

CHELMSFORD'S INDUSTRIAL MONUMENTS

The problems of protecting industrial buildings of the twentieth century are many and great. The buildings are often very large, they are very numerous, and they have often been altered substantially as their uses have changed. The legislation for their protection has evolved from policies devised for other kinds of buildings. New ways are having to be found to give recognition and protection to twentieth-century industrial monuments, and progress may be too slow to save many of them. This article puts one view of the problem.

To many people interested in industrial archaeology Essex conveys the idea of a large agricultural region which the industrial revolution almost passed by. Yet it was the birthplace of another industrial revolution, as important or more so than its predecessor. Its Ironbridge was Chelmsford, in the mid eighteenth century a sleepy little market town. Its revolution was the birth of electronics and electric power engineering.

A group of engineers and scientists have worked over the last twenty-five years or so to see that all that had so dramatically happened is carefully recorded. A plaque was affixed to

Guglielmo Marconi's first factory in Britain, 'The First Radio Factory in the World—1897'. Mercifully, the building was still intact. It had been taken over by Marconi's infant company from a furniture warehouse. This still had a Clayton and Shuttleworth steam engine and line shafting installed by Samuel Courtauld's silk weaving company who were the occupants in 1868. The original builder was John Hall, a silk thrower. His factory was well built out of the local brick and is now the headquarters of the Essex Water Company.

Colonel R.E.B. Crompton established a factory in Chelmsford in 1878 where he pioneered the development of the central electricity generating station with his manufacture of high output dynamos and ancillary distribution equipment. A disastrous fire destroyed these Arc Works in 1895, whereupon Crompton moved to a bigger site in the town and let what remained of his previous premises to Thomas Clarkson who commenced the manufacture of steam omnibuses there in 1904.

About nine years ago, it became apparent that the original Crompton site was 'ripe for development'. The second Crompton works had by now been taken over by Hawker-Siddely and shut down with the usual pattern of redundancies. Crompton had disappeared forever. His remarkable historic collection of

electrical generating and measuring apparatus had gone to the Science Museum. The Chelmsford Society applied to the Department of the Environment to list the surviving bay of Crompton's historic first works. It was refused as 'not of sufficient architectural or historic interest'. However, seven years later a direct appeal to Lord Montagu through the Chelmsford Industrial Museum Society secured the listing. The appeal was a matter of urgency since a planning application had been made to demolish and to erect housing. A plaque has now been affixed by Chelmsford Museum Service and the new houses have been built quite successfully around the building.

Ernst Gustav Hoffmann was brought to Chelmsford from America to exploit his patent method of high precision ball bearing manufacture. His factory was built on its present site in 1899. The existing Coventry cycle makers soon were major customers followed by car makers newly freed from the 'red flag'. A.V. Roe and De Havilland brought their flimsy machines to the works to have their JAP engines fitted with the new bearings, and later along came Diesel. Hoffmann bearings of all sizes gave a terrific impetus to British machinery and vehicle manufacture. The workforce, expanding to several thousands, caused a housing problem in the town. In 1989 Hoffmann's, taken over yet



Marconi's New Street Works, Chelmsford
Photo: L F Roberts



The remaining portion of Crompton's first works, Anchor Street, Chelmsford

Photo: L F Roberts

again, left Chelmsford. The land, apart from the small part occupied by County Council offices, is 'ripe for development'. One bay is the original 1899 building and English Heritage was applied to for listing about a year ago.

Marconi's great New Street Works was their second in Chelmsford. Built in 1912 it is arguably the first purpose built radio factory in the world, although Telefunken have some reservations about this. Two masts over 400 feet tall towered over the factory, which was strategically sited next to the Great Eastern Railway goods yard. From these works the most powerful spark station in the world maintained contact with ships at sea and land stations. After being commandeered by the Admiralty during World War I the works saw a development which had been incipient towards the end of that conflict. In January Marconi's had perfected a new powerful telephony transmitter. The rest of the story is known around

the world. The Daily Mail got in on the act and sponsored a broadcast from Chelmsford on 15 June 1920. The great soprano Dame Nellie Melba was brought to the works and gave a song recital which was received as far away as Newfoundland and Persia. The Post Office clamped down on further transmissions and issued a complete ban. The loud public



Marconi's first works, Hall Street, opened in 1897

protests which followed were only satisfied when, just over a year later, the foundation of the BBC took place.

In 1989 there was a rumour throwing doubt on the future of the site due to takeovers involving Plesseys and Siemens. The original site plans and a fully documented history were sent to English Heritage. The reply was, again, 'not of sufficient architectural or historic importance'.

Frederick Roberts

The situation in Chelmsford may be changing for the better. Since this article was written a permanent post has been advertised in the Museums Bulletin (March 1990) for a Chelmsford Industrial Museum Officer, perhaps signalling the determination of the Council to press forward in creating an industrial museum for the town. Plaques were erected by Chelmsford Museum Service at Marconi's New Street Works in 1987 and at the Hoffman Manufacturing Company in 1989. **Editor**

RAISING THE IRON ROOF

The Botfields were one of the leading families of Shropshire ironmasters around the beginning of the eighteenth century. With the break-up of the Darby and Reynolds partnership in the 1790s, the death of William Reynolds and the removal of John Wilkinson from Shropshire, they became pre-eminent in Shropshire iron during the Napoleonic Wars. Unlike their predecessors, they have not generally been associated with innovation in the iron trade and the uses of iron. However a recent discovery illustrates an attempt by one of the family to apply iron to new uses.

Thomas Botfield II was the oldest of the three sons of Thomas Botfield I, who established the family iron business and died in 1801. In 1803 Thomas II bought the manor of Hopton Wafers, on the edge of the Cleve Hills in Shropshire. He was at that time overseeing various family enterprises including Cleve Hill Colliery and the furnace nearby.

On 26 July 1809 Botfield registered a patent (no. 3246) for 'Iron Roofs for Houses', which came to notice recently during research into the mining and quarrying enterprises around Clevehill. The patent was of immediate interest because in the village of Hopton Wafers there is a house which bears the name 'the Iron House'. Local folk-lore has it that Admiral Robert Woodward, the squire of Hopton Wafers in the late nineteenth century, retired and brought iron from part of a ship he had

commanded and used it to make a roof for the house. The tale seemed so improbable that serious-minded historians had disregarded it.

However, faced with a patent for iron roofs from a local ironmaster, the story of the 'Iron House' seemed worth investigating. In fact, there is still a roof made of iron concealed beneath the conventional tiles. During recent improvements the roof had been re-tiled and the iron roof had been photographed by the occupiers while it was exposed. These photographs show a roof of semi-circular cross section with roughly rounded ends, pierced in the centre for the chimney.

