

u The excavation of land adjacent to the Old Farmhouse, Pevensey, East Sussex, 1994

by Luke Barber

THE HISTORICAL BACKGROUND TO THE SITE by Mark Gardiner

By the mid-16th century the once flourishing medieval port of Pevensey had been reduced to a minor settlement. 'Barns, stables and gardens occupied the sites of former houses and, except for the outward forms of municipal government, there was little to distinguish the place from a village'. Thus Dulley characterized Pevensey on the evidence of a survey of 1564. The essential elements of the settlement are apparent from the map of 1595 (Fig. 1). The area in front and to the south of the east gate of the castle served as the market place. Until recently it served as the cattle market. The market place was not apparently the commercial centre of Pevensey in the 16th century.¹ Most houses lay on the road between the east gate of the castle and the bridge, as they still do.

Although the population was larger, it is unlikely that the town was much greater in extent in the medieval period, for the marshland to the north, south and east, and the castle to the west provided physical constraints to growth. Medieval rentals survive from 1292 and 1363. The second of these survives in multiple copies with slight variations.² The continuing prosperity of Pevensey during the first half of the 14th century is suggested by the increase in rent from 34s. 9d. to 38s. 9d. The rent of the burgesses of Pevensey recorded in accounts from 1283–84 to 1290–91 was 37s. 3d., which is of a similar value. No defects of rent are noted from the burgess holdings as a consequence of the storms of 1287–88, which breached the sea walls in two places

at *Ilond* and drowned many sheep on the marsh.³ The nominal value of rents in the year 1357–58 was 38s. 6d., which is similar to the figure recorded in the rental of 1363, but the defects of rents amounted to 21d. A century later accounts of 1466–67 show a more significant decline with seven tofts in the town lying vacant.⁴

The early modern topography of Pevensey may be reconstructed from the 1564 survey (which gives the abutments of each holding), the court books, a rental of 1861 and a study undertaken in *c.* 1906, probably for the purpose of enfranchisement, to locate the positions of tenements described in a survey of 1649.⁵ In 1564, working westwards from Pevensey Haven along the north side of the present High Street, a tenement, garden and land held by John Millward lay next to the Haven. It was abutted on the west by the messuage and two gardens of John Elverey which, by 1619/20 had been purchased by John Millward who also owned Northtown, a field to the north. He is presumably the 'Mr Miller' shown on the 1595 map. On the west of Elverey's tenement was Alice Havell's messuage, which probably occupied the site of the present Smuggler's Inn, formerly called the New Inn and before that the King's Head. The 1564 bounds indicates that adjoining land on the west, the site of the excavation, was a toft formerly held by Henry Dawson. In the *c.* 1906 reconstruction it was believed that this plot lay in the manor of Bowley, but the bounds of a survey of 1558–60 indicate that the only lands of Bowley lay at the very west end of the High Street.⁶ Dawson was not a tenant of the manor of Pevensey in 1563 and it has not been possible to identify the excavated tenement by name or name of tenant. It is significant that it was described in 1563 as a toft, that is the site of a former building.

THE FINDS

POTTERY by Malcolm Lyne

Introduction

The excavations produced a total of 3757 sherds of pottery from 158 different contexts. The bulk of these contexts, particularly the early ones, contained 25 or less sherds (125 contexts), with other later medieval contexts and particularly

those within pits, having considerably larger assemblages of up to 100 sherds (35 contexts). There were just seven contexts with between 100 and 500 sherds and these mainly related to post-medieval rubbish dumping and pit digging. Residual and intrusive pottery was a feature of the upper occupation layers, but the lower ones and most of the medieval pits contained pottery groups with relatively little contamination. All the pottery was recorded on pre-prepared spot dating forms during

the assessment phase. These will form part of the Site Archive along with a fabric reference collection.

The medieval ceramic sequence from the present site is significant in both its potential for contributing to a dated pottery sequence for Pevensey and for determining the port's trading links with Europe and elsewhere in Britain. Work on the pottery from the 1936–39 excavations has gone some way towards achieving these aims, by creating a Saxon and early medieval ceramic typology and sequence from within the walls of the castle. Wasters from later medieval pottery production outside the West Gate were also identified (Lyne in prep.). This work suffers, however, from the relatively poor quality of such an old excavation. The present site is therefore important in that it furnishes us with the first phased pottery sequence from the centre of the extra-mural settlement of Pevensey and can be used to date the foundation of the port, following on an apparent transfer of the urban population from within the old Roman fortress. The Old Farmhouse pottery is also important in that it enables us to extend the existing ceramic sequence for the castle and the port through the later medieval period and beyond. This is a period for which the castle is somewhat deficient in pottery, due to both the abandonment of the Roman fortified *enceinte* as a defended area after the siege of 1265 and the ill-recorded clearance of the upper stratified deposits within the inner bailey and keep during the 1920s. Recent excavations on the east side of the castle keep (Fulford forthcoming) have produced a number of medieval pottery assemblages. Some of these assemblages are 14th to 15th century in date, but are unlikely to contribute much to the more precise dating of Pevensey's late-medieval pottery (M. Fulford pers. comm.).

Methodology

The pottery fabrics have been arranged in the fabric groupings formulated for the report on the 1936–39 excavations within the walls of the Roman fort (Lyne in prep.), but with additions for fabric groupings and fabrics not encountered there. Fabric identification was initially made using a $\times 8$ magnification lens with built-in scale, of a type normally used for dendrochronology. Where more detailed examination was required, a more powerful $\times 30$ microscope with built-in illumination was used.

The pottery assemblages from the site are too small for meaningful quantification, other than by numbers of sherds and weights per fabric. Combinations of all the pottery from sealed 1280–1350 and 1350–1450 dated features do, however, create two sherd assemblages large enough for more detailed quantification using the EVES method (Orton 1975). This method is based on the fact that nearly all pots only have one rim and that a rim fragment can be regarded as a percentage of the pot's circumference. The cumulative percentages of rim fragments per form and fabric can then be converted into percentages of the whole assemblage.

Fabrics Roman

Very little pottery of Roman date was encountered in the excavations, most of it being very abraded and residual in its contexts. There were 14 sherds, of which 13 were certainly residual in their contexts, while one, from Context 5, may have been *in situ*. All of the datable pieces, other than two Samian sherds, were from Late-Roman forms contemporary with the late 3rd-to-4th century shore fort a short distance to the west. 2nd-century Central-Gaulish Samian sherds were also

found within the fort and are from old, prized vessels retained in use for more than 100 years after they had ceased to be manufactured and were no longer obtainable. A similar phenomenon occurred at the contemporary Portchester fort (Morris 1975, 276). The other sherds are made up of four of East Sussex ware (Fabric Group A), five grey-ware sherds (Fabric Group C), two Oxfordshire colour-coated pieces (Fabric F1) and one New Forest example (Fabric F4).

Sub-Roman/Early Saxon

Pit 67 contained a single residual sherd of dirty-buff-grey 'organically-tempered' ware (Fabric M1). The 1936 excavations produced only eight sherds in this fabric, of which the only rim fragment came from the upper fills of the Roman ditch outside the west gate of the fort. Early Saxon sandy wares at Portchester were superseded by 'organically-tempered' wares after the early fifth century and they in turn by gritty wares during the late eighth century (Cunliffe 1976, 177). A similar sequence was found during excavations at Botolphs (Gardiner 1990).

Saxo-Norman

Coarse-flint-gritted handmade wares

N2 - Black fabric heavily tempered with 1–2 mm sub-angular black and brown flint grit, with sparse flecks of shell or calcite. The evidence from the intercutting Saxo-Norman pit complex in the 1936 Trench XIII within the Roman shore-fort indicates a date range of *c.* 850–1150, but with the ware becoming more common after *c.* 1050. Similar wares are found in Saxo-Norman contexts at Lewes (Freke 1975, fig. 7:46, 47), suggesting a source in that direction.

Shell-and-flint-grit tempered handmade wares

O1 - Soapy shell-tempered ware fired black. Nearly all of the sherds making up an excavated, but unpublished, pottery assemblage from the Late-Saxon site of *Sandtun*, stored in Hythe museum, are in this fabric. The only sherd from the present site was a slightly atypical one in the sparseness of its shell and was residual in Pit 182.

O2 - Black handmade fabric with profuse 1 to 2 mm subangular, brown and black flint-sand grit and equally large or greater quantities of 1 to 3 mm, shell fragments from crushed cockles and mussels. This is by far the most common late Saxon fabric from within the walls of Pevensey fort and was locally made. It remained in use until *c.* 1100.

Flint, quartz-sand and shell gritted tournette and wheel-turned wares

P2A & 3 - Fabrics tempered with 1–3 mm sub-angular brown, black and white flint-sand and ironstone grit along with small 1–2 mm. flecks of shell, suggesting use of beach-sand for filler. Pot bodies tend to be handmade but the rims show signs of the use of a tournette. Fabric P3 is slightly finer than Fabric P2, with up to 2 mm grits. It also differs from P2 in being turned on the potters' wheel. In practice, however, it is very difficult to distinguish between the two fabrics, particularly in the case of body-sherds, and they are combined together in this report. Vessels in both fabrics are rather patchily fired grey/black/orange-brown in bonfires or rudimentary kilns without well-defined separate combustion chambers. Products from the Ringmer, Pevensey and possibly Hastings kilns are all included in this large group as distinguishing between them is often

difficult. Sherds in these fabrics are predominant in 12th- to early 13th-century assemblages from the Castle and Old Farmhouse sites, before being largely replaced during the late 13th century by the high-fired fabrics P4A and B.

P2B - Some cooking-pots in a similar fabric to Fabric P2A have different rim forms, are sooted black and may come from the Hastings area. This fabric was present in 12th-century contexts on the Old Farmhouse site, but occurred more frequently at the Phoenix Brewery site in Hastings (Barber 1993b, 88–95).

Flint-tempered wares

Q1 - Very coarse grey-brown fabric with up to 3 mm sub-angular multicoloured flint filler although there is a predominance of black flint. This fabric is very rare at the castle and Old Farmhouse site. It occurs in the earliest contexts on the site and can probably be dated to the late 11th and early 12th centuries.

R8 - Handmade red ware with sparse 1 mm quartz and flint grits and with grass-brushed exterior surface. Only one residual sherd was present at Pevensey. A Wiltshire source is possible.

Imported wares

U1 - Very fine cream-to-buff fabric with smoothed external surface and red-painted decoration. Cooking-pots in this fabric were manufactured at Beauvais during the 11th and 12th centuries. Only four residual sherds are present in the Old Farmhouse pottery assemblage.

U3 - Hard, buff, semi-vitrified fabric with pimply goose-flesh textured surfaces and red-to-maroon paint decoration. This is a classic 11th-century Pingsdorf fabric and is represented by a single sherd from Pit 104.

U7 - Whiteware with sub-angular 0.5 mm flint grit and patchy external sooting. Collared cooking-pots and pitchers in Normandy Gritty ware were imported from several centres in Normandy during the 11th to 13th centuries. During the late 12th and early 13th centuries, pitchers were often decorated with yellow-green glaze over red-painted-decoration and roller stamping (Leenhardt 1983).

U9 - Pale grey to dark grey rough fabric with iron-stained rounded quartz and angular white flint and ferrous inclusions and greenish-yellow external glaze. The sherds appear to be handmade or tournette finished, with internal scarring from knife-trimming. Normandy Glazed ware (Vince & Jenner 1991, 109). Dated *c.* 1050–1250.

V3 - Semi-vitrified off-white sandy fabric fired grey. Paffrath-type ware, made at a number of centres in the Middle Rhine valley and imported into England between *c.* 1040 and 1200+. The most common form to be imported was the handled cooking-pot or ladle (Vince & Jenner 1991, 103). Only one sherd was recovered and was residual in Pit 221.

V4 - Very fine sanded and wheel-turned grey-ware with smoothed exterior surface. North French/Flemish black-ware from the Pas de Calais/Flanders area. The only piece present at the Old Farmhouse site is the spout from a late 11th- to 12th-century pitcher, residual in Pit 207. Larger quantities are known at Dover (Nigel MacPherson-Grant pers. comm.).

Later medieval

Flint, quartz-sand and shell-gritted tournette and wheel-turned wares

P4A - Wheel-turned version of Fabric P3 with similar inclusions, but fired to a higher temperature within a kiln. The core tends to be blue-grey with clean orange-buff, roughly smoothed surfaces. Hard and brittle. Late 13th- to 14th-century date.

P4B - As P4A but fired grey with no carbon flecks remaining, sometimes with black surfaces. The dating is similar to that for Fabric P4A.

P5A/B - Sparser-tempered versions of the above two fabrics. They tend to merge with Fabrics P4A and B and are often difficult to distinguish from them. As a result, they are lumped together with Fabrics P4A and B in the tables.

Sherds in fabrics P4A, 4B, 5A and 5B were present amongst a layer of discoloured wasters over a spread of burnt clay and soot discovered by Cottrell in 1936 just outside the West Gate of the Roman fort (Lyne in prep.). It is probable that most of the pottery in these four fabrics originated in this Pevensey-based industry. The wares appear during the late 13th century and are present throughout the 14th and into the early 15th centuries.

P6 - Heavily-tempered red to black fabric with profuse coarse to very coarse crushed brown ironstone and alluvial grit filler. Cooking-pots and other forms in this fabric were manufactured at the Abbot's Wood kilns near Michelham Priory during the late 13th and early 14th centuries and are noteworthy for their poor quality and exceedingly rough finish. Sherds are understandably rare at Pevensey but fragments were present in Pit 324 and layer 92 at the present site. Chimney-pots were also made at Abbots Wood in an even coarser version of the fabric.

P7 - Grey fabric with sparse coarse calcite and ironstone grits fired soapy, polished black with knife-trimming. Only one vessel was present at the present site, a cooking-pot with knife-trimmed base from the early 13th century Pit 52. The source is unknown.

Quartz-sand-gritted, wheel-turned wares

R3A - Very fine, well-fired fabric fired orange to brown and tempered with sub-0.5 mm quartz sand, including occasional flecks of shell or calcite and ironstone. This fabric is usually associated with jugs and pitchers decorated with splashed green or brown glaze and originates at the Rye kilns.

R3B - A hard grey version of Fabric R3A.

R4A - Very fine fabric tempered with sub 0.5 mm rounded quartz sand and rare iron ore inclusions to 3 mm. The fabric is oxidized brown or orange. This is a common fabric and may come from a variety of sources. It is particularly associated with Rye jugs decorated with green or brown glaze over a white slip. Cooking-pots and other forms in a high-fired version of this fabric appeared during the mid-14th century. These vessels were fired in a very similar manner to those in Fabrics P4/5A and P4/5B and may come from the same local source. There is a green-glazed rod-handled pitcher from Layer 18 with combed body decoration which has been identified as from East

Yorkshire and is paralleled at both Beverley and Hull (Nigel MacPherson-Grant pers. comm.).

R4B - A hard grey reduced version of R4A.

R5A - Coarse-sand, wheel-turned fabric with profuse sub-angular quartz inclusions up to 1 mm. Fired orange or brown.

R5B - Reduced grey to black version of R5A.

R6 - Grey fabric tempered with sub-angular 0.5 mm quartz-sand and ironstone, fired buff to pink with apple-green glaze sparingly applied to jugs and pitchers. This is the Hastings Bohemia kiln fabric and is very distinctive. It is unusual in that this relatively fine fabric was used in the manufacture of cooking-pots as well as jugs, at a time when the overwhelming bulk of East Sussex cooking vessels were being made in coarse grit and shell-tempered wares. The reason may be that the potter was an immigrant from the Low Countries, where exceptionally fine earthenware-type fabrics were in use from the 13th century onwards. Some pot forms have Dutch characteristics in that Barton's corrugated pitcher neck form fig. 1.5 (Barton 1979) can be paralleled at the 1275–1325 dated Haarlem II kiln site (Janssen 1983, fig. 9.9:5). There are also several massive collared pitcher rims amongst the Bohemia material, very similar to an example from the Utrecht I kiln (Janssen 1983, fig. 9.10:1). The ware is fairly rare at the Old Farmhouse site, but 17 sherds were retrieved from several contexts. Two of these sherds were from cooking-pots, but the rest were from partially-glazed pitchers with corrugated necks. Stratified sherds came from late 13th- to early 14th-century rubbish pits 52, 167, 198 and 221.

R7 - 'Winchelsea' Black-Ware. Very fine-sanded grey or brown fabric with occasional ironstone inclusions, fired smooth black. This fabric is very similar to that of wasters from the Broadlands Wood kiln site at Brede and the two forms present at the Old Farmhouse site can be exactly paralleled in that material. 14th century.

R9 - Hard, coarse-grey fabric with up to 1 mm rounded and sub-angular quartz and ironstone-grit inclusions, and slightly pimply surfaces with external scratch-marking. Only one sherd is known from the present site, in the 13th-century assemblage from Pit 52. Scratch-marking is not a Sussex tradition, but is known on cooking-pots from Southampton and other Hampshire sites. Scratch-marked cooking-pots were also made at Laverstock in Wiltshire and possibly Reigate in Surrey. It is probable that the Pevensey sherd came from an East Surrey source, as grey, sandy fabrics are characteristic of the Limpfield kilns. *c.* 1050–1250.

Imported wares

U8 - Rouen polychrome-glazed wares. Fine, whitish fabric, usually fired light-buff internally with external reddish-brown slip or paint decoration; frequently accompanied by applied white-clay pellet patterns. The whole is overlain by lustrous pale yellow or green glaze to create a polychrome effect.

U10 - Miscellaneous North French glazed whitewares. There are a variety of glazed sherds of North French origin, but it is as yet not possible to identify their sources with any precision.

W1 - White or pale-pink to beige sandy ware with mottled-green glaze. Saintonge ware, consisting mainly of jugs, appeared in England during the early years of the 13th century and largely replaced glazed jugs imported from Rouen, Paris and elsewhere in northern France during the late 13th century. These Saintonge products reflected the increasing importance of the Gascon wine trade after the loss of Normandy by the English crown (Chapelot 1983).

W2 - Saintonge Polychrome ware. Very fine whiteware with painted polychrome decoration beneath colourless glaze. Very fine jugs in this fabric were imported into England in large quantities for a short period between 1280 and 1310.

W3 - Coarse off-white to buff fabric with vertical red paint lines and splashed green-to-orange glaze decoration. Saintonge mortar fabric (Thomson & Brown 1991).

X1 - Very fine-sanded fabric varying in colour from buff-brown to red. Pitcher and jug fragments tend to be green, brown or polychrome-glazed over a thick white slip. Low-countries earthenware from Aardenbourg, Bruges and other production centres on the Belgian and Dutch coasts. The few fragments from the Old Farmhouse site are mainly from jugs but there is a glazed whistle or baby-feeder fragment from Layer 69.

Z1 - Sandy orange handmade fabric with very large white quartz inclusions and external orange glaze. Small quantities (1 per cent) were present at Caen in 12th- to 14th-century contexts (Leenhardt 1983, 57). Five sherds are present in the Old Farmhouse material, most of which were residual in their contexts. One sherd did, however, come from the 12th-century context, 276.

Z2 - A finer and unglazed version of Fabric Z1 with rare grog or iron ore inclusions to 2 mm. There is a heavy, collared rim of typical 13th-century Normandy Gritty Whiteware form, residual from Context 132.

The large quartz inclusions present in the above two fabrics suggests that they come from an area of ancient rocks, possibly in Lower Normandy.

15th-century and early post-medieval wares

Proto-stonewares and stonewares

Y2 - Very fine-sanded proto-stoneware fired red with pimply-dark grey surfaces. Either a late medieval or early post-medieval Normandy fabric, probably from the Dieppe area (Lynn Blackmore pers. comm.) or a Wealden product from perhaps the Spilstead kiln. Two sherds came from Layer 116.

Y3 - Very fine, hard grey fabric fired matt-buff-brown. Martincamp stoneware of 15th-century date. One sherd, from a Hurst Type 1 flask (Hurst 1966) came from Layer 96.

Y4 - Fine sanded blue-grey semi-stoneware fired rough grey-brown with bricky orange margins and a few olive-green glaze splashes. Possibly a 15th-century Normandy stoneware or more local fabric. Two sherds from different vessels are known, one from Gully 281, fill 282 and the other from Layer 108.

Y5 - Very hard, pale-grey fabric fired shiny pale-grey to grey-brown to light-brown. German salt-glazed stoneware of 16th-

to 17th-century date. Some fragments appear to be from the Raeren kilns, but the absence of frilled bases suggests that most of the material is of later 16th- to 17th-century date. Large quantities of Rhenish stoneware jugs and tankards were imported into England from the 1480s onwards. Most of the Pevensey fragments are residual in late post-medieval layers, but a small chip of Siegburg ware came from Layer 96, and two Raeren fragments from the top of Pit 193.

Hard-fired earthenwares

The Battle Abbey ceramic sequence shows that fine earthenware fabrics made their appearance in East Sussex during the late 15th century (Streeten 1985, 114).

AA1A - Extra-fine slightly micaceous red-ware with sparse 1 mm quartz and ironstone inclusions. This fabric tends to be plain, but some pieces have sparsely splashed orange glaze. A late 15th- to early 16th-century fabric.

AA1B - Similar fabric but with surface greying.

AA2A - Very-fine red-ware with smooth surfaces and thick brown, green or orange glaze on one or both surfaces. A late 15th- to 19th-century fabric or group of fabrics including Sussex Ware and its predecessors.

AA2B - Similar to AA2A but fired grey.

AA3 - Very fine red earthenware with metallic surface lustre. A Sussex Ware variant.

AA4 - Very fine greyware with white-painted decoration. The Graffham kilns north of Chichester specialized in white-painted grey earthenwares between circa 1450 and 1550 (Down 1978; Aldsworth & Down 1990). These wares achieved wide circulation in West Sussex, as did white-painted ridge-tiles from the same source. Smaller quantities of Graffham pottery and tile were also traded in East Sussex although other closer kilns may have also been producing similar wares. Ridge tile fragments are known from Lewes Priory and the Old Farmhouse site has produced one potsherd, from Pit 293.

