

Excavations at Lewes Friary 1985–6 and 1988–9

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Excavations on site of the Franciscan friary at Lewes identified eight periods of activity. The earliest deposit was a surface of flint gravel interpreted as a hard for beaching ships. During the 12th century it was covered with alluvium and dumped rubbish. The Grey Friars was founded before 1241 and the earliest buildings were constructed on the built-up surface of the floodplain. Evidence was found suggesting that conditions here were very damp. Partial rebuilding took place on the south side of the cloisters raising the floor levels. In Period 4 a major rebuilding took place with the reconstruction of all structures and the ground level was raised by dumping chalk rubble. Minor modifications were made to the friary buildings in the 15th and early 16th centuries, many of which can be associated with improved standards of comfort. The friary was dissolved in 1538 and the church and many other buildings demolished. Some buildings, including the chapter house, were retained, though in an altered form. In the late 17th century these too were demolished and the house called The Friars was constructed on the site.

Fifty-five medieval burials were recovered from the church, cloister walk, cloister garth and graveyard, the majority of which were adult males.

No remains survive above ground of Lewes Friary, the smaller of the two major religious houses in the town. Traces of the friary have been discovered below ground from time to time during building work. Burials were disinterred in 1861 when Fitzroy House and the railway station were constructed on the site of the friary. Structural remains must have also been found when the railway viaduct was built, though none seem to have been reported. Further inhumations were discovered in 1928 when gas mains were laid in front of Fitzroy House.¹ The first archaeological work on the site was undertaken in 1967 by C. J. Knight-Farr and David Thompson who cut some trial trenches.² In 1981, in expectation of the redevelopment of the site, the Field Archaeology Unit (FAU) of the Institute of Archaeology, University College London dug a limited area to assess the quality of the remains and showed that a considerable depth of stratigraphy survived (Rudling 1983, 66–9).

Large-scale excavation began in summer 1985 when an area near to Friars' Walk was dug in advance of the construction of Lewes magistrates' court. The work was undertaken by the Field Archaeology Unit and directed by Mark Gardiner. The excavations

were continued by David Gregory and the Lewes Archaeological Group (LAG) who examined a small area to the north of this during the winter of 1985–6. David Gregory also observed pits dug by machine by the contractors to enable piling for the court to the east of the 1985 excavation (Fig. 2). This allowed the line of some of the walls found in the earlier excavations to be traced. In summer 1988 and during the winter of 1988–9 an area facing the High Street was dug before commercial redevelopment. These second excavations by the FAU were directed by Miles Russell. Post-excavation work on this area was also undertaken by Miles Russell, and was revised and completed by Mark Gardiner.

The present report discusses the results of the excavations from 1985 onwards. It does not provide detailed information on the contexts excavated beyond that necessary to justify the interpretation presented. Work on the finds is summarized in this report and only those of intrinsic interest or of significance for the building sequence are discussed here. This report was prepared in conformity with the guidelines issued by English Heritage (1989), *The Management of Archaeological Projects* (first edition). A fuller version of the report of the excavations has

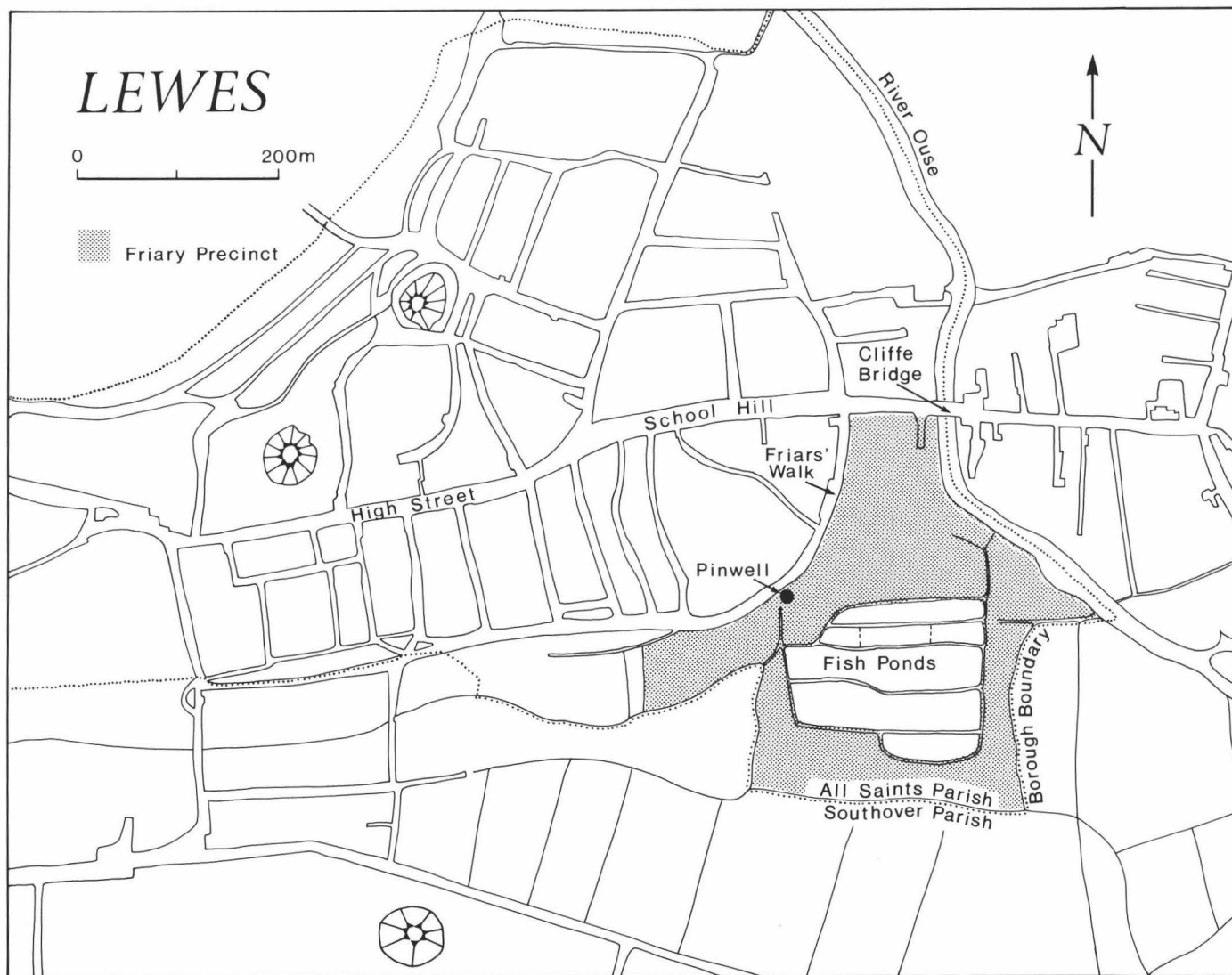


Fig. 1. Lewes showing the land held by the friary (stippled) and the friary fishponds.

been prepared and copies placed in the National Archaeological Record at Fortress House, London and the library of the Sussex Archaeological Society at Barbican House, Lewes.

The figures reproduced here show, firstly, the phasing of the friary remains. Secondly, area plans at a uniform scale of 1:100 (except Figs 10 & 21) show parts of the excavations in greater detail and key sections are used to illustrate the stratigraphy. Figure 3 shows the areas covered by the detailed plans and the positions of the published sections.

The friary lay on low, marshy land on the floodplain of the River Ouse (Fig. 1). On the north side of the friary was the High Street which led from Lewes over Cliffe Bridge to the suburb of Cliffe. This was a major thoroughfare, being part of the main east-west route through coastal Sussex (Pelham 1931, 181-3). The west side of the friary precinct was bounded by the town ditch and on the east was the River Ouse. The situation of the friary was typical of many urban houses of the mendicant orders, which commonly lay on poorly drained sites, often close to town boundaries and adjacent to major roads.

DOCUMENTARY EVIDENCE

Lewes Friary, like most houses of the mendicant orders, is poorly covered by documentary sources. The reasons for the paucity of records have been discussed by Dobson (1984, 110). Details of Lewes Friary are derived almost entirely from royal records and from post-Dissolution sources.

The friary at Lewes was founded between 1224, when the Franciscans arrived in England, and 1241, when it is first recorded (*Cal. Lib. Rolls 1240-45*, 85). By 1242 building work was clearly in progress, because the friars were granted the timber from ten oaks. The king gave the friars permission two years later to ask the burgesses of Lewes to allow them to construct a wall over the town ditch and so enclose their precincts for security and privacy (*Cal. Close Rolls 1237-42*, 426; *Cal. Close Rolls 1242-47*, 207). The friars were sustained in their early years by grants of food and money made by the king and the earls Warenne, in whose rape the friary was situated, and, presumably, by unrecorded donations made by others (*Cal. Lib. Rolls 1245-51*, 138; *Cal. Close Rolls 1302-7*, 249). A grant of 24s. for three days' food made by the king in 1299 indicates that there were then 24 friars (Blaauw 1849, 146; Little 1917, 39).

The regular orders derived the greater part of their revenue from the land in their tenure, but the Franciscans were mendicants and were supported by donations in money or kind. There was, however, a considerable area of land attached to Lewes Friary, the extent of which may be inferred from the post-Dissolution estate. The friars received the tithes from land to the west of Lewes, and at Plumpton and Barcombe.³ The friary continued to attract bequests throughout the 15th century,⁴ but it was not a wealthy house and when the friary was dissolved in 1538 it was found that the assets were inadequate to pay for the debts (*Letters and Papers Henry VIII 13* (ii), no. 1060). Seven years later the site was in the hands of George Heydon and John Kyme who acted as agents for the king for the disposal of confiscated property (*Letters and Papers Henry VIII 19* (i), no. 812, para. 114). The later descent of the property is discussed in the *Victoria County History of Sussex* 7, 36-7.

POST-DISSOLUTION HISTORY

By Colin Brent

The extent of the estate attached to the mansion erected on the site after the Dissolution is shown on a map, dated 1620, and prepared for the Commissioners of Sewers for Lewes and Laughton Levels, probably by John De Ward. This shows three pieces of water-meadow belonging to John Shurley, serjeant-at-law, who died in 1617 possessed of the estate.⁵ Bounded on the south by the Winterbourne Stream, these water-meadows are separated from the mansion by meadow or pasture. In all the estate is larger than the six acres of garden, orchard and water-meadow credited to the friary by the Dissolution accounts, and closer to the 18 acres of 'productive' meadow land which composed it in 1803 (Fig. 1).⁶

The 1620 map also shows a large gabled mansion, seemingly facing east, on the north-west corner of the site. That a commodious dwelling of some description had already been built within the precinct by 1570 is clear from the will made that year by John Kyme, who bought the Friars estate in 1544. He left to his married sister, Anne Colt, the remaining years of the lease he had made to her, and her husband John, of his house called 'the late Graye Friars' and the 'landes' adjoining. Colt was a man of substance, having served three times as High Constable of Lewes Borough.⁷

The mansion and estate, defined by the 1620 map, passed eventually to William Alcock, a lawyer

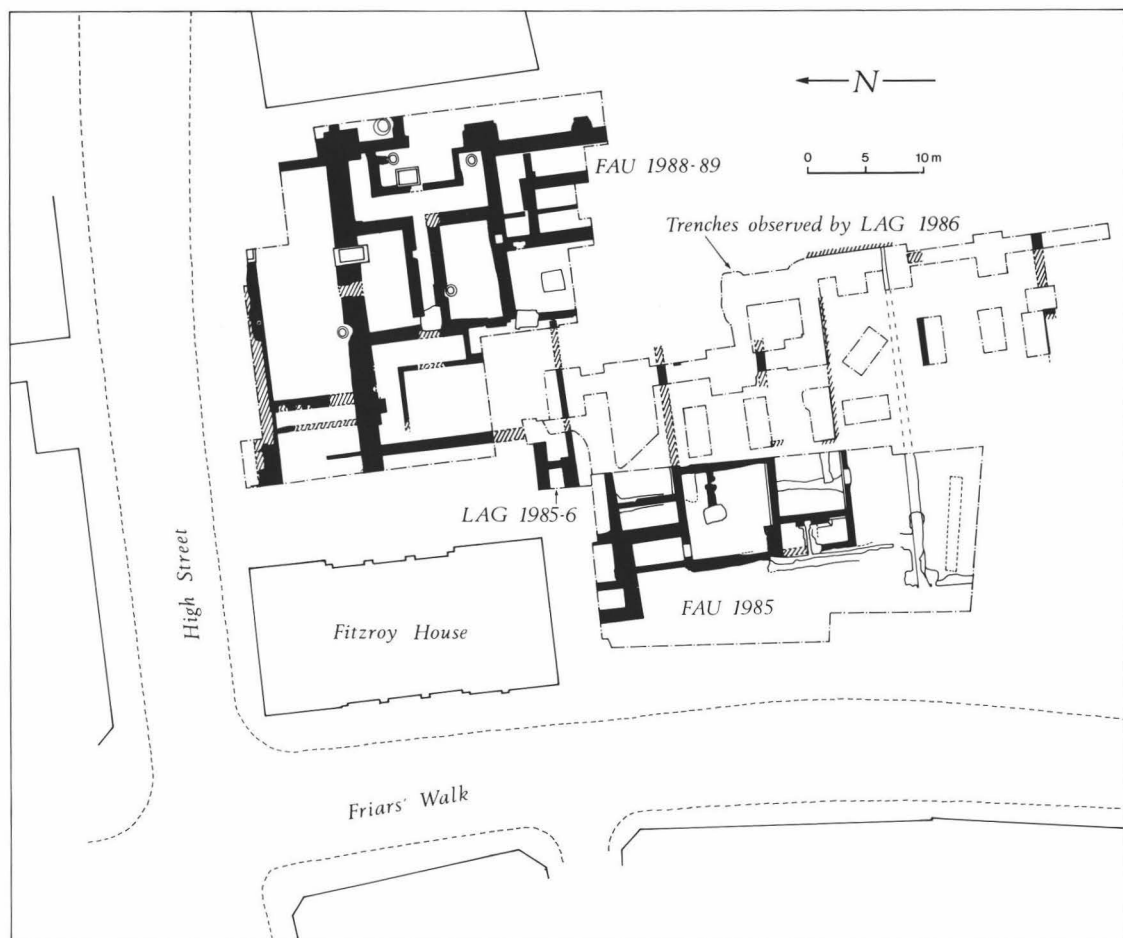


Fig. 2. Location of all excavated trenches and observed contractor's trenches.

who prospered as Clerk of the Peace for Sussex. In 1672 he bequeathed them to his daughter Hannah and her husband Thomas Pellatt, who already resided there.⁸ In 1673 they rebuilt the mansion giving it a pilastered brick facade, owing something perhaps to Artisan Mannerism.⁹ The house was described as 'venerable' in 1803 and was demolished in March 1846.¹⁰ The 1620 map also shows a smaller house, east of the mansion, near the bridge, which was occupied in 1624 by Edward Fitzherbert¹¹ and later by the wine merchant, Sir Henry Blackman (c. 1744–1832).

References also occur to monastic buildings. Part of 'an ancient dove-house' was exposed in 1819 when the inner wall of a stable was demolished.¹² A precinct wall still existed in 1790, between Eastgate Corner and Pinwell, the 'Common Spring'.¹³ Gideon

Mantell (1790–1852) remembered it as ablaze with wallflowers, red and white snapdragons and viper's bugloss.¹⁴ And in 1846 the 'chapel', containing traces of Early English work, survived as a barn.¹⁵

ARCHAEOLOGICAL EVIDENCE

The method of excavation used in all three areas was similar. The post-medieval deposits were stripped by machine to the top of the medieval layers and excavation was continued by hand. Limitations of time and finance prevented excavation as far as undisturbed alluvium over the entire area of the two larger trenches. Sample areas were therefore dug to record the lowest deposits. The remains discovered during excavation are divided into eight periods.

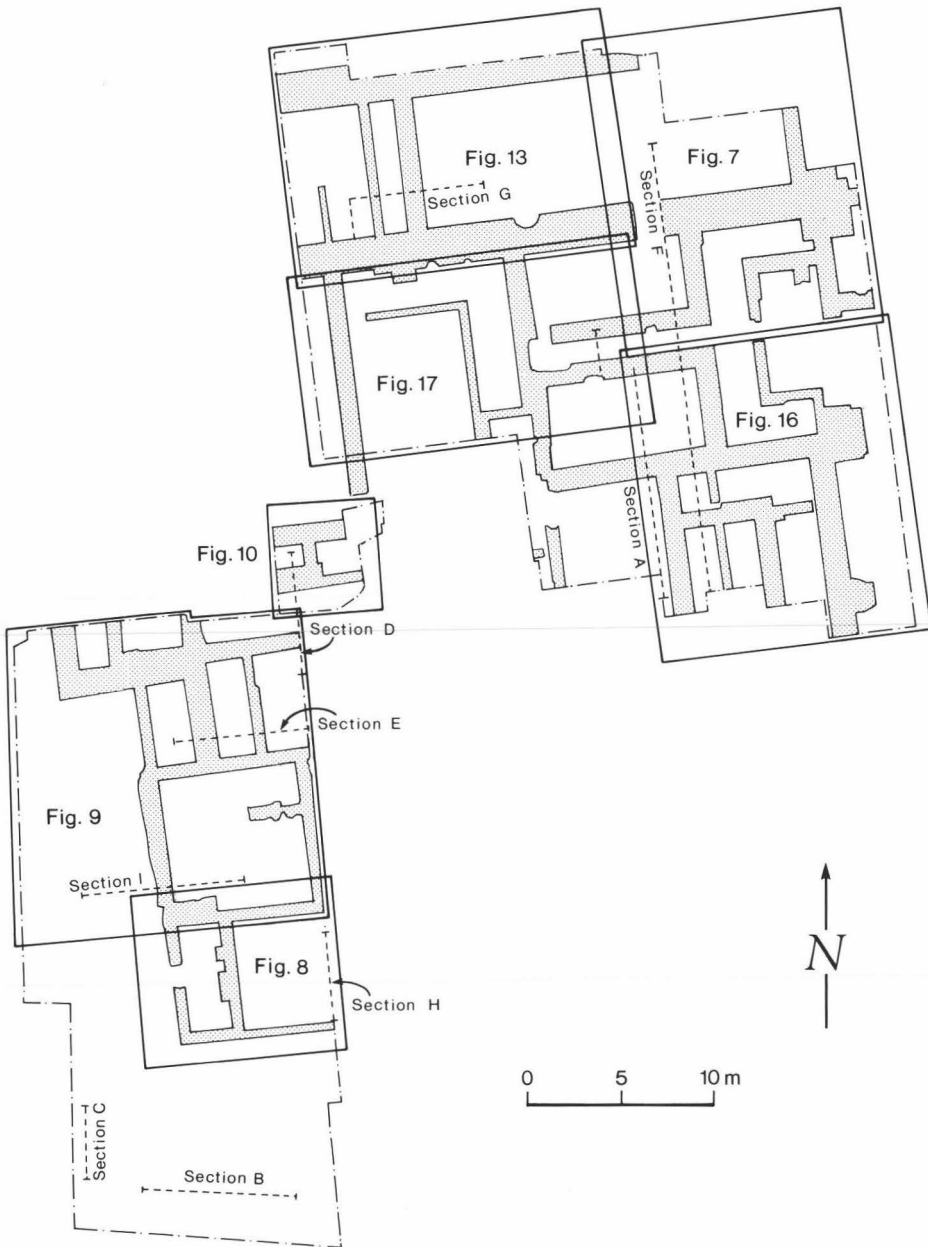


Fig. 3. Key map showing areas covered by plans and locations of sections.

