

THE ROMANO-BRITISH POTTERY KILNS AT HAZELWOOD AND HOLBROOK, DERBYSHIRE

By S. O. KAY

INTRODUCTION

THE discovery by A. P. Westnidge of Alvaston, in the early 1930's, of the pottery site at Hazelwood, the intensive field-work and excavation in that area from 1950 to 1959, and in 1962 the discovery and excavation of the Holbrook site have gone some way towards solving the problem of the sources of manufacture of Derbyshire ware. This distinctive Romano-British coarse pottery was first brought to the general notice of archaeologists by R. G. Collingwood in 1930.¹ In discussing coarse pottery, he illustrates, as type 74, a typical vessel with a bell-mouthed rim and states that, "so far as Britain is concerned, it seems to be made only in a hard grey gritty ware whose centre of distribution is at or near Derby." The incidence of this pottery in the county and the concentration of it in the neighbourhood of Duffield has given it the name of Derbyshire ware. John Charlton refers to large quantities of sherds found in the Duffield area, and figures three rim sections from that neighbourhood together with a jar from Housesteads on Hadrian's Wall.² The article written by J. P. Gillam on "Romano-British Derbyshire Ware" is the best and most detailed account of the pottery and its distribution.³ The report which follows is based on evidence obtained during ten years of research carried out in close collaboration with R. G. Hughes of the Derby Museum, and with the invaluable assistance of T. W. Kettle at Hazelwood, and P. Brady at Holbrook. They have done more than their fair share of hard work in providing the evidence, and it has been a privilege and a pleasure to have worked with them.

ACKNOWLEDGEMENTS

For permission to carry out investigations over a long period we are grateful to owners, and to tenants for their co-operation. To the Strutt Estates, through their agent, Mr. Marples, and in particular to Mr. and Mrs. Arthur Strutt of Milford, we owe a great deal not only for permission to work but for

¹ R. G. Collingwood, *The Archaeology of Roman Britain*, 1930, 235 and Fig. 57, no. 74.

² *D.A.J.*, LIII (1932), 102.

³ *D.A.J.*, LXI (1940), 26-37.

their interest in the site at Hazelwood. The Holbrook kiln was delightfully sited in the private grounds of Holbrook House, and we are deeply grateful to Mr. and Mrs. R. Nicholson for permitting the excavation and for their kindly help and hospitality. To Mr. Slater and later to Mr. and Mrs. D. Walker, tenants of Overlane Farm, Hazelwood, we express sincere thanks for bearing with us for so long. We are exceedingly grateful to Mr. Walker for giving over to us the field area in which the kilns were situated, and to both him and his wife for many kindly acts and hospitality. We are also grateful to Mr. Salt, tenant of the fields adjoining Holbrook House, for the permission to investigate which led to the finding of the kiln excavated and the site of a further kiln which is still to be investigated. Thanks are due to the Council of the Society for providing fencing for the Hazelwood excavation and to members for occasional help. Mention should be made of Mr. Francis Fisher, Mr. and Mrs. F. Nixon, Mr. and Mrs. A. E. Lee and Mr. J. Fosey. To Mr. F. Nixon we are especially grateful for recording stages in the excavation by means of colour transparencies. For other photographic records we owe thanks to Miss M. Edwards, Mr. C. J. Smith and Mr. G. Eyre. Thanks are also due to Mr. J. Henness of Nottingham for occasional skilled assistance and to Mr. and Mrs. F. Farnsworth of Eastwood. The writer acknowledges with thanks a grant from the Derby Museum towards expenses at Hazelwood. The material from the excavations is deposited at the Museum.

THE SITES (Fig. 2)

Hazelwood (SK 327469).

The kilns, excavated in 1958-9, were located in the field immediately above the plantation known locally as Jenny Tang. They were on rising ground, on the 400 ft. contour, with a slope facing north. The site seems to have been well chosen for there would be an abundant supply of the three essentials for the potter, wood for fuel, water and clay, all available without transport. There is evidence of a route by which the finished pottery may have been carried, probably by pack animals, to the road used in Roman times that crosses the Chevin side, which is within a distance of half a mile, and most likely formed a link with the Little Chester to Buxton Roman road.

Holbrook (SK 363445).

The kiln excavated in 1962 was located in the shrubbery of the grounds of Holbrook House on land which slopes down towards the south-east. The site is slightly above the 400 ft. contour but, unlike Hazelwood which has a heavy clay subsoil, the kiln and its stoke-hole were dug into a sandy subsoil with a soft sandstone base. Clay, however, of the same kind as at Hazelwood, reaches to within a short distance of the site, and there would be an adequate supply of water and firing fuel. The ancient Port Way passes within 200 yards of the site, and would, no doubt, be used for the transportation of the pottery to the main Roman roads.

It is interesting to note that these two early pottery sites have, within a

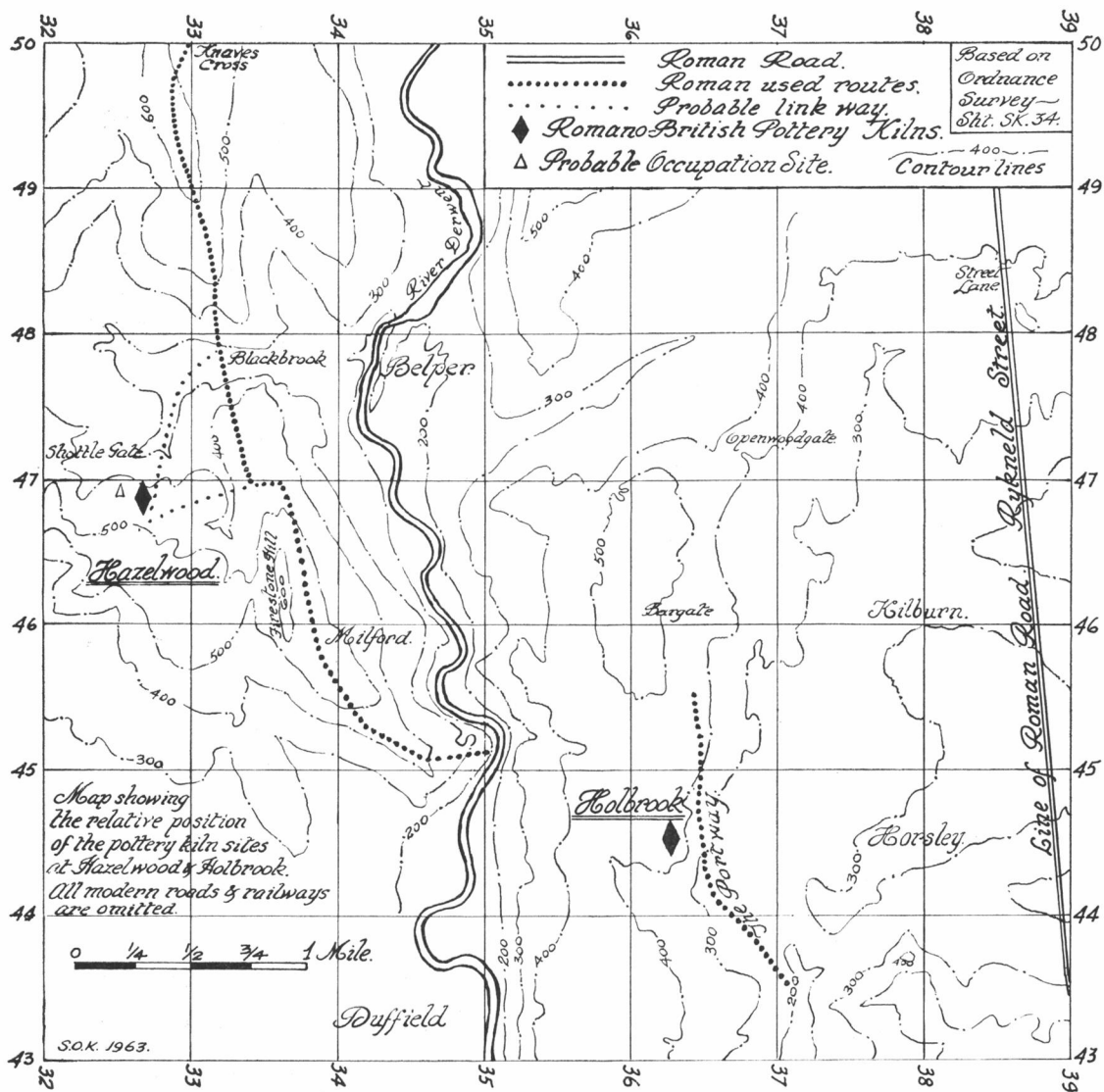


FIG. 2. Map of the Hazelwood and Hollbrook area.

