

Four Medieval Pottery-Kilns on Woodhouse Farm, Winksley, near Ripon, W. Riding of Yorkshire

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FOUR kilns of roughly contemporary date included both double and multi-flued types. They were without internal structure and had been surrounded by low stone walls with clay flue arches. Pierced daub fragments indicated a superstructure of clay packed round a framework of stakes. Round the two largest kilns were a number of waster-filled pits with bases reddened but not fired. Roof-tiles and pottery were manufactured. The dominant decorative motif of the pottery was complex wedge rouletting similar to that found at Aardenburg (Holland), but examples of most of the ornament common in NE. England were present, as were knight jugs and zoomorphic forms.

DOCUMENTARY references to a potter or potters working in the Winksley or Woodhouse area in the middle ages are not sufficiently precise to permit identification of the sites where they worked (FIG. 38). Discovery of the kilns came from reports in 1965 that potsherds had been exposed in a cow-scrap in one of the fields of Woodhouse Farm, Winksley (N.G.R. SE 240716). The sherds suggested a 13th- or early 14th-century date, and a visit confirmed the presence of quantities of pottery and also of burnt clay near the surface.

The field is of 5.722 acres and numbered 206 on the 25-in. Ordnance Survey plan (FIG. 39). It slopes gently from the west, from about the 500-ft. contour, and has an uneven surface, boulder-strewn in places. A marked bank runs centrally north-south. Compact natural clay seems fairly consistent *c.* 75 cm. to 100 cm. below the surface, but the farmer reports several areas of loose filling where clay may have been quarried. The upper levels, where not stony, are of loose rich loam, heavily infested with moles, many of whose hills contained sherds of medieval pottery. Regarded as unfit for the plough, the field is used for grazing only.

The 1909 edition of the 25-in. O.S. plan (sheet no. CXVIII. 7) shows a footpath or bridle road crossing the waist of the field in continuation of the present service road to the farm. This track can be traced to a ford across the R. Laver and thence to the road between Winksley and Kirkby Malzeard. In the kiln field a bank *c.* 2 m. high conceals the remains of a former retaining wall along the W. edge of the overgrown road. The cow-scrap was on the shoulder of the bank. Excavation revealed (see below, p. 106) the make-up of this road and showed it to have been wide enough to take a cart.

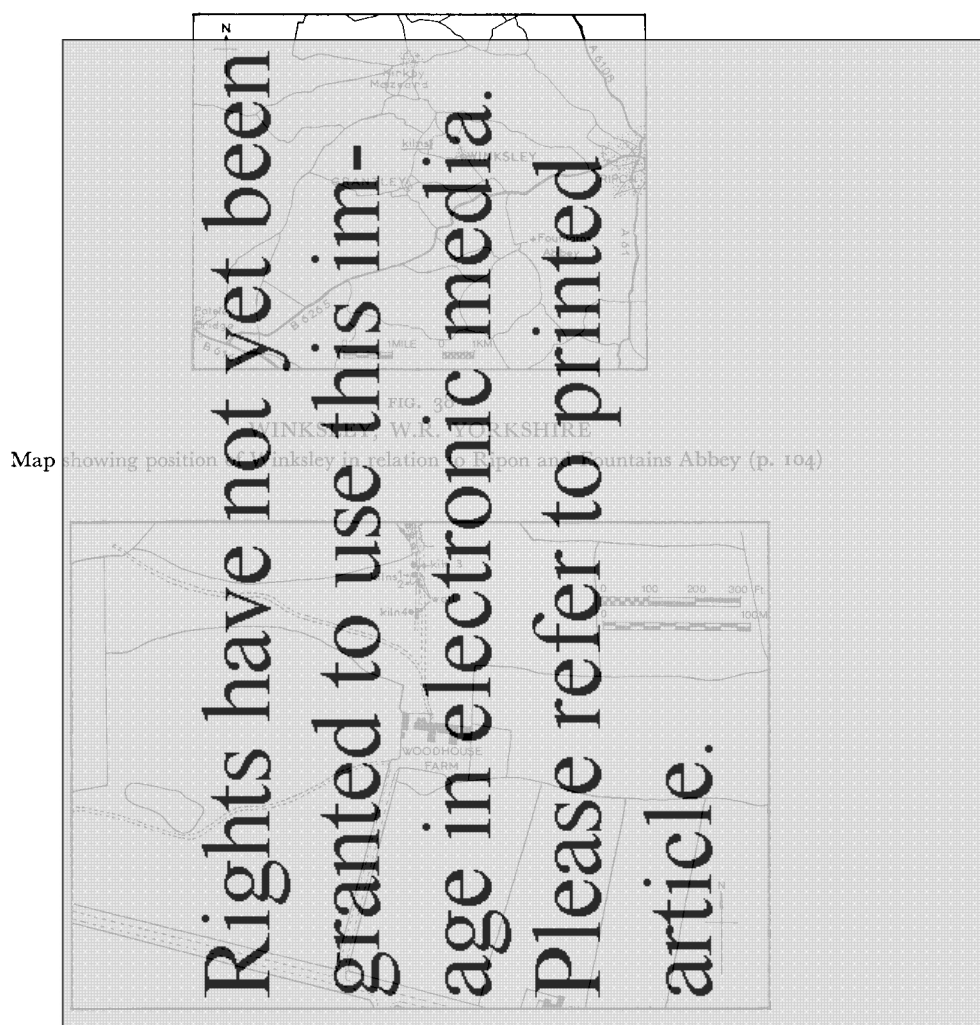


FIG. 39
WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
Map showing position of kiln sites (p. 104)

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EXCAVATION

KILNS 1 AND 2

In 1965 an area, 15·25 m. square, was marked out to include the scrape, and was explored with a proton gradiometer. The readings defined an oval area *c.* 3 m. by 2 m. with its long axis almost parallel to the old road. Excavation fairly quickly uncovered a kiln (W.F./no. 1) coinciding with the distribution of the magnetic anomalies, and oval in shape with its long axis running south-south-west

to north-north-east. Its western edge carried 40 cm. to 45 cm. of overburden and its eastern edge overlapped the cow-scraper (FIG. 40).

The kiln measured 3 m. by 2 m. The floor of hard-baked reddened clay was incompletely outlined by a single layer of undressed stones probably robbed from the earlier retaining wall at the road side. There was a stoke-hole at the SSW. end and a flue at the opposite end, suggesting that it was of simple through-draught type. It was soon evident that there was another floor immediately below, separated from the upper by less than 3 cm. in most places and associated with the same walling.¹

Removal of these floors exposed another floor 20 cm. to 25 cm. below. This proved to belong to a much bigger kiln (W.F./no. 2) measuring 6 m. by 2·13 m.; its floor extended beyond the walling of kiln 1 which lay entirely within it (FIG. 40). Remnants of its own walling were seen in a single incomplete course of similar stones. The sampling of the floor of kiln 1 had not affected kiln 2 which also had two floors.² Below the lower floor were found natural ground levels in the form of fairly compact water-deposited silty clay on top of natural clay with silt diminishing to become pure clay almost white in colour.

The wall of kiln 2 was not continuous and it was evident there had been several flues. Not all had been in use at the same time; two had been blocked for the last firing. It appeared that on different occasions a different opening had been used as a stoke-hole and that the potter exercised some choice according to prevailing conditions. The space between the walls of kiln 2 and kiln 1 had been filled with small cobbles when the latter was constructed.

Close to the eastern edge of the kilns were the remains of the old retaining wall which had flanked the bridle road (FIG. 40). The wall had been almost completely robbed and was clearly older than the kilns. The walls of the kilns were probably built of stones from this wall. Immediately east of it traces of a cobbled road were found on the line indicated by the 1909 map.

PITS A-E

Adjacent to the kilns were a number of pits (FIG. 40), commonly almost cylindrical in shape, up to 120 cm. deep and 75 cm. to 90 cm. diam., and usually a little wider towards the bottom. They were solidly packed with sherds, kiln daub and wedges of clay apparently prepared for the wheel but not thrown. Some of the pottery was unfired and may have been rejected as the kiln was being loaded, some was fired but not glazed, and some evidently rejected as the kiln was unloaded. The floor and lower parts of the sides of the pits were reddened with heat but there was no charcoal and no evidence that fires were lit in the pits themselves. Possibly some of the wasters were sufficiently hot when dropped into the pits to produce this reddening.

Pits A and B, though close together, were completely separate and each 1 m. deep. Pit C consisted of three pits which had run into each other. The central one

¹ The Oxford Research Laboratory was invited to sample the upper floor for archaeomagnetic dating, but the space between the two floors was too small to permit independent sampling.