It should be noted that separate series of context numbers were used in the three excavations. Reference to the illustrated plans will make clear in which of the excavations particular contexts lay. All the dimensions of the rooms given are internal and taken at superstructure level.

PERIOD 1 (Fig. 4a)

The remains of the first period were first recognized in a trial trench on the south-west side of the site near to Friars' Walk dug initially by machine and later continued by hand. This revealed a sequence of deposits beneath the friary remains (Fig. 5B). At

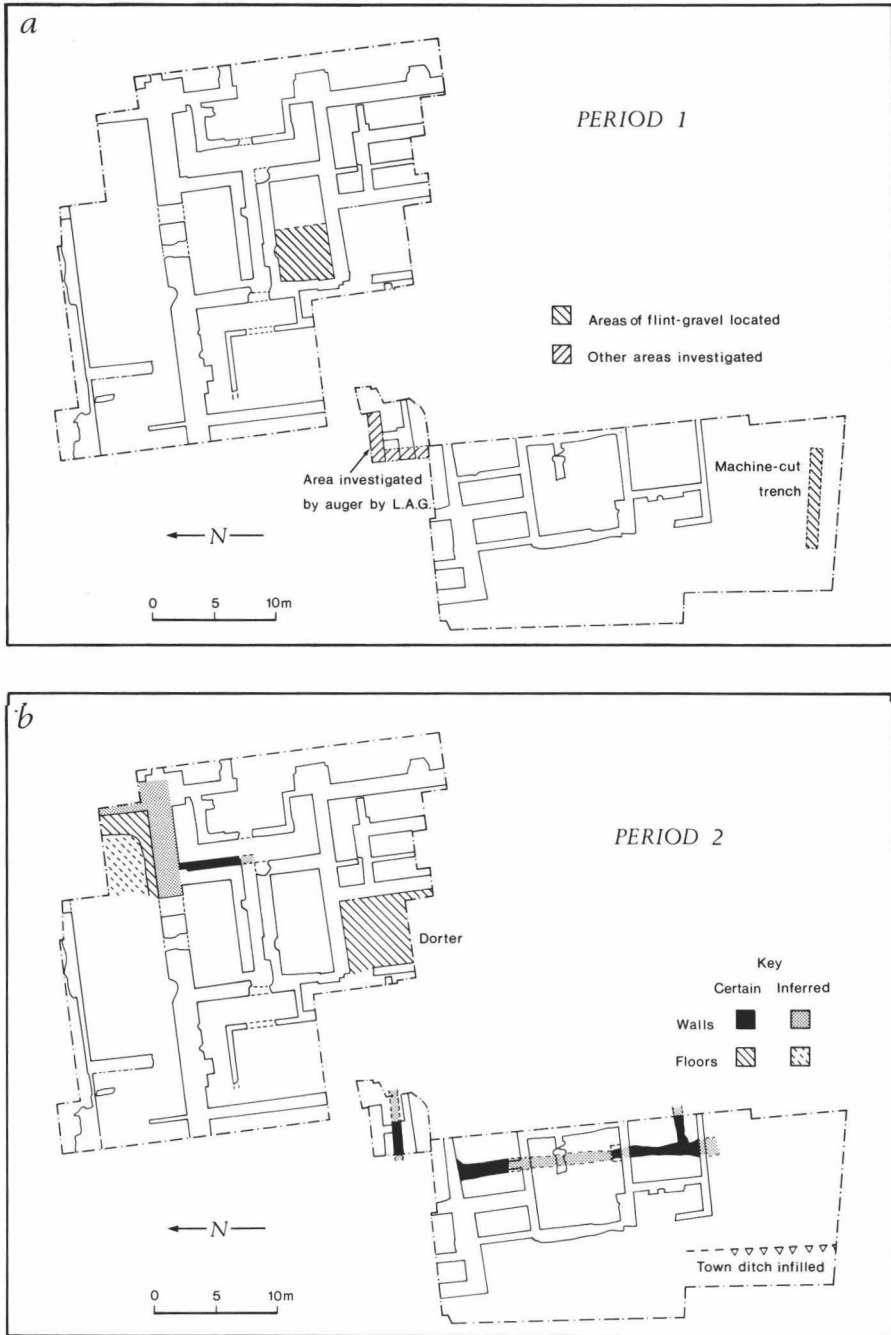
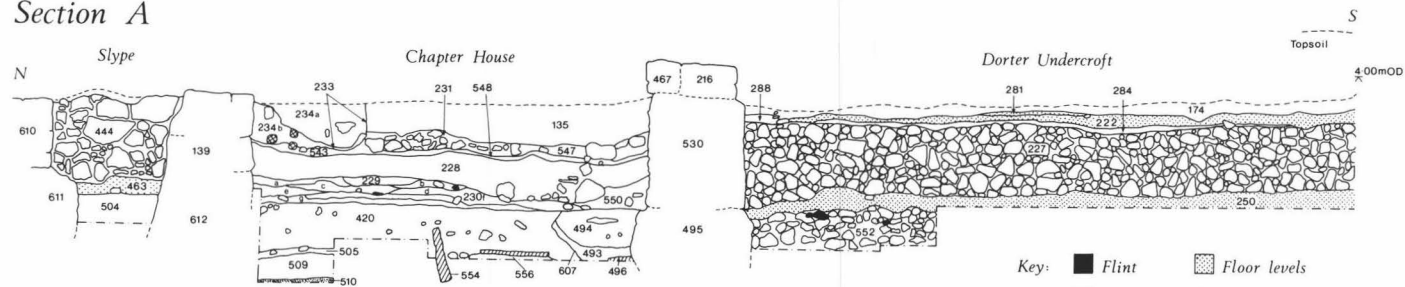
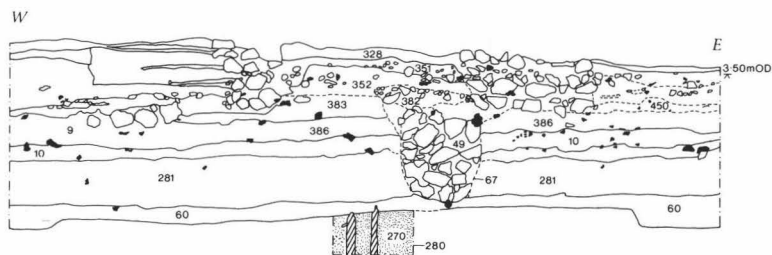


Fig. 4. a) Period 1; b) Period 2 (later features are shown in outline).

Section A



Section B



Section C

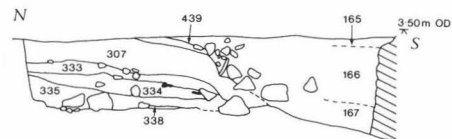


Fig. 5. Sections: A) across chapter house and dorter undercroft; B) along trial trench at south-west of excavated area; C) along town ditch.

the base was a highly compacted layer of angular flint gravel (270) about 50 mm thick. Fragments of waterlogged wood were found on the surface of the flints and projecting through the layer were two wooden stakes. The top surface of the flint deposit was between 1.90 m and 2.15 m Ordnance Datum (OD). Above this was a thin band of blue-grey clay containing bone and pottery of the 12th or 13th century (60), which was overlain by a series of dark brown and orange brown silty clays (281, 10, 386).

Soils sampled beneath the church, the chapter house and the cloisters on the north-east of the site revealed a similar sequence of deposits (Fig. 5A). At the base was a layer of flint gravel (510), the top surface of which lay at about 2.00 m OD. This was overlain by two bands of grey silty clay with a high organic content (505=556, 509). Above this was a deposit about 0.5 m thick of silty clay containing bands of oyster shells, animal bones and waterlogged leather, and separated by sterile bands of clay (420=504). A 10-mm-thick layer of mortar was found above this, indicating the level of the ground surface at the time of the construction of the walls of the friary (not shown in Fig. 5A). At the junction between the clay and silty clay layers were two wooden stakes.

An auger survey by Lewes Archaeological Group in their trench identified a dumped deposit containing flint gravel, mortar and charcoal. The top surface of this stood at between 2.10 and 2.34 m OD. It seems likely that the gravel deposits identified in three excavations were the same layer, which sloped gently towards the river, though it should be noted that the flint surface identified in the LAG trench was considerably less even in the deposit seen in the two FAU excavations. This layer may have formed a broad hard on the floodplain below Cliffe Bridge for beaching ships. It was buried during the 12th and 13th centuries by dumps of rubbish and by sediment laid by the river.

PERIOD 2 (Fig. 4b)

The earliest buildings were only exposed in limited areas as these lay at a considerably greater depth than later structures.

The Friary church (Fig. 7)

Traces of a compacted chalk floor (89) were identified at the east end and along the south walls below the later friary church at about 2.80 m OD. No evidence of walls of this period was found, for these were probably entirely removed by the Period

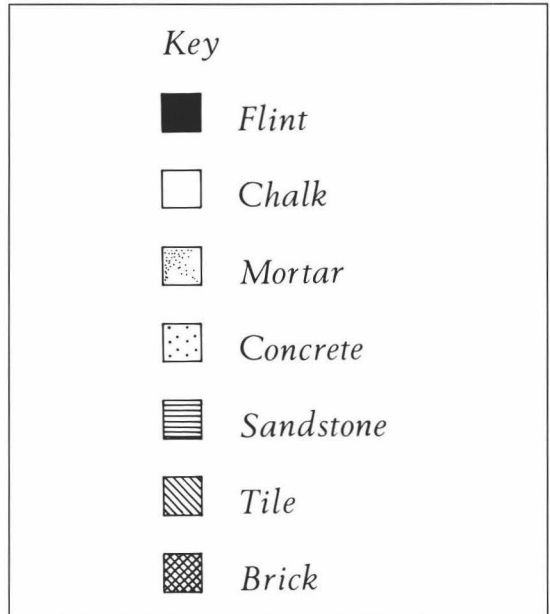


Fig. 6. Conventions used in most following plans and sections.

4 works. The area of flooring seems to imply that the church of this period extended at least as far east as the Period 4 structure.

The (?)dorter (Fig. 5A)

The ground within the room on the east side of the cloisters was dug out during construction and replaced by a deposit of chalk blocks with an olive-brown clay in the interstices (552). A dark olive clay (250) had been laid over this to form a floor surface standing at 2.80 m OD. The walls of this period were probably removed by the later, Period 4 works.

The use of chalk blocks below the floor level is confined to this room alone during Period 2. The intention seems to have been, as in the Period 4 works, to ensure that the floor was dry. The function of the room is suggested by its position in the claustral plan. In most religious houses the dorter was set at first-floor level in the eastern range. It is possible that in the early years the dorter might have been set at ground level, while the Franciscan ideal of austerity was more strictly enforced and the friars lacked the money to erect more elaborate buildings.

The south buildings and cloisters (Figs 8–10 & 11E)

The later fills of the south room in the south buildings and part of the room to its north were removed during excavations and the chalk rubble

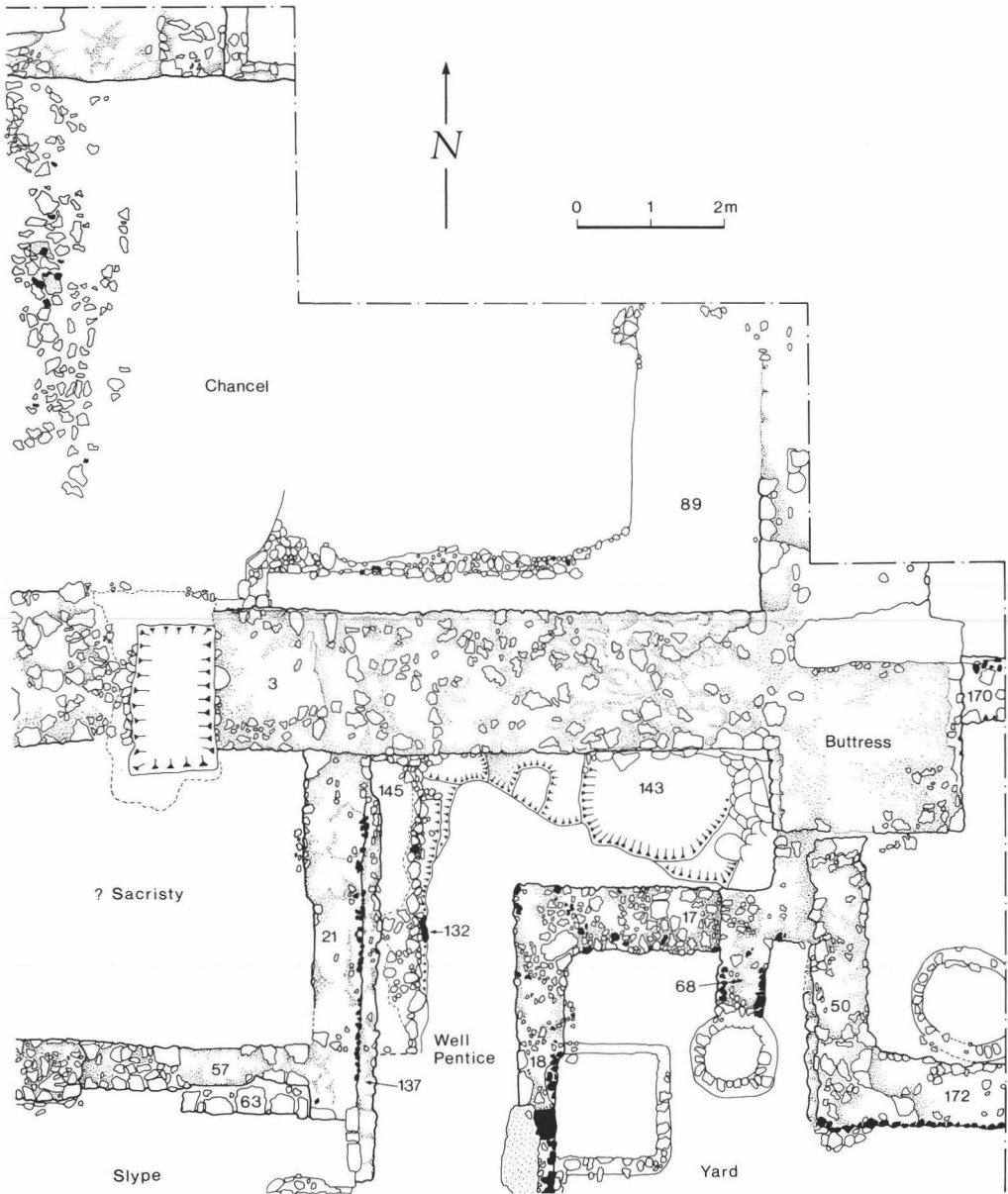


Fig. 7. East end of friary church.

footings were recorded of two walls about 800 mm wide (Fig. 8). The top surface of these stood at about 2.75 m OD. The east-west footings (358) cut the earlier north-south foundations (340) which continued under a later wall (143) to the north. The width of these footings suggest that they were intended for a masonry structure, though no

superstructure survived. The area uncovered was too small to determine the character of the buildings. Layers of iron pan formed within the clay into which the foundations had been cut indicate a rising and falling water table (Fig. 18H); any buildings at this level were probably extremely damp. The pottery within the clay above these wall footings is not

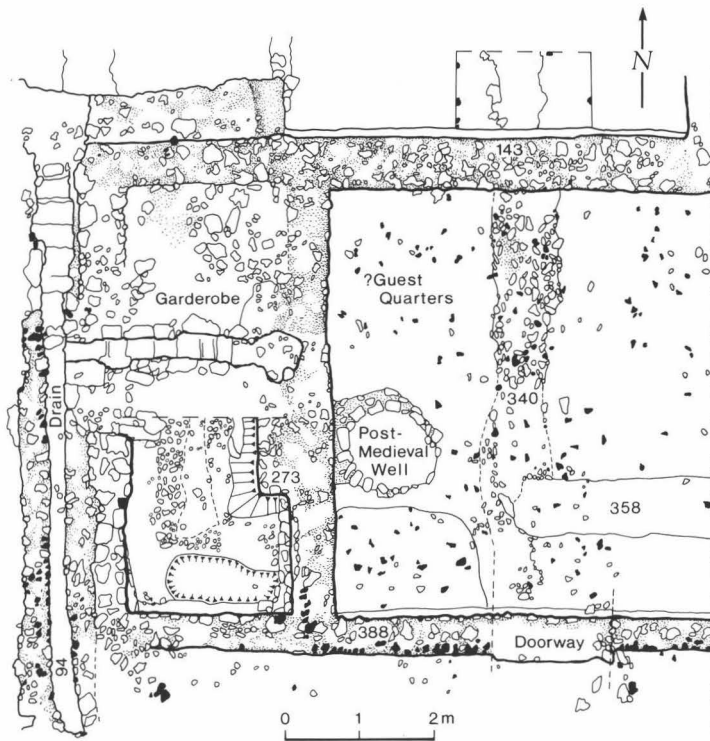


Fig. 8. South range (south part).

earlier than the 13th century and argues that the structural remains are likely to be from the early friary buildings.