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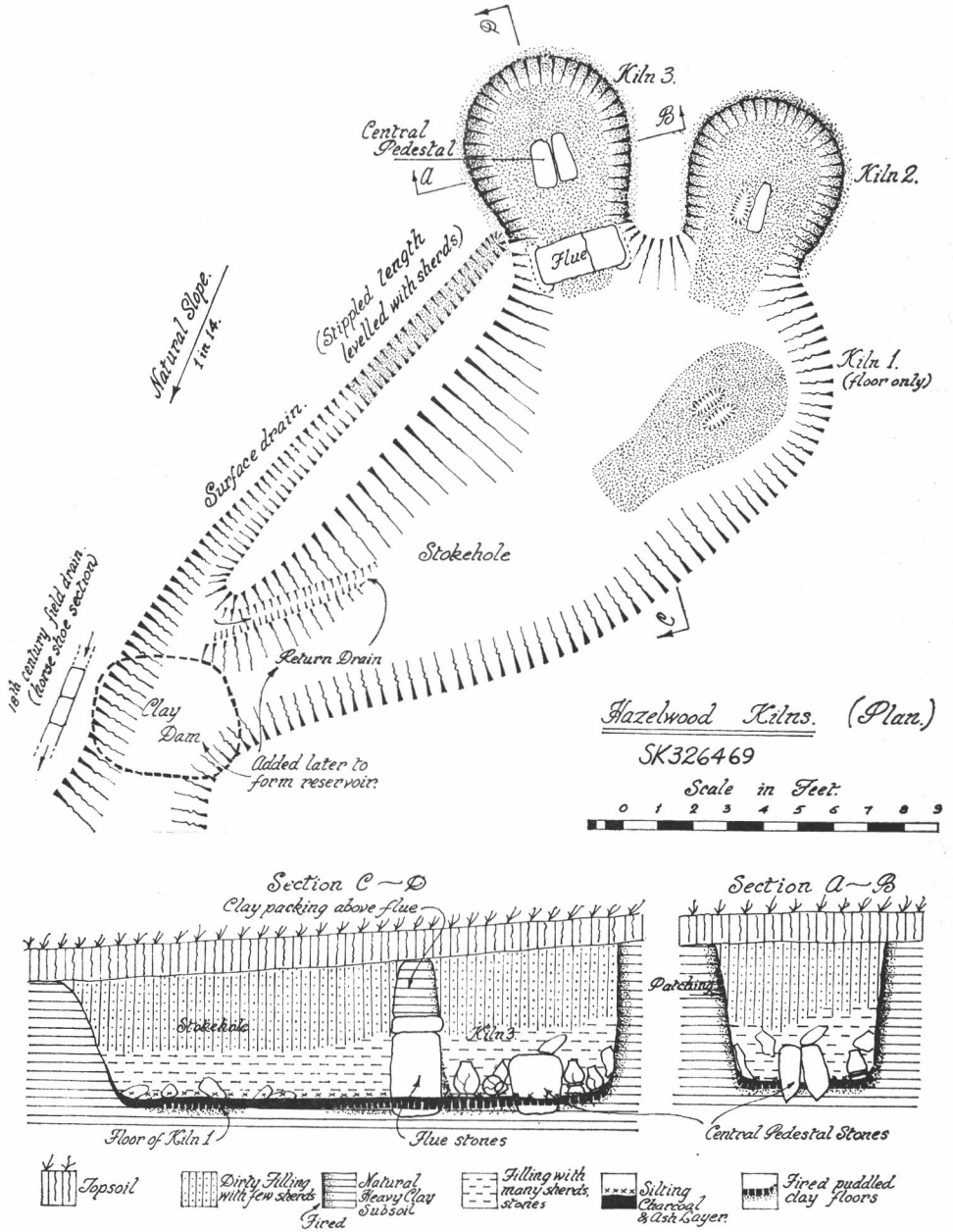
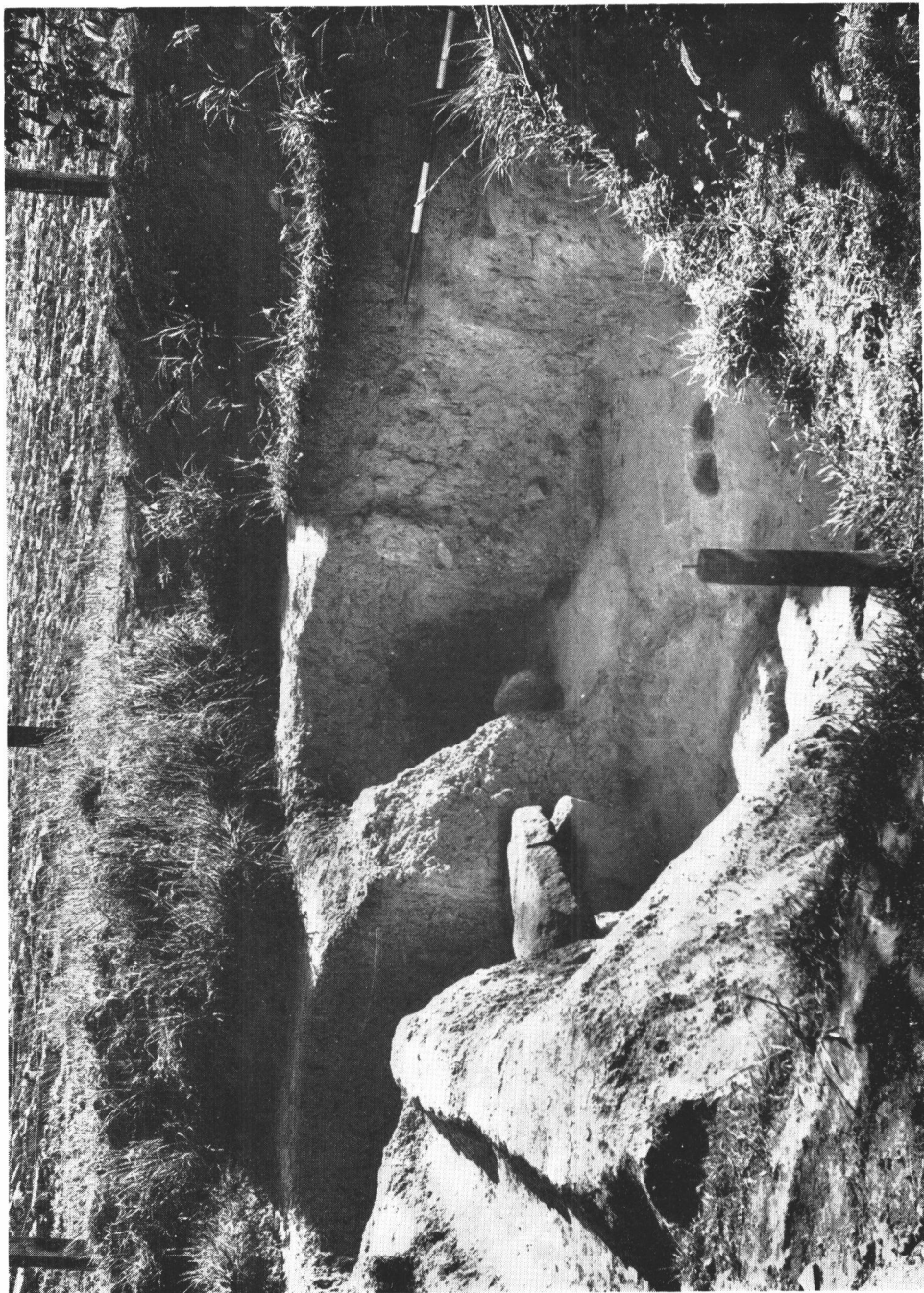


FIG. 3. Plan and sections of the Hazelwood kilns.



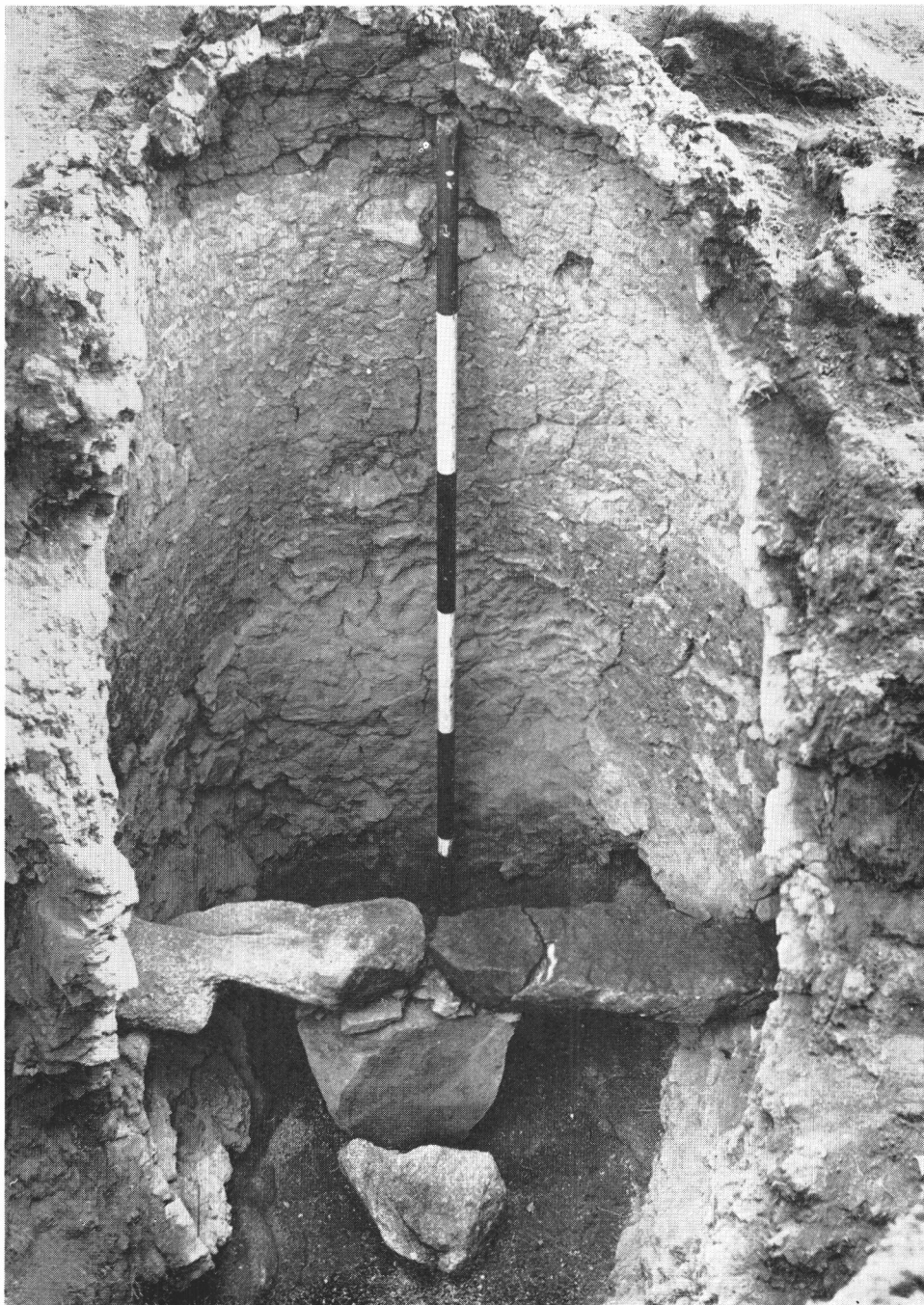
General view of the Hazelwood kilns, showing the floor of kiln 1 and kilns 2 and 3 with the surface drain on the left.