² The upper floor was removed and the Oxford Research Laboratory were asked to sample the lower. The readings are designated W.F./2 in their tables.

was 1 m. deep and 0.9 m. wide, the one to its north 60 cm. deep and 76 cm. diam., and the one on the south 1 m. deep and 60 cm. diam. Pits D and E also overlapped. There had been other pits east of the kilns, but little remained because of ground erosion after the collapse or removal of the retaining wall. One long trench-like pit lay underneath the N. end of the kilns and was sealed by all four floor levels and parts of the walling. This was similarly filled with sherds and waste material but must be earlier than the kilns.

The purpose of these pits is not clear. They are too deep in relation to their diameter to have been dug for clay, and are much too near the edge of the kilns to have been open when the kilns were in use. It is unlikely that they are all exactly contemporary but they must be nearly so because parts of a single pot were recovered from more than one pit. They may have been dug as post-holes for some structure related to the kilns, with wasters and daub used to hold the posts firmly in place. The multiple pits may represent some realignment of the posts when alterations were needed.

KILN 3

In 1966 excavation north and south of the 1965 site revealed another small multi-flue kiln (W.F./no. 3) not far north of kilns 1 and 2 (FIG. 41). Its walls had been almost completely robbed, but a more or less circular area of baked clay defined its position and form. It measured 1.5 m. diam. and its western edge lay about 1 m. below the present ground surface. The pottery lying over the kiln is of different decorative styles from the bulk of the material collected in 1965 and is probably typologically a little later. Some flat pieces of roof-tile lay on the kiln floor and bore stacking rings. The kiln had only one floor which rested on natural soil.³

The trench opened on the S. side of the 1965 site produced further large quantities of pottery of patterns identical with those found in 1965, but no other kiln.

KILN 4

In 1967 it was proposed to complete the study of the roadside bank as far as its southern limit. A preliminary gradiometer survey did not show any convincing anomalies, and a resistivity survey was also unrewarding. Nevertheless exploratory trenches were opened south of the area so far studied, and another kiln (W.F./no. 4) was found on the same bank edge (FIG. 42). It carried a deeper overburden and the one floor was over 60 cm. below present ground level and lay on natural soil.⁴ Heavy concentrations of sherds were of the same type as those collected in 1965 and no new features emerged. The kiln was multi-flued, c. 2.1 m. by 1.5 m., with occasional wall-stones *in situ*, and the sides of a well-defined stoke-hole with a thick layer of charcoal clearly marked on its southern side. There were flues on the N., E. and W. sides; that on the east contained a baked clay flue arch, dislodged from its original position but almost certainly from that flue opening.

³ Samples were again taken for remanent magnetism dating and the kiln is designated W.F./3.

⁴ Samples were again taken for remanent magnetism dating and the kiln is designated W.F./4.

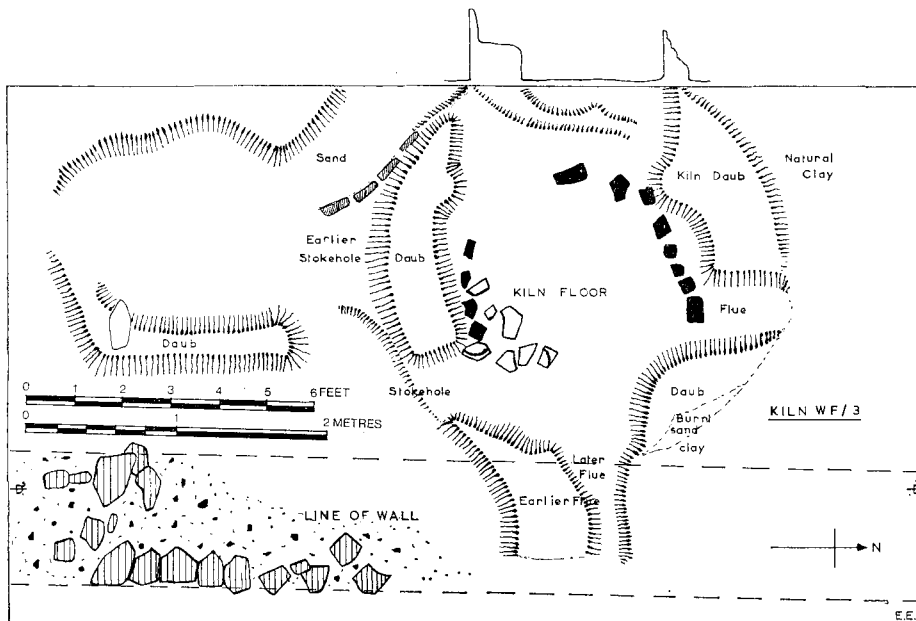


FIG. 41
WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
Plan of kiln 3 (p. 108)

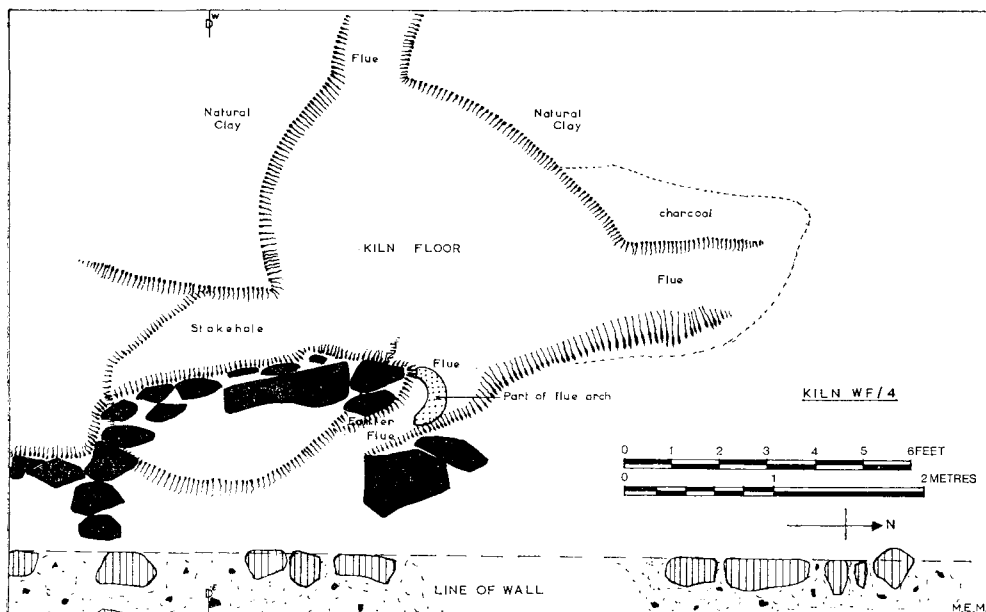


FIG. 42
WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
Plan of kiln 4 (p. 108)

There was no time to excavate indications of a further kiln a metre or so to the south.

DATING OF THE KILNS

The dating of these kilns remains uncertain. Archaeologically there have been no datable objects except the pottery. On typology this might be placed between 1250 and 1350 with a leaning towards the early part of this span. Almost all the material from the site is closely related, and, whilst kiln 3 might be the latest of the group (see below, p. 113), it seems unlikely that there will be much difference in date. The sherds from the other three kilns seem indistinguishable but stratigraphically, of course, kiln 1 must be later than kiln 2.

General stratification is not helpful. All the kilns lie on natural soil and the only overlying material is the concentration of sherds and the rich dark soil which is permeated with mole-runs and very disturbed. A substantive trench linking the separate kilns failed to show any stratified features which would indicate whether any one kiln was earlier than any other.

The documentary references (see below, p. 111) refer to a date before 1233, but give no indication how much earlier or later the site might have been in production. For any of the pottery so far discovered 1233 seems early but as mole-hills contain sherds all over the field, it is probable that there are other kilns yet to be found. Unfortunately it is possible that kilns away from the edge of the bank carry so much overburden that the gradiometer will not detect them.

The remanent magnetism readings seem to be not inconsistent with the dates postulated.⁵

STRUCTURE OF THE KILNS

The only surviving building materials from the kilns are make-up for the floors and occasional stones of the bottom course of the walls. In the area excavated there did not seem to be sufficient stone in the overburden to suggest walls of any height; it is possible there were not more than two courses. The quantities of daub which occurred throughout the excavation area are not sufficient to roof the largest kiln. Some lumps of daub had cylindrical holes right through them, usually 4 cm. to 5 cm. diam., indicating that the clay had been packed round a framework of stakes or canes. There was no evidence of any metal elements in the structure.

