BULLETIN OF

INDUSTRIAL ARCHAEOLOGY

IN CBA GROUP 9

umber 7 January 1969

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

Enquiries re distribution and subscriptions (10 shillings for 4 quarterly issues) to:- J. Kenneth Major, 2 Eldon Road, Reading.

OUNTY INDUSTRIAL ARCHAEOLOGY REPRESENTATIVES

Bedfordshire	:	Mr. D.A. Goseltine, Holland Cottage, Whipsnade, near Dunstable.
Berkshire	:	Mr. J. Kenneth Major, 2 Eldon Road, Reading.
Buckinghamshire	:	Dr. P.N. Jarvis, 1 Wordsworth Drive, Bletchley.
Northamptonshire	:	Mr. Geoffrey H. Starmer, 17 Mayfield Road, Northampton.
Oxfordshire	:	Mr. J.F. Carter, Tarvers, Adderbury East, Banbury.

If there are workers pursuing industrial archaeological studies in any of he five counties who are not yet in touch with that County's representative, it is oped that contact will be established as soon as possible so that each represent- tive will have a complete record of the industrial archaeology being undertaken in is 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 whom to pass the information.

EPORT FROM CBA GROUP 9 MEMBERS AT THE BATH CONFERENCE ON INDUSTRIAL ARCHAEOLOGY

The 1968 conference met in early November and was entitled "The Future of Industrial Archaeology". Several members of CBA Group 9 attended, including Miss Jean Cook of the Oxford City and County Museum, Dr. Peter Jarvis and Mr. Kenneth Major. The previous conference in 1967 had emphatically said that the time was not yet come that a national I.A. society was needed. The 1968 conference was approached with some misgivings that we were to be presented with just such a society as a fait accompli.

Dr. Angus Buchanan assured members that our misgivings were unfounded, but raised the issue of "What do we do next, and What are our needs?" The principal speakers were Dr. E.R.R. Green of Manchester, Mr. Keith Gale, and Sir David Follett (the director of what he described as "the finest museum of science and technology in South Kensington"!) The discussion following them had by the end of Saturday morning reached a certain deadlock, in that it was apparent that no existing organisation was thought to be able to arrange the co-ordination of I.A. researches, of records and of attempts at preservation. At present it is apparent that a good deal of effort is wasted in unnecessary duplication of effort. It was also thought that much material which is not in fact industrial archaeology - such as cinemas and nineteenth century housing estates - is being dragged in, whereas their proper place is probably in the field of social and economic history. There seemed to be a certain tendency of established authorities to assume that nothing could be done, a certain inability or unwillingness to look for new solutions, and a certain amount of lack of appreciation of the necessity for a proper use of archaeological techniques, at present lacking to a large extent in the I.A. field.

On Sunday morning Mr. Tom Rolt summed up the situation in an impressively calm manner - even when he was accused of being "a pillar of the Establishment"! - and the discussion although outspoken was at least constructive. It was apparent that the vast majority were in favour of integrated development of I.A. with other archaeological specialities within the framework of the C.B.A., and that a separate organisation was only to be considered if all else failed. Co-ordination was now such an effort as would require one full-time member of staff, and it was decided to elect a steering committee of six to see if the C.B.A. organisation might be extended to cover the needs of I.A., and thus advance archaeological development. The six elected members were Mr. Tom Rolt, the well-known author, Dr. Angus Buchanan, keeper of the National Industrial Monuments Record, Mr. Neil Cossons, technological director of the Bristol City Museums, Prof. W.T. Minchinton, professor of economic history at Exeter, Mr. Kenneth Major and Dr. Peter Jarvis.

AN INDUSTRIALISED FARM ESTATE IN BERKSHIRE - Part 2.

by John Gray.

The historical background to this enterprise was given in Bulletin No.6. This second part is concerned with what can still be seen of Robert Campbell's ambitions for Buscot Park Estate.

Distilleries and Factories

Nothing now remains on the site, which now ironically houses the local water works, but a number of relics have been traced.

A red brick cottage in Buscot village has typical "factory" cast iron windows that are reputed to have come from the distillery, and presumably other building materials from the factories were re-used on the estate.

Most important amongst the finds has been a large iron cylinder now used as a water tank at Johnson's Farm on the Ardington Estate near Wantage. This may have been purely a storage tank, but as it is fitted with bolted flanged outlets, it could have been a distillation cylinder. Similar tanks were used at Ardington, one in the tower at the walled garden at Kitford, the other installed underground at the Estate work yard.

The Buscot gasworks were also purchased by the Ardington Estate, and the building, now a dwelling house still exists.

The White Horse Foundry at Wantage also bought surplus material from Buscot, and the steam hooter which was, until 1967, on the roof of these works may have been from the distillery. Unfortunately this disappeared without trace during these investigations.

One of the bays of this factory bears a strong resemblance to the Buscot distillery building, which may have been re-erected there following the failure of Campbell's enterprise.

Irrigation Works

This is still used for supply of water on the estate, but to nowhere near the extent of the original system. At the reservoir are two 3'0" dia. cast iron pipes of uncertain use. Water is still supplied to the reservoir by a pump adjacent to Buscot lock, on the site of the original water wheel driven pump which was replaced in 1935 by a re-conditioned water turbine dating from around 1880.

The site of the original water wheel driven pump is plain to see, as it the site of the twin wheels at Hart's wier Eaton Hastings close by the Anchor Inn.

In addition to the reservoir there are two "landscaped" artificial lakes fed both from natural sources and the irrigation system.

At the northern tip of the "Little Lake" in a weather boarded and roman tiled building is a further pump known as the "booster". This is a large piston pump driven by a water turbine. Both pump and turbine were obviously designed as a unit, but the maker was too modest, as no name can be found. This pump whilst not having been used for some years is complete and sound.

Remains of the disused irrigation system in the form of cast iron pipes, gate valves etc. can be found about the estate. One of the main pipe lines passes through a hill, having been laid by tunneling.

