

been ploughed with a primitive plough or ard. The fact that marginal land of this type was cultivated suggests that full use was made of the plateau, now occupied by Blackwell Hall farm, and that the field system was very extensive. The general plan shows the earthworks that have been surveyed; for the sake of clarity natural features and modern stones walls have been omitted (Fig. 24).

INDUSTRIAL ARCHAEOLOGY

By FRANK NIXON

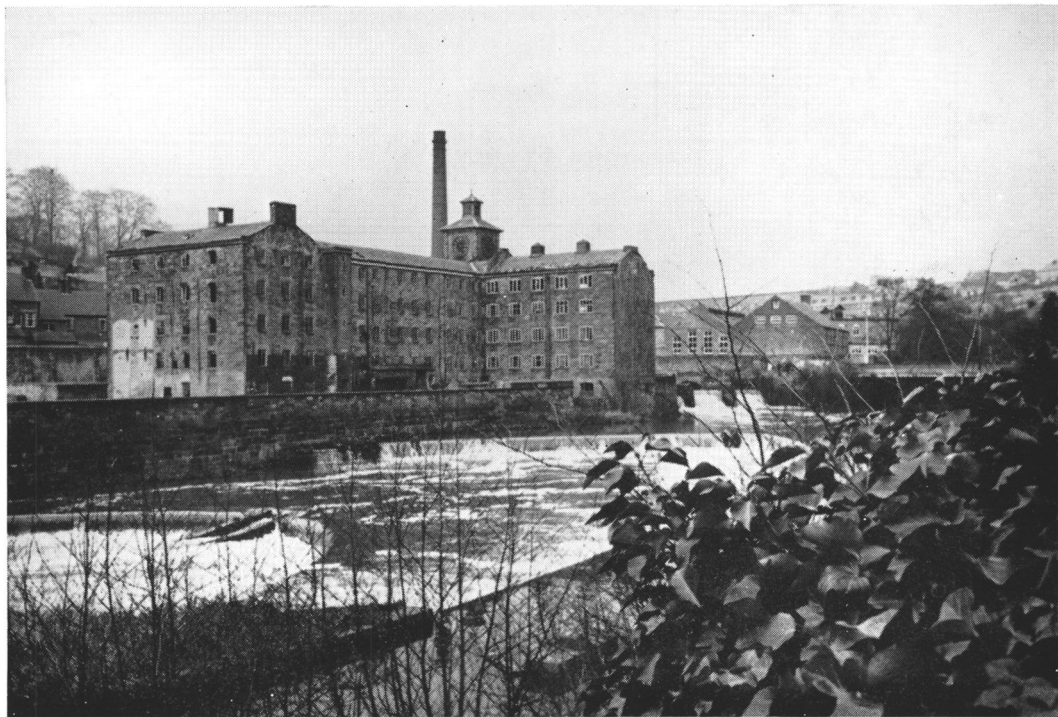
WITH its wealth of natural resources, it was inevitable that Derbyshire should have played a leading part in the Industrial Revolution. Relics of the early lead-workings, of old iron furnaces, of canals and railways and of the earliest textile mills are distinctive and often picturesque features of our countryside. That they have survived at all is usually due to the fact that at the conclusion of their usefulness, the sites have not been required for any other purpose, and the decaying ruins have been left undisturbed.

In the more industrialised areas, however, economic pressure often makes it necessary to remove buildings and machinery which may have played an historic part in the development of the country's industry, in order that more modern plant may take their place. Thus we have seen recently the demolition of the South Mill at Belper, and of the old mill at Milford, both of them monuments to the industry and enterprise of the Strutt family. The Strutt mills, happily, have been exceptionally well documented by Mr. H. R. Johnson and Professor A. W. Skempton.¹ In other cases we are not always so fortunate.

The Council of British Archaeology has given a welcome lead by recognizing industrial archaeology as a subject in its own right. In collaboration with the Ministry of Public Building and Works, which has obtained the services of Mr. Rex Wailes as consultant, an effort is being made to collect information on industrial archaeology so that action can be taken to preserve where possible, or at least to record details of, sites or relics of importance.

Mr. Wailes, who is well known as the national authority on windmills, lectured before the Society in Derby in May 1963, when he described the method of approach which is being adopted. He illustrated by lantern slides the vast scope of the subject, ranging from maltings in Essex, to windmills and watermills in many places, old cotton mills in Derbyshire, and canals. Of great interest architecturally are some uniquely styled railway stations, and the boat-stores in naval dockyards. A century-and-a-half old, these latter are so modern in concept that their style can be considered "contemporary" even today.