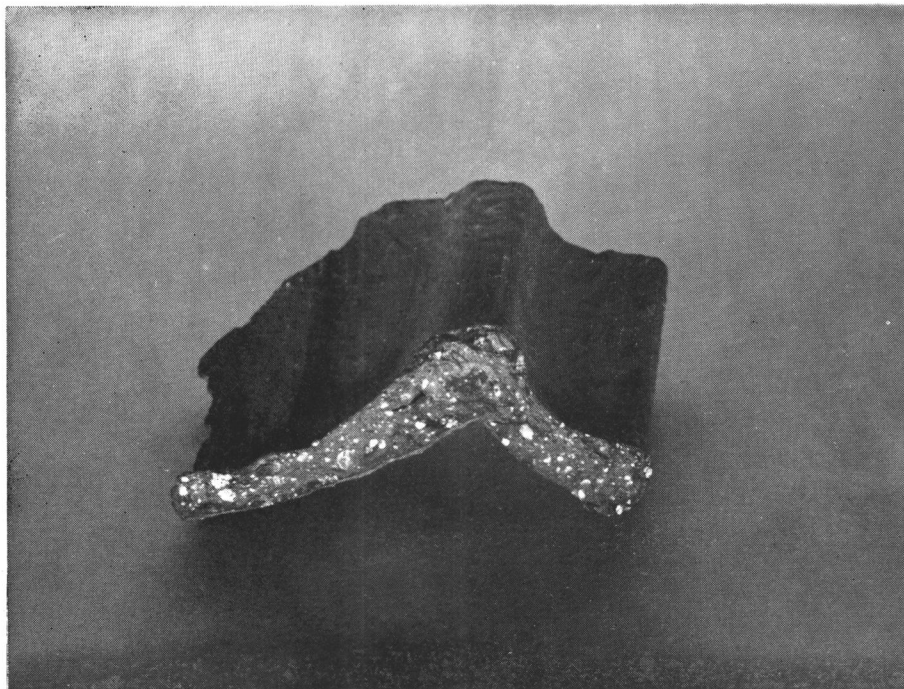
a. Kiln 3 at Hazelwood, showing the stone flue with the top of the central pedestal stones visible below the filling at the back.



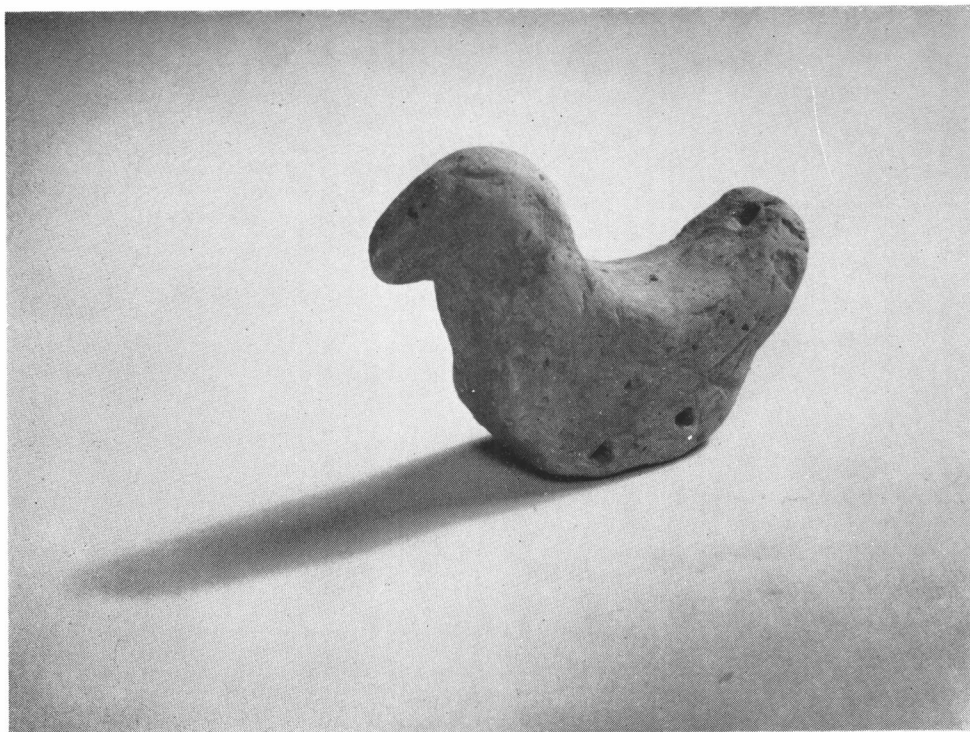
b. Derbyshire ware jars *in situ* on the kiln floor, behind and to the right of one of the central pedestal stones.



The Holbrook kiln with fire-bars *in situ* and the kiln wall standing 7 ft. above the floor level.



a. Type A rim section showing silica particles.



b. A fired clay bird from Hazelwood.

radius of four miles, been followed by others which have produced pottery up to the present time. The 12th-13th century site at Burley Hill, which awaits thorough investigation, and the pottery at Belper, which later transferred to Denby, have used the local materials available for their craft. The modern pottery at Denby uses the local clay for the production of its celebrated stone-ware.

There is a marked resemblance between Derbyshire ware and later medieval pottery, so that it is not surprising that this Romano-British pottery is still wrongly identified, even by experts.

THE HAZELWOOD KILNS (Fig. 3)

The two kilns located were fired from the same stoke-hole and dug into the clay subsoil at an angle of 40° to each other (see Plates I, IIa, b and Fig. 3). They were of the updraught type common to the period, but with some special local features. They resemble Grimes' type A2 in structure.⁴ The only permanent features of the kilns were the two central pedestal stones, set into the kiln floors, and the flue which was constructed of two upright slabs with a large capstone resting on them. This stone, which had collapsed and broken, measured 3 ft. in length, and was 15 in. wide and 6 in. thick. All the permanent stones were of the local gritstone. From the number of large pieces found in the kilns it is most probable that stone fire-bars were used, resting on the central pedestal stones and supported at their outer ends by temporary stones leaning against the kiln walls. One such stone was found in position at the side of kiln 2. The heavy clay subsoil made it unnecessary for the kilns to be lined with puddled clay; the natural walls of the kilns had fired quite hard, and were preserved to the height of 5 ft. above the floor. The only trace of clay on the walls was a small area of patching over a weak part of the side of kiln 3. The floors were covered with puddled clay which had fired "rock hard". They curved at their junction with the kiln walls, and tapered off within a few inches. The clay floors extended through the flues and for a short distance into the stoke-hole. Several pairs of kilns have been recorded, some possibly having been fired side by side simultaneously.⁵ They seem to have been constructed at angles to each other varying from 40° to 120° , and as much as 135° . The angle of 40° between the Hazelwood kilns seems to be the minimum safe distance which would prevent the dividing wall of earth from collapsing. In lighter soils the intervening distance would have to be much greater. There was definite evidence at Hazelwood that the kilns were not in use simultaneously,⁶ and that kiln 3 was dug after kiln 2 had ceased working. The evidence showed that the firing layer of charcoal ash from kiln 3 spread across the "filled in" front of kiln 2. Except for the bottom foot of debris in kiln 2, the filling above was comparatively clean

⁴ W. F. Grimes, "Holt: the Works Depot of the Twentieth Legion at Castle Lyons", *Y Cymmrodor*, XLI (1930).

⁵ Philip Corder, "The Structure of Romano-British Pottery Kilns", *Archaeological Journal*, CXIV (1957), 10-27.

⁶ Graham Webster, "A Roman Pottery at South Carlton, Lincs.", *Antiquaries Journal*, XXIV (1944), 129-43.

and contained only a few sherds. There is little doubt that the filling of kiln 2 came from the earth dug out to form its successor. Only one pedestal stone remained in kiln 2, the other having been removed. There were no stones from the flue area, and it is probable that they had also been removed and re-used in kiln 3. In clearing through the charcoal ash layer, which covered the floor of the stoke-hole, the remains of an earlier kiln were revealed. Only the clay floor remained with two depressions indicating that it also had two central pedestal stones. (Kiln 1 on the plan, Fig. 3.)

We had, then, at Hazelwood, three distinct phases of use: firstly, kiln 1, which was aligned on the stoke-hole and its entrance; secondly the inclusion of kiln 1 into the extension of the stoke-hole to serve kiln 2; and finally, the "filling in" of kiln 2 from the digging of kiln 3. Kilns 1 and 2 had a reasonably satisfactory drainage slope, but kiln 3, which was dug slightly lower, appears not to have been so well drained. This may account for the cutting of a surface drain, from the side of kiln 3 to the main drainage into the wood below, to carry away surface water which would otherwise flood into the stoke-hole and kiln 3. This surface drain was levelled with potsherds for 7 ft. of its length from the kiln, thus serving the dual purpose of a soak-away drain and a non-slip strip. A heavy shower turns the surface into a very slippery one indeed, and the necessity for this drain and foothold can be appreciated.

Apart from stone fire-bars which would form the oven floor, there was evidence that fired wasters had been used at the back of the kiln and that, standing inverted on the kiln floor, they had other pots placed on them in a pile for firing. Evidence for this method of stacking pottery in the kiln was found in a number of instances where the rim of one pot had fused on to the base of another, possibly through overheating or insufficient hardening before firing.

