

The Journal of the Norfolk Industrial Archaeology Society Volume 1, No. 1-9, 1970 - 1974

Dedicated to the memory of Brenda Taylor, First Editor of the Journal of the Norfolk Industrial Archaeological Society.

This reprint of Volume 1 was intended to be part of our celebration of 40 years of the Society, an event which Brenda sadly did not live to see as a result of a road accident. Brenda did so much for the Society, for 39 years serving on the Committee, much of it as Membership Secretary. She was always ready to encourage others but also a willing hand to help in any task that needed doing. A host for many Social events and organiser of many more. Full of ideas for the future, she left a hole in the Society that has been difficult to fill.

The first Journal was produced by a Roneo Duplicator, itself now a piece of industrial history. Image reproduction was crude. Early on in the project it was found that retyping was required so poor was the print quality.

Jane Newick, then the Society's Editor, took on the task. Mary Fewster and Carol Haines assisted in retyping. Jane set about finding the images we would have included in the Journal if we could have reproduced them. A mammoth task some 40 years after first publication. Jane managed to put together most of the material required. However reproducing as the original with additional material produced a huge publication, too expensive to print.

The task then came to me. I have found some additional material, including my photographs from some of the early field meetings.

We moved in 2011 to a new Printer with much higher reproduction quality, though more expensive per page. The latest Journal volume changed its layout to reduce the page count whilst increasing the amount of information published. This reprint has adopted the new format.

It should be noted when citing the Journal that page numbers are different from the original publication.

The following policy regarding content has been adopted:

Every word in the original is included, including "newsletter" material. In some cases smaller fonts are used for type fitting purposes but not for main articles. In most cases the order of material is as in the original printing, but in a few cases to aid layout material has been moved. I have resisted the temptation to add notes or material to "update" the reader with subsequent happenings.

Drawings are reproduced, but sometimes at a smaller scale than originals. If necessary scaling should be from the original printing rather than this one. To aid clarity some hand written text has been replaced and scales such as 1:50 removed to avoid promulgating an error. Where the Society Records contain original drawings these have been substituted for those scanned from the original printing.

Photographs are added principally where they were taken as part of the survey recorded, or at about the time of the original field work. Where additional photographs add considerably to the understanding then they may be included. Where later Journals cover a subject in more detail little is added to this volume. In a few cases where authors refer to material that could not then be reproduced other archive material is included.

The original front covers are reproduced reduced in the original colours as the cover of this volume. Originally the back cover contained an outline map of Norfolk with place names on it mentioned in article titles. These have been omitted, but a Norfolk map included as the back cover, A consolidated contents page and index to the volume has been added.

The whole produces a fascinating image of an exciting time for a new Society on a path of discovery. As well as important papers on a range of subjects this volume also documents the extensive fieldwork carried out at the time. A time of rapid change for businesses which had hung on by a thin thread. A time before the rapid rise in land values. A time before VAT accounting made small businessmen realise they operated at a loss. A time when people remembered how things worked.

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BRICKMAKING IN FLEGG

A B Cornford

The surface of Flegg and of the geologically similar areas of Norfolk and Suffolk is scored by old excavations. These are awaiting systematic enquiry and recording, as they have all played important roles in the economic life of the area. Some are known by such revealing names as Marlpit Field or Brickfield Farm. Others bear the name of 'smee' or 'smea', a word originally describing a smooth place, but now generally represented by an old overgrown parish sand/gravel/clay pit, identifiable from the Enclosure Award for that parish.

North-east East Anglia is covered by the very varied deposits left by the melting icesheets of glacial times. The subsoil left to us is highly varied, and sewer excavations in Martham revealed changes every few yards. The brick-earth which is our chief concern here is a buff-coloured sandy clay. In Martham it was dug conspicuously to the west of the church, where Kirby's lorry park presently stands; along Hemsby Road where the Back Road east of the mushroom farm forks off; at Brickfield Farm at the south end of Damgate Lane; on the site of Bosgates Estates; and north of Repps Road opposite it. Many other pits also exist, and may be compared with these four authentic brickfield pits.

Brick-earth was not the only material used, however. The former north coast of Flegg holds many deposits of more recent estuarine clay, which produced a brick with characteristic slurry-like patterns in its structure and a tendency to weather badly. However, it could advantageously be mixed with brick-earth to make a very serviceable brick, as described below. The deep pits at Martham, (Grid Ref 451194) called Chapmans Pits, are said to have yielded clay specially suitable for tiles, on the evidence of old men formerly in the industry here.

Brick must have been made in Flegg from earlier times but the first mention of the trade so far found is in 1751, when John Brooks, brickman, paid Church and Poor Rates. He probably dug, made and fired bricks close by the building site where they were required. The kilns resembled somewhat the clams of charcoal burners and were fired by osiers. In 1715 John Hammond and James Symonds, bricklayers, contracted to dig from the Common and make 60,000 bricks for the building of Rollesby Workhouse.

In the 19th century the records became more numerous, especially for the second half.

White's Directory for 1836 and for 1845 gives the names of two Martham brickmakers, John Goose and James Linford. The sites of their operations can be traced from the Tithe Map. Kelly's Directories for the rest of the century give the names of other brickmakers; an interesting one is Robert Moore, described as brickmaker, tile and pottery maker, grocer and wherry-owner. Between 1872 and 1908 the marriage and baptismal registers of Martham give the names of nineteen men described as brickmakers; most of those would have been employed by William Bracey, whose enterprises in the village at the time included the large scale manufacture of bricks and tiles.

Bracey used a mixture of estuarine clay and brick-earth as his raw material. His fleet of carts shuttled between the brick-earth pit by Hemsby Road (and possibly others) and the clay pits in the marshes east of Martham Ferry Dyke. Going one way they carried clay and on the return they carried brick-earth; thus the two materials could be mixed together and fired in kilns at both excavation sites. It is said that the clay pits had a wind-pump to keep their water levels down. A ramp led to a loading staithe on the Thurne and at the present time there are still remains of the staithe timber, carrying a light railway (a length of rail yet remains), on the east bank of the dyke near its north end. The brick kiln and other buildings, including a cottage, which stood on the east bank of the dyke to the north of the trunk carrying the main drain under the dyke. Some remains survive. On the Hemsby Road site (Grid Ref 466241) pigs are kept at present,

and there are no pointers to the kilns which were built up against the sides of the pit; they were broken down in the last decade or two as they became dangerous, and the footings of a series of kilns are still visible.

The Chapmans Pits site is puzzling. The name is 17th century or earlier. The three clay pits are filled with water, and are locally called The Bottomless Pits; they are surrounded by much disturbed ground. To the west there is a structure seen as a mound 4' high, contained by two concentric brick walls, the outer one with a diameter of 20'; the inner about 8'. The bricks appear to be typically Victorian, and one 'flue' leads into the ground, 2' wide or so, with an iron grid across it. To the north of the mound low earth banks enclose three rectangles of identical size, about 60' long. There is a good deal of chalk in the soil, especially in the mound, fragments of coal are also scattered there. The 1908 25" Ordnance plans show the site clearly and mark it as 'Brickfield (disused)'. All the old inhabitants of Martham to whom we have spoken are puzzled by these remains; all, that is, except one old chap who is certain that the pits yielded fine clay for tile-making, and that the remains are of a tile-making plant. A cast-iron tile die was retrieved (1969) from the site of Bracey's kilns a few hundred yards away on the dyke.

Elsewhere in Flegg, Repps (Grid Ref 426268), near Hemsby Hall (Brick-kiln Coverts) and south of the road from the 'First and Last' to Ormesby, there were brickmaking enterprises on a similar scale to William Bracey's at Martham. Doubtless others existed too. The Ormesby and Hemsby kilns were demolished in the early 1960's, when the stacks became unsafe. Many people living can recall the days of the yards' prosperity before the First World War.

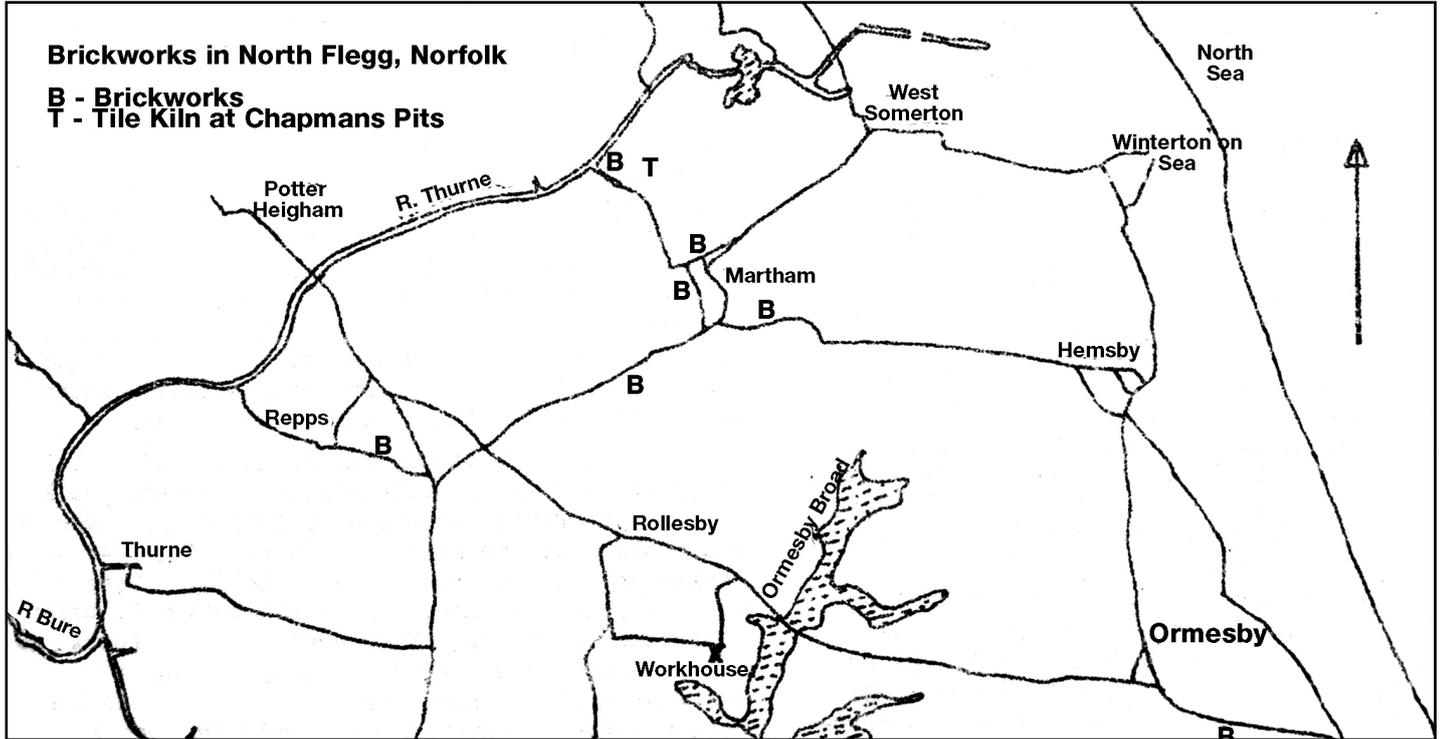
At Martham, Ormesby and Repps, about fifteen men were employed by each enterprise. The clay had to be dug in the autumn and left to weather until Good Friday. Then it was churned in the horse-powered pugging-mills. Finally prepared it went to the brickmakers, standing under cover at their wooden benches (called 'tables'), who handled it 'just like we would make bread, my dear,' in the words of the widow of William Bracey's foreman. (Mrs Turner, Knights Corner, Martham, is 90 years old and full of clear memories). On the table a tent-shaped piece of wood was nailed to form the frog. A piece of clay was formed over it, and a rectangular wooden mould was forced into place to define the brick, and the face was then cut clean with a wire. These bricks will show a characteristic 'wire-cut' surface. A man could make a thousand bricks a day, and they were paid by the thousand. Other workers called 'crowders' took the moulded bricks to stack them in open patterns under shelters where the clay would dry out and firing could take place.