Tin and Alkali-glazed wares

AB1 - Very fine whiteware from ?dish with turquoise glaze. There is only one, very abraded, sherd in this fabric, from the disturbed layer 71. The source is uncertain, but could be Spain or possibly the Near East.

Whitewares

AC1 - Coarse-sanded cream fabric with orange and grey grits and splashed yellow glaze. Probably Coarse Border ware from West Surrey. Pieces from indeterminate Surrey White ware vessel forms came from layers 71, 112 and 116.

AC2 - Extremely-fine, thin-walled and green-glazed whitewares. There are two sherds from Old Farmhouse, namely the base of a c. 1450–1550 lobed-cup of probable North French origin from Layer 71 and a fragment from the similarly dated Pit 236.

AC3 - Farnborough whitewares with yellow, green or brown glaze. These were produced in large quantities at a number of kilns on the Hampshire-Surrey border between c. 1550 and 1720. Fragments are present in several post-medieval contexts.

Late post-medieval wares

The 18th-century and Victorian features contained large quantities of pottery, including transfer-printed china, Staffordshire wares and ginger-glazed bread-crocks. Pevensey had ceased to be a significant port by this time and the ceramics reflect the blanket distribution by rail and other means of the large industries rather than more discrete trading links.

The pottery assemblages from features Late 11th to mid 12th century

The earliest pottery from the Old Farmhouse site comes mainly from the following features: Pits 104, 234 (not on plan), 249, 289, 296; Post holes 213, 242, 244, 255 (not on plan), 309.

The assemblages tend to be very small and can not be meaningfully quantified by individual context. When brought together in total, however, they can be quantified by sherd count and weight (Table 1).

Table 1. Summary of pottery from late 11th- to mid 12th-century contexts.

Fabric	Sherd count	%	Sherd weight	%
N2	5	7.7	24g	3.0
O2	2	3.1	20	2.5
P2/3	32	49.2	424	52.9
P2B	20	30.8	230	28.7
Q1	4	6.2	68	8.5
U3	1	1.5	32	4.0
U7	1	1.5	4	0.4
Total	65		802	

The Late Saxon pottery assemblages from within the walls of Pevensey consist largely of black handmade cooking-pot sherds in shell-and-grit tempered fabric O2, and to a lesser extent in the purely grit tempered fabric N2. The Late Saxon occupation layer 3D in the 1936 Trench XIII against the north wall of the Roman fortress (Lyne in prep.) has sherds in these fabrics making up three-quarters of all the pottery present in the deposit. They also account for more than half of the pottery from the primary silting of an immediately post-Conquest hornwork ditch outside the West Gate of the Roman fort, with the rest of the sherds now being in the tournette-finished Saxo-Norman fabrics P2A and 2B (Lyne in prep.).

The middle silting of the hornwork ditch is dated to the late 11th- to the early 12th-century and its pottery assemblage has the handmade Late-Saxon fabrics making up only 20 per cent of the sherds. They are replaced, for the most part, by cooking-pots and spouted pitchers in fabrics P2 and 2B, as well as one or two sherds from fabric P1 vessels imported from the Chichester area. These latter vessels have chalky inclusions as well as flint grit and are independently dated to the late 11th- to early 12th-century (Down 1978, Group 3).

It can be deduced from this ditch sequence, that fabric O2 went out of use at some time during the late 11th century. The Trench XIII occupation sequence does suggest, however, that the purely flint-gritted black fabric N2 and a quartz-sand tempered variant L4 may have continued in use into the early 12th century before giving way to the more advanced P group of Saxo-Norman fabrics. Fabric P2B is in fact a superior tournette-finished version of Fabric N2 and body sherds cannot readily be distinguished, other than by thickness.

A striking feature of the earliest pottery assemblages from the extra-mural Old Farmhouse site is the paucity of N2 and

O2 sherds. They account for a mere 11 per cent of the total pottery from pre-1150 features by sherd count and only 5 per cent by weight. Fabrics P2/3, 2B and the crushed flint-tempered fabric Q1 make up more than 80 per cent of all the pottery, with a single Pingsdorf red-painted sherd from the Rhineland and a Normandy Gritty-ware sherd accounting for the remainder.

Catalogue (Fig. 8) (Context numbers are shown in brackets)

1. Everted cooking-pot rim in black, handmade fabric O2 (249).
2. Beaded cooking-pot rim with slight collar, in patchy grey-brown fabric Q1 (213).
3. Beaded cooking-pot rim with slight collar, in patchy grey-brown fabric P2 (242).
4. Everted and flattened cooking-pot rim in dirty-grey fabric P2 fired reddish-brown internally and grey-brown externally (249).
5. Cooking-pot rim with slight lid-seating, in pimply black fabric P2B. A similar rim form in the same fabric was present in Context 55 at the Phoenix Brewery site in Hastings (Hastings Museum) (249).
6. Cooking-pot rim with internal bead, in pimply black fabric P2B. An identical form in the same fabric was present in the fill of Gully 214 at the Phoenix Brewery site in Hastings (Hastings Museum) (213).
7. Everted cooking-pot rim in grey-brown fabric P3 with external soot blackening (213).
8. Bowl rim in grey-black fabric P2 fired reddish-brown internally and patchy burning externally (fill 295 pit 296).
9. Sherd from Pingsdorf storage jar in high-fired pale grey fabric U3 fired cream with painted reddish-brown loops (fill 105 pit 104).

All of these early assemblages are, unfortunately, very small and could date to the later 12th century. Indeed, some of the Fabric P2/3 potsherds, and in particular bodysherds, could be late 12th century in date, and some of the very small assemblages could even be residual in their contexts. All of the assemblages dated earlier than 1150 do, however, either include sherds of the specifically pre-1150 fabrics N2, O2, Q1 or U3, or are cut or overlain by late 12th-century contexts.

As these assemblages come from a site in the centre of the village, they suggest the possibility the extra-mural settlement at Pevensey is a post-Conquest foundation created between 1066 and 1100. This cannot be conclusively proved from the small assemblage at the present site, however, and future work is still required to resolve this issue.

The earliest cooking-pot forms in fabrics P2/3 and 2B from within the walls of Pevensey tend to have simple beaded or expanded rim edges. Fabric P2 examples sometimes have rim-edge blackening and more often a slight bulge beneath the bead to give a rounded collar. Two such 'collared' rims came from dumped rubbish beneath the quay sectioned in Site 1 on the outskirts of Pevensey village (Dulley 1967, fig. 62:10 & 11) and another from the quay make-up above. Dulley dated this quay to the early 13th century, but none of the drawn rims need be later than 1200.

Larger numbers of similar, collared, cooking-pot rims came from the Ladies Parlour site in Hastings Castle, where they were dated *c.* 1150–1250 (Barker & Barton 1978, fig. 11:2–4). Another example was also present in the sand tip forming the inner mound of the motte at Hastings, which possibly dates to 1066. This indicates that cooking-pots of this type had an extended currency from the mid-11th century to *c.* 1250 or later. The numbers present at Hastings Castle may indicate local manufacture, although such cooking-pots could equally well have been produced at Pevensey.

c. 1150–1200

Pits 61, 127, 195 and post-hole 304 produced pottery exclusively of this date. The pottery differs little from the earlier 12th-century material, and the very small amounts present make it difficult to identify any changes. Such changes as there were, can be better distinguished in the somewhat larger pottery assemblages surviving from the 1936 excavations within the castle, although there was no clear distinction between the earlier 12th-century wares. Tournette-finished spouted-pitchers and cooking-pots continued to be produced in the coarse-gritted fabrics P2/3, but pots with more elaborate rim treatment became increasingly common. The rim fragment from Pit 195 with finger-faceted edge (Cat. no. 11) is an example of one of these new forms. Cooking-pots with similarly faceted rims were found in a masons' lodge at Lewes Priory associated with the *c.* 1170–80 construction of the Dorter Extension and probably originated at the Ringmer potteries (Lyne forthcoming). Catalogue no. 12, with its concave lid-seating of Hadfield's form 4 (Hadfield 1981) is a typical Ringmer product. Cooking-pots of this type also appeared inside Pevensey Castle during the late 12th century, being present in the 1936 Trench XIII upper occupation levels sealed beneath the mid-13th-century clay dump from the digging of the moat. The type continued to be present at Pevensey until perhaps the third quarter of the 13th century and for much of this time is found alongside cooking-pots with everted and beaded rims. This would suggest that the bulk of the Pevensey coarseware market was shared between local or Hastings and Ringmer potters during the late 12th and early 13th centuries. The standard Ringmer cooking-pot fabric range of this period is, unfortunately, macroscopically indistinguishable from that of the local or Hastings products; both being part of the coarse flint/sand-gritted pottery tradition characteristic of East Sussex during the earlier medieval period (Fabrics P2A & P3). We thus have to distinguish products on the basis of rim morphology, with the source or sources of many of the more unusual forms being as yet uncertain.

Pits 61 and 129 had very small pottery assemblages, but contexts 195 and 304 contained somewhat larger groups of sherds. As with the pottery dated to the later 11th to early 12th centuries, we can quantify the combined assemblages from these pits by sherd count and weight (Table 2).

Table 2. Summary of pottery from later 12th-century contexts.

Fabric	No. of sherds	%	Weight g	%
P2/3	60	92.3	810	91.4
U1	2	3.1	18	2.1
U7	2	3.1	46	5.2
U9	1	1.5	12	1.3
Total	65		886	

This combined assemblage, like the early 12th-century one, has a preponderance of Fabrics P2/3 cooking-pot fragments. The sooted Fabric P2B is no longer in evidence. Some of the Fabric P2/3 cooking-pots, however, continue to have superficial areas of blackening on a grey ware with orange-margins. Foreign imports comprise Normandy Gritty and Glazed Gritty ware cooking-pot and jug fragments and red-painted Beauvais white-ware sherds.

10. Deep bowl or cooking-pot with stiffly everted and slightly concave rim, in very coarse grey fabric P2 fired reddish-brown internally and black externally. Similar to cat. no. 4 (Pit 195 fill 197).

11. Small fragment from cooking-pot rim with faceted edge, in grey fabric P3 fired orange-brown (Pit 195 fill 197).

12. Lid-seated cooking-pot rim of Hadfield's Form 4 (1981), in a grey fabric P2 fired grey-brown (Cut 304).

13. Cooking-pot rim with squared-off bead, in a grey fabric P2 fired patchy brown-black externally and black internally (304).

14. Bowl rim with 'collared' bead, in grey fabric P2 fired orange-brown (304).

15. Fragment from spout of pitcher with stamped circle decoration. In grey fabric P2 fired orange-brown (304).

Cut 304 also produced a cooking-pot with collared bead, similar to Cat. no. 3.

1200-1280

There were three significant early to mid-13th-century pit groups, Pits 52, 67 and 241, of which the assemblage from Pit 241 was by far the largest.

Pit 241

The lowest three fills within this large pit (226, 259, 260) contained an appreciable amount of pottery, including many large joining pieces. There are several cross-joins between pot sherds from the various layers, suggesting a one-off dumping of rubbish rather than a slow accretion of material. This factor, coupled with an apparent lack of residual pottery, makes the assemblage of particular importance. Fragments from at least 13 vessels were recognized.

Table 3. Pit 241: fills 226, 259, 260.

Fabric	Sherd count	%	Sherd weight g	%
P2/3	123	84.9	1788	90.2
U7	2	1.4	22	1.1
U9	20	13.7	172	8.7
Total	145		1982	

The coarse pottery consists entirely of bonfire-fired cooking-pot fragments and a spouted pitcher sherd in patchy brown-black and tournette-finished fabrics P2 and P3. The presence of two cooking-pots of Hadfield's Form 4 (1981) with concave lid-seating indicates that this assemblage was dumped during the late 12th to mid-13th century. A predominance of Fabric P3 sherds would, however, suggest a date within the later part of that time span.

16. One of two cooking-pot rims of Hadfield's Form 4 in grey fabric P3 fired grey-brown with black patches (226).

17. Cooking-pot with undercut everted rim and slightly corrugated body, in dirty grey fabric P3 fired grey-black internally and reddish-brown externally. Two other vessels of this type came from the pre-1250s occupation beneath the clay dump in the 1936 Trench XIII (Lyne in prep.) (226).

18. Cooking-pot with flattened beaded-rim, in grey fabric P3 fired patchy grey-brown with rim-edge blackening (226).

19. Wine-jar rim in smooth, off-white fabric U7 with rim-edge blackening. 12th to 13th century (Leenhardt 1983, fig. 6:1-16) (260).

20. Another wine-jar rim in sandy cream-buff fabric U7 with fine black ferrous inclusions and fired pale orange. 12th-13th century (260).

This pit also contained 20 sherds from two fine-sanded grey Normandy Glazed ware vessels with internal knife-trimming and external yellow-green glaze. Vessels of this type were imported into south-coast ports and London from an unknown source or sources in Normandy between the late 11th and early 13th centuries (Vince & Jenner 1991, 109).

Pit 52

The assemblage from this pit is very small (30 sherds, 386 g), but the presence of a coarse, unglazed jug or pitcher rim means that it is probably early 13th-century in date. Barton (1979) dates sparse-glazed and unglazed jugs to 1250-1350, but fragments are present in the Trench XIII occupation deposit beneath the dumped clay from the 1250s moat excavation. This indicates that the manufacture of such vessels may have commenced as early as 1200, or even before.

21. Cooking-pot rim with collared bead, in grey fabric P2 fired orange-brown.

22. Cooking-pot with beaded-and-flanged rim, in grey-brown fabric P7 fired smooth dark-brown internally and knife-trimmed soapy black exterior.

23. Jug or pitcher rim with handle stub, in very-rough grey fabric P2 fired patchy orange-grey without glaze.

Pit 67

The pottery assemblage from this pit is quite small (38 sherds, 464 g). It includes three cooking-pot rims with collared beads and a Ringmer rim of Hadfield's Form 4, which are all unlikely to be later than c. 1280. An accompanying Saintonge jug rim is an early example of an import from this source. Green-glazed jugs of this type were the first Saintonge products to arrive in England and are associated with the beginnings of the Gascon wine trade. These jugs appear to have started arriving in Southampton around 1200 (Platt & Coleman-Smith 1975, 2, 26), but some of the evidence for this early date has been questioned by Allan, who argues that the earliest importation date for the ware is c. 1240 (Allan 1983, 199). The combination of this Saintonge jug sherd and the cooking-pot rims suggests a mid-13th-century date for the assemblage.

24. One of three similar cooking-pots with collared bead rim, in grey fabric P2 fired rough brown with rim top blackening.

25. Spouted pitcher rim in grey fabric P3 fired grey-brown with rim-edge blackening.

26. Cooking-pot rim of Hadfield's Form 4 (1981), in grey fabric P2 fired orange-brown.

27. Saintonge green-glazed jug rim in white fabric W1 with sparse minute red and black ferrous inclusions and external bright apple-green glaze.

28. Jug body sherd in gritty-whiteware with sparse 2 to 3 mm subangular grey and angular black ironstone inclusion. Glazed pale-green, with a dark-green wheel-stamped raised band. This fragment is probably North French, although wheel-stamping is rare on jugs from that region and the fabric is unusual. Another wheel-stamped example is, however, known from the manor-house site at Alsted in Surrey (Dunning 1976, fig. 30). c. 1200–1250.

Pit 67 also contained a fragment from a Normandy Gritty ware cooking-pot and two small chips of orange-glazed sandy redware of uncertain origin.

c. 1280–1350

A medieval pottery production site was discovered during the 1936 excavations outside the west gate of the Roman fortress. Layers of burnt clay, potsherds and soot overlay the 1260s-dated backfill of the Norman hornwork ditch. Rim form typology and associated fineware imports date the waste vessels to the 14th century. These wasters include a number of small, shallow cooking-pots with elaborate out-turned rims, in a variety of distinctive grit-and-shell and sand-and-shell-tempered fabrics (P4, 5, R9A & R9B), wheel-turned and fired to a high temperature, so that sherds have a harsh hackly texture on breaks and all the carbon is burnt out.

Sherds in fabrics P4 and 5 are, however, present in latest 13th- to early 14th-century features at the Old Farmhouse site. The rim forms are simpler than those on the wasters from outside the West Gate and suggest that the Pevensey industry was in production before the putative kiln started to operate.

The pottery assemblages from Pits 221, 191, 45, 324 and 323 can be dated to the period 1280–1350. These assemblages are larger than those of earlier date and, when combined together, have enough rim fragments for EVES quantification (Table 4).

The most important vessel type is the cooking-pot, which accounts for nearly two-thirds of all the pottery present. Glazed jugs and pitchers make-up nearly a quarter of the wares. These are mainly of Rye origin but glazed Saintonge, Rouen polychrome, miscellaneous North French and Low Countries jug and pitcher fragments are also present.

Pit 221

The six fills (156, 177, 134, 154, 133 and 41) within Pit 221 contained appreciable quantities of pottery, including rim fragments from 18 vessels. Fabric group P4/5 was by far the most significant in the assemblage, reflecting its local origin (Table 5).

Squat, necked cooking-pots with triangular-sectioned rims and deeper cooking vessels with broad, horizontal ones are

Table 4. Pits 221, 191, 45, 324 and 323.

Fabric	Cooking-pots		Skillets/Pans		Jugs/Pitchers		Total	%
	EVES	%	EVES	%	EVES	%		
N2	–		0.10		–		0.10	2.2
P2	0.15		–		–		0.15	3.3
P3	0.72		0.07		–		0.79	17.6
P4/5A	1.53		0.38		0.20		2.11	47.0
P4/5B	0.21		0.14		–		0.35	7.8
P6	0.14		–		–		0.14	3.1
R3A	–		–		P			
R3B	0.06		–		0.01		0.07	1.6
R4A	–		–		0.56		0.56	12.5
U7	P		–		–			
U8	–		–		P			
V3	P		–		–			
W1	–		–		P			
W2	–		–		P			
X1	–		–		0.11		0.11	2.4
Z2	0.11		–		–		0.11	2.5
Total	2.92	60.6	0.69	15.4	0.88	24.0	4.49	

Table 5. Pit 221.

Fabric	No. of sherds	%	Weight g	%
Roman	2	1.2	26	1.0
P2	5	3.0	68	2.7
P3	15	9.0	98	4.0
P4/5A	71	42.8	1490	60.1
P4/5B	46	27.7	635	25.6
R3B	2	1.2	12	0.5
R4A	9	5.4	26	1.0
R4B	2	1.2	22	0.9
R6	1	0.6	14	0.6
U7	2	1.2	16	0.6
U8	2	1.2	4	0.2
U10	3	1.8	10	0.4
V3	1	0.6	16	0.6
W1	4	2.5	24	1.0
Z2	1	0.6	20	0.8
Total	166		2481	

the most common types in this assemblage. The horizontal cooking-pot rim form was also adopted by the Rye kilns during the mid-13th century, although the ironstone and calcite filler tends to be sparser and the surface finish smoother than that of the Pevensey products. A series of pottery groups from the Glottenham moated manor house site near Battle, dating from between 1250 and 1350 all included numbers of cooking-pots with horizontal rims. Cooking-pots with triangular-sectioned rims were, however, largely restricted to the mid- to late-13th-century groups A and C (Martin 1989, figs 13–16, M.48).

29. Cooking-pot with triangular-sectioned rim, in grey fabric P4A fired rough grey-brown.

30. Cooking-pot or bowl in grey fabric P4A fired buff with external patchy black sooting from use.

31. Similar form, in hard grey fabric R3B.

32. Cooking-pot with triangular-sectioned rim, in hard grey fabric P4A fired clean rough orange.

Figure 9

33. Cooking-pot with reeded triangular-sectioned rim, in hard-grey fabric P4B fired black.

34. Cooking-pot with broad, horizontal rim, in hard orange-brown fabric P4A with appliqué finger-impressed strapping on the body.

35. Upright cooking-pot rim with squared-off bead (Fig. 8), in hard grey fabric P4A with purple brown pimply external surface; with orange margins and interior surface. This unusual colouration is also found on some West Gate wasters and is probably due to the very high temperature firing.

36. Part of a spouted skillet in high-fired grey fabric P4A fired patchy brown-black. Dull green patchy internal glaze with external sooting on base.

37. Lower part of jug with finger-impressed base, in hard-grey fabric P4A fired buff-brown with splashed apple-green glaze.

38. Small ?bowl with convex and corrugated body in orange-brown fabric P4A variant with profuse 1 mm red ironstone and calcite inclusions with blackened patches on the exterior and splashed internal colourless glaze. The neck treatment is very similar to that on footed jugs from the Haarlem (II) kiln site in the Netherlands, the products of which are dated c. 1275–1325 (Janssen 1983, fig. 9.9:5).

39. Lid-seated pitcher rim in sandy, buff-orange fabric Z2 with external blackening. c. 13th century (Leendhardt 1983, fig. 6:1,11).

Pit 221 also contained two more cooking-pot rims similar to Cat. nos 29–31 and 32–33 as well as a glazed body-shoulder from a Hastings Bohemia kiln pitcher.

Cut 189

The pottery from the adjacent cut (189) was of approximately similar date. The assemblage was quite small (11 sherds, 238 g), but includes an out-turned and triangulated cooking-pot rim similar to those from Pit 221. The following piece was also present:

40. Not illustrated. Skillet rim in grey-black fabric P4B, from a form similar to a Winchelsea blackware type (Barton 1979, 121:5).

Pits 221 and 189 were both cut by pit 191. This contained very little pottery (342 g, 27 sherds), some of which was probably derived from Pit 221. Two sherds appear to be from vessels, not present in either Pits 221 or 189. One was from a horizontal rimmed cooking pot similar to Cat. no. 34 from Pit 221, but had fine, horizontal body and neck corrugation brought about by use of the fast wheel. The other sherd was from the strap-handle of a Saintonge jug in green-glazed pink fabric fired white.

Pit 45

To the north of this pit complex was pit 45 which was also of similar date and contained the following:

41. Greater part of a cooking-pot in hard grey fabric P4A fired

orange-brown with rim edge blackening.