Tramway

Armed with a map showing the route it is possible to find traces of the tramway in the form of small brick bridges (or their remains) over ditches, little used gateways, including those on opposite sides of the Faringdon-Lechlade road west of Buscot village that mark the site of the level crossing. No rails have been found in situ but they can be found about the estate serving as garden edging, building reinforcement etc. Similar rails found at the White Horse foundry may also be from Buscot.

The most obvious relic of the tramway is the cutting near Broadleaze Farm, about $\frac{1}{4}$ mile long, its 30-40 ft. depth is exaggerated by the spoil having been dumped on the top of the banks.

So far the fate of the locomotives and rolling stock remains a mystery.

Oldfield Farm

Oldfield Farm is important as the large group of buildings that included Oldfield Mill, the dairy, blacksmiths, cooperage, wheelwrights, saw mills and other estate workshops.

Unfortunately investigations started a few years too late, as the Barn and part of the mill collapsed under the snow during the winter of 1962-63.

The site of the barn is now covered by a modern pre-cast concrete and asbestos building, covering almost exactly the same area. A pile of rubble and 35'0" pulley shaft with pulleys are all that is left of the old building.

Fortunately the remaining part of the building contains the water turbine of approx. 45 h.p. (of the same unknown make as the "Booster") that drove the mill, together with its gearing, a cast iron sack hoist by Appleby Bros. (who were responsible for the locomotive "Edith"), an early winnower, and to show that Buscot's pioneering days continued, a 1939-45 war grain drying plant, used when Buscot boasted one of only 6 combine harvesters in use in this country, echoing Campbell's use of an early reaper and binder in 1870.

On the N. of the building the blacksmith's shop with two forges, next to this on the E. was the cooper's and wheelwright's shop. A gate post outside this shop has a device used to shape the tyres for wagon wheels. On the W. are the carpenter's and paint shops.

The remainder of the building is made up of cattle yards, cow sheds, store rooms, etc.

West of the main buildings are the derelict saw mills with hardware in situ, the railway station like dairy buildings, built after Campbell's time, but not that I can find connected with the tramway, and the turbine reservoir.

The blacksmith's shop has two relics of Campbell, a lead plate from a wooden churn inscribed "Robert Campbell - Buscot Dairy - Faringdon" and on the door post, several brand marks "R.C.".

Buildings, etc.

Outstanding of Campbell's farm buildings is the magnificent cast on site, mass walled concrete barn in Buscot village. Another example of Campbell's pioneering, it pre-dates other known concrete buildings by about 30 years having been built about 1870.

Measuring 60 ft. x 162 ft. x 12 ft. 6ins. to eaves its concrete walls are 1ft. 4 ins. thick at the base. The roof is in red double roman tiles and is lined on the inside with T and G boarding. The gable ends are completed in red Bridgwater bricks capped with dressed stone.

Adjacent to the concrete barn is part of the cattle sheds, also in red brick and roman tile, as are the majority of Campbell's buildings.

The buildings from this period are in the style of the Bridgwater area of Somerset and as the majority of the materials are from Bridgwater, this suggests a builder or architect from that area.

This is further strengthened by the 1863 Berks. and Oxon directory giving Simmonds & Coulthurst as the proprietors of the estate brick and tile works at Eaton Hastings. The Coulthurst family are well known Somerset builders and builders' merchants.

One of the store rooms at Oldfield has revealed some items of early telegraph equipment, these when dated may prove a link with the estate telegraph of the 1870's.

Research into Buscot Park Estate has occupied the last two years during which time the remains have been photographically recorded, and a more detailed report is being prepared.

THE INDUSTRIAL ARCHAEOLOGY OF TOWCESTER AND DISTRICT

A preliminary report by Richard O"Rourke who is making a detailed study of this area. Towcester, 8½ miles S.W. of Northampton, was the Roman settlement of Lactodorum which was later fortified by the Saxons. The later development of the town dates from the 17th century onwards and was mainly because of its position on the main London-Chester road (now the A5).

Turnpikes

(a) The section of the London-Chester road from Old Stratford to Dunchurch was turnpiked in 1706 and from this time a large number of Inns and Taverns sprang up, there being between 20 and 30 recorded in the 1820's. Most of the larger Inns had secondary access to the Brackley Road and they derived a large amount of trade from this. The sites of many of the earlier hostelries, a large number of which closed between 1850 and 1900, have not yet been found.

In 1765 the tollgate on the Old Stratford-Dunchurch turnpike was at Pointers Corner, which may be the same place later referred to as the Towcester Tollgate (near the Heathencote turning.) By 1812 there was a weighing engine here so that charges for excess weight could be made. At this date there was also a Ticket gate at Duncote Lane north of Towcester. This trust was repealed in 1876.

(b) Towcester to Weston-on-the Green (via Brackley) Turnpike was made in 1756 and finished in 1873. In 1851 it was amalgamated with the Buckingham, Brackley and Banbury Turnpike. The tollgate at the Towcester end was between the end of the town and the Abthorpe turn.

(c) Towcester-Cotton End (Northampton) Turnpike started in 1794 and went out of being in 1873. Previous to this the old road ran off east of the present course through Hillcote and what is now Easton Neston Park to a junction with the Watling Street just north of the present White Bear Public House. Its course can be followed in some places including through the woodland marked on the 1900 25" O.S. map as Old Road Spinney.

(d) Common Gaol Buckingham to the Oxford Northampton road at Lord's Field Gate, Whittlebury. This was turnpiked between 1824 and 1877.

In 1830 at the height of the coaching boom there were 2 'Royal Mail' coaches each way through Towcester (one between Liverpool and London and the other between Holyhead and London). There was also 1 coach each way between Northampton and Oxford and 20 others plying between Birmingham and London.