The drainage was followed and completely excavated to its outlet into a gully in the plantation below. It was found that the whole system had been completely dammed by a large mass of clay. It seems that, after the stoke-hole had done service for three successive kilns, it was later turned into a reservoir. A small return drain had been cut to allow water from the surface drain to be diverted into the stoke-hole. In the silting which ensued the iron handle of a bucket was found and also the interesting toy bird illustrated (Plate IVb). Made of clay, this appears to resemble a duck or water bird. The reasons for the two lateral holes at the base and the vertical hole in the tail are not easy to explain. It is possible that the lateral holes were used for a cord to tie the bird to something which would enable it to float, perhaps a piece of wood. A cord through the hole in the tail would, if lifted, cause the beak and head to submerge as in the manner of ducks when feeding. Experiment has shown that the toy bird can also be made to peck in the palm of the hand if held, by a twisted loop of cord, between the thumb and fourth finger and by manipulating a cord from the tail. Perhaps some reader may know of a similar find and have a better explanation of how it was operated.

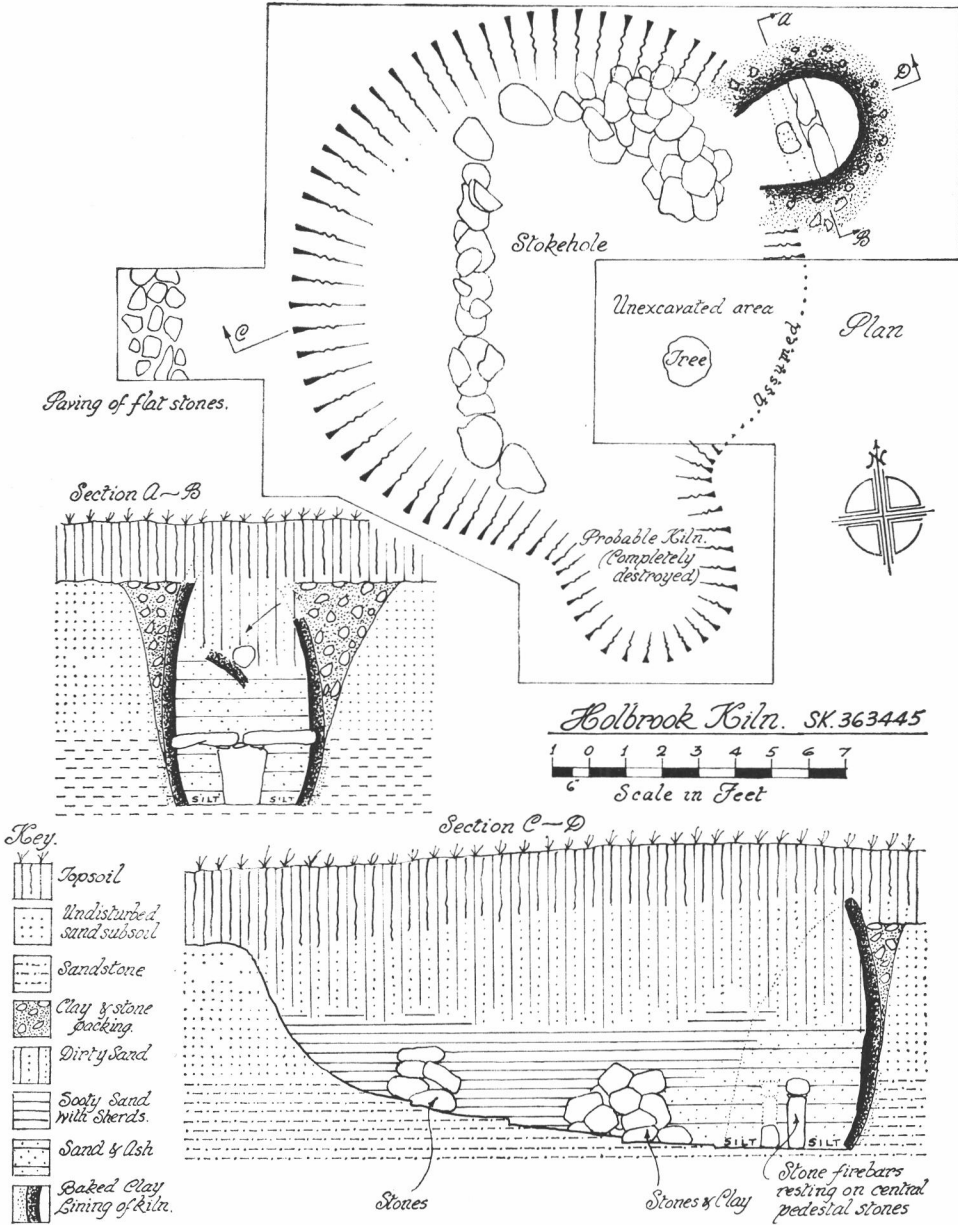


FIG. 4. Plan and sections of the Holbrook kiln.

Underneath the base of one of the Derbyshire ware jars, a number of small kidney-shaped cavities were noticed, so the base was sent to the British Museum for examination. This was carried out by Dr. Meldaris, and the report, from the Keeper of Botany, suggested that the impressions "may have been caused by Celtic Beans, *Vicia Faba. var. celticanana* Heer (= *v. Faba f. celtica*), which were widely grown by the Neolithic and Bronze Age people in Central Europe, and had been found, together with wheat and barley (in carbonized form), on an Iron Age site excavated in Somerset". It is, perhaps, of interest to note that the Derbyshire ware type of jar is known, in the pottery industry, by the traditional name of a "Bean Jar".

THE HOLBROOK KILNS (Fig. 4)

The excavation of the pottery kiln in the grounds of Holbrook House was carried out with some difficulty owing to the presence of roots of trees and shrubs, but an almost complete plan of the stoke-hole was eventually obtained. By following its perimeter, an updraught type of kiln was revealed with a pair of stone fire-bars in position. The kiln had a fired clay lining of an average thickness of 5 in. but, unlike Hazelwood, the floor was not covered with fired clay, the walls of the kiln resting on a bed-rock base of sandstone. There appeared to have been two central pedestal stones as at Hazelwood, but placed one behind the other and not side by side. The rear pedestal stone stood directly on the rock floor, and the outer ends of the two fire-bars rested in sockets in the kiln lining. The illustration (Plate III) shows them exactly as they were excavated with the small packing stones in position. The stone in front had been used to hold another pair of fire-bars, but had almost completely disintegrated through heat and the passage of time. The sockets for this front pair of fire-bars were immediately forward of the pair at the rear to position the bars in parallel and not radially. There was no evidence of any permanent or semi-permanent "furniture" at the back of the kiln and, as at Hazelwood, perhaps waste pots were used on which to stack pots for firing. The Holbrook kiln was remarkable for the height of the wall still preserved. The writer is not aware of any recorded Romano-British kiln of this type of this exceptional height of 7 ft. from the floor level. Its height poses a problem as to how it would have been possible to load the kiln, or to empty it, by the usually accepted method — from the top. It is suggested that the Holbrook kiln may have been loaded and emptied from the front which, with the flue, appears to have been built up with stones and clay packing. Unfortunately all the flue material had gone but the mass of stones and clay encountered near the kiln mouth lends some weight to the suggestion that the front of the kiln had been built up with them. The horseshoe-shaped side walls ended abruptly near the flue. The illustration of the kiln (Plate III) shows that some repair had been carried out at the back, where clay patching is evident. The depression in the rear wall about 3 ft. 6 in. from the floor is similar to two others in the side walls at a height of 4 ft. The shape of these depressions is not what would be expected for footholds; they may have been formed by struts placed during

construction to support the incurving walls before firing took place. Section A-B (Fig. 4) shows the barrel-like shape of the kiln walls at Holbrook. Assuming that the incurving continued, the aperture would be too constricted for anything but a chimney or vent-hole. It will be noticed, in section C-D, that the floor level of the stoke-hole slopes down to the kiln floor, whereas the usual practice in most kilns, for the purpose of drainage, was for the slope to run down from the back of the kiln. The site has excellent natural drainage, and it is evident that the potters at Holbrook had no such problem as obtained at the Hazelwood kilns.

In the field adjoining Holbrook House grounds, at some distance to the south-west of the excavated kiln, there is evidence of another probable kiln. It will be interesting to examine this at some future time for comparisons and for evidence regarding the flue structure, if this remains.

The only four fragments of pottery, other than Derbyshire ware, found on the site are illustrated. (Fig. 13, nos. 28-31.) Two clods of clay, fired quite hard, and bearing the imprint of nails from a sandal or boot, were found near the kiln. They had evidently been kicked off, or prised off, near the firing area.

THE POTTERY

Derbyshire ware.

In order to avoid unnecessary repetition, it is proposed to cover the whole of the Derbyshire ware illustrated, both types A and B, under the following general description, except for references to particular rim variants. The description given by Gillam still holds good. His comparison of the surface texture of the pottery, in appearance, to that of "goose flesh petrified" is particularly apt.⁷ Examination of many hundreds of sherds of Derbyshire ware from the kilns and waste heaps at Hazelwood and Holbrook has established that this distinctive surface texture is due to the presence of particles of silica in the local clay from which the pottery is made. Silica particles were present in every piece examined, and were particularly evident in new fractures. They vary in size from minute specks to grains measuring up to 2 mm. across and sometimes even larger (see illustration of a rim section, Plate IVa). The coarseness or comparative smoothness of the surface texture of individual pots depends upon the silica particles near the surface; this may also depend on the depth of the layer from which the clay was dug. If, as seems likely, some of the earlier Derbyshire ware found in Antonine levels is of a finer texture, it should not be assumed that all the less coarse vessels are early, since coarse and relatively finer sherds are found together and were found so on both kiln sites. The local clay seems to have been used as dug, and was not subjected to any but the slightest refining preparation before throwing on the wheel. Many wasters were found which had been caused by quite sizeable pebbles left in the clay. There was also evidence of wasters in which quite large pieces had been "blown off" or had splintered off through overfiring. This occurs when unrefined clays are fired to a temperature of about 1100° Fahrenheit.

⁷ *D.A.J.*, LXI (1940), 27.