¹ "William Strutt's Cotton Mills, 1793-1812". *Transactions of the Newcomen Society for the study of the history of Engineering and Technology*. Vol. XXX, 1955-1957. London.



a. The Strutt mills at Milford before February 1964.



b. George Stephenson's gravity operated incline for limestone wagons, Bull Bridge.

It was pointed out by Mr. Wailes that items which are small enough to be moved easily should be the concern more of local and national museums. Buildings, and the plant and machinery which they may contain, which cannot be moved, or which would lose by being taken out of their surroundings, are the real object of the survey which is being organized by Mr. Wailes.

Especially in the industrialised areas, there will be many instances where preservation will be impossible. In such cases it is especially important that an adequate record of buildings, sites, and machinery should be made. To this end, the C.B.A. and the Ministry of Public Building and Works are anxious that everyone having knowledge of such sites should help by providing whatever information they possess. This should be sent to the Editor of the *Bulletin* of the Local History Section of the Society. Special record cards which have been prepared by the C.B.A. are available, and if photographs can be provided as well, so much the better. In other cases, the Ministry of Public Building and Works will be grateful for the loan of photographic negatives, which will be carefully handled, copied, and returned promptly.

More recently, Dr. D. M. Smith of Manchester University has given a most interesting lecture to the Local History Section, tracing the development of the textile industry from the frame-knitters' cottages to the large and not inelegant 18th century mills of the Derbyshire valleys.

Some county authorities, e.g. Staffordshire, have shown commendable initiative by making their industrial survey the responsibility of their County Planning Office. Here, as in the case of our laggard Victoria County History, Derbyshire falls sadly behind. Our county's special place in the nation's industrial history really does deserve the utmost support, and in the absence of official action it devolves particularly upon members of the Society to try to remedy the situation. Fortunately, a few important relics have been preserved by the action of public spirited individuals, but it is noteworthy that these are from beyond the county's boundaries. Thus Sir Frederic Scopes and the Stanton Iron Works Ltd. have taken steps to protect the 18th century iron furnaces at Morley Park. The Peak District Mines Historical Society has stayed further decay at Magpie Mine, and at Mandale Engine House in Lathkill Dale. More recently, the Director of the Leicester Museum, Mr. T. A. Walden, has saved from the scrap yard an elegant water-driven water pump, made by Harrison of Derby in 1834, which for a century or more provided the water supply to Elvaston Castle.

Despite such rescues, there have been grievous losses. These include the chimney at Watergrove Mine, George Stephenson's Winding Machine on the Bull Bridge Incline and the Strutt Mills. There is need for constant vigilance, and it is hoped that members of the Society will support this effort to the utmost.

Some idea of what is being done in other counties can be gained by reading a most interesting book, *Industrial Archaeology* by Kenneth Hudson,² which shows the tremendous potential for study possessed by this new branch of archaeology. Another book, which shows what can be accomplished when

² Published 1963 by John Baker (Publishers) Ltd., London, 36s.

professional resources are available, has been written by Dr. E. R. R. Green.³ Both these works are an inspiration and a challenge to us in Derbyshire.

In order that the county as well as the country should benefit from the efforts of members, it is intended to keep one copy of all the information and photographs which may be submitted for the Ministry of Public Building and Works in the Local History Collection which is maintained by Mr. A. E. Hale in the Society's Library.

The following short list of sites, buildings and equipment is intended to indicate the range of industrial archaeology in Derbyshire and to suggest that there is scope for surveys both of particular localities and of particular industries.

Derby. The railway bridge in Friargate and the round house at the Midland Station.

The Silk Mill gates, old textile mills and stockingers' houses.

Belper and Milford. The Strutts' cotton mills. Old foundries, nailers' workshops and equipment.

Cromford. The Arkwright cotton mill, workers' houses and the layout of the village.

Wirksworth. The Arkwright mill and other textile mills. Lead mining coes and soughs.

Chesterfield. Cast-iron building construction at Robinsons' works. Silk mill and potteries. Whittington glassworks.

Bull Bridge. The lime kilns and the incline built by George Stephenson. The old lime works and the lime tipping site.

Lead mining. Magpie mines, Sheldon; Starkholmes mine, Matlock Bath. Smelting mills, Bonsall. Lead ore crushing circle at Odin mine, Castleton.

Coal and iron. Coal mine and coke ovens at Unstone. Early iron furnaces at Morley Park.

Canals. Locks, aqueducts, bridges, wharves, pumping stations and other buildings.

Railways. Tramroads at Little Eaton and Fritchley. Cromford and High Peak Railway: inclines, cuttings and tunnels, winding engine houses and contents.

³ *The Industrial Archaeology of County Down* by E. R. R. Green, 1963, H.M.S.O. 25s.