The real skill showed in the firing. After being carefully stacked in the brick-built tunnel-shaped kilns, the bricks were fired for three or four days. When the kiln had cooled and was opened it is recalled that a typical firing produced three grades of brick. Those at the bottom, nearest the fire, were 'kiln bottoms', burnt hard and distorted in shape. They were used for footings. The bricks near the walls of the kiln tended to be under-fired and were called descriptively 'pinks' or 'salmons'; they were unsuited to exterior use, and were used in partywalls, interior gabling and nogging - much as lightweight breeze-blocks are used now. From the heart of the kiln came the 'redst'; these were the best bricks, even in size and colour and apt to weather well when used for facing work.

The old clay-walled houses of the 18th century and earlier were substantially replaced in the 19th century and early 20th century. These 'recent' houses are now everywhere being replaced by bungalows built of bricks from further fringes of East Anglia, or even further afield. There has been no brickmaking in Norfolk since about 1965 when Ruympt's yard at Sprowston closed.

Brickmaking gave a useful diversity to employment in these agricultural areas. In 1855 near Aylsham, the father of Edward Gooch - the agricultural workers' leader - was able to get employment in a brickyard when he was blacklisted by the farmers of the district. He earned 4s per thousand bricks, and with the help of one of his young sons he took home 13s a week; this was shillings above the labourer's rate. Mrs Turner recalls that before 1914 her husband sometimes earned as much as £3 per week in his responsible position; for this wage he had to keep an eye on the weather and she recalls his getting up at unearthly hours to walk (run?) the near mile to the brickyard when drying clay had to be protected from sudden rain.

Martham brickmaking ceased about 1914. At Repps it continued until 1925, and a school-leaver who went to work there in the last years was Mr Ben Dowe. He now drives one of the Martham school buses, and thanks are due to him for some of the information used here, and to Mrs Turner and Mr George Gallant whose grandfather worked for Mr Bracey in Martham.



OLD CATTON PRIMARY SCHOOL CLASS PROJECT

Joanne Brown, Christine Joyner, Anne Mitchell, Class 11

(Note the children whose names appear here have made the written report but the surveying, detailed writing-up and so on, has been shared by the whole class).

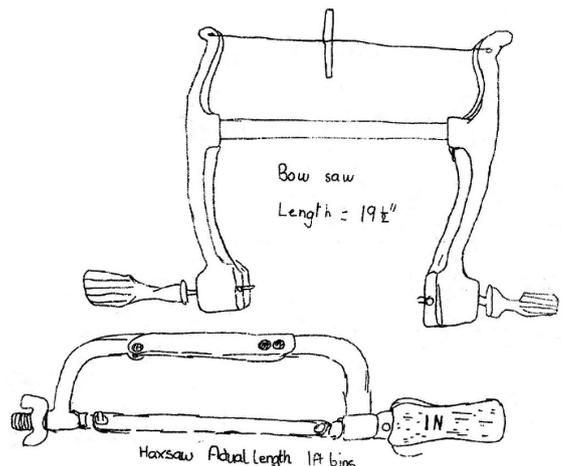
The fourth year of Old Catton VC Primary School are surveying the village of Old Catton. We are trying to find out about our village in the past. There is a Blacksmiths shop, a Carpenters shop and also a Laundry House dating back to 1859. Also Old Catton contains a row of old houses, a village inn and a village hall which were all built in the 1850s. Old Catton has a village church which has a very interesting tower because pieces have been added to it from four different ages. The bottom piece of Anglo-Saxon, above this is Norman, next is Tudor and then the top is more modern. There are some very interesting graves. On the blacksmith's gravestone (John Dixon) is the rhyme:

My Sledge and Hammer lay reclined,
 My Bellows too have lost their wind,
 My fires extinct, my forge decayed,
 And in the dust my vice is laid,
 My coal is spent, my iron gone,
 My nails are drove, my Work is done,
 Prepare to meet thy God.

We have made a special study of the smithy where this blacksmith worked. In the smithy are six rooms. Three small storerooms, a room with three forges, a room for the horses to be shod, and a room with working benches.

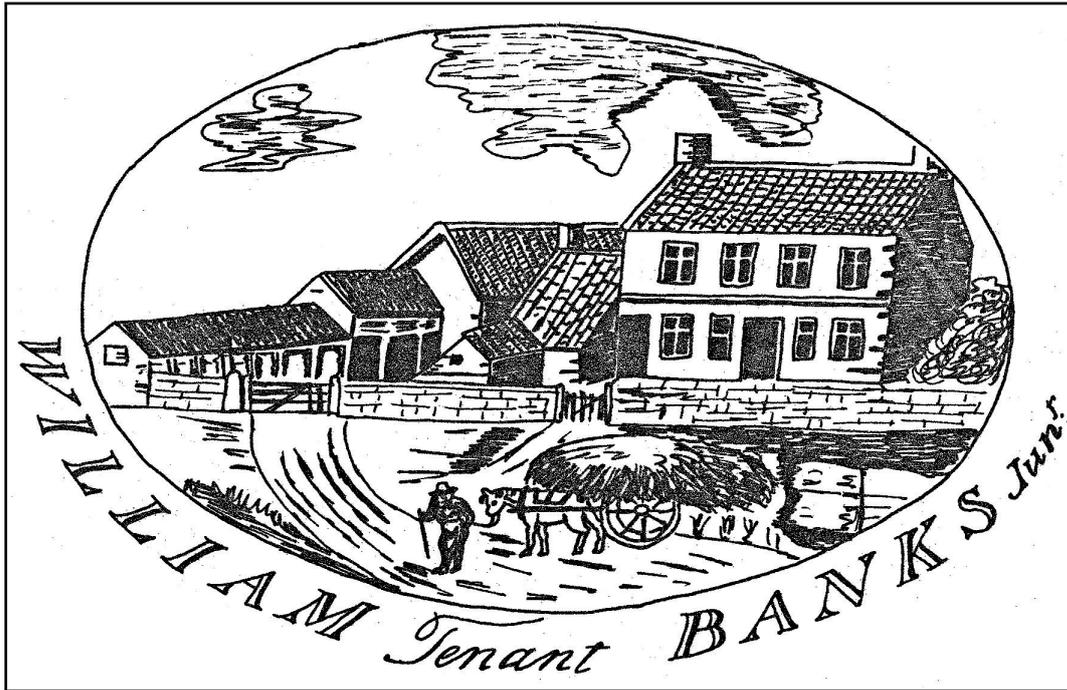
The Buxton's gardener had a cottage in Old Catton woods and besides this is a Laundry House where the Buxton family and servants' clothes were washed. The Laundry House has two rooms, a washroom and an ironing room.

The fourth year of Old Catton VC Primary school have made a full account and taken photographs of these very old buildings and have made detailed plans of them. We hope to go on with the survey as there other old and interesting buildings not as yet surveyed and, as our village is expanding very quickly, the new housing estates being built often obliterate historical sites.



THE FARM BUILDINGS ON THE HOLKHAM ESTATES

Susanna Martins



Two books which have recently been published should help to draw attention to the much neglected subject of farm buildings. These are, *The History of Farm Buildings in England and Wales* by Nigel Harvey (David and Charles, 1970) reviewed in No 1 of this Journal, and *A History of Farm Buildings in West Lowland Staffordshire up to 1880* by J C Peters, (Manchester University Press, 1971).

The first of these is a general survey which should inspire industrial archaeologists to look at the buildings in their own area in greater detail, while the second provides just such a study for a small area of the West Midlands. Dr Peters is an architect and his approach is not that of an industrial archaeologist or agricultural historian, but it is an example of how a survey can be carried out. Both these books stress the importance of studying farm buildings before they have all been replaced by buildings more suited to the tractor era. The urgency of the situation is one of the reasons why this study has been undertaken.

There are many reasons why the study of farm buildings is of interest to the industrial archaeologist. Farming is one of England's oldest industries and was certainly Norfolk's most important one during the period of the Industrial Revolution. On the efficiency of the farm buildings depends much of the efficiency of the farm. Although many elegant and well-proportioned buildings were erected on the Holkham Estates in the late 18th and early 19th centuries, farm building design has always remained strictly functional. There are many examples on the Holkham Estates of the complete rebuilding of a farm in the early 19th century; some of these remain unchanged and deserve study, not only from the architectural point of view but also for what can be learnt of farming technique. There are no such complete buildings after 1856, but rather we find the addition to, and alteration of, old buildings. These improvements are also worthy of investigation as they tell us of changing techniques and new emphases of production.

The farm buildings of the Holkham Estate were chosen for this study because it seems probable that among the 80 or so farms owned by the Coke family we have some of the most progressive farms in England that the buildings represent some of the most intensive investment in agriculture to be found on an estate in the late 18th and 19th centuries.