The patent of 1809 describes Botfield's 'invention for An Improved Construction of Iron or Metal Roofs for Houses and Other Buildings'. In particular it details:

In point of principle, I cause houses or other buildings to be covered with sheets or plates of iron, or any other metal; and I make such roofs or covering by riveting, screwing, or fastening the plates together in any convenient way; and I make the roofs arched, covered or in any other form required that will bear their weight, and I thereby dispense with the use of timber or other bearers (above the wall plates) for their support; and if the walls be level they may do without wall plates.

The patent drawing shows the methods of joining the plates and the shape of the roof as a semi-circular structure.

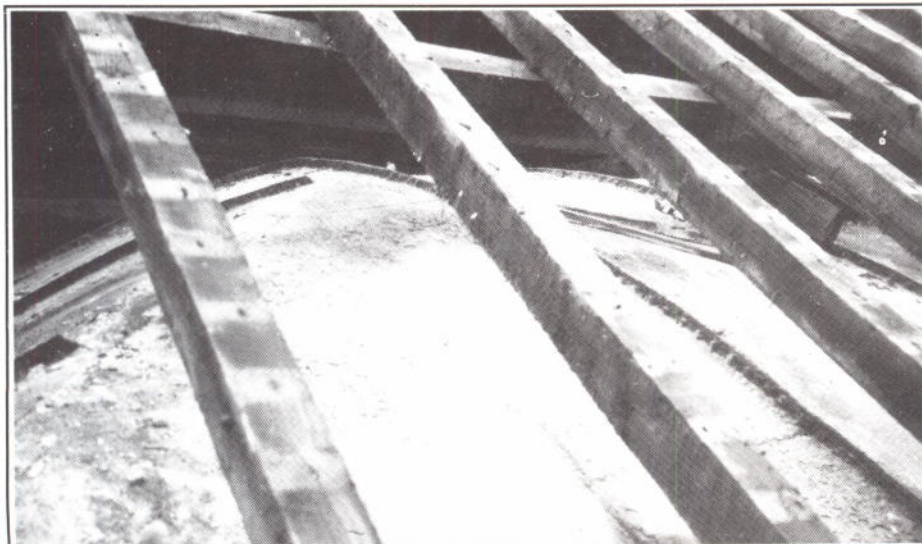
Comparing the photographs with the drawings

and description it is immediately clear that three methods of fastening had been used: plates had been riveted together, some had been bolted together using flanges on the outside of the roof, and some using flanges bolted together beneath the roof. There, in plain view, were all the techniques outlined in the patent.

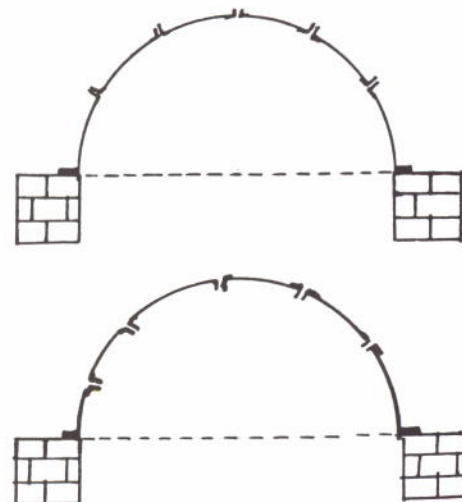
The fact that the roof showed all three methods of fixture leads to the conclusion that this was a prototype in which the techniques had been tried out. The Botfields do not appear to have put the invention to any commercial use, which suggests that the 'Iron House' may be unique. It is very fortunate that the present owners are interested in the history of the roof and determined to preserve it. It could so easily have been removed and scrapped when the re-roofing was in progress.

The house upon which the iron roof was placed is a two up and two down cottage, built of local stone, and is typical of those built in the area in the late eighteenth century (Grid reference SO 637 766). While it is just possible that the Admiral built the roof to the Botfield specification, it would seem unlikely that he would have used three different means of fastening within the one structure. The hidden importance of the building has been reported to the Shropshire Sites and Monuments Record (it is listed as SA 17434).

Peter Hewitt



2 Battleship or patent roof? The 'iron house' on Cleve Hill



The Botfield patent: the roofs in section, showing alternative fixing methods. Re-drawn by Peter Hewitt

OBITUARY

Professor D.G. Tucker, 1914-90

Gordon Tucker died in March at his home in Bromsgrove, aged 75. He was well-known throughout the community of industrial archaeologists and technological historians as one of the most prolific and capable practitioners in either discipline.

Gordon's career was not in industrial archaeology. He was born in 1914 and educated at George Monoux Grammar School, Walthamstow, before joining the Post Office at the age of 17. He gained his first degree and also a PhD and a DSc without ever attending a university full-time. He made important contributions to telephony, inventing the synchrodine radio receiver and developing the FDM carrier systems still used today. In 1950 he moved to the Underwater Detection Establishment in Dorset, where he was engaged in the development of sonar for hunting mines and invented a new kind of within-pulse scanning sonar.

It was in 1955 that Gordon Tucker moved to the University of Birmingham, where he became Professor and Chair of the Department of Electrical Engineering for nearly twenty years. There he established the first university laboratory in sonar, building a research team with an international reputation, and making important research contributions of his own to the use of sonar in the fishing industry.

After his retirement from the Department of Electrical Engineering in 1973 he was able to spend more time on his life-long interests in industrial archaeology and the history of technology, and also his work for the Methodist Church. The dedication with which he threw himself into this work was characteristic of his

energy throughout his life. He published short articles, substantial papers and books with a regularity which surpassed almost any other practitioner in the discipline, past or present. Amongst the multitude were books with his wife Mary Tucker on Pembrokeshire slate quarries and on mills in Radnorshire, and many, many articles: on wind and water mills nationally and in the midlands, on the metallurgical industries of south Wales and the Wye Valley, on the production of millstones, on the history of electrical generation, especially by water power, and on early tramroads. These articles appeared in the journals of organisations with which he was involved, including the Midland Mills Group, the Historical Metallurgy Society, the Railway and Canal Historical Society, the Newcomen Society and the AIA.

His professionalism was firmly acknowledged by his appointment to a Senior Fellowship in the History of Technology at the University of Birmingham's Department of Economic and Social History, where he supervised research students and contributed from its start to the new postgraduate course in industrial archaeology at the Ironbridge Institute. His high standards were also acknowledged by his appointment in 1979 to the Royal Commission on Ancient Monuments in Wales as the Commissioner responsible for industrial sites and buildings. Yet it was typical of his humility and caution never to think of himself as an 'expert', which he felt to be a sure route to failure in one's quest for the truth.

Although very few could ever emulate Gordon Tucker, his attitudes and standards rubbed off on many younger industrial archaeologists, in whom he always took a great deal of interest.

Many benefited enormously from his almost frighteningly incisive mind. His lasting contribution to the discipline will be as much in terms of the standards that he created for others as of the particular publications he left to posterity. His warmth and vigour will be greatly missed.

The AIA was represented at a memorial celebration for Gordon Tucker at Bromsgrove Methodist Centre on 14 March at which over 200 of his family, friends and colleagues were present. All surely agreed with the perception of the minister that Gordon was very distinguished, profoundly humble, and a fine example of the 'universal man'.