Railways

The railway did not arrive in Towcester until 1872 and between the opening of the London and Birmingham in 1838 and this date an omnibus was run from the 'Pomfret Arms' (now the 'Saracens Head') Inn to Blisworth station for passengers: Goods traffic went via Wolverton station on the L. & B.R.

1872 Northampton and Banbury Junction Railway (Blisworth to Cockley Brake Junction near Farthinghoe on the Buckinghamshire Railway).

1873 East and West Junction Railway (Greens Norton to Old Stratford, Warcks, with connection to Stratford to Honeybourne branch of G.W.R.). Between 1877 and 1885 the finances of the company were in such a parlous state that no passenger service was operated.

1891 Easton Neston Mineral & Towcester, Roade and Olney Junction Railway (name changed 1882 to Stratford-on-Avon, Towcester & Midland Junction Railway). In 1883 this and the East & West had been amalgamated.

1909 N. & B.R. bought by the other railway and the whole renamed the Stratford-on-Avon and Midland Junction Railway.

Closures
1893 Towcester-Olney passenger
1951 Blisworth-Banbury passenger
1951 Towcester-Cockley Brake completely
1952 Blisworth-Stratford passenger
1958 Towcester-Ravenstonewood Junction completely
1964 Stratford-Blisworth completely

Although some of the station buildings still stand, the yard has been acquired by a local firm and the station platforms used as foundations for a test house (see later, under Groom & Tattersalls).

Brickmaking

(a) The earliest reference to brickmaking in this area, since the Romans, is in 1841 when there was a brickyard on Burcott Lane. This site has not been found.

(b) Between about 1860 and 1910 there was a brickyard at Greens Norton. This is shown in the 1883 6" O.S. map (SP663492) and at least by 1885 they were producing most types of bricks and tiles. One gradually crumbling kiln remains and tipping of rubbish has started in the eastern part of the pits.

(c) Between about 1860 and 1900 George Savage was working brickyards at Stoke Bruerne and Towcester. Those at Stoke Bruerne were on a branch of the canal just south of the village (SP745495). The site is now flooded, but two kilns are reasonably well preserved and there are some more buildings containing some machinery in the middle of the lake.

(d) The Towcester brickyard may have been that on the Tiffield road (SP691501). This was a small pit employing mainly hand methods. It had 4 pits and 3 kilns, remains of which are visible today. It closed in 1906.

(e) There was also a large pit, using mass production methods, on the Northampton Road (SP706512). This is linked with the Ironstone working as noted below and was closed in 1902. A large pit, now flooded, remains, and some brickwork of the kilns, but most of the site has been flattened in Army exercises on the area.

(f) Between about 1885 and 1914 at Silverstone, and about 1885 at Abthorpe, there were brickworks no details of which have been found.

Lime Burning

Around 1880, lime burning was practised at Burcote Wood Farm (near Wood Burcote SP686464). Also at this time there were lime kilns at the quarries now worked by the Bicester Stone Co. (SP70549) : see later under Gravel quarries. There were other kilns at Paulerspury and Greens Norton around 1900. The lime was probably for use on the land only, plus possibly a limited use for mortar.

Ironstone Quarrying and Iron Making

1873 Mines east of Northampton Road opened (SP710507 and 708508) by the Towcester Iron Ore Co.
1875 Two rotary furnaces put in by Siemens on his Direct Process (SP693503)
1878 Siemens Process found unsuitable for local ore use, and after this only spongy iron for filtering was produced.
1878 Mines acquired by Easton Estates & Mining Co. Ltd.
1879 Completion of Banbury to Stratford-on-Avon railway giving the ores access to South Wales.
1881 Furnaces acquired by the Mining Company.
1882 Furnaces out of use.
1889 Brickworks taken over by a new company called the Towcester Mineral and Brick Co. Ltd. They opened up a new pit on the west side of the Northampton Road (SP706512)
1891 Towcester-Ravenstonewood Junction Railway opened and connection made to it. Line from the quarry to the Blisworth-Towcester line, near the furnaces, lifted.
1912 Catchgate Plantation pit reopened (SP708508) and small lime kilns erected.
1920 Works closed due to depression and coal strike.

Of the quarrying activities, all the quarries, the stables, calcining bank, and calcining kiln, are the principal remains. Some small amounts of brickwork are all that is left of the ironworks site.

Gravel Quarries

Sites found

1. Pury End (SP705459) - still worked by the Bicester Stone Co. for roadstone.
2. Caldecote (SP686510 and 685509) small pits.
3. Wood Burcote Road Towcester (SP691465) large pit now used as tip for Towcester R.D.C.
4. Charlock Farm near Silverstone (SP660451) small pit.

Milling

Towcester Mill and Trading Co.

There is believed to have been a mill on this site (SP693488) from the 12th century and a beam dated 1100 has been found during rebuilding. The older part of the present mill building dates from 1794 but in 1911 a fire destroyed most of this part (the fire was believed to have started in the engine room - there was a steam engine here then). There was presumably originally an undershot water wheel (there is a representation of one on the keystone of the present offices) but this has now been replaced by a turbine. This latter is still used to drive the line shafting, but a large electric motor can be used in its place. The stones and their machinery have been removed and little work is now done in this part of the company's premises.

In 1938 The Phipps Brewery site was bought and part of the old buildings (with some additions) used for the manufacture of cattle cakes etc. A grain dryer has been installed in the malthouse of the old brewery.

Dockwell Mill (SP702466)

There is reference to its existence in the 14th century, then fed from a mill pond. Ruins were reported to have been discovered during a dig at a Roman Villa.

North Mill

There are some references (in the 17th century) to an old mill believed to have been attached to the Belle Baulte estate (north of the Brackley Road). Its site is believed to have been approximately where the school swimming pool now stands near the north bridge in Towcester. There is some evidence of there being a mill stream here as a depression in the ground.

