

## The genius of industrial archaeology

Angus Buchanan

(The following essay is adapted from the Introduction to the author's paper to the Conference at Bath University of Technology in November 1967. A report of this Conference has recently been published by the Bath University Press, see page 28.)

Industrial archaeology is primarily an activity and is certainly not a contemplative study, so that its main emphasis is on practical field work rather than on self-examination. Nevertheless, self examination has its uses in practice, and one of its most immediate applications is that it helps to clarify what it is one is doing and talking about. It is appropriate, therefore, from a strictly practical point of view, to pose fundamental questions from time to time in order to check one's bearings and to see if it has become necessary to make any adjustments in one's course. I want to consider here some such basic issues about the study of industrial archaeology which have emerged in the last few years.

First, there is the question of the definition of the subject. Various attempts have been made to define industrial archaeology, and some time ago I tried to distil from the experience then available a working definition which seemed to fit my own particular circumstances, and which could have a general application as well. It went like this: "Industrial archaeology is a field of study concerned with the investigation, surveying, recording and, in some cases the preservation of industrial monuments". Provided that one is clear that an "industrial monument" is any surviving relic or artefact of a phase of industrialisation which is obsolete or on the point of becoming obsolete, this still seems to me to be a reasonably sound definition of the subject, covering as it does the four main practical activities in which the industrial archaeologist is likely to find himself engaged. But I have come to feel recently that the definition needs strengthening by the addition of a further sentence which would read: "Industrial archaeology aims, moreover, at assessing the significance of these monuments in the context of social and technological history". Although this could be regarded as implicit in the process of "investigation, surveying, recording and.... preservation", it can also be overlooked with the result that the activity comes to be regarded as a purely mechanical exercise of measurement and card-filling. To avoid this very real danger I consider that it is important to make explicit the more conceptual and analytical aspects of the subject. Hence my proposed addition to the working definition: I realise that, in putting it forward, I am suggesting a subtle change in the emphasis of the subject, with the effect of offsetting against the "I-spy" or "train-spotting" aspects of industrial archaeology a specific relationship with social history and the history of technology. I regard this as important because it is necessary for the continued vitality of industrial archaeology that it should acquire a measure of academic respectability by demonstrating its value as a field study in the interpretation, of social and technological history. If it is to do this, it is essential that it should rise above the merely mechanical level of collecting "bits and bobs" without attempting to evaluate them. Not so long ago, a plate appeared in the journal *Industrial Archaeology* with the caption: "A mysterious object". This is a symptom of an attitude to the subject which threatens to lose it in a sort of industrial antiquarianism.

Another basic aspect of industrial archaeology which has grown increasingly apparent during recent years is its intensely local focus. The apparently spontaneous emergence of local societies all over the country has been one of the most encouraging and perhaps surprising features of the development of the subject. Admittedly, the spontaneity has been abetted by the missionary work of such able propagandists as Messrs. Kenneth Hudson and Rex Waffles. But they alone are not responsible for the enthusiasm and sheer hard work of many of these societies: which are doing an excellent job of local investigation, surveying and recording, in the terms of my definition of industrial archaeology. They are also putting increasingly effective pressure on local and national authorities regarding the preservation of significant industrial monuments. British Rail for example, despite their extraordinary hari-kari complex for ripping out their own guts with impunity, can not disregard public objections to the destruction of the Sudbrook beam engines or Old Temple Meads Station quite as completely as they would have done ten years ago. Thanks to the initiative of local societies, moreover, many pieces of industrial equipment which would have gone to the

scrap merchant ten years ago are now finding their way into museum collections of technological exhibits. All this represents solid progress for industrial archaeology, but the point which I want to stress here is that it is progress achieved by predominantly local initiatives, which has its disadvantages as well as its very substantial advantages. The main disadvantage is that the study of the subject tends to be fragmentary and lacking in homogeneity. This can be seen in the unevenness with which the Council for British Archaeology record cards of industrial monuments have been completed. It accounts in part for the editorial difficulties of the journal *Industrial Archaeology*, relying as it does upon intensely localised contributions which are likely to be of little interest to readers frequenting other parish pumps. It is also an important reason for the failure to materialise so far of a national society for the study of industrial archaeology, even though there is a growing awareness of the value of such an organization, particularly in working out and in applying a national policy for the preservation of industrial monuments.