APW



INDUSTRIAL HERITAGE AND THE OTHER GORGE

The town of New Mills is situated in an area of spectacular beauty astride the confluence of the rivers Goyt and Sett where they are incised into deep sandstone gorges. It lies on the north-western fringe of the Peak District, about eight miles east of Stockport. Mills and the ruined foundations of mills lie in the bottom of the gorges, attracted to the site at the end of the eighteenth century by the water power potential. Evidence of a varied transport history is provided by turnpike roads, the Peak Forest Canal, two nineteenth-century road bridges over the gorges, and several railways making use of the valley routes. In addition, there were once over thirty small coal mines scattered over the surrounding hillsides working the 'Yard' seam.

In recent years, the New Mills Town Council and Derbyshire County Council have carried out environmental and access improvements to the dramatic gorge known as the Torrs, above which the town perches. This area is now promoted as 'The Torrs: Riverside Park—the park under the town'. The establishment of the Heritage and Information Centre is part of a wider strategy to develop the local potential for tourism and to assemble for the townspeople's benefit the story of their historical setting.

The Centre is conveniently located near Central Railway Station, adjacent to the bus station, and by the side of the path leading down into the Torrs. This path links with the Sett Valley Trail along the old railway to Hayfield, and the Goyt Valley Way, a long-distance route linking the Manchester conurbation with the Goyt valley and the Peak District National Park.

The Centre is housed in a converted stone building of great character and contains a shop selling teas and publications, several permanent displays, a temporary exhibitions room, an environmental studies room (financed by Derbyshire Education Committee), and a viewing platform over the gorge below. The Centre is staffed by a part-time administrator, voluntary assistants, a full-time advisory teacher, and a part-time clerical assistant. In addition, there is a voluntary archivist who accesses carefully historical items donated to the Centre.

The capital cost was approximately £80,000 and was met by grants from New Mills Town Council, Derbyshire County Council, the English Tourist Board, the Countryside Commission, English Heritage, and various local groups and individuals. The running costs are met by New Mills Town Council.

One of the main functions of the Centre is to tell 'The New Mills Story'. This was prepared by a group from the New Mills Local History Society and the displays made by the County Museum Service. One room is devoted to the natural features of the district and the formation of the Torrs, the district at Domesday and the Royal Forest of the Peak, the activities of the rural community, the fascinating story of the 'New Mill' which gave its name to the town, and the growth of communications and coal mining. For young visitors, there is also a reconstructed coal mine tunnel to crawl through.

A second room describes the growth of the cotton mills in the town. In this room is a magnificent model of the town in 1884—the year the Union Road high level bridge over the Torrs was built—with accompanying commentary. A third room describes the once important

engraving and printing industries and the later growth of New Mills as a community. John Potts of New Mills was an engraver of copper rollers for printing designs on textiles and he is known for adapting the 'die and mill' method so that it could be used for the production of engraved metal rollers. A roller from this period, the 1820s, forms part of the display. A fourth room is reserved for temporary exhibitions and is popular for community events. The Centre was opened unofficially in July 1988, and officially by Brian Redhead nine months later. The Centre provides New Mills people with a place to learn about the growth of the town, and one of the most encouraging aspects has been the enthusiasm of local people to donate historic items and photographs which have been lying for years in drawers and lofts. Many of these are incorporated into the displays. Individuals or groups wishing to make use of the Centre or to donate items are asked to contact the Administrator, New Mills Heritage and Information Centre, Rock Mill Lane, New Mills, via Stockport, SK12 3ES ☎ 0663 46904. School parties wishing to use the teaching room should contact the Advisory Teacher by letter or by telephone, mornings only. The Centre is open Tuesdays to Fridays from 11am to 4pm and at weekends from 10.30am to 4.30pm. Admission is free.

Derek Brumhead.

BRITISH ARCHAEOLOGICAL AWARDS

30 June 1990 is the closing date for entries for the British Archaeological Awards. The awards are given every two years—see the report of the last set of awards in *Bulletin* 16.2. They are given under ten different headings: for example for the best project by a voluntary group, the best presentation of an archaeological project, the best project securing the long-term preservation of a site, and the greatest originality and initiative in archaeology. Perhaps the most relevant to industrial archaeology are the Heritage in Britain and the Ironbridge awards. The former is for buildings or monuments which have successfully been preserved for the future. The latter is for the best adaptive re-use of any building or structure, excluding museums and publicly-displayed sites. Entries for the awards have to be made on application forms supplied and only short descriptions of projects are required in the first instance. Enquiries in writing to Victor Marchant, Honorary Secretary, British Archaeological Awards, 317 Norbury Avenue, London SW16 3RW.

INDUSTRIAL HERITAGE MOVES HOME

Many people will know *Industrial Heritage*, the magazine edited by John Keavey and published by the Yorkshire Dales Railway at Embsay Station. Since 1974 it has carried a wide variety of articles on industrial and transport history and preservation. John Keavey is a mainstay of the sales department of the railway, and with the growth of this activity he felt it was time that the production side of the magazine should be handled separately, giving him more time for his editorial function. From the Spring 1990 issue, *Industrial Heritage* is published by The Book House, well-known suppliers of books on industrial archaeology. John will continue as Editor and welcomes contributions in the form of articles and notes on the doings of individuals or societies on any aspect of industrial or transport research and preservation. Each issue normally contains three or four articles, a section of notes and news, and several pages of book reviews which are mainly concerned with productions of smaller presses which do not always appear in more august publications! The postal subscription is £6.00 for four issues. Orders should be sent to The Book House, Ravenstonedale, Nr, Kirkby Stephen, Cumbria, CA17 4NQ. If you would like a free sample please send a 20p stamp. Editorial material should still be sent to John Keavey at *Industrial Heritage*, Embsay Steam Railway, Embsay Station, Skipton, North Yorkshire, BD23 6QX.

TICCIH IN BELGIUM

The Seventh International Conference on the Conservation of the Industrial Heritage will take place in Brussels from 2 to 8 September 1990. The TICCIH conferences, taking place every three years, are perhaps the leading fora for the discussion of matters of importance to industrial archaeology and related disciplines. This is the first for some time that has not clashed with the AIA's own annual conference, and it is also geographically the closest to home for several years. The theme of the conference will be 'Technology, Organisation of Labour and the Shaping of the Industrial Landscape'. From the very beginning of industrialisation, technological developments have implied new ways of organising labour. Industry has incorporated these new techniques. Landscapes were shaped according to the needs of



Gold Dust and Peppers: a Birmingham jewellery workshop to be conserved

Photo: The Ironbridge Institute

buildings and the organisation of the surrounding landscape, but also by extending the transport infrastructure, the town-planning, and the housing. The object of the conference is to examine the industrial heritage as the consequence of the interactions between technological innovations, the organisation of labour, and the shaping of the industrial landscape. The conference organisers would like to encourage theoretical approaches to this process, as well as the examination of the means by which particular sites have been preserved. Five principal subjects and issues make up the programme of the conference. These are the production of energy, transport and communications, agriculture and the food industries, interdisciplinary approaches, and ecomuseums and other novel approaches to museum display. Further details can be obtained from the president of TICCIH in Belgium, Guido Vanderhulst, Rue Ransfort 27, B-1080 Bruxelles, Belgium.