The broad footings for a wall (Fig. 11E:409) beneath the frater may belong to this period or to Period 3. They were cut into a clay deposit the top of which stood at 2.45 m OD. The substructure wall with two diminishing courses 1.10 m and 0.85 m wide (408) implies that deposits of clay were laid to raise the level of the floor here. It may be significant that this was in line with the footings 340 which lay to the south and may be the continuation of the same wall (for this reason they are shown as linked on Fig. 4b).

The earliest recorded cloister walk was 2.65 m wide and was bounded internally by a flint-faced chalk block wall (30) set on chalk rubble footings (31) (Figs 10 & 11D). The foundations were cut into the top of a thick clay deposit (40). The slight nature of the footings of the inner wall of the cloisters on the south side might imply that a light timber structure was set on top of a low wall.

Other areas (Figs 5C & 7)

Excavation to the south of the east end of the friary church located a line of chalk rubble (145) with a mortar-covered top surface (Fig. 7). It ran parallel with the substructure (137) of a Period 4 wall. The depth of these footings was not determined, nor was its relationship to the substructure. It is, however, notable that the band of chalk rubble extended 0.7 m eastwards beyond the substructure. Elsewhere the foundations lay directly under and were little wider than the substructure walls. The chalk rubble footings are, therefore, interpreted as belonging to a Period 2 building constructed on the surface of the floodplain. The top of these footings lay at 2.5 m OD, which is a little lower than other remains of this period.

A cutting excavated at the south-west of the site adjacent to the wall of the former railway station revealed a deep ditch partially filled with chalk rubble. Only a limited length of this was excavated, and the bottom was not reached.

The ditch measured more than 1.0 m deep and 1.8 m wide (Fig. 5C). It had been infilled in two stages. Initially, chalk had been dumped in the northern part (338, 333–5, 307) and later the remainder had been infilled as far as a right-angled turn in a water channel which led from the south (165–7).

The reference in the Close Rolls to a grant of permission to the friars to seek agreement to build a wall over the town ditch has already been cited. The excavated ditch ran beside Friars' Walk in the direction of the East Gate. Its position close to the presumed course of the town boundary and dimensions allow it to be identified as the town ditch, even though no trace of the precinct wall was found. The wall presumably lay to the west and therefore outside the area of excavation. The dumping in the ditch is attributed to this period on the basis of the documentary evidence alone.

PERIOD 3

Remains of this period were poorly represented in the excavations. The clearest evidence for this phase

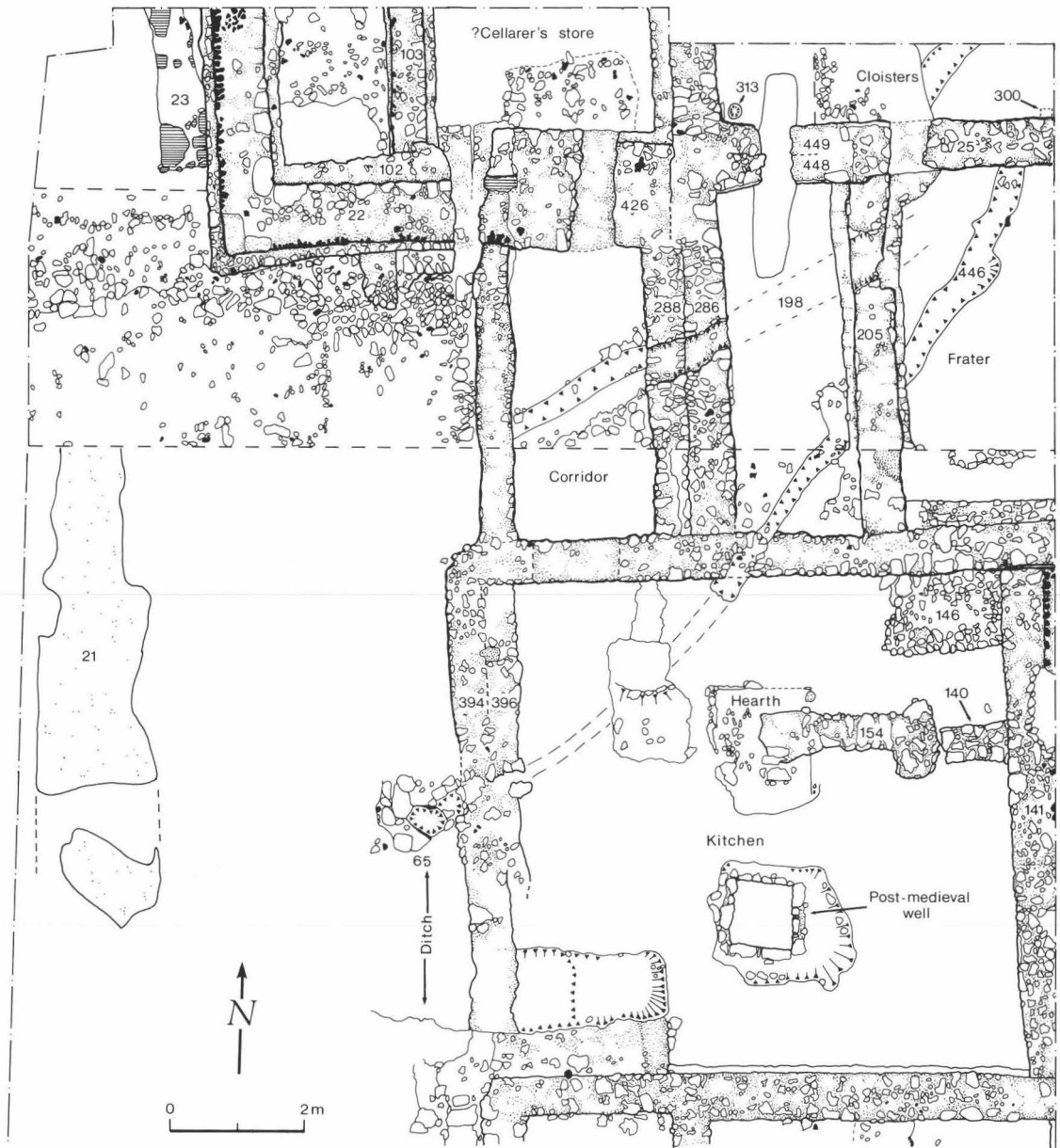


Fig. 9. South range (north part).

is found in the cloisters where floor levels were identified, which, though clearly lower than those of Period 4, were above those of Period 2.

The level within the cloisters (Fig. 11D) had been made up with a scatter of mortar (38) over which lay a thin spread of slate (44). These layers

presumably comprised material dropped during the building works. A worn, compacted chalk floor was found above the slate scatter (35/210) at 3.23 m OD.

Evidence of two posts measuring 150 by 120 mm and 140 mm square (Fig. 9: 300, 313) was found in the south-west corner of the cloisters and 4.35 m to

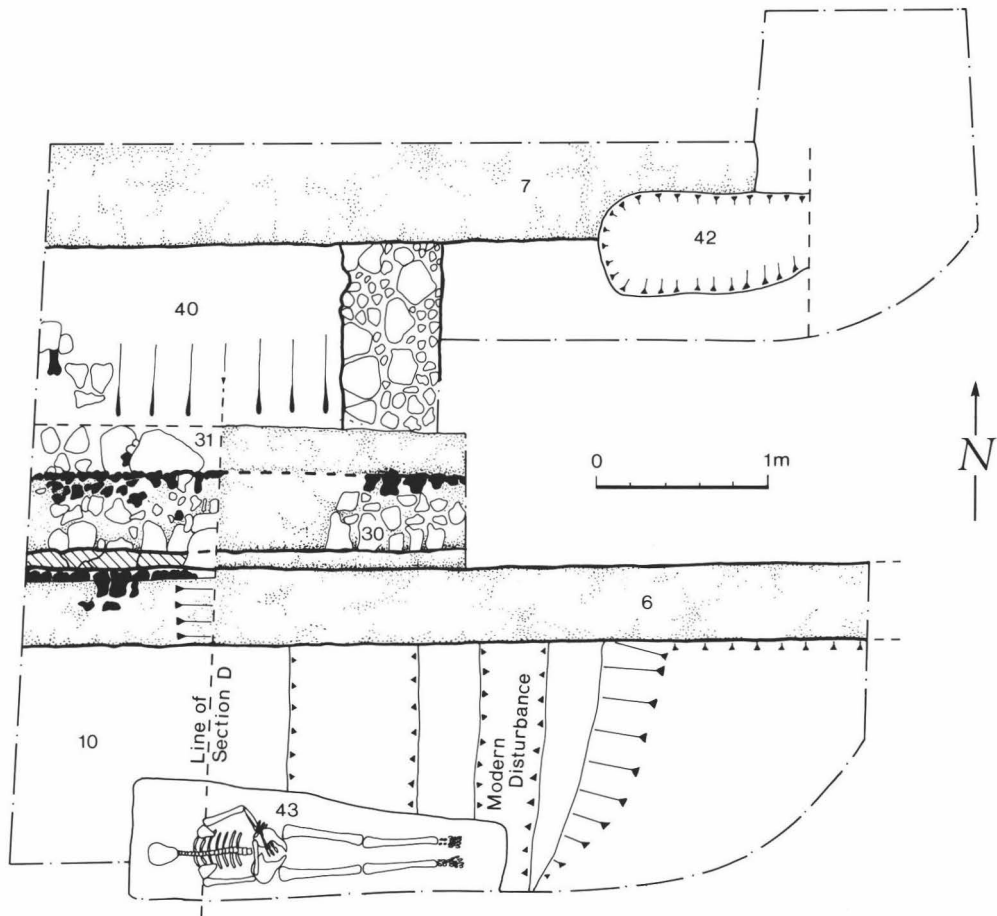


Fig. 10. South-west of the cloisters (excavated by Lewes Archaeological Group).

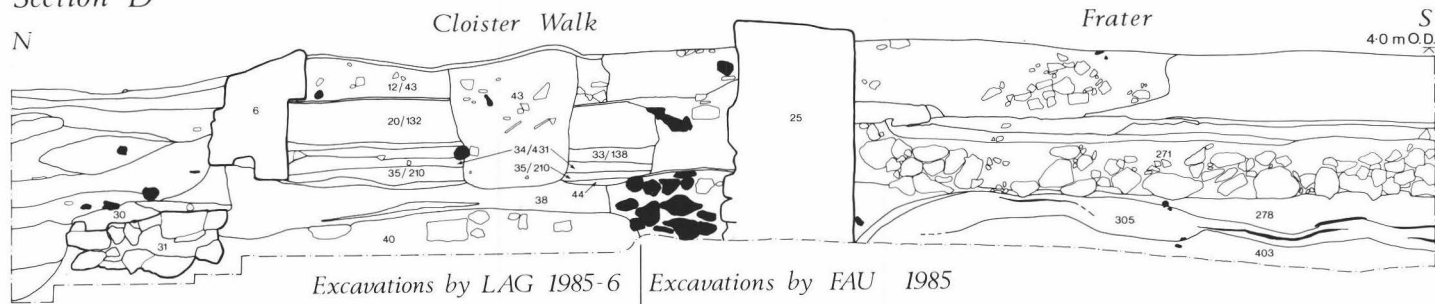
the east against the south wall of the cloister walk. These had supported a pentice roof over the walk. Any evidence for a third post, which presumably had stood between the other two, had been removed by a later disturbance.

In a second phase of work during this period the cloisters were reduced in the width to 2.25 m by rebuilding the wall facing the cloister garth (6) (Figs 10 & 11D). The floor of the cloister was raised slightly during this period by sealing the old surface with a layer of clay (34/431) and adding a new sandy

chalk floor surface (33/138) above it so that it stood at 3.35 m OD. The walls, 104 on the west side and 449 on the south of the cloisters, may belong to this period, though the stratigraphic evidence was not conclusive. On the west side of the cloisters a short chalk bench (not shown on Fig. 9) was built against the wall and stones were fitted in the corner around the post (313) of the pentice roof, which was retained.

In the cloister garth the level was raised above the height of the floodplain with layers of clay loam. A lead pipe had been laid across the cloister garth

Section D



Section E

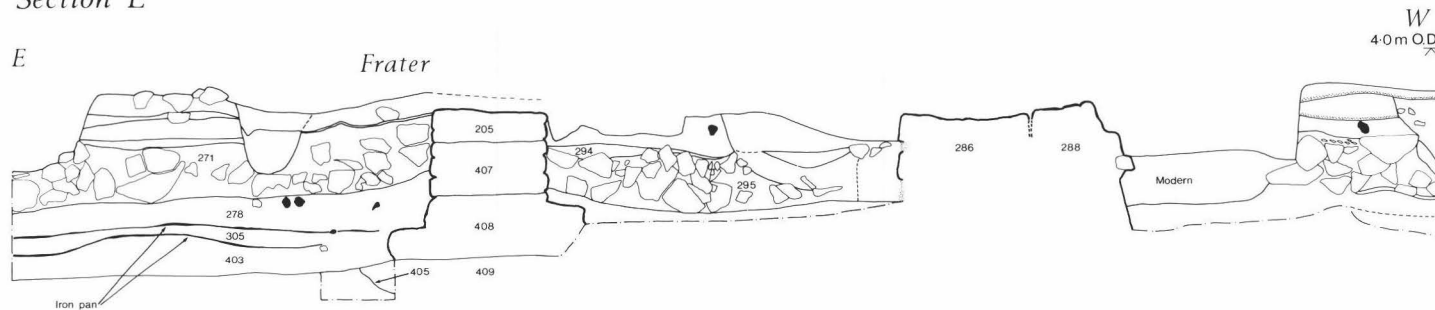


Fig. 11. Sections: D) across cloister near south-west corner; E) across frater.

PERIOD 4

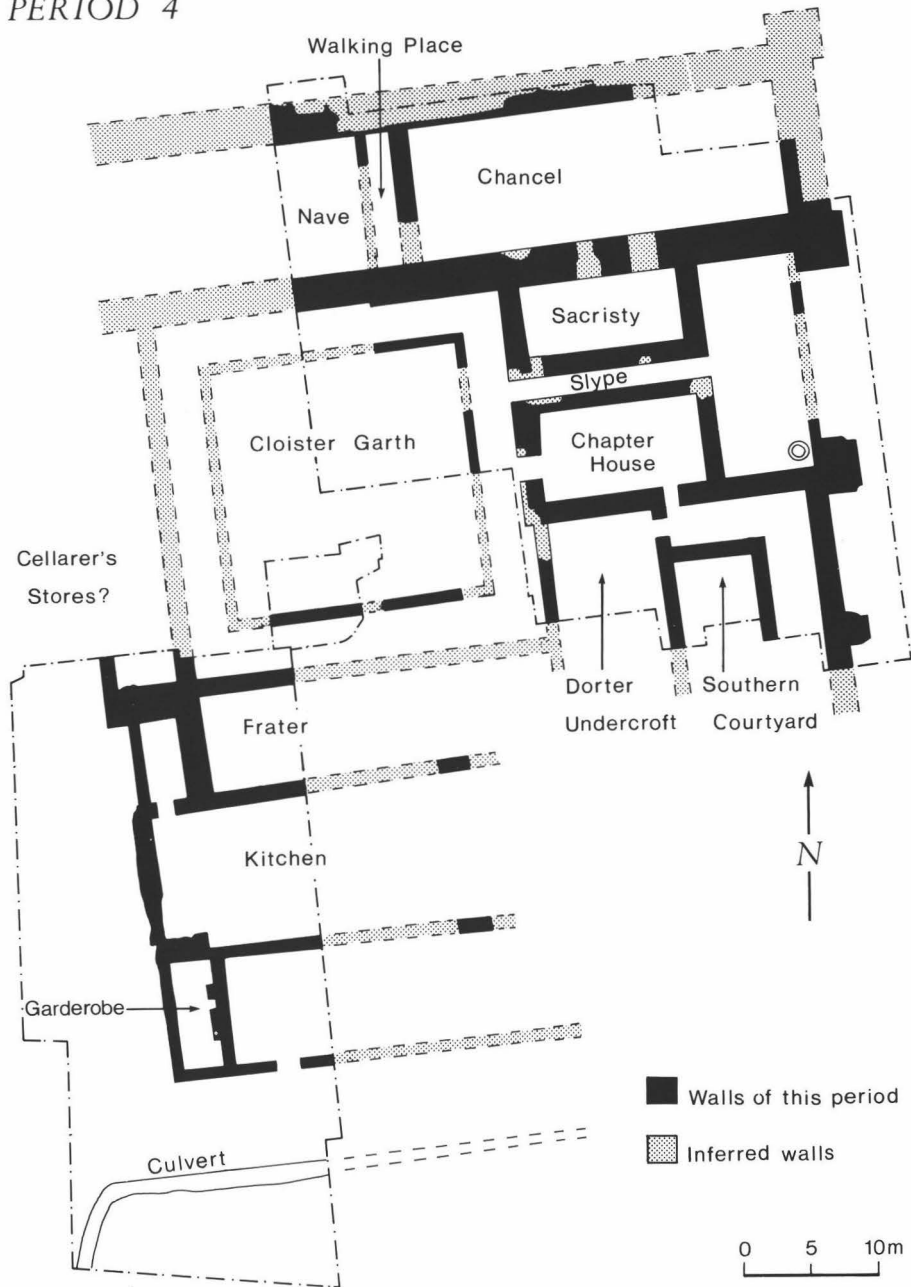


Fig. 12. Period 4 plan.

(Fig. 17) and then chalk rubble was put down. It is not certain whether the footings of the inner cloister wall on the east side of the garth were constructed on the rubble or cut into it. The level of the top of these

footings stood at about 3.10 m OD suggesting that they were constructed in the first phase of the Period 3 works. There is no clear evidence of the height of the floor surface in the cloister walk on the east side.