42. Rim of skillet in handmade, hard grey fabric P4A fired reddish-brown with spots of internal green glaze. The exterior has been wiped and has sooting on the base.

The assemblage also included two sherds with splashed green glaze from ?Rye pitchers and a fragment of 'Winchelsea' black ware.

Pit 324

This pit, at the eastern end of the site, was probably of early 14th-century date and contained a pottery assemblage similar to that from Pit 221, except that North French imports were absent.

Table 6. Pit 324.

Fabric	No. of sherds	%	Weight g	%
P3	3	3.8	98	8.9
P4/5A	23	29.5	328	29.7
P4/5B	22	28.2	298	27.0
P6	8	10.3	142	12.9
R3B	9	11.5	104	9.4
R4A	3	3.8	34	3.1
W1	7	9.0	48	4.4
W2	1	1.3	8	0.7
X1	2	2.6	44	3.9
Total	78		1104	

Wares from the local potteries are the most important component of the pottery assemblage, but not to the same degree as in that from Pit 221. The difference seems to be due to higher numbers of glazed pitcher and jug fragments, both from the Rye and other local production centres as well as the Saintonge kilns. Pottery from sources not present in the Pit 221 assemblage include two sherds of glazed Dutch earthenware and fragments from more than one Abbots Wood cooking-pot from the kilns near Michelham Priory (Barton 1979, 182:3). This industry is known to have produced chimney pots and the pit also contained a fragment from one of these. Together, they suggest a late 13th- to early 14th-century *floruit* for this otherwise undated industry.

The pottery assemblage from pit 324 includes a flat-rimmed cooking-pot rim similar to Cat. no. 34; a reeded rim sherd similar to Cat. no. 33 and possibly from the same vessel, and another triangular-sectioned cooking-pot rim of the type represented by Cat. nos 29, 30, 31 and 32. The upper fill of the pit (320) also contained the following rim.

43. Pitcher or jug rim in hard, pale-grey fabric R4A fired hard, smooth orange-brown with internal white slip and splashed external bottle-green glaze with dark streaks. A Rye product (Barton 1979, fig. 6:2, for rim form). Barton dates the use of white slip under glaze from the earliest stage of the Rye industry onwards. He dates the commencement of jug and pitcher production to c. 1300 onwards, although evidence from both Pevensey Castle (Lyne in prep.) and Battle Abbey (Streeten 1985, 111) indicates that glazed Rye vessels were already in circulation by 1250.

The lower fill assemblage (321) included the following fragment.

44. Cooking-pot with triangular-sectioned rim, in rough brown-black fabric P6. The finish of this vessel is very poor, particularly on the exterior surface, although it was made on a fast wheel. Possibly an Abbots Wood product.

The Saintonge jug fragments from this pit include one polychrome sherd dated *c.* 1280–1310 and five fragments from a plain jug with dappled apple-green glaze. This jug has finger-impressed vertical strapping on a couple of fragments and may be a barrel-shaped example of a type imported between 1280 and 1325. A dappled-green-glazed jug sherd with triangular-sectioned vertical ribs is from another jug and there is a small fragment of Saintonge bichrome ware (R. Thomson pers. comm.).

Pit 323, which was cut by Pit 324, contained a small pottery assemblage (30 sherds, 616 g). This pottery is broadly similar in date to that from Pit 324 and includes a horizontally-rimmed cooking-pot sherd and a triangular-sectioned rim. There are also fragments from three Rye jugs or pitchers.

45. Jug rim in orange fabric R4A with internal white slip and external mottled orange-brown glaze. A Rye product of a type dated 1250–1400+.

46. Rim sherd from another jug, in grey fabric R4A fired orange with sparse coarse ironstone. Internal white slip is absent and the exterior below the rim is glazed apple-green. A Rye product.

47. Body sherd from a coil-built pitcher in high-fired blue-grey fabric P4A fired orange-brown with external simply bottle-green glaze over a stabbed neck-cordon. Faint diagonal and vertical grooving is present on the body beneath the glaze.

***c.* 1350–1450**

There were five significant pottery assemblages from this period: contexts 92, 110, 111, 207 and 267. As with the previous phase, none of these assemblages is large enough on their own for quantification using the measurement of Estimated Vessel Equivalents. Together, however, the combined pottery added up to an assemblage just large enough for such treatment (Table 7).

This differs from the vessel breakdown of the previous phase in that cooking-pots are less important and large flat-rimmed dishes and cisterns make their appearance. Both of

these latter vessel forms are associated with late medieval pottery industries in Sussex. They were produced at Graffham from *c.* 1430 onwards and at Binsted during the period 1375 to 1425. In discussing cistern fragments from Rye, Barton came to the conclusion that this vessel form did not appear in Sussex until *c.* 1400 (Barton 1979, 211). The London medieval pottery sequence shows an abrupt departure from traditional forms around 1350. It is at this time that large dishes and cisterns made their appearance as part of a much-expanded ceramic repertoire (Orton 1982, 80). These vessel forms were part of the Cheam kilns' range during the late-14th and 15th centuries and are thought to have been used in ale brewing and cheese-making (Orton 1982, 82).

The sinkage over the top of the 1280–1350 dated Pits 191, 221 and 45 was gradually filled in over the years by successive dumpings of rubbish. The lowest such layer (110) included only one potsherd, a fragment from the bowl present in the fills of Pits 221 and 191 beneath (Cat. no. 38). Layer 110 was overlain by another deposit (Context 111) which contained 406 g (30 sherds) of pottery. The character of this pottery assemblage is very similar to that from Pit 221, although somewhat smaller (Table 8). Much of this pottery consists of fresh-looking sherds, broken at the time of its deposition.

Table 8. Context 111.

Fabric	No. of sherds	%	Weight g	%
P4/5A	6	20.0	82	20.2
P4/5B	13	43.3	200	49.3
R3A	2	6.7	32	7.9
R4A	8	26.7	68	16.7
W1	1	3.3	24	5.9
Total	30		406	

The following sherds from 111 are of note.

48. Flat-rimmed cooking-pot with moulded rim edge, in hard-grey fabric P4A fired orange-brown.

49. Reeded and triangular-sectioned rim from cooking-pot in similar fabric. Similar to no. 33 from Pit 221.

50. Expanded rim from cooking-pot, in similar fabric to no. 49.

Table 7. Contexts 92, 110, 111, 207 and 267 combined.

Fabric	Cooking-pots		Skillets/Pans		Large dishes		Jugs		Cisterns		Total	
	EVES	%	EVES	%	EVES	%	EVES	%	EVES	%	EVES	%
P2	0.19	—	—	—	—	—	—	—	—	—	0.19	6.2
P3	0.07	—	—	—	—	—	—	—	—	—	0.07	2.3
P4/5A	0.39	—	0.10	—	0.22	—	—	—	P	—	0.71	23.0
P4/5B	0.21	—	0.05	—	—	—	—	—	—	—	0.26	8.4
R3A	0.21	—	0.16	—	—	—	—	—	—	—	0.37	12.0
R3B	—	—	—	—	—	—	P	—	—	—	P	—
R4A	0.20	—	0.09	—	0.06	—	0.17	—	—	—	0.52	16.9
R4B	0.34	—	0.05	—	—	—	0.17	—	—	—	0.56	18.2
R5B	—	—	—	—	—	—	—	—	0.40	—	0.40	13.0
V4	—	—	—	—	—	—	P	—	—	—	P	—
W1	—	—	—	—	—	—	P	—	—	—	P	—
W2	—	—	—	—	—	—	P	—	—	—	P	—
W3	—	—	—	—	—	—	—	—	P mortar	—	—	P
X1	—	—	—	—	—	—	P	—	—	—	P	—
Total	1.61	52.3	0.45	14.6	0.28	9.1	0.34	11.0	0.40	13.0	3.08	

51. Similar rim in bricky-red fabric P4B fired hard, medium-grey with a splash of green glaze on a stacking scar.

This layer also included eight unglazed fragments from a jug in fabric R4A and a combed bodysherd from a cistern in fabric R3A. A strap-handle fragment from a Saintonge jug was in pink fabric W1 with occasional soft, red ferrous and white inclusions and dappled apple-green glaze on its upper surface. The presence of the cistern fragment suggests that this assemblage is unlikely to be earlier than the mid-14th century.

Layer 111 was, in turn, overlain by a further layer of rubbish, Context 112. Whereas the pottery from the earlier consolidation layers have much in common with that from the pits beneath, that from 112 is somewhat more mixed and has sherds ranging in date from Roman to the early 16th century. This makes the assemblage unsuitable for any form of quantification. It did, however, include the following sherd:

52. Elaborately moulded cooking-pot rim in high-fired grey fabric P5A fired orange with grey-brown exterior. (Dulley 1967, fig. 62:20, where dated to the 14th century). The same form was also present at the West Gate kiln site (Lyne in prep.).

Pit 207

The most significant pottery assemblage of this phase is that from Pit 207, which appears to have been deposited at the time when cooking-pots and bowls in the coarse-grit and sparse shell-tempered P group of fabrics were being replaced by others in the altogether finer R group of sandy wares. There is a tendency for the flat and horizontal rimmed and the triangular-sectioned rim cooking-pots of the previous phase to be replaced by shallow examples with downward-tilted rims, some of which have short, weak necks and have become little more than bowls.

Table 9. Pit 207.

Fabric	No. of sherds	%	Weight in g	%
P2	3	2.0	38	1.2
P3	3	2.0	120	3.8
P4/5A	46	30.1	1238	39.4
R3A	16	10.5	172	5.5
R3B	17	11.1	818	26.0
R4A	46	30.1	306	9.7
R4B	1	0.6	48	1.5
R5B	15	9.8	332	10.6
V4	1	0.6	60	1.9
W1	1	0.6	2	0.1
W2	3	2.0	6	0.2
X1	1	0.6	2	0.1
Total	153		3142	

53. Poorly made flat-rimmed cooking-pot in very coarse grey fabric P2 fired grey-brown. Similar, but of inferior quality, to no.46 from Pit 221 and others from Pits 189, 191 and 45.

54. Cooking-pot with similar but downwards tilted rim and in high temperature fired blue-grey fabric P4B fired bricky-red with external surface greying. Stabbing under rim.

55. Cooking-pot with squared and internally-moulded rim, blue-grey fabric P4A with bubbly buff-brown surfaces due to high firing temperature.

56. Squared-off cooking-pot rim in similarly fired fabric P4A.

Widely-spaced stabbing on rim.

57. Large dish rim in hard-blue-grey fabric P4A fired orange-brown with rim-top stabbing.

58. Triangular-sectioned bowl rim in hard grey fabric P4B with fine horizontal corrugations on the body.

59. One of two short-necked cooking-pots with triangular-sectioned rims, in hard blue-grey fabric R4A fired brown with brick-orange margins and rim edge blackening. There is vertical, finger-impressed appliqué-strip decoration on the body. Similar vessels were made at the kiln outside the west gate of the Roman fort (Lyne in prep.).

60. Short-necked and flat-rimmed cooking-pot in similarly fired fabric R4B but with overall surface blackening. The rim edge is moulded and there is vertical, finger-impressed appliqué-strip decoration on the body. Stabbing below rim as no. 54.

Figure 10

61. Bowl with drooping, flat rim, in high-fired blue-grey fabric R4A fired buff-brown.

62. Flattened and out-turned bowl rim in grey-brown fabric R4B fired grey-black externally (Fig. 9).

63. Not illustrated. Exaggerated triangular-sectioned jar or necked bowl rim in hard orange fabric R4A roughly smoothed with brown and grey surfaces. Stabbing on underside of the rim.

64. Similar rim in hard-blue-grey fabric R4B fired grey-brown. Roughly smoothed.

65. Large flat-rimmed bowl in hard brown fabric P4A fired grey-brown. Roughly smoothed.

66. Cooking-pot in hard-medium-grey fabric R3A fired smooth buff-grey with grey patches. A Rye product.

67. Rim of large storage-jar or cistern in fine-sanded hard grey fabric R5B ware with sparse, coarse calcite and areas of surface blackening. Decorated with vertical pinched-up and finger-impressed strips. Other fragments from this vessel came from the slate-rich layers: Contexts 13 and 219.

68. Jug neck in high-fired blue-grey fabric R4A fired buff-orange with internal white-slip and splashed external olive-green glaze. A Rye product dated c. 1350–1425+ (Barton 1979, fig. 7.2).

69. Jug neck in similar fabric with internal white slip and fine horizontal external combing under dark-green glaze. Rye *sgraffito* ware dated c. 1350–1425+ (Barton 1979, 220).

The following residual piece also came from this pit.

70. Spout from pitcher in grey fabric V4. A late 11th-/12th-century 'blackware' import from the Pas de Calais or Flanders (N. MacPherson-Grant pers. comm.).

There were also three sherds of Saintonge Polychrome ware, one green-glazed Saintonge sherd and a glazed sherd of the

Low Countries fabric X1.

Pit 207 also contained a fragment from the same cistern as occurred in Layer 111, in a blue-grey cored light-brown fabric P4A with horizontally-combed bands and a few splashes of orange glaze. Other fragments from this same vessel came from Contexts 2, 13, 92 and 267. The burnt layer 92, however, had a couple of late-14th to early 15th-century rims.

71. Exaggerated triangular-sectioned rim from necked cooking-pot in coarse variant of fabric R4A with additional very coarse ironstone inclusions. High-fired blue-grey fabric fired orange-brown with rim-edge blackening (92).

72. Lid-seated bowl rim in buff-brown coarse variant of fabric R4A with internal grey surface (92).

Pit 267 contained another small pottery assemblage of this period (29 sherds, 394 g), although there was a considerable residual element. The following pieces are of note.

73. Jug rim in hard grey fabric R4B with sparse 0.50–1 mm black ironstone inclusions, fired smooth grey-brown with splashed green glaze over linear black painted decoration. A Rye product of Barton's second period *c.* 1350–1400+ (Barton 1979, fig. 12.1 for rim form).

74. Fragment from Saintonge mortar handle in fabric W3.

The pottery from fill 101 in ditch 100 had a wide date range of *c.* 1300–1550+, but was mainly datable to the period 1350–1450 and included two 15th-century fragments from an orange Rye jug in an almost earthenware version of fabric R4A with white painted decoration, the spigot from a cistern in high-fired fabric R4A with surface greying and several cooking-pot rims in fabric P4A.

1450–1550

There was only one significant pottery group of this phase. This came from fill 184 in Pit 193 and is probably of late 15th-century date. The assemblage is dominated by cooking-pots in sandy grey-ware fabric R5B, with true earthenware vessels, in the form of two similar cooking-pots in fabric AA1A, appearing for the first time. Red earthenware production at Cheam in Surrey replaced that of whitewares *c.* 1480 (Orton 1982, 82), but we are still lacking information as to when similar wares appeared in East Sussex. They were almost certainly present at Battle Abbey by 1500 (Streeten 1985, 118), but as yet the earliest known earthenware producing kilns in East Sussex are the early 16th century ones at Boreham Street near Hastings (Streeten 1985) and Lower Parrock near Hartfield (Freke 1979). The earthenware cooking-pot rim form from Pit 193 is different to any published from Battle Abbey, but closely paralleled at Hawksden, where the form was dated to *c.* 1450–1550 (Martin 1991, fig. 13:19).

75. Beaded and lid-seated cooking-pot rim in grey fabric R5B fired uniformly black. The rim-form may be a development of that found on cooking-pots of the previous phase from Layer 111 (nos 77, 78) and Pit 207 (no. 64).

76. Lid-seated cooking-pot rim in rough-grey fabric P3B. This

Table 10. Pit 193.

Fabric	No. of sherds	%	Weight in g	%
P3	11	12.1	230g	16.9
R4A	2	2.2	112	8.2
R5A	2	2.2	158	11.6
R5B	46	50.5	480	35.3
U8	1	1.1	2	0.1
AA1A	18	19.8	296	21.8
AA2A	1	1.1	2	0.1
Misc.	10	11.0	80	6.0
Total	91		1360	

may be a residual 13th-century piece, but the rim form has similarities with no. 78 below.

77. Not illustrated. Narrow strap-handle with stabbing from a jug or pitcher, in grey-cored orange fabric R4B with partially greyed surfaces and unglazed.

78. One of two squat cooking-pots with lid-seated rims, in orange fabric AA1A with smooth finish.

79. Fragment from an open-work curfew or louvre in grey fabric R4A fired orange with splashed apple-green glaze on the upper surface and traces of both combed and rouletted decoration.

The top of the pit contained a levelling-up layer, 150, which produced a further pottery assemblage. Some of the wares are very similar to pieces from the pit fill beneath and are possibly derived from it, but the presence of a fragment from a 19th-century salt-glazed Bristol stoneware tankard indicates some intrusive material. The bulk of the pottery from 150, including two sherds from Raeren stoneware jugs is, however, of 15th- to early 16th-century date and includes the following.

80. Flattened and slightly up-turned cooking-pot rim in rough-grey fabric R4B fired brown internally and grey-black externally.

81. Squared-off cooking-pot rim in medium-grey fabric R4B.

82. Lid-seated cooking-pot rim in grey-cored orange fabric AA1A with patchy external greying and smooth finish.

83. Not illustrated. Rim fragment from jug in orange fabric AA1A with splashed orange glaze.

84. Not illustrated. Rod handle in similar fabric with orange glaze splashes and possibly from the same jug.

85. Not illustrated. Broad, unglazed strap-handle from pitcher or cistern, in blue-grey fabric R4A fired orange-brown.

86. Rim fragment from chafing-dish in orange fabric AA1A with internal greenish-brown glaze. Lower Parrock kiln Form 5, dated 1520–1540 (Freke 1979, fig. 12:53).

Fill 282 in Ditch 281 contained very little pottery, but this included.

87. Jar rim in vitrified brown-grey fabric Y4 with splashes of green glaze.

The pottery assemblages from occupation layers

The pottery assemblages from the occupation layers differ from those in cut features, as they tend to be less well sealed and have considerably wider date ranges. They are therefore less useful for dating pottery forms and fabrics, but include a number of vessel types and imports not present in the pits.

The pottery from layer 8/ 269 was largely of 12th- to early 13th-century date, although two triangular-sectioned cooking-pot rims, Winchelsea Blackware sherds and some Saintonge, Rye and Hastings Bohemia jug and pitcher fragments indicate a late 13th- to early 14th-century intrusive element in the assemblage as well (Table 11).

Table 11. Layer 8/ 269.

Fabric	Sherd count	%	Sherd weight g	%
Roman	1	0.7	2	0.1
P2/3	105	75.5	1880	81.6
R3A	12	8.6	198	8.6
R4A	3	2.2	16	0.7
R4B	1	0.7	2	0.1
R6	1	0.7	22	1.0
R7	3	2.3	32	1.4
R8	1	0.7	6	0.3
U7	5	3.6	100	4.3
W1	5	3.6	18	0.8
X1	1	0.7	10	0.4
Z1	1	0.7	12	0.5
Total	139		2298	

The following pieces are considered worthy of illustration.

88. Cooking-pot rim with pronounced bead in dirty-grey fabric P2A fired patchy grey-brown. This rim is paralleled in both form and fabric on a cooking-pot from the burnt clay and potsherd layer cut by the 1936 Trench XII against the inner face of the west wall of the Roman fortress. Another example of this type was found by Dulley in the quay make-up on his Site 1 (Dulley 1967, fig. 62.7) and dated by him to the early 13th century. This dating may be as much as 50 years too late.

Figure 12

89. Cooking-pot rim with squared-off bead, in dirty-grey-black fabric P3A fired buff with rim-edge blackening. The burnt clay and sherd dump in the 1936 Trench XII also included the greater part of another cooking-pot, with a rim-form identical to this one. A further example from a hearth excavated near the Caburn hillfort was believed to be associated with the re-fortifying of that hillfort at the time of the Anarchy in c. 1147 (Dunning 1953).

90. Cooking-pot in dirty-grey-black fabric P2A fired orange-brown with rim-edge blackening.

91. Large cooking-pot or store-jar rim with squared-off bead, in dirty-grey-black P2B fired grey-black. The rim form is paralleled in the make-up for the quay on Dulley's Site 1 (Dulley 1967).

92. Large cooking-pot with squared-off rim in the manner of no. 30, also in dirty-grey-black fabric P2A fired patchy grey-brown.

93. Another example of a similar rim form in similar fabric

but from a smaller vessel.

94. Weakly everted rim in dirty-grey-black fabric P2B fired grey-brown. This rim form is paralleled in the 12th-century upper ditch fills of the Norman hornwork outside the West Gate of the Roman fortress.

95. Cooking-pot or spouted-pitcher rim in grey-black fabric P2B. This is also paralleled in the upper ditch fills of the Norman hornwork.

96. Cooking-pot rim of Hadfield's Form 4 in grey-black fabric P3A fired buff-brown with rim-edge blackening.

97. One of two cooking-pots with triangulated rims, in fabric P3A.

98. Cooking-pot with collared and flattened bead, in black fabric P3B.

99. Beaded bowl rim in dirty-grey fabric P2A fired reddish-brown.

100. Bowl rim in very coarse grey-black fabric P2A fired orange-brown.

101. Pan or skillet rim in black fabric P3B.

The pottery from the 13th- to 14th-century Layer 18 includes similar 12th- and 13th-century cooking-pot forms to those listed above. It also has the following.

102. Not illustrated. 17 sherds from a jug in fine, orange fabric R4A with a rod-handle and external green-glaze. This vessel has been identified as a Beverley type 2 product, also found at Hull in East Yorkshire, and dated to the 13th to mid-14th centuries (Nigel MacPherson-Grant pers. comm. See McCarthy & Brooks 1988, 237).

103. Not illustrated. A fragment from an Aardenburg polychrome-glazed jug in fine red fabric X1 with external white slip with black, applied pellet. Vessels of this type were made in the coastal regions of Flanders, mainly at Bruges, between 1250 and 1350 (Verhaeghe 1983).

Two sherds of green-glazed Saintonge ware, one North French glazed fragment and two glazed Rye pitcher fragments were also present in Layer 18.

