Medieval Ceramics

Papers



Medieval pottery from Forehill, Ely, Cambridgeshire

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SUMMARY

Excavations at Forehill, Ely, in 1996, by Mary Alexander for the Cambridge Archaeological Unit, produced a range of pottery used in the City during the 12th to 15th centuries. The main group consisted of a gritty fabrics identified as products of the medieval Ely pottery industry. The Ely forms have been classified and are illustrated along with other material. The distribution of Ely pottery has not yet been fully established, but the fabric has been recognized by the author in recently excavated material from King's Lynn and at sites in Cambridge and nearby, and by Hilary Healey in South Lincolnshire and Andrew Rogerson in West Norfolk.

THE ELY POTTERY INDUSTRY

Evidence for 16th-century pottery production at Ely was discovered in the 1950s when wasters of a black-glazed red earthenware, of Cistercian type (Brears 1967), were discovered at a district called Babylon. This distinctive name has since been used to differentiate the fabric from authentic Yorkshire Cistercian ware. More waster sherds, as well as roof tiles used as kiln spacers were discovered when the marina near the Maltings, adjacent to Babylon, was developed in 1983 (Hall 1996, 38). More recently, excavations by the Cambridge Archaeological Unit in 2000 (Alexander et al forthcoming), have revealed a kiln site that produced Babylon ware, glazed red earthenwares, and an earthenware bichrome, as well as fine quality 'off-white' fabrics (described in Hall 2002).

In spite of watching briefs during the 1980s and various small commercial excavations beginning in the 1990s (Holton-Krayenbuhl 1989, Jones 1994; see also notes in *Medieval Archaeology and Proceedings of the Cambridge Antiquarian Society*) the location of a medieval pottery industry was not revealed until 1995 (Robinson 1998). The site then examined was a waster dump and not a kiln, but the quantity and nature of the sherds made it certain that the material was waste from industrial production. The location laid just above the appropriately named Potters Lane, recorded as early as 1280 (Reaney 1943, 215). Many more sherds lie in profusion in the gardens of Cherry Hill, lying next to Potters Lane.

Since 1995 three large-scale excavations have taken place at Ely. One at Broad Street in 1996 that revealed mainly medieval levels; a large site at West Fen Road where Middle, Late Saxon and early medieval features lay in profusion (Knight 2000; Regan, 2002), and the site at Broad Street, already mentioned, that produced medieval features as well as the 16th-century kiln. Hence, there is now a very large corpus of pottery made and used at Ely that gives a full view of the ceramic record.

This report provides an analysis of the material from the first of the three large excavations, that made at Forehill during 1996. It gives for the first time a type series for Ely pottery as well as illustrating the medieval kiln products. A separate report describes in detail the excavation, the features discovered and their significance. (Alexander 2003).

Description of the material

The pottery from Forehill came from a site lying within the medieval city at TL 545 802. There were 8,213 sherds weighing 162.8kg. The total quantities are listed by fabric in Table 1, below. Each individual context is detailed in an archive spreadsheet that provides the number of every fabric type, an estimate of the context date, and the numbers of rims, bases, decorated sherds and any other significant item

of interest. In all 565 collections were studied, most of them being individual contexts. Excluding post-1740 wares, the number of sherds studied was 7,766. Weights of each fabric are given in the table below; hereafter the analysis will be quantified by sherd-number only, since the weights only duplicate the data. EVEs were not calculated for this data set.

Table 1 Ely Forehill fabric t

Fabric type	Sherd number	% of 7766	Sherd weigh
St Neots	42	0.5	672
Stamford	18	0.2	329
Thetford	34	0.4	537
Other I2-I3th	10	0.1	161
Ely oxidized	2555	33	44304
Ely reduced	1977	25	35309
Grimston	60	8	8618
Ely Grimston	51	0.7	809
Reduced sandy	437	6	7092
Other medieval	324	4	5171
Essex reds	499	6	8662
Lyveden	38	0.5	704
Yorkshire	55	0.7	984
Stonewares	63	0.8	1063
Surrey	25	0.3	453
Red earthenwares	887	11	28987
Babylon	113	I	1736
Bourne D	37	0.5	1131
Post-1740	447	-	16090
Total	8213		162812

A few residual Roman sherds (five) were recovered, probably deriving from one of the numerous Roman sites on the Isle of Ely. There were two abraded Middle Saxon sherds, likely to be strays from the large Middle Saxon site to the west of Ely. Saxo-Norman Wares of St Neots, Stamford and Thetford type were present in the ratio 42: 18: 34. The total was 94 sherds, representing 0.5%, 0.2% and 0.4% respectively of all sherds. St Neots shelly wares occur in lower quantity at Ely than in the south and west of Cambridgeshire, as would be expected with the nearness of Ely to Grimston, where a hard, sandy, Thetford-type of pottery was made.

The main group of sherds dates from the 11th to 16th centuries. The dominant fabric is material from the nearby Ely kilns, which were active from the 12th to 15th centuries. Other identified medieval fabrics come from Grimston, Norfolk, and from various places in Essex, Lincolnshire and Yorkshire. There were also northern European imports of mainly stonewares and a few finewares. The well-stratified series from Forehill provides a useful sample of the range of all pottery used in medieval Ely, as well as illustrating the products of the local kilns.

Late post-medieval wares (after 1740) have had no further study beyond listing. Context 275, of early 19thcentury date, consists of many nearly complete vessels of all types then in use, many of them finely decorated. It is, however, not a significant component of the study group, but may be useful in the future for comparison with other similar material from Ely.

ELY FABRICS AND FORMS

The principal sherds were Ely fabrics that dominate the collection, being 2,555 oxidized sherds (33%) and 1,977 reduced sherds (25%), or 4,532 in all (58%).

There is considerable variation in the fabric, but no attempt has been made to classify the assemblage into a range of sub-types that would make the task unnecessarily complicated. Such a procedure would also be premature until the other two large excavations have been studied. The main attribute distinguishing medieval Ely fabrics from other East Anglian wares is the sand content and the presence of hard white quatzose grits. Two principal fabrics were identified visually (with aid of a times-10 hand lens) in the Forehill collection, one called 'oxidized' and the other 'reduced', the difference probably only being the final oxygenation conditions in the kiln. Both fabrics are hard with a slight sand component and characteristically contain white quartzose grits evenly distributed throughout the fabric and visible on the surface. The grits are usually small, but can be up to 1.5 mm in diameter. Thin section analysis (below) has shown that some fabrics have a calcareous content also, but this is not normally very obvious from visual observation.

The oxidized sherds have surfaces coloured buff, pink and occasionally red. The core is usually dark. The reduced fabric has grey or nearly black surfaces. It is often difficult to classify into one type or the other, because sherds occur with, say, a buff or pink surface on one side and grey or black on the other. Generally such sherds have been classified as 'oxidized'.

Early Ely fabrics (those occurring at the lowest levels mixed with Saxo-Norman sherds) are fairly good quality. They do not have many quartzose grits, and can be rather similar in appearance to St Neots Ware, except that they feel rough from the sand content. In levels later than the 12th century, the fabric has a lighter colour and the coarse quartzose grits are normally very obvious. A few sherds (51, 0.7%) are well made with few grits and reduced to a grey colour, very similar to Grimston material, probably deliberately imitating it. Many of the coarser wares, especially the bowls, are hand-made with limited wheel finishing.

A major difference between Ely and Grimston Wares is the glazing. Grimston is always clear and green. Ely is almost always opaque, sometimes green and often has a muddy, opaque white colour with a rough pimply surface. Ely glaze is also often very thin and patchy. A sample of 528 sherds (Table 2) from four contexts contained 109 pieces glazed or partly glazed (21%).

Probably many vessels were glazed on the upper surfaces only, so that a higher percentage of whole pots had partial glazing than is indicated by analysis of individual sherds.

Table 2 Sample sherd numbers of Ely fabric with glaze.

Context	Oxidized		Reduced		
	Total	Glazed	Total	Glazed	
632	214	42 (20%)	111	19 (17%)	
642	30	9 (30%)	26	(42%)	
650	26	10 (38%)	26	3 (21%)	
681	76	8 (%)	19	7 (37%)	
Total	346	69 (20%)	182	40 (22%)	

Ely forms are typically thick-sided bowls, and rather squat jars and jugs. Rims from 165 vessels were studied and classified, of which 79 (48%) were bowls, 52 (31%) were jars ('cooking pots'), and 34 (21%) were jugs. This proportion is consistent with most of the vessels being hand-made and receiving only limited wheel finishing – bowls being the easiest to fashion and jugs the most difficult.

