

## THE EXCAVATION OF A MEDIEVAL KILN AT BARNETT'S MEAD, RINGMER, EAST SUSSEX

by J. I. Hadfield

*Ringmer had a large pottery industry in the medieval period and when the opportunity arose, it was decided one of the known kilns, revealed by plough damage, should be excavated. The whole range of pottery was analysed using a simple sampling procedure. The kiln itself was Musty Type 2a with a semi-permanent wattle and daub dome. Attempts have been made to establish a market area but identification of this type of ware outside a full-time programme devoted to the problem cannot be conclusive. What may however be more important is the date, earlier than was at first thought.*

### INTRODUCTION

Ringmer lies across the narrow band of Gault Clay just north of the South Downs. The Gault is bounded both north and south by Greensand. There is good historical evidence for potters in the Broyle, the common east of the village, but none for potters in the village. At least two other kilns roughly contemporary with this one are however known. From 1312 there was a fine of 9d. a year to dig clay (Le Patourel 1968) which shows that in 1349 there were six potters, in 1388 there were three and in 1396 only one. After this the number remains at six or seven until 1457 when there were none until 1485. It is unusual in being the only place where the fine for extracting clay remained static for at least 200 years. (Le Patourel 1968, 115).

In the area there are many field and house names bearing the elements Crock- or Potter-. Whether these testify to a pottery industry, and of course its date, is not certain but certainly some of the fields do contain wasters. (Le Patourel 1968, 102–3). The nearest town is Lewes, about 3 km away and from there the villages of Denton, Rodmell and so forth in the Ouse valley, including perhaps Seaford, are within easy reach.

The clay is exceptionally plastic in this area and something has to be added to shorten it. Temperatures of 1000°C may have been reached by the kiln (Mr. K. Richardson, pers. comm.).

### EXCAVATION (Fig. 1)

Much of the area around Ringmer is covered with wasters and the field, in which this kiln lies, is no exception. The kiln was isolated first by field walking and then with a proton magnetometer survey undertaken by Mr. A. Clark of the Ancient Monuments Laboratory. A trench 5 m by 4 m was opened up directly above the kiln. All the soil was removed by hand, and all the pottery was kept, revealing a very damaged kiln structure (Fig. 2). The kiln was of Musty's Type 2a (Musty 1974) with no internal structure. The kiln wall (Context 50) survived some 20 cm in height in places although it was frequently less than 10 cm. The floor (Context 59) was highly fired clay; at the northern end tiles were found in the clay, these were either used specifically at the flue entrance or right through the whole kiln. At each end were two chimney

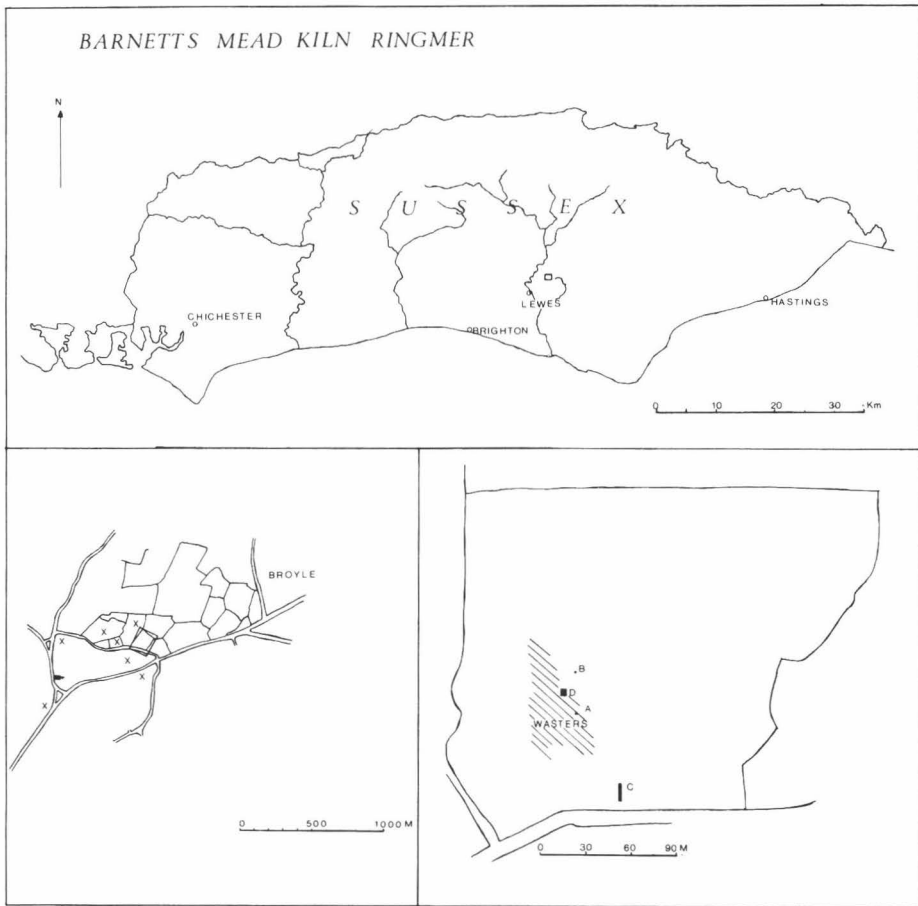


Fig. 1. Ringmer. Site Location. (X marks places where large quantities of pot have been found, possibly being kiln sites, and areas associated with the word pot.

pots. These formed part of the stoke pit arch, being used to give more strength to the structure. Fragments of tile were also found in the wall. The whole was filled with broken burnt clay (Context 51) which retained impressions of wattle, this was presumably the superstructure.

At either end was a heap of ashes (Contexts 55 and 56). The Kiln measured 2 m by 1 m. C-14 samples were taken from the ash heaps.

#### *Other Features*

The main features associated with the kiln were the waster heaps. One being at the south (Context 18), the other at the north (Context 37) end of the kiln. The latter is more disturbed and it looks as if part of the feature has been pushed into the hollow, that must have existed, in order to level off the area (e.g. Context 38) (Fig. 3).

Two shallow gulleys were also found (Contexts 27 and 33) north-west of the kiln. Their function and date is not clear, except that they may well be contemporary with the kiln as they end close to the top of the clay bank behind the kiln.