PERIOD 4 (Fig. 12)

Period 4 was marked by a major programme of construction of new buildings and the reconstruction of some existing buildings. New foundations were cut into the clay and on top of this substructure walls were constructed up to the intended floor level. Chalk blocks were then dumped into the rooms to raise the floor level and the superstructure walls then built.

The Friary church (Figs 7 & 13)

The chancel of the friary church measured internally at substructure level 19.8 m long by 7.1 m wide, and was separated by a wall (376) from a nave of equal width which was traced westwards for a distance of 6.2 m. The west end of the nave lay beyond the excavated area. Most internal features, with the exception of a number of graves, had been removed by later disturbance. A slight wall without footings (443) was built on the Period 4 floor. A passage way, known as the walking place, ran between this wall and the west wall of the chancel. It measured 1.3 m wide and led from the cloisters to the High Street (Figs 12 & 13).

The walls of the church were built by cutting a trench from the exterior of the church (143) about 2.1 m OD. At the south-east corner a deeper pit was dug for the buttress, the bottom of which was lower than 1.6 m OD (Fig. 7). The foundation trenches were then filled with unmortared chalk rubble. On top of this, substructure walls of roughly-coursed chalk blocks about 2 m wide were built and a superstructure of squared chalk, faced externally on the south side with knapped flint was laid. Only short lengths of superstructure walling survived, but these measured 0.94 m in thickness. Soil (6, 377, 586), probably from the foundation trenches, was mounded up against the substructure walls on top of the Period 1 floor (Figs 14 & 15). This was then covered by chalk rubble (5, 492, 587) to raise the level and a floor surface (351, 583) was laid.

The buttresses formed an integral part of the substructure walling. A large clasping buttress of chalk measuring 2.9 by 2.6 m was bonded to the south-east corner (Fig. 7) and it may be presumed that there was a corresponding buttress at the unexcavated north-east angle. The dimensions of the buttress demonstrate not only the size of the building, but also the instability of the ground. Part of a single buttress bonded to the north wall was uncovered at the extreme north-west corner of the excavation (Fig. 13: 617). It protruded 0.94 m from

the face of the substructure wall and may have been one of a series on that side.

Fragments of wall plaster with painted red or black lines imitating masonry, decorated floor tiles and painted window glass recovered from the demolition debris indicate the nature of decoration within the church.

The cloisters

Sections across the cloisters on the east side revealed little of the structural sequence. At the south-west corner the cloister floor was raised about 250 mm with a crumbly chalk infill (20/132) during Period 4 (Fig. 11D). This work also necessitated increasing the height of the inner cloister sill wall (6 - upper part). The floor surface of the cloister walk would then have stood about 250 mm below the door sill of the frater. Sometime later, the cloister floor was raised a further 180 mm with the addition of more fine crumbly chalk (12/43) and a new surface of compacted chalk formed on top. The original pentice roof was retained.

Before the cloister floor was raised for the first time in Period 4 a lead pipe was laid cutting through the make-up 20/132. Lengths of this pipe which ran in a north-east/south-west direction were traced in all three excavations over a distance of 28 m. It had been badly disturbed by later burials in both the cloister walk and garth (Fig. 17). It may have supplied water from one of the springs along Friars' Walk. Owing to heavy disturbance at its northern end, the destination of the pipe is uncertain, though it appeared to run in the direction of the chancel.

East range*The dorter undercroft* (Figs 5A & 16)

The roughly faced blocks of the substructure walls (530) of the building on the south-east side of the cloisters were laid on irregular chalk rubble footings (495). The substructure was butted at substructure level by the walls of the chapter house and the courtyard to the east. At superstructure level all the walls were bonded. The superstructure was constructed of well-faced chalk blocks (216). After the construction of the walls, the level within the room was raised by dumping chalk and flint rubble (227) over the Period 2 clay floor. This in turn was sealed below a deposit of brown clay and finer chalk rubble (222) which formed a floor surface. Access to the room from the east was through a doorway (469) with chamfered sandstone quoins. The room

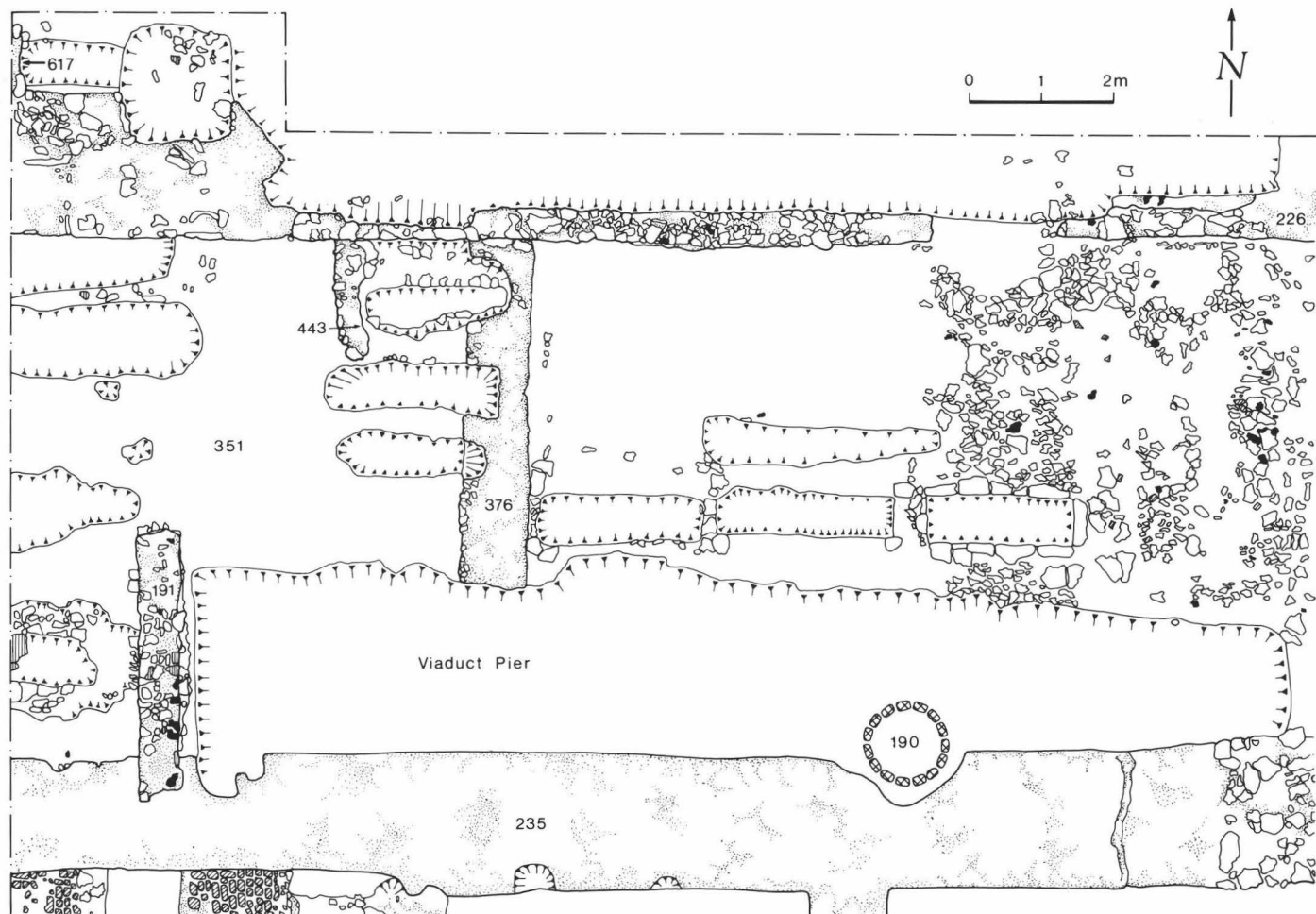


Fig. 13. West of friary church.

Section F

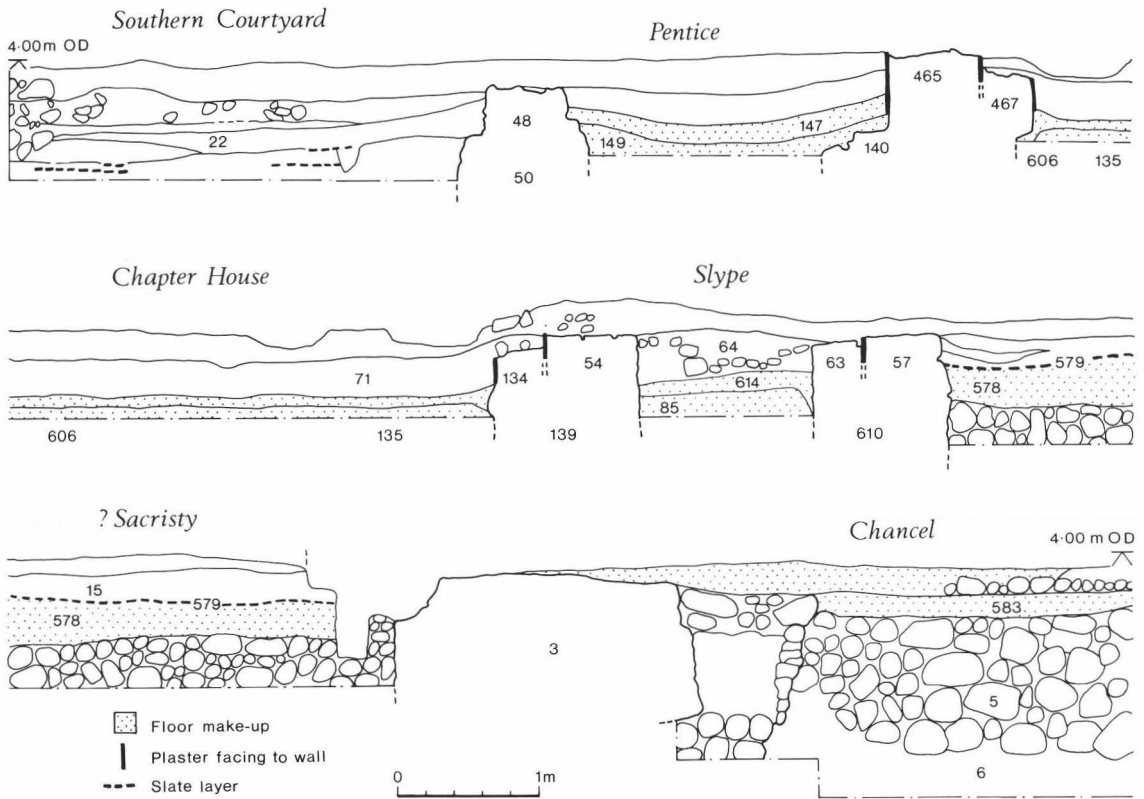


Fig. 14. Section: F) across east range and chancel.

Section G

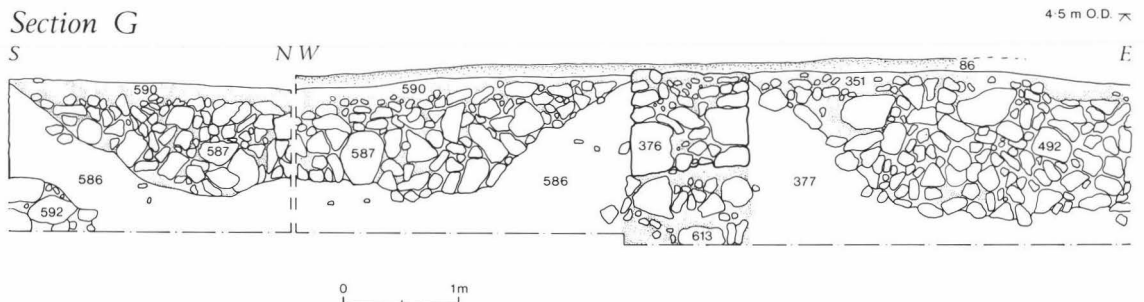


Fig. 15. Section: G) across nave and walking place.

was 5.7 m wide and measured 7.7 m as far as the limit of excavation.

The foundations of this building were more substantial than any other structure in the eastern range, excepting only the church. This suggests that the building was two storeys high. Though it has been suggested that in Period 2 the dorter may

have been situated at ground level for reasons of austerity and poverty, it seems improbable that this unusual arrangement would have persisted in later periods. It can therefore be assumed that the upper floor of this building was occupied by the dorter. It is not possible to identify the function of the undercroft.

Chapter house and slype (Figs 7, 16 & 17)

The substructure walls of the chapter house and slype butted those of dorter undercroft, but at superstructure level all surviving walls were fully bonded to one another. The superstructure walls of the chapter house survived up to a height of 0.6 m. They were similar to those of the dorter undercroft, except that the eastern face of the east wall of the chapter house was faced with knapped flint, indicating that it was external. The sandstone jambs of the doorway leading to the chapter house from the cloister walk were present on the south side of the door (Fig. 17:224), but did not survive on the north. A second doorway led into the chapter house towards its east end from the southern courtyard pentice (Fig. 16:468). The inner faces of the room were covered with plain white plaster. The room measured 8.9 m by 4.85 m.

The footings for the south wall of the chapter house were cut from the north side (Fig. 5A:607). A number of planks (496) were found lying parallel to the wall in the waterlogged foundation trench where they must have been discarded during building work. After the superstructure walls were complete, the building was roofed with slate before the floor was laid: layers 229 and 230 contained numerous fragments of slate and mortar. The level was then raised with a deposit of clay loam (228) and layers of brown clay (548) and fine chalk rubble (231) giving a firm base for the first floor (135).

To the north of the chapter house was a passage or slype 1.65 m wide leading from the cloisters to the east. The jambs of a door survived at the eastern end, but on the west they had been removed by 19th-century railway disturbance (Fig. 17). Traces of a stone bench (Fig. 7:63) of large, roughly squared chalk blocks were discovered on the north side of the passage near the east doorway.

(?)Sacristy (Figs 7 & 17)

The substructure walls of this room butted on to the church. As in the other rooms, at superstructure level all walls appear to have been bonded. The superstructure walls were made of well-coursed chalk and the outside of the east wall was faced with knapped flint. The stratigraphy within the room was not cleared to a great depth. The area exposed suggests that the construction sequence was similar to that recovered from the chapter house and slype. Over a base of chalk rubble (65) a compacted chalk floor (578) was laid (Fig. 14).

The function of this room is not certain, though

it may have served as a sacristy, or, less probably, as a side chapel or library. The positions of the entrances to this room were not determined.

Southern courtyard and pentice (Fig. 16)

The substructure walls (46, 140) consisted of poorly finished, roughly coursed chalk. Two buttresses had been added at substructure level on the eastern side (242, 243). The substructure of the larger, a clasping buttress at the north-east corner, measured 3.05 m by 2.0 m. The smaller buttress (about 1.05 by 1.80 m) had been added on to the eastern substructure wall some 6.5 m to the south. The superstructure of both supports (45, 616) had been bonded in to the main wall of the room.

Walls 44 and 48 separated the courtyard from the pentice which measured 2.25 m wide on its north and east sides. The southern and western sides of these walls were faced with knapped flint, indicating that the courtyard was open to the weather, though the east wall of the dorter undercroft (216), which also must have been exposed, was not thus protected. The superstructure walls facing the courtyard were relatively narrow, measuring only 0.5 m in width, and these contrast with the buttressed walls to the east which were almost twice as broad. A section (Fig. 14F) excavated across the deposits within the pentice and courtyard shows a sequence of floor levels and deposits to make up the ground level. The earliest floor level (149) in the corridor runs only as far as the pentice wall (48). The floors had subsided into the layers beneath, emphasizing the unstable nature of this area.

Yard (Figs 7 & 16)

The yard measured 9.3 m by 4.8 m and was entered through the slype on the west. The eastern boundary of the yard was delimited by a rough chalk wall faced on both sides with knapped, coursed flint (36, 68). The wall was bonded to the buttress (616) on the south side, but at the north end the relationship had been obliterated by later work. The walls of the adjoining buildings (21, 37) to the south and west were faced externally with flint, indicating that the yard was open.