Of the bowls 30% were decorated, nearly always on the rim of bowl type B2 (Fig. 4) where it was 39%. The commonest types of rims were B2 and B3 (Figs 3-4). Jars seldom had decoration, amounting to only 12%. Jugs, apart from handles, were rarely decorated (a single vessel). Handles, mostly from jugs (a few handles were identifiable as belonging to large jars), were frequently decorated (42%). The most characteristic forms are single and multiple rows of slashing made with a knife. Sometimes round holes were made. Both these decorative elements were used on the bowls, which additionally often had wavy line motifs on the body. Wavy lines were also used on the bowl rims instead of slashes or holes.

Details of Ely pottery forms

Rims were sorted from all medieval levels and then classified into types, initially without reference to context or date. The following forms were identified. Some rims have intermediate forms that make their classification difficult, but those listed below seem to be the predominant forms. They are illustrated in Figs 2-9, with more description of individual pieces given in the catalogue below.

1. Bowls

Forms vary from hollowed rims to flanged rims (the commonest), and there are types with thickened and

sometimes everted rims, as well as simple straight-sided forms with only a slight thickening at the top. They have been classified into four main types, but there is much variation in rim forms, sometimes making it difficult to assign a form to a particular class.

- B1 Hollowed rims; 9 plus 2 decorated, Fig. 2.
- B2 Flanged; 26 plus 16 decorated, Figs 3-4.
- B3 Simple with eversion and sometimes an inner ridge; 14 plus 7 decorated, Fig. 5.
- B4 Straight sided with slight bulge at the top; 8 and 0 decorated, Fig. 6.

2. Jars ('cooking pots')

Four main forms were identified.

CP1 Flat topped and hollowed, similar to some jug rims; 11, plus 4 decorated all having an applied thumbed strip. One vessel had additional decoration of impressed rosettes, Fig. 6.

CP2 Plain flat top, occasionally squared or developed into a rib; 20, plus 2 decorated, Fig. 6.

- CP3 Everted with a hollow on the inner slope 14 (some may be jugs), Fig. 7.
- CP4 Everted or flanged rims; 4, of which 1 is decorated, Fig. 7.

3. Jugs

- Jugs are a less common form at Ely. Most fall into two types.
 - J1 Simple neck type; 8, only 1 decorated, Fig. 7.

J2 Neck with one horizontal ridge; 14, Fig. 7.

Twelve small fragments were not classified, of them four had rounded rims, six were flat, and two hollowed.

4. Handles

Eight types of handle were identified, being in four forms with a variety of decorated strap handles, Fig. 8. Most are likely to come from jugs, but some large jars also had handles.

- H1 Simple rod form; 7.
- H2 Rope twist; 2.
- H3 Plain strap; 10, 2 had glaze.
- H4 Strap handles with knife decoration of single stabs; 4, all glazed.
- H5 Strap decorated with round holes in single row; 2, 1 with additional thumbing.
- H6 Strap with multiple stabbing; 6.
- H7 Strap with thumbing, no stabbing; 2.
- H8 Straight handles; 3, 2 glazed.
- 5. Other forms

Figure 9. Small quantities of curfews were found. They had decoration of wavy lines and thumbed-ribs. Holes were 1 cm wide. There were also ridge tiles with cox-comb decoration and basting dishes glazed internally. One cistern was recovered with a large spout 8 cm in length and 2 cm internal diameter (external 4.5 cm).

6. Bases

Figure 9. Most bases were plain, but a few had single or triple finger-impressions at spaced intervals. Occasionally decoration was made with knife slashes, either continuously or in intermittent groups of slashes.

DATING OF THE ELY POTTERY INDUSTRY

Ely fabrics seem to be identical with material previously known from King's Lynn and published as 'Grimston Software ware' (Clarke and Carter 1977, 186-91). It has subsequently been observed that Grimston is an unlikely source for this fabric, since it has not been found there in spite of numerous excavations (Little in Leah 1994, 86). The published Lynn forms, especially the stabbed handles, and the fabric descriptions (Clarke and Carter 1977, 197, fig 78), exactly match material from Ely. The Ely kilns continued production until the 15th century, but 'Grimston Software ware' at Lynn was found mainly in Period I (1100-1250), declining in Period II (1250-1350). This is almost certainly explained by the rise of the glazed Grimston industry producing fine wares that would have eclipsed the poorer quality Ely material. Excavations at the White Hart, Ely in 1992 produced some Ely wares (called fabric B1, Jones 1994, 126-8; fig. 11 nos. 1-13). There was no internal dating evidence.

No absolute dating was found with material from Forehill, so dates have to be deduced from stratified associations and context. The associated pottery types suggest that Ely pottery was in use from the 12th to the 15th century. It occurs in some of the earliest levels of the site, along with all three standard forms of Saxon-Norman sherds (but mainly St Neots). These are generally reckoned to cease by the end of the 12th century. This agrees with the evidence from King's Lynn, mentioned above. The date is consistent with the reference to *pottereslane* at Ely in 1280, when the industry was presumably well established. The fabric continues with very little change until the 15th century. At the late date it occurs with Surrey Ware (Tudor Green), Raeren stonewares, and late Grimston wares.

Ely rim forms were examined for chronologically useful changes. Every rim in each class (Bowls B1-B4 *etc.*) was listed on a data-base along with its estimated context date, and arranged in chronological order. The frequency of each type per century was examined. The analysis is summarized in Table 3 in terms of the date range and 'average date' of each form. The 'average date' is a measure of the validity of the date range; if the average fell at the higher end of the range, then more samples were of a later date, and possibly some of the few early samples have dates that should be reassessed or have little significance.

It was found that the industry was very conservative and there were few changes in forms over nearly 400 years. The Table 3 Date range of Ely pottery forms.

Form	Plain	Decorated	Date range	'Average date'	Comment
Bowls					
BI	9		12-15	1377	no change
B2	23		3-late 5	1328	no change
B2		15	4-late 5	4 0	mainly 15th
B3	4		late 13-late 15	1383	no change
B4	8		3-late 5	1429	no change
Pots & ja	rs				
CPI	13		3-late 5	1318	no change
CP2	18		3-late 5	1316	no change
CP3	15		13-15	1346	no change
Jugs					
JI	7		late 3- 5	1288	no change
J 2	4		late 3-late 5	1373	no change
Handles					
НΙ	7		late 13-15	1367	no change
H3	10		late 13-15	1405	no change?
H4-6		12	3-late 5	1375	mainly 14-15

only significant changes were in the use of decoration. Thumbing, especially on applied strips, is early, mostly 13th century. On bowls, decoration is mainly a 15th century feature. Decoration occurs primarily as incised motifs, most notably as patterns on the bowl rims, frequently in some form of continuous wave or a band of stabbing. Stabbing also occurs as a decoration on jug handles where it reduces the likelihood of cracking during the production stages of drying and firing.

Other fabrics

Grimston

Figure 10. Sherds from the kilns at Grimston, Norfolk (Jennings 1981, 50-60; Leah 1994), occur at Ely (51, 0.7%). Most of them are in the standard fine grey sandy fabric with highly translucent green glaze often containing flecks of brown. The fabric occurs less commonly in an oxidized buff or pink-red colour. Decoration consists of various arrangements of brown slip bands, some rouletted, as well as face jugs with very small handles ('arms') around the top.

Some of the material is rather poor quality; Ely is near enough to Grimston to receive 'seconds', especially in view of the rough character of the later material produced at Ely. Most of the Grimston sherds found at Ely seem to date from the floruit of production, in the 14th century, but there are some sherds of the 15th century with a denser glaze and yellow flower motifs. Glazed Grimston ware first occurred at Castle Acre in the late 12th century (Milligan in Coad and Streeten 1982, 225-6). At King's Lynn highly decorated Grimston wares occurred mainly during the 14th and 15th centuries (Clarke and Carter 1977, 206-8), and late Grimston vessels have dense glazing. Jars were not glazed until later (Clarke & Carter 1977, 233-5). The chronology is summarised by Little showing the change in forms from 1100-1530. Handles with multiple ridges and twisted rod form are late types. Applied white slip, often in the form of flowers, giving a yellow appearance are characteristic of the period after 1400 (Little in Leah 1994, 87-90). At Norwich, Grimston sherds were found only in small quantities in levels associated with a fire of 1507 (Little in Leah 1994, 91).