⁵ *Archaeometry*, ix (1966), 189, 196, and x (1967), 130. Because of uncertainty about the course of the curve of the graph in this date bracket, more precise datings are not at present possible. The following figures are taken from the tables in *Archaeometry*:

KILN NO.	DIP.	DECLN.	RELIABILITY
W.F./1 16 samples	56·4	3·2E	A
W.F./2 21 samples	58·4	1·2E	A
W.F./3 15 samples	54·7	10·7E	A
W.F./4 16 samples	58·3	8·9E	C

PRODUCTS OF THE KILNS

ROOFING MATERIALS

A number of roof-tiles were found, some of which had been put to secondary use on the floors of the kilns. They were glazed over the outer surface and decorated with casual criss-cross lines. One or two had peg holes. The crested roof-tiles showed three types of decoration: a curved hook (FIG. 48, no. 54); a line of thumb marks on the junction of the crest with the tile (FIG. 48, no. 52); and a thumbed strip of applied clay along the ridge (FIG. 48, no. 55). All were partly glazed and some were further decorated with cross-cross lines.

There were two possible examples of finials, both in the form of a cow (FIG. 48, nos. 49 and 50). Although finials are not unknown in the north (a round example was found in a kiln at Cowick, Yorks.), these are the only zoomorphic examples known north of the R. Trent. It is suggested tentatively that the cylindrical object (FIG. 48, no. 53) may perhaps be a chimney pot, since it is difficult to assign any other function to it. Hitherto these have also been known only in the south.⁶

POTTERY (FIGS. 45-50)

Throughout the excavation pottery was segregated as it came to hand, but study showed that material from pits A-E had a common source and that sherds from one pit joined sherds from another. Similarly, material at different depths came from the same vessels. Sometimes a compact group of sherds all came from a single vessel and a number have been reconstructed. Fabric is generally light buff in colour, sometimes almost white, well fired and hard, incredibly thin (4 mm. to 5 mm.), even in large globular vessels. There were a few pots in brick-red or grey. Shapes ranged through small bowls, jugs and pitchers to the largest globular vessels of about 35 cm. to 36 cm. diam. Glaze was usually thin and partial in green or greenish yellow; occasionally it was rich brown or dark green.

THE POTTERS

Until the 15th century pottery making outside towns was a peasant industry often in the hands of cottagers with insufficient land to make a living by agriculture.⁷ The Winksley potters with their two acres of assart, freely held, fit well into this general pattern. They were established on one, or possibly two tofts belonging to Fountains Abbey,⁸ the earliest known grants relating to which come from the decade between 1223 and 1233.⁹ Once established the industry like others of its kind persisted for a considerable period.

The potter's toft lay 3.2 km. from Kirkby Malzeard Castle, where its

⁶ E. M. Jope (ed.), *Studies in Building History* (1961), p. 83, fig. 5.6, no. 9.

⁷ *Med. Archaeol.*, xii (1968), 122.

⁸ The land in the first grant is said to have been held by Nicholas the potter (*figulus*). It was regranted by the abbot and convent to William the potter (*potarius*). W. T. Lancaster (ed.), *Fountains Chartulary* (1915), II, 747.

⁹ Witnesses to the grants include Stephen the cellarer, who succeeded to the office in 1223, and John Aleman who died c. 1233 (*ibid.*).

products have been found¹⁰ and under 4·8 km. from Fountains Abbey. Ripon was 6·4 km. to the east, and Ripon in its turn had strong economic links and good communications with York, 32 km. farther east. These potters then did not lack contact with the wider world, and their pottery in consequence has implications for the industry far beyond the confines of this now remote part of the West Riding. It is in this context of peasant potters working for good markets, fed from many different kilns, that we must consider their products.

SHAPES

In each year of excavation most of the sherds came from jugs, bowls and large globular vessels, totalling 75 per cent. to 90 per cent. of rim fragments; representative rim sections are illustrated. Handles of circular section account for 35 per cent. to 40 per cent. of all handles in each year, closely followed by those of D-shaped section (30 per cent. to 35 per cent.). Handles which are basically oval in cross-section but with longitudinal flutings or striation account for 20 per cent. to 25 per cent., and flattened strap-handles less than 5 per cent. Bases of jugs are commonly thumbled to a varying degree. On some (about 5 per cent.) thumbing had been carried to the point of pinching out the angle of the base, 2 per cent. had thumbing all round the base but at fairly wide intervals, 4 per cent. showed thumbing marks which often overlapped, and in 3 per cent. the thumbing was intermittent; 85 per cent. of all base angles did not show any thumbing. All percentages are nominal since the number of sherds into which any one vessel breaks may vary considerably.

The jugs, though evenly thrown and thin-walled, tend to be heavy and inelegant in profile, with a disproportionately wide base. Round-bellied, squat forms predominate, and baluster shapes, already in production nearer York, are completely absent. Though an occasional good form is achieved (e.g. FIG. 47, no. 38; PL. IX, A), most are far removed from the fine jugs of contemporary York. However the diversity of treatment is remarkable. There is a wide range of rim (FIG. 50, nos. 93-100, 102; FIG. 45, no. 21), quite unlike the relative uniformity of the somewhat later jug rims from the kiln at Cowick (Yorks.),¹¹ and though the usual spout is a simple pulled-out lip, occasional examples of tubular and bridge spouts were found. Among the jug handles are examples of the sloped strap typical of the Doncaster kiln,¹² plain round handles and circular ribbed handles as found at Scarborough,¹³ York and at a kiln at Brandsby (Yorks.) (FIG. 47, nos. 43-4), but not of the 'kicked-up' handles common at the later Humber-ware kilns of Cowick, Holme-on-Spalding Moor¹⁴ and Little Kelk (all Yorks.).¹⁵ Among pipkin handles (FIG. 49, nos. 74-5) both plain and folded-back forms are present, but the former seems to be the majority type. Treatment of jug bases was also diverse, with flat and rounded forms, either plain or with continuous or inter-

¹⁰ In the well. Now in Leeds City Museum.

¹¹ Excavated by P. Mayes in 1965. Report forthcoming.

¹² *Med. Archaeol.*, x (1966), 161, nos. 2, 4-5.

¹³ J. G. Rutter in *Scarborough and Dist. Archaeol. Soc. Res. Reports*, III (1961), 16, fig. 2, no. 6.

¹⁴ Report forthcoming in *Hull Mus. Soc. Publns.*

¹⁵ Excavated in 1957 by J. Mellor, who kindly gave us drawings of the pottery.

mittent finger-printing, often of exceptionally bold outline. The splayed base was not made.

Cooking-pot rims are everted, flanged or upright and it is not possible to speak of any one shape as characteristic of the kiln. Bowl rims, though usually plain, carry various forms of decoration as on FIG. 50, no. 88.

ORIGIN AND AFFINITIES OF THE DECORATION

It is, however, in the variety, and above all in the character of the jug decoration that the importance of the pottery lies. This is almost entirely in monochrome, with no admixture of copper to produce the more vivid colouring of the pottery from York or Scarborough. The forms used were line and pellet work, simple and complex rouletting, free scroll work, slip work either plain, thumbled or over stamped, combing, clay pad work, pellets, scales, stamps, face-jugs with beards, knight-jugs and zoomorphic motifs, either applied as free modelling to jug or pitcher, or in the form of aquamanile or roof finial (see above, p. 111). Most of the slip work designs and the flowers formed by applied clay pads were from kiln 3, which also yielded more material of the more sophisticated forms. This seems to indicate that kiln 3 may be a little later than the others.

These diverse decorative motifs may, for our purposes, be divided into three types: 1, those that are known in the period of highly decorated pottery over most of the British Isles; 2, those few motifs restricted to NE. England and unknown or comparatively rare elsewhere; 3, those confined in this country to central Yorkshire though known on the continent (as, indeed, are most of our decorative themes) in the S. Netherlands.

1. *Decoration in general use*

Pellets, scales, combing, stamps and various forms of strip work are found all over England and call for no special comment. The process by which they spread is readily explicable in terms of the frequency with which markets and kilns occur. The map (FIG. 43), though prepared to demonstrate the possible route of one type of ceramic decoration from the coast to Winksley, serves also to show the way in which ideas must have travelled within the county. The normal radius for marketing products is believed to be some 32 km. The area so circumscribed overlaps with the marketing ground of one or more neighbouring kilns, and each contains a number of villis with the right to hold markets and fairs. Each potter, then, had a number of available markets, and each of these could be used by a number of potters. It is a situation making for the rapid spread of ideas.¹⁶

2. *Regional decoration*

It is more difficult to see why some decorations, though only some, should in these circumstances have been restricted to given regions, as is undoubtedly the case. The pottery from Winksley is a good example in its use of groups of incised

¹⁶ At Potterton (*Antiq. J.*, XLVI (1966), 266, no. 27) there was a copy of a Rhineland stoneware jug; at Cowick an exotic lobed cup and its local copy were found on a kiln floor.