The latest feature on the site (Contexts 15 and 29) is a large pit dug through the waster heap

# BARNETTS MEAD KILN RINGMER

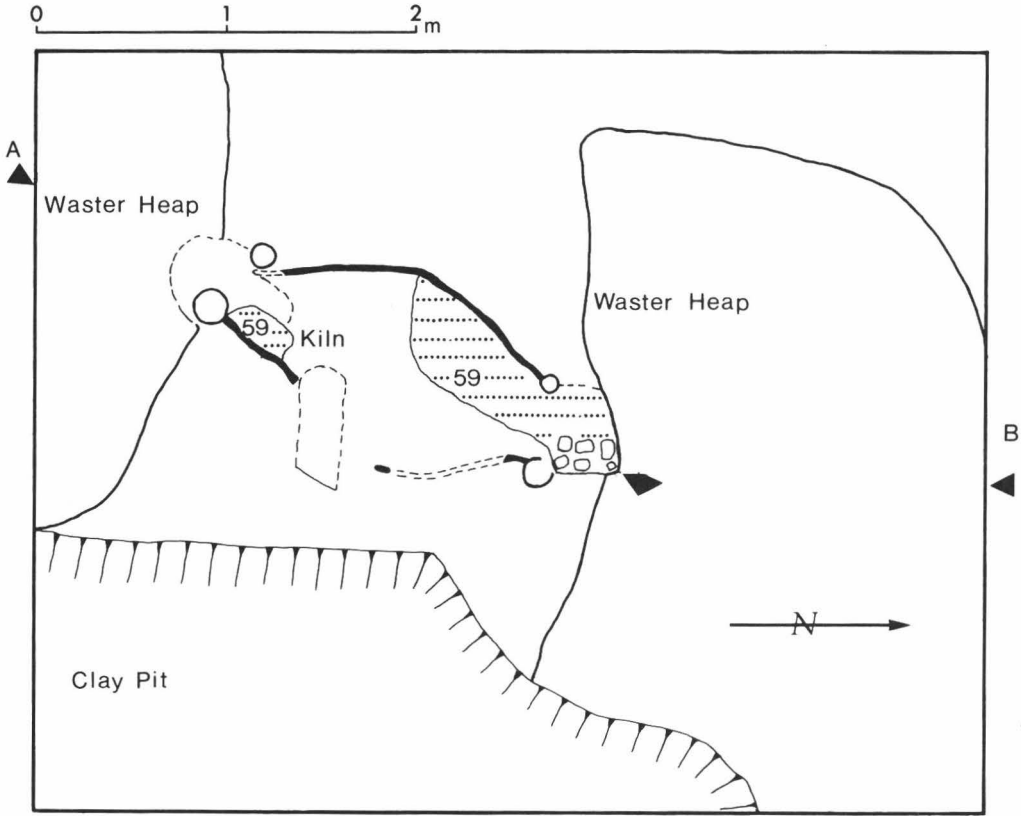


Fig. 2. Ringmer. Plan.

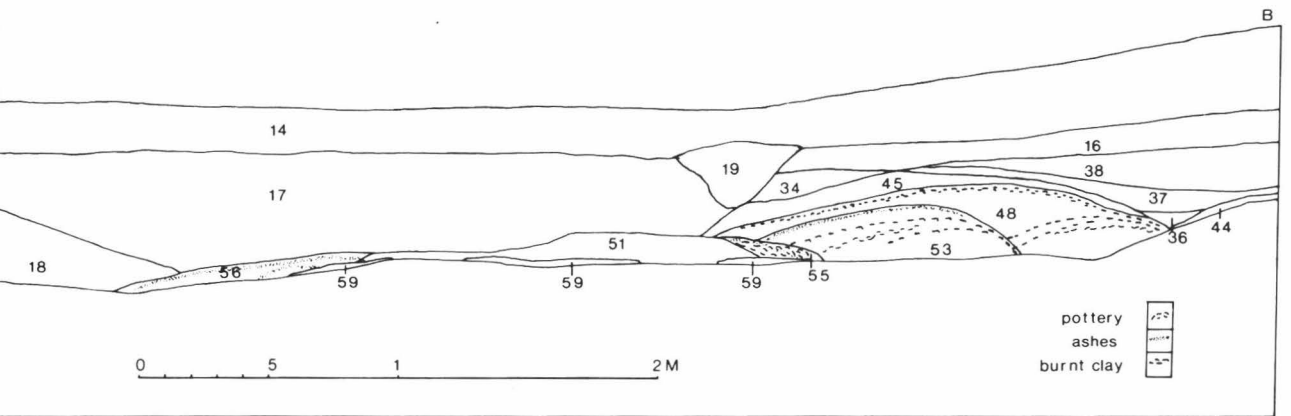


Fig. 3. Ringmer. Section, N-S.

(Context 18) and other post-kiln layers (Context 41, 42, 43). This appears to be a clay pit of later, probably eighteenth century date, which extends further east into Trenches A, B and C. It contained an eighteenth-century coin.

## THE PRODUCT

### *Method*

Very little of the pottery survived in any appreciable size; there were no complete vessels, and the coarse nature of the ware produced made classification into types such as jugs, bowls etc. difficult and dangerous. So, after division into three fabric types, the wares were identified with regard to rim form as a geometrical shape. This is to say, square sections, triangular and so forth, using a decimal system (Freke *et al.* 1979). The shapes are listed below:

1. Rectangular
2. Simple inverted rims
3. Inclined
4. Flanged
5. Square
6. Vertical sided
7. Triangular
8. Miscellaneous

When completed some of the forms could be extracted as they formed a small sub-group which might normally be called jugs, bowls etc. These were given numbers in the series as follows:

9. Bowls (flanged) including skillets
10. Jugs (square)
11. Jugs (triangular)

The bases were dealt with similarly but are much simpler in form; Type 1 being thumbled, Type 2 being plain. There are internal variations within these groups.

All the body sherds were counted and weighed if they were decorated, and decorative types noted. Due to the small quantity of such sherds the sample came from all the material found, whereas for rims and bases only five contexts were sampled. Again all the handles were examined for form, decoration and size. The body sherds were weighed and only those in the sample layers were counted. The sample was made in 5% units of the total number excavated in that layer. The number of new forms was recorded and the sample repeated until only one or less new forms was recorded. This saved considerable time and on average some 20–25% of each layer was examined. Faults were recorded where identifiable in every sample.