The stratigraphy of the yard was largely removed by machine and a complete record of the earlier phases was not possible. A primary chalk mortar floor appears to have been laid directly over a dense chalk rubble deposit similar to those elsewhere. A chalk-lined well (Fig. 16:33) contemporary with the

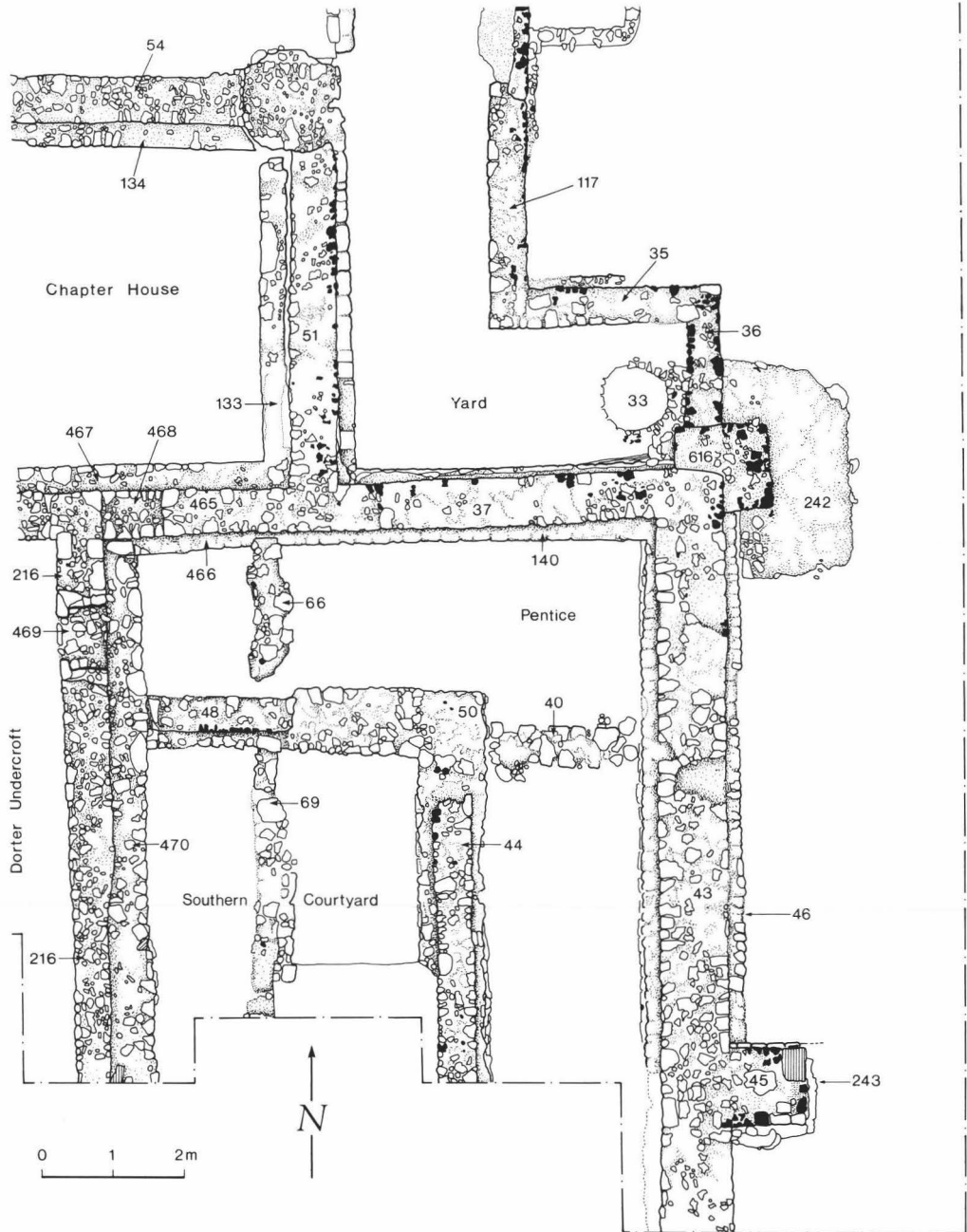


Fig. 16. South part of east range.

initial floor was situated in the south-east corner and had an internal diameter of 0.92 m and was excavated to a depth of 1.50 m OD.

South buildings

The substructure walls of the south buildings displayed a similar pattern of butted joints. If these

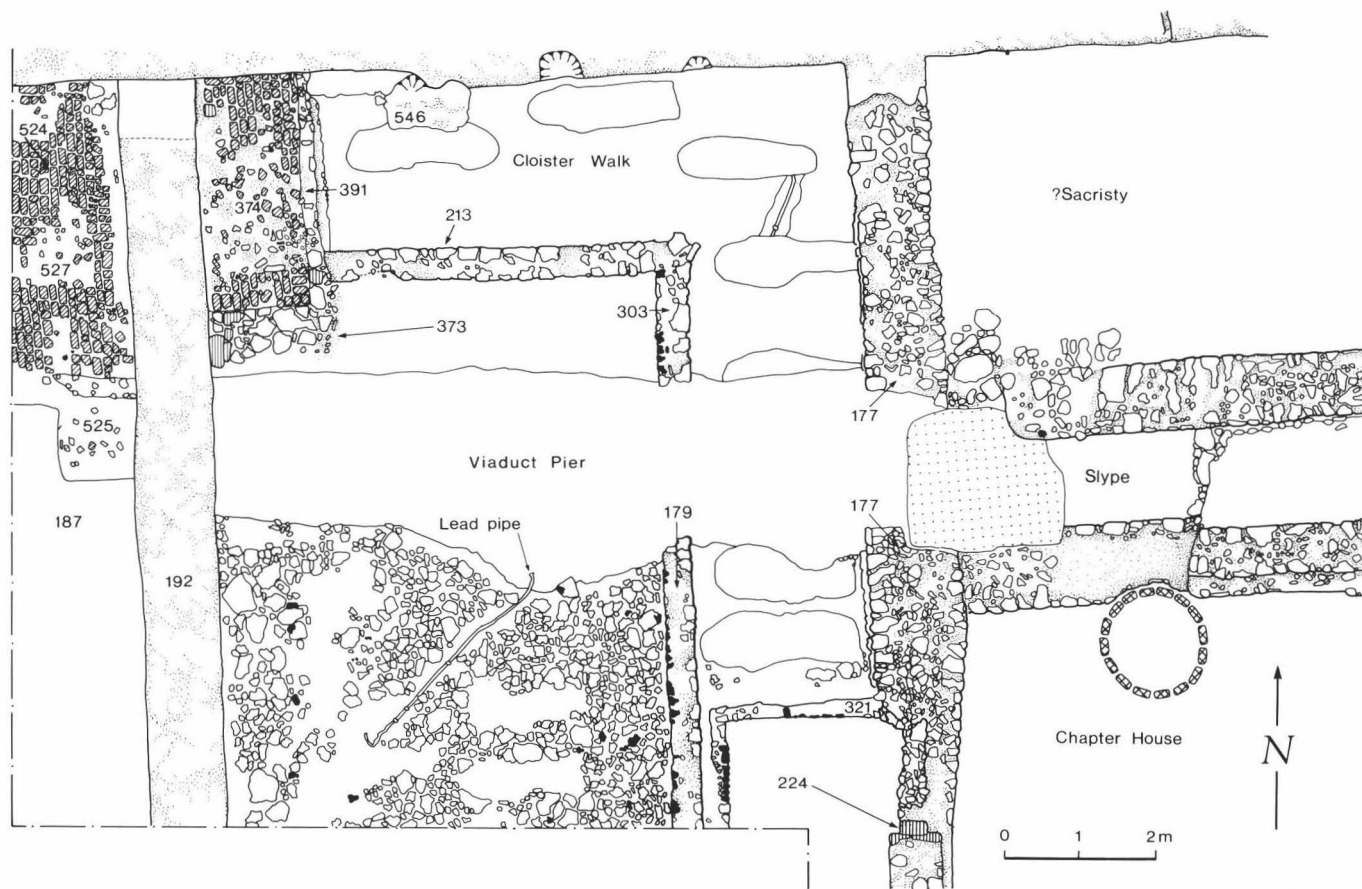


Fig. 17. North and east sides of cloisters.

are indicative of the progress of work, it suggests that construction of the substructure started on the south side and continued northwards towards the cloisters.

Guest quarters/infirmary and garderobe (Fig. 8)

The sequence of butt joints in the substructure walls indicate that these rooms were the first in the south buildings to be built. The footings comprised compacted, unmortared fine chalk rubble and the substructure walling was made from coursed, mortared chalk blocks approximately 300 mm high on which was laid a superstructure of more carefully shaped chalk blocks. The superstructure on the south side (388) had an outer facing of unknapped flint nodules, showing that it was an external wall.

After the substructure was completed there was apparently a change in plan. A buttress (273) was built against the western wall of the larger room, possibly to support a projecting chimney, suggesting that this was intended to be an external wall. It was butted to the wall at the substructure level, but mortared in at superstructure height. One course of flint facing continues around the south-west corner of the larger room for a short distance along the west wall, also indicating that this was intended to be an external face. A small room was apparently added to the west and the substructure courses were butted on to the larger room. This evidently happened before work had continued very far on the superstructure, which above the lowest course ran continuously across the substructure butt joints.

There is some slight evidence of a pause in work between the sub- and superstructure construction. The section (Fig. 18H) shows that the foundations (415) were dug from the top of layer 262 and the scatter of mortar accumulated on that surface during the construction of the substructure wall (388). Two thin bands (142, 217) accumulated above this before the level of the room was made up with a mixed layer of silty clay loam (127). The upper of these two thin bands (142) was an organic deposit of dark brown silty clay loam with occasional fragments of charcoal. It is possible that these accumulated during a break in building work.

A section cut to the north of the smaller room showed there was an open ditch running along the west side of the buildings. At a later date, probably in Period 5, a drain was constructed against the wall of the room leading to the south (Figs 8 & 18I). The floor of the drain was built of sandstone slabs and

the sides of mixed chalk, sandstone and flint. Subsequently, a spur to the drain was laid across the centre of the smaller room. The small dimensions of the room and the presence of a drain strongly suggest that this was a garderobe.

This in turn suggests that the larger room was used for a domestic purpose. The most likely function of a room on the south of the friary buildings is either for guest quarters or an infirmary. A similar room with an adjoining garderobe in the Camarthen Greyfriars was interpreted as the infirmary (*Medieval Archaeol.* 30 (1986), 196). The room at Lewes measured 5.70 m wide and 5.08 m long as far as the limit of excavation. The garderobe was 2.10 m wide and it ran the full breadth of the adjacent room.

Kitchen (Fig. 9)

The kitchen lay to the north of the two rooms described. Its west wall (394) had been butted against the wall of the garderobe. The foundations were similar to those in the guest quarters/infirmary, but there was no distinction between the sub- and superstructure walls. Soil from the foundation trench for the wall had been thrown into the building and was later heaped against the wall (Fig. 18I:443). Chalk rubble (147) was used to raise the ground level and was then sealed with a floor of compacted chalk (375). Towards the centre of the room was a large hearth measuring 2.0 by 1.5 m, slightly raised above the level of the floor.

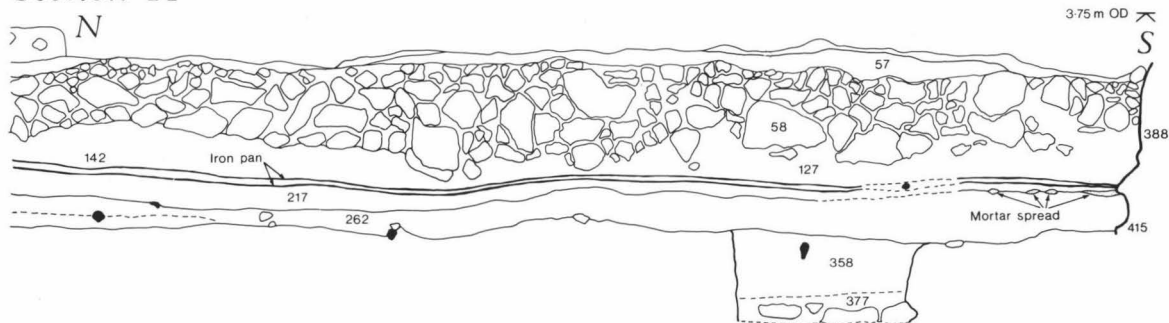
Kitchens are commonly found in the normal claustral layout on the west side of the south buildings and the identification here is reinforced by the presence of a large hearth.

Frater (Fig. 9)

The south side of the substructure walls of the frater were butted against the kitchen, and were therefore secondary to it. On the north side the substructure wall (448) had been built alongside the existing cloister wall (449) to increase its width. The cloister wall (25) must have then been demolished to the top of substructure level and a new superstructure wall was raised on top, spanning the two contiguous substructures (not shown separately in Fig. 11D)

The Period 2 wall (205) across the west part of the frater was demolished, the ground level was raised by dumping chalk and a new floor surface was laid over the top of the stump (Fig. 11E:205). A new wall was then constructed to the west (288).

Section H



Section I

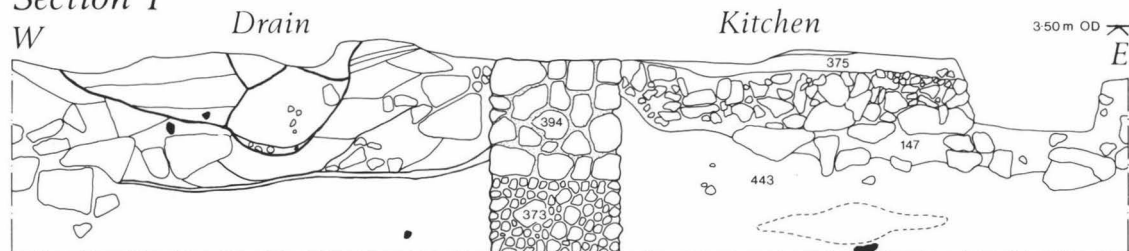


Fig. 18. Sections: H) across ?guest quarters showing Period 2 footings; I) across drain and kitchen.

The entrance to the enlarged room was from the south-west corner of the cloisters, where one door jamb remained.

The position of this room on the south side of the cloister and close to the kitchen allows it to be tentatively identified as the frater or frater undercroft. The frater in many friaries was situated on the first floor and built out over the cloister walk. At Lewes the inner cloister wall was clearly inadequate to support a substantial stone-walled building. The frater (or frater undercroft) measured 5.25 m wide internally and was 4.95 m long as far as the limit of excavation.

The west end of the Period 4 frater was formed by two conjoining walls (286, 288). The interpretation of the sequence of building here is not certain, but it seems that the wall 286 was retained from an earlier phase and its width was increased by adding wall 288. This sequence would mirror the thickening of the wall on the north side of the frater, already described. If this is correct, it seems that the room between walls 205 and 286 was originally a corridor connecting the kitchen and cloisters. In Period 4

the corridor was incorporated within the enlarged frater and a new corridor was built to the west, linking the kitchen and west range.

Corridor (Fig. 9)

The superstructure of the Period 4 corridor is contemporary with the room to the north. The corridor, which measured 1.8 m wide, was butted against the kitchen to the south. A mortar-covered threshold between the kitchen and the corridor indicated the position of a doorway. A moulded stone at the north end of the corridor marked the position of a door jamb there. The ground surface in the room had been raised in the usual manner by dumping chalk and over this lay three successive compacted chalk floor surfaces.

West range

Only a small area of the west range was uncovered during excavation. The space available for buildings on the west side of the cloister was limited by the town ditch and though this had been infilled, the ground may have continued to be unstable.

(?)Cellarer's storeroom (Fig. 9)

The room was built against an existing wall on the west side of the cloister. The substructure of the corridor to the south is earlier than that of this room. The two rooms were bonded together at superstructure level. The substructure of the south wall of the room (426), which measured 1.75 m across, was unusually broad. A possible reason for this may have been to provide a buttress for the north-west corner of the frater, which was considered to be unstable.

The west wall of the room (103) was externally faced with flints and the roof had been covered by slate as was evident from the scatter lying over the chalk rubble make-up and beneath the first floor surface in the room. The floor only just covered the top of the substructure on the east side and, when excavated, was lower than it on the west owing to the subsidence of the underlying make-up. The floor was later levelled with an orange-brown clay and a second chalk surface laid.

West ranges were often used for guests' accommodation, the warden's quarters or for the cellarer's stores. A corridor leading directly from the kitchen to the

range might argue for the latter use here.

Friary precincts (Fig. 9)

An area of humic soil lay on the west side of the friary buildings. Darker lines within this were interpreted as root channels and this area was probably the friary garden. A gravel path was traced running parallel with the baulk (21) on the west side at the edge of the excavation. A ditch adjacent to the building probably carried rain-water from the roofs and effluent from the garderobe.

During Period 4 a barrel-vaulted chalk culvert was constructed to the south of the friary buildings (Figs 2 & 12). This drained water from the length of the town ditch which had not been infilled to the river. The ditch was probably fed with water by the Pinwell spring which lay to the south-west. It would have flowed along the ditch until it reached the end of the culvert where it turned a right-angle to flow through the culvert eastwards. The drain next to the garderobe emptied into the culvert. It is probable that the reredorter, which was not excavated, but usually lay to the south of the cloisters, was flushed into it.



Fig. 19. Period 5 plan.

PERIOD 5 (Fig. 19)

A number of the friary buildings were modified during Period 5. It is improbable that all the alterations were contemporary, but the evidence from excavation does not allow the periods of work to be differentiated.

Church (Fig. 13)

The walking place across the church was removed by demolishing its chalk walls during Period 5. Too little of the superstructure walls remained to show if the doors either end of the walking place were blocked. A new chalk floor (Fig. 15G:86) was then laid over the former walls. The location of the demolished walls seems to have been forgotten as the foundations were cut by later burials.

East range*Chapter House* (Figs 5A & 16)

The south doorway of the chapter house was blocked (468) and squared blocks of chalk masonry measuring 0.4 m wide and 0.5 m high were laid against the faces of all the walls, except the west (133, 134, 467). The primary floor surface (Figs 5A & 15G:135) was removed beneath the blocks, and a new chalk mortar floor laid (not shown on Fig. 5A) and the faces of the chalk blocks were faced with mortar. These blocks formed a stone bench around the wall of the room, a common practice in the chapter houses of many orders.

Southern courtyard and dorter undercroft (Fig. 16)

As already mentioned, the door from the south side of the chapter house was blocked in this period (468), but access to the pentice continued through the door on the north-east of the dorter undercroft. New chalk floors were laid in the undercroft (Fig. 5A:174), within the pentice and in the courtyard. Within the latter layer was a jeton of Edward II, class XI struck between 1310 and 1314.

The yard (well pentice) (Figs 7 & 16)

The area of the yard to the east of the chapter house and (?)sacristy was reduced during Period 5. The central portion of the Period 4 boundary wall was removed and three new chalk walls (17, 18, 35, 117), faced on the external sides with knapped flint, were constructed to the west to create a U-shaped walkway. The existing chalk-lined well (33) remained within the enclosure. A doorway 1.2 m wide with chamfered sandstone jambs was built at the centre of the new boundary wall in line with

the existing door from the slype. A new chalk floor was laid over the earlier floor as far as the new walls.

The new boundary walls were only faced with flint on one side only. The other face of chalk must therefore have been protected by a roof. This rebuilding was to form a pentice giving covered access to the well and replacing the earlier open yard.

Building of uncertain function (Fig. 7)

A new building was constructed at the north-east corner of the excavated site before Period 6. Its substructure walls (50) consisted of rough, uncoursed chalk masonry with a coursed chalk superstructure above, which survived on the north and south sides (170, 172). The exterior sides of the walls were protected by knapped flint. Both substructure and superstructure walls were butted on to the south-east corner of the chancel. Owing to the proximity of the building to the High Street, no excavation below the level of the final chalk floor was possible.

The building measured 4.65 m wide internally at superstructure level. The east end lay outside the area of excavation. The function of this building was not determined.