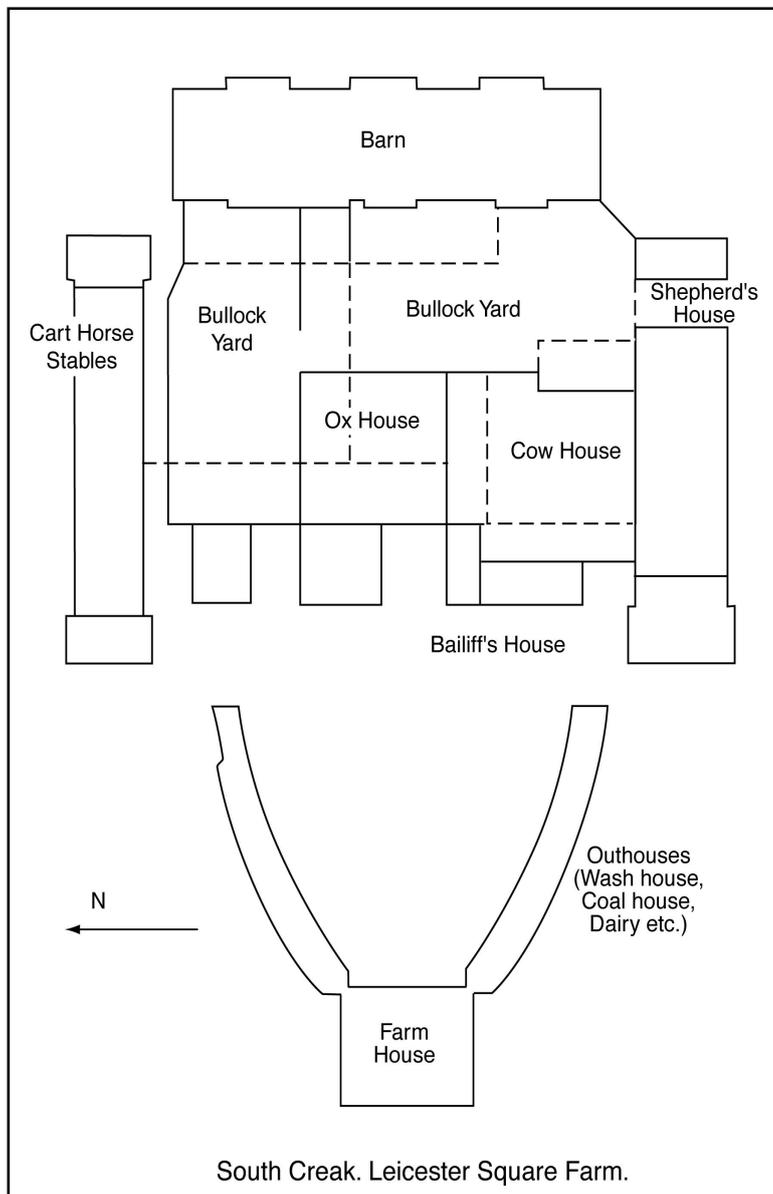
There are many surviving records to augment the information that can be gleaned from the buildings themselves. These include

the audit books for the estates, which contain annual accounts of money spent on 'repairs'; also there are plans of farms at various dates, descriptions of farms written by agents and references to the buildings in letters and articles. All this can be set against the background of the literature available at the time on farm building and improvement.

From the late 18th century improvers were becoming aware of the need for carefully planned farm buildings. The sketch of William Bank's farm in Great Massingham is from a book made in 1800 describing the Houghton Hall estates and recently 'discovered' among the estate documents at Houghton by David Yaxley. It shows an unplanned farm, with a barn, a wagon lodge and possibly a stable abutting one side of a yard, while two other buildings, one possibly a piggery, have been built in front of them. The whole layout seems very cramped but this haphazard arrangement is typical of all the other farms illustrated in this book, and probably of most farm layouts before the improvers started work on them.

At about the same time a very expensive and highly planned farm was being built on the Holkham Estate at South Creak. This is by far the most ambitious scheme on the estate in this period, and was built to serve a farm of about 865 acres. The land was not good enough to grow wheat except when the prices were high as they were in the second half of the 1790s until the end of the Napoleonic Wars in 1815. In 1793, £1,363 was paid out by the estate office towards erecting of a new barn, stables, cow houses, fences, wells, pig cootes, etc and in 1801 a further £2,134 was paid towards a new farm house and offices adjoining. A date stone of 1791 on the stables shows that work must have begun by then. Arthur Young mentions these buildings in his description of the agriculture of Norfolk in 1804 He says the Earl of Leicester

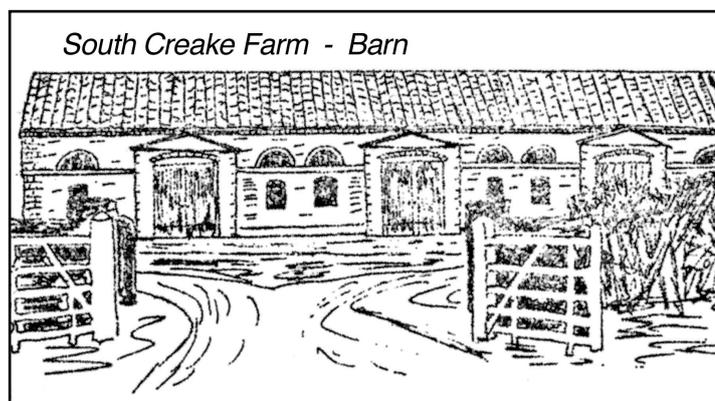
"has built another enormous barn with stables, cattle sheds, hog sties, shepherd's and bailiff's house surrounding a large quadrangular yard, Likewise in a style of expense rarely met with. In discourse with the men at work in this barn, they told us that to one man who unpitched the waggon at harvest, seven others were necessary on the goff to receive and dispose of the corn after it was raised to some height; a great expense at a time of year when labour is most valuable. The farmers are however generally advocates not only of barns, but of great barns. The crop from 140



acres were in this barn of Mr Savory's. The floor was 11 yds broad and 9 yds wide".

It is probable that these buildings were designed by the architect, Samuel Wyatt, who was working at Holkham at this time. It is very difficult to know why this farm was singled out for such grandiose treatment. It was not one of the largest or the most fertile on the estate, nor was the tenant one who was particularly famous for his agricultural improvements.

Agricultural improvements in Norfolk were based on a system of mixed farming. This meant that the well equipped farm needed both barns and cattle sheds as well as stables for working horses. Where no stables existed, we can assume that oxen were still being used. They were certainly preferred for heavy work by some of the farmers reporting to Bacon while he was writing his essay on the agriculture of Norfolk in 1842. The arrangement of the cattle sheds in relation



to the barn was all important to the 19th century improver. James Caird, writing in the 1850s, laid down certain criteria for a good farmstead. These were the degree to which it

1. provided stock with warmth and shelter
2. allowed for ease of working and
3. made possible the conservation of rich manure.

To provide warmth and shelter for animals and for collecting manure, enclosed cattle yards or loose boxes were favoured. If open yards were preferred, they were placed on the sheltered side of the barn (either west or south). The function of the barn changes during the 19th century from that of housing the threshing floor and a varying proportion of the cut crop, the chaff and the straw, to being basically a feedstore. This change takes place when machine threshing replaces flail threshing. It was obviously sensible to keep livestock near the food supply, and so the pattern of livestock yards next to the barn developed, often with the barn forming one wall of the yard. There are plenty of examples of these ideas being put into practice on the Holkham Estates especially on the 23 farms completely rebuilt between 1790 and 1850.

Turnip houses were often built onto the yard, but as feeding with oil cake became more important the word 'cakehouse' replaced 'turnip house' on the plans although there is little difference in design between the two. Grain had to be kept dry and out of the way of rats. It was not usually used or milled on the premises, but was only stored while awaiting sale so it is not surprising that granaries were often placed over the waggon lodges. While cattle sheds face inward towards the barn as their source of food supply, the implement sheds face outwards towards the fields where the implements are used.

The round house at West Lexham is one of two (the other is at Wheycurd Farm) to survive on the Holkham estate farms. It contained horse gearing and the horse, walking round within the house, would have worked machinery probably housed in the barn. The date is not known although the construction would suggest a date between 1860 and 1890.

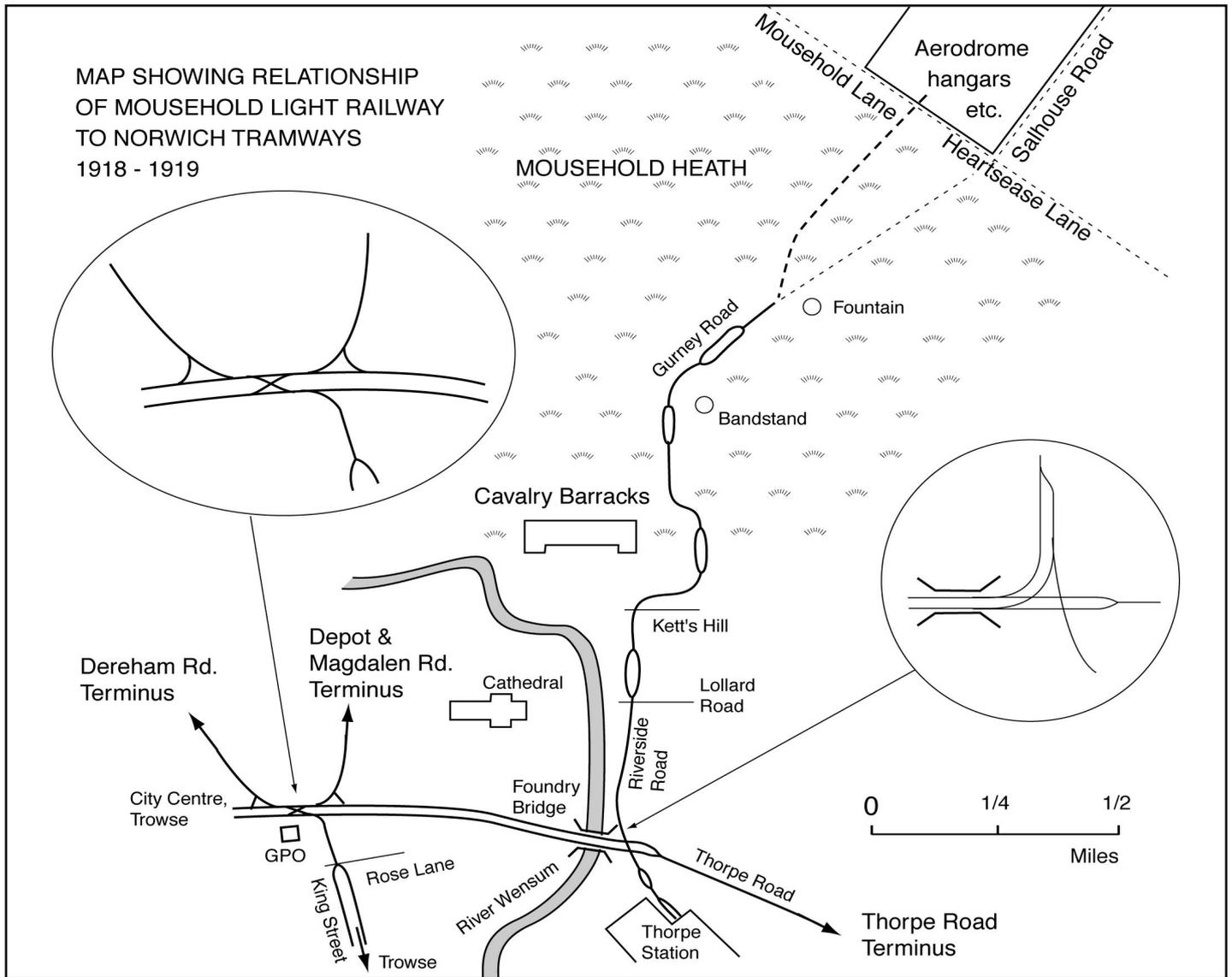
From the period after 1790, South Creak is the earliest example of a complete rebuilding which is discernable from the audit books; it still remains today with very few changes. Probably the only changes have been internal reorganisation of the yards. The western sheds facing the house are of late 19th century construction, and wagon lodges and implement sheds were built to the south in 1869.

