

BULLETIN OF INDUSTRIAL ARCHAEOLOGY IN CBA GROUP 9

Number 4

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Editor: Geoffrey H. Starmer, 17 Mayfield Road, Northampton

COUNTY INDUSTRIAL ARCHAEOLOGY REPRESENTATIVES

Bedfordshire: Mr. Geoffrey Sands, Bedfordshire County Council,
3 High Street, Bedford.

Berkshire: Mr. J. Kenneth Major, 2 Eldon Road, Reading.

Buckinghamshire: Dr. P.N. Jarvis, 1 Wordsworth Drive, Bletchley.

Oxfordshire: Mr. J.F. Carter, Tarvers, Adderbury East, Banbury.

Northamptonshire: Mr. Geoffrey H. Starmer, 17 Mayfield Road, Northampton

If there are workers pursuing industrial archaeological studies in any of the five counties who are not yet in touch with that County's representative, it is hoped that contact will be established as soon as possible so that each representative will have a complete record of the industrial archaeology being undertaken in his County. This will help co-ordination of the work so that:-

- (a) Anyone will be able to see if a particular topic is being studied and if so, by whom.
- (b) Anyone coming across information or material remains which are relevant to another worker's studies will know to who to pass the information.

CONFERENCE ON "THE PRACTICE OF INDUSTRIAL ARCHAEOLOGY"

The industrial archaeology sub-panel of C.B.A. Group 9 is holding its first conference on Saturday 11th May 1968 at the Oxford College of Technology, Headington which is to the North East of Magdalen Bridge. The programme is as follows:-

- 11.00 Registration & Coffee
- 11.20 Introduction by J.Kenneth Major, Secretary of the Industrial Archaeology sub-panel
CBA Group 9
- 11.30 Session I. The Approach. There will be examples of two different approaches :-
Oxfordshire Watermills by John Carter
The Industrial Archaeology of Blisworth by George Freeston
- 13.00 Lunch
- 14.00 Session II. Fieldwork, Dating and Research by Dr. M.J.T.Lewis, Tutor in Industrial
Archaeology, University of Hull.
- 15.30 Session III. Recording with cine film. The following examples of cine-recording will
be shown :-
Wolverton Railway Works,
Wroxton Ironstone Quarries, near Banbury
- 16.00 Tea
- 16.30 Session IV. Old Photographic Records - The Stony Stratford Boatyard by R.J.Ayers.
- 17.15 Session V. Preservation. The National Industrial Monuments Record and the Protection
and Preservation of Industrial Monuments by J. Kenneth Major.
- 17.50 Conclusion by Geoffrey H. Starmer.

Applications to attend the conference should be addressed to J.Kenneth Major, 2 Eldon Road, Reading enclosing 30/- for course fee, coffee, lunch and tea to be received not later than 4th May, 1968

WATER RAISING BY ANIMAL POWER

by J.Kenneth Major.

There are examples of engines for the raising of water by animal power in each of the five counties of CBA Group 9. These engines fall into two classes: those in which the animal, usually a donkey, moves in a vertical plane and raises a bucket on a windlass, and those where the animal, usually a horse, travels around a horizontal path and either raises a bucket on a windlass or operates a pump by means of a gear. The donkey wheels are always made of wood but the horse wheels can be made either of wood or iron.

Bedfordshire. The examples in Bedfordshire are of donkeywheels :-

Bury Hill Farm, Kensworth. This donkeywheel has been destroyed.

Church End Farm, Kensworth. This fine wooden wheel is dated 1688. The farmer has removed it from the wheel house and it is now stored in the open air.

Isle of Wight Farm, Kensworth. This wheel has now been destroyed.

Nash Farm, Kensworth. This very large wheel is now in Luton Museum.

Hall Farm, Studham. The wheel has been destroyed but a small well house still exists.

Berkshire. There are examples of both donkey-wheels and horsewheels remaining in the County:-

Woodrows Farm, Aldworth. The wheel is missing from the well house. The well is 400 feet deep and the pulleys are still in place over the shaft.

Grove House, Caversham. The wheel was destroyed and the well filled in when the house became a school.

Old Haywood Farm, Hungerford. This small donkey wheel still exists in the well house but the well has now been capped. The thatched barn at this farm has an extension which once housed a horse wheel for driving farm machinery.