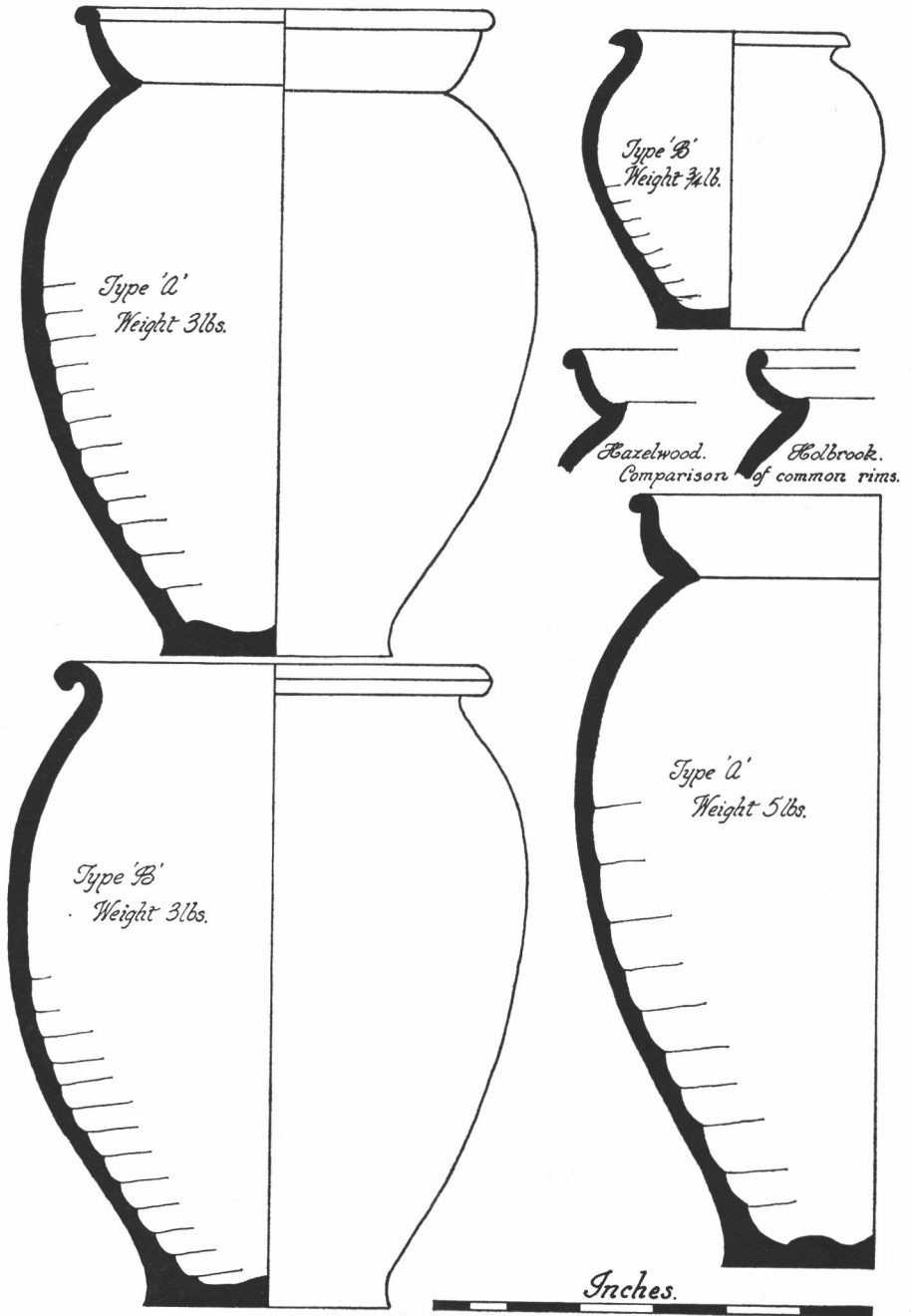


FIG. 5. Types and standard sizes of Derbyshire ware.

The colour of Derbyshire ware varies from biscuit or pale buff through to brick red, brown, plum red, grey, blue grey and purple. The colour of a particular pot is due to the conditions of the firing. The natural clay contains iron oxide and other iron compounds in a very finely divided state, which are responsible for the colour of the pot when it is fired. In a normal oxidizing atmosphere of a kiln, i.e. when excess air is present, the colour would be reddish brown. As the atmosphere inside the kiln becomes reducing, or smoky, with no excess air, the iron compounds turn grey or black and so change the colour of the fired pot. Some vessels have areas of colour ranging from brick red to grey due to changes in atmosphere, which can vary in different parts of the kiln. Particularly amongst kiln waste there are many sherds from underfired and overfired pots with every shade of colour from pale buff to grey. The pale buff sherds are underfired, and it is not likely that Derbyshire ware paler than brick red would be serviceable and distributed. A really well fired pot of grey Derbyshire ware is exceedingly hard and resembles stoneware, in that it cannot be scratched.

Since 1940, Derbyshire ware has been recorded on a number of excavated sites and, in addition to the typical bell-mouth jar, a number of roll rim jars, of the same texture and body shape, have been noticed. The proportion of these roll rims to the lid-seated rims is in the region of 30% to 70% respectively. This percentage compares with the output of the Hazelwood and Holbrook kilns, judging from the proportions amongst waste sherds. The output of both sites seems to have been concentrated on three main standard sizes (see Fig. 5). It is proposed in this report to refer to the bell-mouth jars as type A and the roll rim jars as type B. The most popular size appears to have been the medium vessel weighing 3 lb.; about 9 in. in height and 7 in. in diameter at the widest part of the body. This size was made in both types A and B. A larger size, made only in type A, weighed 5 lb. and was about 10½ in. in height and 8½ in. at the greatest diameter. A much smaller jar, made in both types A and B, weighed ¾ lb., and measured 4 in. in both height and width. From the evidence of pottery waste at both sites, it appears that the potters produced these Derbyshire ware jars to the almost complete exclusion of other domestic pottery. The jars weighing 3 lb. accounted for about 75% of the output, the remaining 25% being shared, almost evenly, between the larger and smaller vessels.

Mention should be made of the whorl patterns, similar to giant fingerprints, which are found underneath the bases of Derbyshire ware jars. They are formed by the passing of a cord, used in the manner of a cheese-wire, to separate the pot from the wheel after throwing. The pattern of these whorls varies according to the manner in which each potter holds and pulls his cord. An experienced pottery manager states that he can identify the thrower of particular pots by his characteristic whorl mark. The whorl patterns on the bases of pots found in kiln 3 were identical and were, therefore, most probably the work of one potter. From bases of wasters three or four distinct and recurring patterns were noticed at Hazelwood and Holbrook, the whorls at the two sites being different.

THE ILLUSTRATIONS

Fig. 5 illustrates the main types A and B with the standard sizes which predominate. The most common rim shape at Hazelwood and at Holbrook is given for comparison, the difference between the two being the position of the bead lip of the rims. At Hazelwood the bead appeared most commonly on the outer edge of the rim, whilst at Holbrook it was more frequently inside the rim. The general shape and texture are the same at both sites; only those variants are illustrated from Holbrook, which did not appear at Hazelwood. The Hazelwood type A illustrations (Figs. 6-7, nos. A1 to A84) have been selected from over 500 rims to represent a cross-section of the variant shapes. Except for an occasional incised groove on the shoulder (nos. A36, A61, A63, A78, A80), Derbyshire ware has no decoration. It should be mentioned that, although the type A jars seem to be intended to take a lid, not a single lid or fragment of a lid was found on either site. It is possible that wooden stoppers may have been used.

The type A rims from Holbrook (Fig. 8, nos. A85 to A108) are similar to the Hazelwood rims, but it was noticed that a recurring feature at Holbrook, not present at Hazelwood, was a flat band on the outer rim with a groove above and below it, as in nos. A86, A93, A98, A101. This feature and the bead on the inside of the rims, already mentioned, represent the main differences.

The type B rims from Hazelwood (Figs. 9-10, B1 to B55) and from Holbrook (Fig. 11, B56 to B75) are of medium-sized jars and small jars. They again show no decoration except for the incised grooves on nos. B43, B47, B50, B51, B53, B58. No. B40 is from a jar with a much narrower neck than is usual. A similar rim was found at the Mansfield Woodhouse villa site, and is with the other Derbyshire ware from that site in the Nottingham University Museum. The Hazelwood and Holbrook type B rims show no appreciable dissimilarity.

POTTERY OTHER THAN DERBYSHIRE WARE

From Hazelwood (Fig. 12, nos. 1-27).

1. Rim and shoulder of a wide-mouthed bowl in dark grey coated ware, pale brick-red on inside, smooth surface texture with looped decoration on shoulder.
2. Rim of wide-mouthed bowl in pale brick-red ware with thin coating of very dark grey inside and outside.
3. Similar to no. 1, but coated grey inside and outside.
4. Neck of a cordoned jar in pale orange-red ware.
5. Dish in dark grey ware.
6. Neck of jar in orange-red ware.
- 7-9. Rims of segmental bowls in a hard gritty red ware.
- 10-12. Segmental bowls in hard red ware with cream-painted decoration on flanged rim.
- 13-18. Segmental bowls in pale brick-red ware. Nos. 13 and 17 with painted decoration similar to nos. 10, 11 and 12.
19. Neck of a flagon in very hard gritty grey ware — pale brick-red inside the mouth. Similar in texture to Derbyshire ware, probably made on the site.

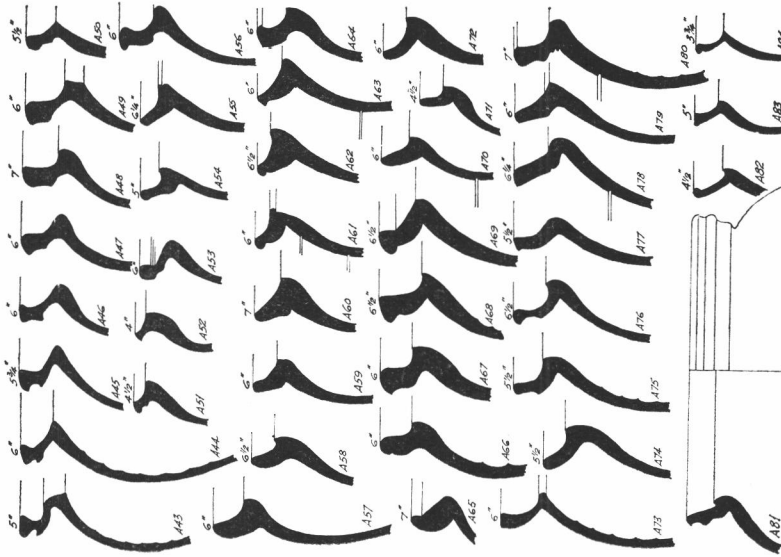


FIG. 7. Derbyshire ware type A. A43 to A84 from Hazelwood.

