EXCAVATIONS AT LEWES CASTLE, EAST SUSSEX 1985-1988

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Lewes Castle was one of four great castles constructed by William de Warenne in the years following the Norman Conquest. Excavations on the top of the south-western motte between 1985–88 revealed two major phases of domestic building which may be tied to the two main phases of fortification of the motte. Analysis of artefacts and economic data recovered gives a rare insight into the life of a great baronial family in the Anglo-Norman and early medieval periods.

INTRODUCTION

Lewes is a classic gap town constructed on a steep chalk promontory at an easy crossing point of the tidal Ouse, some 10 kilometres from its mouth. The name, from the Old English for a hill, *hlaew*, emphasises its strategic location (see Coates 1990, for alternative view). As a fortified Saxon town it was an obvious location for the construction of a castle in the immediate aftermath of the Norman Conquest. The castle constructed with its unusual twin mottes in the north-western quarter of the town dominated both it and the landscape around.

Being a private castle it is poorly documented, so elucidation of its development must rely heavily on archaeological investigation both of the standing and below ground remains. Study of the standing remains is severely hampered by extensive reconstruction and consolidation work undertaken in the 18th century and in the 1930s. Archaeological investigation has been restricted largely to the south-western motte, first excavated by G. T. Somers Clarke in 1884, then trial trenched by W. H. Godfrey in 1930. In 1984 the Sussex Archaeological Society decided on a programme of excavation in advance of consolidation and reinterpretation of the castle held in its ownership. These excavations were undertaken as a series of training excavations each Easter and summer from 1985 to 1988. This report should be seen primarily as being concerned with the results and finds from these excavations, rather than as a detailed historical interpretation of Lewes Castle.

HISTORICAL BACKGROUND

Lewes was clearly an important Saxon centre. It was given a large assessment in the *Burghal Hideage* in the 910s. Whether the Saxon fortifications were on a new site or an existing royal centre is uncertain (Drewett, Rudling and Gardiner 1988). However, its size suggests that it served as a shire town as well as a significant link in Alfred's defensive system. By the time of the Conquest Lewes was valued at £26 per annum, indicating a town of some wealth (Freke 1976). After the Norman Conquest Lewes was granted to a distant cousin of William the Conqueror, William de Warenne, who constructed the first castle dominating the Saxon town (Fig. 1).

The Warenne family, from Varrenes in Normandy, were close supporters of William I. In return for their service during the Conquest the Warenne family were granted estates across eastern England from Sussex to Yorkshire. Lewes was William de Warenne's chief seat, but he also constructed castles in Reigate, Castle Acre (Coad and Streeten 1982) and Conisborough (Thompson 1971). William de Warenne married Gundrada, daughter of the Earl of Chester (Clay 1949). With her he progressed between his estates. She died on 27 May, 1085, in childbirth at Castle Acre. Her body was returned to Lewes to be buried in the newly constructed Cluniac Priory (Godfrey 1949). Exactly when William de Warenne built the first castle at Lewes is uncertain, but perhaps a timber castle was constructed on Brack Mount within months of the Conquest (Fig. 2). This would have formed part of a solid defence across

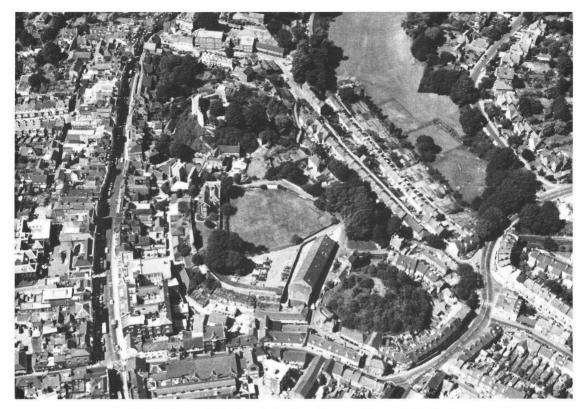


Fig. 1. Lewes Castle. Aerial view from the east. (Photo.: D. Rudling).

Sussex. To the west William de Braose constructed a castle at Bramber, while to the east, Robert Count of Mortain, built a castle within the Saxon Shore Fort at Pevensey (Godfrey 1949).

William de Warenne was appointed joint Chief Justiciar to William I and was active in supressing baronial opposition Conqueror. In 1073, for example, Roger, Earl of Hereford's uprising was suppressed and Norwich captured by Warenne together with other loval barons. William de Warenne continued his support for William II and in return was made Earl of Surrey over Easter 1088. Three months later, however, on 24 June 1088, he died from wounds received during the siege of Pevensey (Salzman 1934). He was buried with his wife Gundrada in Lewes Priory. Their elder son, William, became the second Earl of Surrey.

William de Warenne II briefly risked his estates by backing Robert, eldest son of William the Conqueror, against Henry I. For this he lost his Surrey title and lands, but apparently not Lewes Castle (Godfrey 1949). However, when Robert agreed to forego his claim to the crown of England, the Surrey lands and title were restored to the Warenne family. William de Warenne then became a totally loyal supporter of Henry I until the King's death in 1135. William de Warenne II continued his father's support of the Cluniac order by establishing a daughter house of Lewes adjacent to his castle at Castle Acre in Norfolk (Raby and Baille-Reynolds 1936). The second William de Warenne died in 1138 and, like his father, was buried in Lewes Priory (Clay 1949). He was succeeded by his eldest son, also William de Warenne.

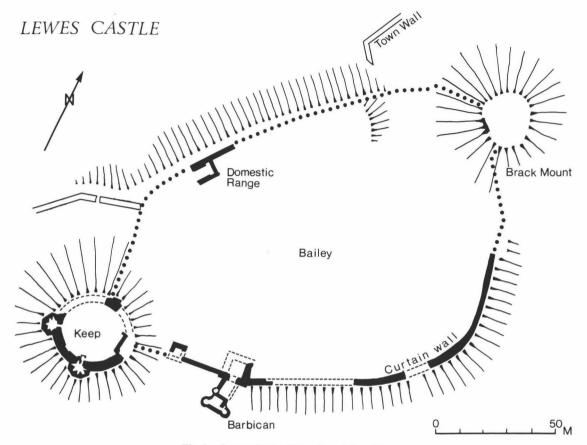


Fig. 2. Lewes Castle. Plan of surviving defences.

William de Warenne III, third Earl of Surrey, became involved in the complexities of the struggle for the crown between Stephen and Matilda. William transferred his allegiance from Stephen to Matilda and back again, becoming a prisoner of Stephen for a while. He left England to join Louis VII of France in the Second Crusade, and was killed near Laodicea by the Turks in 1147 (Godfrey 1949). During William's absence, Lewes was controlled by his brother Reginald who restored to the Burgesses of Lewes a Merchant Guild.

William, the third Earl of Surrey, was the last direct male heir in the Warenne line. His daughter Isabel married William de Blois, the younger son of King Stephen, who then held the title of fourth Earl of Surrey in his wife's right.

The fourth Earl died in 1159 without leaving an heir. His widow Isabel then married Hamelin Plantagenet in 1162. Hamelin was an illegitimate brother of Henry II, and by marrying Isabel became the fifth Earl of Surrey and owner of Lewes Castle. Hamelin bestowed further possessions on the monks of Lewes Priory (Godfrey 1949) but his main construction works were concentrated on his great castle at Conisborough (Thompson 1971). He died in 1202 and was buried alongside his wife in Lewes Priory.

The fifth Earl of Surrey was succeeded by his only son, another William, who became a confidant of King John. The sixth Earl became Warden of the Cinque Ports in 1216 and Sheriff of Surrey from 1217 to 1226 (Godfrey 1949).

William married firstly Maud, daughter of the Earl of Arundel, and secondly another Maud, daughter of the Earl of Norfolk. Having served in wars in Wales, Gascony and Poitou he died on 27 May 1240 leaving one son, John, by his second wife. John was only four years old on his father's death, so Peter of Savoy, uncle of Queen Eleanor, acted as Governor of Lewes Castle. At the age of eleven John married Alice, a daughter of Queen Isabella. In 1264 John was with Henry III at the battle of Lewes. On losing to Simon de Montfort. Earl of Leicester, John fled the field and escaped to France. He was then formally banished by de Montfort and lost all his estates except Lewes and Reigate to Gilbert, Earl of Gloucester. In 1265 Earl John returned to England, taking part in the battle of Evesham, where Simon de Montfort was killed. The King then restored all John's estates and in 1274 granted him the title of Earl of Sussex.

Earl John had two daughters, Eleanor and Isabel, and a son William. Unfortunately William died at a tournament in Croydon in 1285, so when Earl John died in 1305 he was succeeded by his grandson John, who was a minor. John, the eighth Earl, married a grand-daughter of Edward I, Joan de Bar. However, an infatuation with Maud de Nerford finally led to his excommunication by the Church (Godfrey 1949). When John died in 1347 he had no legitimate male heirs, so the family line became extinct with Lewes Castle passing to the Earl of Arundel, son of John's sister Alice.

From 1347 Lewes Castle had no resident Lord, and by 1382 it was falling into disrepair. In 1620 some of the walls were pulled down and the building materials sold at 4d. a cartload. In 1774 the site was leased to Thomas Friend, and in 1850 the Sussex Archaeological Society rented the keep to house their collections. Finally it was purchased by Sir Charles Thomas Stanford, who gave it to the Society in 1920.

PREVIOUS EXCAVATIONS

Lewes Castle (Fig. 3) has only been subjected to limited archaeological excavations in the past. In 1884 Mr Somers Clarke excavated a series of trenches across the south-western motte (Clarke 1886). His main trench ran from the southern

angle tower in a north-north-east direction and was relocated in 1988 (Fig. 6). This trench located the 13th century building excavated in 1985–86 (Fig. 12). Mr Clarke, having located the building in his exploratory trench, then dug along the wall in both east and westerly directions. A second trench was then excavated at right angles to the fireplace (Area C in Fig. 8). He recorded that 'Nothing whatever was found'. However, excavations in 1987 indicate that he may have cut through part of the eastern wall of the great hall (Fig. 8). Surprisingly no small finds were recorded.

In 1930 Walter H. Godfrey excavated a series of slit trenches on the north-western edge of the motte to locate the footings of the collapsed shell keep wall. A note on his plan published in 1949 states that 'no solid wall was found'. No other data were published (Godfrey 1949).

In 1962, following slight subsidence on the northern motte, Brack Mount, Mr D. Thompson undertook a limited excavation. He recovered medieval pottery and slate, and located a possible well (Holden, pers. comm. 1985). These data were not published, although the slate is referred to in Holden (1965).

In 1974 Fiona Marsden recorded the excavation of shallow trenches across the south-western motte dug to lay the castle's floodlight cables. These observations were published by Marsden in Rudling (1983). Finally, after the excavation programme described in this article, David Gregory recorded a substantial masonry wall where a tree had been blown down in Castle Precincts (on file, Barbican House).

THE EXCAVATIONS 1985–1988 *Methodology*

Full area excavation of the top of the south-western motte was prevented by the presence of a large tree in the centre of the mound, together with a need to keep continuous public access to the motte and the 13th century angle towers. Four areas (Fig. 4, A-C) were therefore excavated in four consecutive years. Each area was excavated by hand with all layers and features recorded as contexts numbered discretely for each area. Context details are

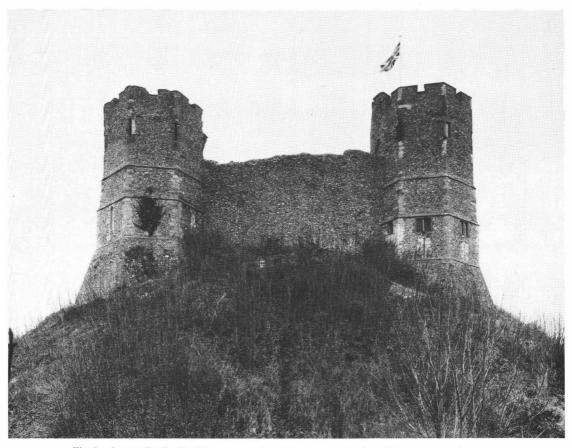


Fig. 3. Lewes Castle. Shell keep on south-western motte showing 13th century angle towers.

archived. Sample areas were dry-sieved using 10 mm. mesh sieves to recover artifacts and small bones. Wet sieving using 1 mm. mesh sieves was used to recover carbonized material and smaller fish bones. All masonry located was preserved *in situ* and the excavation concluded at the chalk surface of the man-made mound.