Reduced sandy wares

Figure 1, 8-12. Reduced sandy wares were fairly common at Ely (437 sherds, 6 %). The fabric is different from Grimston, having mainly sand in the ceramic matrix with very few or no white grits. The colour is frequently a reduced black, but sometimes brown or grey. It is very thin and hard, and always much thinner than Grimston. Sherds in this fabric were assigned a Grimston provenance in the 1977 King's Lynn report, being called 'unglazed Grimston' (Clarke and Carter 1977, 191-6). Excavations at Pot Row, Grimston, produced a similar material, described as 'Unglazed Grimston Ware' (Little in Leah 1994, 80, 84). A Grimston provenance for much of the 1977 Lynn pottery was doubted by Little (ibid., 87, 89). The fabric is not very similar to the fine sandy (generally grey) fabric of glazed Grimston vessels, but more like the reduced sandy material known from Blackborough End, Middleton (Rogerson and Ashley 1985). This site is near to Grimston and a north-west Norfolk source is likely for the Ely material, since coarse wares of this type are unlikely to travel very far.

The forms at Ely are almost entirely jars, and are closely paralleled from, King's Lynn, Norwich and from sites excavated at Grimston. The fabric occurs in the earliest levels at Forehill.

Essex red wares

Fine quality red wares (jugs) come from a variety of Essex sources, most probably Hedingham (Huggins 1972) and Colchester (Cunningham 1982; Cotter 2000). With sgraffito and Mill Green Ware (four sherds, (Pearce *et al.* 1982)), the total was 499 sherds, or 6 %. Sgraffito ware, commonly called 'Cambridge sgraffito' from the place of its first recognition (Bushnell and Hurst 1952) was represented. There is no evidence that it was made at Cambridge and it is has the fine Essex-type fabric. It has now been found throughout Cambridgeshire and north Essex. Many more decorations are known than those published and the fabric needs characterization by spectroscopy.

Lyveden ware

The deserted village site of Lyveden, Northants, produced a

pink shelly fabric, often soapy with shells up to 2mm (Steane 1967; Bryant and Steane 1969). Sometimes the shells are leached out giving a 'corky' surface. A grey reduced form of the fabric is known. Glazed jugs are decorated with a yellow slip of stripes and grill-stamped blobs, probably made at nearby Stanion (Bellamy 1983).

The fabric produced at Stanion is similar to Lyveden, but with very fine oolitic grits. At Forehill, 38 Lyveden sherds were identified (0.5%).

Toynton fabrics.

Toynton, on the Lincolnshire northern fen-edge, produced jugs in a grey fabric with pink surfaces, often decorated with brown applied strips (Healey 1975; MacCarthy and Brooks 1988, 261). Only 12 sherds were recovered.

Bourne wares

Kilns at Bourne, Lincolnshire, produced a range of fabrics, the best known, called 'Bourne D' has a pink-orange fabric with a very smooth finish and small white calcareous inclusions. Sherds sometimes have a light green to yellow and brown glaze (Healey 1969; 1975) and sometimes large thumb presses. The dates of this fabric at King's Lynn were 15th to 16th century, where it occurs with stonewares (Clarke and Carter 1977, 237). At Forehill 37 sherds (0.5%) were identified, also in late levels.

Yorkshire wares

Fine jug-sherds of Scarborough ware from Yorkshire were found at Ely among the earlier levels (15). Two fabrics are known, both with a glaze that is normally a dark olive green. Phase 1, is a fine off-white, slightly pink ware, and Phase 2, has a silty white fabric. The date range is 13th to early 14th century (Farmer and Farmer 1982). Most sherds have the standard dark, olive-green glaze. Variant decorations and glazes were found in several contexts with a clear orange glaze over patterns of raised brown iron spots that are often slightly streaked. Vertical raised ribs of slip are another decorative feature.

It is known that Scarborough pottery was exported into ports along all of Eastern England and Scotland from Aberdeen to Canterbury and farther round the English Channel, as well as across the North Sea to Norway (MacCarthy and Brooks 1988, 95). The Ely material would have come via King's Lynn.

Continental sherds

Continental fine wares occurred in small quantities only. Identified sherds came from France (Picardy (1) and 'North French micaceous' fabrics (1)), Flanders (green glazed over a slip (3)), and from Haffner, Germany (2). These compliment the imported sherds recently found at King's Lynn, where many more fabrics have been identified. It is interesting that Flanders and Haffner fabrics found at Ely were not noticed at Lynn (Hall forthcoming), suggesting that more types of imported sherds are yet to be identified at both places.

Imported German stonewares, although not found in large amounts are important dating markers (63 sherds, 0.8%). Most of them are the early types from Siegburg, Langerwehe and Raeren, dating from the 15th and early 16th centuries (Hurst *et al.* 1986).

Late fabrics

Post-medieval sherds (16th and 17th century) consisted mainly of glazed red earthenwares (GRE), almost certainly of local origin (887, 11%). Additionally there were a few (10) of probable Dutch origin. These last are to be distinguished from local GREs in being slightly better made and having a lustrous glaze. One sherd of maiolica was found, a base with horizontal blue bands, possibly of Dutch origin.

There were 25 sherds of green-glazed Surrey ware (Tudor Green, a white fabric with dense green glaze, 15th to 16th century). One in context [490] was from a ring-vase that was probably used for lighting (Fig. 12).

'Babylon' ware (113 sherds, 1%) is the name given to a late Ely fabric (16th to 17th century), being named after a site near the Maltings, as explained above. It is a red earthenware often with a dark brown or black lustrous glaze, small cups and multi-handled tygs being a common form.

CONCLUSIONS

The Forehill site produced a large quantity of stratified sherds, that has enabled a type series to be established. It forms the first large undisturbed sequence ever excavated from Ely, dating primarily from the 12th to 16th centuries. It is dominated by material from the nearby production centre. Although no pottery kilns were discovered at the site, the assemblage is likely to represent the full range of material to have been produced at the Ely pottery kilns, and used by the nearby community. In this respect the site is more useful than study on say a single kiln, that would perhaps have produced only a limited type of pottery for a limited period and also yield unrepresentative 'one-off' forms and overfired fabrics.

The medieval kilns began production in the 12th century and continued until the 15th, when they were superseded by various types of red earthenware, some made elsewhere in Ely (at Babylon and near Broad Street). Although the quality of much of the material was not high, the pottery had a long life, presumably because of the political and economic dominance of Ely monastery and bishopric. Ely owned much of the Fenland and southern Cambridgeshire and was able to control what products went to its estates. It also controlled the Ouse, the chief southern Fenland waterway, and so had influence on what went to Cambridge from the north. Hence the distribution of Ely wares is greater than might be expected from the quality of the material.

The fabric is found on all Fenland sites and at Cambridge and elsewhere in the south. North of Ely, it occurs at King's Lynn, where it was called 'Grimston Software ware'. Ely wares have been noted in southern Lincolnshire and west Norfolk (Hilary Healey and Andrew Rogerson, pers. comm. 1996). Further study will probably show that they only occur in these regions at the early dates, being subjected to the same Grimston competition as King's Lynn.

The evidence of the fine wares from Ely can be linked with data from Cambridge and Kings Lynn to study regional trade routes. The importance of King's Lynn as a port is well known and illustrated by the occurrence of fine quality decorated jugs from Scarborough and northern Europe (Clarke and Carter 1977, 225-32).

It is possible that fine red wares from Essex arrived at Lynn by sea via Colchester. However, from the regional pattern of recovery it can be shown that the route was landward to Cambridge and then by the Fenland waterways to Lynn. This is proved from the large quantities of Essex red wares that occur in Cambridge (36% at Bene't Court, Edwards and Hall 1998, 156), with a smaller amount at Ely Forehill (6%) and yet smaller quantities at Lynn (1%; Hall forthcoming). Even allowing for any differences in the date range of the sites, and that the three sites compared are only single samples of each town, the differences are striking. Had the trade route been by sea and via the Fenland to Cambridge, then the amounts of sherds recovered would be the other way round, Lynn and Ely keeping more of the fine wares before the residue reached Cambridge. This assertion needs analysis of larger number of collections for verification.

The reverse effect can be seen with the fine quality Scarborough wares. At Lynn they amount to 4%, falling to 0.7% at Ely, with none so far identified at Cambridge. Continental sherds found at Ely probably came via Lynn; they occur in small numbers, apart from stonewares.

Lincolnshire vessels from Bourne and Toynton presumably came across the Fenland waterways. Apart from the few Lyveden sherds, material from the Midlands is absent, as has been found at other southern Fenland sites. Lyveden vessels probably came via the hithe at Yaxley, which traded into the Midlands.