An intriguing feature in the development of industrial archaeology which is related to this local focus and the amateur enthusiasm which provides the broad base of interest in the subject is the polarization which occurs amongst its devotees. On the one hand, there are people with one absorbing passion, be it steam engines, canals, or railway branch lines, who can (and will) rattle off engine dimensions, the number and size of locks on this or that canal, and the exact date of closure of a particular branch line station, at the drop of a hat. On the other hand, there are those people to whom the human interest (or possibly the animal interest) of the subject is all important. These will look up the ghoulish details of a mining accident in contemporary newspapers, study the conditions of the Irish navvies who built the railways, and make reports on the distribution of types of horse troughs. Industrial archaeology accommodates both these extremes of interest, representing roughly the twin poles of the history of technology and social history, and the whole range in between them. Somewhere in the middle there is the happy mean at which the study of the social impact of technological change provides a fruitful conjunction of interests. The desirability of encouraging this median position at which diverse interests merge as the main "growthpoint" of industrial archaeology stems from the need which I have already considered for industrial archaeologists to look more to the interpretation of the significance of their material.

A fundamental issue of industrial archaeology is that of motivation, summed up in the question: "Why bother?" Apart from the pleasure which it undoubtedly gives to its practitioners and the increased awareness of their environment which they derive from it, there are two major incentives which make it worth-while - the historical and the cultural. The historical incentive is the satisfaction, in so far as this is possible, of the historian's thirst for knowledge about past phases of industrialisation. The integration of archaeological and documentary evidence about industrial processes and the social effects of industry, while the evidence is still available, is a vital contribution to scholarship. To the historian, all such knowledge is good knowledge. Future historians will have cause to be grateful to the industrial archaeologists who have taken the trouble to record industrial relics which would otherwise have disappeared without trace. An essential part of this process is the creation of a full and readily accessible archive, and it is to be hoped that the National Record of Industrial Monuments will continue to receive the support from local organisations which is essential if it is ever to become such an archive.

The cultural incentive involves the preservation of carefully selected industrial monuments as significant elements in our cultural tradition and heritage. The emphasis on selection is necessary in order to avoid a reputation as cranks aiming at indiscriminating preservation. The fact is that we cannot expect to live in a museum even if we should want to do so, and that only a small selection of industrial monuments can be preserved. This demands a close scrutiny of the criteria by which industrial monuments must be evaluated in order to make out a detailed justification for preservation in every particular case. It also demands thought about the means of financing and maintaining monuments, and about the means of obtaining various sorts of scheduling and other protection. But only vandalism or philistinism of a high order could tolerate the complete disregard of the cultural incentive for preserving a selection of our finest industrial monuments. Unfortunately, the fate of the Doric Arch at Euston and the uncertainty hanging over the future of the Coalbrookdale Iron Bridge and Old Temple Meads

Station demonstrate that such attitudes prevail amongst many of our public and private institutions. Industrial archaeologists thus have a duty to educate public opinion on this important aspect of our national heritage.

Although the spirit or "genius" of industrial archaeology remains predominantly practical and local in emphasis, with most of its support coming from enthusiastic amateurs interested in some particular aspect of local industry or history, there have thus been some signs of change in recent years. The move to secure a measure of academic recognition for industrial archaeology, the growing interest in a national society, the need to hammer out a national policy for the preservation of industrial monuments, and the desirability of finding a general rather than a particular or parochial focus for the subject, are now stimulating thought and discussion amongst industrial archaeologists. In my opinion, the continued vitality of the subject will depend upon the satisfactory solution of these problems, and the fusion of the practical element of industrial archaeology with the analytical element by which industrial monuments are assessed in their social and technological context. In this way the study of industrial archaeology will acquire fresh significance and interest.