For the sake of clarity this report will describe the structures found by period rather than by individual trench.

Period 1: Norman

Two rectangular buildings were constructed against the south-eastern wall and the north-western wall of the shell keep on the motte (Fig. 4). The structure against the north-western wall was extensively robbed, with little surviving

except the last course of the eastern wall (Context 31) and a fragment of the northern wall (Fig. 5, Context 40). The footings consisted of flint and chalk blocks. All the mortar which would have formerly held the footings together had eroded away, leaving a scatter of pebbles. The wall footings were a maximum of 80 cm. wide, suggesting a substantial structure. The building was a maximum of 5 metres wide but its exact length is uncertain. It is likely to have been more than 10 metres long. The absence of mortar spreads within this building suggests the floor was probably beaten earth. The extensive robbing of this building, and destruction even of footings by later building work, makes its interpretation difficult. It is likely, however, to have been an open hall. If so, it is likely that the

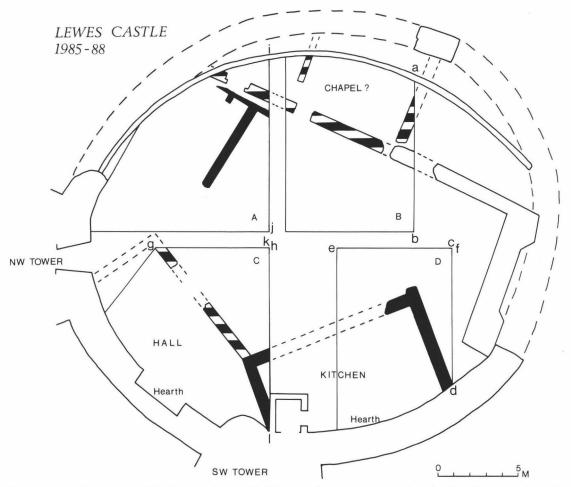


Fig. 4. Lewes Castle, 1985-1988. Excavated areas (A-D) on south-western motte and section lines (lower case letters).

13th-century rebuilding at the north-eastern end probably destroyed its solar block. If the solar were at first floor level, the butt end of a wall running south-west from Context 40 perhaps represents the base of a stair.

The second early structure consisted of a chalk-footed building against the south-eastern wall of the shell keep. This clearly pre-dates a 13th-century structure which abuts it within Area C (Figs. 6 and 7). However, this butt joint suggests the earlier building was still standing in the 13th century. By the 13th century the chalk-footed building was certainly a kitchen. It is

likely that this was a free-standing kitchen in the Norman period, serving the hall to the west. The footings were some 60 cm. wide with chalk blocks set in mortar. The northern corner of the building was buttressed (Fig. 6). The floor of the building had traces of a mortar bed, suggesting originally flagstones or tiles. A substantial area of burning against the curtain wall represents the location of a hearth, replaced in the 13th century by a tile-backed fireplace.

Between the hall and kitchen was an open courtyard. In the centre of the courtyard there is likely to have been a well (now under a lime tree).

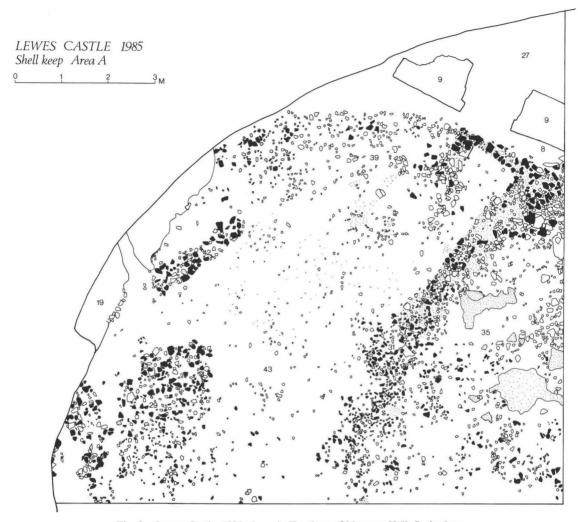


Fig. 5. Lewes Castle, 1985. Area A. Footings of Norman Hall. Scale: 1 m.

The courtyard may have been surfaced in some way, but the only trace of cobbling was against the 13th century hall and is likely to be of that date.

Period II: 13th century

In the 13th century, angle towers were cut through the shell keep wall (Fig. 3). This process would have disturbed the Norman hall and kitchen. The Norman hall was demolished (or collapsed) and a new hall was constructed south of it. The 13th-century hall butted against the Norman kitchen, which appears to have survived

the reconstruction work (Fig. 8). The new hall had flint and chalk footings some 90 cm. wide. The hall was some 5 metres wide and probably at least 13 metres long. It is likely to have had direct access to its kitchen through the south-western end of its west wall. It is possible that the north-west tower served as a solar block. There was no trace of mortar flooring within the hall, suggesting that, like the Norman hall, it had a beaten earth floor. Constructed into the thickness of the curtain wall on the southern side of the hall was a substantial fireplace with a hearth and backing of thick, re-used green glazed floor tiles (Fig. 9).

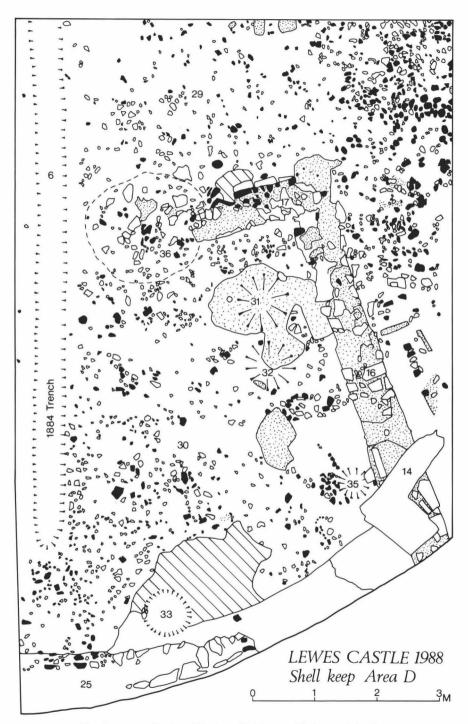


Fig. 6. Lewes Castle, 1988. Area D. Norman kitchen wall footings.

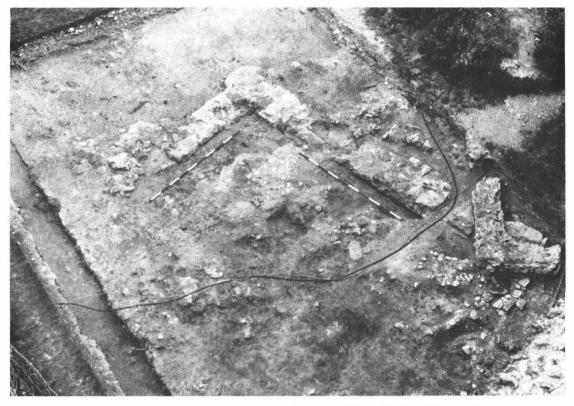


Fig. 7. Lewes Castle, 1988. Area D. Norman kitchen wall footings. (Crossed by flood lighting cable). Scale: 2 m.

The Norman kitchen remained standing in the 13th century and continued as a kitchen. A fireplace, lined with re-used pegged roof tiles, was constructed in the thickness of the curtain wall and traces of mortar flooring suggested that the kitchen was floored with flagstones or tiles.

During the 13th century a new range of buildings was constructed against the shell keep wall, on the northern side of the motte. The exact relationship of this range to a substantial, but undated, structure on the west of the motte, remains uncertain as a result of the 19th-century excavations (Fig. 10). The new range had well-constructed flint and chalk footings some 80 cm. wide (Fig. 11 and 12). These walls were excavated by Somers Clarke in 1884 and there was some evidence of 19th century consolidation and repair work to the footings. The range was 13 m. long and up to 6 m. wide. It was divided by a partition wall into two rooms, one considerably

larger than the other (Figs 12 and 13). Both rooms had large patches of mortar flooring, suggesting a tiled floor. The exact function of this range is uncertain but a possible interpretation is as a chapel with antechamber. Alternatively these may have been simply private chambers of the de Warenne family.

Between the three 13th-century buildings was an open courtyard (Figs 4, 14 and 15). The centrally-placed well suggested for the Norman period presumably remained in use. The courtyard was almost certainly cobbled in the 13th century, if not before. Remains of flint cobblestones survived against the wall of the hall. Rounded beach pebbles of cobble size were also found in disturbed contexts across the site.

No evidence survives as to the nature of the Norman buildings above ground level. It may be assumed that they were stone-built with thatched roofs although the latter would seem

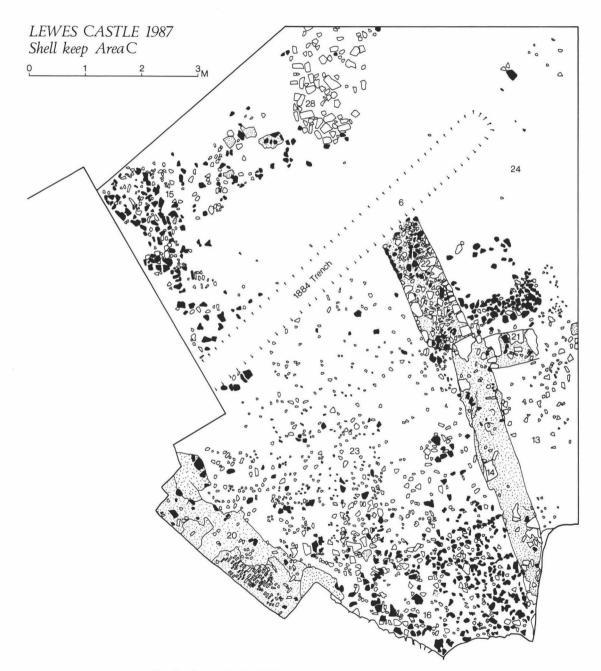


Fig. 8. Lewes Castle, 1987. Area C. 13th century hall footings.

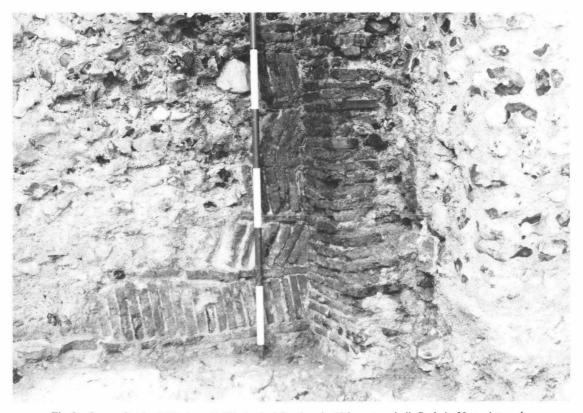


Fig. 9. Lewes Castle, 1987. Area C. Tile-backed fireplace in 13th century hall. Scale in 20 cm. intervals.

inappropriate for a 12th-century baronial hall and chamber. Any re-usable material may have been utilized in the 13th-century reconstruction. The 13th-century buildings may also have been constructed of plastered flint and chalk walls. Fragments of sandstone and Caen limestone recovered were used in windows and doors. Window glass found suggests that at least the main buildings were glazed. Substantial quantities of early round-pegged and nibbed tiles indicate tiled roofs with some glazed ridge tiles and chimney pots.