In conclusion, it can be seen that the Forehill site was occupied from the 12th century to the present, although the 1996 excavations produced only small quantities of postmedieval material, apart from one context. The medieval assemblage is dominated by local wares made at Ely, but has a significant number of imports from Yorkshire and the Continent that demonstrate the wide trading connections of Ely by way of the port at King's Lynn.

CATALOGUE OF ILLUSTRATED POTTERY

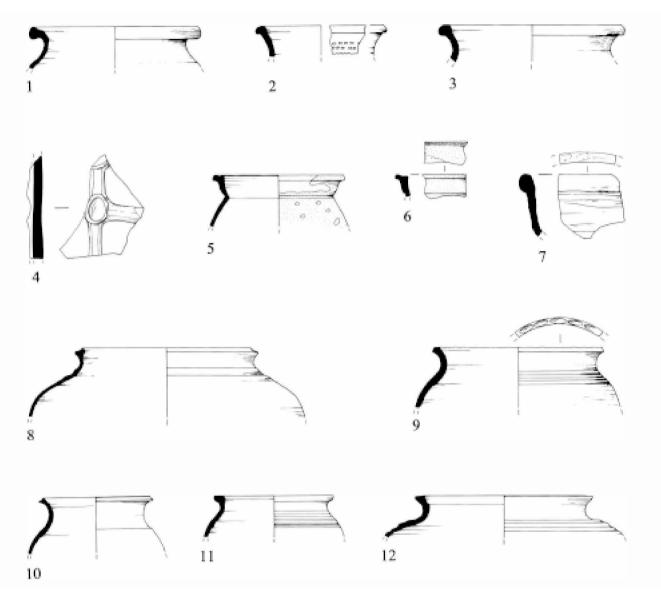


Fig. 1 Saxo-Norman and 13th century wares. Scale 1:4

Saxo-Norman

St Neots Ware

Dark shelly fabric (Hurst 1956). **1.** Everted, slightly hollowed jar rim from early ditch [1837], 12th century, (Hurst 1956, fig. 4 no. 32; fig. 8 no. 1). Other similar rims occurred in [632, abraded] [860], [1263], [1425], [975]; a simple jar rim [904]; bowls [1832], [1051]. Late St Neots pink ware bowl rim [632], and in [770] was a pink hollowed everted jar rim, slightly sandy.

Thetford Ware

Hard sandy fabric, grey and dark (Hurst 1957).

2. Jug or jar rim in hard grey ware with three rows of rouletted decoration from [1414].

 ${\bf 3.}\ {\rm Rim}$ of small jar, dark grey ware

from [1414].

4. Body sherd of large storage jar with thumbed lattice rib decoration, [1414]. Grey fabric with a few grits and a dark surface (Hurst 1957, fig. 8 no. 1).

Stamford Ware

Hard white-cream fabric with clear yellow-green glaze (Kilmurry 1980). **5-6.** Two jug rims with light green external glazing, from [1832] and [1836].

Three sherds of Developed Stamford ware (13th century) were identified, having dark green copper gaze, [203], [890], [1831] a strap handle.

Early medieval wares

Lyveden

7. Bowl rim, thick handmade sherd, thumbed on upper surface, with large

coarse shells, reduced fabric, from [1133]; similar sherds came from [681], [934] and [1051]. Lyveden glazed fine wares with a pink core, slightly reduced corky surface and multiple plain yellow slip strips came from [1051]. Grill-stamped blobs and stripes were found in [904], [1051], [1233], [1271]. Plain sherds were found in [780], [632], [624], [681], [1051].

Reduced sandy wares

Black and dark grey sandy wares, all the 17 rims recovered were jars in a thin hard fabric, cf. Clarke and Carter (1977), figs. 82-3, called 'Grimston ware'. The vessels illustrated below are all jars.

8. Roughly made vessel, dark grey inside. This is the commonest form,

[268], (Clarke and Carter 1977, fig. 82 no. 4). Similar sherds came from contexts [217], [218], [234], [755],
[860], [1004], [1051] (2), [1135],
[1177], [1185] (2), [1221], [1279].
9. A similar rim form to no. 8, with finger tip decoration on the upper surface, [234], cf Clarke and Carter (1977), fig. 82 nos. 2 & 11.
10. Dark fabric with a few oxidized patches, partly green glazed inside and

out [1221]. 11. Dark coloured jar, [1454]. 12. Jar with rilled decoration, dark grey outer surface, [743]. Not drawn; two

outer surface, [743]. Not drawn; two simple rounded slightly everted rim forms [1836].

Ely fabric

Dark core with oxidized and dark surfaces revealing white quartzose grits.

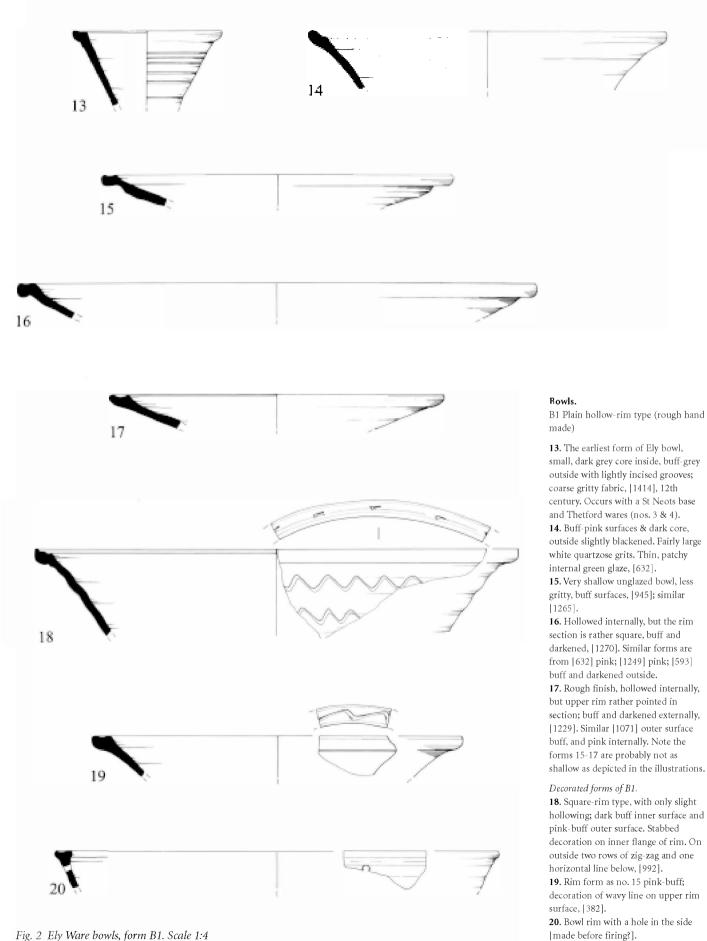
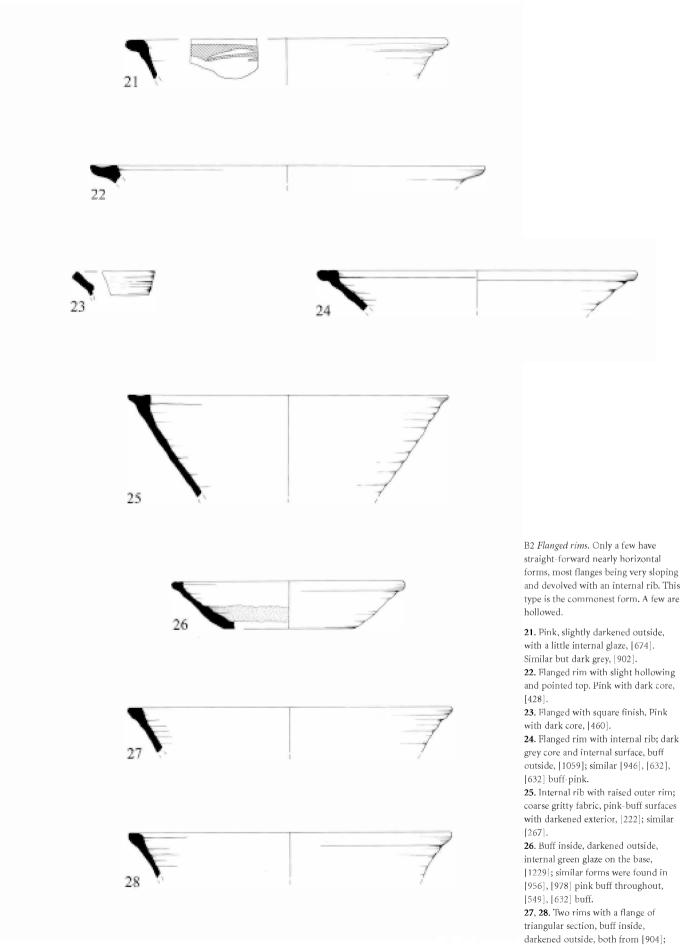


Fig. 2 Ely Ware bowls, form B1. Scale 1:4



similar [890], [597], [476].