The next entirely new set of buildings which is still standing, and which is recorded in the audit books, is that at Grenstein Farm, Mileham. R N Bacon, in his report on the agriculture of Norfolk, written for the Royal Agricultural Society of England in 1844, says of Grenstein Farm,

"The farmer to whom this (21) year lease was given entered upon his occupation in 1810. It consisted of the off portions of several farms with common land recently attached. There was no building in the place and the fences were almost all to raise. In 1814 an enclosure took place and forty acres of bog and common were added." By 1816 the main improvements had taken place and Francis Blaikie, the most famous of the Holkham Estate's land agents, describes the farm as having extensive buildings "and more substantial than those upon some other farms. The general arrangement is good, better than many on the estate. The farm is now modelled at great expense. How great a pleasure there is in looking over this beautiful and well arranged farm!" There is some discrepancy between Bacon and the Holkham audit books as the books tell us that between 1801 and 1806 £1,949 was spent on the new buildings at Grenstein Farm. Very little money was spent at Grenstein but some of the sheds were rebuilt in flint and brick in 1875.

THE NORWICH AERODROME EXTENSION AN UNUSUAL TRAMWAY SIDE-LINE

H V Jinks



Of the tramways and light railways constructed or developed from existing systems to meet the exigencies of the 1914 - 1918 war, that at Norwich was probably the most interesting if not the most unusual, since although designed and operated entirely for the carriage of goods, it was an integral part of an urban tramway system.

Its construction came about through the considerable fillip given to the Mousehold neighbourhood on the north east perimeter of the City by the establishment towards the end of the war of an aerodrome and the existence of munitions factories on the northern fringe of breezy Mousehold Heath, an extensive and elevated common commanding excellent views of Norwich. Being remote from a railhead special arrangements had to be made for the transport of supplies, and the War Department turned to the Norwich Electric Tramways Company, who at that time - and for many years afterwards - operated a quite extensive 3'6" gauge street tramway system to all parts of the City.

Among the routes was one to Trowse via King Street, which was unremunerative, and it seems that following the outbreak of war the tramway service on this particular route, lying on the opposite side of Norwich to Mousehold, was considerably restricted if not actually suspended. In fact the Company had in 1914 obtained an Act of Parliament which, inter alia, authorised them to abandon it and

The original sketch map from which this was redrawn was reprinted by permission of the Editor of the Tramway Society Bulletin.

make a connection between Trowse and Orford Place, known locally as the Tramway Centre, thus cutting out King Street altogether; this was actually undertaken in 1919 but that is another story.

Apart from considerations of economy and the strategic use of steel, it was put to the Company that the Trowse route should be abandoned altogether, and this took place at the end of April 1918. The Company were asked to lift the track, which was of light Belgian construction, 65½ lb per yard in welded sections, and to make use of it in the construction of a light railway from the existing Mousehold Heath Tram Terminus, which lay about opposite an ornamental fountain in the middle of the Heath and was wholly a street tramway, across the Heath to its farthest point there to connect with the aerodrome and its surrounding buildings. At that time the route was normally operated during the summer period, especially at weekends and holidays; at other times trams only worked as far as the Cavalry Barracks, just above the foot of the Heath.

In total length the full route was about 1½ miles in length and the extension added rather less than ¾ mile to it. The disused track was lifted, starting from the GPO at the corner of Prince of Wales

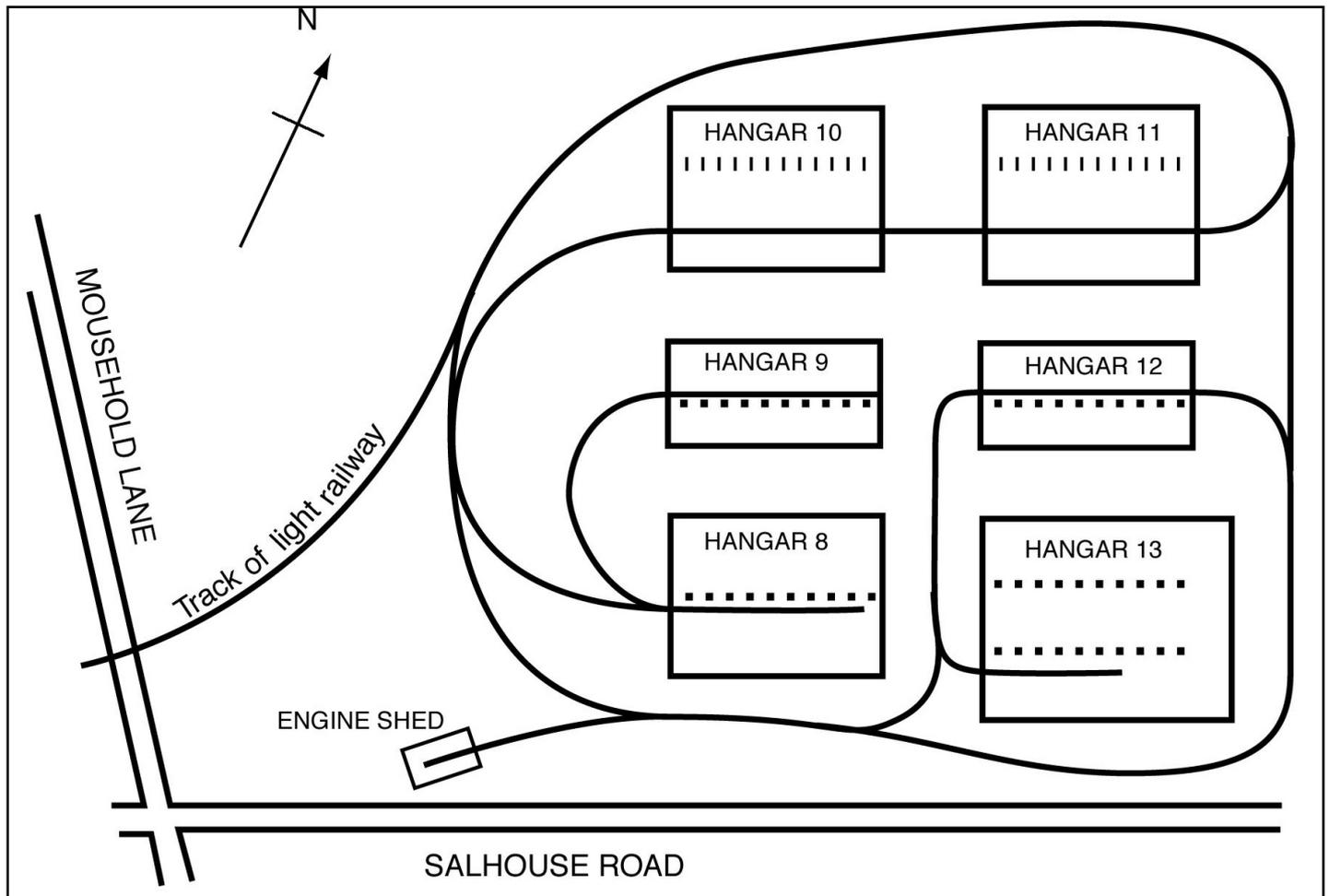
Road and continuing in King Street, (the latter being a narrow thoroughfare which nevertheless carried double track for practically all its length, as well as a number of crossovers) in the following month; and the extension, complete with overhead, was completed in a matter of weeks with all possible expedition – presumably under the Defence of the Realm Act. Making an end-on connection it ran as a pavement-edge street tramway for a short distance and then struck off on rising ground across the Heath, but roughly parallel to the highway, for the most part in a shallow cutting.

The track was of 5ft wooden sleeper construction, lightly laid in the sandy and gravelly soil composing the Heath and as a single line. At the far side of the Heath it crossed Mousehold Lane near its continuation as Heartsease Lane and after making a loop (which was used for a waiting car, as noted later) ran into the factory compound alongside Salhouse Road, there fanning out into several tracks. The overhead did not run into the factory area, and propulsion there was provided by a small steam locomotive which was requisitioned by the Canadian Army Officer who was in charge on behalf of the War Department and the Air Ministry.

In collaboration with him a number of key employees of the Company were commandeered for constructional work and supervision at the outset and, among other things, they altered the axles and frame of the locomotive to suit the 3'6" gauge. Coincidentally the Company obtained from the BTH Co of Rugby two 37/40 hp GE 249 electric motors with two sets of B 49 controllers and equipment (this has been confirmed by BTH) and using a pair of ordinary tramway trucks constructed two motorised goods wagons at their Silver Road depot which was also in the northern sector of the City. Naturally, these were purely utilitarian in appearance resembling railway trucks except for their platforms on which were mounted standard controls and equipment with an awning over the driver's head. A reinforced rail ran between

the bulkheads and on this was mounted the trolley boom which probably carried the fixed type of trolley head used by Norwich. The truck frames were some 12" in excess of the standard length of 6' in order to take the large motors while the controllers incorporated a special sort of push-button brake; riding is said to have been steady on curves despite the excess length. The vehicles were reputedly very fast and are known to have exceeded 30 mph at times (presumably when running light), while speeds of between 20 and 30 mph were more common.

