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AIA Education Group forges ahead. At the 1979 Ironbridge AGM the Society gave an enthusiastic welcome to the idea of a separate Education Group **Newsletter**. This was subsequently discussed at the December Council meeting and it was decided that, given sufficient 'copy' the first issue would appear as an insert in Volume 7 Number 2. Editor David Alderton went back to Norwich to prepare the ground.

The overall result was extremely satisfactory, so much so that it has been decided to hold over several conventional AIA Bulletin features and give pride of place to the Education Group's deliberations. We look forward with considerable interest to the next Newsletter and in the meantime invite you to apply to David Palmer for his March **AIA Education Conference**.

Editorial: Starting the editorial for the first issue of a new venture is not easy, especially for those with rather limited editorial experience. Can I, therefore, say that here is the first, but I hope not the last, edition of the AIA Education Group's newsletter, and that I shall endeavour as editor to respond to the wishes and needs of the readership.

The purpose of this newsletter is to provide a link between all those interested in teaching industrial archaeology at all educational levels from primary to post-graduate research, not forgetting continuing education. It is hoped that it will provide a means of drawing attention to information useful to teachers of industrial

archaeology, but that in addition it will provide a forum for the discussion of views and the promulgation of new ideas and approaches, and that it will be of as much assistance to those anxious to introduce industrial archaeology into their teaching, but who are uncertain as to the approach to use, as to those already actively engaged in the field, but anxious to extend their repertoire. It is intended that certain items should appear regularly: these include details of forthcoming courses and conferences, reviews of books intended for use in the teaching of industrial archaeology or especially useful for teachers, and a series of guides to the main sites of interest and of likely use for teaching purposes in a given area: in this issue Owen Ashmore has started the ball rolling with a survey of the Manchester area.

Otherwise, the future contents are very much in the hand of the readers. Letters and comments would be welcome: even more welcome would be articles (up to about 1500 words) on any aspect of industrial archaeology within the educational system. I hope for a mix of practical advice, accounts of work or projects undertaken, and more philosophical considerations of the role of industrial archaeology. Though certain issues of the newsletter might concentrate on the education of particular types of student, overall my aim is that all fields should be covered. What is certain, though, is that without readers' contributions the newsletter cannot long continue. The present issue inevitably consists of articles commissioned from my friends and acquaintances, but as a source of articles and comment the supply must inevitably diminish, leaving me without articles (and probably without friends).

Please send any contributions, suggestions or offers of material to me at Keswick Hall College of Education, Keswick, Norwich NR4 6TL (0603 56841). I would dearly like to be overwhelmed with a deluge of material in time for the next issue, planned for the summer of 1980.

David Alderton

Apprentice Training and Industrial Archaeology: R G Round It may be difficult to see any immediate link between apprentice training and industrial archaeology. However, Eastern Electricity for some years have been assisting with practical industrial archaeology work as a means of developing apprentices and other young people. We have for some years sent apprentices and trainees on courses such as those offered by the Outward Bound Schools to further their individual development. There are, however,

very few places available. For some time we had been seeking suitable projects which had a connection either with the Electricity Supply Industry or the application of mechanical power for public benefit, that would provide for many of our young people a group activity which had implications of community service that would help to develop a sense of social responsibility, which is not easily introduced within the normal training syllabus.

In 1974 a subject for such a venture was discovered in the form of the disused beam engine driving a Fens drainage pump, known as the Stretham Old Engine, near Cambridge. This pumping station, which is of great industrial archaeological interest, is maintained by a preservation trust and discussions with the representatives of the trust revealed a mutual interest between their need to keep the pump in better shape and our wish to provide a development opportunity for some of our young trainees.

The Stretham Engine Project, as it became known, proved to be the start of a series of such projects. Altogether three projects were held at the Stretham Engine, in 1974, 1975 and 1977.

In 1976 another opportunity for help came to our attention at the Rural Life Museum at Gressenhall in Norfolk, where there was a large number of old machines, including a number of steam engines which required renovation and display. In total three visits have been made, in 1976, 1978 and 1979 to the Gressenhall Museum, during which time a great deal of restoration, display and building reconstruction was done.

Until this year (1979), the project had been restricted to apprentices who were being trained to work in the Electricity Supply Industry as electricians or electrical fitters, overhead linesmen or cable joints. In 1979 the projects were widened to include other young people, both men and women.

Both the Stretham Old Engine and the Rural Life Museum are ideal situations for the type of development activity we wished to undertake. Each provided a number of varied tasks on a sufficient scale to occupy a labour force of about 20 young people, working for periods of up to a fortnight, so that at the end of the time an identified task could be finished and the participants could see the completed results of their work. There is in each case, near to the work, a suitable site for camping, which is an essential part of the project.

The prime objective of these projects is the development in young people of a sense of

social responsibility and greater self-reliance through the use of their skills in the furtherance of some socially useful objective, which without outside assistance would not be realised.

