cottage birthplace at Camphill of the great industrialist Judge Thomas Mellon has already been restored and opened to the public.

## TOLL HOUSE APPEAL

Efforts are being made to raise £5,000 to restore the toll house at Steanor Bottom Bar, Todmorden, Lancs, a fine six-sided, two-storey structure with tollboard, standing in the angle of Rochdale Road and Calderbrook Road (SD 945198). Built c.1825 for the Todmorden Trust the building has been derelict for many years. (See O. Ashmore, Industrial Archaeology of Lancashire (1969) pl61 and plate on pl07). Donations to Steanor Bottom Tollhouse Restoration Fund, The Manager, Yorkshire Bank, Church Street, Littleborough, Lancs.

## COURSES

### Matlock 13-19 July

**Industrial Archaeology in the Midlands**  
Based at Matlock College of Education, within easy reach of Cromford where the world's first successful water-powered cotton-spinning mill was established by Sir Richard Arkwright in 1771. A number of site visits will be included, and the particular problems of conserving industrial monuments will come in for special study. Fees: residential £24, non-residential £6, with additional charges for admissions and coach hire. Organised by University of Nottingham, Department of Adult Education, in association with W.E.A., East Midland District. Further details from: Leslie Parkes, Residential Courses Secretary, 14-22 Shakespeare Street, Nottingham.

### Avoncroft College, Bromsgrove

August 9-15. 'The Midland Canals'. Lectures, films and visits including a full-day narrow boat trip. Cost from £32 including accommodation, meals and visits. Details from the Secretary, Avoncroft College, Stoke Heath, Bromsgrove, Worcs. B60 4JS.

### Yonder Towan Field Studies Centre, Cornwall.

A number of 'activity' holidays are run here during the summer, including one or two devoted to industrial archaeology, with visits to sites in the area. Details from Yonder Towan Field Studies Centre, Newquay, Cornwall.

### Manchester University Summer School at Bangor

includes the following one-week courses:  
July 12-19 'The Great Steam Age'. Dr. C.T.G. Boucher. Illustrated lectures will be interspersed with field visits to some of the Welsh narrow gauge railways and other steam engine sites.

July 26–August 2 'Industrial Archaeology: Fieldwork'. Dr S.N. Slatcher. A study will be made of one of the larger slate quarries of Snowdonia in an attempt to record something of the development of the workings, the application of water power and the method of transporting the slate from the mountains. Further details of the Summer School can be obtained from Mrs Lynn Palethorpe, Box E, The University, Manchester, M13 9PL.

#### **Coleg Harlech Summer School**

9–16 August 'Industrial Archaeology'. D. Morgan Rees, MA OBE and Dr. Lewis Lloyd. The mines and quarries of Gwynedd. Further details from The Registrar, Coleg Harlech, Gwynedd.

#### **University of Hull**

2–9 August 'Practical Industrial Archaeology'. At The Hull Residential College, Abergavenny. A course to give practical instruction in the techniques of fieldwork and to produce a detailed survey of the furnace site at Blaenafon Ironworks. Further details from Department of Adult Education, University of Hull, 195 Cottingham Road, Hull HU5 2EQ. No previous experience is required, but students must be prepared for "fairly arduous physical exertion".

#### **University College, Cardiff**

4–6 July 'Geology of the West Shropshire Mining District'. A weekend residential field study course led by John Perkins, BA FGS. Details from Department of Extra Mural Studies, 38–40 Park Place, Cardiff.

#### **Peak District National Park Study Centre**

30th August–6 September 'Industrial Archaeology Holiday'. Visits will be made to old canals, railways, lead mines, cotton mills, etc. of the Peak District. 3–5 October 'Industrial Archaeology of the Peak District'. A weekend course. The major themes will be railways, lead mines and steam power. Details from: Peak National Park Study Centre, Losehill Hall, Castleton, Derbyshire, S30 2WB.

#### **Dales Centre, Grassington, Yorks.**

12–19 July. Described as an 'Industrial Heritage Holiday', the course will cover lead mining and other industries which once flourished in the Yorkshire Dales. Enquiries to T.M. Parker, Director, The Dales Centre, Grassington, near Skipton, Yorks. Telephone: Grassington 752757.

#### **Manchester College of Adult Education**

27 July–2 August. 'Industrial Archaeology of Manchester and its Region'. Cost £28 resident, £3 non-resident excluding cost of excursions. Details from Mr D.D. Broomhead, Organising Tutor for Short Courses, Manchester College of Adult Education, Cavendish Street, All Saints, Manchester, M15 6BP. (061-273-5335)

#### **University of Dundee**

17–27 August. 'Tayside – the Landscape and Its History'. Deals with the evolution of the landscape since the 18th century, including the impact of mining, shipbuilding and other industrial activities. Accommodation in single rooms at a Hall of Residence. Course fee: £60. Applications by 15 June to Department of Extra Mural Education, The University, Dundee DD1 4HN.

#### **The Midland Canals, Bromsgrove**

9–15 August. Lectures, films and visits include full day narrow boat trip (from £32 inclusive). Details from the Secretary, Avoncroft College, Stoke Heath, Bromsgrove, Worcs, B60 4JS.

#### **Grand Western Canal, Devon**

30 July–11 August. Clearance on canal for Devon County Council (Provisional).

#### **New Lanark, Lanark**

19 August–26 August. Clearance of surrounds of mills and model village.

#### **Crubenmore Bridge, Badenoch and Strathspey**

30 August–6 September; 6 September–13 September; 13 September–20 September. Repair to arch, parapet and cutwater of this Wade bridge (provisional).

#### **WATERWAY CAMPS**

The Waterway Recovery Group, whose aim is to encourage volunteers to restore and maintain derelict navigations is holding two summer camps in 1975:

Droitwich Canal 26 July–16th August

Montgomery Canal 16 August–6 September

Volunteers (minimum age, 16) can be accepted for minimum periods of one week, inclusive cost about 75p per day. Details from Alan Petrie, 37 Teignmouth Road, London NW2 (01-452-5385).

#### **DON'T GET TET**

Cases of fieldworkers getting tetanus are thought to be on the increase (more fieldworkers?). Make sure you get your anti-tetanus injection before working with soil, rusty metal etc. or *Clostridium tetani* may get you. Severe spasmodic muscular contractions, 'lockjaw' may be followed by death. The course of immunisation consists of two injections about six weeks apart followed by a further injection about six months later. This will give sufficient immunity for five years when another booster should be given.

#### **A.I.A. ANNUAL CONFERENCE 1975**

The Annual Conference will be held at Trevelyan College, University of Durham from Friday 12th September to Sunday 14th September. A number of tours of local sites have been arranged, some having a particular bearing on the 150th anniversary celebrations of the Stockton and Darlington Railway. An innovation will be the first L. T. C. Rolt Memorial Lecture which will be delivered on Sunday morning by Professor Skempton of Imperial College; his subject will be "The Engineers of Sunderland Harbour 1718–1817". Further details and application form from Fred Brook, A.I.A. Conference Secretary, 15 Widecome Avenue, Weeping Cross, Stafford. Telephone: Stafford 61658.

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 standard of recording research and specialist survey and research groups and bodies involved in the preservation of industrial monuments, to represent the interests 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 Hill, Ironbridge, Telford, Salop TF8 7RE, England (095-245-3522).