While the extension was being prepared the Company arranged for crews to be trained from among 16 volunteers who were paid a special learner's bonus of 5s 0d. Some of the better known characters chosen were David Cracknall and Jack Clements, one or two of whom are – or were until recently - still alive. The staff are said to have spread fantastic stories about "ghost" and mystery trams, and on that account all sorts of rumours circulated about the tramway and its operation. The daily operational routine was, generally, that soon after 7 am crews would take one of the Company's smaller passenger cars, for instance No 46 or 47 (which were originally unmotored trailers) and drive it from Silver Road to the 'Drome terminal loop, where it would remain until they came off duty between 5 and 6 pm when it would be driven back to the depot. During the day, one or both of the motored trucks (according to traffic demands) would ply to and fro between Mousehold and Thorpe Railway Station, the old Great Eastern terminus of the main London Line. In order that loaded trucks could make direct connection with the railway a special siding was constructed using a single track spur from the street tramway junction opposite the Station by Foundry Bridge, at which point the Mousehold line turned off from another route and went up Riverside Road. This spur ran along the south eastern edge of the Station Yard and about half way there was an equal turnout loop with spring-loaded points



Track layout at the 'Drome drawn [originally] by I Mackie, December 1971

JOURNAL OF THE NORFOLK INDUSTRIAL ARCHAEOLOGY SOCIETY

VOLUME 1 NO 3

EDITORIAL

This third edition of the Journal may be the last in its present form. The Committee has crossed fingers, touched wood and decided to plunge into the off-set litho pool. This will mean that suitable photographs can be reproduced and that a stiffer cover material used. Details will be put to the Annual General Meeting in November. Meanwhile the Editor looks forward to the first number 'new style'.

The two main articles in this issue are by Yarmouth members and provide a contrast in that one deals with specific buildings in Yarmouth and the other with a wider spread industry about which little seems to be known in Norfolk. This standard of investigation can be produced by anyone with a little application and perseverance. One of the Yarmouth members at least will second this opinion since he gained his experience this way himself.

The Bridewell Museum is very interested in receiving the results of the current survey of Norfolk iron foundries. Progress is well reported on pages 91 - 96. Included are some details of previously extant foundries. Anyone who would like to try their hand at amateur detective work could endeavour to find the sites of some of these. It is not so easy at it may at first seem but the effort is worthwhile, not least in that it helps to complete the survey. Any information (the 'local' and village shop can be good sources) and where possible a photograph of the site or remains will be welcomed by the coordinator.

NOTES FROM THE COMMITTEE

Since the last issue of the Journal we have said goodbye to Susanna Martins who was instrumental in starting the original Study Group. The Committee have made Susanna an honorary member in recognition of her pioneer work in the Society. Good wishes to Susanna and her husband at Winchester.

Earlier this year the Chairman and Vice-Chairman met Miss Rachel Young of the City of Norwich Museums and discussed the position of the Society. The meeting was most helpful and we hope the spirit of co-operation on both sides may be encouraging for future

The original urge and enthusiasm for this project appear to have waned somewhat – except for the 'old faithfuls' who carry on regardless. Some strong organisation seems to be called for and members must not be surprised if they are called upon to look at specific sites and notify Peter Starling of their findings, however small they may be. No member will be asked to do that which he is unable to perform – an elderly lady in Dereham with only a bicycle for transport would not be asked to visit an overgrown site at Acle; there are members better suited to that particular job. Requests will be reasonable and demands minimal but this survey is something that the society can do for the Bridewell as a small return for the Museum's assistance.

Still on the subject of iron foundries, readers will see in the Bridewell Notes that a recording of Mr. Golden has been made for the Museum by Bridget Yates. Those present at the July meeting will have heard part of this tape and look forward to reading the full transcript. Mr. Golden has vivid and extremely informative memories of the foundry workings.

Cover illustration

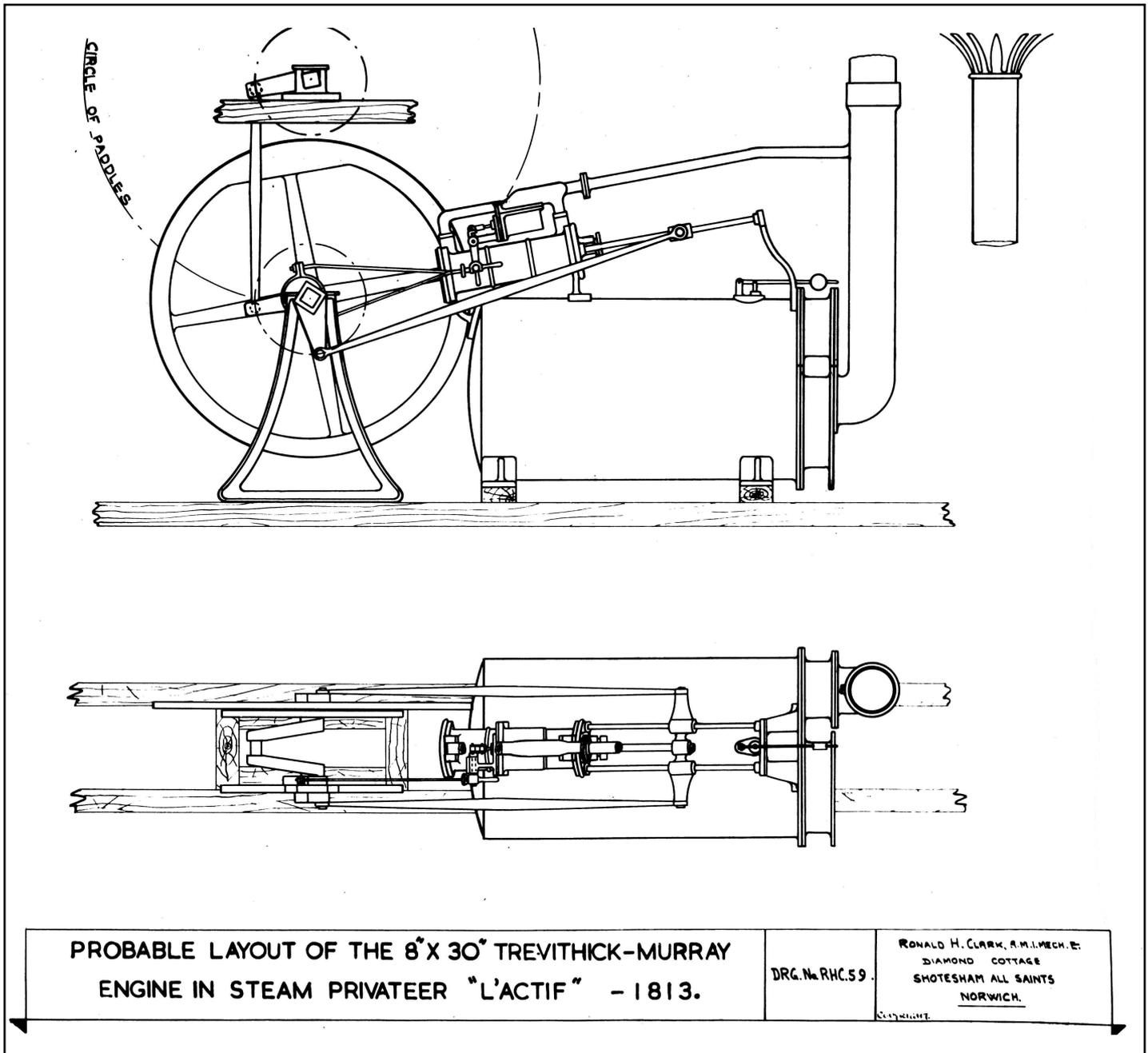
The cover illustration on this issue is taken from a printing block from the Gallpen Press, Norwich, and as such represents two local industries. It is reproduced by kind permission of the City of Norwich Museums.

developments. The opportunity was taken to express our thanks to Miss Young for the use of the Bridewell Museum for our meetings and the continual help given by Bridget Yates.

The Industrial Archaeology Group of the Lincolnshire Local History Society have approached us with the suggestion that a joint meeting might be held at some mutually agreeable site. We hope this will materialise as it should be interesting to meet members of another group longer established than ourselves. We already exchange journals and copies of the Lincolnshire publication are in our library.

DIARY OF MEETINGS 14 JANUARY 1972 TO 6TH JULY 1972

Sunday	16 January	Surveying exercise, Rougham brickworks.
Thursday	3 February	Short films on Suffolk rake-making and windmills at the UEA visual aids centre.
Saturday	12 February	Visit to existing Carbrook iron works, Watton.
Thursday	3 March	Meeting at the Bridewell Museum cancelled due to power cuts.
Sunday	12 March	Preliminary visit to Golden Square iron foundry and village industrial complex at Northrepps
Tuesday	14 March	Committee meeting at 27c Sussex Street, Norwich.
Thursday	6 April	Talk on surveying by Mr. Elliot-Hunter at the Bridewell Museum.
Sunday	16 April	Visit to Fakenham Gas Works, preserved by Eastern Gas in conjunction with the Dept. of the Environment.
Thursday	4 May	Talk on East Anglian Canals by Mr. John Boyes at the Bridewell Museum
Sunday	14 May	Further visit to Northrepps.
Saturday-Monday	27-29 May	Party visit to Ironbridge, Shropshire.
Thursday	8 June	Talk by Mr. Frank Sayer, Local History Librarian at Norwich City Library.
Sunday	11 June	Working party at Garboldisham Mill.
Tuesday	13 June	Committee meeting at 2 Mill Corner, Hingham.
Thursday	6 July	Reports of Ironbridge visit and tape recording of Mr. Golden.



AN INTRODUCTION TO SHIPBUILDING IN GREAT YARMOUTH

Charles H Lewis

The earliest representation of shipbuilding in Great Yarmouth appears on Bernard Le Gomme's map of the town in 1668. Ships are shown on the stocks in the process of building in two places, both on the east side of the river. One of these shipbuilding areas lay between the Haven Bridge and the Quay Mill on the North Quay, and the other lay inside the South Gates of the town at southern end of South Quay. The quayside within the town walls, therefore, and especially these two parts of it, was probably where all the town's shipbuilding took place up to the late seventeenth century. Yarmouth seems to have acquired a reputation for shipbuilding quite early. C. J. Palmer in his "Perustration of Great Yarmouth" (1872) quotes two early accounts which testify to this. It is recorded that in the thirteenth century Yarmouth men built a ship for King Henry III's son Edward, but the men of Winchelsea attacked the Yarmouth men and "smashed the pretty toy to pieces". In 1290 Edward I ordered the building of a ship at Yarmouth to convey his son's intended bride, Margaret of Norway, to England. The ship was built, but the wedding never took place.