South buildings*Kitchen* (Fig. 9)

After the first clay floor level had been laid, a trench was dug across the room in the kitchen and a wall (141) inserted, creating a square room which measured 7.3 m internally. The secondary nature of this work was clearly shown by the cut made through the chalk rubble make-up beneath the floor and by the butt joints with the walls to the north and south. It was clearly flint-faced on the eastern side indicating that it was an exterior wall, though little of the superstructure of the inserted wall survived.

A wall of large mortared chalk blocks (154, only partly shown on Fig. 9) was constructed over the hearth. This survived in a fragmentary state, but sufficient was present to show that it was a fireback which would have supported a smoke hood. Broken tiles, found randomly scattered when excavated, may have either fallen from the fireback when demolished, or might have lined the base of the hearth. Later, the space between the hearth back and the inserted east wall was blocked with a chalk wall (140). A raised setting of large chalk blocks set in a matrix of grey-brown clay was constructed in the north-east corner of the kitchen against the inserted wall (146). This was evidently the remains of the base of an oven.

The larger medieval kitchens were commonly square or polygonal in plan. The insertion of a wall reduced the original area of the room to a square shape. The area of the former room beyond the inserted wall seems to have become an open yard since the new wall was flint-faced on its east side. It is possible that as the number of friars declined, the kitchen may have been reduced in size.

The (?)lavatorium drain (Fig. 9)

A trench (198) from the north side of the frater ran diagonally across the corridor on the west to the exterior of the friary. It had been sealed beneath the later chalk floors, but had been cut through the walls between the frater and corridor and also the outside wall. When excavated, there was no pipe in the base of the trench, though this may have been removed during later medieval works. Nevertheless, the trench was very probably dug for a drain, which would have debouched into the ditch running along the west side of the friary buildings.

A second ditch (446) apparently cut from above the surviving floor levels might belong to Period 6 rather than Period 5. Like the earlier drain channel, it began near to the north wall of the frater. At the base of the trench was a lead pipe. It drained into a soakaway edged with broken grave covers of Sussex marble (65) outside the friary walls. Their use may reinforce the suggestion that it was constructed after the Dissolution.

Both drains ran from a similar position near the frater and may have served the same purpose. A drain from the frater seems hardly necessary, but the lavatorium was generally situated on the other side of the wall in the cloisters. The drain may have come through the wall and then passed underground along the channels described.

West range

Western room (Fig. 9)

During Period 5 the room was enlarged by 1.8 m to the west. This probably took the building over the line of the now infilled town ditch. A substantial substructure wall measuring 1.4 m wide was built (102) and the room then filled with dumps of clay. A wall with a facing of knapped, coursed flints and core of smaller chalk rubble and with sandstone quoins was built on top of the substructure (22). Compacted chalk rubble was then dumped into the room over the stump of the west wall (103) of the (?)cellarer's stores, which was demolished to create a single enlarged room.

To the west of the new wall a number of pieces of moulded stone (23) were found. These had been placed there before the building work had been complete, since between them and the wall were a scatter of flint flakes which had fallen while preparing flints for the facing of the superstructure (22). The moulded stones may have come from rooms in the west range which were being altered and imply the presence of windows of some size and complexity.

Differential subsidence occurred during the period of use of the newly enlarged room. Orange clay was used to level up the surface and this was capped with a new chalk floor. Traces of two later floor surfaces were found above this.

The quality of work within the enlarged room hardly suggests that this remained the stores. A more prestigious use such as the warden's lodgings or guest quarters is indicated. The associated pottery suggests that the works were 14th or 15th century rather than later. The moulded stones placed to the west of the (?)warden's lodgings included pieces from a Perpendicular window. These and the use of close-packed, faced flints in the new wall suggest a date range of c. 1350 to 1500.

PERIOD 6 (Fig. 20a)

Shortly after the Dissolution substantial changes were made to the friary structure. Some buildings were altered and others, including the church, were demolished. Graves in both the church and cloister garth were disturbed, presumably following the removal of the covering stones. Floor tiles, stained glass and slate were found where they had fallen in the newly exposed grave voids.

A new room (Fig. 17) was inserted on the site of the cloister walk and this extended slightly into the former cloister garth. Its construction necessitated the removal of a number of graves and a section of the inner cloister wall (213). The walls (373, 391) of the new room were made from re-used chalk and sandstone blocks. A gap 2 m wide in the east side may be an entrance or, more likely, is the result of later robbing. The room was floored with brick (374, 524).

A thick clay floor (Fig. 14:71) was laid in the chapter house, burying the Period 5 chalk benches. This suggests that the room continued in use, but the sacristy to the north was probably demolished at this time. A layer of broken roofing slate (579) accumulated over the earlier floor (578). A layer of destruction debris (15) above this seems to be

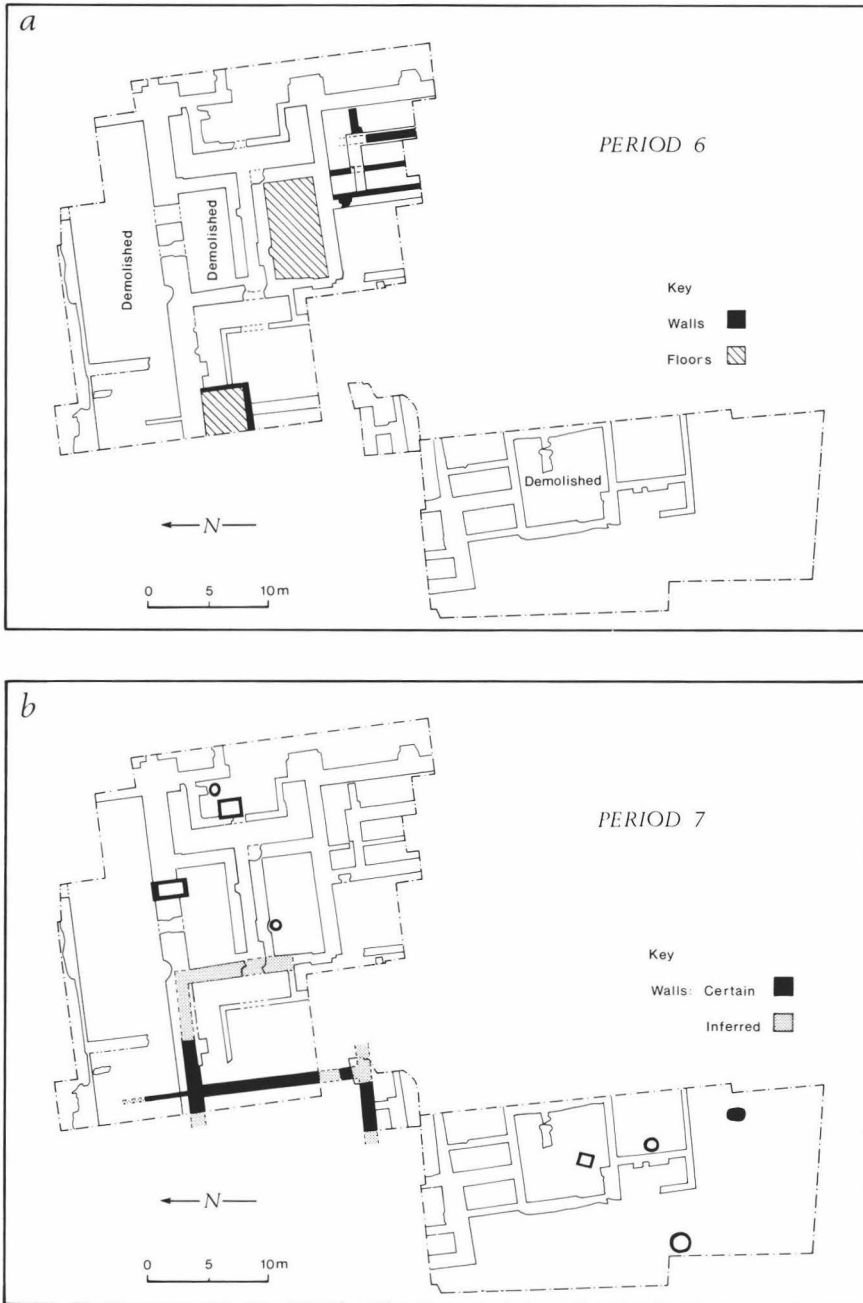


Fig. 20. a) Period 6 plan; b) Period 7 plan.

fragmentary mortar, presumably discarded during the robbing of the masonry.

Fire had blackened the eastern face of the southern courtyard wall (Fig. 16:216). The jambs

around the doorway in the east wall of the dormer undercroft had been removed and it is possible that at this time much of the east wall was demolished. The lower part of the doorway was then sealed with

rough blocks of chalk set in white mortar (469). A thick deposit of broken slate accumulated within the southern courtyard, presumably stripped from the dorter roof (Fig. 14F:22). The pentice was demolished and a trench starting from the north and running parallel to the dorter wall was cut into the broken slate. A wall of rough mortared chalk blocks (470) was laid in the trench over the partly dismantled pentice wall (48) (Fig. 16).

A second, similar, rough chalk wall (66, 69) was built parallel to the first over the demolition layers. This was inadequate to support a masonry structure, but was used with the base of the east pentice wall (44) for the footings for floor joists. Another wall of similar type (40) running at right angles perhaps served to support a wooden partition. The traces of this inferred building were fragmentary and had been much disturbed by later activity. It is not possible to suggest a plan of the building.

In the south buildings and in the excavated part of the west range the standing walls were probably demolished to the ground level, though the upper levels of stratigraphy were not well preserved here and it is possible that some of the buildings may have continued in use until Period 7.

PERIOD 7 (Fig. 20b)

The remaining friary buildings were demolished sometime later. Footings of re-used sandstone and flint (Fig. 17:192) presumably from demolished buildings were laid across the west side of the cloister garth. These footings were cut into the Period 6 brick floor (374, 524) on the north side of the cloisters and through a fill above the floor containing a Nuremberg jeton produced between 1586 and 1635. The former date is therefore a *terminus post quem* for the footings. A wall of faced sandstone and knapped flint (192) was constructed on the footings and the western wall face covered with white plaster.

The likely date of this work is 1673 (*see above*) when 'The Friars' was rebuilt. The front wall of the building was constructed over the south wall of the church (not shown in Fig. 13). The south (internal) face was covered with white sandy mortar and the north (external) face with a fine yellow render. Wall 191 (Fig. 13), which runs northwards beyond the building is probably a garden wall. Such a wall is shown in a plan of the house and its lands of c. 1823.¹⁶ If the plan of the house is superimposed over that of the excavations, it appears that the eastern wall of 'The Friars' was constructed over the west

walls of the sacristy and chapter house which would have provided substantial footings. No archaeological evidence was found to support this, however. A post-medieval wall (Fig. 10:7) found in the LAG excavations could be the rear wall of 'The Friars', though this is a little further south than appears to be indicated on the 19th-century plan.

Illustrations of the building show it to have been a substantial structure constructed of brick, flint and stone, apparently rendered over, which tends to support the identification with the excavated remains.¹⁷

Three wells lined with chalk blocks, presumably from the former friary buildings were cut through the friary deposits in the south-western part of the site. A pit had been dug at the south end of the site and was filled with broken wine bottles of 17th- to 19th-century date. Several brick-lined pits and wells and fragments of rough chalk walling were recorded in the area on the east of the site. These presumably were related to 18th- or 19th-century buildings which lay on the High Street.

PERIOD 8

In the final phase of activity attested in the archaeological record the house called the Grey Friars was demolished and a railway station constructed on the site. Photographs of this show it to have been a neo-classical building (Brent & Rector 1980, no. 36). Later, a series of large, brick-built piers were constructed to carry the Lewes–London line on a viaduct. Their construction disturbed the stratigraphy of both the church and cloisters.

THE BURIALS (Fig. 21)

The burials may be divided into four groups according to the location of the graves (Table 2). The largest number were found in the cloister walk and other burials were discovered in the church, the cloister garth and the graveyard. All the burials were aligned east–west with the heads at the western end of the grave. Two forms of inhumation were recorded: shroud and coffin burials. Few objects were found with the burials.

Burials from the church

The soil-stained outlines of timber coffins and iron nails were apparent in nine burials set in tombs cut into the chalk fill of the church. The coffin of one of these burials had, in addition, large circular iron handles. There was no definite evidence of coffins in the form of stained soil or patterns of nails in

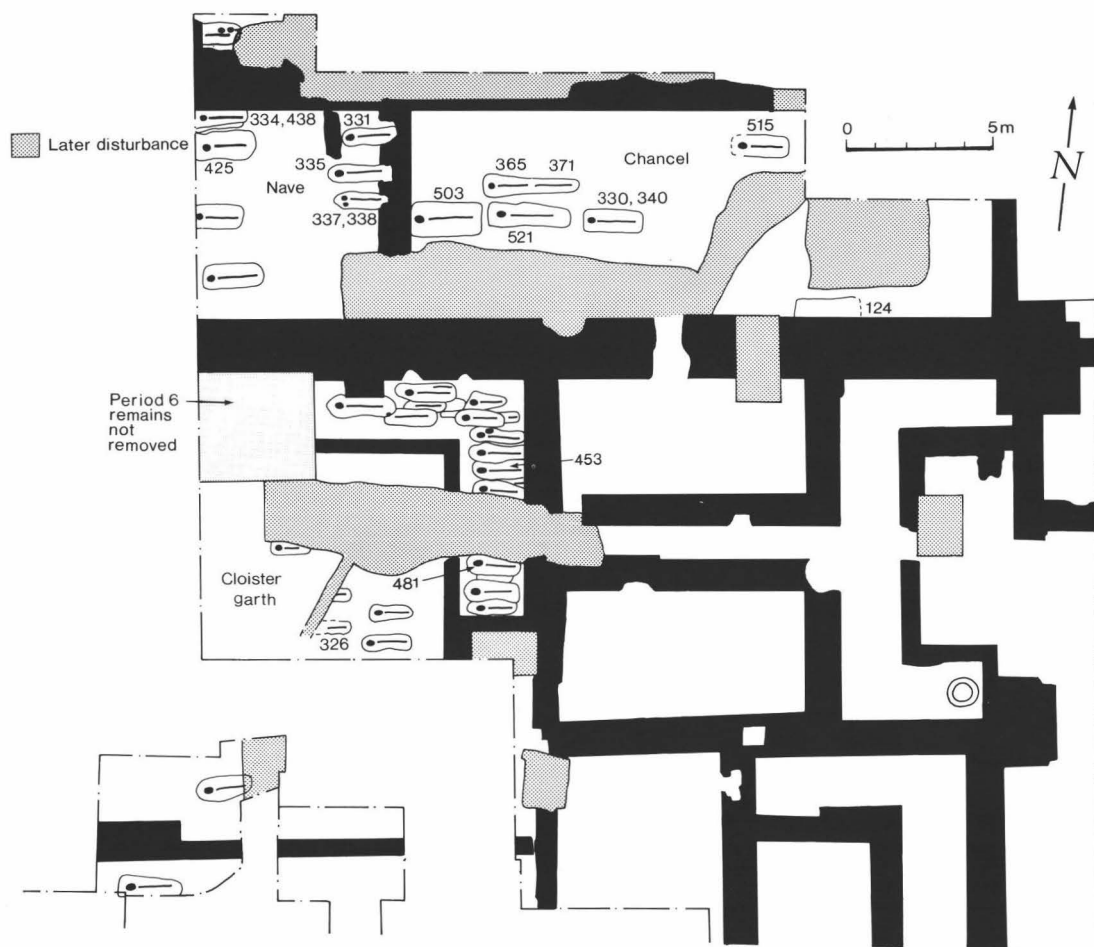


Fig. 21. The burials.

five other burials. It is possible that they may have been shroud interments.

The graves of burials 124, 330, 334, 340, 438, 503, 515, 521 had well-made, chalk-cut sides and it is presumed were originally covered with some form of gravestone or marker. A fragment of a sandstone grave marker was recovered from the grave containing burial 481, but elsewhere markers were absent. It is possible that they were removed at the Dissolution. The exposure of the burials followed by the rapid filling of the tombs may explain the large amounts of debris — broken tile, slate and window glass — found in all church graves.

Two graves in the chancel had been re-used. The later burials lay directly over the earlier, with little change to the existing grave edges. Such re-use may

indicate either economy of space, or, since the original graves were apparently clearly marked, family burials. However, any grave marker over burial 371 could not have been placed directly over the burial as the cutting for the later burial 365, though on the same alignment, removed the top half of the skull of the earlier interment.

All the burials from the church, with the exception of the number 124, were fully articulated. The irregular posture of burial 124 with the leg bones placed over the torso may indicate that the body was in an advanced state of decay at burial.

Burials within the church were inhumed throughout Periods 4 and 5, though it was not always possible to distinguish the earlier graves from the later as both primary and secondary floor levels

had been partially removed by the 19th-century railway disturbance. Only the graves of burials 331, 335, 337, 338, 365 and 371 were clearly cut from the secondary floor level, and in the case of the first four, through the demolished walls of the walking place. These were, therefore, of Period 5.

Burials from the graveyard

Only two very small areas north of the church were investigated because of disturbance by the construction of the railway viaduct. A burial placed close to the northern external buttress (Fig. 13:617) did not appear to be a coffin burial, nor was its position well marked, for the lower half from the chest downwards had been removed by the insertion of a later burial.

Fragments of a third skeleton from the northern area outside the church were recovered in February 1989, one month after the excavation, during the cutting of a trench for an electricity cable in the High Street.

Burials from the cloister garth

Six burials were recorded from the cloister garth in the 1988–9 excavations and a further grave in the LAG 1985 work. From the quantity of iron nails around the bodies these appear to have been coffin burials. The graves were cut into the chalk rubble make-up. One of the graves (containing body 326) was cut through a lead pipe, but another appeared to be disturbed by the pipe trench. The graves in the cloister garth, like those in the church, had been filled with slate, brick and tile debris, and indeed two skeletons had been crushed by this material.

Burials from the cloister walk

Burials were closely set within the cloister walk and largely without pattern. It seems unlikely that the cloister walk burials were clearly marked on the ground surface as later graves often cut into and disturbed earlier ones. In some instances the disturbance of earlier graves was considerable. For example, all that remained of one skeleton was a single femur and tibia. The disturbed bones from the earlier graves were often replaced over the later burials in the grave. Skeleton 453 appeared to have been disturbed shortly after burial as the bones redeposited in the grave fill were still articulated.