The layer containing large amounts of West Country slates (Context 17) sealed Layer 18 and contained a stabbed rim from a large dish of 14th-century type in Fabric P4B and six sherds from glazed Rye pitchers and jugs. The similar and possibly contemporary fallen slate layer 219 had sherds from the same large grey-ware storage-jar as was present in the late 14th-century pit 208 (no. 67).

Layer 116 contained much residual pottery, including three cooking-pot rims of Hadfield's Form 4 in fabric P2, a sherd of green-glazed Surrey White ware and a green-glazed sherd of possible Mill Green origin. The following was also present.

104. Handmade bead-rim from vessel of uncertain form, in brick-orange fabric Z1 with splashed orange glaze and indications of a possible handle.

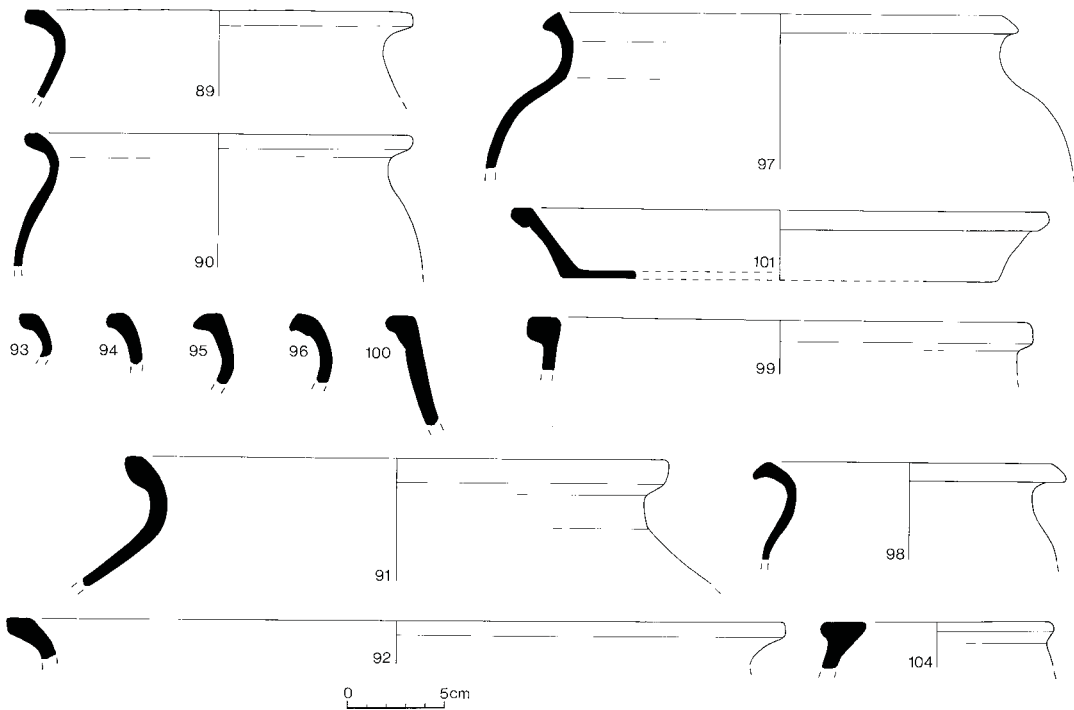


Fig. 12. Pottery.

Table 12. Summary of imported pottery by period.

Fabric	Rhineland	Low Countries	Normandy	S.W. France	Spain
<i>c. 1080–1200</i>					
Beauvaisis (U1)			4		
Pingsdorf (U3)	1				
Normandy Gritty (U7)			18		
Normandy Gritty Glazed (U9)			17		
?Lower Normandy Gritty (Z1,2)			8		
Paffrath (V3)	1				
Blackware (V4)		1			
Total	2 4.0%	1 2.0%	47 94.0%	-	-
<i>c. 1200–1400</i>					
Rouen Polychrome (U8) <i>c.</i> 1240–1260+			11		
N.French Glazed (U10) <i>c.</i> 1200–1250			19		
Saintonge Green (W1) <i>c.</i> 1240–1350				35	
Saintonge Poly. (W2) <i>c.</i> 1280–1310				9	
Saintonge mortars (W3) <i>c.</i> 1240–1350+				4	
Aardenbourg type (X1) <i>c.</i> 1250–1350+		7			
Total	-	7 8.2%	30 35.3%	48 56.5%	-
<i>c. 1400–1500</i>					
N.French Glazed (U10)			1		
Dieppe Stoneware (Y2)			2		
Martincamp (Y3)			1		
?German (Y4)			2		
German Stoneware (Y5)	13				
?Spanish tin-glaze (AB1)					1
Total	13 65.0%	-	6 30.0%	-	1 5.0%

The changing pattern of pottery supply

English pottery

The overwhelming bulk of the pottery used on the Old Farmhouse site between the foundation of the extra-mural port and the end of the medieval period originated in East Sussex. During the first 150 years or so of occupation, most of the pottery in use was coarse-grit tempered, with flecks of shell suggesting use of alluvial and beach sand as filler. Much of this pottery came from the Ringmer kilns near Lewes and from

other less readily identifiable production centres at Hastings and possibly Pevensey itself. Similarities in fabrics make it difficult to determine the relative importance of these industries, although the distinctive nature of the black P2B wares make them easy to isolate.

There was steady importation of glazed jugs and pitchers from the Rye kilns after the mid-13th century, continuing into the 15th century. Further glazed vessels of these types, but from the Hastings Bohemia kilns were also present in Pevensey

Table 13. Summary of fabrics U1 to Z2 by context.

Context	U1	U3	U7	U8	U9	U10	V3	V4	W1	W2	W3	X1	Y2	Y3	Y4	Y5/6	Z1	Z2
2			1	4		1			3	2								
3			1															
8			2	2					5			1					1	
18						1			2			2						
44									1									
55			1															
58			1															
64			1															
68						1			1									
69			1			1						1						
71				1					1	1	2							
96									3					1				
101				1		2				1								
105		1																
108															1			
111									1									
116												2	2					1
120									1									
122																10		
124			1															
128																1		
130			1			1												
132						1												3
133			1															
134				2		3	1		4									1
148	2																	
150						1										2		
151			1						3									
157										1								
158						3												
175											1							
176						2												
177									2									
186				1														
187									1									
196						1												
197	1																	
199						1												
208										3		1						
215								1										
226						16												
240	1																	
260			2															
267												1						
276																		1
282															1			
298			2			1												
306																		1
309			2															
321									7	1								
329						1												
Total	4	1	18	11	17	20	1	1	35	9	4	7	2	1	2	13	4	4

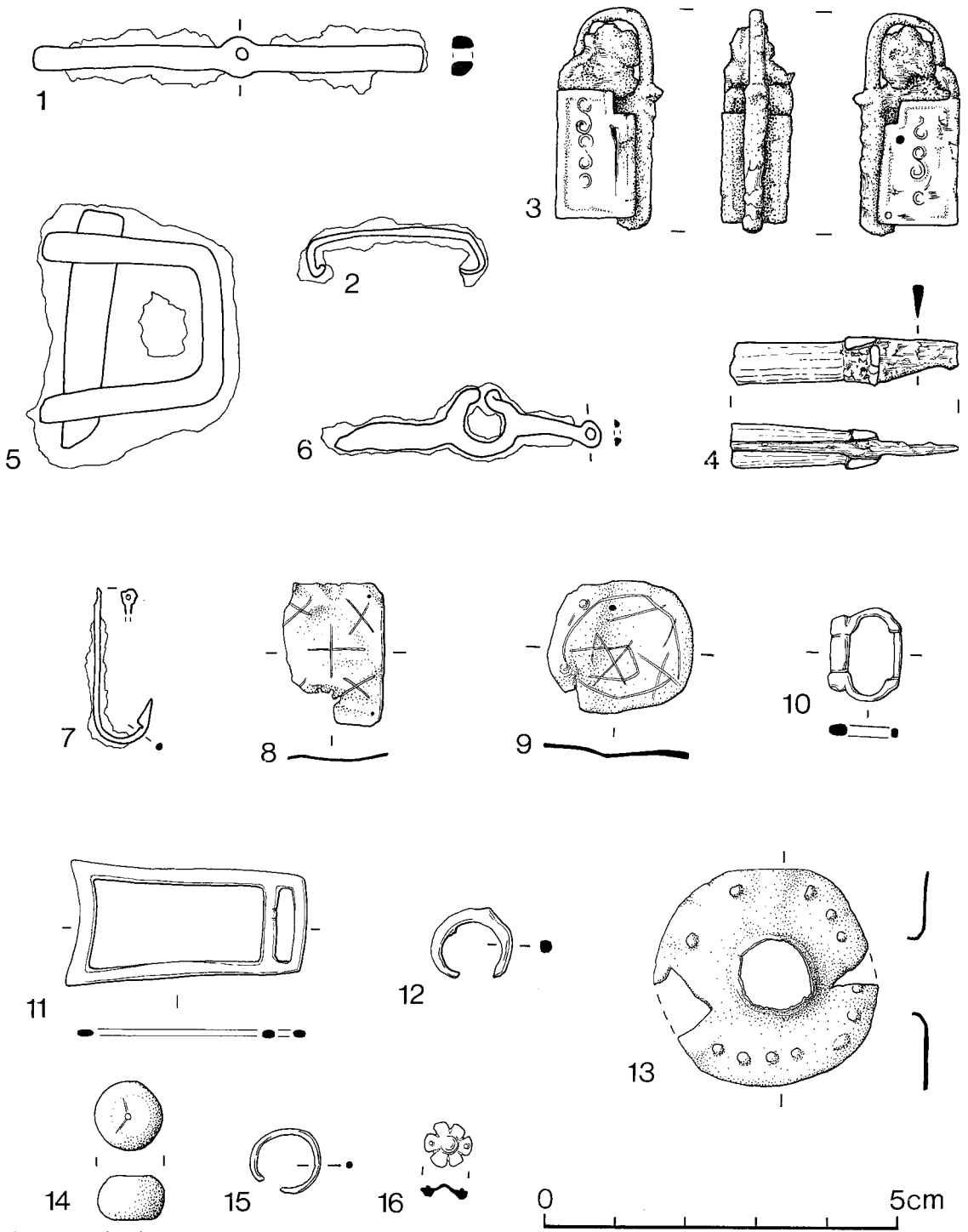


Fig. 14. Metalwork.

during the period 1250–1350, as were small numbers of poor-quality cooking-pots from the Abbott's Wood kilns near Michelham Priory. High-temperature-fired pottery in grit-and-shell-tempered and sand-tempered fabrics were manufactured at Pevensey itself during the late 13th and 14th centuries and some 'Winchelsea Blackwares' and Rye coarsewares also arrived on the Old Farmhouse site after 1300.

Evidence for Pevensey's links with the east-coast ports takes the form of a 1250–1350 dated jug from the Beverley kilns, probably acquired at Hull, and a fragment from a possible Mill Green jug of similar date. This latter piece may have been brought from London along with some Surrey Whiteware vessels and indicate trading links.

Pottery production at Pevensey probably ended during the early 15th century and earthenwares appeared at some time after 1450. These early earthenwares are of uncertain origin but may be products from the unpublished Boreham Street kiln on the northern edge of Pevensey Levels.

Continental pottery

Changes in the pattern of medieval pottery importation into south-coast ports have already been discussed elsewhere (Allan 1983), as has the North Sea trade along the east coast of England (Brooks & Hodges 1983). Southampton is the nearest port to have its ceramic imports subjected to detailed examination. Most of the Saxo-Norman imports consist of North French painted wares, Normandy Gritty ware jugs and cooking-pots. From 1200 onwards, Normandy Gritty wares were joined by a variety of North French green-glazed white-wares, and they in turn by Rouen Polychrome jugs during the mid-13th century.

The importation of all wares from Normandy went into sharp decline during the third quarter of the 13th century and was largely replaced by Saintonge imports associated with the Gascon wine trade. Saintonge jugs became the most significant ceramic import into Southampton after 1250 and remained so until the late 15th century. They were joined by Low Countries earthenwares after *c.* 1300, but these were never as common as on east-coast sites.

When we tabulate the recognized imported potsherds from the Old Farmhouse site by type and origin (Table 12), we find the pattern of importation very similar to that at Southampton and with a marked fall-off in imports of any description after the mid-14th century. We can probably discount the German stoneware imports, as these flooded into England in such large quantities after the 1480s that the Pevensey examples could easily have come from London or elsewhere, rather than directly from the Continent. The bulk of them are also probably of 16th-century date.

The residue of the 15th-century imports consist almost entirely of Normandy stoneware variants on a scale which could be interpreted as the acquisitions of local fishermen visiting ports on the Normandy coast and reflect the decline in the port's fortunes, brought about by the silting-up of its harbour. There is one sherd from a turquoise tin-glazed plate of probable late 15th-century date and Spanish origin, hinting at the possible survival of some of more distant trading links at this late period in Pevensey's commercial life.

COINS AND TOKENS by David Rudling

a. Roman

1. Diocletian, 284–305. *Ae* follis, *c.* 303–305.

Obverse: IMP DIOCLETIAN[VS] AVG, Laureate and cuirassed

bust right.

Reverse: GENIO POPV-LI ROMANI, Genius standing left, holding patera in right hand and cornucopia in left hand; S|? in field.

Ref.: Type as *RIC* Trier 582 (Sutherland 1967).

Layer 97.

2. Late 3rd- or 4th-century, large oval-shaped centre (12 ∞ 10 mm) of a bronze coin. Very eroded and worn. Possibly barbarous.

Obverse: ?Radiate bust right.

Reverse: Illegible.

Cut 301.

b. Kings of England

1. Edward I, 1272–1307. Silver penny of Bristol.

New coinage, Class IIb, IIIbcdfg or IXb. (The class type is uncertain since the coin is badly bent, cracked and worn.) 1280 to *c.* 1300–1302.

Ref.: (North 1975, nos 1015, 1017–1022 or 1037)

Unstratified.

2. Charles II Copper farthing. 1672 (?).

Unstratified.

3. George III Copper halfpenny 1775.

Context 1.

4. George V Bronze halfpenny 1927.

Unstratified.

c. Jetons

1. French latten stock jeton of Tournai, *c.* 1415–1497. 27 mm in diameter.

Obverse: Shield of France modern bearing three fleurs de lis: + MVRVC (reversed) TNAVNNVATDRAVT (i.e. fictitious legend — the identification of some of the letters is uncertain).

Reverse: Triple stanced straight cross fleuretty within 4-arched tressure: in inner angles, Lis (∞4): external angles, uncertain letters/ornaments between two pellets.

Ref.: Cf. Mitchiner 1988, 224. Catalogue nos 665–669.

Pit 121, fill 132 (residual)

2. German brass 'ship-penny' jeton of Nuremburg: anonymous issue, *c.* 1490–1550. 26 mm diameter.

Obverse: Profile of a ship bearing a central mast with yard-arm, stays and single sail. On the left is a stern-castle, with a flag-staff above; on the right the bow-castle is surmounted by a pennant on a pole: fictitious legend: ?crown initial mark.

Reverse: Four fleurs de lis in a lozenge; with some pelletty ornamentation in the surrounding field: fictitious legend.

Ref.: Cf. Mitchiner 1988, 373. Catalogue nos 1172–1176.

Unstratified.

d. Lead token

Uniface token: Diameter: 24 mm; weight 7.22 g. Date uncertain (probably 18th century). Human figure left; ?lion right; Arabic '5' to right of the animal.

Unstratified (Fig. 13).

e. Commemorative medal

1842, Bronze medal issued by William Griffin of Cornhill, London, to mark the opening of Brunel's Thames Tunnel in 1842 (Hawkins 1989, 813, no. 12). 24 mm diameter. Pierced at top for suspension. The reverse is very worn.

Obverse: A close view of the twin tunnels, THAMES TUNNEL/OPENED 184[3].

Reverse: THAMES TUNNEL/ AND/ OTHER/ MEDALS/ TO BE [HAD OF THE] / PUB[LISHER] / W. GRIFFIN/25/ [CH]ANGE ALLEY/ CORNHILL LONDON.

Unstratified.

SLAG

Very little slag is present and all is fully listed in the archive. Most comprises very small pieces of fuel ash slag from the environmental samples. This slag, which is basically silica, is not characteristic of metalworking (Pit 182 fill 185). The unreacted clay/clinker? is from medieval contexts but has modern characteristics suggesting it was possibly intrusive in the 19th century (Pit 296 fill 300).

WORKED FLINT (identifications by Greg Priestley-Bell)

Six pieces of worked flint were recovered from five contexts. All pieces were residual but show some limited prehistoric activity in the area. The raw material is usually a black or grey flint, two examples of which retain cortex, from the chalk. One piece, however, in grey/black flint, is from a beach pebble. All the material, where discernible, is of hard-hammer waste flakes and probably dates to the Neolithic or Bronze Age. Layers 1, 2 and 13. Pit 221 fill 41 and Pit 241 fill 226. A full list forms part of the archive.

SPINDLE WHORL

Just under half of a biconical spindle whorl in hard chalk(?) with evenly blackened external surfaces decorated with incised lines (Fig. 15:1). Weight 13 g but probably originally c. 30 g. The form is similar to an example found in Colchester (Crummy 1988, no. 1932). Pit 67 fill 68. 13th century.

GLASS by John D. Shepherd

One hundred and twenty-three fragments of glass were submitted for identification. Of these, only four can be positively identified as medieval in date. The remaining fragments are all nineteenth or early twentieth century, in particular bottles and window glass.

The medieval fragments are a single vessel fragment (Cat. no. 1) and three pieces of window glass which were probably originally from the same quarry (Cat. nos 2-4).

The vessel fragment comes from the rim of a small bowl, decorated with a spiral trail of opaque yellow glass, which would appear to belong to the group of 9th- to 10th-century vessels decorated in a similar manner. Another fragment in dark blue glass with yellow trail came from Portchester (Harden 1976, 234, no. 5, fig. 145) associated with pottery of the same date and a fragment, colour not specified, came from Waltham Abbey, Essex in 'pre-conquest' levels (Huggins 1976, 89, 117).

Catalogue

1. Fragment from the rim and part of the side of a bowl (Fig. 15:2). Free-blown; indeterminate coloured glass but probably dark blue with a slight surface decomposition layer. Rim fire-

rounded, folded inwards and flaring. Body decorated with ?spiral trail of opaque yellow glass. Pit 179 fill 180.

2-4. Three fragments of window glass. Indeterminate colour with deep surface decomposition. Medieval. Pit 193 fill 184.

CLAY PIPE (identifications by David Atkinson)

Thirty-seven stem and three bowl fragments were recovered from eight different contexts during the excavations. These have been fully listed for the archive. All the material has come from 18th- or 19th-century contexts and spans the late 17th to 19th centuries, although the majority is of 19th-century date. Virtually all of the fragments are plain, however, a 19th-century stem fragment from Layer 2 has leaf decoration and a stem fragment from Layer 11 is impressed F.SEQUIN || EAST.BOUR[NE]. This pipe-maker is recorded working in Eastbourne in 1862. The bowl fragments consist of two of late 17th-century date and a leaf-decorated 19th-century example (Layers 2 & 11).

MORTAR

The excavations produced 31 pieces of mortar, weighing 407 grams, from seven different contexts other than walls. Some of this material was from medieval contexts (Pit 207 fill 208, Cut 324 fill 321) and is fully listed in the site archive.

BURNT CLAY

The excavations produced 285 pieces of burnt clay, weighing 1545 g, from 36 contexts. These have been fully listed by context on Burnt Clay Record sheets which are housed with the archive. Virtually all pieces are a dull orange red colour with powdery texture. Most are irregular although some show signs of having

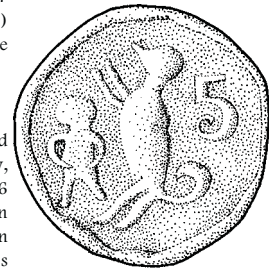


Fig. 13. Lead token.

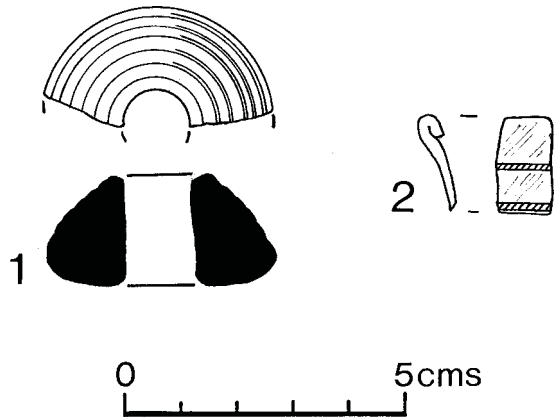


Fig. 15. Spindle whorl and glass.

a smoothed face. A few examples have traces of organic inclusions (grass/straw). Only two pieces (Contexts 203, 240) have any evidence of actually being daub — both contained what appears to be wattle marks.

BRICK

Only 222 pieces of brick, weighing 18,430 g, from 36 contexts are present. These have been divided into one of eight fabric groups and fully recorded on record forms by context which, along with a sample of each fabric, are housed with the archive. Although fragments of brick are present in a few medieval contexts, they are all small and in low quantities. It is only in post-medieval contexts, notably Pit 121 fill 122, that brick is more common. Full details are to be found in the archive.

TILE

The excavations produced 1143 pieces of tile, weighing 53,098 g, from 74 contexts. All this material has been fully listed by context on tile record sheets which form part of the archive, along with a sample of each fabric type. A full quantification was also undertaken by number and weight for each fabric. This quantification was undertaken using all context, but excluded Romano-British and miscellaneous unattributed fragments. All percentages given in this report for fabrics are for weight.

More detailed study concentrated on sealed dated contexts alone. This was done in order to try to ascertain the use of different fabrics during the medieval period. This work studied 44 contexts ranging from the 12th to late 17th centuries and full details are housed with the archive.

Although many tile forms were easily distinguished, many were not. This proved particularly to be the case when trying to distinguish between peg and nib tiles when no diagnostic features remained. Peg-tile certainly seems to be the more common type on the site although the exact proportion cannot be ascertained as both peg- and nib-tiles appear in the same fabric.