The industrial archaeology, therefore, is only secondary to the main purpose, but as it has happened, so far the projects have all contained a large element of industrial archaeological work.

The advantages to the society or other organisations concerned with preservation or conservation that our development projects offer, is that they can have the services of a well organised and enthusiastic group of young people, strongly motivated and with good direction, which in the space of about 14 days can produce results which might take years with the often fragmented and intermittent activities of the part-time enthusiasts.

The organisation of the projects is important. Each is put in the charge of a young professional engineer who has had two or three years of field experience since his formal training, and he is assisted by three or

about the project, illustrating with colour photographs the work which has been done, a copy of which is presented to every member of the working group.

The six projects so far run have been fully successful in meeting both the objectives of Eastern Electricity and the organisation for whom the work has been done. As for the 200 young people who have taken part in them, almost without exception they have been reluctant to pack up their things and go back to their normal work, however gruelling and difficult the tasks they have been engaged on proved to be. It is significant that many of the apprentices who have taken part in the first projects have been eager to volunteer to assist in the running of the later ones.

We wish to thank the Eastern Electricity Board for permission to publish this article.

The Use of Creative Drama in Industrial Archaeology in Middle Schools: Mary Manning
With the emphasis in drama work in middle

discipline for this sort of work. Separate groups can work out sequences without disturbing one another, and the difficulty of making-up words in a way and in a dialect suited to the subject is obviated. The important thing is to give a better understanding to the children of what it was like to be alive and working in the period of time or in the industry being studied. Whole-hearted, imaginative acting will give them this.

Without visiting a site, drama work can be done to augment the knowledge of children. Scenes can be devised on themes of industrial history which make very dry reading in textbooks, for example the installation of machinery in a textile mill and the subsequent rioting and machine-breaking. On the theme of the introduction of farm machinery, children can mime reaping by scythe and, by contrast, reaping with the machines which have been developed since, or hand-weeding and hoeing being superseded by tractor drawn machines. In this

Apprentices working on Strettham Old Engine



Restoration of cattle weighbridge at Gressenhall Rural Life Museum



four engineers in training who are in their final year. For them the project is an opportunity for managing, organising and controlling. They are required to prepare a complete specification of the work to be done with schedules of materials, work programmes, including critical path programmes where necessary, and financial budgets. They also have the task of selecting the workforce from volunteers from craft apprentices who have just completed their first year of training, and from other young people who are not engaged in formal training courses. They also select from volunteers three or four apprentices, who are just completing their final year of training and who therefore have more advanced skills and the experience to act as chargehands for working teams.

The organisers are also responsible for making all the necessary arrangements for the establishment of the camp and its administration, and for organising leisure activities for filling in such little free time as the workforce has during the project. A final task for the organisers is the preparation of a brochure

and primary schools being on Creative Drama, it is possible to use its techniques to enhance the scope of many topics and themes, and this is especially so in the field of history.

The past, however recent, stimulates the imagination of children. By devising and action out scenes from any particular time, a much clearer idea of that time is engendered. For the under-thirteens, people and how they lived hold fascination. In introducing children of this age to industrial archaeology, I have found drama work of great help. For example, 12-year-olds surveyed a set of farm buildings near the school. To bring this survey to life, research was done into farm conditions of about 1900. The children then mimed, from their own ideas, scenes of farm work and cottage life. Smithing, ploughing, seeding, haymaking, weeding, cooking, laundering, etc were mimed, with the children so engaged in their theme that they complained of stiff backs and aching muscles. Having visited a lime-kiln, a class mimed the heavy work involved in lime-burning.

It has seemed to me that mime is the best

way farm work of 1900 with its emphasis on repetitive handwork can be contrasted with modern farming with its small labour force needing a knowledge of machinery and machine repairs.

In introducing work in industrial archaeology by any method in the primary school, it cannot be emphasised too much that it should not be tackled in isolation. Industrial history is one facet of the whole of history and should not receive undue emphasis just because it is a relatively new discipline. For the same reason, drama work of the kind described here should be part only of a continuing scheme, which utilises it as a means of enlarging the pupils' experience, and not pursued in isolation as a one-off gimmick.

Industrial Archaeology in the Manchester Area: Owen Ashmore: Teachers in the Manchester area are fortunate in having a great opportunity to develop an interest in the study of the local environment through the medium of Industrial Archaeology. Wherever the school or college is situated, there will be local evidence in the form

of the physical remains of industrial history, especially of the period of the Industrial Revolution and beyond. They may include domestic workshops (or weavers' cottages as they are often known), textile mills, both water-powered and steam-powered, and ranging in date from the 1780s to the 1920s, industrial communities and workers' houses, coal mines and colliery tramroads, engineering works, paper mills, corn mills, canals and railways. Particularly at secondary school and further-education level there is scope for fieldwork and recording and the possibility of obtaining advice and assistance from a number of sources, referred to below. Local libraries, especially in the major centres, have resources in terms of published material, trade directories and, above all, maps which will often be a starting point. The approach through Industrial Archaeology can also be combined with wider geographical, geological, scientific or architectural studies as part of a more general view of the environment.