It is not surprising, however, that Yarmouth had such an early reputation for shipbuilding. Already the herring fishery was the basis of the town's livelihood and the Free Herring Fair, held there at Martinmass every year, attracted merchants from all over Europe. The town lay strategically at the head of an extensive river system in a rich and heavily populated agricultural and industrial region. Norwich, in the heart of this area and already the sixth richest town in England in the fourteenth century, was busy importing raw materials and luxury goods from Europe and coal from Newcastle; and it was exporting wool, corn and dairy produce. Worsted cloth was an important export through Yarmouth at this time, being shipped to the Netherlands and Italy. Yarmouth was also able to exploit her position as the only major safe haven between the Humber and the estuaries of the Deben, Stour and Orwell on the important Newcastle to London coastal coal route. All these activities must have helped to stimulate the shipbuilding industry in the town. The Calendar of Freemen of Great Yarmouth lists five shipwrights (not necessarily the sum

represented as wearing the official robe and chain of the Mayoralty, is 6ft 2 inch high and is a faithful delineation of the subject. The site is enclosed with neat iron palisading on a dwarf stone base, and the entire cost of the work and the land was over £300 of which sum over £9 was collected in bronze coins from the poor.

The account continues with transcripts of the speeches made at the ceremony and at the subsequent banquet, food provided and music played. These events took place on 27th May 1892.

Biographical notes of both ancestors and descendants of Mr and Mrs Savage are given in the main text.

In 1894 the writer brings the biographies up to date and notes extensions of Mr Savage's business, particularly the conversion into a joint stock Association - "F Savage and Co Ltd., St Nicholas Iron Works, Kings Lynn." Also described in great detail is the construction of Turret Buildings, Lowestoft and the difficulties experienced by Mr Savage with the local building bye-laws.

Further notes added in 1895 and 1896 describe certain beneficent acts on the part of Mr Savage and his re-election as Alderman and Director of the Kings Lynn Docks and Railway Company in 1896. In this year Estuary House was divided into two dwellings as originally intended; Mr and Mrs Savage remaining in one part and the other occupied by one of their many children. During these years Mr Savage's health declined and in 1896 he underwent an operation.

Two additions were made in 1897. The first, in March, records Frederick Savage's 68th birthday and his failing health. It also contains details of the unsuccessful attempt to convert the Works to a Public Company. Press cuttings of the prospectus are pasted into the account. The second entry, on 27th April, contains a wealth of detail about the funeral and obituary service with many press cuttings and copies of letters received by the family on this sad occasion.

46 MANCROFT STREET NORWICH

Survey of 46 Mancroft Street, Norwich, 16th September 1973

46 Mancroft Street is a worker's cottage, one of a terrace built between 1845 and 1860 which is eventually to be demolished as part of a Norwich clearance area scheme. This house was selected for survey as being typical of its kind and its period. The survey was made by members of the Norfolk Industrial Archaeology Society using the method which has become customary. Members work in small groups, each group performing one section of the surveying, for example, plan drawing and measuring, photography, taking specific notes of interesting features and so on. Each group then draws or writes up the information it has gathered to produce as complete an account of the site as possible.

This particular account has been compiled by Mary Manning from her own observations and notes made by other members of the team. Marjorie Monnickendam drew the plans and elevations. A photographic record has been made by Philip Tolley (from which the illustration above has been drawn). The detail drawings are credited as they occur.

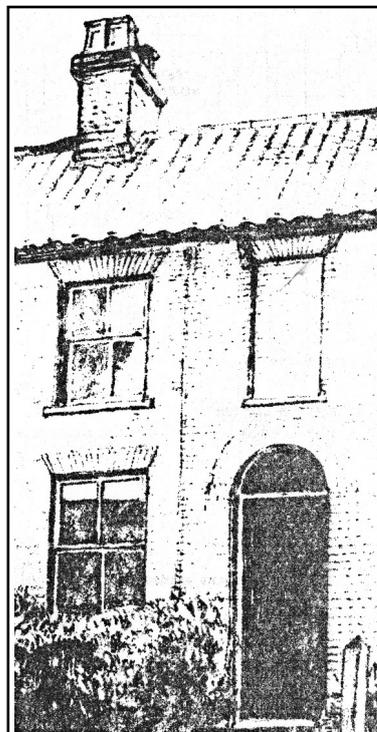
General Description

Number 46 Mancroft Street is one cottage of a terraced street. All the terraces in the area are very much alike and appear to have been built about the same time. Those not yet demolished show signs of bomb damage from the 1939-45 war in replaced windows, repaired brickwork and rebuilt chimneys. Some houses show evidence of modernisation of doors and windows.

Exterior, front

The narrow front gardens are bounded by low walls, wooden slat fences or privet. It appears that they may originally have had iron railings which were removed during the 1939-45 war.

Arched passageways lead to the rear of the houses. The first passageway is at the fifth house from the corner of the street nearest to number 46 and the next two at the eleventh and seventeenth houses. The passageway arches are lower than those over the front doors, and the extra space provided is incorporated in the bedrooms of the adjacent houses. The passageways themselves are tiled with rectangular black diamond patterned tiles. The stretcher-bonded



brickwork is built from standard sized yellow 'London lavatory' type bricks, now much grimed and smoked to grey; the roofs are pantiled. A decorative arch over each front door appears to be precast in sections and patterned to look like brickwork; window sills are wooden. An airvent inset under the ground floor front window of number 46 is six inches above the level of the floor inside. How, if at all, it ventilated the floor is not apparent. The concrete doorstep is higher than the hall floor, that is, one stepped down to walk in. The fence to number 46 is a privet hedge, both at the front and adjoining number 48; wooden slats fence number 44.

Exterior, rear

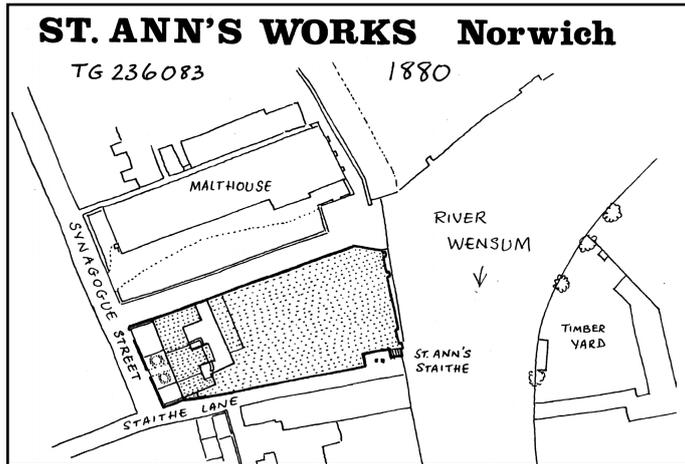
A communal uncovered alley separates the houses from their small back gardens. Each house has a small back yard giving access to the kitchen and lavatory and is paved with tiles like those in the covered passageways. The alley is concreted. A neat lattice work wooden fence divides number 46 from the path. Beyond, there is a small garden with a flimsy wooden fence and gate, a small coal bunker and a dilapidated shed at the end.

The WC formerly opened into a cubby hole at the rear to facilitate night soil collection. In number 46 this cubby hole had a

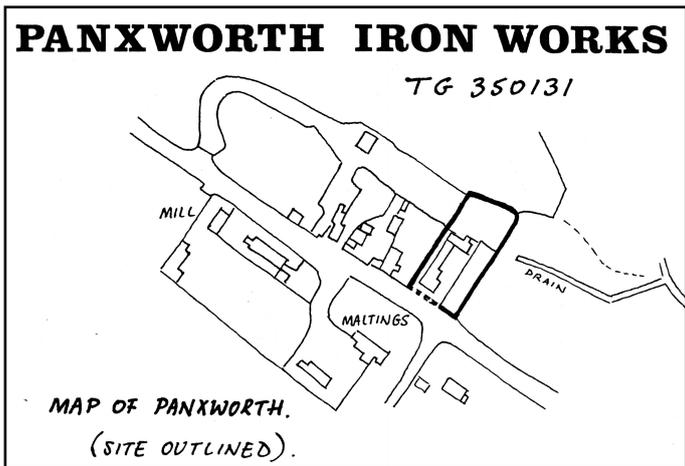
THOMAS SMITHDALE AND SONS, ACLE MILLWRIGHTS AND ENGINEERS

Carol Beaumont & Christine Jordan

The first Smithdale foundry was situated at St Ann's works in Norwich. The exact position of these works can be seen from the sketch map. There appears to be no record of when the works first operated, though the firm seems to have been known previously as Buttifant & Sons. Sources consulted include local newspapers and various Directories. However, from the original documents that we discovered at the Acle works (now deposited in the Norfolk and Norwich Record Office), we discovered that work was done in 1853 (Order Book, Item 19), and this is the earliest date available.



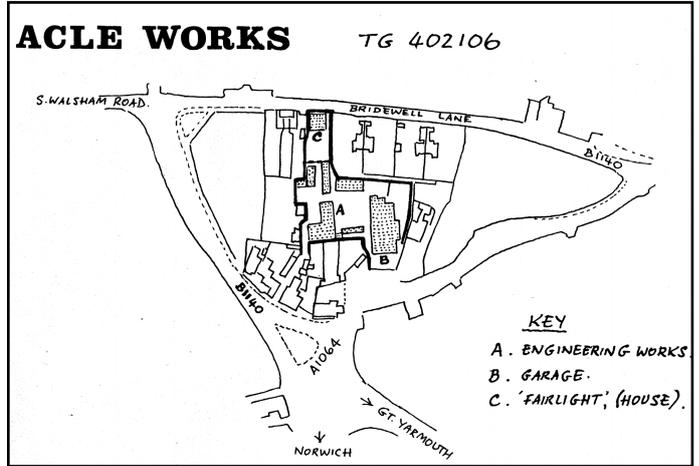
Thomas Smithdale also had a business in Panxworth, to which the earliest reference in the directories is in 1875. The building is still standing, though now used as a farm store. It would seem from our research that the Panxworth works and the St Ann's Works were running concurrently (see items 25 & 15), and there is also evidence of this from the Directories. Ledgers and Day Books were well kept during this period, and show the various types of work, such as drainage, mill repairs, the making of agricultural implements, brass-founding etc., which were undertaken by the Panxworth foundry.



The last mention of the Panxworth Works in the Directories is in 1888, but a time-book (item 31) shows that it was still in use in 1890. It would seem that the works closed sometime between then and 1892, when the first reference to the Acle Works is made. According to the present Mr Smithdale, his grandfather went bankrupt, and this forced the move to a one-time slaughter house at Acle. Presumably the facilities of the railway would also have been a great asset to the business.