Fig. 3 Ely Ware bowls, form B2. Scale 1:4

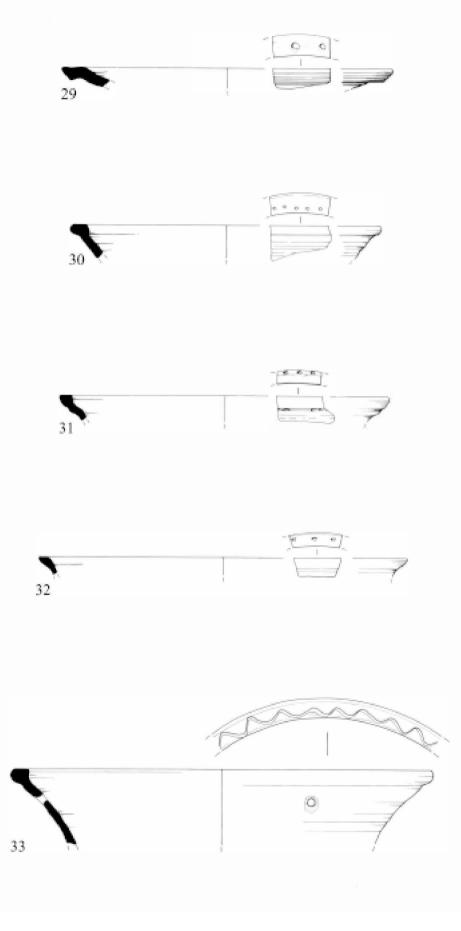


Fig. 4 Ely Ware bowls, form B2, decorated. Scale 1:4

Decorated forms of B2

29. Round stab holes, dark core all surfaces buff, [1269]. Similar forms but with squarer rim sections from [632] (2), [675], slashed holes [1270], plus [730] that is rounded and decorated with slashed holes.

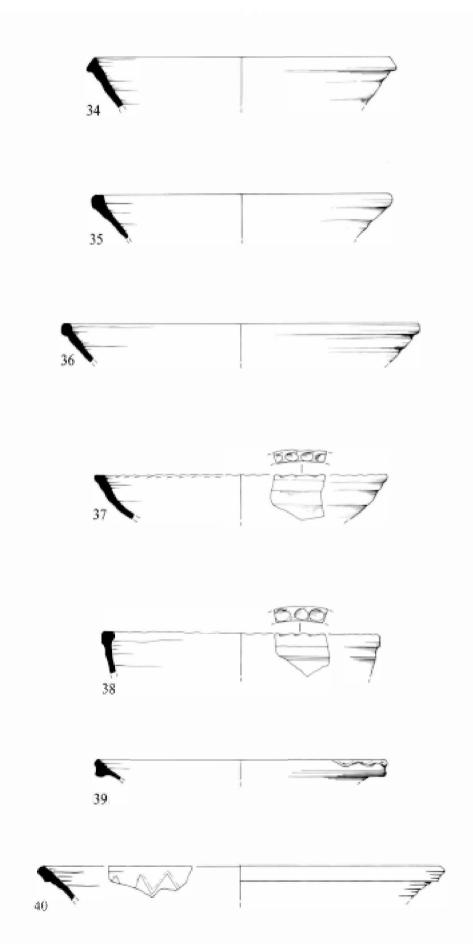
30. Pink buff surfaces, small holes,
[755]. Similar decoration was found at King's Lynn, called 'Grimston Software', mainly in Period I which finished in
1250, cf. Clarke and Carter (1977), fig.
70 no. 22; fig. 90 nos. 7, 8, 10. Variants of Ely forms came from [1130/2],
[622], [383], [391]; also slashed holes from [1270], [280] pink surfaces.
31. Buff, [1071]; small hole type as no.

30.

32. Simple everted rim with round holes, [1464]; similar from [1452].

Wavy lines

33. Flanged rim bowl with wavy line decoration on upper part of the rim, hole made after firing [681]; similar from [534].





B3 Simple bowl forms with slight thickening inside and out and sometimes an inner ridge.

34. Rim with lip inside and out; dark core, buff-pink surfaces, [281].
35. Rim rounded outside with rounded inner lip. Fairly well made, dark core, pink inside and darkened outside, [632]. There are many variants, some with rim forms similar to no. 34, but all inward sloping. Colours vary from pink to grey and darkened; another from [632] looks similar to St Neots Ware until touched or looked at closely. Other rims from [632] 2, [564], [470], [1135], [549].

36. Rim with a square section, darkened both sides, [632]. Variants are sometimes more rounded and have a more pronounced inner lip, [1270], [632], [632].

Decorated forms of B3.

37. Thumbed decoration on upper surface; dark core, grey inside, darkened outside, roughly finished, [1830]. Similar forms from [1051], [632].

38. Square rim with upper thumbing, grey surfaces, not very gritty, [1135].39. Form with rib on the outside and thumbed inner lip. Buff inside, darkened outside, [1233].

40. Bowl with squared outside flange and decorated with an internal wavy line, [863].

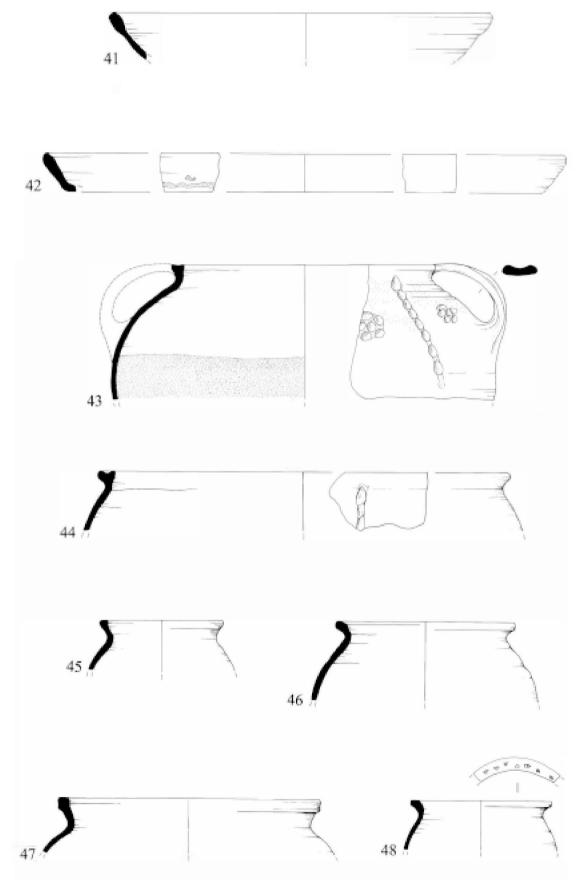


Fig. 6 Ely Ware bowls and jars, forms B4 (41-2), CP1 (43-5) and CP2 (46-8). Scale 1:4

B4 Straight sided bowl rims with simple upper bulge.

41. Simple thickened rim, dark core, buff with slight darkening on outside, [428]; similar [720], [428], two.
42. Shallow flat bowl or dish, pink inside, buff out, with patchy, muddy light green glaze on the bottom, [319]. Variants [782], [904] with green glaze outside, unusually transparent.