For the teacher who wants help and information a short introductory reading list

North West Museum of Science and Industry, 97 Grosvenor Street, Manchester M1 7HF, (telephone 061-273 6636). The major industrial museum of the area with collections of textile machinery, steam and internal-combustion engines, machine tools, hand-paper making equipment, early photography, electrical and electronic equipment. Very valuable place to visit for anyone teaching the development of the factory system in textiles. The children can see spinning wheels, handlooms, spinning jennies, Arkwright water frames, a Crompton hand mule, and textile-finishing equipment. The Museum has an Education Service and can arrange classes and demonstrations (send stamped, addressed envelope for information). They publish pamphlets and Industrial Archaeology trails. For those not so near to Manchester there are collections of early textile machinery in **Tong Moor Library, Bolton** and the **Lewis Textile Museum, Blackburn**. Also of great interest is a museum on the site of an 18th-century woollen fulling mill at **Higher Mill, Helmshore, Rossendale**, but this is not generally accessible to school

museum with two reconstructed mines. Drift mine as in the 1930s with pit yard, blacksmith's shop, lamp room, fan room, part of a chain-haulage system, ventilation and pumping equipment. Shaft mine with pit cage, old workings with hand-getting equipment, modern face with coal-cutting machinery and hydraulic props, roadway prepared for shot firing. Will help to give children a picture of working methods and conditions.

Peak Forest Canal, Marple Good place for a towpath walk to see canal structures and engineering. Start from the junction of the Peak Forest and Macclesfield Canal, with roving bridge, bridge, warehouse and tollhouse, and nearby remains of limekilns built in late 18th century by local industrialist, Samuel Oldknow. Down flight of 16 locks with fall of 210 ft, past fine warehouse also built by Oldknow, to aqueduct over river Goyt, three arches, 100 ft above river level. Further out along the Peak Forest Canal is the site of the former terminus at **Buxworth**, with three basins, remains of wharves, limekilns, and start of Peak Forest Tramroad, horse-drawn

Quarry Bank Mill, Styal



Workers' houses, Oak Row, Quarry Bank



is given at the end of this article, which will provide a general idea of the nature and scope of the subject and of the methods involved. The Extra-Mural Department of Manchester University (Manchester M13 9PL) and the North-Western District of the Workers' Educational Association (College of Adult Education, All Saints, Manchester 15) provide every year evening courses in Industrial Archaeology, not only in Manchester itself, but in the towns of Greater Manchester and in parts of Lancashire, Cheshire and Derbyshire. The Manchester Region Industrial Archaeology Society (Secretary Mrs Anita George, 30 Kingsway, Worsley, Manchester) provides a meeting point for those interested in the industrial history and archaeology of the area. The Society arranges lectures during the winter, visits both within the region and further afield, and has two field secretaries, who, within limits, are available for advice to teachers contemplating a project.

There are many museums and places of interest within the region which teachers can arrange to visit. The list below is a selection of some of the major examples.

parties. **Quarry Bank Mill, Styal**, Wilmslow, Cheshire SK9 4LA (telephone – Wilmslow 27468). Fine example of former water-powered cotton-spinning mill and associated community. Mill built in 1784 by Samuel Greg and extended in early 19th century. The buildings, weir, mill race and wheel pit for large water wheel survive and are now being developed as a textile-history museum and study centre. The adjoining community includes rows of workers' cottages built in the 1820s, apprentice house for the boys and girls who worked in the factory, school, village shop and Unitarian chapel. Open most days throughout the year.

Nether Alderley Mill Very interesting restored water-powered corn mill of sixteenth-century origin near Alderley Edge. Two overshot water wheels one above the other, and fully-operative machinery. Owned by National Trust and open limited days and hours (enquiries to National Trust, Styal Estate Office, Oak Cottages, Styal, Wilmslow – telephone Wilmslow 523012).

Buile Hill Park Museum, Eccles Old Road, Salford (telephone 061-736 1832) Coalmining

railway, linking the canal with the limestone quarries south of Buxton. It is possible to walk much of the route of the tramroad and to see the former self-acting incline at Chapel-en-le-Frith.

Worsley A good place to study one of the region's first canals, the Bridgewater, opened to Manchester in 1761. At the Delph are the entrances to the great system of underground tunnels, eventually some 46 miles, giving access to coal faces at three different levels. Nearby is the Packet House and steps from which the passenger services to Manchester and later to Runcorn started. There is a pair of early dry docks, a warehouse and a former limekiln. It is worth going also to **Barton** to see the site of the famous three-arched aqueduct over the River Irwell, built by John Gilbert and James Brindley, replaced by the present equally important swing aqueduct, built in connection with the construction of the Manchester Ship Canal.

Liverpool Road Station, Manchester. Terminus of the Liverpool & Manchester Railway, opened 1830. Not at present open to the public, but likely to be developed as a museum site.