The 1892 reference to the Acle Works is accompanied by a reference to a Smithdale works in Ramsey, Huntingdonshire, and we were informed by Mr Smithdale that these were run by a branch

of the family, and that some work for Ramsey was done at Acle. Certainly the 1896 advertisement for the firm in Kelly's Directory shows the extent to which the firm had progressed and the services they could offer.



The present Acle site shows clearly the different buildings of the business, with the foundry, forge, pattern shop and workshop much as they would have been in the late 19th century. As such, this site is a fine example of a light engineering works and small foundry.

Our visit to the Acle works proved very fruitful. Not only did we uncover some original business documents unseen probably for some fifty years, but we were also able to see the full works and machinery and talk to the present Mr Smithdale, grandson of the founder of the firm, who showed us round. Mr Smithdale had great pride in his family firm and was very helpful and informative in explaining the various parts of the works. He is now in his seventies, and started work there as a boy before the First World War, and many of the employees seem to have given equally long service, with father and son following in the firm's employment. In addition, Mr Smithdale's cousin lives next to the works and is a mine of information.

Mr Smithdale told us that at one time 87 people had been employed by the firm, many of whom went out and worked on repairs and on jobs round about. At one time apparently many school leavers went to Smithdale & Sons for work as there were opportunities for skills in various trades. The Acle works incorporated iron founding, light engineering, smithy work, carpentry and pattern making, and

32 COUNTY ADVERTISEMENTS. [1896.]

THOS. SMITHDALE & SON,
Engineers, Millwrights, Iron and Brass Founders and Implement Makers,
THE IRON WORKS, ACLE, NORWICH.
MAKERS OF THE CELEBRATED NORWICH MUSTARD MACHINERY.

COMPLETE ESTIMATES
FOR MUSTARD MAKING
MACHINERY ON
APPLICATION.

SILVER MEDAL AWARDED
FOR FEN AND
MARSH DRAINAGE
MACHINERY.

TEN YEARS IN THE
TRADE AS MUSTARD
MANUFACTURERS.

ESTIMATES AND
PLANS ON
APPLICATION.



REPAIRS TO EVERY CLASS OF MACHINERY.

JOURNAL OF THE NORFOLK INDUSTRIAL ARCHAEOLOGY SOCIETY VOLUME 1 NO 8

EDITORIAL

The Journal has a new Editor, who, having had time to appreciate the great job done by his predecessor, is now inclined to wonder whether his first issue may not be his last... But at least the task has set him thinking about the purpose of this sort of publication and to seek lessons from the past.

With a prescience nearly a century before its time the father of today's archaeology, the great Pitt-Rivers, once wrote:

"A discovery dates only from the time of the record of it, and not from the time of its being found in the soil."

He was, of course, writing of pre-history, and might well have been surprised had anyone told him that one day people would be found taking an interest in the processes and products of the Industrial Revolution. But, without doubt, his mind would soon have adjusted itself, and his recordings would have been just as meticulous as those he made of the hill-forts and burial mounds of his Wessex.

This Journal, therefore, as the only one of its kind existing today in this part of the country, would seem to have a heavy duty as a source of record. Together with any papers deposited in the Bridewell Museum it may well constitute the best surviving information about a building or industrial process which has vanished, more often than not, before the account has appeared in its pages.

The editor therefore begs anyone taking a leading party in any investigation to consider himself bound, sooner rather than later, and without being importuned, to contribute to these pages.

Even interim notes have value – they secure helpers; they stop overlapping; they bring in fresh information – but, above all, they are, even though incomplete, a record.

In doing this the contributor will also have saved the Editor a deal of worry, and, incidentally, have supplied a brick or two to the 'Great Hall of History'.

IRON FOUNDRIES OF NORFOLK - INTERIM NOTE

P. Starling

Norfolk is a large county and our numbers are small. This, and the variety of subjects, a good proportion of them urgent, which come to our notice, makes our long term foundry research project of even longer duration, but there is some progress, even if slight. Regrettably, it is two years since a general report last appeared, and it is time that there was another short one to show that something is still being done. I must add here that the Smithdale report of January 1974 was provided by some very welcome outside assistance.

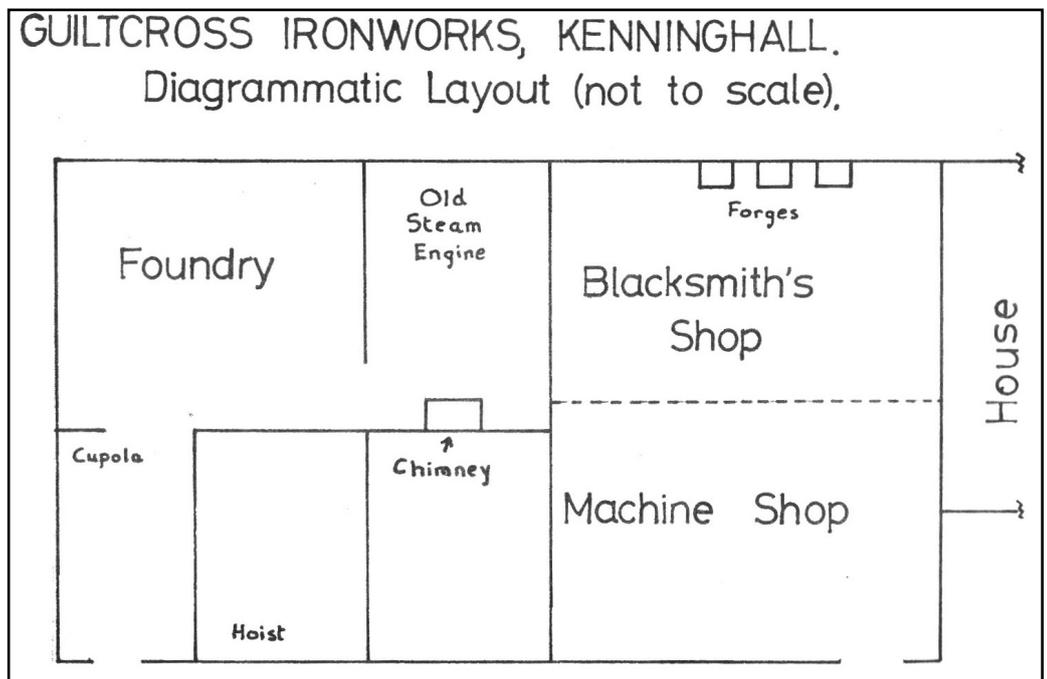
Visiting and recording foundry sites leads almost invariably to the discovery of a number of problems and the arousing of curiosity about the people who worked there and what they did. Smithdale's was still a business in operation at the time of its investigation, although it has now been closed and its effects dispersed, but it is rare to find this, or to be able to trace a connected story back very far, even where premises are intact.

In January 1973 our visits to the Attleborough foundry were reported, together with some unanswered questions which arose there. We have recently been able to delve a little further into the history of the firms concerned in the course of visits to Kenninghall, where the Guiltcross foundry buildings were still intact at the time (December), although parts were due to be demolished soon.

The usual detailed measuring and photography were undertaken, for records to be deposited, but in outline there is a range of buildings of varying styles, dates and materials lying along the B113 road at the south end of the village. They themselves set us a series of interesting problems, the solution of which may be quite difficult.

The central feature of the row is what might to all appearances be an engine-house for a beam engine, except that so far we have no reason to assume that a beam engine was ever needed in so isolated a site in South Norfolk. However, this distinctive building in mid-nineteenth century red brick, picked out in white, with a tall chimney stack with a decorated cap, dominates the works.

The L-shaped building at the left of the sketch plan (which is purely diagrammatic) seems to have been erected earlier than the rest of the main buildings, the left-hand wall possibly having formed part of some farm building, from the variety of material used, and some filled-in low arches in it. It is of two-storey height, but has no upper floor. The 'engine-house' appears to have been built next, and the intervening part of the frontage to have been filled in later. This is a two-storey building, the upper floor running through into one which seems to have been added to the 'engine-house', most



probably at the same time. The lower floor of the 'engine-house' was also converted into an office, a small secondary chimney in the style of the main one, serving the office fireplace.

The smithy is thought to be the oldest of the buildings. It forms a complete open-plan workshop with the machine shop, which was a later extension with its own pitched roof parallel with that of the smithy, forming a central valley. It is this part of the buildings that is about to be demolished, the roof tiles having already been removed shortly before our first visit. The three forges shown on the sketch were each double, making six hearths in all. The machinery was driven by overhead shafting from the oil engine.

In January 1973 we mentioned the Lovedays of Attleborough and Old Buckenham as well as Murton and Turner of Kenninghall and Attleborough. We were able to gather further information from two surviving members of the Loveday family who were still living adjoining the foundry and were most hospitable and helpful.

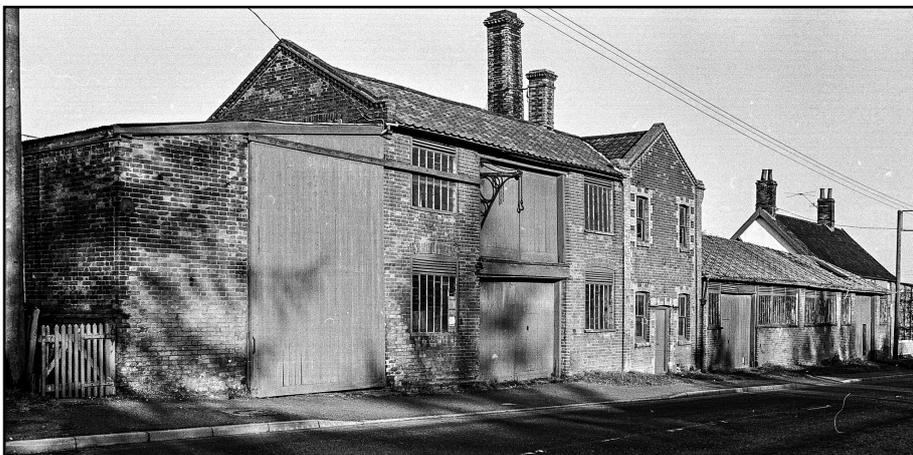
Elisha Loveday and Sons were agricultural contractors and owned Old Buckenham foundry. Elisha died in 1912 and one son remained in the family business, his brother Arthur setting up his own business as a contractor. He hired the foundry at Attleborough for this purpose in 1913, while continuing to live at Old Buckenham,

which lies between Attleborough and Kenninghall, where Murton and Turner had manufactured agricultural implements at least since 1854, the earliest reference so far traced.