Twicketts Mill (SP712488)

Last referred to in the directory for 1877, the mill stream shown here on old O.S. maps has now become the main riverbed, and there is now a Great Ouse River Board weir here. Part of the wheelhouse arch is the only remain, protruding slightly from the ground.

Greens Norton (SP674492)

By 1898 the mill was worked by steam and water and was worked by George Groom, millwright of Eastcote. By 1924 the mill had changed hands and a gas engine installed. The buildings have now been demolished and only the waterworks (including the sluices) remain.

Kingthorn (SP660493) - sometimes referred to as Kingstone Mill

The last reference to its use was 1885 by which time a steam engine had been installed. Little remains of the original mill buildings now, although the visible part of the now half buried iron waterwheel is used as a sort of flower box.

Cuttle Mill (SP717465)

By 1885 a steam engine had been installed but in 1912 a Mr. Albright had rented the mill, sold the machinery, and then emigrated. It has now been converted to a residential house. The mill pond, and culverted mill stream and side stream remain but the wheel (which was overshot) and most of the machinery has gone. It is believed that there were 3 pairs of stones. The base of the chimney also remains.

Slapton (SP644468)

By 1885 a small steam beam engine and boiler (either Cornish or Lancashire) had been installed. Some grinding was done until about 1950 and in 1951 the engine was removed and is preserved somewhere in Edinburgh (present location unknown). There were two pairs of stones at that date. The premises are now being used by the Midland Spice Grinding Co.

Stoke Bruerne

Both the windmill and watermill (which were close to each other) were last noted in 1877 in the directories. They are presumed to have been close to the Blisworth Road.

There were also watermills at Grimscot and Foxley, both were last referred to in directories in 1869.

Towcester Windmill (SP690475) approximate

Nothing known of this mill.

Greens Norton Windmill (SP666497)

Last noted as working 1898. Now only body shell - used as joiners workshop.

Silverstone Windmill (SP674443)

Last referred to in 1898. Only body now stands - used as chicken coop.

Malting

In 1743 a maltings with provision to steep and work 10 Q of grain was advertised to let, and in 1820 a malt kiln with a 700 Q granary upstairs, and facilities for steeping and working 12 Q of grain was for sale in Church Lane. These two may have been the same, but it does not seem to exist today. By 1830 there were 4 maltsters in Towcester including Pickering & Richard Phipps, and Geo. Gurney (in Park Street), but by 1877 this had fallen to one only, Phipps.

Brewing

When brewing by Pickering & Richard Phipps, as opposed to malting, started is not certain, but a large brewery was erected, opposite where the cinema now stands, and there was also a bottling store on the opposite side of the road a little farther north. 70 men were employed. Brewing ceased in about 1900 when work was concentrated on Northampton.

In 1921 Phipps sold the buildings and in 1938 the present occupier, the Towcester Mill and Trading Co., took over part of the buildings.

Mineral Water Manufacture

From about 1870 to 1920 mineral waters (locally known as 'spruce') were produced at the house (now the Watling Street Cafe) next to the Baptists Church. This still has a wall crane and first floor door on its side. On the opposite side of the road the building next to the 'Peacock' Public House has a datestone of 1896 bearing the initials of Walter & Soames, then owners. This building is now part of the 'Peacock'. The firm also owned The Anchor Brewery, Buckby Wharf.

At Towcester boiled sweets were also manufactured.

Lace Making

The cottage industry was started in the 17th century and by 1698 there were 591 women working at it in Towcester. The 18th century brought improvement in design and quality, fine 'Brussel grounds' being worked. By 1900 the industry had almost completely stopped, mainly due to the making of machine lace in places such as Nottingham.

Tanning

Large numbers of cattle were bred locally, and there was a local supply of oak tanning bark, and this led to the setting up of tanneries in Towcester, Slapton and Abthorpe. Towcester was the common market for these activities, and there was an inspector of raw hides here.

Towcester tan-pits are believed to be south of the area known as the 'saw-pits' (behind the cinema), and the name 'saw-pits' may refer to the cutting of the oak logs. This pit was closed by 1830.

Boot and Shoe Making

In 1891 the Hesketh Boot and Shoe factory of Harrison & Co. was built at the south end of the town in Vernon Road. Some difficulty was experienced in obtaining skilled labour, and 5 houses were built for workmen from Northampton. These were in Islington Road behind the factory. In 1899 the factory was sold to Dawson & Son, of Northampton, and at some time before 1921 to C. & E. Lewis.

In 1921 the factory (then employing 200) was burned down, and in 1922 the Towcester Boot Manufacturers Ltd. rebuilt the works, using part of the original factory, and putting up a wooden building on the remainder of the site. This was known as the Phoenix Works. The factory capital was subscribed by the workers themselves on the copartnership scheme, most of the money having come from the previous employers security scheme. Whether this succeeded or not is not known but in 1929 there is a reference to Hornby & West's factory in Lake Lane, though it is not known whether this refers to the same building. The site is now waste, and used as a lorry park.

Between 1898 and 1914 at least there was also a boot and shoe warehouse in Towcester, owned variously by Wilkins & Co., Wilkins & Merivale & M. Merivale. There was also a shoe manufacturer noted in Abthorpe in 1898, Henson & Co.

After the Second World War there was a great demand for shoes, and small shops were set up in many of the villages by Northampton manufacturers, to tap the skilled female labour available. Manfields were one of these and they set up two small workrooms, one at the south end of the town and one near the Market Square. In 1948 a large permanent factory was built at Wate Lane, but this was subsequently sold to the Plessey Company Limited, and memory stores for computers are now manufactured here.

Engineering

(a) Groom & Tattersalls

George Groom was a millwright in Eastcote between 1880 and 1910 when the Station Works was opened, the original parts of the works being a foundry and a machine shop. In 1910 the firm was known as Groom Brothers, but became Groom and Tattersalls around 1920. The firm has recently been bought by J.A. Perkins of Northampton, since when various additions to the works have been made.