A REAC'tion IN EAST ANGLIA

Some twenty years ago the East Midlands started its Industrial Archaeology Conference, and EMIAC has been followed by SERIAC and others. Taking inspiration from these, it is proposed to form the East Anglian Region Industrial Archaeology Conference (EARIAC) for the counties of Norfolk, Suffolk, Cambridgeshire and Essex. Such a grouping fits neatly with EMIAC in the new Council for British Archaeology IA Panel for the Midlands and East Anglia. The first meeting to discuss the formation of a group will be held in Stowmarket at the Museum of East Anglian Life on Saturday 29 September 1990. As an added inducement to attend, the museum has a 'Farming the Old Way' event that day, including horse tractor and steam cultivation and threshing. If interested in attending please ring AIA President and conference coordinator, David Alderton, on 0986 872343 at home, or 0603 592627 at work.

A NEW COUNTRYSIDE

An important conference is taking place in November to consider the future of old farm buildings in a countryside which is changing rapidly. In particular the conference will address the issues of the redundancy, conservation and conversion to new uses of farm buildings in the 1990s. The varieties of type and design of farm buildings and of the materials and methods of their construction reflect the diversity of local farming practices, resources and traditions. Despite the speed of rural change, there is still a wealth of buildings of historical importance on our farms which deserve a place in the landscape of the future. The conference aims to bring together those who care about the past and future of the countryside to see how traditional farm buildings may play a positive role in keeping life and work in the countryside without losing their historic value and character. It is organised by the Historic Farm Buildings Group and will be held at the Royal Institution of Chartered Surveyors' Westminster Centre on Parliament Square, Great George Street, London, on 29 November 1990. Contributors to the conference include a historian, a conservation officer, a keeper of buildings at an open air museum, an architect and a representative of the National Trust, as well as representatives of landowners, farmers and surveyors, the Rural Development Commission and the Ministry of Agriculture. It is hoped that open discussion during the conference will help to find useful ways forward, acceptable to all concerned, for the future of the countryside and its legacy of historic farm buildings.

Details can be obtained from Dr Susanna Wade-Martins, Historic Farm Buildings Group, Centre of East Anglian Studies, University of East Anglia, Norwich NR4 7TJ.

A PERMANENT MEMORIAL

As a result of the Memorial Celebration held at Westonzoyland Engine House last June for the late George Watkins (1903-1988) a sum of money was raised to create a permanent memorial. This was intended to be a worthy addition to his own legacy of excellent published work and his unique collection of superb record photographs now housed with the Royal Commission on Historical Monuments in England. The gathering at Westonzoyland itself (reported by John Powell in *Bulletin* 17.1) was a fitting and appropriate occasion for George's friends and associates to meet. The permanent tribute will be in the form of a special 'George Watkins Memorial Volume' of *Stationary Power*, the journal of the Stationary Engine Research Group. The volume is being prepared by Paul Stephens and Tony Woolrich, among others. Dr R.A. Buchanan, the Director of the Centre for the History of Technology, Science and Society at the University of Bath (of which George Watkins was a member), and who organised the celebration at Westonzoyland, said he felt it would be 'a fitting tribute to our esteemed friend and colleague'. It will be published later this year.

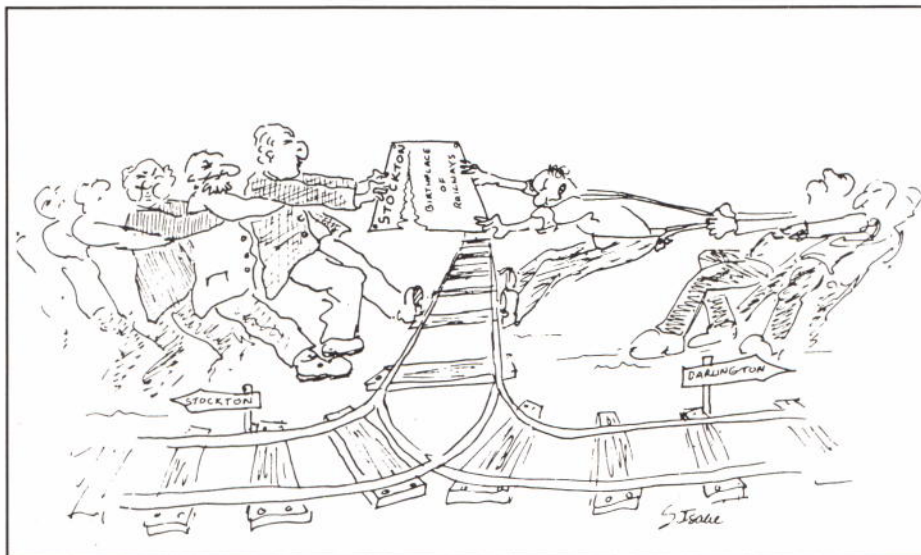
GOLD DIGGER

The Ironbridge Institute has recently finished recording and removing the entire contents of a workshop in Birmingham's Jewellery Quarter. The Smith and Pepper Works has changed little since the late Victorian period and has been left untouched since its closure in 1981. Now acquired by Birmingham Museum and Art Gallery it is to be completely renovated and opened to the public as a heritage centre. The Institute team had the task of cataloguing and recording the contents of the workshop, which included providing full photographic and documentary evidence of the site and all the machinery, tools and archives. In the attic, a full set of the company's accounts were found and there was also a unique collection of over 6,500 jewellery dies. The position of each was carefully noted. One aspect of the project was the reclamation of the gold dust that littered most of the workshops. Everything was removed from the premises and stored, and will be returned after refurbishment.

HELP!

Save a Crossley

A saviour or saviours are urgently needed for a Crossley gas engine in East Anglia. Anglian Water Services Ltd own a single cylinder horizontal engine built by Crossley Brothers of Manchester. The engine runs on town gas and is more or less complete and in good condition. It was used for many years to pump sewage from the town of Cleethorpes into the Humber Estuary. It was presented in 1980 to Waltham Windmill Preservation Society on permanent loan and relocated in a building adjacent to Waltham Windmill near Grimsby. This building is now needed for another use and the Waltham Windmill Preservation Society and Anglian Water Services are keen that the engine should be removed to a new and loving home as soon as possible. So far a number of museums and preservation groups have been contacted, but no-one has volunteered to take the engine. It will have to be destroyed if a new home is not found soon. Anyone who might be able to offer help should contact the current owners. Contact Paul Woodcock, Conservation Scientist, Anglian Water Services, Chivers Way, Histon, Cambridge CB4 4ZY ☎ 0223 235235.