### *Sampled Contexts:*

16. Black, loamy layer, very friable. This layer lies directly beneath plough soil and covers the northern part of the site.
18. Dark black clayey layer, becoming ashier towards the east. It is filled with pottery and burnt clay and is undoubtedly a waster heap.
19. Light brown, loamy layer containing a large quantity of pottery. This layer lies beneath the plough soil, but is probably much later than the kiln as it overlies several post-kiln layers. The section gives the impression of a pit of some sort.
37. Dark brown loamy clay, friable with much pot. A waster tip.

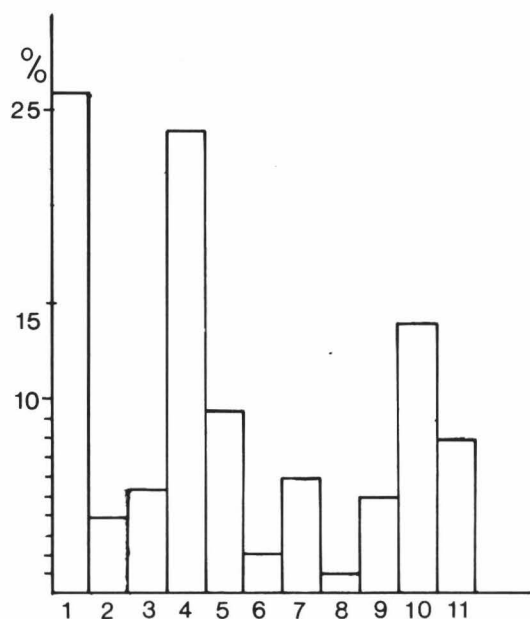


Fig. 4. Ringmer. Proportion of rim forms.

38. Black silty clay-loam, friable with much burnt clay. It is possibly the waster heap from further north which has been levelled off.

## FORMS

### *Rims*

The proportion of forms within each context is close (Fig. 4) and may be considered to show that the kiln was loaded with roughly similar wares. The only exception to this is Context 18, which has fewer rare forms, but this may reflect the smaller quantity available for sampling. The most common form is the cooking pot (Form 1), the least common, except for the miscellaneous types, is the jug form (Form 6). This is true both by number of rim fragments and by vessel equivalent percentage.

### *Form Variability*

Each form may vary as to its radius and differences in shape. It is possible that these two may be related, but in no case here can this be proven. Fabric may also play a role in nature of a vessel's shape and size, for fabric may well be determined by function.

### *Form 1. (Cooking pots) Fig. 5*

This group constitutes about 25% of the rims found and sampled. The majority of this number are between 16 cm and 18 cm in diameter and confined to Form 1.11-1.21. The rest are predominantly this size, although a group, 1.71-1.74, is perhaps slightly larger. Six are strapped, as much a functional device as decorative (while only three others are decorated), only two being on pots less than 20 cm in diameter. The few examples in Fabric 1 are all



Fig. 5. Ringmer. Rim Forms.

concentrated in the 1.11–1.21 group and spread into a much smaller diameter, as low as 12 cm. There are 12 in Fabric 1 and 15 in Fabric 3.

*Form 2. (Small cooking pots) Fig. 5*

This group forms only 4% of the sampled group. The F.1 examples are all of type 2.11 and very small in diameter (8–12 cm) possibly being table ware, while the rest again centre on the 16–18 cm range, except for one type, 2.12, which is mainly 24 cm in diameter. All undecorated.

*Form 5. (Cooking pots) Fig. 5*

This group forms about 9% of the sample. It is generally made up of larger vessels from 18–24 cm in diameter, mainly at the larger end of that scale. There are two F.1 vessels, both falling into the range above, and one F.3 vessel. Of the four decorated vessels, one is strapped, two are thumbed and one is slipped.

*Form 7. (Cooking pots) Fig. 5*

This group forms about 6% of the total sample. It is concentrated in the 16–22 cm diameter range with only a few outliers. One of these is as much as 36 cm in diameter. There are two F.1 and one F.3 vessels. Only two decorated examples are recorded, one of thumbing, the other a slip.

*Form 4. (Cooking pots with flanged rims for lids) Fig. 6*

This is a more specialized form of pot, easily recognized by the flange for a lid to sit on and the convex body. It forms 19% of the sample. While the majority are in the 16–26 cm diameter range, some types do seem to be specialised in one or other end of this range. For example 4.11 is mainly 16–20 cm with a small group constricted to 26 cm. 4.51, 4.12 and 4.61 are mainly, if not entirely, below 22 cm; 4.71, 4.41, 4.31 and 4.32 are at the higher end. There are seven vessels of F.1 and one in F.3. The decoration is mainly thumb impressions.

It may be remarked that as a group these are mainly in the Fabric 2, with the exception of Type 1. In Type 1 there is a cluster of F.1 and 3 vessels around the 12–20 cm area in types 1.11–1.21. The significance of this is not readily apparent, but it may be a group with a specialized function.

*Form 3. (Bowls) Fig. 6*

All these forms are based on the inclined body wall, making the mouth larger than the base and, being shallow, bowls of some description. They constitute some 5.5% of the sample, they vary widely in size between 12–40 cm and are fairly evenly spread within this range. Most forms have only one or two representatives and so are very variable, as is the decoration. All fabrics are represented.

*Form 9. (Bowls with flanged lid seating) Fig. 6*

These are similar to Form 3, except they have flanged rims for a lid. They comprise about 5% of the sample. Most of the examples are concentrated in Type 9.11 and within 14–22 cm diameter range. There is one in Fabric 1.