THE FINDS

- (a) Pottery by Mark Gardiner (Fig. 16)
- (b) Coins by David Rudling
- (c) Late 10th Century Bronze Disc by Marian Archibald (Fig. 17)
- (d) Glass

- (e) Worked Bone by Rodney O'Shea (Fig. 18)
- (f) Building Materials by Maureen Bennell (Figs 19–21) with a note on the Roman tile by David Rudling
- (g) Metal Artefacts by Maureen Bennell (Figs 22–23)
- (h) Slate Artefacts
- (i) Clay Pipes
- (i) Slag by Jon Wallis
- (k) Animal Bones by Rodney O'Shea
- (1) Human Bones by Rodney O'Shea
- (m) Marine Mollusca by Caroline Cartwright
- (n) Charcoal by Caroline Cartwright

All finds were given the same Museum Accession Number: 1986.1, regardless of year excavated. The four areas excavated were given area letters A–D. In each area contexts were numbered discretely from No. 1. Finds were then grouped into eight main groups (A–H) on the basis of

LEWES CASTLE 1986 Shell keep Area B



Fig. 10. Lewes Castle, 1986. Area B. Demolition phase of 13th century building.

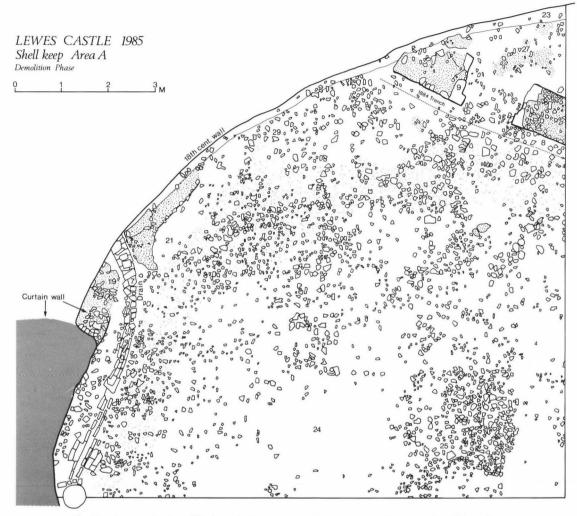


Fig. 11. Lewes Castle, 1985. Area A. Doorway to 13th century building and demolition phase.

stratigraphy and association with specific buildings. The finds were considered in these eight groups.

Lewes Castle Excavations 1985-1989: Context Associations 1986.1/A Contexts 1-45 1986.1/B Contexts 1-26

1986.1/C Contexts 1-28

1986.1/D Contexts 1-36

A. 18th Century and Later 1986.1/A/1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 21, 22, 23, 25, 26, 28, 37. 1986.1/B/ 1, 2, 3, 4, 5, 6, 12, 19, 21, 24.

1986.1/C/ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18. 1986.1/D/ 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 21, 22, 23, 28, 36.

B. Medieval Demolition Layers 1986.1/A/ 24, 29, 30, 34. 1986.1/B/ 9, 10, 11. 1986.1/C/ 7, 12, 13, 14, 15, 16, 17, 19. 1986.1/D/ 10, 11, 18, 19, 20, 24, 25, 26.

C. Within Building (1) (Kitchen) 1986.1/C/ 21. 1986.1/D/ 16, 17, 27, 30, 31, 32, 35.

D. Within Building (2) (First Hall) 1986.1/A/ 31, 38, 39, 40, 41, 42, 43, 44, 45.

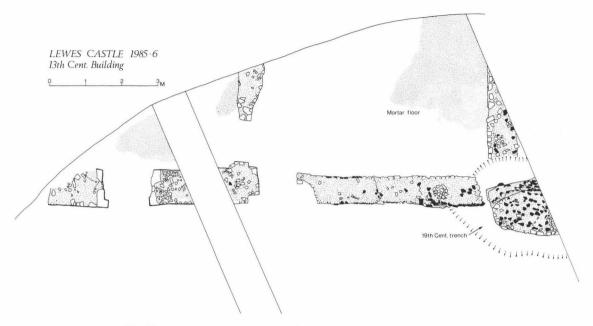


Fig. 12. Lewes Castle, 1985-86. 13th century building in areas A and B.



Fig. 13. Lewes Castle, 1985. Area A. Doorway to 13th century building. Scale: 1 m.

E. Within Building (3) (Second Hall) 1986.1/C/ 20, 22, 23, 25, 28.

F. Within Building (4) (Chapel) 1986.1/A/ 9, 18, 20, 27. 1986.1/B/ 7, 8, 13, 14, 15, 18, 25, 26.

G. Courtyard 1986.1/A/ 32, 33, 35, 36. 1986.1/B/ 16, 17, 20, 22, 23. 1986.1/C/ 24, 26, 27. 1986.1/D/ 15, 29.

H. Other Discrete Contexts 1986.1/D/ 33 shallow pit in Building (1) (kitchen). 1986.1/D/ 34 burnt clay base of fireplace in Building (1) (kitchen).

(a) The Pottery by Mark Gardiner Excavation recovered 8,572 sherds of pottery weighing a total of 58.0 kg. These were divided into broad fabric groups based on visual examination and using a hand lens where necessary.

Fabric Group 1: Brown-red or light brown surfaces and grey core, rough feel, jagged sometimes slightly laminar fracture with a temper of fine, subangular multi-coloured flint grit 1 mm. and occasional shell or other calcareous inclusions. Fabric Group 2: Generally oxidized brown-red on surface and core, rough texture with a temper of transparent or translucent rounded quartz grains of medium to coarse sand size.

Fabric Group 3: Similar to Fabric 2, but with calcareous inclusions which were not differentiated, but included in various sherds both comminuted shell and rounded fragments of chalk.

Fabric Group 4: Generally oxidized brown-red or reduced to dark red surfaces and core, fairly smooth with a temper of quartz grains similar to Fabric Groups 2 and 3, but of fine sand size.

Fabric Groups 5: As Fabric Group 4, but with calcareous inclusions.

Fabric Group 6: Reduced and oxidized sherds, with fine texture and smooth feel, often tempered with small fragments of iron ore.

Fabric Group 7: Fine, fairly smooth ware distinguished by its inclusions (about 0.5%) of sub-angular white or pink flint 0.5 mm.

Fabric Group 8: 'Winchelsea Black' or Black ware. This is described in detail in Orton (forthcoming).

LEWES CASTLE



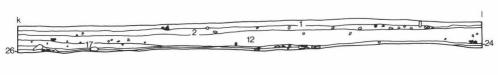




Fig. 14. Lewes Castle. Sections across top of south-western motte.

Key: Top i-j

1. Turf and topsoil.

- 2. Dark brown friable loam and some gravel.
- 3. Dark brown friable loam with demolition material.
- 4. Black friable loam. Recent garden.
- 8. Grey-brown sandy loam with flint nodules. 19th century excavation trench.
- Flint wall. 13th century with some 19th century consolidation.
- 15. Mid brown friable loam with chalk rubble and flint.
- 24. Mid brown friable loam with small flints, chalk fragments and pebbles.

Bottom k-l

- 1. Turf and topsoil.
- Dark brown friable soil with flints, chalk and tile fragments.
- Light brown friable soil with few pebbles and mortar fragments.
- Light grey-brown friable loam with chalk lumps and flint nodules.
- Light grey-brown friable loam with rounded chalk lumps and flecks. Some flint nodules.
- Light brown friable loam with small rounded chalk lumps and flint pebbles.

LEWES CASTLE

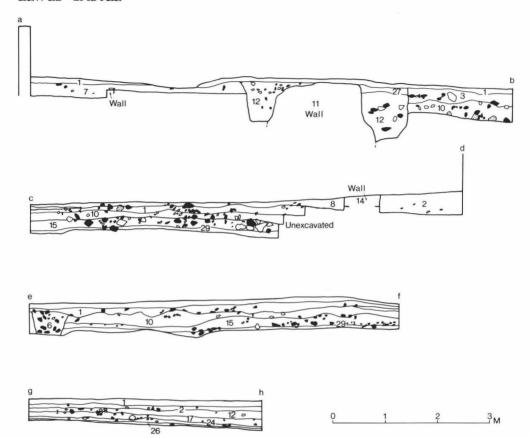


Fig. 15. Lewes Castle. Sections across top of south-western motte.

Key:

Top a-b and c-d

- 1. Turf and topsoil.
- 2. Dark brown friable loam with some gravel.
- 3. Dark brown friable loam with demolition material.
- Light brown friable sandy soil with flint and chalk lumps.
- Light brown sandy gravel with small chalk and flint lumps.
- 11. Flint and chalk wall set in compact mortar.
- Light mid grey friable loamy soil with flint and chalk fragment. 19th century excavation trench.
- 14. Flint wall. 19th century garden feature.
- Light brown friable loam with gravel, chalk and flint nodules.
- Light brown friable soil. 19th century excavation trench.
- Light grey friable loam with chalk lumps and flint nodules.

Bottom e-f and g-h

- 1. Turf and topsoil.
- 2. Dark brown friable loam with some gravel.
- 6. Light brown-grey friable soil. 19th century excavation trench.
- Light brown sandy gravel with small chalk and flint lumps.
- 12. Light brown friable loam with pebbles and mortar.
- Light brown friable loam with gravel and flint nodules.
- Light grey-brown friable loam with chalk and flint nodules.
- Light brown-grey friable loam with flint nodules, chalk lumps, and flecks.
- Light brown loam with small rounded chalk and flint pebbles.
- Grey to light brown friable soil with small chalk lumps and flint nodules.

Fabric Group 9: Coarse Borderware. This fabric is described by Pearce and Vince (1988).

Fabric Group 10: Medieval imports, discussed below.

Fabric Group 11: Tudor Green. This fabric is described by Pearce and Vince (1988) and dating considered by Holling (1977) and Moorhouse (1979).

Fabric Group 12: Hard-fired late medieval/post-medieval earthenwares. This category is also identified by Orton (forthcoming) and Streeten (1985, 11–18).

Fabric Group 13: Stonewares. Not further sub-divided. Fabric Group 14: Sussex Ware. This has been described by Manwaring Baines (1980a, 1980b).

Fabric Group 15: White, coloured and transfer-printed china. Fabric Group 16: Post-medieval wares, apart from those in Groups 11 to 15 above.

Fabric Group 17: Unidentified or miscellaneous. This category includes a sherd of East Sussex ware, one of Samian, and pieces of modern flower pot.

The details of the distribution of medieval pottery are given in Tables 1–3 (in microfiche).

The medieval pottery from Lewes has been little studied and is not well dated (Freke 1977, 23-5). Unfortunately, many of the fabrics found immediately to the west in the Adur Valley, for which a chronology has been proposed, do not appear to occur in Lewes. The assemblage from Lewes Castle is dominated by sandy fabrics with varying amounts of shell, chalk and flint temper, and these were divided according to the size and nature of inclusions (Fabric Groups 1-5). Such distinctions are, however, of only limited value in defining the date and source of manufacture. The kilns at Ringmer were producing pottery from at least the 12th to 16th centuries (Hadfield 1981, 105; Bleach 1982, 47). The kilns at Marchants Farm, Streat, ascribed by the excavator to the late-13th to early-14th century, were producing which are visually very wares similar (excavations unpublished).