All the tile, where possible, was grouped by fabric. Fabrics were identified by visual examination of tempering, inclusions and firing using a hand-lens where necessary. The following fabrics were recognized.

Romano-British

Six pieces are present, all in a dull orange medium to hard-fired fabric tempered with moderate fine to medium sand and occasional iron ore and flint inclusions to 5 mm. Forms recognized include tegula, imbrex and box flue but all are heavily abraded, and with the possible exception of Layer 5, all are residual.

Post-Roman

Fabric 1 (35.7 per cent by weight)

A fine hard-fired tempered with sparse moderate to fine sand and sparse iron ore and chalk? Inclusions to 2 mm colours are usually orange red although higher fired examples are often dull purple. The vast majority are from peg-tiles (350 fragments) with round, square, or more commonly diamond, fixing holes. Thicknesses range from 8 to 17 mm but most fall within the 9 to 13 mm range (300 fragments). Six pantile and one floor-tile fragment is also present. At first appearance this fabric could easily be attributed to the post-medieval period, and indeed it is very common in deposits post-dating the 17th century. However a number of pieces consistently appear in earlier

context suggesting caution is needed. The one or two fragments from 12th- to 13th-century contexts are likely to be intrusive, however, sufficient quantities are present in 15th- to early 16th-century sealed contexts, for example 101, to suggest this fabric started in the late medieval period. Tiles from these contexts are indistinguishable by visual examination from those in sealed late 17th-century deposits.

Fabric 2 (0.5 per cent)

A hard-fired fabric, related to Fabric 1, tempered with sparse to moderate fine sand and moderate off-white clay pellets (to 10 mm) and grey (to 8 mm). Colours are very variable but are visually dull orange red. Only four peg-tiles, ranging in thickness between 1 to 12 mm, and one floor tile (31 mm thick) are present. This fabric appears more commonly in 15th-century or later context although one fragment, potentially intrusive, was located in a 12th- to 13th-century deposit (Layer 8).

Fabric 3 (17.3 per cent)

A medium-fired fabric tempered with moderate to abundant medium quartz sand and moderate inclusions of orange brown grey/clay pellets to 7 mm. Colours are visually orange brown, dull orange or orange red. The majority are from peg-tiles (150 fragments) with thicknesses ranging between 8 to 15 mm. Most fall between 10 to 14 mm however (139 fragments). Only one peg-hole is present and this is of diamond form. The only complete dimension of a tile from the site is in this fabric, and consists of a peg-tile width of 160 mm (Pit 207 fill 208). A number of nib tiles are also present in this fabric (13 fragments) although it is certain some undiagnostic pieces have been included under peg-tiles. Nibs, where measurable, averaged 30 \times 20 mm in plan and 10–12 mm high. This fabric first appears in 12th- to 13th-century contexts but is far more common in 13th- to 14th- and 15th- to 16th-century deposits.

Fabric 4 (8.5 per cent)

A medium-fired fabric tempered with moderate grey pellets to 3 mm and streaks of off-white clay. No sand is visible in the fabric, although a little is present on some surfaces. Colours are usually a light dull orange throughout. The majority are from peg tiles (101 fragments), with round, square, or occasionally diamond peg-holes (2 samples). Thicknesses range from 8 to 18 mm though most fall between 10 to 14 mm (77 pieces). One possible pantile, and two ridge tiles are present, the latter being 18 mm thick. The fabric appears to really begin in the 12th to 13th century (Pit 204, fill 205) but is most common in 13th- to 14th- and 15th- to 16th-century contexts.

Fabric 5 (2.1 per cent)

A low- to medium-fired fabric, tempered with abundant very fine sand and sparse inclusions of grey to 2 mm and clay pellets and streaks to 6 mm. This powdery fabric is usually buff or bright orange in colour. All eleven examples in this fabric are from floor tiles with thicknesses ranging between 22 and 37 mm. Seven are glazed: three brown, three olive green and one yellow over a white slip. The fabric first appears in 13th- to 14th-century contexts but is also found in the 17th century (Pit 121 fills 122, 132).

Fabric 6 (8.3 per cent)

A low- to medium-fired fabric, tempered with sparse very fine sand, abundant sub-rounded grey to 6 mm and off-white clay streaks. This powdery fabric is usually a dull orange throughout.

Most fragments appear to be from oven or floor tiles (37 pieces) ranging in thickness from 25 to 35 mm. Two possible peg- or nib-tile fragments are also present in this fabric however. Two small fragments of Fabric 6 first appear in a 12th-century context (Pit 304) but continue to appear in low quantities through to the 17th century (Pit 121 fills 122 & 132). However, by this period they may be residual.

Fabric 7 (8.7 per cent)

A hard-fired fabric, tempered with sparse fine sand and sparse to moderate grey and iron ore inclusions to 3 mm. Colours usually consist of a dull orange red, occasionally with grey surfaces. The majority of fragments (80 pieces) in this fabric are from peg-tiles with thicknesses ranging from 7 to 14 mm. Most, however, fall within the 10 to 12 mm range (60 pieces). Only two fixing holes are present, one round and one square. Two floor tile fragments (22 and 31 mm thick) are also present in this fabric. Similarly to Fabric 1, an initial inspection may suggest a post-medieval date for this fabric. However, it first appears in low numbers, in sealed contexts of the 13th–14th century (Pit 323 fill 44 and Pit 67 fill 68) suggesting its origins may in fact be in the medieval period. Having said this, however, the fabric is far more common in post-medieval deposits (Pit 121 fill 122 has 32 fragments).

Fabric 8 (0.04 per cent)

Only one fragment of this brown glazed 19th-century wall-tile fabric was present.

Fabric 9 (11.8 per cent)

A low- to medium-fired fabric tempered with profuse medium sand with very occasional inclusions of iron ore to 2 mm and clay pellets to 5 mm. This fabric is similar to Fabric 3 but has far more sand making it rough to the touch. Colours are usually bright red orange. The vast majority of fragments in this fabric are of peg- or nib-tiles (160) with thickness ranging from 8 to 15 mm. Most fall within the 10 to 13 mm range (111 pieces). No peg-holes are present, and only one nib (6 mm high) was recognized. One floor-tile (25 mm thick) and one ridge tile fragment is present, the latter having a patchy brown olive glaze. This fabric first appears in 12th- to 13th-century contexts but is not common until the 13th to early 16th centuries.

Fabric 10 (1.5 per cent)

A low-fired fabric distinctively tempered with abundant sub-angular white, grey and red flint grits to 2 mm. Colours usually consist of an orange brown with reduced dark brown or grey surfaces. Of the eight pieces present, none are diagnostic of form and only six have a measurable thickness (22 mm). It is likely most are floor or oven tiles but a roofing function cannot be ruled out until larger pieces are available for study. The only sealed contexts this fabric was found in are two of 14th-century date (Pit 207 fill 208 and Pit 324 fill 321) and two of the 15th to early 16th century (Pit 193 fills 150 & 184). It is possible, however, that this coarse fabric is of earlier origin.

Fabric 11 (0.9 per cent)

A medium-fired fabric tempered with sparse fine sand, moderate ironstone pellets to 4 mm, clay pellets to 6 mm and off-white clay streaks. This very mixed fabric is usually a bright red orange throughout. Three floor-tiles (30 to 36 mm thick), two possible peg-tiles (11 to 17 mm thick) and one possible

hipped bonnet tile (18 mm thick) are the only recognizable forms. This fabric first appears in the 12th to 13th centuries but is more common in 13th- to 14th-century contexts.

Fabric 12 (0.3 per cent)

A medium-fired fabric, tempered with moderate sub-angular off-white blue and grey flint to 2 mm; sparse to moderate iron ore to 1 mm and sparse grey and medium sand to 1 mm. Only one example of this fabric is present. This consists of a fragment of 15 mm thick ridge-tile with dull brown red to grey core and brown red surfaces (Pit 52 fill 178, 12th–13th century).

Fabric 13 (0.3 per cent)

A low-fired fabric, tempered with sparse fine sand and abundant organic inclusions, including shell, which have mainly burnt out leaving voids. Some iron ore inclusions to 4 mm are present. Only one fragment in this fabric was recovered. This consists of a 28-mm-thick floor tile with a grey core and buff brown to dull orange surfaces from a sealed 13th- to 14th-century deposits (Pit 182 fill 185).

Fabric 14 (0.6 per cent)

A medium-fired fabric tempered with abundant fine to medium sand and occasional iron ore inclusions to 2 mm. Colours usually consist of dark grey cores and dull orange surfaces. Four possible peg- and three ridge-tiles are present. Peg-tiles range in thickness from 11 to 16 mm while the ridge-tiles are slightly thicker at 17 mm. Both ridge tiles have a dark green glaze. The fabric first appears in 12th-century contexts (Cuts 272, 273 & 304), but only as two small fragments. It is likely these are intrusive. The fabric is far more common in the 13th to 14th centuries with some still being present, or residual, in 15th- to early 16th-century deposits.

Fabric 15 (3.1 per cent)

A medium-fired fabric, tempered with sparse fine and sand moderate iron ore to 3 mm. Some inclusions of white clay pellets to 4 mm are also present. Colours usually consist of a dull orange or buff occasionally with brown cores. No diagnostic pieces are present, however, it seems likely all are of either peg- or ridge-tiles with thicknesses varying between 10 to 15 mm. Several fragments from Pit 121 fill 122 have traces of a clear glaze. The fabric possibly appears in the 12th to 13th centuries although it is possibly intrusive during this period. The fabric is more common in 13th- to early 16th-century contexts.

Fabric 16 (0.5 per cent)

A hard-fired fabric, tempered with sparse fine to medium sand. Very few inclusions are visible and iron ore is totally absent. Colours usually consist of dull red oranges, sometimes with a dark grey core. No diagnostic pieces are present, however, judging from the thickness, which ranges from 8 to 15 mm, it is likely all are from peg- or rib-tiles. Five small fragments are present in 12th-century contexts (Cuts 244, 306 & 308), while a few are present in 13th- to 16th-century contexts. Too little of this fabric is present in order to determine its introduction date with any certainty.

The site at Pevensey appears to suggest tile was frequently used for roofing from at least the 13th–14th centuries onward. Most of this material, although often being in well-dated contexts,

is unfortunately very fragmentary and thus difficult to ascribe to form with certainty in many instances. The re-use of tile is well attested, as many of the fragments have mortar adhering to both faces as well as broken edges. This makes it extremely difficult, if not impossible, to assess the end date of many of the fabric types. Hopefully future work in Pevensey on less 'cluttered' sites may produce some of this needed data.

The source of the tiles found during the present excavations is uncertain. It is highly likely that a number of the fabrics are in fact from the same source, as many fabrics display similar tempering agents and inclusions. Streeten (1985) mapped the kiln sites producing ceramic building materials around Baffle Abbey. The two closest sites to Pevensey are at Michelham Priory and Alciston however, sea-borne trade would make the transit of heavy commodities from further afield much easier. It is therefore possible that material from the kilns at Bohemia (Hastings) and Rye account for a number of the Pevensey tiles although until detailed petrological analysis is undertaken this will have to remain uncertain.

SLATE

The excavations produced 1387 pieces of slate, weighing 38,050 g, from 65 contexts. The slate was divided into eight different varieties and fully recorded (by context) on slate record sheets which form part of the archive. This material was then fully quantified by number and weight.

The varieties are as follows.

- A - dark grey, occasionally with light grey surfaces, pronounced lamination;
- B - light grey with slight green tinge, smooth surfaces with pronounced lamination;
- C - purple/mauve, fine grained with smooth surfaces but very irregular lamination;
- D - light grey with slight green tinge, smooth surfaces with pronounced lamination;
- E - light blue grey with slightly granular surfaces and irregular lamination;
- F - pale grey silver with very smooth surfaces and pronounced fine lamination;
- G - dull purple with smooth surfaces and well pronounced lamination;
- H - light to dark grey silver with slightly rough surfaces and irregular lamination; some mica present.

The percentage of the total assemblage by weight these varieties make is as follows:

- A (86.6%); B (3.2%); C (0.2%); D (0.04%); E (4.4%); F (0.8%); G (2.2%); H (2.5%). A sample of each variety is housed with the archive.

With the exception of group B, all other varieties are from south-west England. This area is now well known as the source for medieval roofing slates in Sussex (Holden 1965; 1989; Murray 1965). The different varieties located could all potentially be from the same quarry as the variability of the slate can be great within one confined area (Murray, in Holden 1989, 77). Group B appears to probably be of Welsh origin. The importation of Welsh slate into Sussex is normally thought to have occurred with the advent of the railway in the 19th century. However, the few fragments of Type B are not only found in 19th-century contexts but several earlier ones. Most of these contexts are of 16th- to 18th-century date, although context 40 is possibly 15th to 16th century. None of these contexts are, however, well sealed and either the Type B slate

is intrusive to them, some west country slate has been mis-identified or slate from Wales was coming in earlier during the post-medieval period than was previously thought. The former option seems likely however.

Unfortunately most of the slate is badly fragmented and few pieces with features such as mortar or fixing holes, are present. Of the 24 fixing holes located, 20 are pecked round with diameters ranging from 6 to 13 mm; two are rectangular (4 × 7 mm Layer 219) and two oval (8 × 11 mm Cut 324 fill 320). Thicknesses have not been quantified but vary between 5 to 29 mm. Most are between 8 and 12 mm thick however. Very few complete dimensions are present: a width of 49 mm (Layer 40) and a nearly complete example from Pit 194 fill 186), measured 194 mm long (originally 200 mm?) by 70 mm wide at the head to 103 mm wide at the tail, were all that was present.

Although no detailed quantification of slate by period has been undertaken, with the exception of the weight ratio comparison with roofing tile (*see above*), some points do arise about its general quantities on the site through time by looking at several sealed groups of different dates.

During the 12th century, slate is present in low quantities. This rapidly increases in the 12th- to 13th-century period. An even more dramatic increase is made in the 13th to 14th century. However, by the 14th to 15th century, the quantities have dropped back to those of the 12th to 13th centuries. This decrease may reflect the number of sealed contexts of this date on site rather than any real drop in use. The highest peak comes in the 15th to early 16th centuries. This may either represent an increased usage, although it may be localized, or more likely, demolition or re-roofing of nearby structures. It is interesting to note that layer 17, which consisted virtually entirely of slate appears to date to the earlier part of this period, or possibly the end of the previous period and probably represents destruction materials being spread out to form a yard surface. It has been noted by Holden (1965, 74) that after 1450, local kilns may have been producing roofing tiles more cheaply than the importation of slate. This appears to correlate well with the evidence from the present excavation. Certainly by the 17th century, slate is scarce in sealed contexts and suggests that by this time was not being used, the only examples being present are likely to all be residual with the exception of the four Welsh pieces.

A comparison between the use of roofing tile and slate

It was noticed during the initial sorting of the roofing material that while a number of slate fragments were present, virtually no tile was apparent in sealed 12th-century contexts. As a result a preliminary analysis was undertaken to study the use of slate against tile through the medieval period. This study, which is housed with the archive, emphasized a number of changes in the slate to tile ratio through time and a brief summary is therefore produced here.

The study concentrated on 19 sealed and dated pit groups which ranged from the 12th to late 17th, early 18th centuries. (Pits 54, 61, 296, 289, 285, 275, 127, 52, 59, 241, 47, 67, 182, 191, 324, 207, 193, 100, 121). As the quantities of slate and tile on these pits was often small, it was decided to compare the two materials as a ratio of weights to try to overcome the small sample size present in some groups. Pit groups of a similar period were then grouped together and the resultant tile to slate ratio worked out for the different periods.

Of the seven 12th-century pit groups studied, none had any tile, while two contained a number of slates. To remedy this, all 12th-century contexts on site were examined. This produced six contexts of this period containing tile. More producing slate were also found. All of these contexts, however, are either dated by one sherd of pottery and/or are uncertain about the degree of intrusiveness. None of the eight fragments of roof tile in these deposits is large and could quite easily be intrusive. The fact that no tile was present in the securely dated and sealed contexts of this period tends to strengthen this case.

During the 12th century, however, slate is sparse, but at least it comes from well-sealed groups. This suggests slate was reaching Pevensey by the 12th century but either in small quantities or was prepared off-site prior to roofing.

During the 12th to 13th centuries, slate still dominates the ratio. However, tile is now firmly established with 9.1 per cent of total weight for this period. By the 13th to 14th century tile had increased to 16.4 per cent but during the 14th to 15th century accounted for 60.5 per cent. Slate increased during the 15th to 16th centuries, accounting for 60.8 per cent. What this reflects is uncertain, however it may simply be the replacement of slate roofing with tile rather than an increase in imports. By the late 17th to 18th century, tile is virtually totally dominant (97.8 per cent), the slate by now simply residual. Although local tiles had been gaining popularity, the silting of the harbour would have inhibited the trade in slate.

This preliminary study has shown interesting changes in emphasis of roofing material at the excavation site. However, the sample of 19 pit groups is too small to draw firm conclusions from at present, but future work should hopefully show whether this emerging pattern is valid.

GEOLOGICAL MATERIAL (incorporating comments by John A. Cooper of the Booth Museum of Natural History, Brighton)

The excavations produced a total of 404 pieces of stone (excluding slate) weighing 86,482 g, from 73 different contexts. All this material has been fully listed by context and stone type on geological material record sheets which form part of the archive. Full quantification of stone types by number and weight per context is also housed with the archive. Slate was not included in the quantifications due to its fragmentary nature and has therefore been treated separately (*see above*). A number of stone types are present but many of those can be grouped together as variants of the same general type, probably simply reflecting different outcrops of bedding plains of the same geological rock. A full list of all the rock types and their variants, along with samples of each, forms part of the Archive. The main groupings are shown in Table 14 and are quantified by both number and weight. Stone from all contexts was quantified together as, although some is without doubt residual, little new material seems to have been brought to the site after the medieval period, with the possible exception of flint, upper greensand and coal. Virtually all rock types are present in closed medieval contexts, with the exception of coal.

Most of the stone from the site is of relatively local origin, being derived from the Weald and Downland (72.56 per cent by weight). This exploitation of local resources is to be expected. However, other sources of stone are also evident. A number of pieces appear to have come from the Dorset, Devon and Cornwall areas, probably the result of seaborne trade. Two pieces are from abroad (*see below*).

The main rock groupings are as follows.

South-eastern types

Flint and chalk

Both these rock types are readily available close to Pevensey, both from the Downs themselves and the beach. Little chalk was present on the site although flint, both nodules and beach pebbles, was very common and as a result was not systematically collected for quantification. It appeared in the 12th- to 19th-century contexts and was presumably brought in for cobbling and construction materials. Wall 209 was built of flint as were parts of 144.

Upper Greensand

Two variants of Upper Greensand are present, although virtually all is from the Eastbourne area. Some pieces show signs of marine-boring bivalves and water-rounding on their surfaces and must have been collected from the beach. This stone appears repeatedly in contexts of all periods, the earliest being 12th century (Pit 296 fill 300, Cut 304). The majority is in contexts of the 13th to 16th centuries. A number of fragments of worked blocks are present, some of which show crude chiselling on the surviving parts of their external faces (Pit 221 fill 41, Ditch 100 fill 101). This, along with the fact that walls 144 and 6 were of this material, suggests the primary function of this stone was in construction.

Greensand (Unprovenanced)

Three variants were present in this group, some of which show signs of marine worm burrows on their surfaces. The exact origin of this group is not certain although some may be Wealden. The few fragments present are from contexts spanning the 12th (Pit 289 fill 290) to the 15th–16th centuries (Pit 193 fill 150).

Lower Greensand

Two variants are present within this group but both are typically hard with relatively thin bedding plains. The exact origin of this material is not known. However, the Lower Greensand beds outcrop some 5 km west of Pevensey. Whether these outcrops match the excavated examples cannot be ascertained at present. The Lower Greensand is never present in large quantities, but appears in the 12th century (Cut 306) and runs through the 13th to 16th centuries. A number of fragments were found in post-medieval contexts (Pit 121 fill 132). The precise use of this material is difficult to judge. It is likely, however, that the four fragments found were originally from roofing slates, although no diagnostic pieces were present. If this is the case the buildings on the site, or in the immediate vicinity, were not roofed exclusively with this material but were possibly patched with it.

Small Paludina limestone

This group has two variants. Virtually all consist of a dense iron-rich variety of stone with frequent fossil gastropods. Only one fragment is present which is not iron-rich. This stone originates in the Weald clay which lies to the west and north west of Pevensey (Lake *et al.* 1987). Although outcrops of large paludina limestone occur at Laughton and Upper Dicker the precise location of outcropping small paludina in the vicinity is not known at present. All the excavated pieces are unshaped although they naturally conform to their bedding and it is likely that they were used for construction, though no mortar was present on any examples. This stone type frequently occurs in contexts ranging from the 12th (Pit 61 fill 58) through to

the 16th centuries (Layer 108). It is also present in small quantities, presumably residually, in the post-medieval period (Pit 121 fills 122/132).

Wealden ironstone

Although two variants are present in this group, the dominant type is the fine clay ironstone. Only one fragment of the coarse type is present and is characterized by its sandy texture and visible lignite inclusions. Similarly to the paludina limestone, the ironstone originates in the Weald clay, the nearest outcrop being just to the east of Laughton, some 12 km to the north west (British Geological Survey - Sheet 319). It is possible the excavated material originated at a former outcrop which lay closer to Pevensey. The bedding of the ironstone makes it difficult to ascertain whether the samples have been deliberately split or have done so naturally. Most are in slabs some 20–30 mm thick. Only two vary from this, being 42 and 52 mm. It is likely this rock from a 13th- to 14th-century context (Pit 323 fill 44) had two corners, and traces of mortar on the sides and base. As no thicker fragments were found it would suggest the ironstone was not used primarily in wall construction as was noted at Beddingham Roman Villa (Barber in prep.). The ironstone appears in 12th-century contexts (Pit 54 fill 55, cut 306) but is particularly common in 13th- to 15th-century deposits. It is possible, however, that all pieces relate to one floor which was subsequently dismantled.