Originally the power was provided by a single suction gas plant via line shafting, and this was then replaced by a 120 h.p. engine of unknown type. At present all working is by electricity and most of the line shafting has been removed.

The main products now are flour milling machinery, food machinery, crane jibs, and general foundry work. In the past machine tools have been produced.

The Station Yard is now used for storing steel and the station platforms have been used as foundations for a test house for tube rolling mills produced by Perkins.

(b) Ashby Cars

Victor Ashby & Son, occupying a converted chapel at the north end of the town, were, in the early 20th Century cycle manufacturers, but in 1921-22 Short Brothers of Rochester produced a car to the design of the son, also Victor Ashby, known as the short-Ashby. In 1923 Ashby Motors Ltd. of Manchester took over production of the cars, although local information is that some cars were actually built in Towcester.

In 1924 production ceased and afterwards the firm concentrated on the production of electrical goods.

Veterinary Medicines

Around 1880 Thomas Oldham was producing the 'Oldham Specific' for cure and prevention of rot and husk in cattle and sheep. Also around this time Pettifer & Co. of Litchborough were making veterinary medicines.

Gas

Towcester Gaslight and Coke Co. supplied gas to the town from 1838 to 1933 when the Northampton Gaslight Co. took over. Originally there were two retorts and two holders. In 1934 a new gas holder was installed. Now only the retort house, and valve house remain of the old installation.

THE FEATURE CARD INDEX SCHEME FOR OXFORDSHIRE

by Miss Susanna Everett,

Assistant Field Officer, Oxford City & County Museum.

The Field Department of the Oxford City and County Museum is hoping to build up a punched card filing system to cover archaeological, historical and industrial sites in the county. Historical and Industrial sites have already been handled in this way while archaeological sites have still to be incorporated.

When a site is located it is given a number and this number is punched on a series of punched cards covering the location, the parish and the nature of the site. This means that it should be possible to say how many industrial sites are known in Woodstock or how many water mills in Oxfordshire. At the moment location and type are the only two kinds of cards that are punched, but more can always be added, such as building material, date, etc.

Most of the sites so far located (nearly 1,000) have been found on the first edition of the O.S. 25" to the mile sheets, published in 1880 and 1881, and only a very small proportion of sites have been visited.

Types of sites recorded are not limited to industrial sites. Historical and social sites, such as poorhouses, chapels, pumps and stocks are also included. It is hoped eventually that all the more important sites will be recorded in detail and that members of the public will help in this work. To enable them to record the significant features the museum is producing recording guides for all major classes of site. These can be obtained from the museum. In addition, a study group is being formed to train members of the public for recording recent historical and industrial sites in the field. (Details of this study group are given on page 16 of this Bulletin).

It is hoped that members of the public who are interested in doing work either in their own area or on a particular topic will make use of the material being collected in the Field Department.

For the Field Department files to be as comprehensive as possible it is necessary for people doing work to tell the Museum what they are doing and to contribute information to the Field Department.

REPORTS OF INDUSTRIAL ARCHAEOLOGY IN THE INDIVIDUAL COUNTIES

BEDFORDSHIRE

Studies

Leighton Buzzard Light Railway. Sydney A. Leleux (24 Southfield Avenue, Priddlesden, Keighley, Yorkshire) is tracing the history of this railway.

Opened on 20th November 1919, the railway was the idea of Joseph Arnold & Sons Limited who, with George Garside (another local sand quarry owner) encouraged the formation of the Leighton Buzzard Light Railway Limited. The railway linked the sand quarries N.E. of Leighton Buzzard (the furthest being at Double Arches, north of the road between Heath and Reach and the A5) with the washing plant and tipping dock (into main-line rail wagons) adjacent to Billington Road, on the S.E. side of the town. By this means, it was hoped to end the considerable damage to the roads caused by the two quarry firms' road vehicles then used for carrying the sand from the workings to the LNWR sidings in the town.

The line is about 4½ miles long with track laid to 2 ft. gauge. Although two steam locomotives were used when the line opened, they were soon replaced by petrol locomotives when the traffic increased. In its hey-day, the railway operated 25 trains per day for Arnold's and a somewhat smaller number for Garside's. The line was single track for most of the way but there were about six passing loops. With no signalling, a general 'rule of the road' was adopted whereby empty trains gave way to loaded trains although if a loaded train was only just past a loop its driver would usually set back.

By December 1958, the LBLR was becoming uneconomic and the company sold their remaining locomotives to the quarry owners who then provided labour to operate the trains. Later Garside's ceased using the railway and Arnold's assumed control of the LBLR. When the latter firm installed washing and drying plant at Double Arches, only sand for despatch by British Rail used the LBLR to Billington Road main-line sidings. Even this traffic is likely to cease in 1969. However, the Iron Horse Preservation Society is hoping to use the whole length of the line to run American-style narrow gauge railway equipment. The Society plans to start a regular passenger service, using steam locomotives, in the Spring, 1969.

A good illustrated description of the line and its method of operation is given in the following article, on which the above notes are based:-

Arnold, Peter (under the pen-name "Much Obliged") "Leighton Buzzard Light Railway", The Industrial Railway Record, No.9, March 1966 p.192-198.

BERKSHIRE

Studies

Mr. Fred Roberts reports the following activities in Newbury and district:-

(a) Preliminary Survey of Newbury Borough. A rapid survey of the 1878 edition of the Ordnance Survey town plans for Newbury Borough, with the kind co-operation of the Deputy Borough Surveyor, revealed the existence of at least five breweries, with associated malthouses, as well as the site of the first gasworks of 1825. Site inspection showed that the only brewery building remaining intact is the Phoenix Brewery, now used as a furniture store, with the house of the owner adjacent to it, now used as the headquarters of the Newbury R.D.C. The gasworks was completely demolished, and replaced by a Corporation depot in 1890, but the buildings of the latter are still being used by certain local firms. The new gasworks was built in King's Road, and when shut down a few years ago, was taken over by a cables firm, and needs to be recorded. Two fine malthouses still stand and need recording, to say nothing of the impressive and still operating Town Mills. The old Greenham Mill, converted to an electric power station at the turn of the century and extended on several occasions by water turbines, gas engines and finally, diesels, is due to shut down in 1969. Although boarded over, the two original water turbines by Bell and Co. of Croydon, 1904, are still in position.