The assemblage from the present excavations produced no closed groups and clearly had been subject to considerable disturbance. As an illustration, conjoining sherds from a *Bartmann* (Fig. 16, No. 9) came from Contexts A/2, A/11, A/35 and B/14, that is from both the courtyard and Building 4. The pottery, therefore, has to be used cautiously for dating specific contexts. The pottery from the whole site can, however, be treated collectively to examine the periods and nature of activity within the keep. It may be possible, though with less confidence, to treat the pottery from specific areas.

As might be expected, the medieval pottery assemblage is dominated by wares produced in the immediate vicinity. Black ware (Fabric Group 8), probably produced in the Winchelsea/Rye area, is uncommon here, though on sites at the east end of Sussex it forms a substantial proportion of the whole. There is very little pottery which might have been produced at the Abbots Wood kilns near Upper Dicker (Fabric Group 1) (Barton 1979, 182). Imported pottery (Fabric Group 10) is also not well represented.

For the local wares, the fabric alone provides a poor guide to date. It is therefore useful to consider forms as well. A number of vessels display Saxo-Norman decorative traits. 'Pie-crust' decoration occurs on a number of rims of vessels in Fabric Groups 2 to 5. The facets usually occur on the top or outside of the rim (Fig. 16, 2), but exceptionally, on one vessel are found on the inside edge (Fig. 16, 1). The other common type of decoration is horizontal lines of broad-spaced thumb-impressed dimples near to the shoulder of the pot (Fig. 16, 3). This has been found previously on pottery from Lewes and on vessels from Lancing and Hellingly (Freke 1976, Fig. 4, no. 40, Fig. 5, no. 46; Barton 1979, 45, 47). The dominant rim type on cooking and storage vessels is everted with a slight flange (Fig. 16, 4). Rims with this form have been recorded from the kiln at Barnetts Mead, Ringmer where they formed 10 per cent of the sample (Hadfield 1981, 95: Form 4).

The medieval part of the assemblage is dominated by cooking pots and storage vessels. Jugs formed only a small part of the ceramics recovered, though this may be a function of the date of the pottery. If a substantial proportion of the ceramics recovered pre-dated the 13th century, then it would be expected that jugs would be poorly represented. Fragments of an uncertain number of chimney pots were also recovered during excavation. The pieces, in coarse sandy fabrics with varying degrees of calcareous temper (Fabric Groups 2 and 3), came from 'Sussex type' chimneys and are similar to pots found previously in Lewes (Dunning 1961). No complete pot could be reconstructed, but fragments show they were of the normal pattern with a main vent at the top, and holes at the sides to promote an up-draught. The side holes in the

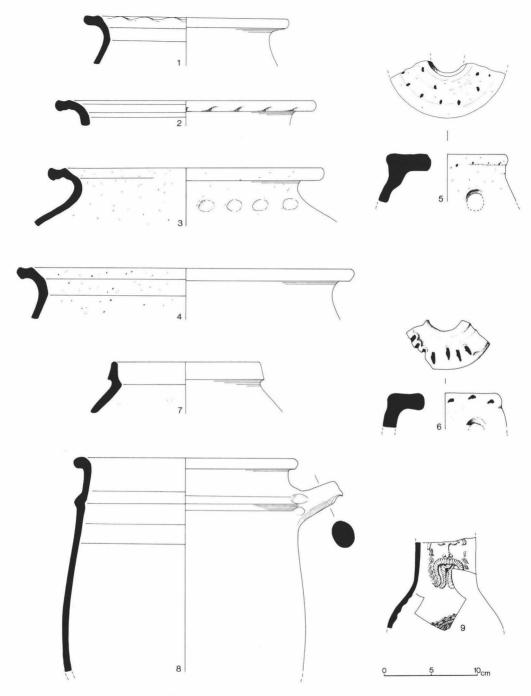


Fig. 16. Lewes Castle. Pottery. Scale: 1:4.

illustrated examples (Fig. 16, 5, 6) are nearer the top of the pot than is usual. The pots were coil-built and the exterior was then smoothed vertically, giving a slightly angular finish. The stabbing found on the tops of two pots was, as Barton (1979, 66) observes, more likely to be an aid to successful firing than for decoration. There is no evidence on any of the sherds for the applied strips sometimes found.

The chimney pot fragments were found concentrated on the courtyard, particularly in and around Buildings 1 and 3, and may be related to the hearths, traces of which survived in both rooms.

The sherds from other regions of England, though small in number, are of particular interest. These include 17 sherds of Coarse Border ware, at least two pieces of which are probably London-type ware and one fragment of St. Neots-type. At least two vessels of Coarse Border ware are represented, one jug and one cistern. The distribution of Coarse Border ware was mainly London and to the immediate south and west. It occurs in Hampshire, though does not seem to have reached the coast there in any quantity since it is rare or absent in Southampton (Pearce and Vince 1988, 11-12). London-type ware has a slightly wider distribution, and small quantities have been found in the Home Counties (Pearce et al. 1985, 6-12). The similarity of London-type ware to local fabrics makes identification difficult, and although only two sherds of this fabric were identified, a greater quantity may have been present. The single sherd of St. Neots-type lies considerably beyond its usual area of distribution in the south and east Midlands. Some sherds have, however, been found in some major centres beyond this, including at Southampton and York (Hunter 1979, 232).

No special explanation is required for the finds of such small amounts of non-local pottery. It may, however, be significant that these wares would have been available in other lands held by the Warenne family. They held extensive lands in Surrey, including their castle at Reigate, and in Norfolk. St. Neots-type pottery was found in excavations at the Warenne castle at Castle Acre (Norfolk), where it was discovered in the earlier phases but had largely been superseded by the

12th century (Milligan 1982, 202, 222). Excavations at a third Warenne castle, that of Sandal Castle (West Yorkshire) produced small quantities of non-local pottery, including two vessels of West Sussex ware. The presence of this material was explained by movement of people from one area of the estate to another, and it seems very likely that a similar argument can probably be applied to the Lewes finds (Moorhouse 1983, 61).

The pottery of foreign origin (Fabric Group 10) forms a small part of the medieval assemblage. The imported finds from Lewes Castle, therefore, reflect the pattern found more generally in Sussex, where foreign pottery does not seem to have circulated in any quantity very far beyond its port of entry (e.g. Freke 1978, 212; Orton forthcoming). Amongst the imported medieval wares are a number of pieces of either North French or Saintonge green-glazed, but the small sherd size prevents the differentiation of the two (Allen 1983; Hurst 1980, 121). Imports from Rouen are represented by at least three sherds (Barton 1965).

There are a few 16th/17th-century vessels, generally represented by large conjoining sherds with only slight abrasion (e.g. Fig. 16, 8). These, it must be inferred, were buried shortly after being broken, and are perhaps associated with demolition work on the keep. The imports of this period are represented by German stonewares (Fig. 16, 9) and a small sherd of Dutch maiolica. Sussex ware produced from the early 18th century forms a lesser part of the post-medieval ceramics, and the sherd size is significantly smaller. The final contribution to the pottery in the keep was made by picnic parties in the 19th and present centuries, whose broken china was found in the upper layers.

Taking the ceramics recovered from the excavations as a whole, it is likely that the pottery is predominantly from the first 150 years of the castle's occupation. There are smaller amounts of pottery which could be attributed to the end of the 13th and 14th centuries. If the pottery accurately reflects the level of activity, rather than, for example, changes in patterns of rubbish disposal, it appears that after the first century and a half there was a decline in activity in the castle. The small proportions of finer wares and

harder-fired later medieval wares imply that by the late 14th and 15th centuries the keep was not much used.

1. Cooking vessel with facetting on inside of rim. Fabric Group 4.

Context D 26.

2. Cooking vessel with facetting on lower side on exterior of rim. Fabric Group 4.

Context D 29.

- 3. Coil-built storage vessel with wheel-turned rim and decorated with slight dimples on shoulder. Fabric Group 5.
- 4. Storage vessel, probably made in a similar manner to No. 3 above. Fabric Group 3.

Context D 30.

5. Top of chimney pot. Fabric Group 3.

Context D 15.

6. Top of chimney pot. Fabric Group 4.

Context C 12.

7. ?Cooking pot with splash of green glaze in interior. Fabric Group 12.

Context B 5.

8. Pipkin with short handle. Fabric Group 12.

Context B 7.

9. Bartmann jug from Frechen Cologne. Fabric Group 13. Contexts A2, A11, A35, B14.

(b) Coins and Tokens by David Rudling1. Edward III. Silver penny. York Episcopal Mint of Archbishop Thoresby. Treaty Period (1363-1369). Obverse: EDWAR]DUS.REX.[AN]GL[I

Reverse: CIVI]TAS EBOR[RACI], quatrefoil in centre

Reference: North (1975) 1268.

Condition: very worn—this coin was probably lost c.1400-1410.

Area B, Context 22.

2. James I. Silver sixpence. Second coinage, fourth bust. Dated 1609.

Initial marks: coronet.

Obverse:

IACOBUS.D.G.MAG.BRIT.FRA.ET.HIB.REX Reverse: Q[UAE D]EUS.CONIUM X[IT]

NEMO.SEPARET, 1609 Reference: North (1975) 2103...

Condition: worn and clipped.

Area A, unstratified.

William III. Copper halfpenny. Second issue. Dated 1698.

Reference: Peck (1960) 674.

Condition: much wear.

Area A, Context 24.

4. William III. Copper halfpenny. 1695-1701. Date illegible.

Condition: very worn.

Area D, Context 7.

5. Illegible copper halfpenny. Probable c. 1729–1775. Condition: extremely worn.

Area C, Context 1.

6. Trade token of Thomas Lucas of Horsham. Copper farthing. Dated 1667. Die axis 180°.

Obverse: rosette THOMAS rosette LVCAS rosette rosette; in centre: large fleur-de-lys.

Reverse: rosette IN.HORSHAM.1667; in centre: HIS/ HALF/PENY

Condition: signs of wear on raised surfaces. Reference: Williamson (1967) Sussex Token 104.

Area D, Context 15.

(c) A Late Tenth Century Repousse Bronze Disc by Marian Archibald

Repousse bronze disc with outer inscription, apparently retrograde, in Roman and other psuedo-letters (some uncertain forms).

The inner inscription has been identified by Venetia Porter as a corruption of the Kufic inscription 'Muhammad is the Prophet of God', and in style close to coins of the end of the Samanid period, the 10th century. The edge is chipped where a mount may have been broken off (Fig. 17).

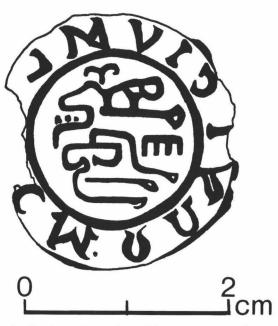


Fig. 17. Lewes Castle. Late 10th century repousse bronze disc. Area D, Context 7.

Brooches based on Kufic coins are known from English sites, eg. a solid-cast bronze piece was found in the summer of 1989 in the dump from Thames Exchange, London (private hands). The repousse technique has been used for other English pseudo-coin brooches, but not, as far as I know, for a Kufic type. (This is, I am sure, just coincidental.) A group of repousse pseudo-Kufic pendants from Finland was published by Talvio (1978). Although these pendants are different in style and are clearly from a different workshop, they suggest that the Lewes piece was probably a pendant rather than a brooch-front. The mounts in the Finnish examples are not always at the top or square-on to the central inscription. If the break at the edge does represent the position of the original mount, then it would have been at about 90° to the line of the central inscription.

The suggested prototype would agree in date with the period when Kufic coins were entering Scandinavia via the Russian Viking trade routes in the 10th century, and to a lesser extent in the early 11th century. A few crossed the North Sea and were lost or hoarded here, e.g. the Cuerdale hoard, buried c. 905. The Finnish pieces have been dated to the 11th century, but all the English hoards with Kufic coins are in the 10th, so while not ruling out a later copying when Kufic coins had become even more 'exotic', a late 10th century date seems the most probable. Area D, Context 7.