Wealden sandstones

This is a large group which contains seven variants, presumably from different sources. However, sourcing Wealden sandstones to outcrop is virtually impossible at present due to the similarity of the sandstones from different outcrops and the lack of detailed surface geological fieldwork in the area. Most excavated pieces are iron-rich and of fine to medium texture. Virtually all are fairly friable and are normally in small pieces. This tends to distort the percentage by number which they make up in the overall assemblage (Table 14). This is partly the result of the stone frequently being burnt as often the sandstone is used for its refractory qualities in the creation of hearth bases (context 159, though only sampled). Few large pieces are present suggesting it was not brought in for building. One shaped corner was located in fill 122 (Pit 121), however. Some is likely to originate in the immediate vicinity of the site from the Tunbridge Wells Sand. The rock group appears frequently in contexts from the 12th century (Pit 296 fills 300, 295, cut 306), through to the post-medieval period.

Southern Dorset

Fine off-white limestone

This stone is certainly imported to Pevensey and may originate from either Caen, France or Dorset, although the latter seems

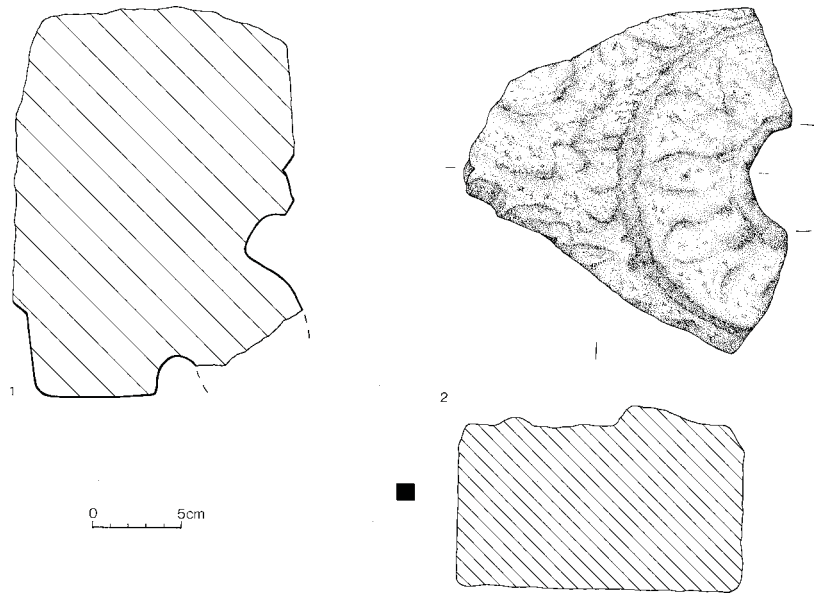


Fig. 16. Stone objects.

more probable. Virtually all the pieces are irregular and are likely to have come from larger shaped blocks. Only one definite worked piece is present. This consists of a badly damaged 13th- to 14th-century moulded jamb from a window or door (Fig. 16:1) weighting 10,400 g from Pit 193, fill 150 (15th–16th century). The reverse has the remains of a closing rebate for either a door or window shutter. The main face has a hollow, broken roll, hollow, followed by a fillet on a half roll. Next to the latter is a roughly worked face suggesting the block was part of a larger moulding. It is probable this piece originated from a high-quality building such as the church. All the other fragments are from 12th- to 14th-century contexts such as Pit 324 fill 320 and Pit 59 fill 60.

Fossiliferous limestone

Almost certainly originating in the Portland area (Portland Roach) only one fragment of this stone is present. This is from a 12th- to 13th-century context (Layer 8/269).

Oolitic limestone

This coarse oolite is not a Wealden type and is again likely to come from the Dorset area. The first occurrence is in a 12th-century context (Layer 145 not on plan) but residual material is present in Victorian deposits (Cut 120).

South-western types

Virtually all of the slate found is from Devon or Cornwall. This material has been treated separately. However, a number of other rock types are present which probably originate in the same area. These probably came to Pevensey with the slate cargoes or, more likely, as ships' ballast.

Torquay limestone

Only one fragment of this stone was located. This came from a 15th- to 16th-century context (Cut 236).

Table 14. Geological material (excluding slate).

Area	Name	No.	%	Weight g	%
	Flint & chalk	7	1.7	700	0.9
	Upper Greensand	53	13.1	17,520	20.2
	'Greensand' unprovenanced	7	1.7	5475	6.4
	Lower Greensand	20	5	1552	1.83
Local	Small Paludina Limestone	48	11.8	13,530	15.6
S.E.	Ironstone	54	13.3	14,285	16.6
	Wealden sandstones	159	39.4	9540	11.03
	S.E. Stone Total	348	86	62,602	72.56
	Fine limestone (France/Dorset)	12	3	12,790	14.8
Dorset?	Oolitic limestone	10	2.5	1415	1.6
	Fossiliferous limestone	1	0.2	425	0.5
	Slate	not included			
	Torquay limestone	1	0.2	500	0.6
From	Quartzite	2	0.5	350	0.4
	Quartz	1	0.2	1100	1.3
S.W.	Hard shale	4	0.9	560	0.61
	Hard spotted shale/slate	6	1.5	990	1.1
	Granite	7	1.7	3755	4.3
From N.	Coal	8	2	205	0.2
True	Marble	1	0.2	130	0.2
Foreign	Lava	1	0.2	4410	5.1

Foreign stone types*Green porphyry (marble)*

Only one fragment of this distinctive rock was located: 13th-century Pit 106, fill 107. The piece is 20–21 mm thick with two opposed polished surfaces. All edges are broken. It is possible this Mediterranean rock is of Romano-British origin and therefore residual in the present excavations. A similar piece of marble was however located at Battle Abbey (Streeten 1985, 67). Although in a modern context, at least the Battle example demonstrates the presence of such a stone on a site unlikely to have Romano-British contamination.

Niedermendig lava

This stone is now well known in medieval England, being imported as querns in large quantities during the medieval period. Only one piece, however, was found from the excavations (Fig. 15:2). This consists of the central portion of an upper stone to a large quern

Hard shale and hard spotted shale/slate

Ten pieces of these rocks are present. The earliest deposit they are found in is 13th–14th century (Cut 203) but they also occur in 15th- to 18th-century deposits (Ditch 100 fill 101, Pit 193 fill 150).

Quartz and quartzite

Only one fragment of quartz and two of quartzite are present. The quartzite pieces are both elongated pebbles suggesting either they were brought as ships' ballast or were moved along the coast by longshore drift and collected from the beach. Both pebbles could have been used for whetstones or polishing stones; however, no wear is apparent. However, considering the hardness of the rock, this need not be a problem. One is from a 12th- to 13th-century context (Layer 8/269) while the other is in a 14th- to 15th-century deposit (Layer 92). The one large water-rounded boulder of quartz, which weights 1100 g, is too heavy for longshore drift and is probably ships' ballast (Pit 193 fill 150).

Granite

Two variants are present; grey weathered and orange weathered types. Both are of Cornish origin. The small quantity present, which includes a large water-worn boulder from context 218 (13th–14th century), suggests this material was not deliberately brought in as a cargo but rather as ballast. Most is in 13th- to 14th-century contexts.

Coal

Only eight pieces of coal are present. All are from contexts postdating the late 17th century. Most, however, are 19th century.

or millstone. Unfortunately, the edge is broken and the original diameter cannot be established. The stone is 90 mm thick with part of a circular collar around the hopper remaining. The grinding face has been worn flat but not smooth. The stone had been re-used as general rubble (Context 218: 13th–14th century).

Discussion

The potential degree of residuality at the site prevents a detailed analysis of changing stone-use ratios within the 12th to 15th centuries. However, most of the stone types do appear in contexts running through this period and it is likely that most of the stone collected from the excavations, with the exception of coal, is of medieval origin. Whether the same stone types were used throughout, or one is seeing high degrees of residuality cannot be ascertained. Many types of stone are, however, used during the 12th century.

Despite these problems a few tentative observations may be made about the exploitation of the geological resource. The building materials on the site are likely to have been dominated by flint during the medieval period. Shaped Upper Greensand blocks were probably only used for corner stones or wherever shaped stone was specifically required. The lack of Wealden sandstones on the site tends to reinforce this theory although the degree of robbing is impossible to calculate. It is only later that large shaped blocks of Upper Greensand are used in the main construction of masonry as demonstrated by wall 144. Admittedly this wall is not securely dated, but an early post-medieval date seems likely. The large upper greensand blocks are probably the result of robbing from the castle. The finer limestones, originating in the Dorset region, are probably from

a wealthy building elsewhere in Pevensey, unless robbing removed virtually all of the material from such a building on the excavation site. Re-used stone, from ballast and other objects, is well demonstrated in the possible rough wall 218. This is hardly surprising, however, when one considers the distance to the nearest suitable outcrop of building stone. The Wealden ironstone is probably the remnant of a floor, while many of the Wealden Sandstones may have been brought in of use in hearths.

A general picture of heavy exploitation of local geological resources of basic building needs can be seen in the medieval period with better stone being brought in from further afield for specific, better quality buildings. Any material which could be re-used was. This included pieces from other buildings as well as anything which came in as ships' ballast. The presence of a number of rock types from the south west is interesting in that it reflects the passage of seaborne trade, presumably dominated by slate, from this area of Britain.

PALYNOLOGICAL ANALYSIS by Patricia E. J. Wiltshire

It was decided to sample two features on site for polleniferous deposits; ditch 100 (fill 101) dating to the 15th to 16th centuries and pit 182 (fill 185) dating to the 13th to 14th centuries. The aims of the palynological assessment were to investigate the functions of the features and, possibly, gain some picture of the vegetation of the environs of the site. The methods of sampling and extraction are fully described in the archive along with a full description of the results. The following is a summary of the key points.

Samples were extracted using a 50 cm monolith tin. This covered the full profile of ditch 100 but only the base fill of pit 182 (185) was sampled. A number of sub-samples were later extracted for analysis.

Results

Ditch 100

The ditch sediments unfortunately proved to be completely sterile of polynomorphs.

Pit 182 (fill 185)

Preservation of polynomorphs was found to be variable throughout the sample with none being found at 1 cm and four at 41 and 48 cm. Better preservation was found in the 9, 19 and 28 cm sub-samples although the assemblage of taxa was limited and polynomorphs sparse. These three sub-samples were overwhelmingly dominated by *Sphagnum* spores (although no attempt was made to quantify) while the sub-sample at 28 cm also contained abundant *Pteridium* (bracken) spores. Other taxa indicative of heathland/bog were *Calluna* (ling/heather) and, possibly, *Betula* (birch) and *Pinus* (pine). There are many species of *Sphagnum*, and most are found in damp, acidic habitats such as lowland heath and bogs. It is interesting to find such large numbers of its spores in a probable cesspit, along with other indicators of heathland. There is a strong probability that the moss was being used as a form of 'toilet paper' and/or as women's sanitary wear. The moss is ideally suited for both purposes as its leaves contain non-living water storage cells which are capable of absorbing large amounts of fluid. The plant is also soft and pleasant to touch, and has antibacterial properties.

Mosses act as traps for pollen, so it is not surprising that pollen and spores of other heathland plants were found in association with the *Sphagnum*. It is, however, interesting that

only the sub-sample at 28 cm contained bracken spores while only the sub-sample at 19 cm contained lime and elm. It is tempting to suggest that the moss was being collected from a variety of sources. There are outcrops of Greensand fairly close to Pevensey and it is likely that *Sphagnum* was collected from a variety of heathlands on these deposits. Tree pollen could have been derived from plants growing around the site, or even some distance away. For example *Corylus* (hazel), *Quercus* (Oak), *Tilia* (lime) and *Ulmus* (elm). It is possible they may have been wind-blown or introduced into the pit in faeces or domestic refuse.

The small number of herb taxon present could easily have found its way into the pit via similar methods to that of free pollen.

The abundance of eggs of the intestinal parasitic nematode worm, cf. "Trichuris" in the sub-samples at 19 and 28 cm is interesting in that it strengthens the case for pit 182 being a cesspit.

BONE by Dale Sarjeantson & Lucy Kirk

The aim of the animal bone study was to characterize the diet and economy of a single, small town tenement of the period. Samples of 50 litres were taken from sealed major features found to contain bone, with the intention of sieving to 2 mm. Additional samples were also taken for analysis of other environmental material.

The excavation produced 2458 fragments of bone. This figure is for hand-collected bone only and does not include bone extracted from the environmental samples. A total of 964 bone fragments were studied and these were selected from well-sealed, medieval contexts with low residuality.

The quantities of bone from the medieval period is summarized in Table 15. The table displays the total number of bones recovered from each context. Numbers of cattle, sheep/goat, pig, horse, bird and fish are also shown along with the numbers of unidentified fragments.

12th–13th century

Contexts of this date produced about 385 bones, comprising of the main domestic food animals and approximately 30 fish bones. Cattle and sheep bones are present in almost equal quantities, and pig are fewer. The fish species present included conger eel.

13th–14th century

Over 500 bones were recovered from various contexts from this period, including approximately 65 fish bones. Cattle, sheep, and pig are the main species present and bird bones are rare.

14th/15th–16th century

Some 70 bones were recovered from features of this date. None of the samples contain fish bone.

Most skeletal elements are present in the assemblage suggesting that the material is nothing other than domestic food waste. The scarcity of bones from domestic fowl is likely to be a phenomenon of bone disposal rather than a reflection of what was eaten, since fowls were abundant in contemporary deposits elsewhere, such as Winchester (Serjeantson in prep.). The fish bone is all from larger species, gadids and conger eel, the species which might be expected in a south-coast site of the period (Smith 1995), but numbers are small. There is no evidence for smaller fishes such as herring, even in the sieved samples. It is likely that these were also eaten.

Table 15. Summary of bone from sealed contexts.

Date	Context no.	Type	Cow	Sheep	Pig	Horse	Bird	Fish	Unidentified	Total	Comments
12th	8	layer	8	9	4	0	1	2	73	97	1burnt
	58	pit fill	1	0	0	0	0	0	4	5	
	62	pit fill	4	3	3	1	0	1	28	40	conger
	128	pit fill	2	1	2	0	0	0	8	13	
	197	pit fill	0	0	0	0	0	0	9	9	all ribs
	224	pit fill?	0	0	0	0	0	0	7	7	
	232	gully fill	0	1	0	0	0	1	2	4	
	240	pit fill	2	0	1	0	0	2	14	19	
	249	pit fill?	0	1	0	0	0	0	16	17	
	255	post-hole fill	0	1	0	0	0	0	0	1	
	276	pit fill	2	0	0	0	0	0	5	7	
	290	pit fill	0	0	1	0	0	0	2	3	
	295	pit fill	1	2	1	0	0	0	6	10	
	300	pit fill	2	0	0	0	1	0	0	3	
304	pit fill	1	1	0	0	1	0	15	18		
306	pit fill	0	1	0	0	0	0	1	2		
308	post-hole fill	0	0	0	0	0	0	1	1		
	TOTAL		23	20	12	1	3	6	191	256	
12th-13th	53	pit fill	3	2	0	0	0	0	7	12	
	55	pit fill	0	3	2	0	0	20	5	30	
	60	pit fill	0	0	0	0	0	0	6	6	
	130	pit fill	1	0	1	0	0	1	27	30	
	151	layer	2	1	3	0	3	0	19	28	
	252	pit fill	2	2	0	0	0	2	0	6	burnt samples
	261	pit fill	1	3	0	0	0	1	4	9	
	266	gully fill?	0	0	0	0	0	0	3	3	
	268	pit fill	0	0	0	0	0	0	1	1	
	280	pit fill?	1	0	0	0	0	0	0	1	
	332	pit fill	2	0	0	0	0	0	1	3	
	TOTAL		12	11	6	0	3	24	73	129	
13th	48	ditch fill	0	0	0	0	0	0	4	4	
	107	pit fill	0	0	0	0	0	0	2	2	
	126	pit fill	0	0	0	0	0	.	14	14	
	199	pit fill	0	0	3	0	1	2	18	24	
	226	pit fill	3	5	1	0	0	40	56	105	Gadid sample
	247	pit fill?	0	0	0	0	0	0	2	2	
	248	pit fill	2	0	0	0	0	0	12	14	
	251	gully fill?	0	0	0	0	0	4	4	8	cod
	278	gully fill	1	1	0	0	0	0	0	2	
	TOTAL		6	6	4	0	1	46	112	175	
13th-14th	44	pit fill	2	0	2	1	3	0	26	34	
	46	pit fill	2	0	1	0	0	0	7	10	
	87	layer	0	0	0	0	0	0	1	1	
	145	layer	0	0	0	0	0	0	1	1	
	156	pit fill	1	0	0	0	0	0	4	5	
	157	pit fill	4	0	0	0	0	0	3	7	
	158	pit fill	2	4	0	0	0	.	24	30	
	171	pit fill	0	2	0	0	0	8	20	30	
13th-14th	176	pit fill	0	1	1	0	0	0	1	3	
	177	pit fill	0	2	0	0	0	0	6	8	
	185	pit fill	0	0	0	0	0	.	1	1	
	186	pit fill	1	2	1	0	0	0	21	25	
	203	post-hole fill	0	0	0	0	0	0	1	1	
	286	pit fill	1	1	0	0	0	0	11	13	
	298	pit fill	1	2	0	0	0	1	4	8	
	TOTAL		14	14	5	1	3	9	131	177	
14th	64	pit fill	2	2	2	0	0	0	26	32	
	110	pit fill/layer	0	0	0	0	0	0	5	5	
	111	pit fill/layer	2	0	2	0	0	0	8	12	
	208	pit fill	5	5	3	0	0	.	7	20	
	214	pit fill	1	0	0	0	0	0	0	1	
	215	pit fill	5	6	2	0	0	0	6	19	VGC
	320	pit/ditch fill	1	1	2	0	0	0	0	4	
	321	pit/ditch fill	8	8	5	0	5	10	29	65	+ dog
	TOTAL		24	22	16	0	5	10	81	158	
14th-15th	92	layer	3	3	1	0	0	0	1	8	
	112	pit fill/layer	2	0	0	0	0	0	11	13	
	267	pit fill	4	1	0	0	0	0	25	30	
	TOTAL		9	4	1	0	0	0	37	51	
15th-16th	184	pit fill	5	2	0	0	1	0	12	20	
	Grand TOTAL		93	79	44	2	13	95+	637	964	

It seems unlikely that the bones which survive are a full reflection of the waste originally discarded by the household. It is probable that the bone either failed to survive consumption by dogs and pigs, or that small bones failed to survive in the pits and ditches excavated.

17th century

The late 17th century pit, 121 was favourable to bone preservation and produced approximately 100 bones. Cattle are better represented than the other two domestic food species.

18th–19th century

None of this material was analyzed.

Following their assessment study of the bone assemblage, the Faunal Remains Unit, University of Southampton, recommended that no additional work be undertaken on the material.

MARINE MOLLUSCS by E. M. Somerville

Introduction

Marine mollusc shells were collected from 102 different contexts, which ranged in date from the late 11th or 12th to the 19th/20th century. In addition, shell was sorted out from samples taken for environmental sampling from 17 contexts. In only three cases was shell retrieved by sampling and not present in the hand-sorted material. In this analysis the samples and hand-sorted material have been combined. For the site as a whole, no species was retrieved only by sampling, but this is obviously not the case for individual contexts. However, the bulk of the marine shell retrieved from the samples was fragments, and adds very little to the information gained from the hand-sorted material. Whole winkle (*Littorina littorea*) shells were found in the samples, but would probably have been retrieved had the context been trowelled.

Methods

All shells were identified to species (Fish & Fish 1989) and identified shell was weighed. Fragments smaller than approx 0.5 cm² were discarded. Bivalves were counted as complete right/left valves; right/left umbos or fragments. These counts were used for the calculation of the minimum number of individuals (MNI) which was done for each context. For bivalves the greater of the two numbers for the sided valves plus umbos was taken. Where the species was only represented

by fragments within a context then an MNI of 1 was given to that context.

The maximum length (from umbo to opposite margin) and width (orthogonal to length) were measured for bivalves. Whole oyster shells were also scored for a number of other characteristics including age and the extent to which the surface of the shell bore the marks of infestation by one or more of the polychaete worm species *Polydora ciliata*, *P. hoplura* and the burrowing sponge *Cliona celata*. The presence of these species was noted as well as the presence/absence of other encrusting or adhering organisms, including conspecifics. Context 186 was investigated in further detail (see below).

For gastropods, the maximum length (from apex to base) and width (orthogonal to length) were measured, and a note was made of any infesting or encrusting organisms.

Results and discussion

1. Species present

Table 16 summarizes the species found, their MNIs and the weight of shell in grams for the different periods represented at the site. For oysters only the estimated meat weight, calculated according to Winder's method (Winder 1980) is given. Dating comes from the pottery. Appendix 1 lists the contexts assigned to each period. Details of the shells found in each context, as well as the metric data will form part of the site archive. Oyster (*Ostrea edulis*) was present in all periods and was the most abundant species throughout. Nonetheless, at no time did it contribute a significant amount of food, as is shown by the figures for meat-weight. Mussel (*Mytilus edulis*) was found in all except the early modern period, but was usually only present as fragments, usually retrieved from the environmental samples. The MNI values given certainly underestimate the number of shells present, most obviously for the period of 13th and 13th to 14th centuries. The fragmentary state of the mussel from the site is clear from the fact that there was only one measurable mussel shell, from the same period. Cockle (*Cerastoderma edule*) was represented only by fragments and only from the earlier periods of the site. In contrast the scallop (*Pecten maximus*) came only from the modern contexts. Of the marine gastropods, winkle (*Littorina littorea*) was like cockle in its distribution and whelk (*Buccinum undatum*) was present throughout most of the medieval periods. All of these species would be common along the channel coast.

Table 16. Summary of marine molluscs by species and period.