As a consequence of this intense usage, it is impossible to determine exactly how many burials were inhumed in this area of the cloister walk. The irregular, oval shape of the grave cuts and the

compressed posture of the skeletons suggest that these were all shroud interments.

DISCUSSION

The large area examined in the three excavations has allowed the development of the site to be traced over a period of about 800 years. The earliest remains examined predate the friary. A deposit of gravel discovered in the two Field Unit excavations could not have been deposited naturally, but seems to have been a hard laid down over alluvium to provide easy access to the river and probably to provide a surface for beaching ships.¹⁸ The work of constructing the hard must have been considerable, for if the surface was continuous between the two points at which it was observed, then many tons of flint gravel must have been dumped on the muddy river margins.

The gravel deposit suggests that the area below Cliffe Bridge served as an early harbour for Lewes. Few early waterfronts have been excavated in smaller English towns. In London a sloping clay bank with a 10th-century radiocarbon date has been found at New Fresh Wharf and preceded the timber revetments of the later waterfront. Similar beach landing places are suggested elsewhere for this period (Hobley 1981, 3, 7). During the 12th century the gravel hard at Lewes seems to have been covered by a deposit, part alluvium, part rubbish. The nature of this deposit cannot be adequately understood from the observations made below the friary. It is likely that a new, perhaps timber-revetted waterfront was established much closer to the river channel and that the area behind was infilled with rubbish. Natural sedimentation may also have contributed to the build-up of deposits. Work at Bramber has shown that during the last quarter of the 11th and the end of the 12th century 0.6 m of sediment was laid down in the Adur valley in West Sussex (Holden 1975).

The relationship of the large ditch on the west side of the friary, identified as the town ditch, to the gravel hard was not established. The level of ground water prevented the full depth of the ditch being established, nor was the full profile recorded. This did, however, provide the first evidence for a town ditch in this area of Lewes and it must be the continuation of the ditch below the Green Wall which lay to the north on the other side of the High Street (Godfrey 1928, 9).

During the first half of the 13th century the friary

was established on the reclaimed land at the edge of the floodplain. Its situation on the low-lying ground, though appealing to the humility of the Franciscans, posed considerable problems. The earliest excavated friary buildings were constructed directly on the surface of the floodplain. If the first structures had been made of timber, no trace was found. The width of the footings and the traces of the superstructure near the south-west corner of the cloisters suggest that the remains located were of stone buildings.

Little is known of early grants to the friars, but it seems possible that the earls of Warenne may have been important benefactors. Grants of grain by Warenne have already been mentioned and the tithes from Ashcombe, Houndean and Smithwick, all Warenne demesne manors, were received by the friars (*Sussex Notes & Queries* 2 (1929), 145–6).

The area of the friary precinct was relatively large, if, as seems likely, it was identical with the land of the post-Dissolution estate (Martin 1937, 9). The southern part of the estate is followed by the borough and parish boundary (Fig. 1). On topographic grounds it may be inferred that the Winterbourne Stream was diverted from its west–east course around the edge of the friary land and the stream only resumes its former course as it approaches the River Ouse. This diversion was evidently connected with the construction of a series of fishponds which are clearly shown on early maps and still survive in part as earthworks.

The buildings of the friary lay on the northern side of the precinct. The identification of the functions of rooms has been made on the assumption that the friary conformed to the usual claustral plan. Where it may be checked, the archaeological evidence has supported this supposition. The church, the cloisters and the kitchen may all be identified on the basis of the excavated remains alone and the chapter house may be confidently inferred from the presence of a stone bench around three sides. The Franciscans at Lewes were granted a large, open site unconstrained by existing buildings and were able to plan the friary without the restrictions of space which limited the development of some urban houses of the mendicant orders. The topography of the site tended to reinforce the pattern of the normal claustral plan. The friary church was built alongside the major thoroughfare, as was so often the case for Franciscan houses. The cloisters lay to the south where there

was privacy from the street. The reredorter was probably situated to the south of the dorter and was flushed into the river to the east by water from the culvert excavated further west.

The evidence of Period 3 is not clear, but suggests that some buildings were rebuilt with floors above the level of the floodplain, apparently because of the damp conditions. When the friary was reconstructed in Period 4, the floor level was again raised to take it above the level of ground water. From Period 3 onwards many of the buildings were roofed in slate. Slates found beneath the earliest floor layers of Periods 3 and 4 were probably broken during roofing and then discarded (*cf.* Martin 1972, 28–9).

The dating evidence for the Period 4 reconstruction is poor. By analogy with other Franciscan houses the work is likely to have taken place in the late 13th or early 14th century. This was the period of the considerable rebuilding and at least 34 friary churches were reconstructed between 1270 and 1320 (Martin 1937, 11–12). The numerous butt joints observed in the Period 4 substructure cannot be readily interpreted (Fig. 22). There is little evidence that these indicated different phases of buildings, for the superstructure walls ran without break across the butted substructure. A separate phase of building was implied only by the junction of superstructure walls of the garderobe and (?)guest quarters. The butt joints must otherwise typify the normal construction method employed in the friary.

The plain, unelaborated form of the church at Lewes was typical of many friaries. The chancel, which measured internally 19.8 m by 7.1 m was both shorter and less wide than in other churches. At Kings Lynn the chancel measured 26.8 m by 8.8 m and at Walsingham the dimensions were similar. The length of the nave at Lewes was not determined, though it is unlikely to have been shorter than the chancel. The Period 4 church must have been built without aisles and a surviving buttress found in the north-west corner of the excavation suggests that none was added later.

Belfry towers were a very common feature of friary churches and were normally situated above the walking place. It is unlikely there was ever a tower in that position at Lewes. The wall on the west side of the walking place (Fig. 13: 443) was quite inadequate to support a tower. Furthermore, both this wall and that on the east side (376) were demolished in Period 5.

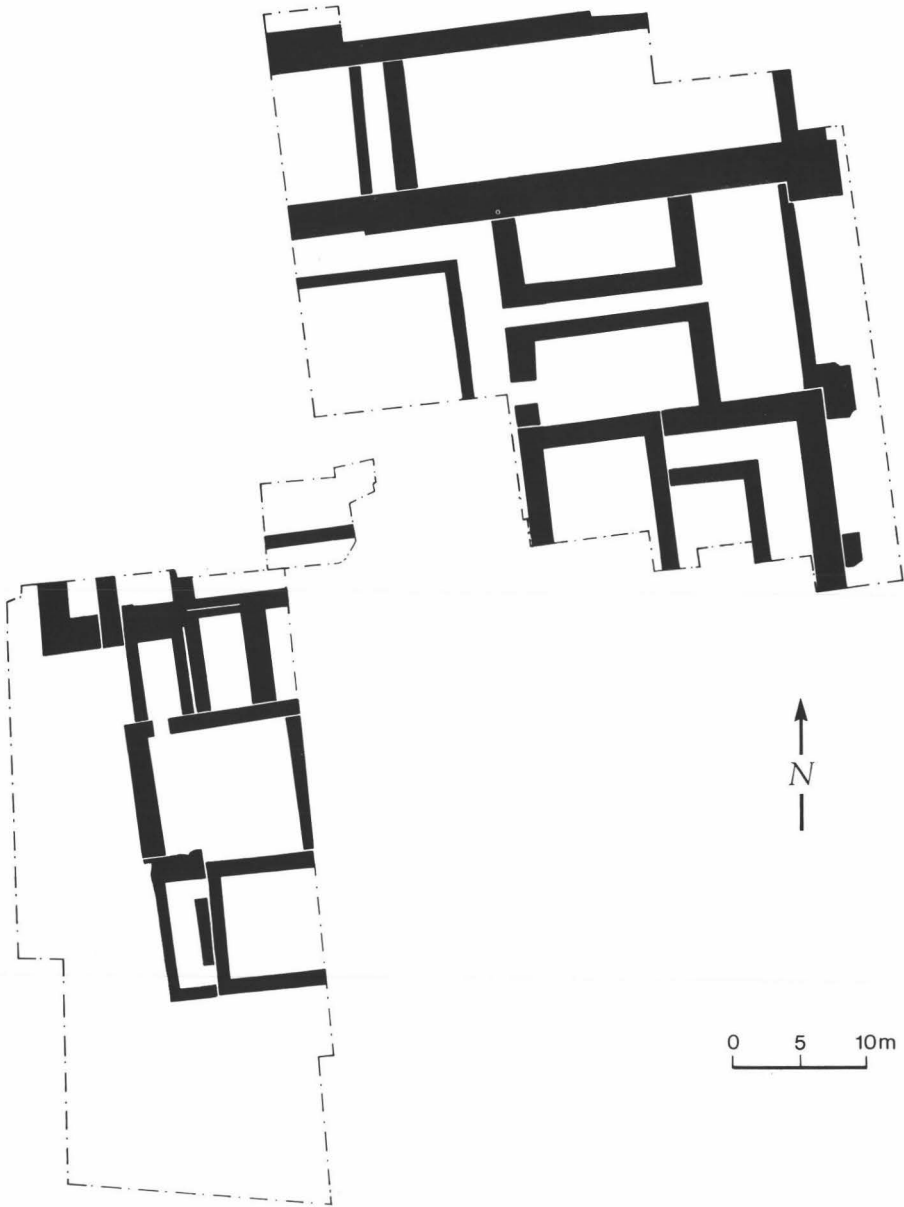


Fig. 22. Diagram showing butt joints at substructure level.

The cloisters, which measured about 26 m square, were constructed alongside the nave and chancel. The usual pattern in friaries elsewhere, and indeed for monasteries more generally, was for the cloisters to be situated beside the nave alone. One of the constraints upon the friars at Lewes was the instability of the ground on the east side nearer the

river. The large buttresses on this side demonstrate the nature of the problem. The church is likely to have been constructed as far to the west as possible and that end of the nave probably lay close to the limits of the friary precinct.

The chapter house (8.9 m by 4.85 m) was considerably smaller than similar buildings at Bristol

(14 m by 8 m) (*Medieval Archaeol.* 18 (1974), 189) and Walsingham (14 m by 7.9 m). It was indeed a remarkably modest building.

The buildings south of the cloister and west of the frater have already been discussed in some detail. Medieval kitchens were often detached, because of the risk of fire. Neither the kitchen at Lewes, nor those at the friaries of Walsingham and Ware were separate buildings (Martin 1937, opp. 136, 140). This is probably to be explained by economy of materials and limitations of space. The frater was less wide than the Period 4 kitchen and must have been a long, rather narrow room. The position of the lavatorium near the south-west corner of the cloisters is clearly suggested by the pipe trenches and the taps found near there (*see below*).

Burials were found in the cloisters, church and in a possible graveyard to the north. The most intensively used areas for inhumation were the cloister walk and perhaps the graveyard to the north, though little of this was excavated. The cloister garth was not used for many burials and it is worthy of note that no burials were found in the chapter house. The burials within the nave of the church were in north–south rows, a pattern also found in the friary church at Hartlepool (Daniels 1986, fig. 4). Three of the graves in the chancel were situated

on the median east–west line. These graves and two others to their east were lined with well-cut chalk blocks. Indeed all the chalk-lined tombs discovered were found in the chancel. Others have suggested that the friary church was the most favoured burial place and the evidence from Lewes suggests that the chancel was probably reserved for the most important burials, either those of the more important friars, or of major benefactors (Daniels 1986, 272; Poulton & Woods 1984, 69–70). The burials which could be sexed were overwhelmingly male. The fact that there were any female burials at all demonstrates that inhumation was not limited to the friars alone. The age range of the burials is unlikely to be typical of the medieval population as a whole: as at friary graveyards at Hartlepool and Guildford, children are under-represented.

After the Dissolution some of the gravestones covering the burials were removed and most of the buildings were demolished. Some buildings remained and were converted to secular use, a practice which has been most recently discussed for monastic houses in the West Country (Betty 1989, 119 ff.). In Period 7 most of these too were swept away, but the builder of The Friars was aware of the raised walls of friary buildings and used them for footings for the new house.

FINDS

POTTERY By Mark Gardiner (Fig. 23:1–6)

The medieval sherds were divided into broad fabric groups based on visual examination and using a hand lens where necessary. The main fabric groups were as follows:

Fabric 1 - Buff or grey coloured face and margins and mid- to dark grey core, 0.5–2% fine comminuted shell or chalk, 0.5% water-rounded multi-coloured flint grit, rare grog, handmade and wheel-turned.

Fabric 2 - Red or black exterior faces and margins, mid-grey core. Very common (5%) medium to coarse sand-sized quartz with less than 0.5% sub-angular flint grits and occasional chalk.

Fabric 3 - Not distinguished by colour. Hard, slightly coarse fabric. Copious fine to medium sand-sized quartz and distinguished by the inclusion of 0.1% chalk and/or shell often visible on face. Occasionally glazed.

Fabric 4 - Buff coloured face and buff or light grey core. A coarse fabric tempered with 2–5% coarse grey or translucent sub-rounded quartz grits, flecks of iron ore and occasional fragments of flint and chalk. From the Ringmer kilns.

Fabric 5 - Fine fabric tempered with 2–5% fine or medium sand-sized sub-rounded quartz with rare fragments of flint or chalk.

Fabric 6 - Buff to mid-grey face and margins with dark grey core. Fairly smooth with slightly laminar fracture. Tempered with copious round or sub-rounded grains of white or light grey quartz up to 0.25 mm, but occasionally up to 0.5 mm diameter.

Fabric 7 - Dark face and core. Slightly smooth texture with slightly laminar fracture. Tempered with 2–5% shell fragments up to 2.5 mm across and 0.5% water-rounded grey or brown quartz grains up to 0.5 mm. ?Saxo-Norman.

Fabric 8 - Orange-red face and core. The fabric is soft, fairly smooth and soapy. It is distinguished by a temper of 0.5% translucent or grey fine to medium sand-size quartz, 0.1–0.5% grog up to 1 mm across and occasional pieces of rounded chalk up to 1 mm across.

Fabric 9 - Buff faces and often similarly coloured margins with a light grey core. Hard, fine, slightly sandy fabric with occasional light quartz inclusions up to 0.25 mm across and occasional flecks of iron ore.

Fabric 10 - 'Winchelsea Black' or Black ware. This is described in Orton forthcoming.

Fabric 11 - Saintonge ware. No polychrome ware was found, but all the pieces had a mottled green glaze. The only identifiable forms were jugs (Chapelot 1983, 50).

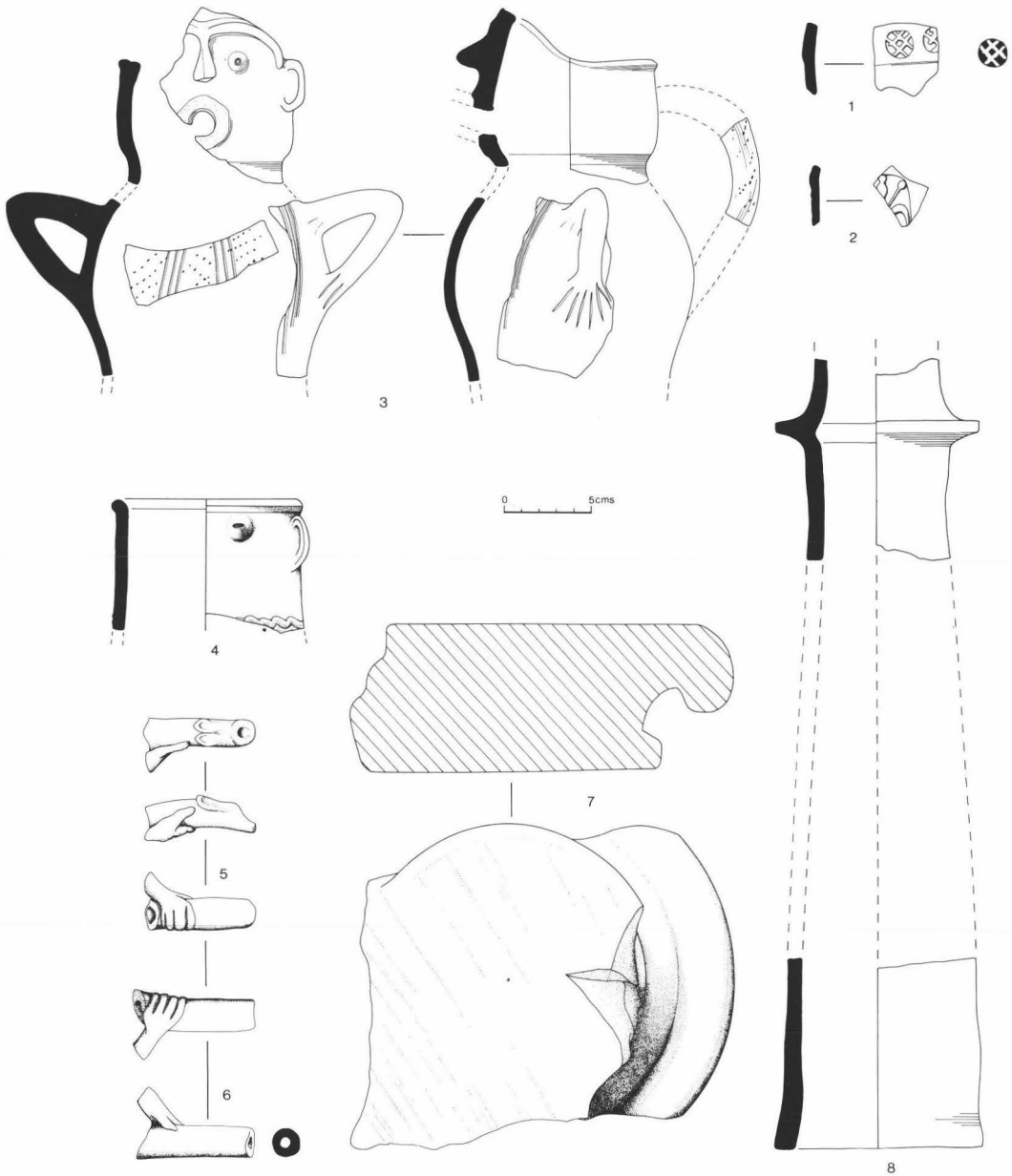


Fig. 23. Pottery (nos 1–6), stone capital (no. 7) and ceramic pipe (no. 7). All $\times 1/4$.