(d) Glass

Fragments of window glass were found in 29 contexts. All was totally devitrified and opaque. One fragment, from Context A17, had traces of a black painted line. Contexts with more than five fragments were A8 (six fragments), A11 (eight), A12 (15), and B19 (seven). Further details are archived.

A rim of a glass urinal or flask, diameter c. 11 cm., was found in Context A4. Probably English, 13th–14th century.

(e) Worked Bone by Rodney O'Shea

A. 18th Century and Later Contexts Context B/2

Bone point. Probably Medieval. (Fig. 18). Context C/1

Bone lace-making bobbin. 19th Century. (Fig. 18). Context C/4

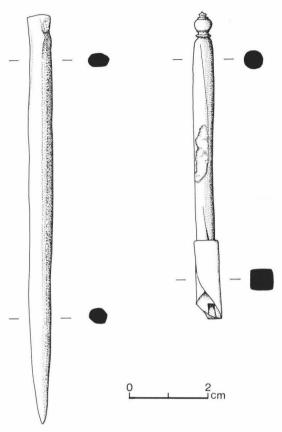


Fig. 18. Lewes Castle. Worked Bone. Left: Area B, Context 12. Right: Area C, Context 1.

A rather eroded and broken ankle bone (possibly a cow scaphoid) has a central hole drilled through it making, perhaps, an *ad hoc* spindle whorl.

Context D/23

Bone ring fragment.

B. Medieval Demolition Layer Context C/12

The distal end of a sheep femur, lacking its epiphysis, has a hole drilled into the end and through to the marrow cavity. Context D/20

A fragment of bone about 8 cm. long has been shaped and then sharpened at one end.

A piece of long bone about 7 cm. long (and probably from a sheep) has been deeply notched about 1 cm. from one end. The design looks rather like a whistle, but if so it no longer works.

C. Within Building (1) (Kitchen) Context D/30

A distal piece of sheep femur drilled through, as is that from Context C/12. The drilling is neater than in that example.

D. Courtyard Context D/15

A deer metatarsal fragment has a diagonal hole drilled from the proximal end.

Context D/29

Deer metatarsal worked in the same way as that from D/15.

A piece of bone has been neatly cut along two sides and one end. It is about 6 cm. long and 1 cm. square in section.

A thin piece of bone about $2\frac{1}{2}$ cm. long by about 1 cm. wide has been shaped (roughly to the shape and size of a teaspoon handle) and has a hole of 5 mm. diameter drilled into it.

(f) The Building Material by Maureen Bennell Brick

Brick was collected from 16 contexts (Table archived). Overall measurements could not be determined but a thickness of 58 mm. was general. Except for two fragments, the brick was of a similar, coarse, heterogeneous fabric with inclusions of large (up to 12 mm.) angular flint, chalk, grog and ash. The colour ranged from dull red to red-brown. Many fragments had pale grev vitrification along the stretchers and a high gloss pale blue glaze on the headers. The two fragments from B16 and C11 were a porous homogeneous sandy fabric with no visible inclusions. Both were very abraded and a pale orange colour, with a sanded pale brown margin. It is likely that most of the brick relates to the 18th-century building phase at the Castle, when it was the fashion to glaze headers. Clamp firing. necessitating the inclusion of ash, was becoming a more usual method at this time, as wood for kilns became scarce (Beswick, forthcoming).

Daub

A little partially fired daub was collected from four contexts (Table archived), one piece (C23) showing an impression of vegetation.

Mortar

Samples of mortar from floors were retained for comparison from two contexts. Samples from Context A44 had a pink-buff calcareous matrix containing sparse multi-coloured, waterrounded inclusions, ranging from 1 mm. to

5 mm. diameter, and tile or brick grog. It was compact and hard. Samples from Context B14 had a white calcareous matrix containing abundant medium-sized (4 mm.–8 mm.) brown and black water-rounded flint inclusions and chalk fragments. It had been poured as a loose mixture and engulfed two fragments of roof tile. There is a well-defined edge where the mortar abutted a wall. The average thickness of the samples is 50 mm. The mortar is firm where it has settled into the contours on the underside, but friable on the upper surface.

Plaster

Plaster was collected from ten contexts in Areas A and B only (Table archived). It was of two types, a thin (average 7 mm.) fine plaster of calcareous matrix with sparse, fine, rounded flint inclusions, and a heavier, thick (average 20 mm.) plaster with frequent medium and large (15 mm.) rounded flint inclusions. Both types were represented almost equally, not only between the contexts, but within them also. The external appearance was similar and it can only be presumed that the different types of plaster were suited to covering different building materials, one more irregular than the other.

Roof and Ridge Tiles

The tiles, collected from 80 contexts (Table archived) were fragmentary and only the thickness could be measured, which varied from 11 mm. to 16 mm. Both the hard red tiles and those of a softer, more sandy, red-brown fabric, had a reduced core. Early tiles (late 13th century to late 15th century) with nibs and/or large round peg-holes, were represented, as were the later (late 15th century onwards) slightly thinner tiles with small square peg-holes (Martin and Martin 1977–88). It was not possible to assess proportions of these types because of their fragmentary condition. Patches of mortar adhered to many tiles. The majority of the ridge tiles were of the same fabric as the roof tiles, but a few were of a coarser, sandy fabric, reduced, and with small quartz inclusions. Forty per cent of the ridge tiles were partially glazed, those from Areas A and B mainly dark green or dull amber. and those from Areas C and D a more exuberant bright green or sand-dashed clear vellow. Two

bright green fragments have a pinched decoration

Geological Material

Geological material was collected from 39 contexts (Table archived). Apart from three fragments of basalt lava and a siltstone whetstone (Context B22), most of the material appears to have been used for building. Several of the sandstone and Caen limestone fragments have been chamfered or shaped architecturally (Fig. 19). Many of the other worked fragments are corners of ashlar blocks. Some of the softer sandstones have been severely eroded, but the presence of mortar indicates their use. The Horsham stone 'slates' also have mortar adhering to them. A large (1,520 gm.) piece of paludina limestone was part of a column or pilaster of 130 mm. diameter. The incomplete whetstone is 130 mm. \times 60 mm. \times 18 mm. There is a groove at the side and one edge is smoothed by wear. Four fragments of light, fine sandstone have boreholes made by the bivalve Pholas dactylus.

Slate

Slate was collected in quantity from 75 contexts (Table archived). It was in a fissile condition due to frost and burial, and laminated as it dried. The fragment count therefore is misleading, and the weight has been quoted also to balance this. Fragments of non-medieval slate were larger and are, therefore, not as insignificant as the numbers imply. However, on bulk alone, it was obvious that the major part of the slate assemblage was medieval. The colour is pale to dark grey with a few fragments of green and two 'lilac' fragments. It is possible for this range of colours to come from a single quarry and Holden (1965) suggests sea transport from a West Country source for this type of slate. Square and round peg-holes were found.

Floor Tiles

Glazed floor tiles were retrieved from 51 contexts, and unglazed tiles from only five (Table archived). The most frequent type was the greenglazed tile measuring 150 mm. × 150 mm. at the surface and 140 mm. × 140 mm. at the base,

with a thickness of some 30 mm. It is made of homogeneous red clay, well-shaped and wellfired, with a partly reduced core. The underside is keyed. The glaze is a bright olive green with a high gloss where it remains intact at the edges. wearing to a matt blue-green in the centre. There are a few very dark green or near black tiles of the same type, but these could have been produced unintentionally by a more copper-rich glaze. There is, however, a group of black tiles of the same dimensions but a poorer quality, less well-shaped and badly fired, some almost to waster standard. The glaze is generally not as worn as on the green tiles. There is a small group of good quality brown glazed tiles. Some tiles have scoring lines, but no fragments of obvious mosaic work were found. Within the three colour groups there are fragments of well-glazed slimmer tiles (less than 20 mm.). A few fragments of decorated tiles were recovered which were $126 \text{ mm.} \times 126 \text{ mm.}$ at the surface and 120 mm.× 120 mm. at the base, and 18 mm. thick. They have an inlaid design of white slip covered by brown glaze, and date from the 13th century (E. Eames, pers. comm.). There is only one design (Figs 20 and 21) which has been clumsily executed. The slip has been smudged and fingermarked and was, in some cases, missing before the glaze was applied. The pattern is not always central. The design, a rosette with eight petals, encircled, with a foliage motif in the corners, is found on a tile from Lewes Priory (Eames 1980, Cat. No. 11262, Design 2327). The pattern is not continuous. Although thickness of tile is not always signficant, it is possible that the slimmer tiles in black, green and brown were used with the decorated tiles to create a panel. The minimum number of decorated tiles represented by the fragments is eight. Details of unglazed tiles are archived.

Lead (Table archived)

Except for one piece (listed elsewhere), the lead collected from 34 contexts was structural. Of the seven identifiable objects, four are probably modern, but the three possible window fitments are medieval. The appearance of the patina suggests that some tin has been added. The rest of the assemblage divides into window cames, trimmings from lead sheet, and melted lead,

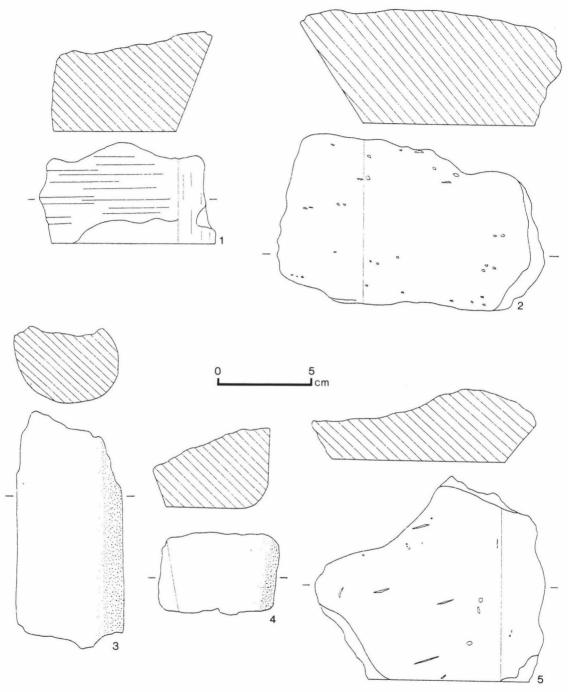


Fig. 19. Lewes Castle. Architectural fragments (1 and 2: Context B16; 3 and 4: Context B14; 5: Context B9).

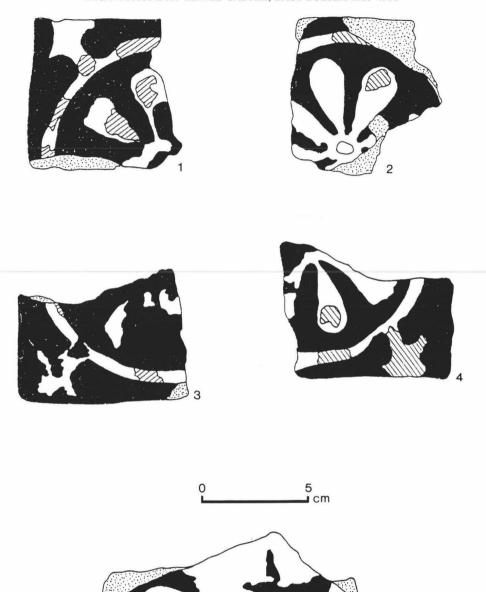


Fig. 20. Lewes Castle. Decorated floor tile. (1, 2 and 4: Context B14; 3: Context B2; and 5: Context B9).