South Fawley Manor. The donkey wheel has been dismantled and is stored by the Museum of Rural Life, Reading.

Swallowfield Park. The details of this horse wheel and its preservation, were given on page 3 of Number 2, Bulletin of Ind. Arch. in CBA Group 9.

Woolley Park, Chaddleworth. The horse wheel has been demolished. It used to raise water from a great cistern under the courtyard to water tanks in the roof. The tank gauges hanging down the gable can still be seen from the courtyard.

Buckinghamshire. There is only a horsewheel so far recorded in Buckinghamshire:-

Amersham Rectory.

The well house and horse wheel were being demolished in June 1967 when the stable block was being converted into housing units. The horse wheel consisted of a wooden upright shaft with two projecting arms to which the horse was harnessed. There were two drums at the head of this shaft from which ropes went to the two buckets in the well; one bucket would have been ascending full whilst the other was descending.

Northamptonshire. To date, there is evidence of two horsewheel sites :-

East Haddon.

A horse wheel was used to drive a water pump. This was replaced by a windpump which has since been removed.

Horton.

The blue brick circular path for the horse is still in position as is the pump at the top of the well. There are no visible remains of the horse gear, the pump being driven latterly by a small internal combustion engine.

Oxfordshire. Besides two magnificent donkey wheels, the County also contains evidence of a horse wheel in a brewery.

Greys Court, Rotherfield Greys. There is a donkey wheel dated 1538 although it operates over a well which is certainly 13th century. This is the only item in this list which is open to the public.

Ipsden House.

The existing donkey wheel was retained when a petrol-engined pump was installed.

Morrell's Brewery, Oxford.

A horse wheel was used to drive pumps in addition to driving brewing machinery. Later, steam engines and a water wheel replaced the horse but the wheel was retained as part of the transmission. It has now been removed.

Water Raising by Animal Power (continued)

There must have been many other examples of water raising by animal wheels in the five counties of CBA Group 9. Information on such wheels would be welcomed by Kenneth Major (of 2 Eldon Road, Reading) who is investigating these devices in collaboration with Hugo Brunner. Their researches are showing that the principal examples of these occur on chalk although others exist to raise water from cisterns rather than wells.

REPORTS OF INDUSTRIAL ARCHAEOLOGY IN THE INDIVIDUAL COUNTIES

BEDFORDSHIRE

1. Studies

Industrial railways in Arlesey. Mr. Major reports on other industrial railways additional to the plateway reported in issue number 1 of this Bulletin. That plateway ran along the county boundary from the main railway line towards a wood called Fox Covert. Its assumed track then ran between close hedges to the gravel pits on Willbury Hill. The line of the plateway may have been used to get gravel down to the railway for ballasting purposes.

(a) A cement works used to operate to the east of the main railway line (TL 190353) From this site a tramway ran east to a chalk pit (TL 198349) branching at (TL 195350) to a further chalk pit (TL 196345)

(b) Three hundred yards north of this was the site of the Three Counties station and from here a standard gauge line sweeps to the east and climbed the hill to the Three Counties Asylum (TL 205353) There were several sidings in the Asylum grounds to serve stores and boiler house.

(c) The London Brick Company's Arlesey Block Works has a private railway system still operated by locomotives using overhead electric conductor rails.

The locomotives used on the above three systems are detailed in one of the Industrial Locomotive Pocket Books published by the Birmingham Locomotive Club.

BUCKINGHAMSHIRE

3. Publications

"Thomas Rickett's Steam Carriage" by A.S.Heal in The Road Locomotive Society Journal, February 1968

The article is mainly concerned with the small three-wheeled steam carriage built for the Earl of Caithness in 1860 but does mention the several steam carriages and a steam rotary cultivator built by Rickett between 1858 and 1865 at the Castle Foundry, Buckingham. There is a reference to several journeys between Buckingham and Wolverton (a distance of 10 miles) which were "accomplished within the hour including stoppages".