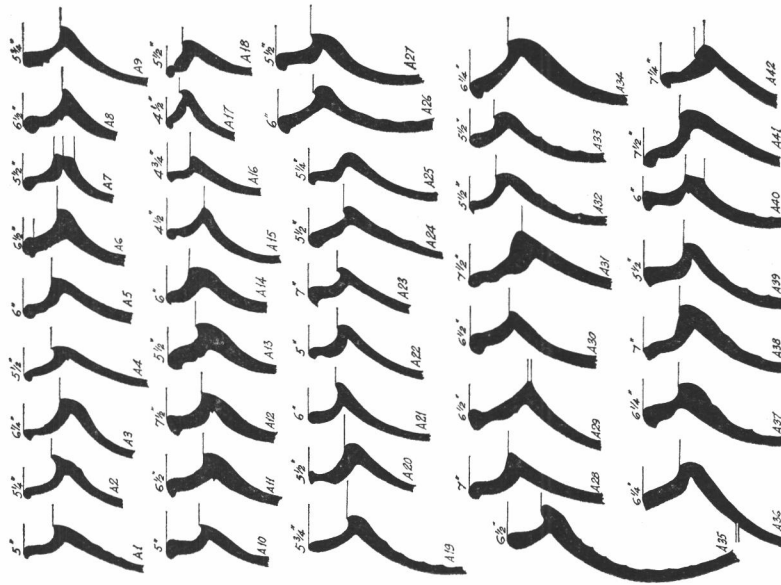


FIG. 6. Derbyshire ware type A. A1 to A42 from Hazelwood.

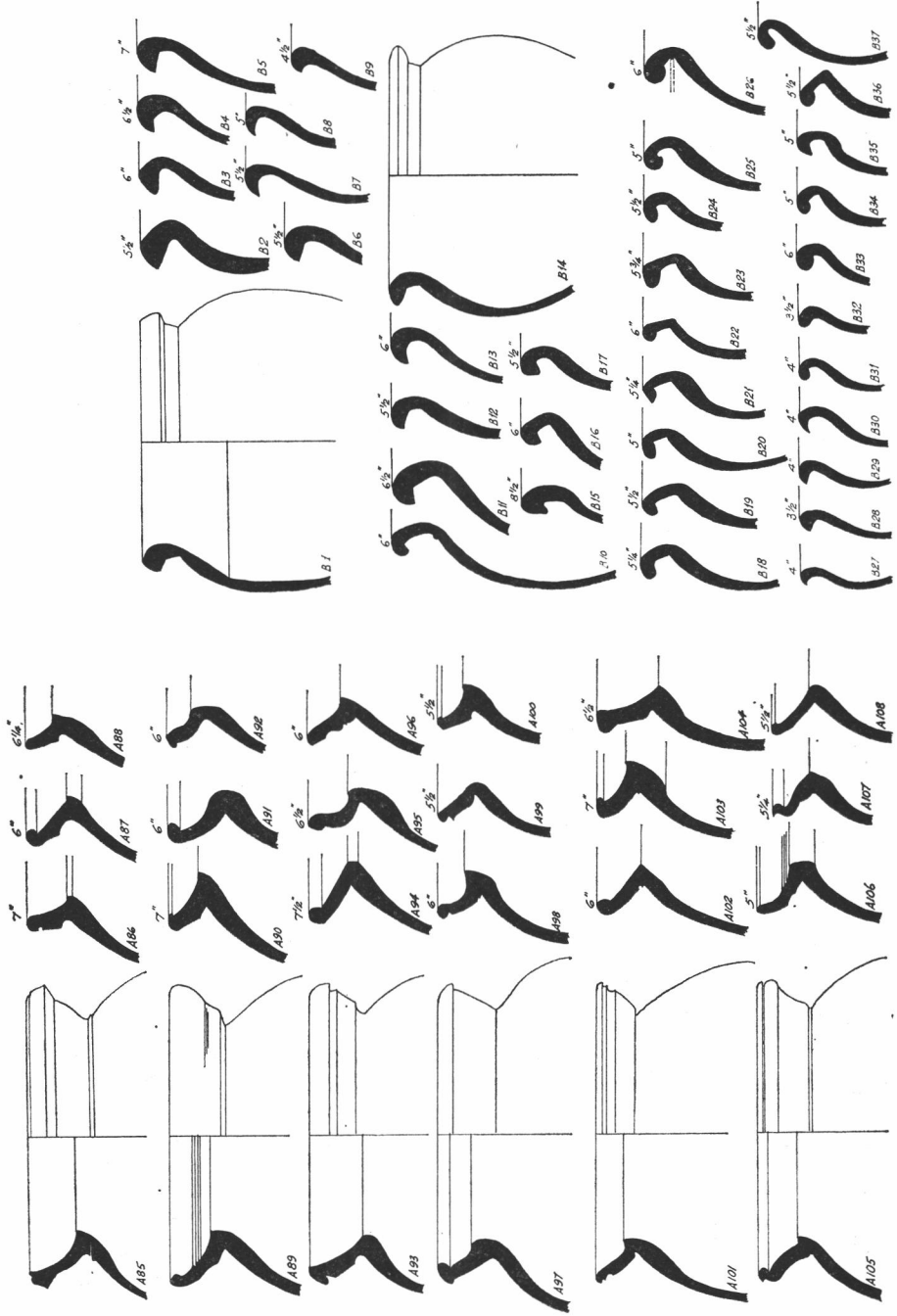


Fig. 9. Type B rims from Hazelwood. Br to B37.

Fig. 8. Type A rims from Holbrook. A85 to A108.

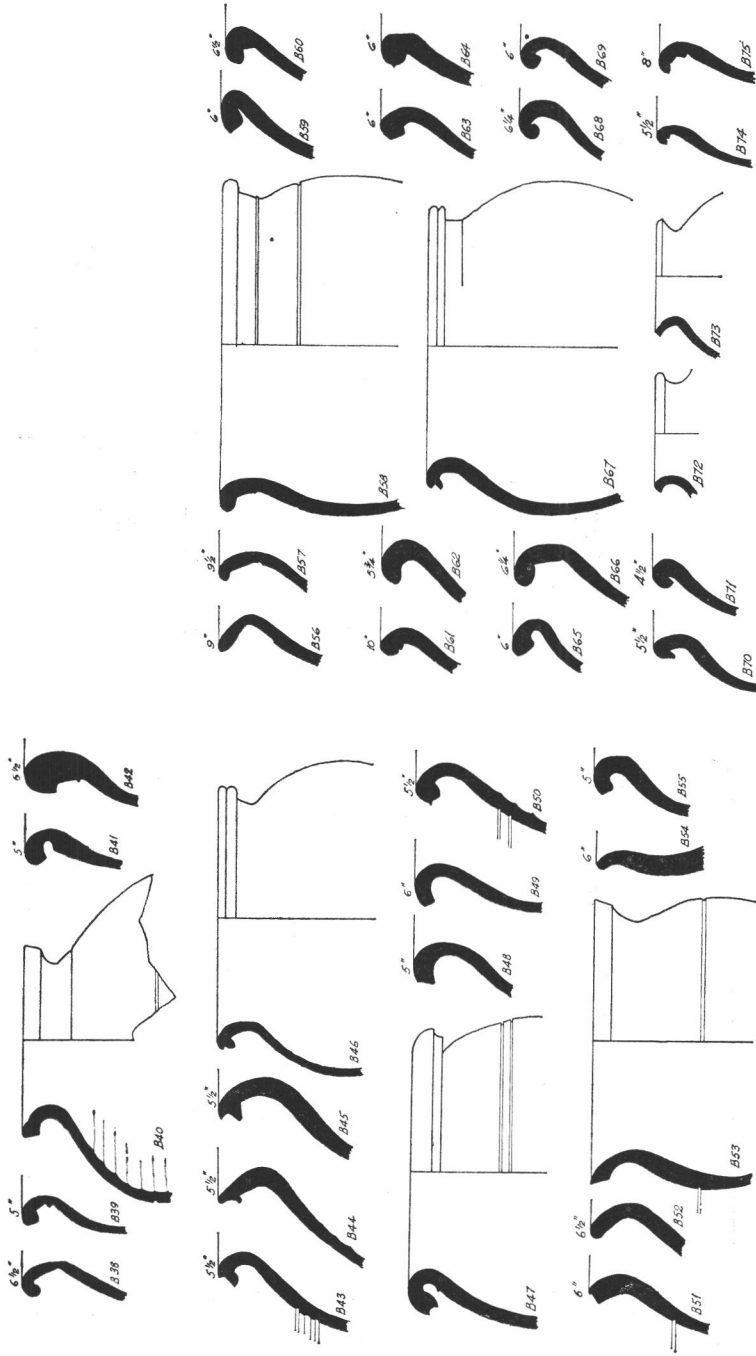


Fig. 10. Type B rims from Hazelwood. B38 to B55.

Fig. 11. Type B rims from Holbrook. B56 to B75.