Angus Buchanan

#### THE THEORY AND PRACTICE OF INDUSTRIAL ARCHAEOLOGY

The papers delivered at the Bath Conference on Industrial Archaeology in 1967 have been published under this title by the Bath University Press. Copies of the book cost 7/6d each and are available from Mr. J.H. Lamble, Deputy University Librarian at Northgate House Bath or through a bookseller.

These papers in the collection are:

- 1 "The Status of Industrial Archaeology" by Angus Buchanan.
- 2 "Industrial Archaeological Field Work" by Michael Rix.
- 3 "The Function of Museums in Industrial Archaeology" by Frank Atkinson.
- 4 "Industrial Archaeology in Europe" by Kenneth Hudson.

There is also a note on the discussion and other activities at the Conference, which was the fourth in a series of autumn conferences on industrial archaeology organized by the Centre for the Study of the History of Technology at Bath University of Technology. The collection is edited by R.A. Buchanan.

### **The 1968 Bath University Conference**

The conference was organized by the Centre for the Study of the History of Technology at Bath University of Technology, and was held at Northgate House, Bath, on 1st-3rd November, 1968. It was attended by 65 members from all parts of Great Britain, and also from Sweden, the USA, and Ireland.

The main business of the Conference was a discussion of the theme: "The Future of Industrial Archaeology." This theme was introduced by Dr R. A. Buchanan in his opening address to the Conference, and was developed by the three main speakers on the Saturday morning, Dr E.R.R. Green, Mr. W. K.V. Gale and Sir David Follett. Each of these speakers made personal statements, but they were also able to represent particular points of view on the subject under discussion. Thus Dr. Green spoke about the CBA and the universities, Mr. Gale put forward the point of view of the Newcomen Society, and Sir David Follett gave an account of museum policy towards industrial archaeology. There was a wide-ranging discussion of the views expressed by these speakers, and on the following morning Mr. L.T.C. Rolt had the task of drawing together the diverse strands of this discussion in his concluding address. In the course of doing so Mr. Rolt presented the case for the formation of a national organization to promote the interests and objectives of industrial archaeology.

At the final session of the Conference a Resolution was formulated and passed unanimously. It read as follows:

This Conference resolves to elect a steering committee of six members, with power to co-opt further members, to:

(a) discuss with the CBA and other interested bodies the possibility of strengthening the industrial archaeological functions of the CBA, or:

(b) consider the formation of a Council for British Industrial Archaeology to promote the interests and objectives of industrial archaeology.

and to refer back to the members of this Conference and to the societies represented here when they have done this.

The Conference proceeded to elect the steering committee by a secret ballot, with Dr. Marie Nisser and Mr. Robert Vogel acting as tellers. The members elected were: Dr. R.A. Buchanan, Mr. L.T.C. Rolt, Mr. J.K. Major, Mr. N. Cossons, Dr. P.N. Jarvis, and Professor Minchinton.

A Field Party to visit the principal industrial archaeological sites of central Bristol was held on the Saturday afternoon. It was led by Mr. Neil Cossons and included Old Temple Meads Stations, Redcliffe Shot Tower (in process of demolition), Cumberland Basin; and the storehouse of the City of Bristol Museum Technology Department at Upper York Street. There was also an opportunity in the programme for an exchange of information about current work in industrial archaeology through slides, films, and reports.

Angus Buchanan

## BIAS report 1967-1968

BIAS has had an active first year based initially on the pattern set by the series of evening class lectures held at the Bristol Folk Houses since 1964. The society now meets in its own room in the City Museum's Department of Technology premises at 2, Upper York Street, Bristol. 2. Here there are lecture facilities for up to forty members together with - as yet - primitive cloakroom and catering arrangements.

The society is most grateful to the Director of the City Museum for allowing the use of the Upper York Street premises.