4. Preservation/Museums.

Watermill at Ford End Farm, Ivinghoe. Mr. Keith Saunders of Pitstone, Leighton Buzzard has sent the following :-

There were three mills in Ivinghoe parish at the turn of the century, all working on the same stream, the Whistlebrook, which is a tributary of the Ousel before it flows through Leighton Buzzard. One mill was Beesleys, close to the Bell Inn, one was a wheel to pump water to Town Farm (on a spur of the Chilterns above the village) and the third was at Ford End Farm. There is the date 1795 painted inside Ford End Mill and there must have been a waterwheel at this site for centuries. When the present farmer, Mr. A Jellis, first came to Ford End in 1918 he was a boy and his grandfather was working the farm. Farmers from the surrounding villages brought their corn to be ground at fourpence per hundredweight and enough water flowed through the millpond between Christmas and August to allow the mill to grind non-stop.

When the mill went into disuse about five years ago, Mr. Jellis never expected to have it running again but intended to buy an electric mill and let the old mill wheel rot away. But about two years ago, Pitstone Local History Society were hosts to the Berkhamstead Local History Society and showed them the mill on a tour of the village. At hearing their regrets at not seeing it in working order, Mr. Jellis said he would be willing to pay for new materials if somebody could do the work of remaking the boxes on the wheel and any other necessary jobs to restore it.

Pitstone L.H.S. members saw this as a challenge and set up a committee to raise money and get the work under way. Over fifty pounds were donated by local people and others who were unwilling to see the decay of what had been an essential piece of village life. Their efforts were successful and on November 3rd, 1967, the wheel was formally set in motion and corn ground by the mill in token of its full return to useful life. The mill is now being used by Mr. Jellis once again for the feeding-stuffs for his sheep.

The repair work undertaken by an experienced local carpenter was on the wheel itself but members of the Society themselves made and fitted a new sluice gate from the millpond and overhauled the grinding machinery. Messrs D.T.Goseltine and K.Larking of Dunstable, have made a special study of the mill. They have made scale drawings and taken many photographs which they intend to give to a local museum as a permanent record.

NORTHAMPTONSHIRE

1. Studies

(a) Early Methods and Equipment for Excavation in Ironstone Quarries. Although remains of quarries closed some time ago often indicate the method of working (e.g. the east pits of the Hunsbury Hill Mines, SP 742576, closed 1921) very little of the earlier equipment is left. Stewarts and Lloyds Ltd., Corby, have kept many photographs of mechanical excavators used in their various pits and quarries but there does not appear to be an adequate photographic record of the equipment used in the other quarries in the County. Mr. Marshall C.Fayers has been working on this subject for many years and has been collecting old photographs from various sources. He would welcome the loan of any photographs showing steam excavating equipment in use in Northamptonshire. His address is 63 Ditmas Avenue, Kempston, Bedford.

(b) Water Supply in Northampton. Mr. D.Lewis, of the Mid-Northamptonshire Water Board has started to investigate the earlier aspects of the local water supplies. He gave a resume of his initial researches into the Cliftonville Pumping station, Ravensthorpe pumping station and Coton Mill at one of the meetings of the Industrial Archaeology course held at the University Centre, Northampton during the past Winter.

John Evans, of Northampton, has been working on the old beam engine at the Cliftonville waterworks and hopes that it may eventually be preserved. It is a rotative engine, the drive (now gone) passing through the engine house wall to gearing on top of the well and then with vertical shafts to pumps at the bottom of the well.

OXFORDSHIRE

1. Studies

(a) Hook Norton Iron Works. A survey of this site and the associated ironstone workings has been started. This has mainly been by photographs as the site is now being redeveloped.

(b) Vulcan Ironworks, Banbury. The greater part of these premises has now been recorded.

(c) Chipping Norton. The Chipping Norton Photographic Society have been making a photographic survey of the local industries.

(d) Adderbury. An extensive collection of photographs of Adderbury and district, taken about the turn of the century, has been reported. Mr. John Carter hopes to include these in the collection, in 2" x 2" slide form, he is making of early pictures of Banbury and district.

2. Lectures, Courses

The Industrial Archaeology course organised by Mr. Carter for the W.E.A. at the North Oxfordshire College, Banbury, was quite successful with an average attendance of 15 despite adverse weather conditions on one or two occasions. The course included contributions from visiting lecturers: Kenneth Major gave a technical survey on wind and watermill structures and Eric Instone gave a comprehensive review of Iron Foundry work in Northampton.

3. Publications

(a) Cake and Cockhorse for Spring 1968 contains several items, with photographs, relating to plush weaving in the 1890's.

(b) The May edition of Cake and Cockhorse (the magazine of the Banbury Historical Society) will be devoted to industrial archaeology.