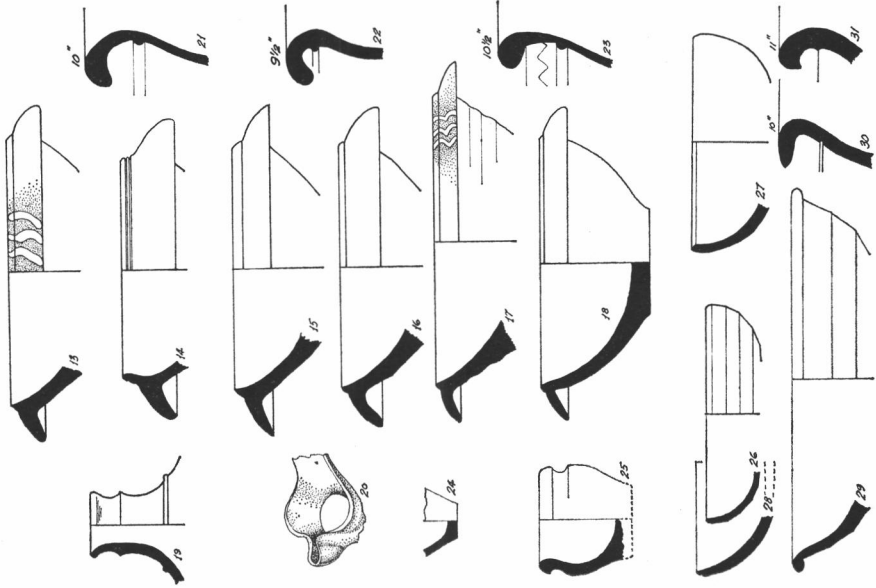


FIG. 13. Pottery other than Derbyshire ware. Nos. 13-27 from Hazelwood, 28-31 from Holbrook.

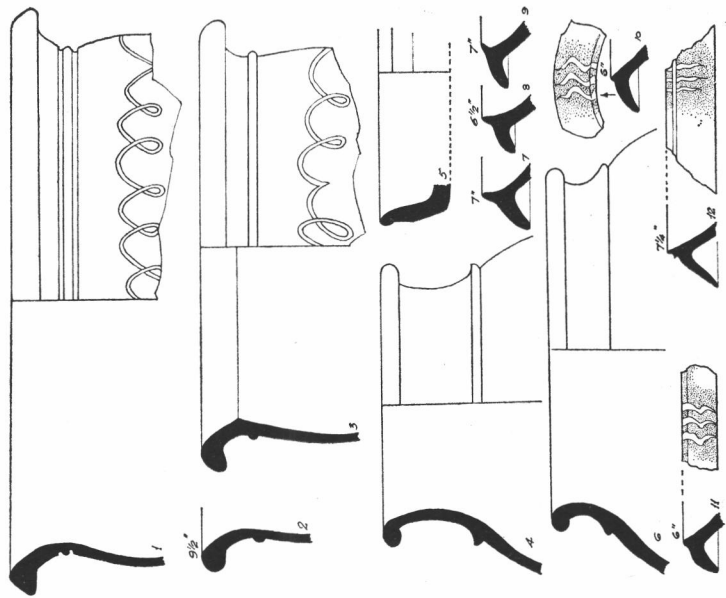


FIG. 12. Pottery other than Derbyshire ware. Nos. 1-12 from Hazelwood.

- 20. Neck of a flagon, with a pinched mouth, in very hard orange-red ware.
- 21-23. Rims of wide-mouthed bowls in grey coated ware.
- 24-25. Miniature pots. No. 24 is a hand-formed base, probably made by a child. No. 25 is wheel-made in pale buff ware, very gritty and underfired.
- 26. Shallow bowl, with a plain rim, in orange-red gritty ware, badly underfired, with a "knifed" exterior.
- 27. Shallow bowl in gritty, orange-red ware with a chamfered rim.

From Holbrook (Fig. 13, nos. 28-31).

- 28. Shallow bowl in grey ware with a plain rim.
- 29. Shallow bowl, with a bead rim, in red ware.
- 30-31. Rims of wide-mouthed bowls in grey coated ware.

There is no indisputable evidence that this other pottery was made on the site, although nos. 4, 6, 19, 24, 25, 26 and 27 appear to be local productions. The types are common throughout the 3rd century, except no. 20 which is a possibly late 2nd century type. There is, however, nothing amongst these other wares to help the close dating of the kilns. Sixteen out of the thirty-one vessels, other than Derbyshire ware, are segmental bowls and shallow bowls, all found either in the kilns or on the stoke-hole floor. Any significance that this may have apart from their use by the potters, is not apparent.

Note. The dimensions in inches above the rim sections indicate the diameter over the widest part of the rim and, in the case of the segmental bowls, the outside diameter of the flange.

THE LOCAL DISTRIBUTION OF DERBYSHIRE WARE

For this report it is intended to confine the recorded distribution of Derbyshire ware to sites within the county or within a few miles of the county boundary. Its wider distribution and that of Dales ware is to be discussed by J. P. Gillam to whom we are greatly indebted for our present knowledge of Derbyshire ware.

The local distribution map (Fig. 14) includes all the sites, known to the writer, where Derbyshire ware has been found. Notes relating to each site are given in the following list. A six-figure Grid Reference is given, where this is known. The sites include those mentioned by Mr. Gillam in this *Journal* in 1940. I am grateful to him for his permission to include them and for his interest and help. His Derbyshire sites are:

1. Little Chester, Derby.
2. Deepdale Cave, Buxton.
3. Duffield.
4. Rainster Rocks, Brassington.
5. Silverlands, Buxton.
6. Robin Hood's Stride, Alport.
7. Brough.

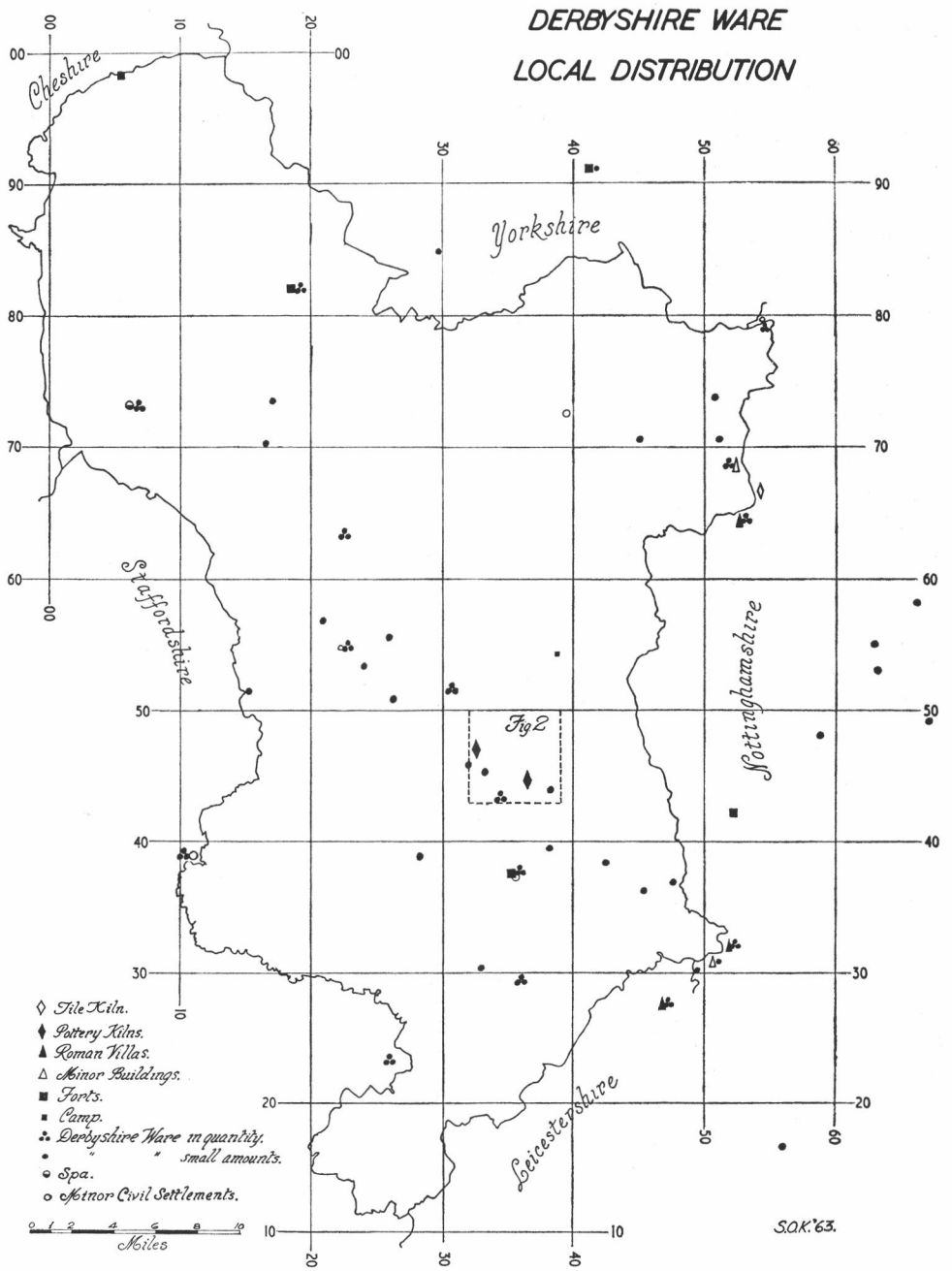


FIG. 14. Local distribution map of Derbyshire ware.

8. Harborough Rocks, Brassington.
9. Rain's Cave, Brassington.
10. Old Woman's House, Taddington Dale.
11. Ravencliffe Cave, Cressbrook Dale.

Further finds have been recorded at Duffield, Rainster Rocks and at Brough, where at the lead works a type A jar, now in Derby Museum, was found that contained burnt bones and human teeth. The Derbyshire ware jar had evidently been used as a cinerary urn in Roman times. Mr. Gillam records Derbyshire ware from Horsley Gate and Kirk Langley, places which were added to his list. The Kirk Langley Derbyshire ware consisted of type A rim fragments, found about 1928 in a field on Buckhazel Farm (Information from Derby Museum records).

The following sites, on which Derbyshire ware has been found, have been recorded since 1940.