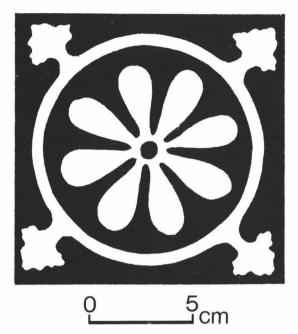


Fig. 21. Lewes Castle. Reconstructed floor tile.

produced either during a work process or from accidental fire. Most of the trimmings are from cast and beaten sheet rather than milled lead, and probably relate to the 18th-century building work at the castle. Many of the cames are twisted, but those from Contexts A3 and B9 are less contorted, and it is possible to determine that the glass quarries, in these cases, were about 800 mm. × 600 mm. with an acute angle at one end.

Iron Nails (Table archived)

Nearly 2,000 nails were collected from 79 contexts. They fell naturally in to five types which represented their function. Type 1 nails, with square or rectangular heads, and Type 2 nails with round heads, are general purpose nails. Type 3 nails, wedge-shaped with thickened heads, are for use where it is necessary to lose the head within the wood for safety or appearance, such as in flooring or joinery. Type 4 nails, short with large heads, are for holding materials securely, the size of the head giving extra purchase, or for decorative purposes. Type 5 nails, long with large heads, are also for general

purpose work, but on a grander scale and for larger timbers. Types 1, 2 and 3 were, on average, 40 mm. long, Type 4 20 mm., and Type 5 60–80 mm. long. Nails which were obviously specialized or decorative have been listed individually with the structural metal.

The largest group of nails was Type 1, followed by Type 3. Over half the assemblage came from the Courtyard and the medieval demolition layers (380 and 999). Building 2 and Building 3 yielded only 32 and 48 respectively, but Building 1, the presumed kitchen, produced a surprising 147 nails, mainly Type 1 and 3. It was significant that Building 4, represented here by only two contexts, B8 and B14, produced 99 nails. The number of Type 5 nails (40), is almost a third of the total number in the assemblage, and there is only one other context, a medieval demolition layer, which has more nails of Type 4.

Another anomaly is the scarcity of the small wedge-shaped nails known as sprigs. These were used profusely in medieval buildings. Salzman (1952) quotes 25,000 purchased for Hadleigh Castle and more than 30,000 for Canterbury Cathedral in several successive years. Although Lewes Castle is not on the same scale as these, and the shell keep is one small portion of it, it is surprising to find only 60 sprigs in the assemblage. Thirty one of these are bent at right angles as if to hold glazing, or some other material, firmly against a rebate. The majority of them were from the medieval demolition areas.

Structural Ironwork

The structural ironwork, listed in the archive, was from disturbed medieval and later contexts. Much of it was in an advanced state of corrosion and difficult to identify. However, although little of it can be related with certainty to particular structures, it is a well-balanced collection suggesting general building activities, with studs, bands, fitments and hinge pivots indicating doors and windows, and walls represented by some of the larger hooks, staples and braces.

Roman Tile by David Rudling

Fragment from a 'flat' tile 30 mm. thick. In the absence of even one complete side, the other dimensions of the tile are unknown (the fragment measures 197 mm. × 137 mm.). The upper

surface of the tile bears two concentric fingerimpressed semi-circular 'signature' marks. The sand-tempered fabric is very hard and highly fired, the surfaces are grey, and the core is dull red.

The discovery of this find of Roman date in Medieval demolition layers can probably be explained by *either* the medieval re-use of building materials recovered from the site of a local Romano-British building *or* as intrusive material relating to post-medieval times when the buildings on top of the motte were used as part of the museum store.

(g) Non-Structural Metalwork by Maureen Bennell

This has been grouped by period rather than by metal content. The medieval finds, which illuminate the personal life in the castle, have been sorted by decorative items, tools and household equipment, and horse or military accourrements. The iron arrowheads have been discussed separately.

Most of the finds cannot be tied closely to a particular structure except for a blade from the kitchen and an eyelet plate and shoe fitment from Building 4. The courtyard yielded four pins, parts of two buckles, a tag end, and a small piece of chain mail. Old chain mail was sometimes used for polishing armour or scouring pots, and its position in the courtyard and the vicinity of the kitchen is apposite.

Spread over 12 contexts, mainly medieval and later demolition layers, is a group of 33 lengths of iron band with copper alloy rivets at one edge. Some are 10 mm. wide (total length 7 cms), the majority 13 mm. wide (total length 122 cms), and the rest 23 mm. wide (total length 24 cms). The 10 mm. and 13 mm. bands have rivets of 7 mm. diameter, whilst the 23 mm. bands have rivets of 9 mm. diameter. These are interpreted as part of one artefact, possibly a wooden bucket, with the bands becoming wider as they neared the rim.

The later finds of sewing equipment, penknives and stray buttons are mostly from the period of the Georgian pleasure gardens.

Catalogue of illustrated metalwork (Figs 22 and 23)

Medieval

- Silvered copper alloy annular brooch. A common 13th-14th century style. Examples from Rye (*London Museum Medieval Catalogue*, 1954, A2450) and Bullock Down, Eastbourne (Drewett 1982). Context C2.
- Silvered copper alloy square buckle with iron tongue. Context A3.
- Small ogee fronted iron buckle, tongue missing. Context A14.
- Copper alloy buckle with pronged front. Iron tongue and belt end. Context C2.
- Iron 'spectacle' buckle.
 Context C24
- ?Pewter annular shoe buckle with iron tongue, similar to one from Hadleigh Castle (Drewett 1975). Context C2.
- Gilded copper alloy D-shaped strap end buckle. Context C2.
- Copper alloy pin with head of double twisted wire (cf. Hadleigh Castle).

Context C7.

- 9. Copper alloy sword or dagger chape.
 - Context C12.
- Copper alloy band with two iron rivets and star decoration.
 ?Ferrule.

Context B12.

- Lead weight 150 gms. Context B19.
- Iron key with kidney-shaped bow. 15th century (London Museum Medieval Catalogue, 1954).
 Context C4.
- Square iron ?harness buckle. Context A30.
- Copper alloy decorated leather ornament with copper alloy headed iron rivets.
 Context B19.

Iron Arrowheads

There were 48 socketed arrowheads from the excavation. 42 of these were Type 7 (*London Museum Medieval Catalogue* classification), and the other six were Type 1, Type 2, Type 8, Type 11, Type 13 and Type 16 (Fig. 23, 15–21).

The distribution was as follows:

Type 1: Context B22 Type 2: Context B16

Type 7: Contexts A3, A11(7), A13, A14, A15, A17(2), A23(2), A24(9), A28(4), A29, A34(2), A35(3), B2, B8, B16(2), C6, C7, D15

Type 8: D11 Type 11: D7 Type 13: A14 Type 16: B24

Types 1 and 2 are bladed and shouldered forms. Examples of Type 2 have been found at

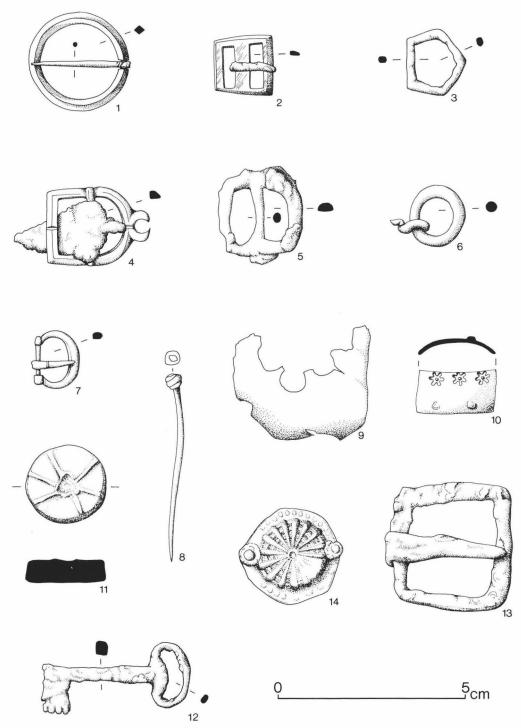


Fig. 22. Lewes Castle. Metalwork.

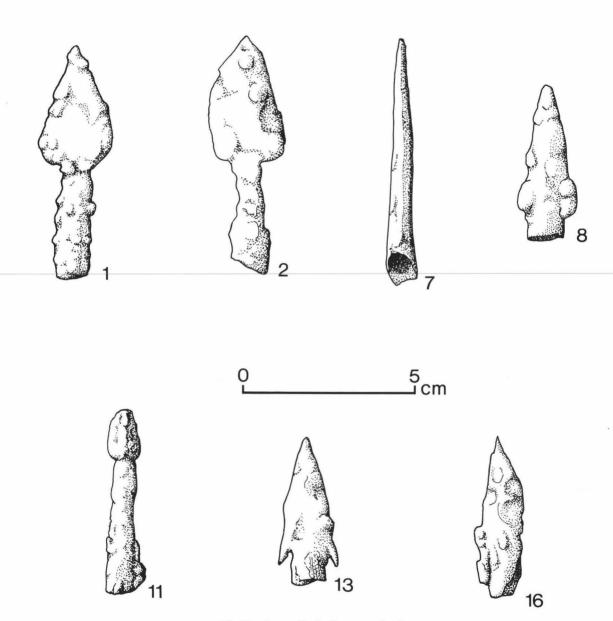


Fig. 23. Lewes Castle. Iron arrowheads.

the 12th-century Caesar's Camp, Folkestone (Archaeologia 1883), and a Type 1 arrowhead was found in a 12th-century context at Marlborough (London Museum Medieval Catalogue, 1954). Type 7 is a development from leaf or bullet-shaped arrowheads to counter the

use of more defensive armour. They are slender enough to probe the cracks in armour, but sufficiently heavy and sharp to pierce leather or cloth. This transition appears to have taken place during the 13th century and on sites such as Rayleigh Castle, Essex (abandoned in 1270) (Trans. Essex Arch. Soc. 1913) and Dyserth Castle, Flint (occupied 1241–63) (Arch. Camb. 1915), both the slender and the bladed forms are found. This is also the case at Lewes Castle. The form of the Lewes Castle Type 7 arrowhead, the bulk of the assemblage, is closest to one found in the Thames at Battersea (London Museum Medieval Catalogue, 1954, A9555).

Type 13 and Type 16 are 13th-century forms, one with short splayed barbs and the other with the barbs close to the shaft. The barbed arrowheads from A14 and B24 fall somewhere between these two forms. Barbed arrowheads are sometimes thought to be used only for hunting, which appears to be true from the 13th century onwards. During the 13th century they seem to have been used occasionally in battle, and at Dyserth and Rayleigh Castles, as at Lewes, they are a minor part of the assemblage.

Type 11 is a specialized later form from the 14th or 15th century and Type 8, from D11, is from the 14th century, still fairly slim but moving towards the style of Type 11.

Most of the arrowheads do not come from closely dateable contexts and could have been deposited at any time during the viable life-span of the form. It is interesting to speculate, however, whether some of these may have landed during the Battle of Lewes in 1264. Carpenter (1987), describing the end of the battle when King Henry and his son had taken refuge in the Priory but royalists still held the castle, says that Simon de Montfort attacked it with burning arrows and 'the garrison put up a vigorous defence'.

(h) Slate Artefacts

Three slate schoolroom pencils of 19th century date were found, one in each of Contexts C1, C2, and C7.

(i) Clay Pipes

Clay pipe fragments were found in 39 contexts (details archived). Most are of 18th–19th century date. Those with makers' marks are as follows:

 Bowl fragment with worn initials, probably I.H. Possibly John Harman of Lewes, active in 1734. Context A3.