Period	Date range	Oyster MNI	Oyster wt (g)	Oyster meat-wt (g)	Cockle MNI	Cockle wt (g)	Mussel MNI	Mussel wt (g)	Scallop MNI	Scallop wt (g)	Winkle MNI	Winkle wt (g)	Whelk MNI	Whelk wt (g)
Modern	C19/20	14	604.5	105			3	3.8	3	78				
Early Modern	C18	9	366.3	67.5										
	C15 to C16	30	1615.8	225			1	0.2					1	9.3
	C14 + C14/15	50	2700.3	375	1	0.9	2	6.35			1	1.9		
	C13 + C13/14	385	24147	2887.5	6	16.2	8	138.7			39	59	2	47.3
	C11/12 to C12/13	85	2729.6	637.5	1	1.7	5	11.9			9	13.3	1	2.9
General medieval	broad or uncertain	29	1274.5	217.5			1	0.5					2	67.5

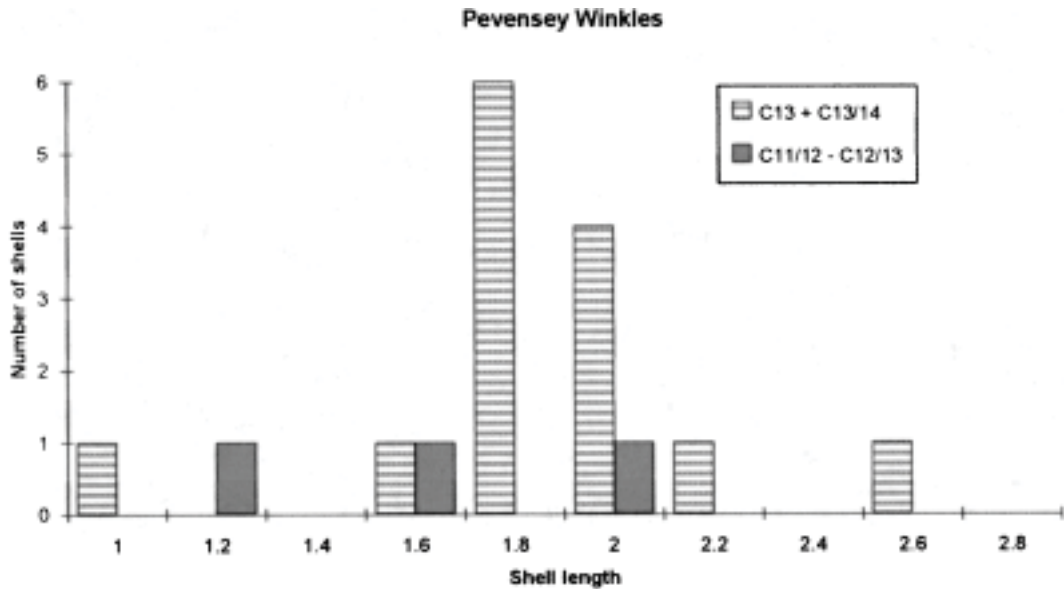


Fig. 17. Bar chart showing the distribution of shell length (cm) for the winkles from two periods.

2. Quantitative results

Only winkles and oysters occurred in sufficient numbers for the data to be worth analyzing.

a. Winkles

The striking feature of many of the winkles found on the site is their small size (Fig. 17).

The mode (1.8 cm) for the larger sample is below 2 cm and the mean (1.98 cm) is just about 2 cm. This is well below the average given for the species by e.g. Beedham (1972). It seems very unlikely that these small shells would have been deliberately collected for food. It is possible that the shells may have arrived on site because they were attached to seaweed (Hayward 1988), which can be used as a manure. The size of the smallest shells is within the range of *L. saxatilis* (Fish & Fish 1989) but the shells lacked the sculpturing typical of this species, and did not appear to be so eroded that this would have been lost. Furthermore this species is not usually regarded as edible.

b. Oysters

Sufficient whole valves of oysters were present from the earliest three periods of the site for right and left valves to be considered separately. One context, fill 186 in Pit 191, dated to the 13th to 14th century, had over 100 whole valves and is considered in detail below. Figures 18 and 19 show the distribution of shell lengths for these three periods.

Table 17. Mean values for shell length and shell age.

Mean shell length (cm) combined	LHS	RHS	Mean shell age (yrs) (LHS & RHS)
C11/12-C12/13	7.32	6.76	4.6
C13 + C13/14	8.70	7.88	7.2
C14 + C14/15	8.14	6.92	5

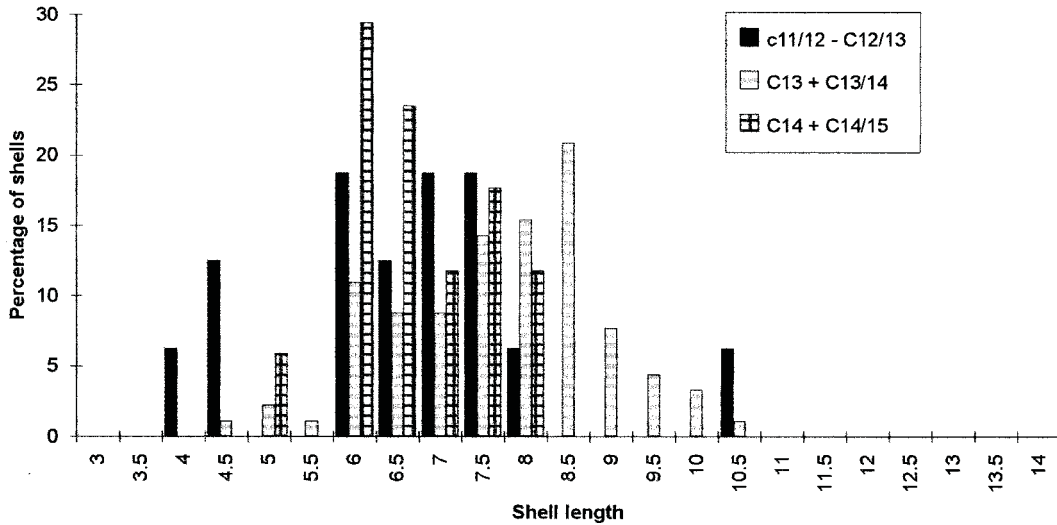
A one-way anova showed a significant difference between the period groupings for both left and right valves (LH valves $F = 5.58$, $df\ 2102$, $p = 0.005$; RH valves $F = 8.65$ $df\ 2121$, $p = 0.0003$). However the considerable differences in number of valves for the different periods means that this result has to be taken with caution. The average sizes of the shells are in the range found for other medieval sites, Winder (1992), gives an average for 'medieval' (11th to 16th century) of 7.5 cm for left and 6.4 cm for right valves. This could imply that the C13 + C13/14 and C14 + C14/15 shells at Pevensey are somewhat above average in size, although this would not be atypical for a coastal site (Winder 1992).

For the other shell characteristics measured, the data from right and left valves have been combined. The presence of a considerable number of shells which could not be aged makes any conclusions tentative. Both the 11th-/12th- to 12th-/13th- and 14th- to 14th-/15th-century groupings show a skew towards younger shells, whereas the distribution for the large 13th- and 13th- to 14th-century group is fairly even between 3 and 11 to 15 years. Mean values are given in Table 17, a one-way anova was significant ($F = 8.37$, $df\ 2178$, $p = 0.0003$). To a considerable extent this difference may be anticipated from the differences in the lengths of the shells, but does serve to indicate that the oysters were growing at about the same rate as for the modern fisheries (Walne 1974), although the spread of older shells may also indicate that the beds were natural rather than artificial in origin.

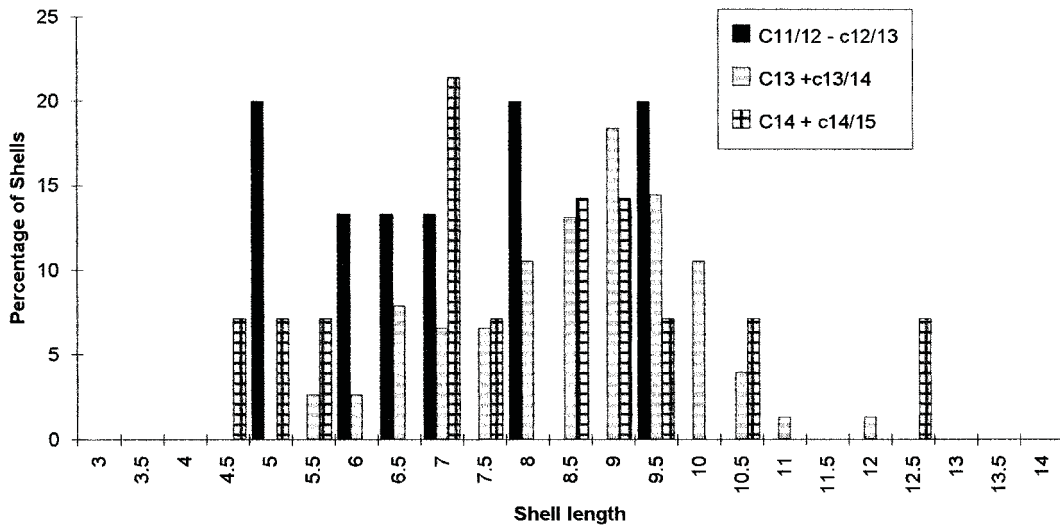
There is no difference in shell infestation (Fig. 21, between the period groupings, and all shells seem to be in good condition.

Figure 22 shows the numbers of shells which had encrusting and adhering organisms. The first three species are those used to assess shell infestation, and here there is a marked difference in the pattern between the periods. Although *Polydora ciliata* (pc) is the most common, the 13th- and 13th-

Pevensey Oysters RH Valves



Pevensey Oysters LH Valves



Figs 18 & 19. The percentages of shells in the different shell length (cm) classes for the main three periods represented at the Pevensey site. These have been plotted as percentages because of the considerable differences in absolute numbers. There is a considerable overlap between these distributions, but, more noticeably for the RH valves, there is some indication that the shells are larger in the 13th- and 13th- to 14th-century contexts. This is also indicated by the mean values for shell length given in Table 17. The difference in length between the right and left valves is as expected given the normal shape of the shell.

to 14th-century shells also have a considerable amount of *P. hoplura* and *Cliona celata* infestation. Since, in general, these shells have more epizooites, it may simply be that this is linked to their greater age. However, the incidence of adhering shell and oyster spat may indicate that some of these shells come

from natural reef formations rather than from oyster beds laid directly on the substrate.

c. Oysters from Pit 191, fill 186

This context produced a large number of oysters. Whilst

Table 18. Shell: ribbing and shell profile on oysters in Context 186.

	Distorted profile	Smooth profile	Ribbed shell	Unribbed shell	Unclassifiable
Thick LHS valves	4	29	10	23	0
Thin LHS valves	8	5	11	2	0
Thick LHS umbos	5	62	3	60	2 (profile) 5 (ribbing)
Thin LHS umbos	33	21	46	7	1 (ribbing)
Thick RHS valves	13	31	0	44	0
Thin RHS valves	3	14	0	17	0
Thick RHS umbos	6	39	0	45	0
Thin RHS umbos	34	14	0	48	0

Pevensey Oysters: Age

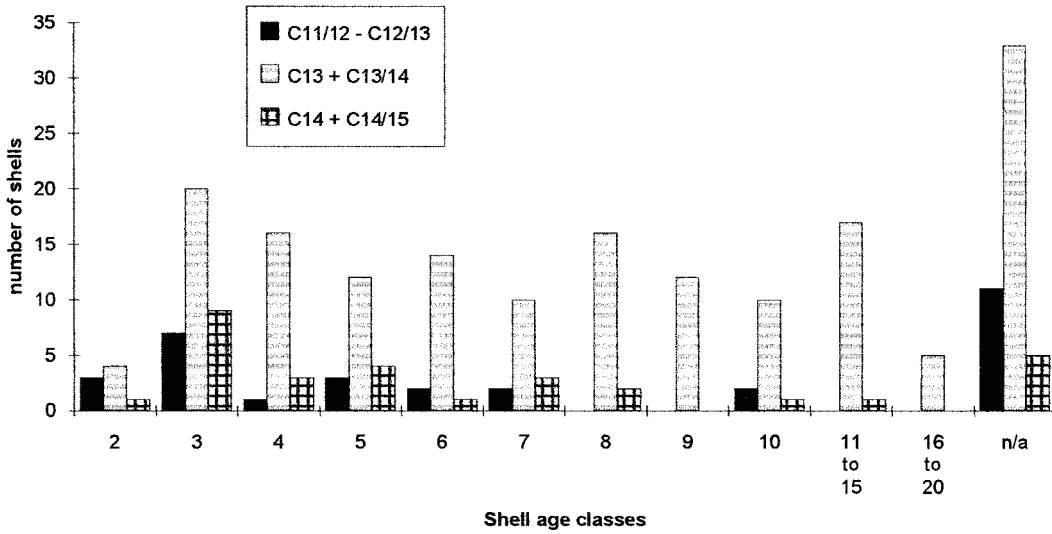


Fig. 20. The age-distribution of the shells. The category 'n/a' is shells which could not be aged by direct counting of the growth-lines at the umbo.

Shell infestation

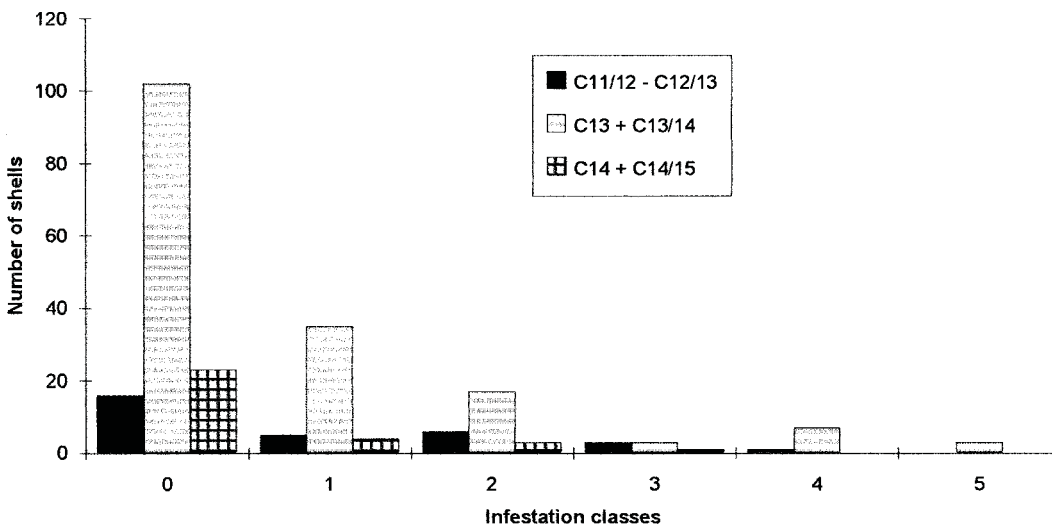


Fig. 21. The degree of shell infestation.

Pevensey Oysters: encrusting and adhering organisms

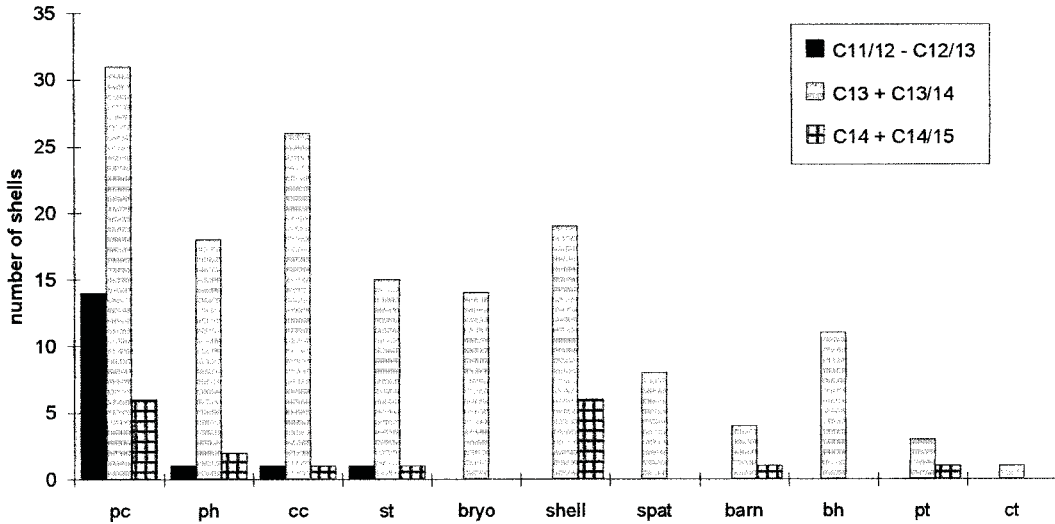


Fig. 22. (Key: pc = *Polydora ciliata*; ph = *P. hoplura*; cc = *Cliona celata*; st = sand tube; bryo = bryozoan; shell adhering oyster shell; spat = oyster spat; barn = barnacle; bh = borehole; pt = *Pomatoceros triqueter*; ct = calcareous tube).

Context 186: Shell infestation

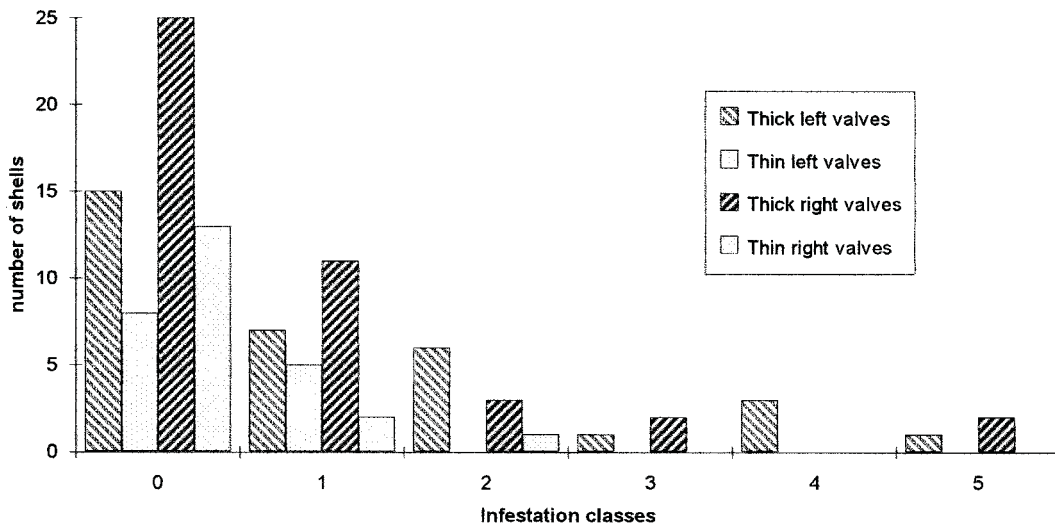


Fig. 23. Infestation classes for whole valves from Context 186.

examining other contexts it had seemed possible that two distinct 'types' of oysters were represented in the material, and it was decided therefore to examine both the valves and as many of the umbos as possible to see if this large group supported this hypothesis. The two types were (1) a thick, unribbed shell and (2) a thin, ribby shell. Valves were scored on these two characteristics in addition to the standard set of

measurements and characteristics. Umbos were scored as thick/thin; ribbed/unribbed; distorted/smooth; aged where possible and a note taken of any adhering and infesting organisms (Table 18).

Table 18 gives the results for ribbing and shell profile for the thick and thin shells from Context 186. Very few shells could not be classified in this way. No ribbing was seen on any

Context 186: encrusting and adhering organisms

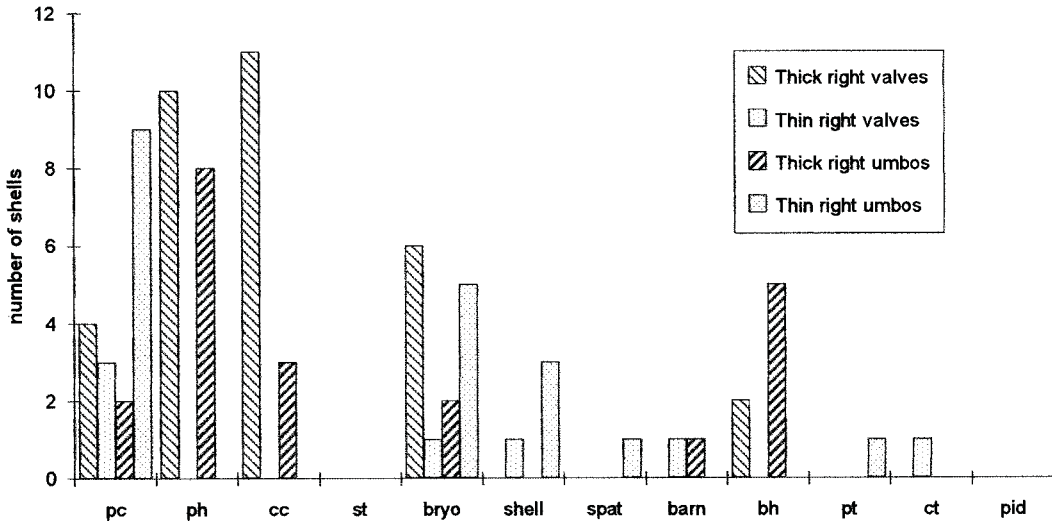


Fig. 24. Encrusting and adhering organisms on right valves and umbos from Context 186. (Abbreviations as for Fig. 21 plus pid = piddock.)