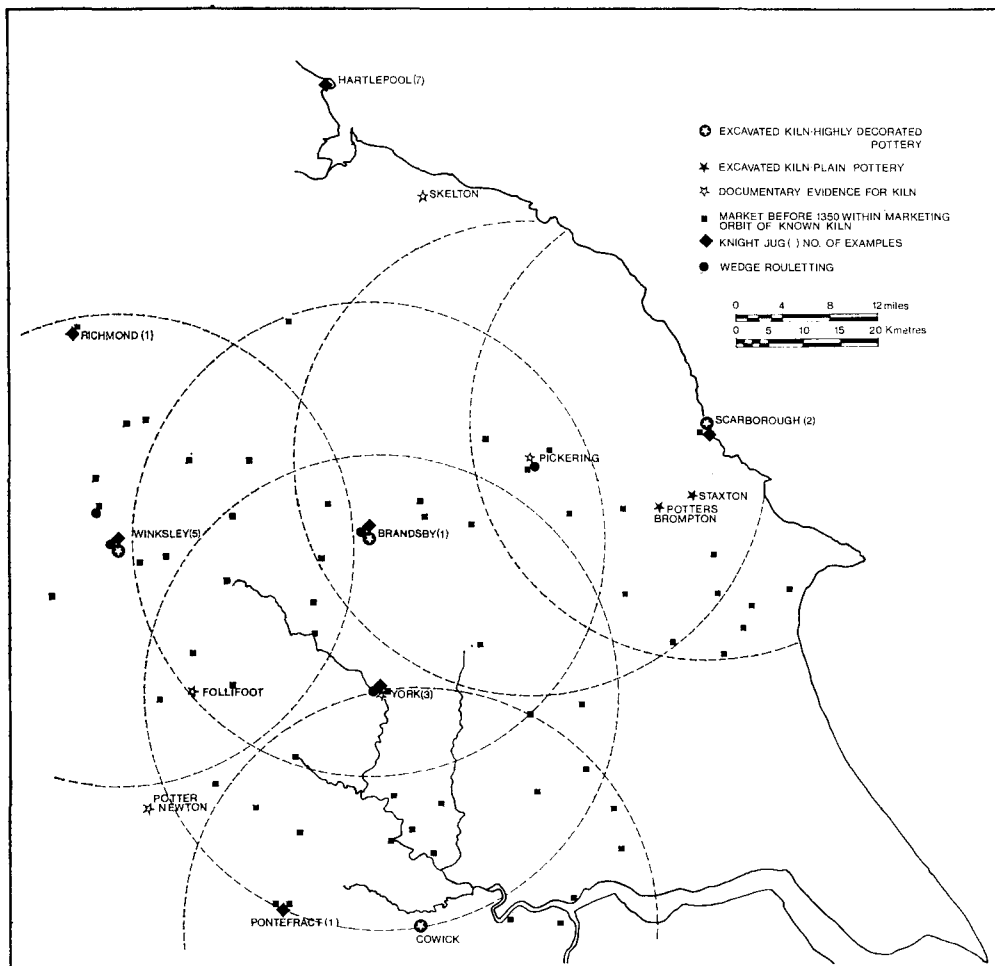


FIG. 43

MAP OF YORKSHIRE

showing distribution of kilns, markets and types of decoration discussed (pp. 113 ff.)

lines with pellets (FIG. 47, no. 35), a motif specific to central Yorkshire. Jugs with this type of decoration are common in the neighbourhood of York, where they are known in five different fabrics and a number of colour combinations. Recently a sixth form has been identified at the Brandsby kiln site. Only two examples are known remote from the city, one of which, a jug at Newcastle upon Tyne,¹⁷ was almost certainly purchased from York in the last century, the other, at Lincoln,¹⁸ is likely to have come from York in antiquity. Applied clay pads in floral form, though not so closely confined to the region, are more common round York than

¹⁷ *Archaeologia Aeliana*, XLI (1963), 104, no. 104.

¹⁸ B. Rackham, *Medieval English Pottery* (London, 1948), fig. 70.

elsewhere. Isolated examples occur at Laverstock (Wilts.)¹⁹ and Oxford²⁰ and, like most of the English decorations they are found on the lead-glazed earthenware of Holland²¹ and Denmark.²²

It is tentatively suggested that the knight-jugs made at the kiln (PL. IX, B) may form another primarily local group. Since such a suggestion runs counter to all that has been previously written on these jugs,²³ we must examine the evidence with some care. The well-known Nottingham jug is complete and usually considered to be the prototype. Though it certainly came from the town kilns, these were in production over a long period and the pot itself is undated. There is a second example at Cambridge,²⁴ another from the Hastings kilns,²⁵ a specimen from Ham Green, Bristol,²⁶ and another from King's Lynn.²⁷ The last two are abnormal in being horseless, and both have the appearance of grafting an exotic fashion of freestanding decoration on to a tradition of elongated human figures in low relief. There are further unpublished examples at Walberswick (Suffolk), London, Dartford and Canterbury (Kent). There are, then, in the country ten specimens, all undated (or ascribed vaguely to the 'highly decorated period'). Of these all but three are of coastal distribution.

In Yorkshire there are twelve known examples, and in Hartlepool (co. Durham) just across the county boundary to the north a further four. Wasters from the Winksley kiln indicate a minimum of five such jugs there. A good part of the knight, with head, shield and part of the leg (FIG. 45, no. 1), is of different clay from the shoulder and plain shield of FIG. 45, no. 3, to which the head (FIG. 45, no. 2) might possibly belong, but not either of the legs (FIG. 45, nos. 4 and 5), which represent further specimens. The leg no. 4 is in low relief and no. 5 is modelled in the round. An additional unpublished leg in low relief is in a coarser clay than any of the illustrated examples. Several more sherds might belong to nos. 1 or 5 or could represent other jugs.

Since knight-jugs must have been exceptionally time consuming to make, and priced accordingly, they would surely occupy the most favourable position in the kiln, and five waster jugs should represent a fair production of unspoilt specimens. A single shield from the waster heaps was found at Brandsby,²⁸ a kiln site 35 km. east of Winksley. The three examples from York come from neither of these kilns, however, for one is in Humber ware and the other two are in one of the off-white fabrics thought to have been made in the immediate vicinity of the city (PL. IX, B). One is a variant on the usual profile presentation, having four knights facing outwards from the shoulder of the jug. A large part of one of these

¹⁹ *Archaeologia*, CII (1969), 122, fig. 16, nos. 124-5.

²⁰ *Op. cit.* in note 18, pl. 83.

²¹ G. C. Dunning, 'The trade in medieval pottery around the North Sea', *Rotterdam Papers: A Contribution to Medieval Archaeology* (ed. J. G. Renaud, 1968), fig. 26, nos. 1 and 2.

²² *Ibid.*, fig. 26, no. 4.

²³ G. C. Dunning, *Ann. Rep. Peverel Archaeol. Group* (1955), pp. 18-23.

²⁴ *Op. cit.* in note 18, no. 12 (a).

²⁵ Mr. Dunning kindly allowed us to see his photographs of this jug.

²⁶ *Trans. Bristol Glos. Archaeol. Soc.*, LXXXII (1963), 126. Not found at the kiln but believed to originate there.

²⁷ *Med. Archaeol.*, IX (1965), 101.

²⁸ The kilns have not yet been found; but two tons of waster material are being studied.

jugs from Hatterboard by Scarborough²⁹ is in a coarse fabric of unknown origin, but another from Scarborough Castle in a somewhat soft red fabric with excellent glaze may possibly have been made in the town.³⁰ A shield from Pontefract Priory differs again in fabric and style. A spout with a knight's head on it from Richmond Castle has not been included in the total, for, though stylistically it resembles the Scarborough Castle knights, only the spout remains.³¹ At the very least then, we may postulate half a dozen potteries in Yorkshire making these unusual jugs, for one of which we shall argue a date early in the highly decorated period, while there is likely to be yet another place of manufacture to account for the Hartlepool examples.³² If the knight-jugs did in fact originate in the mid-lands, it is surprising to find them in much greater numbers in the north-east than in the region where they were first made.

3. *Decoration common to Winksley and S. Holland*

The lead-glazed earthenware of countries bordering the North Sea shares many common decorative features. This type of pottery does not seem to penetrate far inland in S. Holland and Belgium, though it is widespread in N. France. There is, however, a specially marked similarity between the decoration used at Aardenburg in S. Holland and those of central Yorkshire, and particularly with that of the Winksley group under consideration. The dominant theme at this Winksley kiln is decoration with a roulette.

In its simplest form rouletting consists of small almost square impressions made by a wooden or bone wheel as on FIG. 45, no. 9.³³ This is known in England well before the conquest and is a not infrequent device on Saxo-Norman pots

²⁹ *Op. cit.* in note 13, p. 15, no. 8.