- Bowl decorated with thistle on one face and flower with leaves on other. Oak leaves down joins. Illegible spur intials. 19th century. Context A11.
- Bowl with I.H. Possibly John Harman. Context A24.
- Long spur fragment with initials T.N. Thomas Neeve of Lewes, son of Richard and Ann Neeve, born 1775. Working 1802. Context B3.
- Bowl with initials T.H. Possibly Thomas Harman, Lewes, 1697–1781(?) Four other bowl fragments with worn initials, all probably T.H. Context C2.

(j) Slag by Jon Wallis

Slag was collected from seven contexts. Slag from Contexts C25, D3, D11 and D20, totalling 185 gm., was produced by a low temperature process, whilst slag from B7 (250 gm.), B16 (75 gm.), and B19 (75 gm.) was produced by progressively advanced processes, at a high temperature which caused vitrification.

(k) Animal Bones by Rodney O'Shea

1. Meat Bones

The most striking feature of the larger mammal bones is their fragmentation. There are very few whole bones, and not very many which represent a substantial part of a bone. Throughout, the most common elements are distal humerus of sheep, and sheep vertebrae which are cut longitudinally, as though used in a mutton stew. Other than vertebrae there is no pattern of butchery marks and the cuts are usually rather small.

The degree of fragmentation of the bones meant that sheep and goat could not be differentiated, and that measurements were of little use. Similarly, evidence of disease and wear marks was not obtained. Just about every bone examined had root marks on it.

(a) Contexts of the 18th Century and Later

The identified bones from this set of modern contexts were 64 per cent sheep, 20 per cent pig, 11 per cent cow, 4 per cent deer and 1 per cent horse (N = 1033). All percentages in this report are to the nearest whole number, which means that they may add up to 99 or 101 rather than 100. The total number, N, of identified bones is also given as the percentages are based on number, not weight.

Each species except the horse had bones bearing butchery marks among the collection.

(b) Medieval Demolition Layers

This group of medieval contexts contained fragmented bones, often in poor condition. Of the identified bones (N = 777), 66 per cent are of sheep, 24 per cent of pig, 7 per cent of cow, and 4 per cent of deer. Butchery marks in the form mostly of small cuts were found on bones of each species, but on only about 5-10 per cent of each context.

Context C/19 also produced one burnt fragment of a large rib, probably of a cow.

(c) Within Building (1) (Kitchen)

Bones were produced only from two contexts (D27 and D30) of the eight in this area. The bones in D30 were even more fragmented than the rest of Lewes Castle bones. This context also contained bones of small mammals, birds and fish among the several hundred unidentified small fragments of larger mammal bones. All this is in keeping with a deposit of kitchen refuse, although only two bones had identifiable gnaw marks.

Overall the identified bones are 46 per cent sheep, 35 per cent pig, 8 per cent cow and 10 per cent deer (N = 970).

There are also four burnt fragments of deer metatarsus, and a burnt piece of unidentified long bone.

(d) Within Building (2) (First Hall)

These bones were 80 per cent sheep, 14 per cent pig, 4 per cent cow and 2 per cent deer (N = 49, so it should be remembered that 2 per cent of the bones means only one fragment).

A few of the sheep bones and one cow bone had butchery marks, so again there was no overall pattern. A right metacarpus of a sheep from Context A39 had evidence of proximal arthrosis. This was one of the few bones with any evidence of disease found at Lewes Castle.

(e) Within Building (3) (Second Hall)

The small number of identified bones from these contexts (N=23) means that care must again be taken over percentages. There were 61 per cent sheep and 39 per cent pig, with other meat species unrepresented. Two of the five contexts in this group, C23 and C25, produced bones.

A few burnt bones were among the collection, including the epiphysis of a sheep metapodial bone, three probable sheep long bone fragments, and a fragment of small mammal

(f) Within Building (4) (Chapel)

In this group of contexts 73 per cent of the identified bones were from sheep, 21 per cent from pig, 4 per cent from cow and 2 per cent from horse. There were some butchery marks, with a piece of sheep pelvis from Context B7 having seven clear cuts on it. A very few bones had evidence of gnawing.

(g) Courtyard

More than half of the Courtyard contexts produced bones. Of the total of 414 identified bones, 51 per cent were from sheep, 35 per cent from pig, 8 per cent from deer and 7 per cent from cow. There was also one horse bone. Many of the bones were in poor condition, but those from Context C29 were in better condition than other contexts, and a higher proportion of them were whole or nearly whole.

(h) Shallow Pit in Building 1

Context D33 yielded 28 unidentified fragments weighing 40 gms. and a worn pig molar.

General

Very generally, Lewes Castle contexts produced about two thirds sheep bones, and a quarter pig bones with the remainder divided between cow and deer, the former being more numerous. These proportions hold more or less good for the 18th century and later contexts, the medieval demolition layers and buildings (3) and (4).

The kitchen (Building 1) and the courtyard yielded more nearly even quantities of pig and sheep bones; approximately in the ratio 5 sheep:3 pig.

Building 2 had six times as many sheep bones as pig (no statistical significance tests were undertaken). It must be borne in mind that some groups of contexts did not yield enough bones to make the percentages very meaningful. As would be expected on or around the South Downs, sheep predominated in all areas.

Small Mammals

(a) 18th Century and Later

Rabbit, dog and cat, and possibly vole and a mustellid.

(b) Medieval Demolition Layers

Rabbit, cat and rat, and possibly vole and mouse.

(c) Within Building 1 (Kitchen)

Rabbit, cat and dog.

(d) Within Building 2 (First Hall)

Rabbit.

(e) Within Building 3 (Second Hall)

Rabbit.

(f) Within Building 4 (Chapel)

Rabbit.

(g) Courtyard

Rabbit, cat, and possibly mustellid.

Rabbit bones were easily the most common type found. As with bird bones, there was a rough correlation between the number of contexts in a group and the number of species represented by bones.

3. Bird Bones

(a) 18th Century and Later

Chicken, goose, pigeon and crow, and possibly duck.

(b) Medieval Demolition Layers Chicken, goose, pigeon and crow.

- (c) Within Building 1 (Kitchen) Chicken.
- (d) Within Building 2 (First Hall) Chicken.
- (f) Within Building 4 (Chapel) Chicken and pigeon.
- (g) Courtyard

Chicken, goose and duck, pigeon and crow.

(h) Other Discrete Contexts Context D33: chicken.

4. Fish Bones

Nearly all the fish bones from the Lewes Castle excavations were vertebrae. This may be due to the methods of collecting bones, or might be because the fish were dried or smoked before being taken up to the castle. Trench A yielded five fish bones, B yielded eleven, C 96 and D 143 bones.

The identified vertebrae belonged to three families of fish: Gadidae (cod and its relatives); Salmonidae (salmon and trout), and Cyprinidae (carp and bream). This was the closest identification possible. Gadids would have been caught at sea; salmonids perhaps by estuarine netting, and cyprinids from fresh water such as rivers (bream) or fish ponds (carp).

(a) 18th Century and Later

Gadids and cyprinid bones were found. A large piece of crab claw was also yielded, and although not a fish, is included here.

(b) Medieval Demolition Layers

Vertebrae from all three families (gadids, salmonids and cyprinids) were found from these layers.

(c) Within Building 1 (Kitchen)

Bones from all three identified fish families were found.

(e) Within Building 3 (Second Hall)

Only gadid bones were identified. A large number of small unidentified fish bones were also found.

(g) Courtyard

Vertebrae from the three families were found.

(h) Other Discrete Contexts

Context D33: Only gadid bones occurred.

(1) Human Bones by Rodney O'Shea

(a) 18th Century and Later

Context C2 produced a piece of human femur shaft, and a piece of cranium.

(m) Marine Molluscs by Caroline Cartwright Sixty-two contexts at Lewes Castle produced a minimum number of individuals (M.N.I.) total of 990 marine molluscs. Table 4 (in microfiche) has details of the molluscan species, sub-divided according to seven main chronological groupings. Most specimens were recovered through trowelling, but in some of the domestic contexts the mussel fragments were extremely friable, and wet sieving provided a more secure method of excavation.

Twenty four contexts of 18th century and later date produced 248 (M.N.I.) molluscs. The bulk is provided by oysters (Ostrea edulis) with 222 M.N.I. representing 89.52 per cent of the total. Mussel (Mytilus edulis) follows in frequency with 14 M.N.I. (5.6 per cent). Scallop (Pecten maximus) at 1.61 per cent, cockle (Cerastoderma edule) and whelk (Buccinium undatum) at 1.21 per cent each, and limpet (Patella vulgata) at 0.81 per cent make up the rest of the sample. One may assume that the oysters, being readily available and inexpensive, would have been an obvious major part of the marine dietary resources.

Fifteen contexts in the medieval demolition layer grouping produced 328 (M.N.I.) marine molluscs, of which oyster represents 303 (M.N.I.), i.e. 92.38 per cent of the total. Mussel at 6.1 per cent, whelk at 0.92 per cent and cockle and scallop at 0.3 per cent each make up the remainder. Once again the reliance on cheap, plentiful oysters is evident. In both the medieval demolition layers and in 18th-century and later contexts, some of the oyster upper and lower valves have pierced holes. There is some doubt whether these perforations may be reliably interpreted as peg-holes for temporary roof repairs, and alternative interpretations remain open.

One context in Building 1 (kitchen) contained a total of 41 M.N.I. of which 37 M.N.I. are oysters (90.24 per cent) and 4.88 per cent each are mussels and whelks.

Four contexts in Building 2 (first hall) yielded 47 M.N.I.—all oysters. Four contexts in Building 3 (second hall) contained 42 M.N.I. of which 38 M.N.I. are oysters (90.48 per cent), 7.14 per cent mussels and 2.38 per cent cockles. Four contexts in Building 4 (chapel) contained 391 M.N.I. marine molluscs. Oysters total 64.1 per cent, mussels 30.77 per cent, cockles and limpets 2.56 per cent each.

Ten courtyard contexts comprised 245 M.N.I. marine molluses, of which 211 M.N.I. are oysters (86.12 per cent). Mussels form 8.57 per cent, whelks 3.27 per cent, cockles 1.22 per cent, periwinkles (*Littorina littorea*) and limpets, each 0.41 per cent.

Combined totals again reveal a predominance of oysters with 883 out of 990 M.N.I. marine molluscs. This represents 89.19 per cent of the total, and mussels with 72 M.N.I. (7.27 per cent) came a poor second. Whelks, cockles, scallops, limpets and one periwinkle, collectively only acount for 3.54 per cent.

When evaluating possible source areas we may define the types of habitat involved: the ovsters utilized at Lewes Castle may derive from marine and estuarine locations. The native ovster favours comparatively firm, muddy, sandy or gravelly substrates, and frequently lives offshore from low water mark down to about 82 metres. From Lewes the nearest source, besides that of the River Ouse, is the estuary of the River Cuckmere at Cuckmere Haven near Seaford. Offshore from the Seven Sisters, there may have been oyster beds during the medieval period. At the present day, although dead shells are washed up on the beaches, there are no large-scale ovster colonies surviving. It is also possible that trade in marine commodities (during the medieval period and later) from larger ports such as Seaford and Winchelsea, would also include ovsters as well as, for example, fish and other shellfish. Minimum length measurements for the Lewes Castle specimens are between 3.2 and 3.5 cms. and maximum lengths attain 10.5 cm.

The mussels from Lewes Castle are generally in fairly friable condition and are small in size, individually. Most measure less than 5 cm. in length. Mussels favour locations high in the intertidal zone down to depths of about 4 metres. They may form dense colonies where sufficient food sources and suitable attachment surfaces are present. Although there may be large populations at a high tidal level, if it is too high, the food supply will not be constant enough for individuals to attain a large size. The shoreline at the base of the Seven Sisters chalk cliffs, which extends from Rottingdean to Eastbourne, sustains a variable series of populations. During the last two years, for example, a sizeable mussel

population has developed on the wave-cut platform of eroded chalk blocks and tabular flint below the Beachy Head cliffs near Eastbourne. At this location, for the ten years prior, only small groups of mussels occurred sporadically. Presumably the food supply of organic debris has become more constantly available in recent years. Of course the relative proportions of oysters and mussels excavated need not reflect relative quantities offered in molluscan populations locally—factors relating to cost, trade and supply may well account for the figures.