(b) Products of Bucklebury Foundry. (Studies of this foundry have been referred to in Bulletin No.1 page 3, No.2 page 3, and No.9 page 13.)

Some of the children from the school at Thatcham, which is only a few miles from Bucklebury, have examined their village for traces of the foundry's products, but without success.

(c) The Pinewood Estate Brick and Tile Company. These works were surveyed and photographed during the summer, by kind permission of Cementation Ltd. who have acquired the site. Although all the machinery had gone for scrap, the ex-foreman gave me much valuable information. Several moulds and brick and tile products have been handed over to the Curator of Newbury Museum, and these and various photographs will be shown in what will probably be the first Industrial Archaeology exhibit in the museum.

(d) Brickyards in S.W. Berkshire. A careful examination of the first edition Ordnance Survey maps on the 25" scale in the British Museum reveals the fact that there were about twenty brickyards in operation in south west Berkshire in 1877-78. All these sites are to be visited during the winter. They exist mainly on the clay of the Reading Beds of the Eocene Period.

Lectures/Courses

(a) Reading. The first half of a joint W.E.A. - Reading University Course on Industrial Archaeology has been completed. The lectures are held in the Zoological Theatre of the London Road Block of the University of Reading, at 7.30 p.m. on Mondays. The programme for the second half of the course is:-

6 Jan: Iron & Steel; 13 Jan: Public Services; 20 Jan: Dating of Buildings;
27 Jan: Marketing and Shop Buildings; 3 Feb: Entertainment Industry;
10 Feb: Industrial Archaeology Techniques; 17 Feb: Project Session;
24 Feb & 3 Mar: Open meetings; 10 Mar: Course Conclusion.

Further details may be obtained from Lawrence Cameron, 120 Kingsway, Blackwater, Camberley, Surrey.

Preservation/Museums

Maidenhead Brick and Tile Company Limited, Pinkneys Green, Maidenhead. These works are to close in the near future and the tandem compound horizontal steam engine, built by Metcalfe of Bradford, in 1899 is threatened with the scrap merchants torch.

The engine has a single bar crosshead guide, rectangular bed and an interconnecting cast bridge piece between the cylinders. From its grooved flywheel, 4 cotton ropes drive a countershaft from which flat belts drive three pug mills. Marshall C. Fayers, of Bedford, comments "This engine has crosshead guides for running one way only. The engine has had the eccentric turned round and is now running the wrong way. Thus, instead of the thrust being taken on the large surface designed to take it, the thrust is being taken on the two narrow keeper plates which were only held by countersunk screws which have proved difficult to keep tight". The other machinery at the works e.g. tile extrusion machines, have their own electric drives. Steam is supplied by a single Lancashire type boiler, built by Robert Taylor & Sons, Marsden, Yorkshire, No.1349 of 1899.

A section of the Great Western Society aims to save this engine. £250 is needed at once for its purchase and initial protection before the engine is moved to a place of safety. At the moment it is being run on alternate Sundays so that funds can be raised. Further details can be obtained from:-

The Secretary, 1899 Stationary Steam Engine Fund, 4 Castle Hill Terrace, Maidenhead, Berkshire.

Exhibitions

"Industrial Reading in the 19th Century". The Berkshire Industrial Archaeology Society and the Reading Museum are arranging this exhibition for the autumn of 1969. If any worker can help with ideas, documents, exhibits, etc. please inform J. Kenneth Major, 2 Eldon Road, Reading. Telephone : 0734 52698.

BUCKINGHAMSHIRE

Publications

"An Introduction to the History of North Bucks" produced by the Wolverton and District Archaeological Society as a background and guide to the exhibition reported below.

This booklet contains much of interest to the industrial archaeologist. There are sections on Local Records (with examples of how these have been used for the area covered by the Society), Tobacco Clay Pipes, Coins and Life before the Great War. Under the heading 'Transport' there is an interesting survey of Roads and their traffic, Rivers, Canals and Railways with numerous references

to the situation in North Bucks. Unexpectedly, from the title of the booklet, there is also a section on Northamptonshire. Since this ranges over the whole county instead of just the southern part usually associated with the work of the Wolverton Society, one can only say that this section is very superficial. The part devoted to industries in Northamptonshire gives a very misleading picture, for example, there is not one reference to the widespread ironstone quarrying activities or to the numerous blast furnace sites.

Copies of the booklet (2/- plus 4d. postage) may be obtained from Robert J. Ayers, 13, Vicarage Walk, Stony Stratford, Wolverton, Bucks.

Exhibitions

The Wolverton & District Archaeological Society held a most successful first exhibition at the Radcliffe School Wolverton on November 1st and 2nd, 1968.

In addition to a number of exhibits describing excavations conducted by the Society, there were displays representing local trades and industries over the years. Mr. Peter Phillpott of Stony Stratford brought along items showing the chemists' profession through the past two centuries, whilst Mr. Newman Cole, local historian and baker of Newport Pagnell, offered bread baked from a hundred-year-old recipe. The G.P.O. showed colourful displays of a mail-coach and of post office uniforms. Messrs. McCorquodale's stand described the development of the printing industry in Wolverton; and the "Bucks. Standard" based on Newport Pagnell provided back-numbers of its 19th Century predecessor, which was known as "Croydons Weekly Standard", in addition to copies of its modern house journals.