³⁰ Scarborough ware presents great difficulties. The products of the Castle Road kiln, found late in the 19th century, seem to have been mixed with 'pick-ups' from the rest of the town. Many fabrics are included, none of them resembling the Hatterboard jug or the castle jug. Of the pieces said to have been made at the kiln, one is an early 19th-century jug from S. central France. Kiln wasters found in 1968 by P. Farmer are different again, being in smooth whitish fabric, occasionally with a pink surface. The good, hard pink-buff fabric usually described as Scarborough ware is present in York in quantity, as are also its orange and green glazes. Clearly we have a common York-Scarborough tradition; though one distinction that seems valid is the superior fineness and precision of the Scarborough strip work.

³¹ *Op. cit.* in note 21, fig. 15, no. 3.

³² These were kindly brought to our attention by Mr. M. Griffiths who is to publish them.

³³ The large vessels gave an opportunity to examine the imprints of the rouletting tool. We were able to recognize certain damaged teeth (FIG. 45, no. 10) and, from the repeat distance, measure the circumference of the wheel which proved to lie between 9 cm. and 10 cm. The range of available wheels seems to have been extensive with various tooth spacings, producing bands of impressed lines which may be either vertical or inclined to left or right (sometimes one or more used on a single vessel as on FIG. 45, no. 11), and varying in vertical height between 2.5 mm. and 12.5 mm. The spacing of the teeth on the tool as shown by the impressed markings ranged between six and twelve per 2.5 cm., with most of the possible permutations represented.

The commonest straight rouletting patterns were as follows:

ROULETTING		KILNS 1 AND 2		KILN 3	KILN 4
Height	Per 2.5 cm.	1965	1966	1966	1967
8 mm.	10	22.0%	22.5%		4.6%
5 mm.	10	8.0%	17.0%		14.6%
5 mm.	12	1.0%	19.0%		6.7%
2.5 mm.	10	2.2%	7.6%		3.2%

All other combinations have a frequency of less than 5%.

Variations on a chevron theme are particularly extensive, with the designs from 8 mm. to 20 mm. (40% of samples were 10 mm. to 12 mm.).

at York³⁴ as well as in East Anglia³⁵ and Lincolnshire.³⁶ It is the form found much later on a jug containing coins in Eccles (Lancs.)³⁷ (latest coin 1240-41) and is known in the W. midlands as late as the 15th century. A development is the simple wedge roulette (FIG. 45, no. 21), usually used upright in York, as it was in a mid 14th-century level at Cowick, and as it has been found at Brandsby. The numerous examples in and around York suggest that it, too, retained its popularity for a long time and was manufactured at a number of places.

The complex roulette is a much rarer form in England, and is known in two isolated pockets only, at opposite ends of the country. A curvilinear form was recognized at White Castle by J. G. Hurst³⁸ who thought it unlikely to be a direct derivation from simple rouletting, which itself continues until late in the middle ages. He was inclined to relate it to curvilinear rouletting on jugs at Roskilde (Denmark) and at Leeuwarden (Holland). This SW. pocket, it may be suggested, could have arisen from copying of material imported by sea to Bristol. Such a possibility is strengthened by the very strong link which it is hoped to show (below, p. 118 f.) between the northern Flemish (now Dutch)³⁹ area and that of central Yorkshire. At Winksley the complex wedge exists in at least seven forms (e.g. FIG. 45, nos. 14-18, 20), while others exist in York, and it was used in a few forms at Brandsby (PL. X, A). It is known nowhere else in England in the middle ages, though one kiln of Saxo-Norman date used it at Torksey.⁴⁰

This type of rouletting is likely to derive ultimately from the many such designs on Merovingian pottery. It is found in France in the early middle ages at such sites as the Meudon kiln (Brittany)⁴¹ and at Aranon (Gard). A 13th- or 14th-century glazed sherd from a pit in Calais and a jug from Paris⁴² show its continued development in France, while it was used in the Schinveld kilns of S. Limburg in the 13th and 14th centuries.⁴³ The Aardenburg material may be a direct derivation from Merovingian forms or an indirect development via N. France. It includes an immense variety of forms, both curvilinear and geometrical,⁴⁴ the latter very similar to the Winksley pots (PL. X, A-B). If this were the only link, it might be coincidental, but there are also raspberry stamps, thumbled strips, subsidiary handles in the form of human arms ending in stylized hands,⁴⁵ all common to both places. If we extend the comparison to central Yorkshire and the coastal strip between Holland and Calais generally, we can add the use of scale zones outlined with clay strips, the combination of raspberry and scallop

³⁴ E.g. *Yorks. Archaeol. J.*, XLII (1968), 166, nos. 20, 32-3.

³⁵ *Proc. Camb. Antiq. Soc.*, XLIX (1956), 55, no. 2.

³⁶ Kilns excavated by M. W. Barley.

³⁷ J. D. A. Thompson, *Inventory of British Coin Hoards* (London, 1956), pl. 2 (b).

³⁸ *Med. Archaeol.*, VI-VII (1962-3), 153-4.

³⁹ In the 13th and 14th centuries Aardenburg was in the county of Flanders near the Franco-Imperial frontier.

⁴⁰ Excavated by M. W. Barley, who kindly showed us the material.

⁴¹ J. de la Martinière, *Revue archéologique*, 4e sér., XXIV (1914), 67-93.

⁴² Illustrated by K. J. Barton in *Med. Archaeol.*, X (1966), 67, fig. 25, no. 36.

⁴³ A. Bruijn, *Berichten van de Rijksdienst voor het oudheidkundig Bodemonderzoek*, XII-XIII (1962-3), figs. 72, p. 430, and 75, p. 433.

⁴⁴ J. A. Trimpe Burger, *ibid.*, p. 516, fig. 26 (b).

⁴⁵ *Ibid.*, p. 513, fig. 22.

shell stamps,⁴⁶ applied clay flowers, and the occasional use of very pronounced basal thumbing. Knight-jugs, too, have been found at Aardenburg and at Bruges (FIG. 44).⁴⁷

If we turn for a moment to written evidence, there is no difficulty in establishing strong economic links between the coastal area with which we are concerned and central Yorkshire and not only in connexion with trade in wool or wine. For the vital period of the mid 13th century, when highly decorated pottery became common, written evidence is elusive. Early in the 14th century however it has been found that by far the most numerous of the foreign merchants paying quayage at Scarborough were the Flemings,⁴⁸ and this is hardly likely to be a development arising suddenly to coincide with the survival of customs accounts. In 1307-8 three-quarters of those paying customs were from the neighbourhood

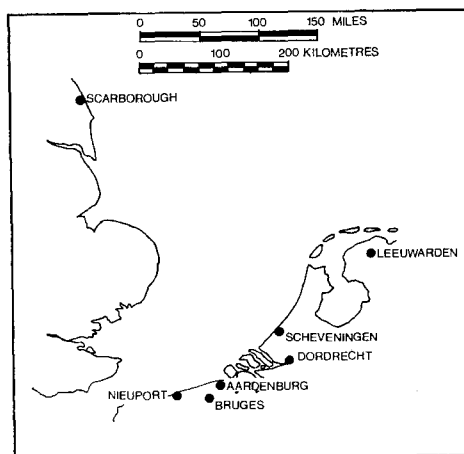


FIG. 44

Map showing ceramic connexions between Yorkshire and Low Countries (p. 118 f.)

of the Iser, and there were boats from Mariakerke, Blankenberge and Bruges, all in the area in which we are interested. Later in the century an unspecified number of pots was imported from Nieuwpoorte on the same coast.⁴⁹ Among mixed cargoes coming in from Scheveninge and Dordrecht pottery also figured,⁵⁰ and if the last is more likely to represent products of the large industries of the Rhineland with its different ceramic tradition, Scheveninge is not far from Leiden, where a knight-spout has been found (FIG. 44).⁵¹

Written evidence, then, shows that pottery travelled between the two areas, but it only shows pottery coming into the country. But in fact few of the return cargoes of the merchants concerned are listed,⁵² and English merchants did not

⁴⁶ R. Delmaire, 'Persistance des inhumations avec vases à Saint-Omer au XIV^e siècle', *Revue du Nord*, LI (1969), 350-2.

⁴⁷ *Op. cit.* in note 21, p. 42, fig. 13.

⁴⁸ B. Waites in *Trans. Scarborough and Dist. Archaeol. Soc.*, I, no. 17 (1964), 13.

⁴⁹ Public Record Office, E. 122/134/5.

⁵⁰ *Ibid.* They accompany 'walltiles'.

⁵¹ *Op. cit.* in note 21, p. 42, fig. 15, no. 2.

⁵² When exports do appear they are of fish or cereals.

pay this petty custom. There is no reason to suppose that they too were not occasionally involved in carrying these small cargoes.