*Form 6. (Jugs) Fig. 7*

This group forms about 2% of the total sample and, although the few examples make it

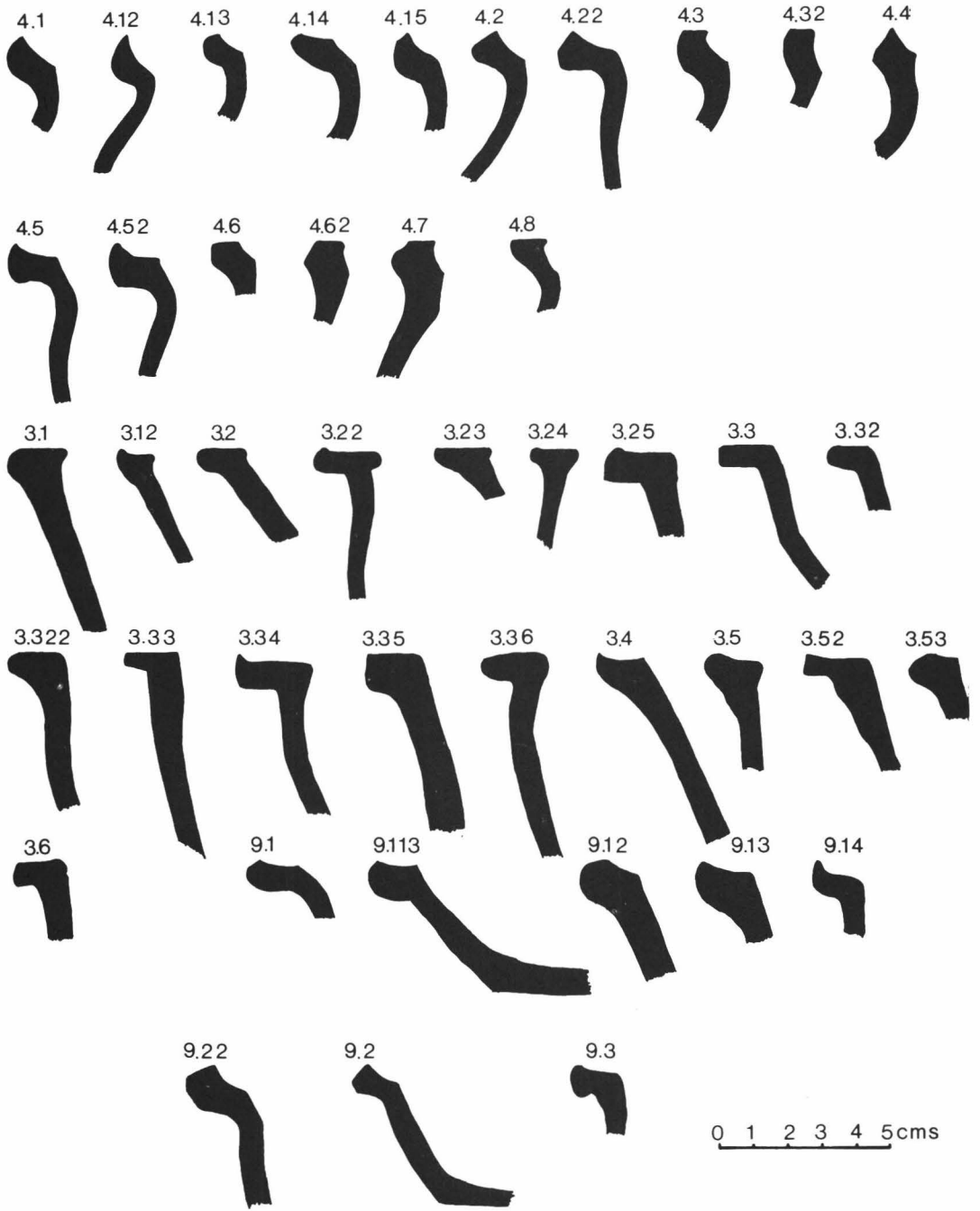


Fig. 6. Ringmer. Rim Forms.



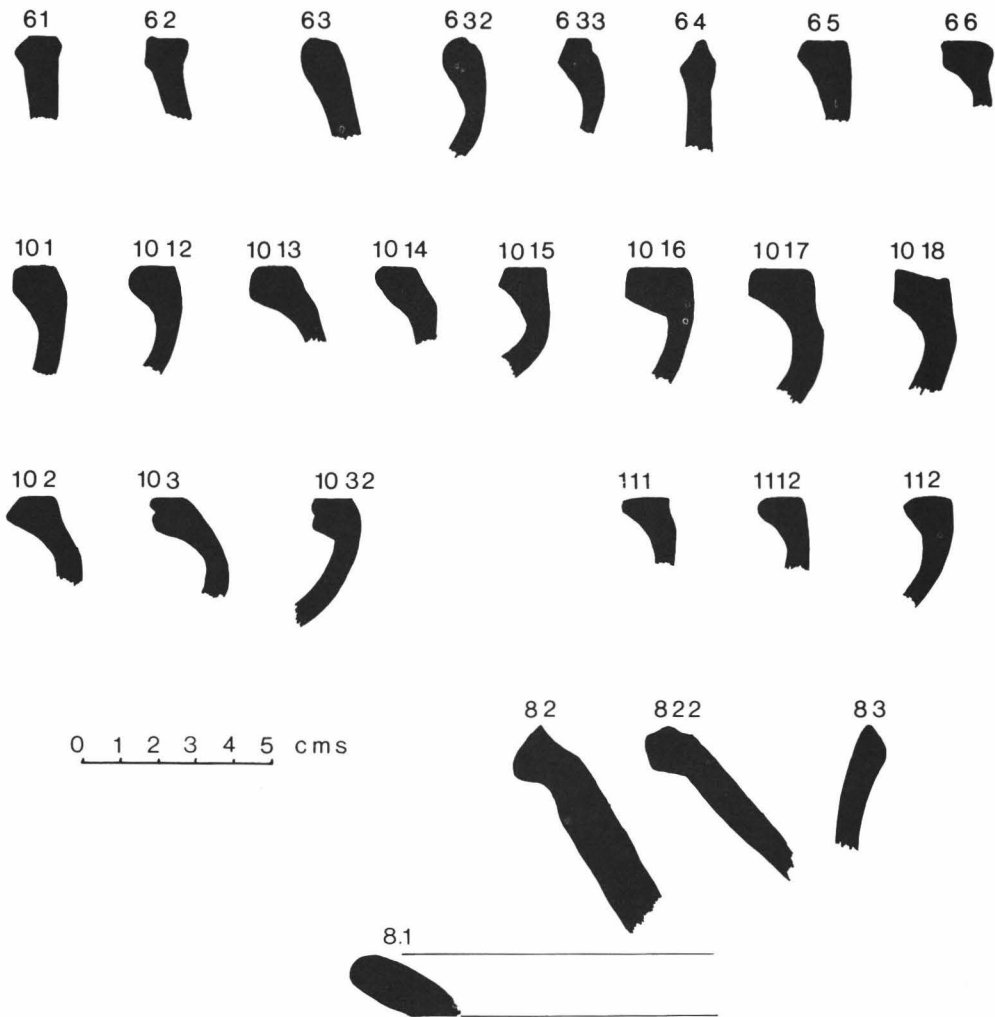


Fig. 7. Ringmer. Rim Forms.

dangerous to speculate, it seems that the majority are 16 cm or smaller in diameter. The two F.1 are 8 and 10 cm respectively, making it possible that they are a specialized table ware.