Context 186: encrusting & adhering organisms

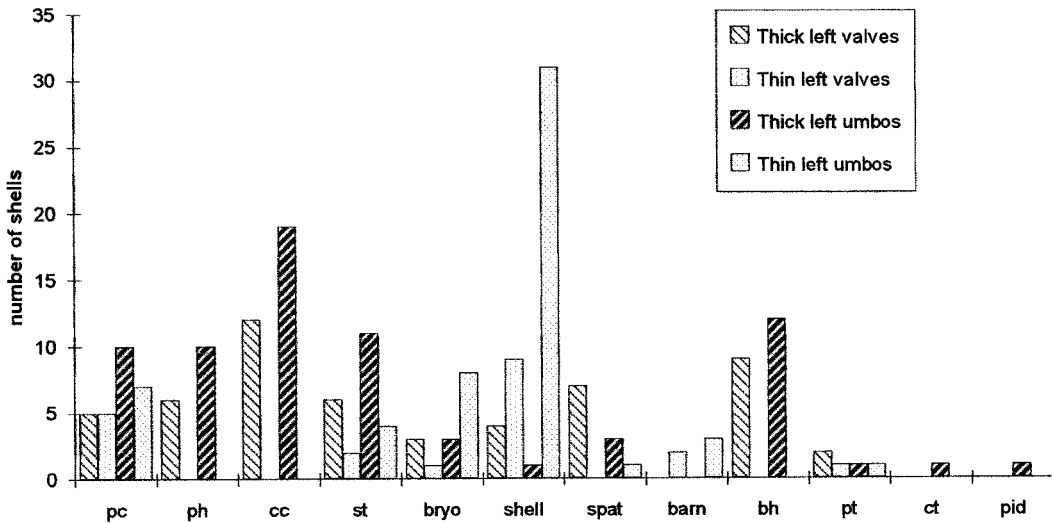


Fig. 25. Encrusting and adhering organisms on left valves and umbos from Context 186. (Abbreviations as for Fig. 6 plus pid = piddock.)

right valves or umbos, but the pattern is very clear for the left valves and umbos and substantiates the initial impression that two types of shell were present. A chi-sq test on the combined data for valves and umbos was significant (chi-sq = 113.13, df

= 1, $p < 0.001$). It is notable that, for right shells, taphonomic factors reduce the number of distorted right valves. Again, a chi-sq test for the combined data for valves and umbos was significant (chi-sq = 141.19, df = 3, $p < 0.001$).

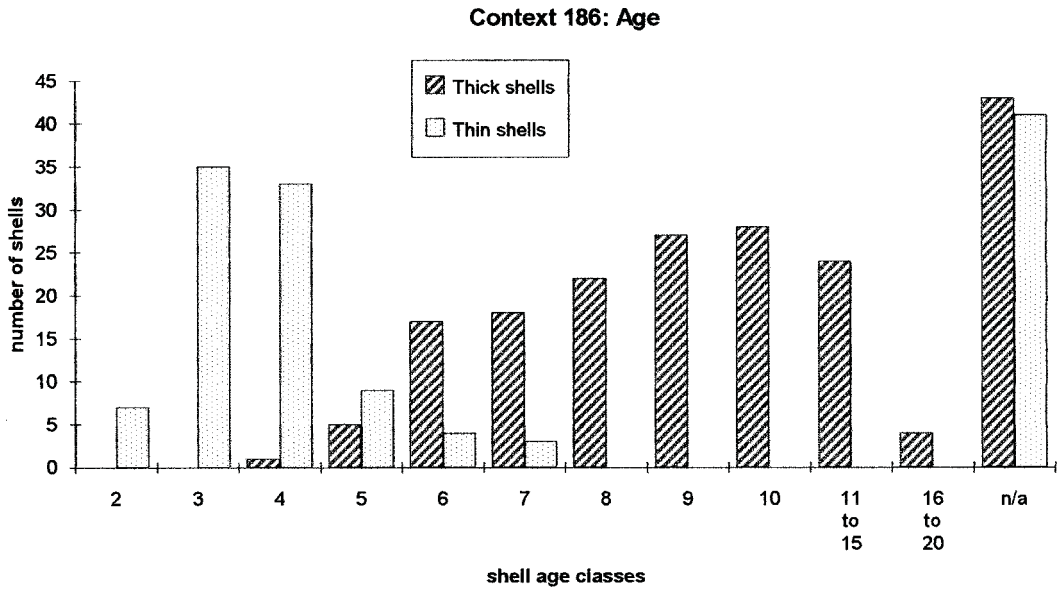


Fig. 26. Age classes for valves and umbos from Context 186.

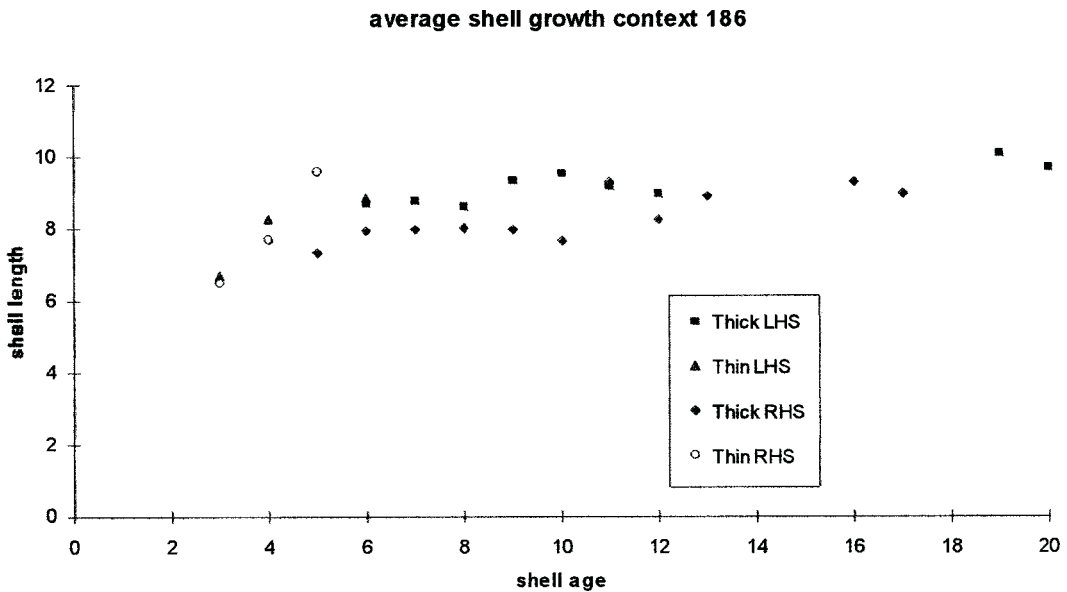


Fig. 27. Context 186 whole valves average shell length for each age.

With respect to the amount of shell infestation, Figure 23 shows that the few shells which showed marked infestation were all thick. Figures 24 and 25 give the overall pattern of encrusting and adhering organisms for left and right shells

respectively. Again, the highest values are for the thick shells with the notable exception of adhering shell. However, as noted previously, such differences in amounts of infestation could be due to differences in age.

Figure 26 shows that thin shells are dramatically younger than the thick shells. Indeed the two distributions show opposite skews. This makes the number of thin shells with adhering shell — itself indicative of a reef habitat all the more remarkable. In an attempt to discern whether the shells could come from a single population, the average length for each age was calculated (Fig. 27).

For the thick shells, there is very little increase in size with age, whereas the younger, thinner shells are growing quite rapidly. The two shell types are not, however, as clearly distinguishable on these grounds as on the other characteristics of the shells described above. Nonetheless, it would be necessary to demonstrate that thin shells lose their characteristic ribbiness and greater distortion as they age to be able to claim that the shells in Context 186 all come from one population. On the face of it, this seems unlikely. Thus it would appear that for this context, and possibly for the site as a whole, more than one population of oysters is being exploited.

CHARRED AND MINERAL-REPLACED

MACROSCOPIC PLANT REMAINS by Mark Robinson Introduction

During the excavation, 22 samples mostly of the order of 20 litres were taken from the medieval and early post-medieval features for charred plant remains. These samples were floated onto a 0.5 mm mesh on site and dried. The residue was sieved over a 2 mm mesh in order to recover any larger items that had not floated and sorted on site.

Some of the features were cess pits so samples of 1 litre were taken from them for laboratory analysis for calcium phosphate-replaced remains.

All the flots were scanned at ≈ 10 magnification under a binocular microscopic to assess their potential for detailed analysis. Sub-samples from 20 of the 1 litre samples were investigated for identifiable mineral-replaced remains, which proved to be absent.

Methods and results

As a result of the assessment, eight medieval flots were subjected to detailed analysis for the full range of charred plant remains. The high concentration of remains from Pit 182 fill 183 necessitated sub-sampling such that a proportion of the flot equivalent to 2.5 litres of sediment was analyzed. Otherwise, the complete flots were examined. The flots were sorted at ≈ 10 magnification, charred plant remains apart from charcoal were picked out and identified, where necessary by comparison with reference material at magnifications of up to ≈ 50 . The results are given in Table 19. The charcoal from all the contexts had been redeposited rather than remaining where the burning had occurred. It was therefore decided to pick out 10 fragments in the first instance for identification and, if this failed to give a good indication of the range of taxa present, to identify a further 10 fragments. Charcoal was identified using incident light microscopy at magnifications up to ≈ 400 , making comparisons with reference material as necessary. The results are given in Table 20.

Although mineralized plant remains were not found in any of the samples specifically taken for them, a few calcium phosphate-replaced seeds were recovered from Pit 182 fill 185. These are listed in Table 21. The flot from Cut 324 fill 321 contained many *Triticum*-type awn fragments of fused silica. The preservation was not good but the flot contained about 200 of them.

Notes on identifications

Triticum sp. rachis segments

Only the best preserved rachis segments of free-threshing wheat showing their characteristic features were attributed to their ploidy level. For the tetraploid (rivet-type wheat), this included the broadest part of the rachis segment being at the top and adherent glume bases. The hexaploid (bread-type wheat), features included a somewhat rounded top to the rachis segment and the broadest part being about two-thirds of the way up. The rachis segments showed a range of ear laxity and it was not possible to assign the more compact forms to their ploidy level.

Avena sativa

Although the majority of grain identified from the site was oats, only a very few retained sufficient of their floret bases to be identified as *A. sativa* (cultivated oat). However, the size range of the remainder and the paucity of awn fragments would suggest that they were mostly *A. sativa*.

Results

All the samples contained mixed assemblages of charred plant remains that had been derived from a variety of sources. The cereal remains from all but Context 183 had probably been derived from crop processing. The concentration of cereal remains in Context 183 was very much higher than in the other samples and comprised almost entirely grains of oats. It was perhaps part of a cleaned crop which had been accidentally burnt. Many of the weed seeds were from arable weeds and could have been derived from crop processing. However, there were also seeds of species unlikely to have been arable weeds, such as *Scirpus* or *Schoenoplectus* sp. (club-rush or bulrush) and plant remains such as *Ulex* sp. (gorse) prickles. The charcoal in the samples most probably represented wood burnt as fuel.

The samples from Pit 54 fill 55, Pit 221 fill 126, Pit 52 fill 178, Pit 253 fill 252, Pit 241 fill 226 and Pit 182 fill 185 all had relatively low concentrations of charred plant remains apart from charcoal, with between 2 and 11 items per litre of sediment. About half to three-quarters of the remains were cereal grains, mostly free-threshing (rivet or bread-type) wheat but with a significant proportion of oats (*Avena* ? *sativa*) and a trace of barley, including hulled six-row barley (*Hordeum vulgare*). Chaff was almost entirely absent. There was a slight presence of seeds of other crops, with flax (*Linum usitatissimum*) from Context 226, field bean (*Vicia faba*) from Contexts 55 and 178 and hemp (*Cannabis sativa*) from Context 252. Weed seeds also comprised a major part of these flots. Many could have been from plants which grew as arable weeds and had perhaps been introduced to the site with the crops. They appear to have been derived from a variety of soils, with *Raphanus raphanistrum* (wild radish) and *Chrysanthemum segetum* (corn marigold) suggestive of acid conditions whereas *Anthemis cotula* (stinking mayweed) tends to be associated with more calcareous soils.

The crop and arable weed seeds from these samples had probably been derived from many separate events of burning waste from the latter stages of crop cleaning and possibly the accidental charring of grain being parched to harden it prior to hand milling.

Context 321 had a higher concentration of non-charcoal charred plant remains, with 36 items per litre. About two-thirds of them were cereal grains of the same taxa as in the other samples and in similar proportions. A similar range of weed seeds was present. However, there was also much chaff. Wheat

chaff predominated, with rachis segments of both free-threshing type wheat (*Triticum turgidum* tp.) and bread-type wheat (*T. aestivum* tp.). Barley (*Hordeum* sp.) rachis fragments were quite well represented and pedicel bases (but no awns) of oats (*Avena* sp.) were also present. Allowing four grains per wheat rachis segment, three grains per barley rachis segment and three grains per oat pedicel, the charred chaff from this sample would have yielded 508 grains, not a very different figure from the total of 537 grains that were recovered. However, the sample also contained fused silica ash and *Triticum*-type awn fragments, suggesting that much chaff had been fully oxidized (Robinson & Straker 1991). The assemblage probably resulted from the burning of mixed threshing debris and, given the non-cereal remains from the sample (see below), it had probably been burnt as fuel rather than waste.

The concentration of remains from Context 183 was extremely high, with 809 non-charcoal charred plant items per litre. They comprised almost entirely grains of oats (*Avena* sp.). Chaff was absent and the few weed seeds would be consistent with a cleaned crop.

It is not unusual for seeds of wet ground plants such as Cyperaceae (sedges etc.) to comprise a significant component of charred medieval arable weed assemblages. Seeds of one such plant, *Eleocharis S. Palustres* sp. (spike rush) were abundant in Context 321 and indeed it is possible that some of the crops had been grown on wet ground with *E. S. Palustres* sp. amongst them. Most of the flots, however, including Context 321, contained a few large Cyperaceae seeds that were probably from *Scirpus maritimus* (sea club-rush) or *Scirpus lacustris* (true bulrush). They are tall emergent species that are implausible as arable weeds but the plants could have been brought to the site along with the other species of Cyperaceae (*Eleocharis* and *Carex* spp.) for use as thatch or animal bedding. They could all have been harvested from the Pevensey Levels.

Another unlikely arable weed represented by seeds in Contexts 126 and 252 and prickles in Context 321 was *Ulex* sp. (gorse). The most likely reason why this shrub should have been brought to the site was as fuel for bread ovens. It makes an ideal fuel for this purpose as it readily flares up to give a fierce blaze of short duration. It is possible that the cereal chaff in the sample from Context 321 had similarly been used as fuel along with the gorse. Gorse could have been obtained

from some of the free-draining acidic soils in the area.

All the samples analyzed in detail contained wood charcoal. Almost all of it was from trees rather than shrubs and probably represented fuel from domestic hearths.

The calcium phosphate-replaced seeds from Context 185 included a single pip of *Vitis vinifera* (grape) and a seed of *Rubus fruticosus* agg. (blackberry) which could have been dietary remains. The other seeds were from plants which perhaps grew on waste ground on the site such as *Conium maculatum* (hemlock) and wet ground plants which had perhaps been imported such as *Eleocharis S. Palustres* sp.

Discussion

The charred plant remains from the site included most of the usual arable crops of medieval England. The record of free-threshing tetraploid wheat (*Triticum turgidum* type) is useful because it extends the known range of a cereal only recently shown to have been a crop during the medieval period and so far mostly identified from the Midlands (Moffett 1991). The abundance of *Avena* sp., probably *A. sativa* (cultivated oat), and the absence of *Secale cereale* (rye) was possibly a reflection of a regional pattern, but little other work has been done on medieval crop remains from the Sussex coast.

The remains of two fibre crops, *Linum usitatissimum* (flax) and *Cannabis sativa* (hemp) are of interest because they are rarely found charred. Given the former status of Pevensey as a port, it is possible that hemp was grown for rope or sail making.

The most abundant charcoal from the site was *Quercus* sp. (oak) but *Fagus sylvatica* (beech) was the next most abundant and present in six of the eight samples. Beech charcoal was also found in Saxon and medieval, but not Roman, contexts at Pevensey Castle (Robinson unpublished). The charcoal adds to the evidence for the distribution of a tree that although native, did not become abundant in England until perhaps during the last 1000 years (Godwin 1975, 273–6).

The charcoal perhaps gives some indication of the status of the site. Little of it was from thorny hedgerow or scrub species. This suggests that the site had a good supply of wood for fuel from a managed source and so was perhaps of reasonably high status.

Although the samples spanned a date range from the 12th to 14th centuries, they did not suggest any change with time.

NOTES

¹ The heirs of Thomas Almon held empty land on the west side of the churchyard which adjoined open land called the Green which was near to the market, P(ublic) R(ecord) O(ffice) DL42/112, f. 4r.

² PRO SC11/663, 666. The copies of the 1363 rental are SC11/ 667 and SC12/15/68. The earliest is very likely to be contemporary with the undated late 13th-century rental of Seaford, see M. F. Gardiner, 'Aspects of the

history and archaeology of medieval Seaford', *Sussex Archaeological Collections* **133** (1995), 190. Both ports lay in the lordship of Laigle.

³ PRO SC6/1027/17; see also, L. F. Salzmann, 'The inning of the Pevensey Levels', *Sussex Archaeological Collections* **53** (1910), 42–5.

⁴ PRO SC6/1028/3; SC6/1028/6.

⁵ East Sussex Record Office A2327/2/4/2, 4, 12.

⁶ Centre for Kentish Studies U269/E341.

Table 19. Charred plant remains (excluding charcoal).

	Context	Feature	Context type	Context date (cent. AD)	Sample volume (litres)	Total number of items									
						12-13th	15	18	late 12-13th	13th	13th-14th	18	25	185	183
Cereal grain															
<i>Triticum</i> sp.	- short free-threshing grain		rivet or bread wheat	12	2	7	131	9	1	1	247				
<i>Triticum</i> sp.			wheat	2	-	1	22	2	3	-	79				
cf. <i>Secale cereale</i> L.			rye	-	-	-	1	-	-	-	-				
<i>Hordeum vulgare</i> L.	- hulled		six-row hulled barley	-	-	-	1	-	-	-	-				
<i>Hordeum</i> sp.	- hulled		hulled barley	-	-	3	3	-	-	-	12				
<i>Hordeum</i> sp.			barley	-	-	3	5	1	-	-	29				
<i>Avena sativa</i> L.			cultivated oats	-	-	-	1	-	-	-	3				
<i>Avena</i> sp.			oats	3	13	3	21	3	10	1914	53				
cf. <i>Avena</i> sp.			oats	-	9	1	7	2	2	87	36				
cereal indet.				9	3	8	20	2	6	6	78				
Total cereal grain				26	27	26	212	19	22	2010	537				
Cereal chaff															
<i>Triticum</i> sp.	- free-threshing tetraploid rachis		rivet-type wheat	-	-	-	-	-	-	-	-				6
<i>Triticum</i> sp.	- free-threshing hexaploid rachis		bread-type wheat	1	-	-	-	-	-	-	-				7
<i>Triticum</i> sp.			wheat	-	-	-	-	-	-	-	-				69
<i>Triticum</i> tp.	- free-threshing rachis		wheat (estimated total)	-	-	-	-	-	-	-	-				c. 200
<i>Hordeum vulgare</i> L.	- rachis		six-row barley	-	-	-	-	-	-	-	-				3
<i>Hordeum</i> sp.	- rachis		barley	-	-	-	-	-	-	-	-				26
<i>Secale</i> or <i>Hordeum</i> sp.	- rachis		rye or barley	-	-	-	-	-	-	-	-				7
<i>Avena</i> sp.	- pedicel		oats	-	-	-	-	-	-	-	-				24
<i>Avena</i> sp.	- awn fragments		oats	1	-	-	-	-	-	-	-				-
cereal culm nodes				-	-	-	-	-	-	-	-				5
Total chaff excluding awn fragments				1	0	0	0	0	0	0	147				
Seeds of other crop or collected plants															
<i>Linum usitatissimum</i> L.			flax	-	-	-	-	4	-	-	-				-
<i>Vicia faba</i> L.			field bean	1	-	1	-	-	1	-	-				-
large legume			bean or pea	-	-	-	-	-	-	-	-				1
<i>Cannabis sativa</i> L.			hemp	-	-	-	2	-	-	-	-				-
<i>Corylus avellana</i> L.			hazel nut	1	-	-	-	-	-	-	-				-
Weed seeds															
<i>Ranunculus</i> cf. <i>repens</i> L.			buttercup	-	1	-	-	1	1	-	-				-
<i>R.</i> cf. <i>sardous</i> Crantz.			buttercup	-	-	-	-	-	1	-	-				1
<i>Brassica</i> or <i>Sinapis</i> sp.			wild turnip, cabbage etc.	-	-	1	-	1	-	-	-				2
<i>Raphanus raphanistrum</i> L.			wild radish	-	-	-	3	-	1	-	-				4
Cruciferae				-	-	-	1	-	-	-	-				-
<i>Cerastium</i> sp.			mouse-ear chickweed	-	-	-	-	-	1	-	-				1
<i>Stellaria media</i> sp.			chickweed	1	-	-	-	-	-	-	-				2

Table 20. Charcoal summary.

Context Feature Context type Context date (cent. AD)	Total number of items					
	55 pit 12th	126 pit 12-13th	178 pit late 12-13th	252 pit late 12-13th	226 pit 13th	185 pit 13-14th
broom	-	-	-	-	-	-
<i>Cytisus</i> or <i>Ulex</i> sp.	-	-	-	-	-	4
Fumoidae indet.	-	-	-	-	-	1
<i>Betula</i> sp.	1	-	1	-	-	-
<i>Alnus glutinosa</i> (L.) Gaert.	2	-	1	2	-	5
<i>Fagus sylvatica</i> L.	1	-	4	6	8	-
<i>Quercus</i> sp.	6	10	4	1	2	9
<i>Fraxinus excelsior</i> L.	-	-	-	1	-	1
Total fragments identified	10	10	10	10	10	20

Table 21. Calcium phosphate-replaced seeds.

Context Feature Context type Context date (cent. AD) Sample volume (litres)	Context Feature Context type Context date (cent. AD) Sample volume (litres)	185 182 pit 13-14th 18
<i>Vitis vinifera</i> L.	grape	1
<i>Rubus fruticosus</i> agg.	blackberry	1
<i>Conium maculatum</i> L.	hemlock	2
<i>Sambucus nigra</i> L.	elder	6
<i>Alisma</i> sp.	water plantain	1
<i>Eleocharis</i> S. <i>Palustres</i> sp.	spike rush	7