Cartoon by Sue Isaac

SMALLSMITH'S DIARY

My dear wife Betty and I have just been a month in our house, a converted smithy touchingly named 'Dunforgin' in Shelton Terrace. We have furnished it simply, with decorative wrought iron hung on the beams, and a set of Bourne prints plus other pieces of industrial ephemera on the wall. Our backyard opens onto a lane incorporating fine slag samples, although the local children can be rather tiresome at times with these.

Our friends Bolt the lock-keeper, Neill, and that indefatigable volunteer Mrs Dobbin, are frequent visitors, and many a pleasant evening is spent over a glass of real ale discussing points of IA interest. If I don't flatter myself too much, my role in these debates is that of a peacemaker when Bolt or Mrs Dobbin get needlessly irate with the more commercial Neill. Mrs Dobbin once rather unkindly suggested that it was because I lack gutsy, practical commitment to the IA cause. How can this be true when Betty and I have the local IA newsletter to edit, not to mention our commitment to the Pipeclay & Buttockbarn Canal Restoration Society, or our large collection of archive railway video?! Still, I digress. It is time for my diary:-

January 1

Up early to meet Bolt at his narrow boat and help the gang clear out the Buttockbarn lock. Many jests made about the spawning habits of supermarket trolleys. Betty said later I dwelt too long on the joke & that Bolt, who gets very angry about all this nasty modern rubbish,

was eyeing me up in a decidedly queer way with a spadeful of mud in his hand. I suspect he has no sense of humour.

January 7

So busy with the canal over the holiday that I am only just contemplating the IA decade ahead. The '80s were kind, with new industrial museums or restoration schemes almost daily, degree courses in the subject, and even a special issue of IA stamps. Neill and Mrs D predict a rosy future, but I wonder whether our love of past industry may some day go back out of vogue.

February 13

Bolt and Neill round this evening, Bolt fuming at a new controversy. Stockton, which, as Bolt puts it, was of nothing more than '... & Darlington Railway' fame, had had the temerity to adopt the tourism slogan 'Birthplace of Railways', despite the evidence showing Darlington to have had the main role in building the railway. Bolt and I heartily decried the so-called 'Heritage Industry' (Industry? I ask you!), and its dubious disposal of actual historical fact, even if it did create jobs. Neill took a rather smugly commercial view of the whole issue, and, I'm afraid to say, mocked what he termed our 'out-dated, purist's view of sound marketing'. Bolt, furious at this, was starting his tirade about the plebeian new order sully traditional values, when Betty saved the day with ovaltine, served with some irony in our Liverpool and Manchester Railway commemorative mugs.

AIA NEWS

AFFILIATED SOCIETIES

By the time you read this our Working Weekend for 1990 will just be a memory ... but we hope a good one! The variety of speakers and topics should ensure an interesting and lively weekend, with the opportunity for members of affiliated societies to meet and exchange ideas. In the next issue of the Bulletin I will be giving preliminary details of next year's weekend, including the dates and the topics to be considered.

I am sorry to have to say that the response from affiliated societies to my questionnaire was very disappointing, and we are currently considering how to proceed with regard to the update of the Affiliated Societies List. It was felt that this would be of considerable use to societies, improving communication between groups all over Britain; but local groups perhaps do not agree?

I have received no more profiles of affiliated societies... Surely there must be a society that has not been featured, and would like to publicise its activities via the Bulletin? Do write and tell me how AIA might assist affiliated societies. Suggestions for topics or speakers for future weekends are also welcome. The address is 20 Stourvale Gardens, Chandlers Ford, Hampshire SO5 3NE.

Pam Moore

CHANGE ON COUNCIL

The President and Council of the AIA were sorry in March 1990 to receive the resignation of Julian Temple from the AIA Council. Julian has served on the Council for two and a half years and has acted as Secretary to its Heritage Committee. Unfortunately, pressure of work has forced him to reduce his activities of late. Julian remains a member of AIA and will continue to support its activities, and is owed the thanks of the Association for his work in its interests while on Council.

REGIONAL NEWS

EAST ANGLIA

Concern has been growing in East Anglia at the increasing rate of disappearance of some of its traditional industries. The number of maltings, for example, has declined rapidly, and floor malting survives only in one or two places. There are no tanneries now working in Norfolk or Suffolk, and traditional brushmaking has also disappeared: the list is all too long. Attempts are being made to encourage the professional filming or videotaping of some of the surviving industries through the aegis of the **East Anglian Film Archive**, who, incidentally, have produced a number of videotapes for sale containing items of interest to industrial archaeologists: it is hoped to review these shortly. Any suggestions of commercial firms who might be willing to sponsor such filming would be very welcome!

Those fortunate enough to have visited the **Northrepps agricultural engineering works** of John Golden will be sad to hear that John died last summer, shortly after two fires seriously damaged the bottom woodworking shops that were still in use. Even sadder for industrial archaeology is that John never set up the trust he was talking about to preserve the works and its contents, and the whole lot was sold off within six weeks of his death. More cheerfully, in autumn 1988 the **Gunton Park Sawmill** was officially re-opened after its restoration, and the first logs sawn on their vertical saw. Norfolk IA Society members have since been learning the hard way how to make it work efficiently: dates of open sessions when the saw will be operating can be obtained by ringing the Norfolk Windmills Trust ☎ Norwich 611122. Restoration work at the **New Mills compressing station** in Norwich (used to compress air for moving sewage using Schone ejectors) proceeds steadily. At the present time negotiations are under way to protect and make secure the remarkably fine limekiln in **Coltishall**.

In Suffolk, there are similar moves to protect and restore the century-old brick kiln at **South Cove brickworks**. In use until last year, it is in urgent need of repair, but the lessee, Terry Mudd, would be very happy to undertake occasional demonstration firings in a restored kiln. Since all the bricks produced there are individually hand-moulded, this seems an opportunity not to be missed. Of concern in Suffolk is the recent closure of the **Cliff Quay brewery**, with its eighteenth-century copper and its steam engine. However there is some faint hope that brewing might return there. The grasshopper engine from the closed **Combs Tannery** is being removed for preservation by the **Museum of East Anglian Life** at Stowmarket, which has also acquired the machinery from the **rake factory at Welnetham**. Suffolk IA Society members assisted by recording the machines and buildings before the former were dismantled. Some problems have arisen trying to find homes for examples of redundant nineteenth-century plant from the **Essential Oil Distillery** at Long Melford.