*Form 10. (Jugs) Fig. 7*

This type is the largest group of jugs, making up 14% of the total sample, that is more than the other two groups combined. The Fabric 1 types are all, except in two cases, 18 cm in diameter. In fact this diameter is the predominant one for the entire type, 37% being of that size. The rest lie close to this measurement and mainly confined to Types 10.11-10.15.

*Form 11. (Jugs) Fig. 7*

This type forms 8% of the sample. The majority are of 16-18 cm in diameter with a smaller group at the 24 cm mark. All except two are confined to two types, 11.11 and 11.12, including the F.1 and 3 vessels. None of these is decorated.

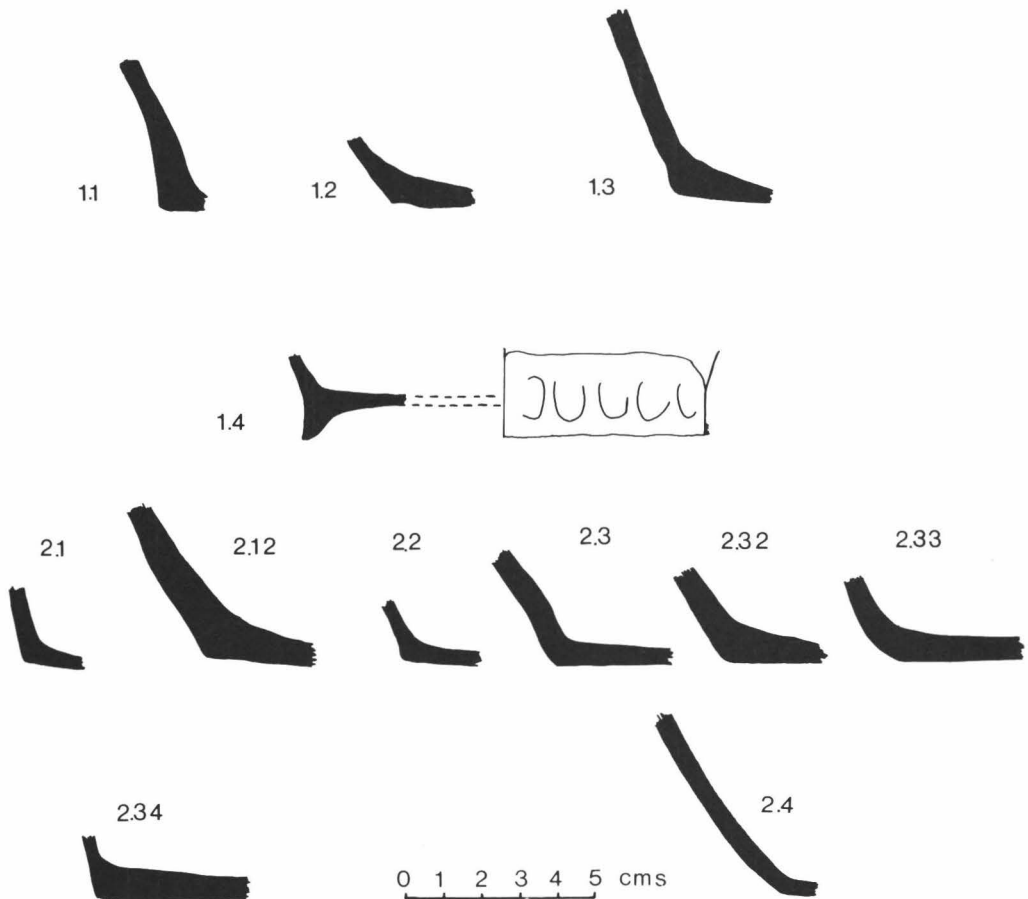


Fig. 8. Ringmer. Base Forms.

*Form 8. Fig. 7*

Comprising less than 1% of the total, this group is difficult to deal with statistically. 8.1 is probably a lid, 16 cm in diameter and in F.2; 8.2 is a very crude form, 40 cm in diameter in F.2; 8.22 is similar but smaller (22 cm in diameter) and more finely made, it too is in F.2. 8.3 is quite finely made and small. There are two examples, one in F.2 12 cm in diameter, the other in F.3 and 10 cm in diameter. It is an almost globular pot, perhaps for table use.

*Bases*

Four hundred and eighty-eight fragments of base were found and all were examined. They were divided into two main groups; B.1 being those that are thumbed and B.2 those that are not. A list below gives the sub-groups and their distinguishing features (Fig. 8).

- B.1.1 Almost vertical body, flat base with pronounced thumbing.
- 1.2 Rounded body and base with fairly pronounced thumbing.
- 1.3 Almost vertical body, curved base, thumbing small.
- 1.4 Almost vertical body, thumbed pedestal base.

- B.2.1 Sagging base, vertical body.
- 2.12 Sagging base, angular external corner and rounded internal corner.
- 2.2 Similar to B.2.12 but has a small beaded ridge on the external corner.
- 2.3 Flat base with body which curves in slightly towards base.
- 2.32 Flat base with angular external corner.
- 2.33 Flat base with rounded corners leading to almost vertical wall.
- 2.34 Flat, thick base with angular, thin wall.
- 2.4 Flat base with rounded body.