Jars

CP1 Flat topped and hollowed, similar to jugs

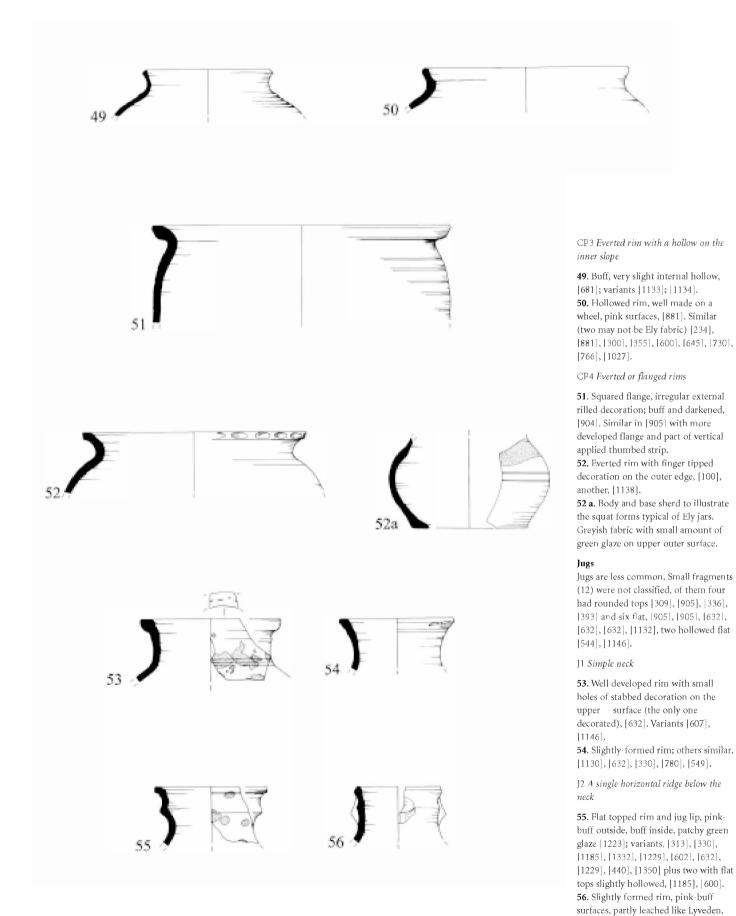
43. Large piece of a large jar with a strap handle. Flat topped rim with a hollow except near the handle. One vertical thumbed applied strip (presumably there were others) and three impressed rosettes. Two slight decorative rills were made before the strip was applied. Buff surfaces, outer flaked away on the lower parts. Patchy light green glaze on top outside and lower inside, [269]. Similar with applied strip and glaze [217]. **44**. Larger version with applied strip and no glaze, darkened buff, [1114]; another near identical sherd from [549].

45. Small jar rim with slight hollow. Dark buff inside and dark & sooted outside, [1004]. Similar variants, 191, 603, 632, 655, 681 (2), 696, 1185, 1221, 1229, 1454, 1629.

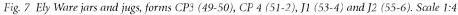
CP2 Plain flat top, occasionally squared or developed into a rib

46. Slightly squared finish, both surfaces grey-buff, [1627].
47. Internal rib, grey-buff, blackened outside, [1009], cf. Clarke and Carter (1977), fig. 79 no. 15, from early Period II, 1250-1350. Similar rims came from [467], [632], [904], [1133], [1135] (2), [904], [1135], [756], [1265]; [1464/1452] has finger presses on top and on the outer edge.
48. Simple flat top with small triangular stabbed decoration on the upper surface, buff-pink inside, blackened outside [904]. Similar, but without decoration, 632, 675, 1349,

1454.



[1114].



14



Fig. 8 Ely Ware handles. Scale 1:4

Handles

Compare similar forms and decorations from King's Lynn (Clarke and Carter 1977, fig. 78).

H1 Simple rod

57. Buff surface, [1004]. Similar in pink and buff colours, [026], [330], [281], [1234], 1051, [992].

H2 *Rope twist* **58.** Pink-buff surface partly glazed, [1229]; another in [632].

H3 Plain strap

59. Pink buff surface with partial glazing [330]; similar in pink, grey and dark colours [045], [597], [860], [1113], [470], [905], [995], [255], [194].

H4 Strap with knife single stabbed decoration **60**. Pink-buff, partly glazed dull muddy-green, [946]; similar [330], [632], [118]. H5 *Strap with round holes in single row* **61**. Thumbing subsequently stabled, [820].

H6 *Strap with multiple stabbing* **62**. Buff, [234]; additional [632], [234], [465].

63. Pink, partly glazed, two rows of central slashes with both edges thumbed, [330].

64. Grey, central row of stabbed holes and a row of sideways slashes on both edges, [1831].

H7 Strap with thumbing and no slashes (none drawn). Dark central thumbing and two side rows [1830]; double row of thumbing each side on plain handle, also [1830].

H8 Straight handles

65. Buff and dark surface, with hooked end, [1629].

66. Straight handle with one rib, dark fabric, glazed, [1234]; another in [632].

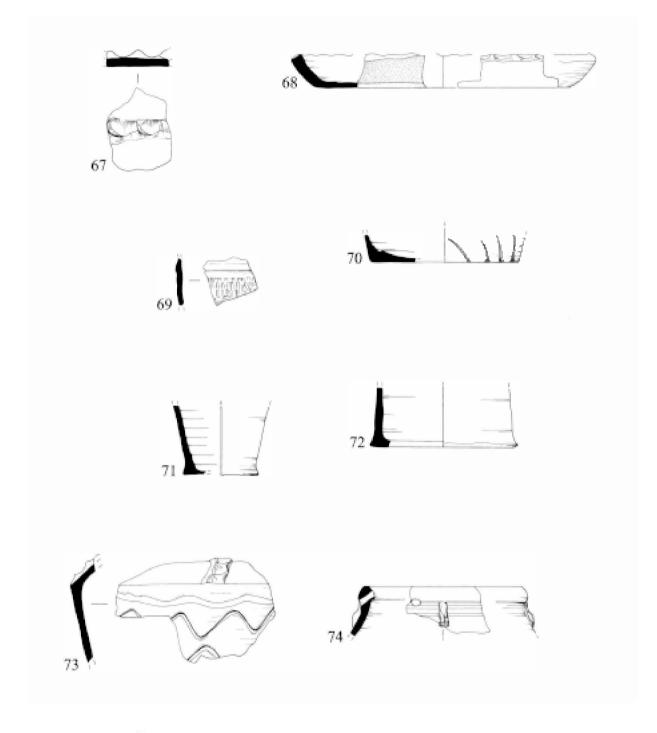


Fig. 9 Ely Ware miscellaneous forms (75-80) and other. Scale 1:4

Other forms and decorations of Ely fabric

67. Ridge tile in coarse grey fabric with cock's comb decoration, [1135].
68. Basting dish, blackened outside, glazed inside with thumbed rim, [734]; others with no thumbing were found in [681], [1195], [682], [632].

69. Band of rouletted decoration

below a cordon, [895]. **70.** Base decorated with slashes, [1522]. Bases are usually plain; thumbing decoration is the most common, either continuously or in spaced groups of impressions. **71.** Jug base in standard dark fabric, thick rills inside, dark and buff surfaces, [1312].

72. Saggar or ridge tile, buff surfaces, [720].73. Part of curfew with wavy incised line decoration and thumbed rib over the top, blackened inside, buff-pink outside,

[234]. Other similar pieces occurred in [1629],[755]. Irregular fragments with a hole 1 cm diameter are probably from curfews, [1202],
[1203].
74 hug fragment with hole near

74. Jug fragment with hole near the rim, [218].

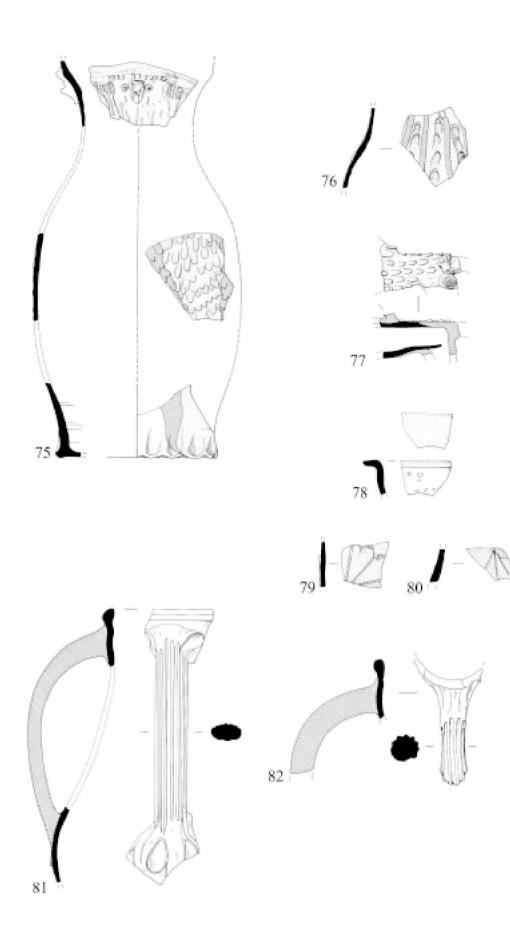


Fig. 10 Grimston Wares (75-80) and other fabrics (81-2). Scale 1:4

Grimston

75. Parts of face jug with plain strap handle and large panels of green and brown tear- drop decoration. The base is thumbed and the outside where not glazed is oxidized to a buff and pinkbuff colour; [1629]. Similar to Jennings (1981), 52-3, figs 18-19. Small handles ('arms') from other face-jugs were recovered. Another unglazed base with two isolated thumb-presses on the edge was found in [709].