Returning to the evidence of the pottery itself, there are nine possible English sherds among the 50,000 or so excavated at Aardenburg, of which one is probably from Toynton (Lincs.), the only English village for which there is positive evidence of the purchase of peasant pottery by merchants for resale.⁵³ Another is certainly from Grimston (Yorks.),⁵⁴ while a third might be from York or Scarborough. We know that pot travelled by other means than regular trade—as presents, as ships' equipment and as part of the paraphernalia of medieval travellers—but it looks as though we are dealing here with a two-way trade in the modern sense of the word. Complex rouletting as found at Winksley is not likely to be a native tradition because of its total absence elsewhere in the country. More probably it represents copying from one pottery to another by the means described above and illustrated in fig. 43, but the Toynton-type sherds certainly, and probably the knight-jugs at Aardenburg and Bruges also, may represent movement in the other direction, but of a kind not incorporated into the continental tradition, which is seldom interested in clay modelling in the round.⁵⁵

DATE

The archaeomagnetic date for Winksley is not very conclusive, even in relation to other Yorkshire kilns, but the test results would be more satisfactory if the industry could be related to the mid, rather than the later, 13th century.⁵⁶ But if this were so we should have the situation that highly decorated pottery was fully developed in NE. England earlier than in the midlands, which is generally regarded as improbable. On the other hand there is no doubt that in the 12th century the north-east was ceramically more advanced than the rest of the country apart from the extreme south, and that glazed Stamford ware, usually regarded as the focal point for development, was being made also in Yorkshire in the Saxo-Norman period. If later development in the county were to be regarded as a fusion between this strong northern tradition and direct influence from the continent, influence which is likely to have had a simultaneous effect through the ports of much of E. England, there would be no need to postulate late development in the north via the midlands.

The Winksley potters were already established early in the 13th century. The kilns lack such types as the 'kicked-up' handle already in full production at Cowick early in the 14th century, as well as the ubiquitous Skipton on Swale-type drinking-pots of the 14th and 15th centuries. The waster material overlaps only slightly with that of Brandsby, which must have been in production for a full century or more, and where highly decorated pottery continues throughout. The Winksley kiln would fit best, stylistically, into the series of excavated kilns in the county if a mid 13th-century date for it is acceptable.

⁵³ *Med. Archaeol.*, xii (1968), 199, and Lincoln Record Office, Anc. I, 18/1.

⁵⁴ G. C. Dunning, *Berichten van de Rijksdienst voor het oudheidkundig Bodemonderzoek*, xv-xvi (1965-6), 202, fig. 3.

⁵⁵ There are obvious exceptions, not only in the Netherlands but also in SW. France.

⁵⁶ If a later date than c. 1250 is to be envisaged, kiln 1 would be of earlier date than kiln 2 which it overlay.

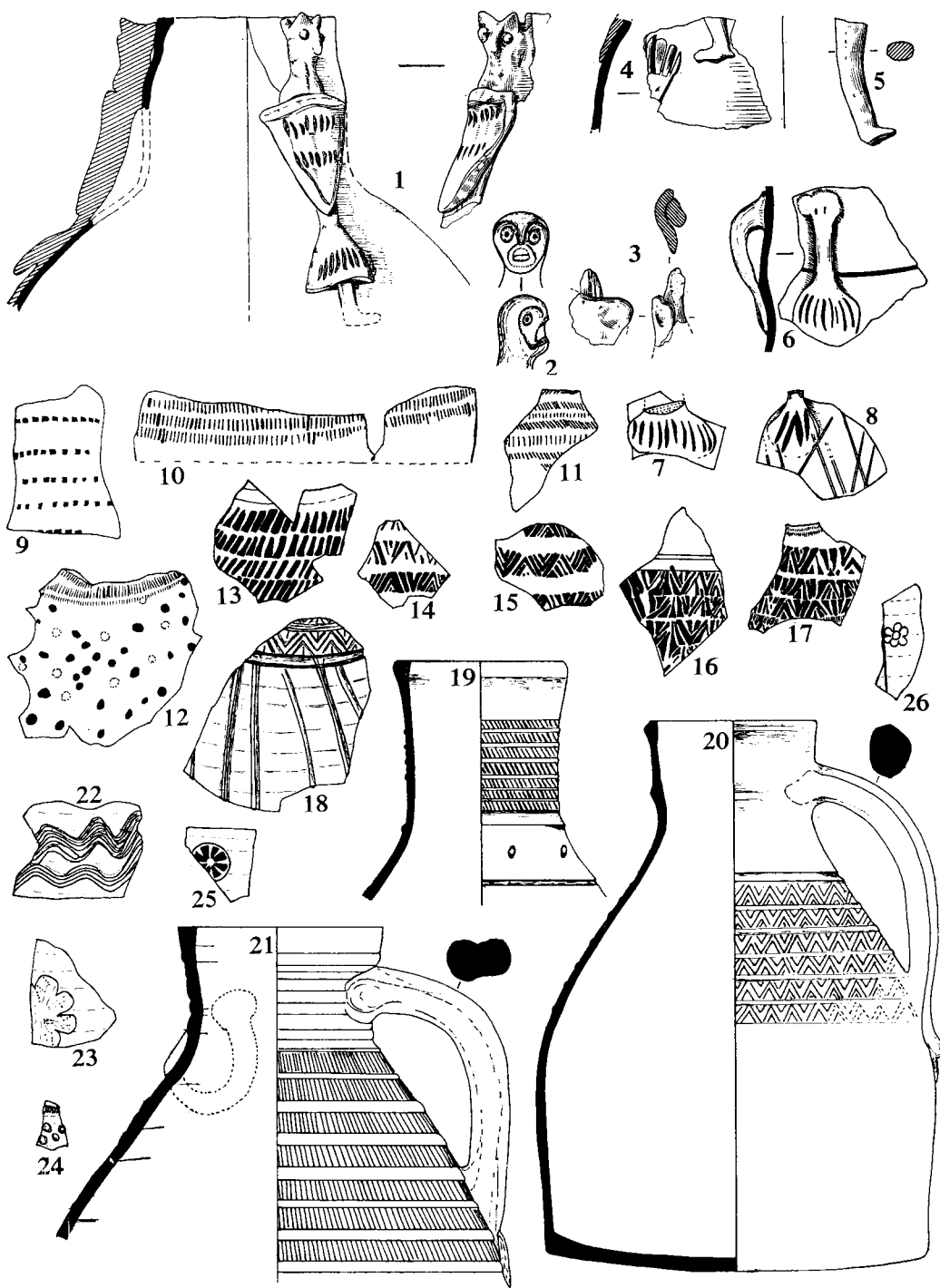


FIG. 45
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery (pp. 111 ff.). Sc. $\frac{1}{4}$