As Fig. 8 shows, most of the base fragments belong to Form B.2.12. This form is almost exclusively made in F.2 (except a very small proportion of the F.3 sherds are in this form). They account for 56% of the bases while the next highest group, B.2.1, is only 14% of the group. There was only one decorated fragment in the entire type and so it does not seem too unreasonable to assume this was a general purpose type. The smallest is only 8 cm in diameter, while the largest is 28 cm. The bulk of them lie in the 14–24 cm range.

Form B.2.1 can be divided into two groups. Those in the 22–24 cm range and those in the 16–20 cm range. The latter are predominantly F.1. This type is a form which is quite frequently decorated in comparison with others, including two glazed fragments.

The next most common form is B.2.2, forming 10%, once again predominantly F.2 and divisible into two groups. This time the larger group, 20–22 cm, is F.1 while the smaller, 12–18 cm, is F.2. The only case of decoration is strapping but it would be dangerous to say what this smaller group was for.

Type B.2.32, 9%, is mainly confined to the 14–22 cm range with the few F.1 and 3 forms in the smaller end. There is no evidence for decoration.

B.2.4 is almost exclusively confined to Contexts 37 and 38, the only sign that there may be the wasters from at least two separate firings. It forms 5% of the base sherds, is all in F.3 and covers a broad range from 12–28 cm in diameter.

The most common of the thumbled types is B.1.1, 2%, for which there is one decorated example, a glazed sherd. In the 12–16 cm range they are all F.1 and in the 24–28 cm range they are F.2. Next comes B.1.2, 1.5%, which are thinly scattered in the general 14–24 cm range.

B.2.3 is exclusively in F.2 and in the 16–24 cm range.

As there are so few of the other types, it is difficult to say anything about their size, decoration and fabric. It might perhaps be important that, apart from all being medium sized, two (B.2.33 and 34) are in F.2, while the other (B.1.4) is in F.1.

In general it is impossible to suggest uses for the various forms, except that the thumbled types are probably jug bases. Most of the F.1 sherds are in the 14–20 cm range; those in F.3 are in the 16–18 cm range; the F.2 are spread over the 14–28 cm range fairly evenly. This may be of no significance.

### *Handles*

One hundred handles were found and all of them examined. They were divided into fabric, type, width and decoration. The basic types are listed below with a brief description:

- H.1a Straight, pulled handle.
  - 1b Curved, pulled handle.
  - 1c Curved, pulled handle with hook.
- H.2a Solid, cylindrical handle. Wheel turned.
  - 2b Hollow, cylindrical handle. Wheel turned.

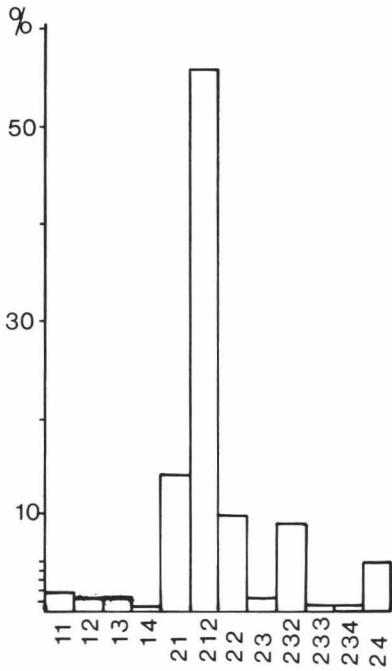


Fig. 9. Ringmer. Proportion of Base Forms.

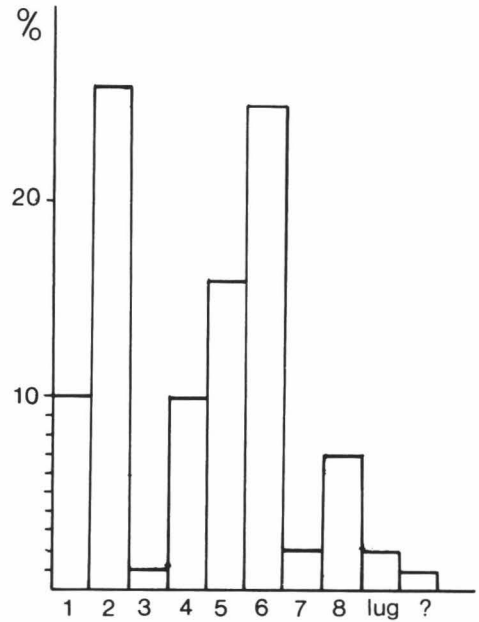


Fig. 10. Ringmer. Proportion of Handle Types.

- H.3 Rod section.
- H.4 Oval section.
- H.5 Simple strap.
- H.6 Grooved strap.
- H.7 Sub-rectangular handle, rectangular section.
- H.8 Strap handle with hole at base of strap.

#### *Proportion of forms*

As Fig. 10 shows, the majority of the handles are either skillet handles (H.1 and 2) or grooved strap handles for jugs (H.6). The latter, when combined with H.5, probably represent the coarser jugs for there are few of these types in either Fabrics 1 or 3. The slightly smaller H.4 handles are evenly split between F.1 and 2 and may represent the better quality jugs. This is borne out by comparing handle width and type. H.4 is consistently thinner than either H.5 or 6, except for a small group in H.6. So far as decoration goes within this group, there is very little difference except that more H.4 handles are undecorated. A closer analysis of the H.6 handles showed there was very little relation between width and decoration. Wider handles were more likely to be stabbed or slashed, thumbing was indiscriminate, while glazing was too rare to be meaningful (only two cases) (Fig. 11).

Barton has suggested that hollowed forms of H.2 handle are to be mainly associated with the Hastings Kiln, but may be also of Ringmer origin. Certainly this suggestion (Barton 1979) is confirmed here. Ten of the identifiable handles are hollowed, three are tubular, two are indented and only one is solid. All of them are in F.2 and none is decorated. They are all

		type							
		1	2	3	4	5	6	7	8
c m s	exp							2	
	5.0					1			2
	4.5				1	1	2		2
	4.0	1	4			3	9		2
	3.5		5			4			1
	3.0		13		4	6	4		
	2.5	4			4		3		
	2.0	3			1				
	?	1	4	1		1	7		

Fig. 11. Ringmer. Handle Width against Type.

between 3 and 4 cm in width. Type H.1 are smaller, being either 2 or 2.5 cm in width. One is F.2 and two are F.3. One of them is splash glazed. Together these two types are to be considered as pipkin and skillet handles.