76. Part of a jug with vertical brown stripes with single rows of multiple green leaves (blobs) between, [632]. Compare Clarke and Carter (1977), fig. 91 no. 19, that has two rows of leaves. There were several sherds decorated with multiple brown stripes, as Jennings (1981), fig. 19 nos. 345, 346. Rim forms were standard, as published.
77. A handle fashioned like a horsehead, [1454]. Possibly an Ely copy of Grimston, since the fabric is rather gritty and there are no parallels in the Grimston sherds from King's Lynn or Norwich.

78. Bowl with thick yellow internal glaze, [549]. This type of glaze occurs in Period III at King's Lynn, 1350-1500.
79. Yellow flower petal with brown lines and brown petal edges, [330]. A late type, cf Clarke and Carter (1977), fig. 92 no. 2, 1350-1500; Jennings (1981), fig. 29 no. 360.
80. Part of a jug with scratched decoration, oxidized inside, [1252].

Other medieval wares

81. Fluted jug handle, complete with rim. Off white ware with green glaze, 13th-14th century, [1375].
82. Scarborough ware. Off-white with some pink areas; rim and fluted rod handle, fairly dense green glaze, [716], cf. Clarke and Carter (1977), fig. 94 no. 11. Among the other sherds of this fabric were a chafing dish with internal green glaze on a pink fabric in [642].

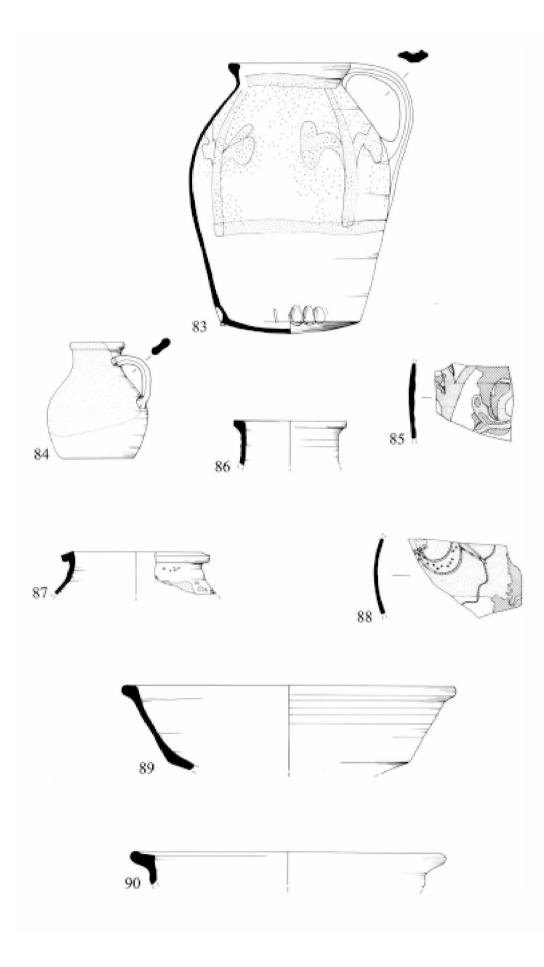


Fig. 11 Essex red fabrics (83-88) and sandy wares (89-90). Scale 1:4

Essex red wares

The illustrated sherds are probably all from the Colchester region.

83. Almost complete large Colchester jug with groups of triple thumb presses around the base (four or five sets) and white-yellow fleur de lys decoration spaced between two horizontal bands. Fine orange ware. Patchy clear glaze, mostly on upper parts with a few tiny spots on base, [586]; cf. McCarthy and Brooks (1988), no. 2147, 15th century. Among other small undrawn sherds there are four frilly bases and five with white bands.

84. A complete small jug. Pink-red coarse fabric with a very few white grits, possibly from Essex. White slip on most of the top except under the handle, covered with a clear very light green glaze, only over the slip, mostly appearing yellow, [198].

85. Body sherd of a large jug in fine red ware with white slip fleur de lys motifs, [312].

86. Coarse plain red-ware jug rim, [980]. Five other jug rims were recovered.

87. Jug rim with patchy exterior glaze, [709].

88. Sgraffito, fine red ware. Two fitting pieces with curved motifs cut through slip. This decoration is not noted in Bushnell and Hurst (1952). Thin clear glaze with occasional green speckles; small part of body without slip exposed, [624].

Not drawn; 12 sherds (two reduced other fine red wares) of micaceous Hedingham fabrics with a variety of green or orange glazes, yellow and brown slip bands, [217], [756], [995], [1091], [1027 (2)], [1135], [1223], [1229], [1375], [1529].

Mill Green fabrics, 5 sherds; red wares with blue core, all-over slip, strips of brown decorated with white dots, [607], [230 (2)], [1053 (2)].

Late sandy wares

89. Bowl in coarse red sandy fabric,
blackened on the outside, [311].
90. Dark grey coarse sandy ware bowl with everted flanged rim, 15th century, source unknown [880]. Other 15th-century flanged type reduced rims were recovered, all seem to be bowls.

91. lar with cordon and incised line decorated with a triangle, 15th century? Sandy fabric with a few grits, blackened buff surfaces, [736] and fits

92. Fine grey sandy jug sherd with firtree decoration, 15th to 16th century,

93. Fine grey sandy ware indented cup, 15th century, [691], cf. Haslam 1978

94. Large jug rim in standard fabric. Partly glazed with clear slightly green,

95. Jug with upper rim fluted, large thumb print decoration, [880]. Compare Clarke and Carter (1977), fig. 105 no. 23, 15th to 16th century. Other rims were found in [709], [650], both with some glaze; a plain hollowed rim

96. Upper half of Langerwehe jug, [463]. Dark fabric with thin patchy iron glaze inside and out, dull finish. The inside is coated with hard water scale. Compare Hurst et al. (1986), fig.

[705].

[465].

fig. 19 no. 25. Bourne D

glossy, [880].

occurred in [026]. Stoneware

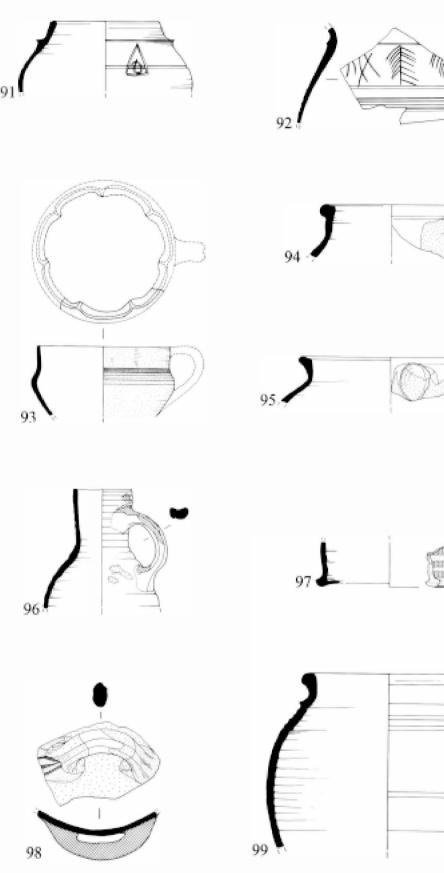
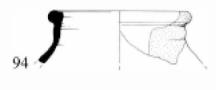


Fig. 12 Fifteenth century and later pottery. Scale 1:4











where handle is fixed, [123]. 99. Glazed red earthenware jar, external brown glaze [123].

Imported wares

None drawn

Flemish (formerly called Aardenburg). Three sherds with white slip and green glaze patches; [993] thin grey sandy ware, [194] red fabric, from [855] a flat piece of red fabric, cut into shape, sgraffito decoration, form & purpose unknown.

French

North French micaceous. Fine grey ware with some mica, similar to Hedingham fabric, glazed with a red strip, [1153]. Picardy. Fine white ware with very occasional small red flecks in fabric. Decoration of light brown slip strips, light clear green glaze over all, [904].

German

Haffner, near Cologne. Rather coarse sandy off-white fabric, glazed green outside and yellow-green inside. Outside has incised parallel bands of decoration, 14th to 15th century. Two sherds probably from the same vessel, [440].

PETROGRAPHIC AND CHEMICAL ANALYSIS OF ELY FABRIC

A full report by Alan Vince is held in archive. More samples have since been analysed (P. Spoerry, pers. comm.) and further material from other Ely sites is available. The following is therefore a summary of the first set of results.