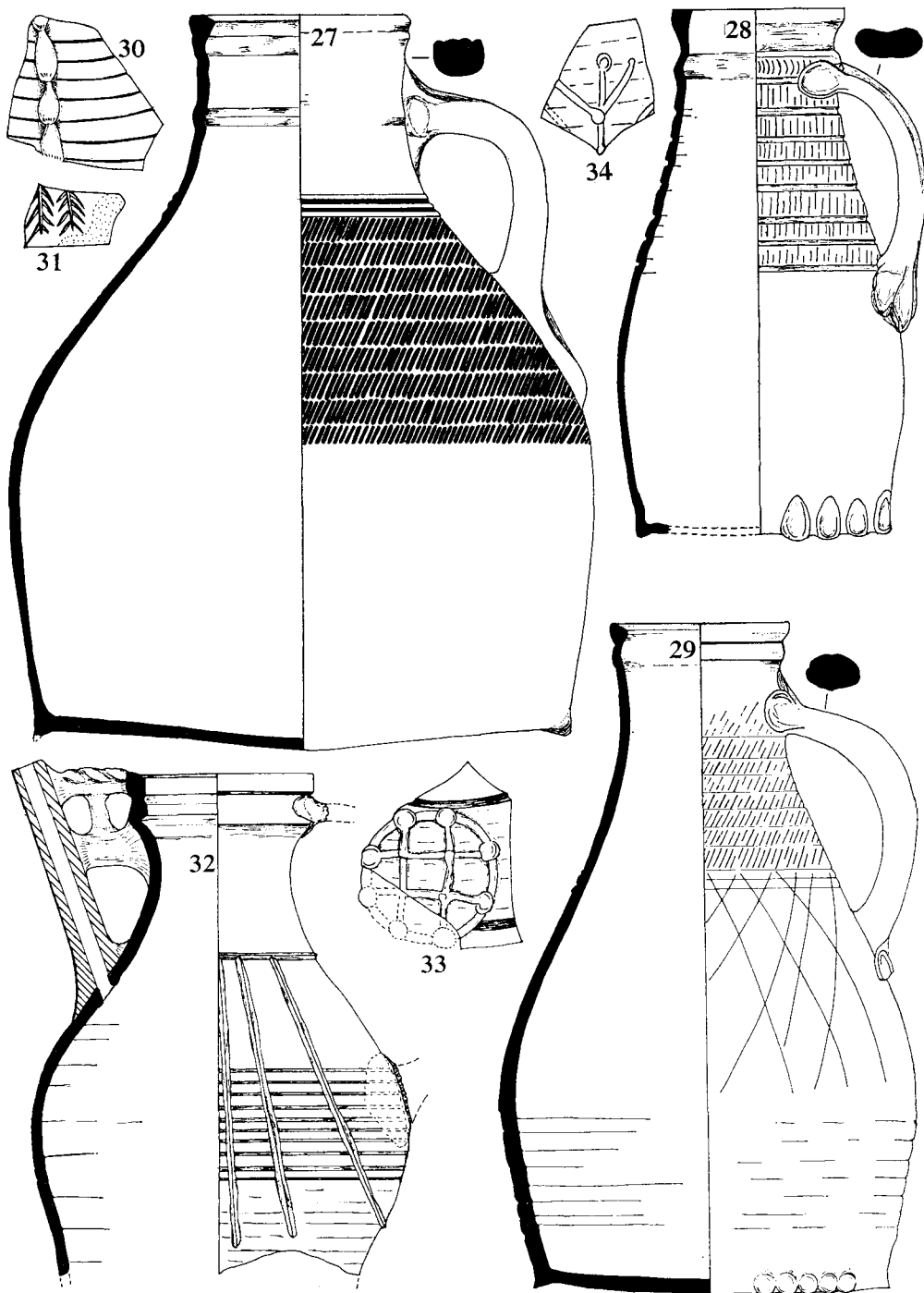


FIG. 46
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery (pp. 111 ff.). Sc. $\frac{1}{4}$

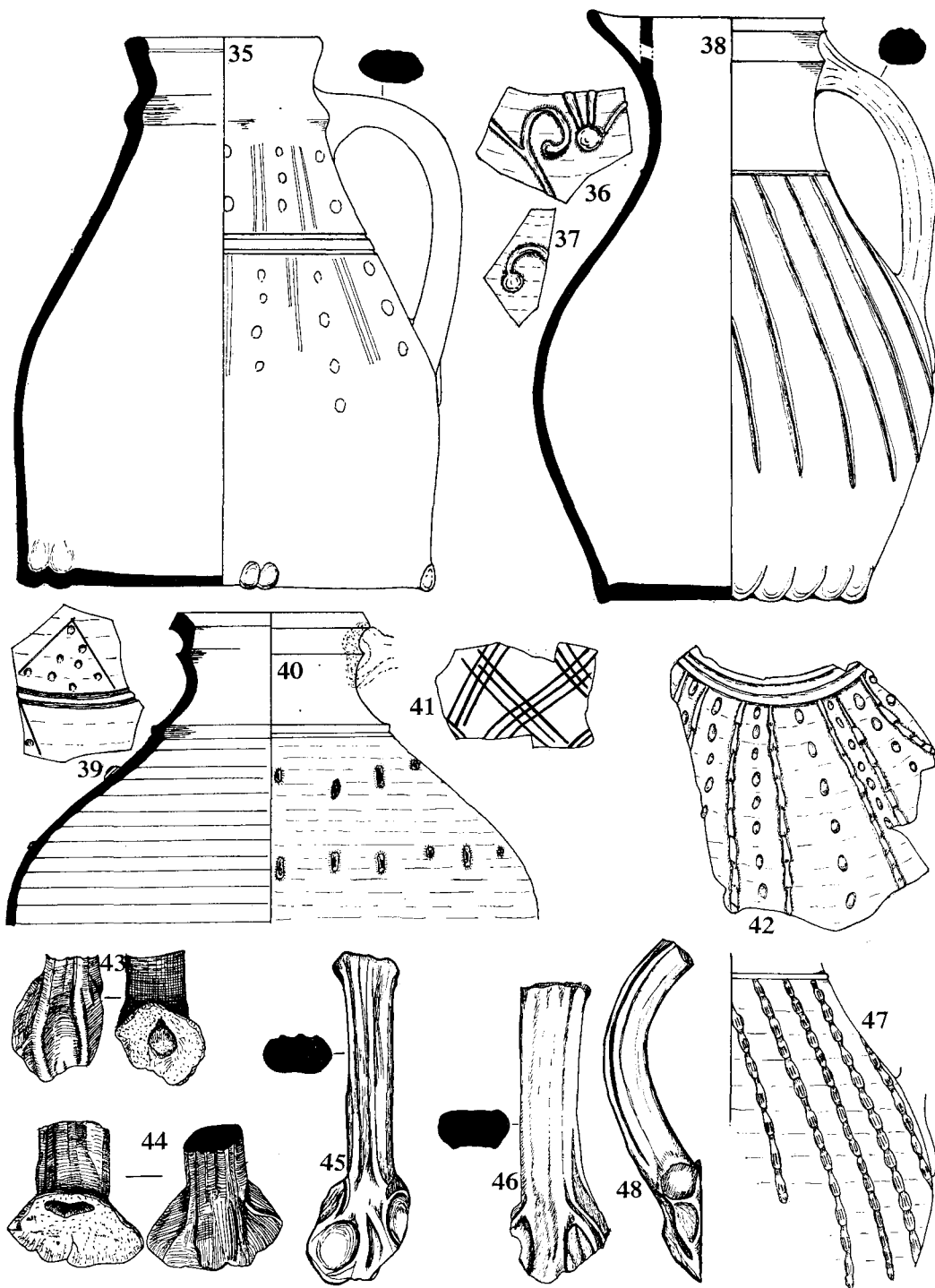


FIG. 47
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery (pp. 111 ff.). Sc. $\frac{1}{4}$

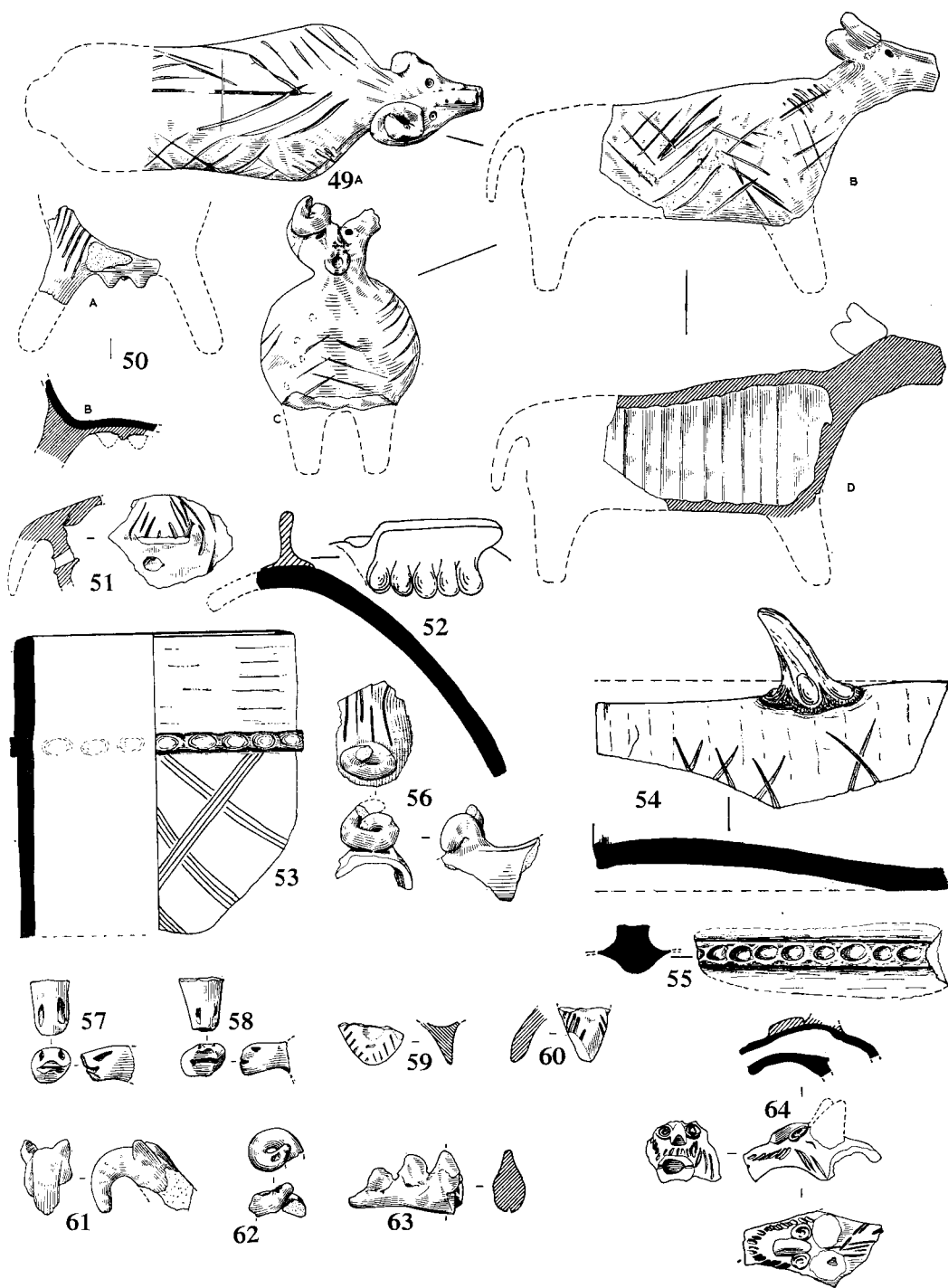


FIG. 48
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery and roof furniture (pp. 111 ff.). Sc. $\frac{1}{4}$