Of the remainder, type H.8 is the most significant. These handles, being largely grooved with one exception, have at their bases a round hole. This identifies them as 'couvre de feu', or fire covers, as found at Hangleton (Hurst 1963) and elsewhere. Seven handles were found, one in F.1, and all were stabbed, slashed or incised. The handles are also wide, from 4.0 to 5.0 cm, indeed the widest on the site. H.7 is an interesting type being fairly solid and with an expanding handle as much as 7.0 cm wide at the top. Its use is not clear. There is only one example of H.3 and because it was found in the plough soil, the manufacture of both rod and strap handles at the same time here should not be taken as proven. However, the fabric is that identified as F.2. It is also the only pricked handle.

It may be observed that where decoration appears to be related to handle type (H.4-8) it is primarily a function in that it allows the handle to be fired properly. Width and handle type may be related as to the type of jug they are fixed to.

### *Chimney Pots (Table 1)*

There was very little in the way of roof furniture and other non-domestic wares and the most significant group was a collection of complete and almost complete chimney pots from the four corners of the kiln, as well as other fragments in other contexts. Apart from those found in the kiln some 3,270 g of chimney pot were found, a total of 46 pieces. Most were plain, eleven were decorated. Of these one was a body sherd with thick strapping and the others were parts of the top of the chimney. The thickness of the walls at this point necessitated stabbing (five examples), slashing (two), and pricking (three). There is quite a variety of different marks but from the one complete example it does seem that one mark was used on each pot rather than a combination; this would give a total of seven pots excluding those in the structure.

Six had serious cracks in the body which may well be the result of differential drying and firing, a major hazard with objects such as these. Of the four found in the kiln only one had any

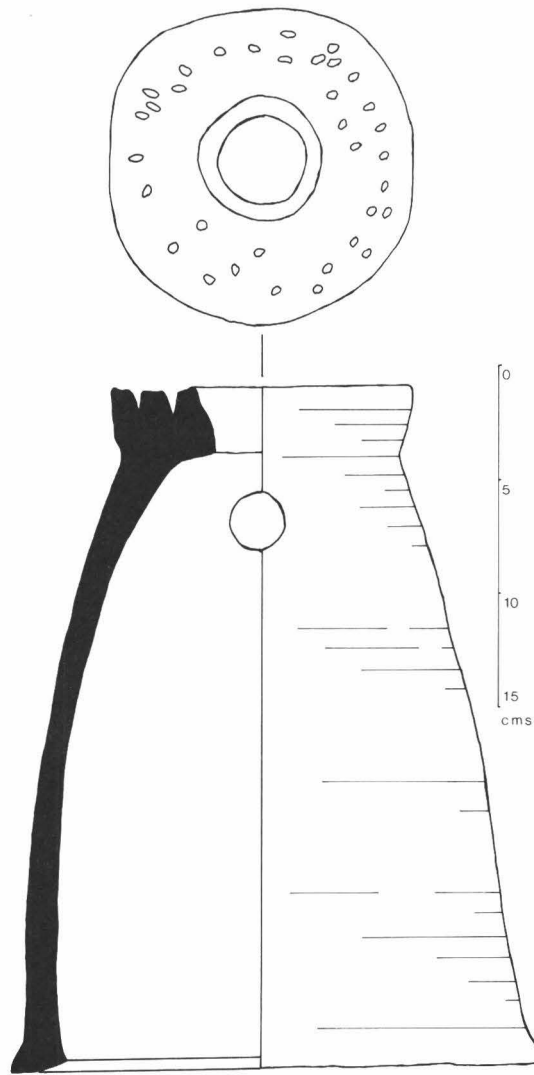


Fig. 12. Ringmer. Chimney Pot.

obvious fault and that was the south-east chimney which was distorted. Four of the sherds (south-west pot, Fig. 12) were stabbed and two were stabbed with a triangular ended stick (north-west).

The table shows the diameter of the base and the top if there, the height and weight of each example. There is a definite uniformity amongst all these examples and the total number must show that they are common in this area and perhaps date to the late thirteenth century (Dunning 1961). They conform to Dunning's types in that paper. The fabric is sandy with flint grits mainly in the 0.5 mm range.

TABLE 1

<i>Position</i>	<i>Base Diameter</i>	<i>Rim Diameter</i>	<i>Height</i>	<i>Weight</i>
South-east	23 cm	16 cm?	—	2,900 gm
North-east	22 cm	?	—	1,450 gm
North-west	22 cm	14 cm	27 cm	2,850 gm
South-west	23 cm	14 cm	30 cm	4,350 gm

## DECORATION

There were 654 decorated body sherds and, as they were generally distributed through all the sample contexts, they are treated as one group here. Sixteen different forms of decoration were noted, four of which do not appear on body sherds. Seven were found in combinations of different decorative motifs. The most common is strapping, which occurs mainly on F.2 wares, accounting for 55.7% of the decorated material. Strapping was occasionally combined with regular incised lines, 0.2%, and grooving and thumb-printing, 0.2%. In these cases they only occur on F.2.

The next most common type was glazing, 9.6%, occurring mainly on F.1 sherds. This was combined with combing in 1.5% cases. Next come regular incised lines, and combing which each account for 6.6%; the latter is exclusively on F.2. Grooving, 6.0%, is combined with combing sometimes, 0.2%, and this combination occurs on F.3 only; when combined with thumbing, 5.2%, it is mainly on F.3. With a splash glaze, combing is only to be found on F.1 wares, 0.2%. Splash glazing, 4.9%, occurs on all fabrics except with combing. Thumbing is to be found on F.2 wares, 1.7%, except when with regular incised lines, 0.2%, when it is only to be found with F.1 pottery. Herring-bone patterns, 0.5%, are only on F.2, as is irregular scratching, 0.2%, and trimming marks, 0.5%; slipping of the inside is confined to F.1, 0.5%, and the outside to F.1 and 3, 0.8%.

## FAULTS (Table 2)

The same range and means of identification of faults was used as in the analysis of the Lower Parrock Kiln (Freke 1979). The table below shows that the greatest problem was with cracking, probably the result of pots drying unevenly. The large number of glaze faults compared with the number actually found glazed shows that this technique was perhaps not really mastered, although some of the faults are quite minimal and may not have prohibited the sale of the vessel.