Samples of 21 sherds of medieval Ely fabric were analysed. The aims of the analysis were to provide an objective description of the petrological composition of the fabric, to establish whether or not there were internal variations in composition, and to test the hypothesis that these samples are representative of the Ely pottery industry, known through documentary sources.

The samples were taken from three contexts: [650], 15th century, and [1830] and [1831], both 12th century. The pottery in contexts [1830] and [1831] is handmade, from unglazed jars whereas that from context [650] is glazed and includes jugs and jars as well as cooking pots. Only one vessel was definitely wheelthrown.

Thin-section analysis distinguished two major fabrics. Fabric C (3 sherds), tempered with glauconitic sand (1/3 glauconite, 2/3 quartz). The other fabric was tempered with a mixed sand containing calcareous and quarztose inclusions. It was subdivided, mainly on the basis of grain size, into Fabric A (coarse grain, 10 samples) and Fabric B (fine grain, 7 samples).

The samples were chemically analysed by spectroscopy for iron, calcium and minor elements. The three fabrics fell into clustered groups. The analyses suggested that the clays used for all three fabrics are Cretaceous. Fabric C clay is, however, different from that used in Fabrics A and B. The calcareous component of Fabrics A and B is likely to derive from Jurassic limestones. Since Ely has a complex geology, with outcrops of Kimmeridge Clay, and Cretaceous Greensand together with boulder clay and glacial sand, it is likely that all the components were locally available. A further programme of clay and sand sampling should establish clearly that the sampled groups were made at Ely.

Acknowledgements

I am grateful to Mary Alexander for provision of site data, Crane Begg and Andy Hall for the drawings, Norma Challands and assistants for pottery processing and Alan Vince for identification of imported wares, and for the spectrographic analyses of the Ely sherds. The Cambridge Archaeological Unit is grateful to English Heritage for funding the site analyses and for a grant towards the publication of this report.

BIBLIOGRAPHY

- Alexander, M. 2003, 'A medieval and post-medieval street frontage: investigations at Forehill Ely', *Proc Camb Antiq Soc* 92, 135-182.
- Alexander, M. et al., forthcoming, Ely Broad Street Excavation Report.
- **Bellamy, B.** 1983, 'Medieval pottery kilns at Stanion', *Northamptonshire Archaeol* **18**, 153-61.
- Brears, P. C. D. 1967, 'Excavations at Potovens, near Wakefield', *Post-Medieval Archaeol* 1, 3-43.
- **Bryant, G. F. and Steane J. M.** 1969, 'Excavations at the deserted medieval settlement at Lyveden' *J Northampton Mus Art Gall* **5**, 3-50.
- **Bushnell, G. H. S. and Hurst, J. G.** 1952, 'Some further examples of sgraffito ware from Cambridge', *Proc Camb Antiq Soc* **46**, 21-6.

Clarke, H. and Carter A. 1977, *Excavations in King's Lynn 1963-1970*, Soc Med Archaeol Monogr 7.

- Coad J. G. and Streeten, A. D. F. 1982, 'Excavations at Castle Acre Castle, Norfolk, 1972-77', *Archaeol J* 139, 199-227.
- **Cotter, J. P.** 2000, *Post-Roman Pottery from Excavations in Colchester 1971-85.* Colchester Archaeol Rep 7.
- **Cunningham, C. M.** 1982, 'The medieval and post-medieval pottery' in P. J. Drury, 'Aspects of the origins and development of Colchester Castle', *Archaeol J* **139**, 358-80.
- Edwards, D and Hall, D. 1997, 'Medieval pottery from Cambridge' *Proc Camb Anti. Soc*, **86**, 153-168.

Farmer, P. G. and Farmer, N. C. 1982, 'The dating of the Scarborough ware pottery industry', *Medieval Ceram* 6, 66-86.

Hall, D. 1996, The Fenland Project 10: *The Isle of Ely and Wisbech*, East Anglian Archaeol **79**.

Hall, D. in Hall, A. 2002, 'A late 16th Century Pit Group from Pembroke College, Cambridge,' *Proc Camb Antiq Soc* **91**, 89-102.

Hall, D. forthcoming, 'The pottery from Raynham House, King's Lynn'; report by P. Cope-Faulkner for Archaeological Project Services, Heckington, Lincs.

Haslam, J. 1978, Medieval Pottery (Shire Publications).

- Healey, R. H. 1969, 'Bourne Ware' *Lincolnshire Hist Archaeol* 4, 108-9.
- Healey, R. H. 1975, *Medieval and Sub-Medieval Pottery in Lincolnshire*, unpubl. M. Phil. thesis, University of Nottingham.

Holton-Krayenbuhl, A. 1989, Excavations on the Paddock, Ely, Cambs', *Proc Camb Antiq Soc* 77, 120-3.

- Huggins, R. M. 1972, 'Monastic Grange and outer close excavations, Waltham Abbey, Essex, 1970-72', *Essex Archaeol Hist* **4**, 30-127.
- Hurst, J. G. 1956, 'Saxo-Norman pottery in East Anglia: Part I St Neots Ware', *Proc Camb Antiq Soc* **49**, 43-70.
- Hurst, J. G. 1957, 'Saxo-Norman pottery in East Anglia: Part II Thetford Ware', *Proc Camb Antiq Soc* **50**, 29-60.
- Hurst, J. G., Neal, D. S. and van Beuningen, H. J. E. 1986, Pottery produced and traded in north-west Europe 1350-1650.

Rotterdam Papers VI.

Jennings, S. 1981, Eighteen centuries of pottery from Norwich, East Anglian Archaeol 13.

- Jones, A. 1994, 'Archaeological Excavations at the White Hart, Ely 1991-2', *Proc Camb Antiq Soc* 82, 113-37.
- Kilmurry, K. 1980, *The pottery industry of Stamford, Lincs. c.* AD850-1250, British Archaeol. Rep 84.
- Knight, M. 2000, 'Ely, West Fen Road', Proc Camb Antiq Soc 89, 93.
- Leah, M. 1994, The Late Saxon and Medieval Pottery Industry of Grimston, Norfolk: Excavations 1962-92, East Anglian Archaeol 64.
- MacCarthy, M. R. and Brooks, C. M. 1988, Medieval Pottery in Britain AD 900-1600 (Leicester UP).
- Pearce, J., Vince, A. G., and White, R., with Cunningham, C. M. 1982, 'A dated type series of London medieval pottery, Part I: Mill green ware', *Trans London Middlesex Archaeol Soc* **33**, 266-98.
- **Reaney, P. H.** 1943, *The Place-Names of Cambridgeshire and the Isle of Ely.*
- Regan, R. 2002, Note in Proc Camb Antiq Soc 91, 143.
- Robinson, B. 1998, Note in Medieval Archaeol 42, 119.
- **Rogerson, A. and Ashley, S. J.** 1985, 'A medieval pottery production site at Blackborough End, Middleton', *Norfolk Archaeol* **39.2**, 181-9.
- Steane, J. M. 1967, 'Excavations at Lyveden' J Northampton Mus Art Gall 2, 1-37.

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Résumé

Une série de fouilles conduites par Mary Alexander pour Cambridge Archaeological Unit à Forehill, Ely en 1996, a révélé un groupe de poteries utilisées dans la ville du 12ème au 15 ème siècle. C'est la première fois qu'un tel groupe de référence, originaire de la ville,est à notre disposition. Le groupe majoritaire est constitué de pâtes grossières, identifiées comme provenant de l'industrie médiévale d'Ely. Les formes ont été cataloguées et sont illustrées. L'étendue de la distribution de la poterie d'Ely n'a pas encore été déterminée avec précision, cependant la pâte a été identifiée dans du matériel fouillé récemment a King's Lynn et sur des sites de Cambridge et ses environs. La pâte a également été reconnue par Hilary Healey dans le sud du Lincolnshire et par Andrew Rogerson dans l'ouest du Norfolk.

Zusammenfassung

Ausgrabungen von Mary Alexander, Cambridge Archaeological Unit, im Jahre 1996 in Forehill, Ely, brachten eine Reihe Töpferwaren zutage, die in der Stadt vom 12. bis zum 15. Jahrhundert benutzt worden war. Dieses ist die erste für verschiedene Töpfereiprodukte prototypische Sammlung von Scherben für diese Stadt. Die Hauptgruppe besteht aus grobem Material und wurde als Produkt der mittelalterlichen Töpferindustrie in Ely identifiziert. Die Ely-Formen wurden bestimmt und zusammen mit anderem Material illustriert. Die Ware ist in Cambridgeshire, dem westlichen Norfolk und dem südlichen Lincolnshire weit verbreitet.