A collection of claypipes collected by pupils of the now-defunct Stony Stratford and New Bradwell Secondary schools was assembled by Mr. Hugh Oak-Rhind of Little Horwood, who explained the research into this fascinating subject that continues at the Radcliffe School, which has been reorganised this year on "Comprehensive" lines. Particular pipe-manufacturers which were well represented were Roberts of Northampton and Benbows of Stony Stratford.

Photographs showing the early development of Wolverton as a Railway town were shown by the Society's General and Historical Secretary, Robert Ayers, together with a display of photographs, collected from many sources, of the Stony Stratford and Wolverton steam tramway, which ceased operation during the General Strike of 1926. Mr. Raymond Bailey of Newport Pagnell, the Photographic Secretary, had assembled a number of copies of photographs of his home-town, among which was a set of the Tickford Motor Works, run by the Salmons family. This works is today the Aston-Martin Lagonda factory of the David Brown Organisation.

The Society has amassed over 4,000 copies in slide-form of old picture postcards of the area, and a record of changes over the past three years. The copying was started by Mr. Dennis Mynard, then the Society's Secretary and now its Archaeological Secretary. A number of slides with an industrial archaeology 'flavour' were projected, including factory scenes, agricultural machinery and various forms of transport. There was a sequence showing the former Hayes Boat-building Works at Stony Stratford, now the Blue Star Garage.

Life in the countryside of North Buckinghamshire and South Northamptonshire in past ages was recalled by local personalities. Three ladies making lace were a reminder that the area was once a centre of the industry, and many admired the assortment of bobbins and bobbin-winders, as well as the manual dexterity of the ladies.

Numerous items of copper-ware came from the collection of Mr. Ronald Odell, of the long-established firm of Stony Stratford ironmongers. There was also an assortment of scales, lamps and candlesticks, very old tools, goffering irons and tongs, a goffering machine, a yoke and buckets, hand drills, a butter churn and butter-kivver, a post-driver, breast-plough, and a man-trap which had once belonged to an old lady at Hanslope!

From Blisworth, near Northampton, Mr. George Freeston brought an extensive range of items connected with the land and with the canal. Included in the canal-ware were a painted-bucket, and a legging-board used in the Blisworth Tunnel of the Grand Junction Canal. Other exhibits were lamps, keys, a glove-stretcher, cream-skimmers, wooden measures, fire-plates affixed to the walls of houses by the insurance companies from the eighteenth century, and an extremely fine collection of corn-dollies.

NORTHAMPTONSHIRE

Studies

Ironstone Quarries

(a) Burton Latimer. Mr. R.F. Dix, of Kettering, is investigating the history and remains of these pits. This is well worth-while since Eric S. Tonks, in his book "The Ironstone Railways and Tramways of the Midlands" (Loco. Publishing Co. 1959, p.84) wrote 'Surprisingly little information is available concerning it; no photographs and few recollections - hence most of what data there are derive from published statistics'.

The area was first worked by Butlin, Bevan & Co. Ltd. in the early 1880's but only on a small scale just south of the Midland Railway's Kettering-Huntingdon line. Operations ceased in 1891. In that year, the Burton Ironstone Co. Ltd. was formed (owned jointly by Staveley Coal & Iron Ltd. and James Oakes Ltd.) and began to work the area nearer to the N.E. side of Burton Latimer. Later quarries directly north of the town and also on its S.E. side were opened up. The system closed in 1921.

The remaining signs of this Ironstone working activity include:-

(SP906747) Embankment from which the line originally proceeded S.E. to the further quarries although this is now difficult to discern.

(SP907748-) (SP909748) Quarries, with working face on south side and small amount of unlevelled 'back-filling' on north side. From this evidence it seems that the depth of overburden must have been very shallow.

(SP906749) Bridge under small road/track to Burton Wold. Only the parapets are apparent since the arch has been filled in, as has the cutting south from this bridge to the above mentioned remains.

(SP906751) Cutting, very overgrown.

(SP912760) Brick built locomotive shed and separate workshop, now used for intensive pig-breeding and surrounded by newer prefabricated buildings for this purpose.

(SP909760) Group of houses which look as though they could have been built for the quarry workers. However, a recently discovered O.S. map of c. 1907 marks these as Windmill Cottages.

(SP911765) Concrete abutment of tipping dock from 3'0" gauge quarry system into standard gauge wagons on the siding parallel to the M.R. Kettering-Huntingdon railway. This tipping dock was used from 1891 until 1912 when it was replaced by the one mentioned below. Nothing can be discerned of the course of the narrow gauge railway from this older tipping dock towards the locomotive shed referred to above.

(SP905764) Earthworks of the later tipping dock, with crumbling blue brick at bottom. The British Rail boundary fence indicates the arrangement of sidings, now removed, for the standard gauge wagons into which the 3' gauge wagons tipped. The embankment from the dock stretches S.S.W. for some distance back from the tipping dock.

Industrial Buildings in Northampton. The Archaeological Section of the Northamptonshire Natural History Society proposes to survey all the industrial buildings in the older parts of the town. A working party is meeting on Tuesday, 15th January at 7.30 p.m. in the Humphrey Rooms, Castillian Terrace, Northampton to organise groups to record in different parts of the town.