The **Farmland Museum** at Haddenham in Cambridgeshire has been having financial problems, but with active support from local groups and a district council grant has raised the funds to keep open. At **Cheddars Lane Pumping Station**, the year's big project is the installation of a mains electric supply: until now their own generator has had to suffice. For

the triple throw pump at **Chlivers' Histon works** is finally redundant, it is hoped it will be destined for this museum. The **Stretham Engine Trust** launched an appeal last September to put the station into good order and improve visitor facilities. So far £12,000 has been raised, but more is needed: donations to Stretham Engine Appeal, PO Box 4, Stretham, Ely, CB6 3NE. For anyone looking for a recording challenge, I understand some of the older brickworks with their Hoffman kilns belonging to the **London Brick Company** in the Peterborough area are to shut down in the near future. Parts of the works date back to the nineteenth century.

Little news from Essex, because I have no contacts there. Would anyone active in industrial archaeology in the county please get in touch? There will shortly be a public enquiry into an application to demolish the fine range of late nineteenth-century workshops and foundry built by **Hunts of Earls Colne**: since the reason the works closed last year was not apparently lack of orders but the site value, one cannot be optimistic, for it must be admitted that though interesting, the buildings are not for the most part particularly unusual survivals.

David Alderton

SOUTH-EAST ENGLAND

SERIAC 1990, the eighth South East Region Industrial Archaeology Conference, was held on 10 March at the Royal School of Military Engineering, Gillingham. The theme was 'War and Peace—Military Engineering in the Nineteenth Century', and the conference was organised by the Medway IA Group. A talk on ship sheds was given by R.J.M. Sutherland. These were long-span structures built during the period 1814-56 to protect timber ships while under construction. Early timber roofs were followed by iron structures which were precursors of those used on the railways. Brigadier J.R.E. Hamilton-Baillie spoke on the development of concrete and its use by the Royal Engineers, and Wesley Harry presented a film showing the manufacture of armaments and other supplies at the Royal Arsenal, Woolwich, during the First World War.

Colonel G.W.A. Napier gave a talk on the work of Royal Engineers as architects, whose legacy includes many outstanding buildings at home and overseas, including the Royal Albert Hall. Ron Crowdy gave a talk on the inventor Louis Brennan. The Brennan Torpedo, which was illustrated by a splendid model, was developed in the 1880s and installed at many coastal defence stations around the British Empire. Brennan also worked on gyroscopically stabil-

ised monorail systems and an early helicopter. The final talk was on the Longmoor Military Railway in Hampshire. This originated in the early 1900s and was used as a training railway. Keith Catchpole, who served as a railway sapper during the Second World War, provided a personal narrative which linked together a remarkable collection of official photographs.

Following the conference, a special evening opening was held for delegates at the Brook Pumping Station; a diesel pumping station established in the 1920s which forms the basis of an industrial museum run by the Medway IA Group in conjunction with Rochester City Council.

Visits on Sunday began with a tour of Sheerness Docks followed by the Royal Engineers' Museum and Chatham Dockyard. The party then divided, one group visiting Fort Amherst at Chatham, another going to see the **Medway Queen** paddle steamer, and the third taking a boat trip on the Medway to see two island forts, Hoo Fort and Fort Darnet.

The **Crabble Corn Mill Trust**, which is restoring Crabble Mill near Dover to working order, plans an official opening at Easter. Mannering's closed the mill in 1893 when they extended the nearby Buckland Mill as a roller mill. It was used for storage and the fabric was maintained until the 1950s, with the machinery intact. It then decayed and attempts by the Cleary Foundation to restore it in the 1970s ran into difficulties through problems of access. The Trust took ownership of the mill in 1988 and work has progressed with the support of the Cleary Foundation, Dover District Council, English Heritage and other bodies. The project has already received a main award from *The Times*/Royal Institute of British Architects Community Enterprise Scheme, which was presented by HRH Prince Charles.

The National Trust has received a prize under the Guildford Heritage Awards scheme for its work on the **Wey Navigation** at Dapdune Wharf, Guildford. The wharf dates from c1670 and is the last surviving wharf in the town. Features include the blacksmith's shop, a steam chest for shaping timber, and the barge **Reliance**, the last to be built at the wharf. This has been rescued from mud flats at Leigh-on-Sea, Essex and brought back up the tidal Thames and Wey Navigation. Other work being carried out by the Trust on the waterway includes the restoration of an old navigation workshop at Send which contains original tools and equipment.

Glenys Crocker

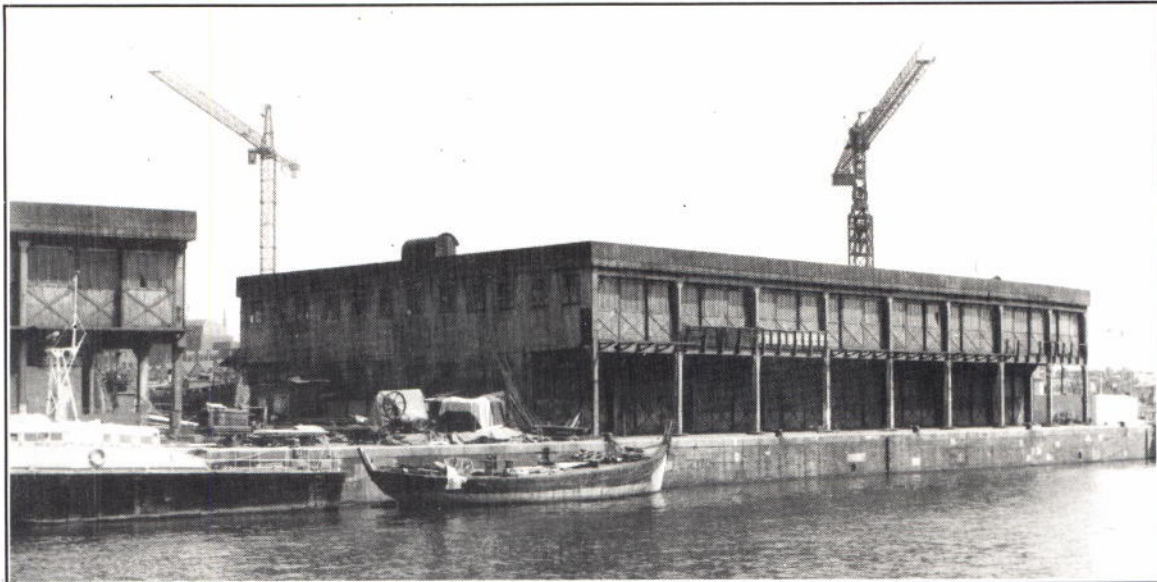


Dapdune Wharf, Guildford

Photo: The National Trust

The pace of demolition in Bristol City Docks has quickened recently. The large tobacco bonds which dominated the Canons Marsh area were blown up amidst much media coverage in 1988. Now 'Z Shed' (right) and the adjacent 'Y Shed' (left) have also been flattened. These were interesting concrete structures erected when the Great Western Railway built its lines to the (surviving) Canons Marsh Goods Station in the early years of this century. Originally these sheds had electric cranes mounted on the roofs, though the cranes visible when this picture was taken were those of the developers building a new headquarters for Lloyds Bank.