TABLE 2  
Faults by percentage

<i>Fault</i>	<i>%</i>
Overfired	3.7
Cracks	58.9
Underfired	5.6
Glaze faults	6.5
Failed joints	1.9
Distortion	14.0
Foreign bodies in fabric	9.4

### DISTRIBUTION

As the Ringmer products are not particularly distinctive either in fabric or form from other wares of the same date in this area the distribution of these wares must be treated with some caution. Finds deposited in Barbican House, Lewes were examined and several places seem to have been supplied by Ringmer potters. The most notable, and perhaps obvious, is Lewes itself. However there is not very much evidence partly due no doubt to the fact that most excavations have been slightly later. Lewes is only 3 km away from Ringmer (Freke 1975 and 1976).

The main market seems to have followed the Ouse southwards right down to Seaford (Freke 1978) which is about 16 km away. In between it has been found at Newhaven (Bell 1976), about 13 km away and at Denton (O'Shea 1979), some 11 km. In an easterly direction it has also been found at Selmeston, 8 km, while it does not appear at all to the north.

It is perhaps worth noting that there are several fragments some 23 km away at Hangleton (Holden 1963; Hurst 1963). They are mainly Fabrics 1 and 3 but not exclusively so. This may demonstrate how similar wares are at this period, or it may show that reasonably large industries were capable of trading this far.

*Coin Report* by D. R. Rudling

*Context D.15*

Extremely worn copper farthing. Bust right. Probably George III. First issue, 1771-1775.

*Glass* by J. D. Shepherd

*Context C.13*

Fragment from the rim, neck and shoulder of a small flask or bottle. Blown; rim thickened and knocked off, possibly fire-smoothed, and slightly outplayed. Greenish-colourless glass with deep surface composition. Dating: Twelfth-fourteenth century(?).

*Alien Pottery*

Seven fragments of alien pottery were found, six fragments being of the same vessel. The other, Context 18, is a well-fired, hard fabric, grey inside and pink outside. It is evenly gritted with rounded filler, less than 0.25 mm in size. The glaze is a purplish-green.

The other fragments are all of a fine, light grey fabric with a fine, sandy filler. They are glazed with a light green glaze. They may be Rye ware. They were found in Contexts 14, 16, 19 and 38.

*Charcoal Report* by C. R. Cartwright

Most of the charcoal represented presumably derives from fuel for firing the kiln and thus represents a wide variety of timbers selected from the immediate environment. Oak (*Quercus* sp.) is the largest type represented (by weight) followed by beech (*Fagus* sp.), Table 3. Both grow readily on the chalk downlands within easy reach of the site at Ringmer. The other trees represented in small quantities—the sweet chestnut (*Castanea sativa*), and birch (*Betula* sp.) probably occur as fuel from gathering of any locally available timber. Oak and beech burn as well and relatively slowly with a 'solid' flame and would be suitable for constant kiln firings.



TABLE 3  
Charcoal, by weight. 1980 I.D.

	16	17	18	23	33	34	37	38	42	45	48	51	58	Total wt
<i>Quercus</i>	6	10	47	14	5	—	9	50	—	22	40	12	75	290 g
<i>Fagus</i>	19	11	30	30	5	33	—	1	3	—	40	2	—	174 g
<i>Castanea</i>														
<i>sativa</i>	5	—	—	—	—	—	—	—	6	—	—	—	—	11 g
<i>Betula</i>	—	3	—	—	—	—	—	—	—	—	—	—	—	3 g
														478 g

*Trenches A, B and C*

Three additional trenches were excavated to determine the spread of pottery to the East (A and B) and examine what appeared to be an enclosure (C). The first two were both in the area excavated for clay in the eighteenth century and very little mediaeval pottery was found. Trench C showed that the apparent enclosure was a combination of land drainage ditches and field ditches. A few modern bones were found and the report has been archived.

*Carbon 14 Dates*

Three samples were taken initially, all being charcoal. The results below show that the kiln was in use during the late twelfth to early thirteenth century.

Sample	Context	Date b.p.	Date a.d.	Ref. No.
1	D48	860 ± 60	1090	HAR-3616
2	D23	880 ± 70	1070	HAR-3617
3	D17	740 ± 70	1210	HAR-3618

The mean calibrated date is A.D. 1193.

I am grateful to Mr. A. Clark for this information.

*Fabric analysis by C. R. Cartwright**Fabric 1*

A hard, well-fired fabric (oxidised), with small to medium-sized rounded and sub-rounded quartz grains forming the bulk of the inclusions. There are some iron mineral inclusions, some feldspars and the occasional small patch of grog, but there is virtually no deliberately added flint filler.

*Fabric 2*

Also hard and well-fired, but this fabric contains larger and more numerous rounded, sub-rounded and angular quartz grains and slivers than those of Fabric 1. There are a few angular flint fragments, some feldspars, some iron mineral inclusions and some patches of grog (also all larger than in Fabric 1).

*Fabric 3*

Again, a hard, well-fired, compact fabric but with only sparse quartz inclusions—mainly smaller than those of Fabric 2—mainly rounded and sub-rounded but with the occasional large angular inclusion. Also sparsely represented in this fabric are iron mineral inclusions, grog and feldspars, but there is virtually no flint.

*'Foreign' fabric (Dec. glazed, body sherd from D18)*

Sherd glazed on outside with grooved decoration. Compact fabric with average scatter of mainly small rounded quartz inclusions. Also present in small rounded patches are traces of organic filler in the form of very small carbonaceous inclusions. A few iron minerals are also present.

It would seem likely that locally occurring clay has been used for much of the pottery fired at Ringmer, and that the minerals represented occur to a great extent within the clay raw material selected. Some extra quartz sand of various sizes may well have also been added as a filler for the various fabrics represented and there certainly seems to have been a concerted effort to keep the larger flint inclusions out of their fabrics (for obvious reasons). The 'foreign' sherd unfortunately does not contain sufficient diagnostic elements for pin-pointing a likely source, but is obviously an unusual fabric and filler in comparison with the other Ringmer fabrics, although its constituents as such could also be available locally.

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