Watermills and Windmills in West Northamptonshire. In the final year of his Honours degree course in Mechanical Engineering at the Rugby College of Engineering Technology, Guy P. Hawksford undertook a survey of the prime movers used within 10 miles radius of Rugby. Part of the area was in Northamptonshire and the following mills in the County were included in his survey, completed in 1968:-

Barby Windmill (SP541696). A tower mill, 35' high approximately, base diameter approximately 24', wood framed cap covered in iron sheet. No longer contains machinery and is used as hay store and cattle shed.
Braunston Windmill (SP538662). Present brick tower mill built 1800, originally 70' high with 4 common single sails, with stage approximately third way up outside of mill. Ceased work 1900 and building used as boot blacking factory during First World War and later as joinery works. Eventually converted to house and the top storey demolished.
East Haddon Windmill (SP656686). Brick tower mill with fantail, now demolished.
Long Buckby Lower Mill (SP619673). Three storey brick and stone building with little remains of milling equipment. The garner floor has an unusually wide walk-way between the bins. The original water courses are not apparent, presumably due to earthworks in connection with the embankment for the railway between Northampton and Rugby (opened 1881).
Long Buckby Upper Mill, or Murcot Mill (SP622678). A small brick two-storey watermill which worked until 1950 although it was then driven by a diesel engine. At the back of the mill is situated the engine house, the truncated chimney being evidence of the steam engine that was once installed. The present owners are converting the mill into a house and all the machinery has been removed.
Long Buckby Windmill (SP647681). This was a post-mill with the conical roof of the roundhouse reaching almost to ground level. It had a tailpole for turning. This mill has been demolished.
Whilton Watermill (SP621645). The mill has been re-roofed in an unattractive form with corrugated asbestos. Some machinery and the sluices remain.
Winwick Watermill (SP628734). A large brick mill with 16'3" diameter wooden waterwheel (with sheet iron buckets) but arms have been cut through at shaft. Originally three pairs of stones but much of the machinery has gone although the 70 tooth Great Spur wheel, 70 tooth crown wheel and 20 tooth pinion remain along with the 16" diameter wooden upright shaft.

Publications

(a) Tonks, Eric S. "Ironstone Tramways of the Midlands - (7) Byfield & Charwelton". The Industrial Railway Record, No.21, October 1968, p.317.

This article covers the latter days of these two ironstone quarries which closed in 1965 and 1961 respectively. Most of the article is devoted to the locomotives and little is said about the machinery and method of operation for removing overburden and the ironstone. However, the two excellent maps could be useful to industrial archaeologists.

(b) Head, F.B. "Stokers & Pokers". In the latter part of 1968, two publishers separately issued reprints of this title first published in 1849. It was this book which first blamed opposition to railways in Northampton for Stephenson having to build Kilsby Tunnel and readers of the re-issues would be well advised to get this in true perspective by reading:-

Wake, Joan "Northampton Vindicated : or Why the Main Line missed the Town" Published in 1935

Hatley, V.A. "Northampton Re-vindicated : more Light on why the main line missed the Town", Northamptonshire Past and Present, 2, No.6 1959 p.305-309.

OXFORDSHIRE

Report of Lecture

On December 5th Neil Cossons, B.A., A.M.A., gave the eighth lecture in the Oxford City and County Museum's programme of Winter Lectures, entitled "The Development of Industrial Archaeology".

He began by saying that perhaps Britain's most important contribution to the world's technical advance had been during the Industrial Revolution but that many examples of these innovations were being destroyed. He did not understand why Stonehenge should be any more worth preserving than the first iron bridge at Coalbrookdale. Mr. Cossons stressed the need for selection of buildings and monuments for preservation but felt that all should be recorded. He showed slides of many of Britain's firsts, including the first iron bridge and the first iron framed building. He showed machinery being moved from a Somerset coal mine for the industrial collections at Bristol Museum and examples of buildings being preserved and ones that should be preserved, both in England and the United States. Americans seemed to be more conscious of their industrial past and were making great efforts to preserve it, to the extent that they were prepared to pay high entrance fees to see industrial museums that managed to pay for themselves.

A great deal of interest was shown in this lecture during the question time at the end. One member of the audience expressed doubts on whether or not it was worth keeping the first machine for making polythene bags!

Forthcoming lecture: "300 Years of Blanket Making" by Richard Early, Director of Charles Early and Marriott (Witney) Limited who will be celebrating their Tercentenary during 1969. 7.30 p.m., 17th April 1969 at the Oxford City and County Museum, Fletcher's House, Woodstock. Admission is free but please apply in advance for tickets from the Museum.

Study Group

A Study Group on 'The Principles and Methods of Recording Recent Historical and Industrial Sites and Monuments in the Field' under Miss Susanna Everett, B.A. will hold a series of 10 weekly meetings in the Oxford City & County Museum, Woodstock, on Wednesday evenings from 7.30 p.m. - 9.00 p.m. starting on January 15th 1969. Fee 7/6d.

The study group will begin with an introductory session dealing with the general aims of the work and the importance of recording sites, together with a brief discussion of the geology and topography of Oxfordshire and its effects on the development of the area. Students will then be introduced to the use of Museum maps and the Museum's index. Four sessions will cover the recording of industrial monuments and sites, miscellaneous monuments and sites, transport and folk material, using the Museum's recording guide. These will be followed by evenings discussing recording methods, such as planning and photography and one evening will be devoted to the use of documentary sources. A field trip for practical work will then be arranged and the last meeting will be devoted to a discussion of record guides completed on the field trip and of problems found in practice.

Publications

"Bells, Blankets, Baskets and Boots..." (A Survey of crafts and industries in Oxfordshire) by Christine Sibbitt, Publication No.1 of the Oxford City and County Museum, 1968. Price 2/6d. (including postage). Obtainable from the Museum, Fletcher's House, Woodstock, Oxford.

This is a most useful booklet of almost 70 pages, packed with information on the industries and crafts of Oxfordshire. The introduction states that the material 'was gathered over a restricted period of three to four months' and therefore one should not expect a comprehensive coverage. Specialists in particular industrial activities may find that books they regard as basic to their interests are missing from the bibliography e.g. in the section on Ironstone Quarrying there is no mention of Eric S. Tonks' "The Ironstone Railways and Tramways of the Midlands" (Locomotive Publishing Co., 1959) which devotes over 30 pages to ironstone quarries in the Banbury area. Nevertheless, the booklet covers over 50 separate industries and crafts and there are 226 entries referring to these in the bibliography which occupies the last 23 pages. The booklet is excellent value and industrial archaeologists outside Oxfordshire will be wishing that every county should have a book such as this for those who wish to 'begin at the beginning' in the study of their local crafts and industries.