- Hopton*. SK 258547. Mr. J. Lomas records fragments from near the track known as Chariot Way. *D.A.J.*, LXXV (1955), 152.
- Alport Height*. SK 306516. Mr. J. Lomas records some type A rims. *D.A.J.*, LXXV (1955), 152. Also a large quantity of types A and B. *D.A.J.*, LXXXI (1961), 144; Fig. 15.
- Carsington*. SK 238533. Mr. J. Lomas records types A and B. *D.A.J.*, LXXX (1960), 114, Fig. 16.
- Minning Low*. SK 209572. Mr. T. G. Manby records sherds. *D.A.J.*, LXXXVIII (1958), 32.
- Ockbrook*. SK 435380. Fragments from a field, on Columbine Farm, showing dark rings after ploughing. (T. W. Kettle and S. O. Kay.)
- Breadsall*. SK 377391. In a service trench on Porter Lane, between Breadsall and Chaddesden, a single fragment. (Mrs. I. M. Kay.)
- Shirebrook*. SK 526685. A quantity of both types A and B recorded by S. O. Kay. *D.A.J.*, LXXXVI (1956), 5, Fig. 2.
- Scarcliffe Park*. SK 515704. Sherds from the area near the Owl Spring. (Dr. A. Court.)
- Steetley*. SK 545793. Types A and B from a field south of the Scratta Wood Romano-British enclosure reported by Mr. G. White.
- Swarkestone*. SK 363294. Mr. W. A. Cummins of Nottingham University kindly showed the writer some sherds from his excavations near Lowes Farm in 1961.
- Whaley*. SK 515717. One or two sherds from the upper levels of the rock shelter. (Dr. A. Court.)
- Risley*. SK 451366. Mr. H. O. Houldsworth reports Derbyshire ware from the field west of the moat (now ploughed out) near the site of the finding of the Risley silver dish.
- Sandiacre*. SK 479375. Mr. D. Gore reports a fragment from Cloud House.
- Dovedale*. SK 148525. Two type A rims from an excavation at Reynard's Cave reported by Mr. J. H. Kelly. *D.A.J.*, LXXX (1960), 122.
- Duckmanton*. SK 442711. A few sherds shown to the writer by Mr. Thorpe of Kirkby in Ashfield.
- Twyford*. SK 318291. *D.A.J.*, LXXXI (1961), Plate XXXVI. Fragments turned up by the plough. (Mr. J. Wigley.)
- Hazelwood*. SK 333455. Sherds and rims of both types A and B from a sewer trench crossing Bawdy Close and Castle Field reported by Mr. L. Howell. At SK 328457 a large scatter of Romano-British potsherds, including Derbyshire ware, reported by Mr. J. Lomas.

DERBYSHIRE WARE FROM NOTTINGHAMSHIRE

In addition to the Derbyshire ware recorded by Mr. J. P. Gillam from Margidunum, it has since been recorded from the following sites:

- Mansfield Woodhouse*. SK 524645. Both types A and B from the re-excavation of the Roman villas by Mr. Adrian Oswald. *Trans. Thorton Society*, LIII (1949), 1-14.
- Barton in Fabis*. SK 526317. Sherds with rims of both types A and B reported from excavations carried out on the Roman villa site by Mr. H. Martin and later by Mr. F. H. Thompson. *Trans. Thorton Society*, LV (1951), 3-20.
- Hexgreave Park*. Near Camp Hill SK 668582. Some sherds reported by Mr. B. Simmons. (A Derbyshire pig of lead was found here. *V.C.H., Derby*, I, 231.)
- Combs Farm Camp*. SK 632548. Mr. B. Simmons reports fragments of Derbyshire ware; also from Oldox camp near Oxtun, SK 633531.
- Thurgarton*. SK 673496. Mr. S. Revill reports a few sherds on a late 3rd-4th century site, probably from an earlier site in an adjoining field in the parish of Epperstone, where sherds are being found during excavations now in progress.
- Arnold*. SK 604810. Six sherds recorded by Mr. D. F. Macreth in the *East Midland Archaeological Bulletin* 1961.
- Red Hill*. SK 492304. Fragments recorded by Mr. R. Wilson. *Bulletin of the Loughborough and District Archaeological Society*, no. 4.
- Langar*. SK 723336. Some sherds reported by Mr. H. O. Houldsworth.

DERBYSHIRE WARE FROM LEICESTERSHIRE

- Lockington*. Sherds, from a probable villa site, reported by Mr. D. Reaney and Mr. C. Hobday.
- Quorn*. SK 567163. One rim identified and reported by Mr. M. W. Barley.

DERBYSHIRE WARE FROM STAFFORDSHIRE

- Wall near Lichfield*. Rims of type A kindly sent to me by Mr. J. T. Gould, some from Antonine levels.
- Rocester*. Ten type A rims from Dr. Graham Webster's excavations in 1961.
- Stapenhill, near Burton on Trent*. Rims of types A and B illustrated in report by Mr. D. W. Wilson and Mrs. M. J. Fowler. *D.A.J.*, LXXV (1955), 8, Fig. 5.

DERBYSHIRE WARE FROM YORKSHIRE

The distribution map includes the site at Templeborough, near Rotherham, where sherds have been found, and a site at Fulwood, Sheffield, where a few rims, recorded by the Hunter Archaeological Society, have been reported to me by Mr. F. L. Preston. These represent the northern limit of this report, which does not include other Yorkshire sites.

The map shows how closely the distribution corresponds to the line of known Roman roads and of the lesser known routes used by the Romans, particularly the Port Way and in the north-east of the county the route from Skegby via Scarcliffe and Clowne northwards. The cluster of sites beyond the crossing of the Trent, near Sawley, is of particular interest for, excepting

the fragment from Quorn, Derbyshire ware has not been recorded further to the south-east.

For the several new sites which have been added, the writer is grateful to all those who have kindly supplied information.

CONCLUSIONS

The discovery and excavation of the site at Holbrook in 1962 has made it possible, by comparisons with the Hazelwood kilns, to draw some more or less definite conclusions. In the first place there is no doubt that Hazelwood was the major site producing the most pottery, even though a further kiln at Holbrook remains to be investigated. The great mass of wasters at Hazelwood indicates that there must have been a succession of kilns working, perhaps, over a period of years. We are grateful to Professor Cook of the Museum of Classical Archaeology at Cambridge for visiting the kilns at Hazelwood and Holbrook to take samples for remanent magnetic dating. The results of the Holbrook visit are not yet known, but the Hazelwood kilns are dated to the middle of the 3rd century. Kiln no. 2 is bracketed by these results with a kiln at Grimstone End, Suffolk, which had an excavation dating of A.D. 230. Unfortunately there is no certain close dating evidence from the excavations. The pottery other than Derbyshire ware is of types which are common on other sites throughout the 3rd century except, perhaps, the pinched-mouthed flagon (Fig. 12, no. 20), which may well be late 2nd century. Recent excavations at Little Chester⁸ and Rocester by Dr. Graham Webster and at Wall near Lichfield have proved that Derbyshire ware was being manufactured towards the end of the 2nd century. It is not unlikely that further kiln sites may exist or that Holbrook itself was an earlier site. There is some probability that Holbrook predates the Hazelwood site. On the grounds of economy of time and labour in the construction and maintenance of kilns, it would seem to be more likely to move from Holbrook to Hazelwood than vice versa. Again, much of the pottery at Holbrook, particularly some noticeably thick and heavy bases, seems to indicate a less skilled workmanship than the general material from Hazelwood. These are assumptions and not evidence. We must await Professor Cook's dating for a comparison between the two sites. There was no evidence at Hazelwood to say that the three kilns were the earliest on that site, but the evidence of the later use of the stoke-hole as a water reservoir may indicate a continuation of production at nearby kilns. A most important source of dating evidence lies underneath a field, which is at present permanent pasture on Overlane Farm (Fig. 2) about 150 yds. west of Jenny Tang plantation. The field named Near Red Bank on the tithe map is probably the dwelling site of the kiln workers. A narrow trench cut alongside a post and wire fence, which was being removed, showed evidence of levelling by small stones and sherds over a considerable area. This was crossed at intervals by small drainage channels and domestic pottery indicated a dwelling site.

⁸ Graham Webster, "An Excavation on the Roman Site at Little Chester, Derby, 1960", *D.A.J.*, LXXXI (1961), 85.

The majority of Romano-British kilns, producing coarse pottery, appear to have manufactured a variety of domestic vessels which were distributed within a limited area. The outstanding feature of the Derbyshire ware kilns is that the potters mass-produced one type of vessel which had an exceptional range of distribution. The expert opinion is that these coarse vessels would not travel such distances merely as pots, but that they must have been used to transport or store some commodity. The distribution seems to have been towards the north where the agricultural economy would make some imports necessary. What could the area near the kilns produce to meet such needs? Certain clues may suggest the answer. The traditional name of "Bean Jar" and the presence of the Celtic bean, mentioned earlier (p. 28), together with the established bean growing in the area from early times, cannot be ignored. One of the known Roman villa sites (an agricultural establishment in this case) within 15 miles of the kilns is at Glebe Farm, Barton in Fabis, or Barton in the Beans. The probable villa site at Lockington and the complex of sites, recorded by aerial photography in the Trent Valley, may eventually provide an answer to the problem.

ADDENDUM

Professor R. M. Cook has now reported on the samples taken from the Holbrook kiln. For nos. 1-7 the mean declination was 9.1° west and the mean inclination was 61.1° . Since the confidence angle was 2.90° and the precision parameter was 435, these may be reckoned for reliability as good results. Judging by results from other Romano-British kilns, this magnetic direction suggests a date in the 2nd century A.D. and not late in that century; but the archaeological dating of comparable kilns is not so sure and perhaps should be adjusted in relation to the date of the Holbrook kiln.

Professor Cook's dating to the 2nd century is most interesting. It bears out the suggestion that the Holbrook kiln may have predated the Hazelwood site and that Holbrook may have been the source of the Derbyshire ware found in Antonine levels.