In 1921, Arthur Loveday bought the Kenninghall foundry from Murton and Turner and transferred his business to there, moving there himself in 1923. Murton and Turner then moved their business to the Attleborough foundry, thus exchanging premises with Loveday in effect.

Arthur Loveday developed a flourishing threshing business in partnership with his sons, Norton and Geoffrey, and eventually his daughter, Doris, also became a partner. They operated seven sets of threshing tackle and the foundry premises were used for the maintenance and repair of their machines, including quite heavy repairs to the engines, such as boiler tubing, firebox repairs and the making of new smokeboxes. Steam traction continued in use until after the war of 1939-1945, when tractors were gradually introduced, followed by combine harvesters and then the gradual decline of the business as farmers bought their own combines.

Arthur Loveday died in 1955 at the age of 89 and the business was continued by his sons and daughter until its closure in 1964, when the contents of the works, including all the machines, were



Photographs taken at time of survey for report by P Tolley.

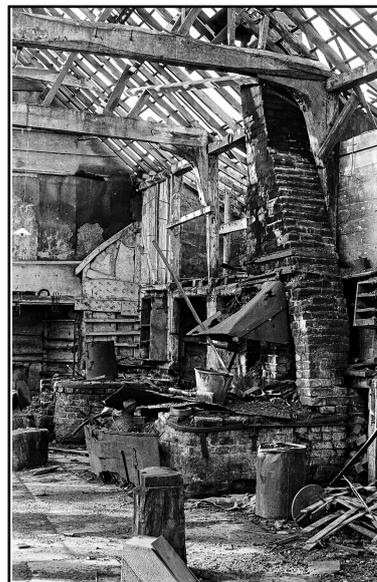
Top left: The Foundry buildings

Centre left: Workshop and forge buildings

Below left: Interior of workshop building.

Top right: Winch with Murton and Turner name plate, jib for which can be seen on top right photograph.

Bottom left: Forge hearth



JOURNAL OF THE NORFOLK INDUSTRIAL ARCHAEOLOGY SOCIETY VOLUME 1 NO 9 - JULY 1975

EDITORIAL

M. H. V. Fleming

Uncrossing The Wires

Today quite a lot of people keep on arguing about the exact meaning of the word "archaeology", and since it makes up one quarter of the title of this society it merits a minute or two of our thoughts.

Is this study of the surviving evidence of the past a degree-worthy academic discipline in its own right, or should it rather be looked on as a technique of History? There has been and will be much fierce argument about it all; lecturers in the subject at a University with a free-standing archaeological faculty having no doubts whatever... They would hardly be human if they did!

Others take the opposite view and regard the subject as a tributary technique serving something larger than itself, or, if you like, another tool with which to dig up the past.

Today's opinion appears to favour the second view. Surgery – to change the picture – is not completed with the knotting of the last stitch over the wound, but rather when the patient walks cured out of the hospital. Accepting – if only for the sake of the argument – this second definition, we are at once struck down by blows coming from every direction. The sheer variety of archaeological interests (and therefore techniques) is overwhelming. What have we got in Norfolk alone? Agriculture, Building (civil, military, sacred), Industry, power (water, wind, fuel), Sociology, the Sea, Transport – the list could be endless.

And it is too easily forgotten that the amateur enthusiast following his bent is not only pursuing something fascinating to himself, but is, all the time, accumulating records of possible use and interest to someone unknown to him, working – as it were – in the next field. The problem – to continue the metaphor – is to help each of them to

see and be seen through the boundary hedge, and this year a start has been made towards finding a way of doing this.

Most people will have heard of the Norwich Survey and the Norfolk Unit – teams of professional specialists attracting and guiding satellite volunteers in a search of the various periods in the long history of Town and County. This year we have something for the amateur volunteers themselves – NARG – Norfolk Archaeology Rescue Group. It is based on Gressenhall at almost the geographical centre of the county (no favouritism here!). A glance through its first two periodicals shows the number of interests already covered: churches, hedge-counting, field walking, local history, moats, formal excavations (especially the rescue digs), a steam drifter – all in addition to the mills, kilns, foundries and tanneries of our own society.

The effects of the Group would appear to be threefold: the attraction of new interests, fuller co-operation among societies covering the particular interests within local archaeological studies, and (arising out of this last) the prevention of overlapping. As an example, members of this Society would be understandably annoyed, after spending a whole Sunday measuring up a water-mill as a preliminary to a technical report, to find that an Ancient Buildings Group had just made a far better job of the basic survey and would have been only too glad to provide a photocopy. NARG could prevent that sort of waste of time and energy.

In spite of his many other preoccupations, the Hon. Secretary of this Society has allowed himself to be voted onto the committee of the new body. We thank him and welcome this opportunity of keeping the industrial aspect of archaeology to the fore. With the aid of NARG we are beginning to untangle the trailing ends.

A NORFOLK LINEN CENTRE 'THE LIMES', NORTH LOPHAM

I. M. Manning

Map Reference: TM 035829

Visited by the N.I.A.S. on Sunday, July 13th, 1975, by permission of the owner, Mrs. Sands.

'The Limes' is a dwelling-house, with a garden and yards, containing sheds, outhouses and work premises. These outbuildings are used now for storage, or else stand empty. The premises were owned formerly by Thomas Buckenham, linen manufacturer.

Description of the Extant Buildings

Note: i) The dwelling house is obviously of later date than the work-premises and was not included in the survey at this stage.

ii) For all dimensions see the plans and photographs.

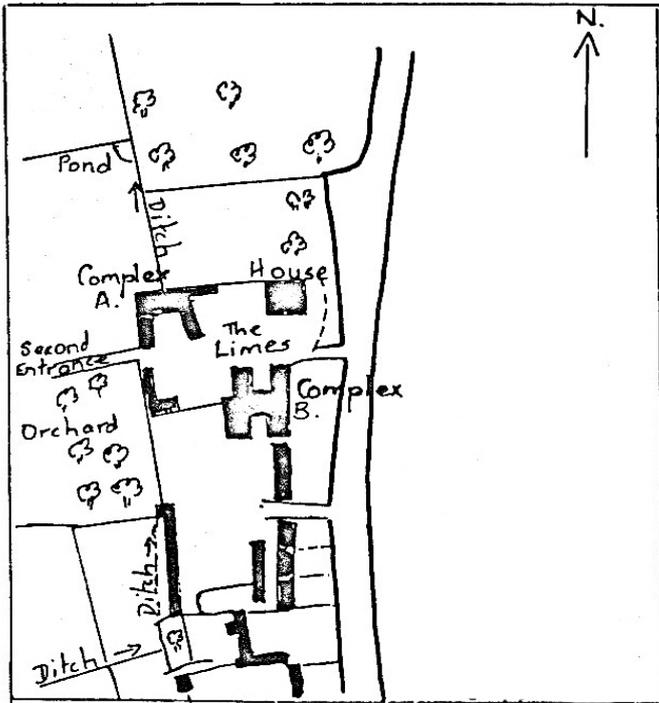
Workshop (Complex A)

This workshop is of clay lump construction on a foundation plinth of rounded pebble flint. The flint is about 4 brick courses high, topped by 2 brick courses, with the clay lump on top. The bonding is random. The bricks are 2½" by 8" including mortar. The west, south and north walls are plastered and pitch rendered on the exterior. The east wall is pitch rendered half-way up, but finished

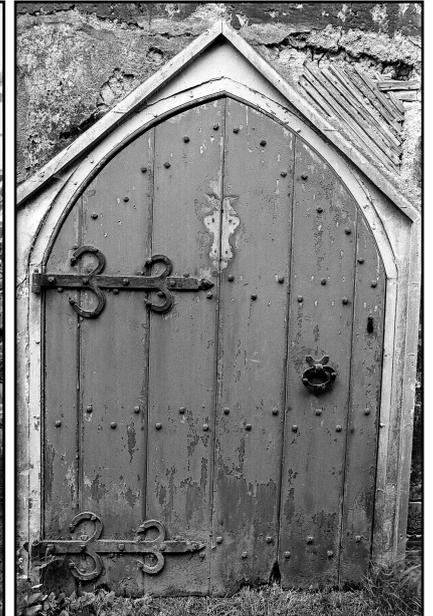
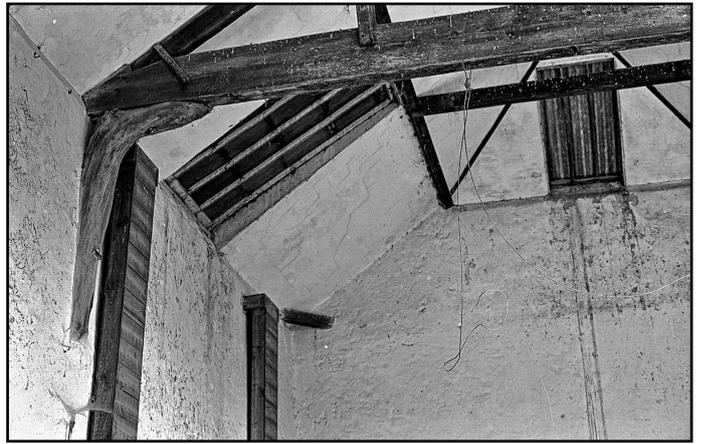
at the top with a clay plaster surface patterned in rectangles by trowel strokes. This workshop faces south.

The roof is hipped. The west end shows evidence of having been raised and re-hipped during past alterations. The workshop has in recent times been used for turkey rearing. The three modern ventilators on the roof ridge were fitted for the turkeys and the roof has been pantiled. Inside, the roof is supported by beams. Most of these are replacements, but two central beams running north-south retain their original wall supports. These are curved, probably of oak, cut from the shaped branch and bolted to similar timber supports outside on the north wall. The ceiling is plastered and whitewashed. Three rectangular glassed window lights are let in the north side of the roof, but they have been tiled over. A smaller, otherwise similar, roof light, also tiled over, occurs in both the east and west roof hips.

The south wall has brick quoins at the doorway. The building was probably a barn, since a wide, roof-high entrance has been infilled. At the top of the infilling is a span of three fixed windows, each of 12 panes, with wooden glazing bars. Beneath is a section of



Sketch Map - The Limes. N. Lopham. I.M.H. 7/75.



Photographs all by P Tolley

This Page

Left: Top: Interior of weaving barn .

Left bottom: Outbuildings on site

Top Detail barn interior , truss, roof windows and ventilators.

Below: Detail of window above door

Below Right: Label, embossed, pale blue on white, about 75 cm high

Above: Barn wall with door and detail of door.

Opposite page

Top: Cottage, or Trade House, with tile roof,

Centre: Window with engraved glass and detail of engraved glass

Bottom: Exterior of weaving barn.