The following official meetings have taken place:

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|---------|----------------------------------------------------------------------------------------------------------------------|
| 17 Oct  | 'Bristol's New Museum'. Lecture by Neil Cossons.                                                                     |
| 21 Oct  | Coach tour to South Wales led by R. E. Bowen.                                                                        |
| 31 Oct  | 'Brunel in Bristol' lecture by L.T.C.Rolt.                                                                           |
| 14 Nov  | 'Surveying Buildings - I' lecture by John Mosse.                                                                     |
| 28 Nov  | 'Surveying Buildings - II', lecture by John Mosse.                                                                   |
| 12 Dec  | Society, evening. Members read short papers and gave details of current research projects.                           |
| 1968    |                                                                                                                      |
| 16 Jan  | 'A National Society for Industrial Archaeology?' lecture by Angus Buchanan.                                          |
| 30 Jan  | 'The Albion Mills' lecture by John Mosse.                                                                            |
| 13 Feb  | 'Air Photography and its Applications to Industrial Archaeology' lecture by J. Hancock.                              |
| 27 Feb  | Industrial Archaeological Films.                                                                                     |
| 2 Mar   | Survey of the clock tower building of Warmley brass works.                                                           |
| 12 Mar  | 'Some notes on survey drawings for reports' by John Mosse, and Neil Cossons.                                         |
| 26 Mar  | Society Evening. Members read short papers.                                                                          |
| 4 May   | Survey party to lead workings near Charterhouse-on Mendip led by Angus Buchanan.                                     |
| 25 May  | Visit to Forest of Dean iron smelting sites led by Joan Day                                                          |
| 11 May  | Visit to St. Anne's Board Mill. Briefing for the paper mills survey by Brian Attwood followed by a tour of the mill. |
| 22 June | Excavation of the possible caisson lock site at Combe Hay, on the Somersetshire Coal Canal, led by Neil Cossons.     |

- 8 Oct 'Nineteenth Century Engineers in the Port of Bristol' Chairman's address, by Dr. R. A. Buchanan
- 22 Oct 'The Origins of Bristol Florentine'. Illustrated lecture by John Mosse
- 12 Nov 'The Severn Barrage'. Lecture by Mr. E. N. Underwood, of E. N. Underwood and Partners, Consulting Engineers.
- 26 Nov 'Bristol Brass'. Illustrated lecture by Mrs. Joan Day.
- 10 Dec 'Bristol Sailing Pilots'. Illustrated lecture by Mr. Peter Stuckey.

The survey of turnpike roads carried out by 42 BIAS members during the summer of 1967 has now been completed in South Gloucestershire and most of North Somerset. A small area south-west of Bristol is still outstanding. Other survey work carried out during the year includes the measuring of the Kelston brass mills site and the preparation of a set of plans and elevation drawings. This work has been done by a party of students from the University of Bristol, Department of Architecture, led by John Mosse. Mr. Mosse has also taken measurements from the Redcliff Hill shot tower and drawings are in the course of preparation. A party of BIAS members measured the clock tower building at the Warmley brass works site, recently vacated by Messrs. Haskins. Although demolition was threatened as long ago as December 1967, the building still stands (December 1968). The field party to Charterhouse on Mendip on 4 May carried out some basic survey work of the buddle sites in Velvet Bottom. On 22 June six members excavated remains of masonry in Engine Wood, Combe Hay, on the Somersetshire Coal Canal. The site had been suggested as that of Robert Weldon's caisson lock but the remains uncovered were almost certainly the base of a pumping engine used for supplying water to the summit level. The other, and more probable caisson site, under the tennis courts behind Caisson House is now thought to be correct although it is more difficult to verify.

Another regional survey has been put in hand to record as much as possible of surviving paper mills in the Bristol region. Members have been briefed by Brian Attwood and it is hoped some conclusions can be drawn during the 1968/69 evening programme.

Four issues of BIAS Bulletin have been produced during the first 'year' which ran from September 1967 to December 1968. In a normal year three issues will appear, in January, May and September. The society has benefitted greatly from the generosity of Parsons, Brown & Partners in the preparation of the Bulletin and the Committee extends its grateful thanks for this assistance at a critical stage in the Society's growth. Roy Day, of Parsons, Brown has handled the production and his close contact with Modern Business Services (Western) Ltd has been of inestimable benefit to the society. The society is indebted also to Mr. F. Howarth for the design and printing of the cover of this first issue of BIAS Journal.

In order that future BIAS reports can be as comprehensive as possible the Secretary would be most grateful if individual members could keep him informed of the progress of their own work.

Neil Cossons