Photo: John Powell



YORKSHIRE AND HUMBERSIDE

Most of the larger Sheffield steelworks were in the **Lower Don Valley** to the north east of the city, where they developed after the opening of the Sheffield and Rotherham Railway in 1838. Many of the most important developments in steel history took place here, including the successful commercial application of the Bessemer converter which first made cheap bulk steel available; Sir Robert Hadfield's development of some of the best known alloy steels; and Harry Brearley's invention of stainless steel. Although there are still steelworks in the area, the industry's contraction, and the demolition of much of the housing associated with it, has left large areas of derelict land; and the Sheffield Development Corporation (SDC) has the task of planning the redevelopment of the valley and adjoining areas.

The Royal Commission on the Historic Monuments of England has carried out an architectural survey of the area, as it is doing for most development corporation areas, and this has now been published (RCHME, £3.00). The SDC's plans so far suggest that it intends to preserve the main industrial monuments of the area, though other old industrial buildings may be threatened, both by its wish to put together large development sites and ambitious road schemes, and by its concern to give the area a modern image.

The main approach to the area from the city centre is through the **Wicker Arches**, an imposing viaduct and bridge of 1848, listed Grade 2★, which took the Manchester, Sheffield and Lincolnshire Railway across the Don Valley and carried its Sheffield Victoria Station (now demolished). A £2 million scheme, with a £500,000 grant from the SDC, will restore the viaduct and turn the largely empty warehouses in the arches into a 'village' of small businesses and shops. A £29 million development of factories and offices is proposed for the sites of the Atlas (John Brown) and Norfolk (Firths) steelworks. The 1850s offices of the **Atlas and President Works** would be restored as high-tech workspace, and the listed **Siemens Arch**, a gateway which is all that survives of the huge Norfolk Melting Shop, would be moved into a landscaped courtyard. There are also plans to restore the derelict office block of the **Jessop Saville steelworks** in Brightside Lane (1914, by Sheffield architects Holmes and Watson); and a 26-ton arc furnace

basket from Stocksbridge steelworks has been placed in a new park in Attercliffe as a monument to the industry.

Thwaite Mills, the water powered putty mill on the Aire below Leeds, opened to the public in September 1989 and is now open between 10am and 5pm on Wednesdays and Sundays. Discussions are taking place about moving the Victoria and Albert Museum's Asian collection to Lister's **Manningham Mills** in Bradford. There are plans to convert South Yorkshire's only industrial-scale maltings, the late nineteenth-century **Barnby Dun Maltings** near Doncaster, to shops and offices.

Derek Bayliss

GREATER LONDON

At **Hayes** in West London, twelve thousand files relating to Scheduled Monuments have been accidentally destroyed by the Department of the Environment. The material consisted mainly of letters and legal documents relating to the scheduling process itself. An enquiry is to be held and steps have to be taken to replace the missing data, necessary for the management of Scheduled Monuments.

It was learned recently that owing to problems of funding, the abolition of the Archives Department of the London **Borough of Hackney** had been considered. Although the threat of immediate closure is now dropped there is a general issue of concern. Contact Isobel Watson, 29 Stepney Green, London E1.

Two museum projects well known to AIA members have had serious setbacks. On 11 January 1990 funding for the **Museum in Docklands Project** would cease and at **Crossness** (see *Bulletin* 17.1) volunteer restoration workers have been locked out of the beam engine house on the technicality of not satisfying health and safety at work requirements. A special evening meeting at Thamesmead to discuss the Crossness crisis was scheduled for 15 March. If you were unable to attend and think you can help, contact Michael Dunmow, 8 Yorkland Avenue, Welling, DA16 2LF ☎ 081 303 6723. Should no alternative funding be found for the Museum of London Docklands Project staff would have to be reduced from eleven to four, even the future of the collection at W. Warehouse Royal Victoria Dock would not be secure. To express concern over the fate of the Museum in Docklands please write to the London Docklands Development Corporation and/or relevant MPs,

especially if you live in the former Port of London area and your family has been there for some time.

The industrial estate just south of **Southall railway station** is currently being refurbished. Railway enthusiasts restoring locomotives have moved from the arches alongside the station into Southall diesel depot. The estate included an important margarine factory built around the turn of the century for Otto Monsted who acquired the land in 1893. It was designed in a Dutch style by Bird and Whittenbury of Manchester. In 1912 the factory covered 56 acres and had 1,000 employees. Wall's were another occupier. There seems to have been no press coverage of the redevelopment but provision of office and light industrial units is the order of the day.

On the former **Brentford Market** site the last of the old buildings, which was intended for restoration, has been demolished accidentally. Changes are apparent along the Great West Road; the **Isleworth Winery** with its concrete vat, wine press and barrel decoration by Hector Corfiato has been replaced by a building with an extravagant external roof truss. From a distance it looks as if half a new suspension bridge has been constructed. Further east a fire has destroyed the **Martini tower**, but the developers are being pressed to build a replica.

At the **Kew Bridge Steam Museum** work is progressing with the erection of the James Simpson horizontal engine of 1910 from Wadon. Excavation and concrete work are done and the engine is to be restored to its original brown colour scheme with floral designs. It is hoped that the first steaming will be on 27 September. The building of a new workshop is also well under way. Contract work for other organisations includes the restoration of a winding engine from the Levant mine and an engine for the Royal Scottish Museum, Edinburgh. It should soon be possible for small numbers of visitors to ascend the 200 ft tower, although with its numerous steps (about 270) and narrow passageway it will be quite an exhausting and hazardous experience. Only fit and responsible persons will be admitted. For information telephone 081 568 4757.

R.J.M. Carr

AIA NEWSDESK

June 13 1990

MANAGING TOURISTS AND VISITORS MORE EFFICIENTLY

a seminar at the University of Birmingham. Details from the Administrator, the Ironbridge Institute, Ironbridge Gorge Museum, Ironbridge, Telford, Shropshire, TF8 7AW ☎ 095245 2751.

June 14 1990

TRAINING STAFF FOR VISITORS AT HERITAGE ATTRACTIONS

a seminar at Ironbridge. Details obtainable as for 13 June.

June 16-23 1990

TOUR OF INDUSTRIAL ARCHAEOLOGY IN BELGIUM

being organised for members of the Southampton University IA Group. An invitation to join this visit is extended to all members of AIA. Details were enclosed with the November 1989 mailing.

June 23 1990

CASTLEFIELD: A REAPPRAISAL

a day school on Manchester's first industrial complex, at the Air and Space Gallery, Liverpool Road, Manchester. Details from Derek Brumhead, Gayton, Laneside Road, New Mills, via Stockport SK12 4LU. A book entitled *A Walk round Castlefield* by Derek Brumhead and Terry Wyke has just been published and is available from Terry Wyke, Department of Economics, Manchester Polytechnic, Aytoun Street, Manchester, M1 3GH at £3.25 including postage and packing.

June 29 - July 1 1990

EXHIBITION OF BUILDING CONSERVATION at the Weald and Downland Open Air Museum, Singleton, near Chichester, Sussex.