Common edible cockles may be found on clean or muddy sand and gravel, burrowing to depths of up to 5 cm. in banks and estuaries. Where abundant, cockles may form dense 'platforms' just below the surface of the sand. Sandy beaches are not the norm in the Seven Sisters area. Here, beach material consists principally of flint nodules eroded from the chalk cliffs and battered by the waves into rounded pebbles. Also on these beaches are shingle pebbles transported through longshore drift from more westerly locations, being moved eastwards. However, on such beaches where large variations of tidal range occur in highenergy environments, areas of sand may be present between mid and low water mark. Thus estuarine margins (for example at Cuckmere Haven) may provide more suitable locations for a more permanent population. No cockle populations are apparent in the Birling Gap area at present, although dead shells are found on the shorelines.

Scallops favour locations offshore from low water mark down to about 110 metres. Individual shells live in small recesses in clean firm sand in gravel. Present-day fishermen record retrieving scallops in small numbers in deep waters off Beachy Head. The medieval and later scallops present at Lewes Castle could have been the result of trade with the Winchelsea and Rye communities.

Limpets, periwinkles (and the occasional whelk) favour the eroded chalk blocks and tabular flint of the wave-cut platform inter-tidal zone. Populations are slowly decreasing at the present time (1989) on the Seven Sisters shoreline, but these species have been

consistently represented in the archaeological record of the Bullock Down sequence of sites (see Cartwright in Drewett, 1982). Numbers at Lewes Castle are low, presumably as a direct result of the constant supply of cheap oysters in the marketing network.

(n) Charcoal by Caroline Cartwright A total of 2,387 gm. of charcoal was recovered from 65 contexts at Lewes Castle. Table 5 (in microfiche) has details of the charcoal according to seven main chronological groupings. The charcoal fragments were recovered through trowelling and flotation methods (for the domestic contexts).

Twenty-six contexts, belonging to the 18th century and later, produced 809 gm. of charcoal. Of these contexts, C/2 and C/10 produced the highest quantity-230 gm. and 221 gm. respectively. The highest proportion belongs to oak (Quercus sp.) with 352 gm. (43.51 per cent), followed by sweet chestnut (Castanea sativa) with 130 gm. (17.07 per cent) and hazel (Corylus sp.) with 119 gm. (14.71 per cent). Beech (Fagus willow/poplar (Salix/Populus), sp.). (Fraxinus sp.), birch (Betula sp.), alder (Alnus sp.), honeysuckle (Lonicera sp.) and box (Buxus sp.) comprise the balance, ranging from 8.16 per cent to 0.37 per cent of the total.

The interpretation of charcoal from these contexts is somewhat constrained by the fact that many of the archaeological horizons have been disturbed. The carbonized material contained within them may therefore derive from a wide variety of sources. The timber represented may also be traced to a variety of habitats. The oak, ash, beech, honeysuckle, hazel, sweet chestnut component may be found in valley or woodland stands. These may be found in gardens also, either singly or in groups associated with one another. The alder and willow/poplar charcoal suggests a riverside source. Birch may be found as a coloniser on open ground or planted in gardens. Box seems almost certain to have been planted in the gardens, as does honeysuckle.

Seventeen contexts from the groupings of medieval demolition layers contained 669 gm. of

charcoal with C/12 and C/15 yielding the highest quantities. Oak again predominates with 320 gm. (47.83 per cent of the total), followed by hazel with 139 gm. (20.77 per cent). Sweet chestnut, beech, birch, willow/poplar, ash and alder make up the balance. There may again be domestic and garden material represented here, although oak, beech, sweet chestnut and ash are very suitable for building timbers.

One context in Building 1 (kitchen) contained 92 gm. of charcoal, mostly oak and sweet chestnut (44.57 per cent and 30.43 per cent) with some beech (25 per cent). From the context location we may expect hearth and fuel material to be present.

Five contexts in Building 2 (first hall) contained 44 gm. of oak charcoal—possibly from constructional timbers. Two contexts in Building 3 (second hall) contained 217 gm. of charcoal, mostly oak (60.37 per cent), with some sweet chestnut (24.42 per cent), hazel (10.6 per cent) and willow/poplar (4.61 per cent)—again, presumably mostly from building timber.

Five contexts from Building 4 (chapel) contained 147 gm. of charcoal of which 82.31 per cent is oak, 15.65 per cent beech and 2.05 per cent honeysuckle. Building timber seems the most likely source, although an input from adjacent garden trees and shrubs may also be present. Nine contexts from the courtyard yielded 409 gm. charcoal with oak predominating at 40.1 per cent, followed by sweet chestnut at 29.58 per cent. Beech, ash, birch and willow/poplar are also present. Both garden shrubs and building timbers are possible sources.

When all charcoal totals for the seven groupings are combined, out of the overall quantity of 2,387 gm. the dominant timber is oak with 49.14 per cent. Sweet chestnut follows with 10.01 per cent, hazel 11.77 per cent and beech 9.47 per cent. Willow/poplar, birch, ash, alder, honeysuckle and box make up the balance of charcoal present. Sources and interpretation for these timbers have already been discussed (above) in the individual period groupings. As the chronological time span is broad there seems little advantage in interpreting the charcoal as a unified assemblage.

CONCLUSIONS: THE ORIGINS AND DEVELOPMENT OF THE CASTLE

Lewes was mentioned in the 10th century Burghal Hideage as one of the four Saxon burghs or fortified places in Sussex (Drewett, Rudling and Gardiner 1988). The exact extent of the burgh on the ground remains uncertain, but the first castle was almost certainly situated within it. The construction of the castle formed part of the establishment of the Norman Lord's power bases following the break up of Sussex's Saxon estates (Brandon and Short 1990). Sussex came under Norman rule as part of Duke William of Normandy's army travelled westward below the South Downs to join his main force marching south from London to Winchester. It is possible that the Sussex arm of the Norman force rapidly built a series of motte-and-bailey castles at key points along their route, perhaps at Hastings, Lewes, Bramber, Arundel and Chichester (Freke in Drewett, 1978). These castles became the 'defended residences of a Lord' (Clarke 1984) and as such can be seen as representing seigneurial consolidation. of feudalism. However, the first rapidly constructed mottes may be seen as having essentially a military rather than feudal role. If so, it is likely, although by no means proven, that Brack Mount represents the early Norman military motte. It is carefully sited on the end of a chalk spur to provide maximum height with minimum effort. Viewed from the north it appears to be a massive mound. It is, however, not as large as it appears. The lower two thirds or so of the mound consist of a natural spur, with the mound created by truncating the spur to the south. Brack Mount has excellent views inland up the River Ouse, emphasising its role in a primary conquest situation (Fig. 24). It is uncertain what type of structure(s) originally topped the Mount, but excavations at Abinger, Surrey, suggest one possibility (Brandon and Short, 1990, 47; Hope-Taylor, 1950). At Abinger a timber palisade encircled the top of the motte, enclosing a square watch tower.

The later development of Lewes Castle can only be presented in sketchy outline. Castles are by their nature extremely complex structures, and their surviving earthworks deceptively simple (Saunders 1977). With virtually no

documentary evidence and very limited archaeology we can at present suggest only a deceptively simple development of the castle. Clearly there were major periods of redevelopment, but repair, consolidation and modification were continuous processes from the 11th century to the late 14th century.

If Brack Mount was an early Norman 'military' castle, then soon the castle was modified to become a fit residence for the new feudal lord, William de Warenne. It is likely that during the 11th century the much larger southwestern motte was constructed. If so, the shell keep, which now partly encircles its top, may have been built up from ground level at the same time as the mound. Such a structurally sound method was used at Farnham Castle (Thompson 1960). It is likely that at the same time Brack Mount was given a masonry shell keep. The reason that this shell keep has now completely collapsed may be due to the possibility that it was added onto an existing motte, a far less structurally sound process. The two mottes would certainly have been connected in some way to create a bailey area between them. A gatehouse, partly surviving, on the southern side of the bailey was constructed of masonry. suggesting a masonry curtain wall, at least on the southern side of the bailey. The northern curtain wall may have been constructed of masonry or timber, by about 1100 A.D. (Fig. 24).

Within the new bailey area a range of domestic buildings would have been constructed; a hall, chapel, kitchens, and the like. None of these has yet been located. However, by the 12th century such buildings were also constructed within the shell keep on the south-western motte. This would have served the same function as the newly-constructed rectangular stone keeps being built elsewhere in the country. These were totally defensive structures, built to withstand a siege (Clarke 1984). The first structures built on the motte were a great hall and a kitchen block (Fig. 4).

Developments in military thinking during the late 12th and early 13th centuries led to a total reconsideration of castle design. The single stronghold keep was considered vulnerable. Projecting angle towers from a curtain wall enabled protective crossfire. New castles built in

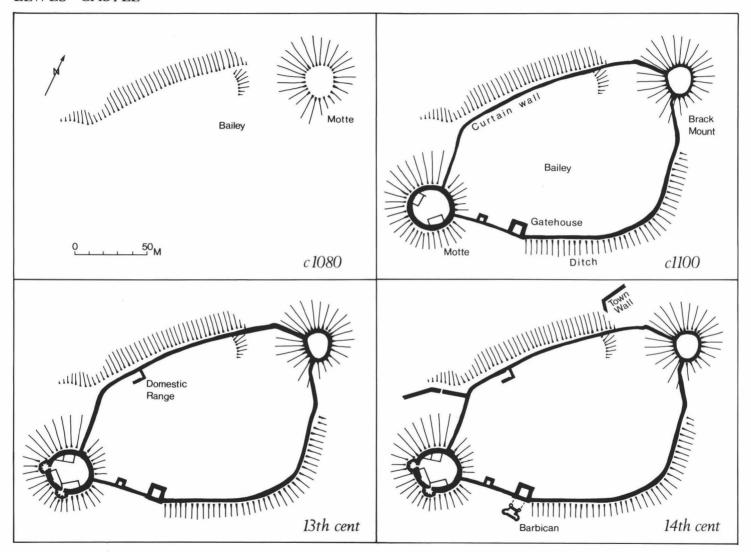


Fig. 24. Lewes Castle. Development of the Castle's fortifications.

the first half of the 13th century were simply an enclosure with angle towers but no keep, as at Bolingbroke Castle, Lincolnshire (Drewett 1976, Fig. 1). Old castles were frequently modernised. This certainly happened at Lewes Castle with great cuttings made through the Norman shell keep wall on the south-western motte, and polygonal angle towers inserted (Figs 24 and 3). This development required modification of the domestic buildings on the motte. A new hall was built attached, as was now the fashion, to the formerly free-standing kitchen. A new range, perhaps a chapel, was constructed against the northern side of the shell keep.

By the late 13th to early 14th centuries, the purpose of English castles was changing. Fourteenthand 15th-century castles were essentially demonstrations of success, wealth and power, rather than military installations. New castles, like Bodiam and Herstmonceux in Sussex and Scotney in Kent (Drewett 1987) were prestige living places, not really designed to withstand direct attack. To update Lewes, a fancy barbican gatehouse was added onto the earlier, solid Norman gatehouse (Fig. 24). Thin walled, it was built more for show than defence. By 1382, however, the castle was falling into disrepair and had begun its gradual decline into the ruin we see today.

Contents of Microfiche
Lewes Castle Pottery (p. 45 to 47)
Lewes Castle Marine Molluscs (p. 48 to 50)
Charcoal from Lewes Castle (p. 51 to 55)

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