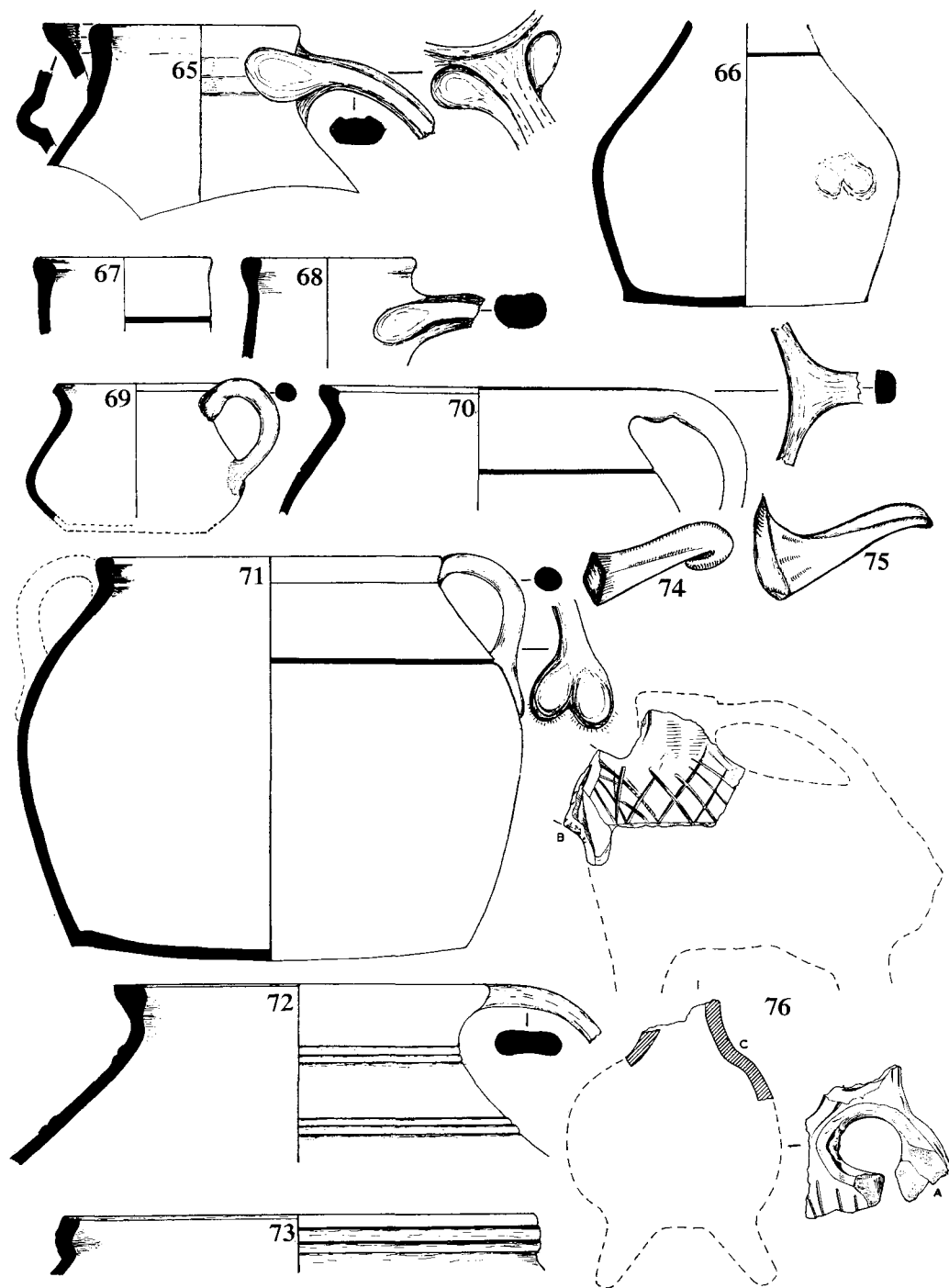


FIG. 49
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery (pp. 111 ff.). Sc. $\frac{1}{4}$

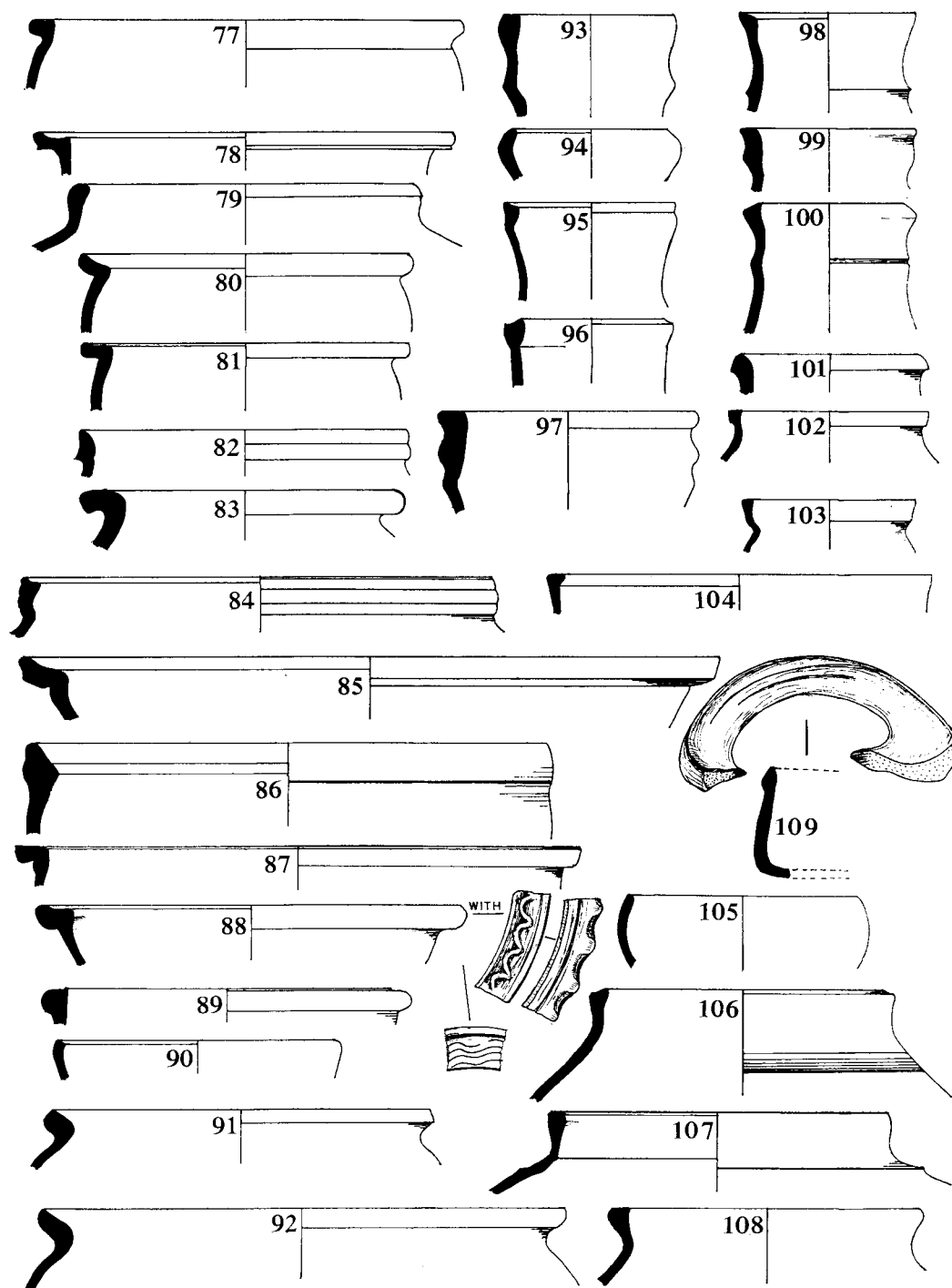


FIG. 50
 WOODHOUSE FARM, WINKSLEY, W.R. YORKSHIRE
 Pottery (pp. 111 ff.). Sc. $\frac{1}{4}$