June 30 1990

Deadline for entries for the British Archaeological Awards, details from Victor Marchant, Honorary Secretary, British Archaeological Awards, 317 Norbury Avenue, London SW16 3RW.

July 27 - 31 1990

BRISTOL AREA FIELD TRIP WEEK

organised by AIA and BIAS. Details from David Alderton, 48 Quay Street, Halesworth, Suffolk, IP19 8EY

0986 972343 (home) or 0603 592627 (work).

August 18 - 25 1990

CANALS AND CONNECTIONS

a week course on canals in the Peak District, at Castleton. Details from Peak National Park Centre, Losehill Hall, Castleton, Derbyshire, S30 2WB ☎ 0433 20373.

August 31 - September 2 1990

INDUSTRIAL HISTORY AND TRANSPORT IN WEST CUMBRIA

a field course led by Derek Brumhead and David George. Details from Department of Extramural Studies, The University, Manchester M13 9PL.

September 2 - 8 1990

TICCIH CONFERENCE IN BELGIUM

at Brussels—see News in this issue. Details from the president of TICCIH in Belgium, Guido Vanderhulst, Rue Ransfort 27, B-1080 Bruxelles, Belgium.

September 7 - 9 1990

AIA ANNUAL CONFERENCE

at Guildford, Surrey, with an additional programme until 13 September. Details from David Alderton as 27-31 July.

September 29 1990

EARIAC No. 1

the first East Anglian Regional IA Conference, at the Museum of East Anglian Life, Stowmarket. Details from David Alderton as 27-31 July.

October 18 - 21 1990

THE SOCIETY FOR THE HISTORY OF TECHNOLOGY

Annual Meeting, at Cleveland, Ohio. Details from Lindy Biggs, Department of History, Auburn University, Auburn, AL 36849, USA.

October 19 1990

INDUSTRIAL HERITAGE LAW AND ITS LIMITATIONS

a seminar at Ironbridge. Details as for 13 June.

November 5 1990

BACK TO THE MACHINE HALL?

a seminar on presenting manufacturing industry in museums, at the Science Museum. Details obtainable as for 13 June.

November 13 1990

THE ULTIMATE MUSEUM EXPERIENCE

a seminar on the problems of operating complex and dramatic industrial processes in museums, based at Ironbridge and the Blists Hill wrought iron works. Details obtainable as for 13 June.

November 29 1990

OLD FARM BUILDINGS IN A NEW COUNTRYSIDE

a one-day conference at the Royal Institution of Chartered Surveyors' Westminster Centre, Great George Street, London. Details from Dr Susanna Wade-Martins, Historic Farm Buildings Group, Centre of East Anglian Studies, University of East Anglia, Norwich NR4 7TJ.

December 7 1990

INDUSTRIAL LANDSCAPES

a course on the evolution of urban building types and morphologies, at Ironbridge. Details obtainable as for 13 June.

December 7 - 9 1990

INTERNATIONAL DESIGN HISTORY CONFERENCE

organised by the UK Design History Society at the Victoria and Albert Museum. Details from Elizabeth Farrelly, V&A/RCA Course Rooms, Victoria and Albert Museum, South Kensington, London.

September 13 - 15 1991

AIA 1991 ANNUAL CONFERENCE

in the Black Country, with a pre-conference programme from 10 September.

Information should be sent to the Editor as soon as it is available. Dates of mailing and last dates for receipt of copy are given on the back page. Items will normally appear in successive issues between notification and the date of the event.

REGIONAL CORRESPONDENTS FOR AIA BULLETIN

Region 1: SCOTLAND
Miles Oglethorpe, RCAHM Scotland, 54 Melville Street, Edinburgh EH 7HF.

Region 2: IRELAND
A Montgomery, Assistant Keeper IA, Ulster Museum, Botanic Gardens, Belfast BT9 5AB.

Region 3: NORTHERN ENGLAND
Cumbria
M Davies-Sheil, 12 St Mary's Park, Windermere, Cumbria LA23 1AY.

Northumberland, Tyne & Wear, Durham and Cleveland:
G Muirhead, 3 Barton Court, Seaburn Dene, Sunderland, Tyne & Wear, SR6 8PF.

Region 4: YORKSHIRE & HUMBERSIDE
North, West and South Yorkshire and Humberside
Derek Bayliss, 30 Muskoka Avenue, Bents Green, Sheffield S11 7RL.

Region 5: NORTH WEST ENGLAND
Lancashire, Merseyside, Greater Manchester and Cheshire
A D George, 30 Kingsway, Worsley, Manchester M28 4FD.

Region 6: WALES
Mrs Hilary Malaws, RCAHM Wales, Edleston House, Queens Road, Aberystwyth, Dyfed SY23 2HP ☎ 0970 4381 (office hours).

Region 7: WEST MIDLANDS
Shropshire, Staffordshire, West Midlands, Warwickshire, Hereford & Worcester.

John Powell, Ironbridge Gorge Museum Trust, Ironbridge, Telford, Shropshire TF8 7AW ☎ 095245 2752 (office hours).

Region 8: EAST MIDLANDS
Derbyshire, Nottinghamshire, Lincolnshire, Leicestershire and Northamptonshire
Peter Neaverson, 6 Grey Crescent, Newton Linford, Leicester LE6 0AA ☎ 0530 242911.

Region 9: EAST ANGLIA
Cambridgeshire, Norfolk, Suffolk and Essex
David Alderton, 48 Quay Street, Halesworth, Suffolk IP19 8EY ☎ Halesworth 2343.

Region 10: GREATER LONDON
Dr R J M Carr, 127 Queen's Drive, London N4 2BB.

Region 11: HOME COUNTIES
Oxfordshire, Buckinghamshire, Bedfordshire, Hertfordshire, Berkshire.
Ms Kay Owen, 18 Millstream Close, Hertford SG14 1LJ.

Region 12: SOUTHEAST ENGLAND
Hampshire and IOW, Surrey, Sussex, and Kent
Mrs Glenys Crocker, 6 Burwood Close, Merrow, Guildford, Surrey GU1 2SB.

Region 13: WEST OF ENGLAND
Somerset, Avon, Gloucestershire, Wiltshire and Dorset
Mrs Joan Day, 3 Oakfield Road, Keynsham, Bristol BS19 1JQ.

Region 14: SOUTH WEST ENGLAND
Devon and Cornwall
John Stengelhofen, Kelly Coppice, Calstock, Cornwall PL18 9RA.

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15 September for November mailing

15 December for February mailing

15 March for June mailing

The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. 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 interests of Industrial Archaeology at national level, to hold conferences and seminars and to publish the results of research. Further details may be obtained from the Membership Secretary, Association for Industrial Archaeology, The Wharfage, Ironbridge, Telford, Shropshire, TF8 7AW, England. ☎ 095245 3522.

The views expressed in this Bulletin are not necessarily those of the Association for Industrial Archaeology.