Fabric 12 - White, grey or black faces with pink-grey or white core. Hard, slightly rough fabric often rilled on exterior, tempered with 0.5–5% sub-angular or angular dark grey or black medium sand-sized quartz, occasional fine calcareous (shell?) inclusions and rare flecks of ?iron ore. (North) French.

Some quantification of the pottery from the FAU 1985

excavations was undertaken, but the limited quantity of pottery and the relatively high proportion of residual sherds do not allow detailed analysis. The smaller quantities of ceramics from the FAU 1988–9 trenches also contained intrusive later finds and contexts were simply spot-dated. Full details of the pottery analysis are contained in the site archive.

The pottery examined provides little firm evidence to

refine the sequence or dating of the pottery in the Lewes area. The Ringmer kilns and those producing Fabric 9 appear to have been manufacturing pottery over a considerable period (Hadfield 1981). The latter, used mainly for jugs, was found in some of the earliest excavated layers. Vessel forms varied little during the period of the friary's use. Form may provide some evidence for dating other fabrics. Features usually identified as Saxo-Norman: faceted or pie-crust rims and horizontal lines of dimples above the shoulder of cooking pots, seem unlikely to be later than 1300 and may indeed not have been made after 1250. The later 15th and 16th centuries were poorly represented in the excavated pottery.

The jugs may be divided into two, those of local origin and French imports. One local jug type was identified and is characterized by rilling on the exterior of the body and splash glazing. This is probably to be dated to the 13th century (Barton 1979, 21). Stamp decoration is common on the Fabric 9 jugs. A line of circular gridded stamps occurs on one sherd from the FAU 1985 excavations (context 291) (Fig. 23:1) and on a similar sherd from the LAG excavations. A debased fleur-de-lys stamp with (Fig. 23:2) is broadly similar to those from the Rye kilns (context 1, 1986.4).

The finds from Lewes suggest that medieval imported pottery was not entirely confined to the coast; French ceramics did reach Lewes, but in limited quantities. Although Saintonge Ware constitutes the greater part of the imported pottery, a single sherd of Andenne ware and a number of sherds of North French type, called here Fabric 12 were identified. The only other significant non-local wares were a small number of sherds of 'Winchelsea' Black, Fabric 10.

More detailed work is necessary to separate the sand-tempered wares than was possible here. A study of the pottery from the friary and from Lewes Castle has suggested that at least two centres, Ringmer and Marchants Farm, Streat were producing a range of sandy wares, which are not easily distinguished and that production at the former continued over a considerable period of time.

Anthropomorphic decoration

Fragments of three, or possibly four, vessels were found with anthropomorphic decoration. The most complete jug came from the 1985 excavations (context 329, small find 177, Fig. 23:3). Fourteen sherds of a face-on-front spouted jug in Fabric 9 were recovered. The exterior of the vessel is covered with a mottled yellow-green glaze over a white slip. The top of the inside of the vessel shows a thick white slip alone. The decoration takes the form of a carefully formed human face with a projecting nose, eyebrows, ears and eyes made from pieces or pellets of clay. A spout for the jug projected from the mouth of the face. The decoration is accomplished with economic use of incised lines to emphasize the eyebrows and eyes. Further sherds show that lower down the vessel were projecting arms with the fingers indicated with further incised lines. The remainder of the jug was decorated with vertical combed lines and close fine stabbing. The handle was also finely stabbed.

The 1988-9 excavations produced a further fragment from a face-on-front jug (context 125, Fig. 23:4). It is made in a similar fabric to the jug described above and has white slip decoration on the interior and dark green glaze on the exterior. The eyes and ears are formed from applied clay and the eye slashed with a horizontal line. Traces of horizontal wavy combed decoration are present at the base of the surviving sherd.

Two tubular spouts were discovered in context 122 (1989.6) (Fig. 23:5, 6). They are both made in Fabric 9 and glazed with a dark green glaze. The spouts are grasped by hands with carefully moulded fingers and thumbs. The technique of forming the hands is sufficiently similar, although one is the left and the other right, to suggest they may have been made by the same craftsman, or at least in the same workshop.

BUILDING MATERIAL

Worked stone

By Mark Gardiner (Fig. 23:7)
Most of the walls of the friary were built of blocks of clunch or Lower Chalk and were faced externally with a skin of flint, as described above. The chalk was covered internally with a layer of plaster on which, in some rooms, a pattern of red lines had been painted to resemble masonry, a design common in medieval masonry buildings.

Clunch is an unsuitable material for fine mouldings since it weathers badly and has poor structural strength. It could be, and was, used simply for mouldings. The jambs of windows and doors, and window tracery was made of Hastings Beds sandstone which would have been available in the Weald. Jambs found *in situ* in Period 4 walls were invariably of this material.

A number of pieces of moulded stone were recovered, particularly from the FAU 1985 excavation. An important group of window jambs and tracery had been re-used as a foundation (1986.4: context 23) and these had evidently come from a Perpendicular window.

An engaged capital with a roll moulding of water-holding type (Fig. 23:7) was found in context 20 (1986.4) in the garden to the west of the friary buildings. This is of particular interest since this is unlikely to date from after about 1275 and must come from an early phase in the construction of the friary. There is no evidence to show where it was originally used.

Decorated floor tiles

By Maureen Bennell

(Figs 24:9-17 & 25:18-22)

Fragments of glazed and decorated floor tile from the excavations totalled 422 from 15 contexts. Corners present were counted in order to establish a minimum number of tiles. None of the tiles was found *in situ*, 347 of them coming from a grave fill (1989.6: context 316) and the remainder from other graves, disturbed demolition layers and modern intrusions. Some tiles appeared to have been re-used as mortar adhered firmly, not only to the lower surface, but also to broken edges. One fragment, perhaps a specially favoured design (Fig. 24:16), had been re-used although the tile had laminated.

Degrees of wear ranged from Grade 2 (more than 50% glaze and 75% slip present) to Grade 4 (less than 25% slip present and no glaze), the majority being Grade 3 (less than 25% glaze, more than 50% slip). There were no nail holes and the few keying marks were stabbed rather than scooped. Lower surfaces were smooth with little sanding.

Three groups were identified based on visual fabric identification and a comparison of form, workmanship and artistic merit. Type A tiles, which were of a high standard of craftsmanship, accounted for all but six fragments. The three designs of Types B and C were crudely executed.

Type A (Figs 24:9-17 & 25:18-20)

These measured 120 by 120 by 15 mm and had steeply bevelled edges (at an angle of more than 7°). The clay was well mixed with an even upper surface and a good fusion between slip



Fig. 24. Decorated floor tiles $\times \frac{1}{3}$.

and body clay. The fabric was of average hardness with frequent quartz inclusions. There was no keying on the lower surface, except for the fragment of design no. 20 which had three stabbed round keys. Firing had produced a reduced core with side and lower surfaces oxidized and upper surfaces patchy, part reduced and part oxidized. Depth of slip was shallow (less than 0.5 mm) and generally not more than 1 mm even where wear was light. The general shallowness of slip in Type A suggests that

the tiles were stamped and slipped, not inlaid. Glaze showed yellow over the slip and olive green over the patchy body.

Type B (Fig. 25:21, 22)

No pieces of tile with design no. 21 survived to their full width, but the circumference of the circle in the pattern suggests a size of not less than 125 mm square. The depth was 23 mm. The scored and broken rectangular tile and fragments of no.

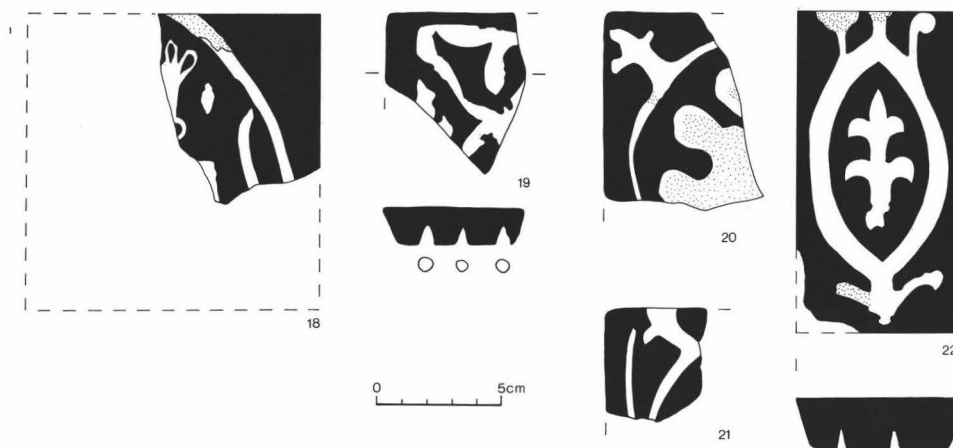


Fig. 25. Decorated floor tiles $\times 1/3$.

22 were from a slightly larger tile of 132 mm square and of a similar depth. They were both steeply bevelled. The clay was fairly well mixed, but showed signs of cracking and spalling. The fabric was hard with fine quartz inclusions. No. 22 had two square stabbed keys 6 mm across on one fragment and 13 slightly smaller (4.5 mm) square stabbed keys on the complete tile. The designs were simple and poorly executed showing almost every defect possible. The glaze was yellow over the slip and yellow/brown over the body clay.

Type C (Fig. 25:20)

The only complete measurement was a depth of 23 mm and, as with design no. 21, the circumference of the circle suggested a tile of not less than 125 mm square. The fabric was of average hardness with fine quartz inclusions and occasional small (2.5 mm) and sandstone inclusions. The core was reduced and the margins oxidized. There were no keying marks. Slip of up to 2 mm in thickness was inlaid with the same lack of skill displayed in Type B tiles. The glaze was light green over the slip and olive green over the body.

The designs

Ten of the eleven Type A designs are unique, but various elements from which they are formed are seen in the tiles from other areas and are part of a stylistic tradition of pictorial, emblematic, geometric and floriated patterns. The potters who created these tiles were skilled both as craftsmen and artists and ably combined the familiar conventions of flowing borders and stylized stiff-leaf foliage with a variety of small fleur-de-lis finials and perforated bands. There is considerable life and movement in the intricate tendrils and interlace and the artists have retained an individuality in their interpretation of standard motifs. The monk's (or gargoyle's) open-mouthed head with extended tongue is a well-known corner device (no. 17). No. 16, which is a representation of the phoenix ascending, is shown here as an astonished eagle (or as Brooke-Little (1988) puts it 'as if flung at a wall'). This fantastic griffin, part lion, part eagle (no. 14) here seems to be modelled on the familiar domestic goose or may be a reference to the arms of the Pelham family which is a long-necked pelican, passant with elevated

wings (Lower 1850).

A fragment found at Lewes Priory (Eames 1980, no. 11,265, design 3085) appears to be from no. 16. It has a small section of the double border enclosing two curls of tendril and part of an indented band. No. 20, the heavier less well-made Type C tile and probably of 13th-century date, has parallels with a design from Lewes Priory (Eames 1980, no. 11,262, design 2327) and from Lewes Castle (Bennell 1992, 91). It is an eight-petalled rosette, encircled, with trefoils in the corners.

The fragment, no. 21, although it has the addition of a line at the edge, is significantly similar to the Lewes Castle tiles in technique, colouring and shape of trefoils. The existence of a central rosette can only be surmised, but the tile appears to be in the same series and tradition as the 13th-century castle tiles.

Design no. 22, which is a complete bisected tile, is the firmest parallel and is identical to a 13th-century tile from Lewes Priory. Two fragments are illustrated by Eames (1980, nos. 11,257-8, designs 2571-2) showing two different positionings of the stamp which is rather long to fit accurately on the tile. Both versions are present in the Lewes Friary assemblage. The design which could be used as a continuous band, is a vesica or pointed oval. This is a stylized representation of a fish, an early symbol for Christ. It has a primitive fleur-de-lis at the head and a crocketed motif in the centre. The strange twist in the tail of the this motif, which must surely be a fault, is seen also in the Lewes Priory design, implying that they were made with the same stamp.

Discussion

The parallels between the 13th-century tiles at the castle, priory and friary and the likely parallel between the 13th-/14th-century tiles at the priory implies either the existence of a well-established kiln, or succession of kilns, in the Lewes area, or a regular trade route from kilns further afield. Ponsoby (1934) suggests Rye, the Battle Abbey tiler at Wye in Kent and Boxley Abbey, Kent. It is also possible that travelling craftsmen may have set up temporary kilns to supply the demand created by new building, repairs or refurbishments. Wherever the kilns were or the itinerant potters came from, it is almost certain

that they would have been attached to a religious establishment or commissioned by one. The discovery of similar tiles at Lewes Castle presents no problems as they were found in the supposed chapel area.

The Lewes Friary Type A tiles exhibit some characteristics which make it likely that their date is early 14th century. Although well-formed, the rather patchy surface, part reduced and part oxidized, is diagnostic of an early date in the century before firing techniques became well understood and controlled. The stamped-and-slipped method became more popular at the end of the 13th century and the designs show a transition period as the stiff and stylized foliage of the 13th century gave way to more naturalistic representations.

As none of the tiles were found *in situ*, they cannot be dated by context. Serious late disturbance makes it difficult even to hazard a link between them and building phases. Positive dating cannot be attempted, but comparisons suggest that Type B and C tiles are from the 13th century and Type A tiles are later, probably from the early 14th century.

Other floor tiles By Chris Broomfield

Although it was intended that only plain floor tiles were to be examined, about half of the 643 tiles considered were probably originally decorated. Two main sizes were represented, 155 mm to 165 mm square and 120 mm to 130 mm square. Five fabrics were noted:

Fabric 1 - green, yellow and brown glazes, lower surface sanded, 1% ironstone inclusions 1–2 mm, 1% flint inclusions 1–2 mm, medium bevel, no keys, average hardness.

Fabric 2 - reduced core medium-grey in colour, abundant coarse sand in fabric, sanded lower surface, 1% ironstone inclusions 1–2 mm, hard.

Fabric 3 - reduced core medium-grey in colour, green and yellow glazes, sanded lower surface, 1% ironstone inclusions 1–10 mm, 1% flint inclusions 1–2 mm, various keys including nail stabbing and skewer stabbing, hard.

Fabric 4 - completely oxidized, abundant coarse sand, 1% ironstone inclusions 1–2 mm, 1% flint inclusions 1–2 mm, no glaze, no keys, soft.

Fabric 5 - completely oxidized, sanded lower surface, 1% ironstone inclusions, green, yellow and brown glazes, no keys, average hardness.

Over half of the tile fragments are made of Fabric 1. The wear on these tiles is much heavier than on the other fabrics. In most cases all of the original surface has been lost, but the fabric and uniformity in the thickness is similar to the decorated tiles also found in context 316 (1989.6). Most fragments in Fabric 1 measure 15 mm thick and the size range is small, varying from 9 mm to 20 mm. The tiles in this fabric are notably thinner than others. The majority of triangular and oblong tiles are made from this fabric.

Fabric 3 accounts for the majority of the remaining fragments. These tiles would seem to have been deliberately manufactured in three thicknesses, 20 mm, 25 mm and 30 mm. Almost all tiles in this group were covered in green glaze.

Ceramic pipe By Mark Gardiner (Fig. 23:8)

Clearance of the site after machining in 1985 (context 1) produced five fragments from a ceramic pipe with a mottled green glaze on the exterior. Two pieces are from the neck of the pipe. They show that the pipe had a flange at least 30 mm from the end. The external diameter at the end is 80 mm, while the flange projects a further 15 mm on each side beyond this. A single sherd was recovered from the splayed end into which the flange would have fitted. This piece tapers outwards to an external diameter of 120 mm. The narrow end and the two mid-length sherds are clearly wheel-turned. The sherd from the opposite is not wheel-made, but may have been bent round a form and joined with a seam along its length, though no seam is present on the surviving sherd. Sufficient remains of the pipe to show that the flanged end would have fitted neatly into the splayed section. The total length of the pipe could not be determined.

Though the pipe fragments were effectively unstratified, the fabric is certainly medieval and was possibly produced at Rye. No evidence was found to show where the pipe had originally been laid. Dunning has shown that medieval ceramic pipes were of two types, plain tapering and flanged (Briscoe & Dunning 1967, 89). The example from Lewes Friary belongs to the second category. Finds of similar water pipes are not common, though they have been found on high status sites, particularly in southern England, and were used from the 13th century onwards. Ceramic pipes were manufactured at Laverstock (Wilts.) and possibly at Earlswood (Surrey) (Musty *et al.* 1969, 142; Williams 1984, 141–5).

ROOFING MATERIAL

Tiles By Chris Broomfield (Fig. 26:23, 24)

Ridge tile

No complete examples of ridge tile were recovered from the excavations, but 421 tile fragments were examined. Two tile fabrics were identified:

Fabric 1 - reduced core, medium-grey in colour, sanded lower surface, upper surface usually covered with green glaze, 3% ironstone inclusions 1–10 mm, 1% flint inclusions 1–2 mm, average hardness.

Fabric 2 - reduced core, pale grey in colour, sanded lower surface, upper surface either unglazed or covered with orange or clear glaze, 1% ironstone inclusions 1–2 mm, 1% flint inclusions 1–2 mm, average hardness.

Approximately 97% of the tile fragments are Fabric 1 and only 11 fragments of Fabric 2 were identified. The fragments in Fabric 2 measuring 7 mm to 12 mm were appreciably thinner than Fabric 1 which were 5 mm to 20 mm thick. Most of the ridge tiles were plain, without decorated crests. This conforms to the general pattern of ridge tiles in East Sussex (Barton 1979, 60–61). The only decorated pieces are in Fabric 1 and most have thumb ridges (Fig. 26:23), but one has triangular crests along the ridge (Fig. 26:24).

Peg tiles

1128 peg tile fragments were recorded, but no complete examples were included in the sample. Five fabrics were recognized.

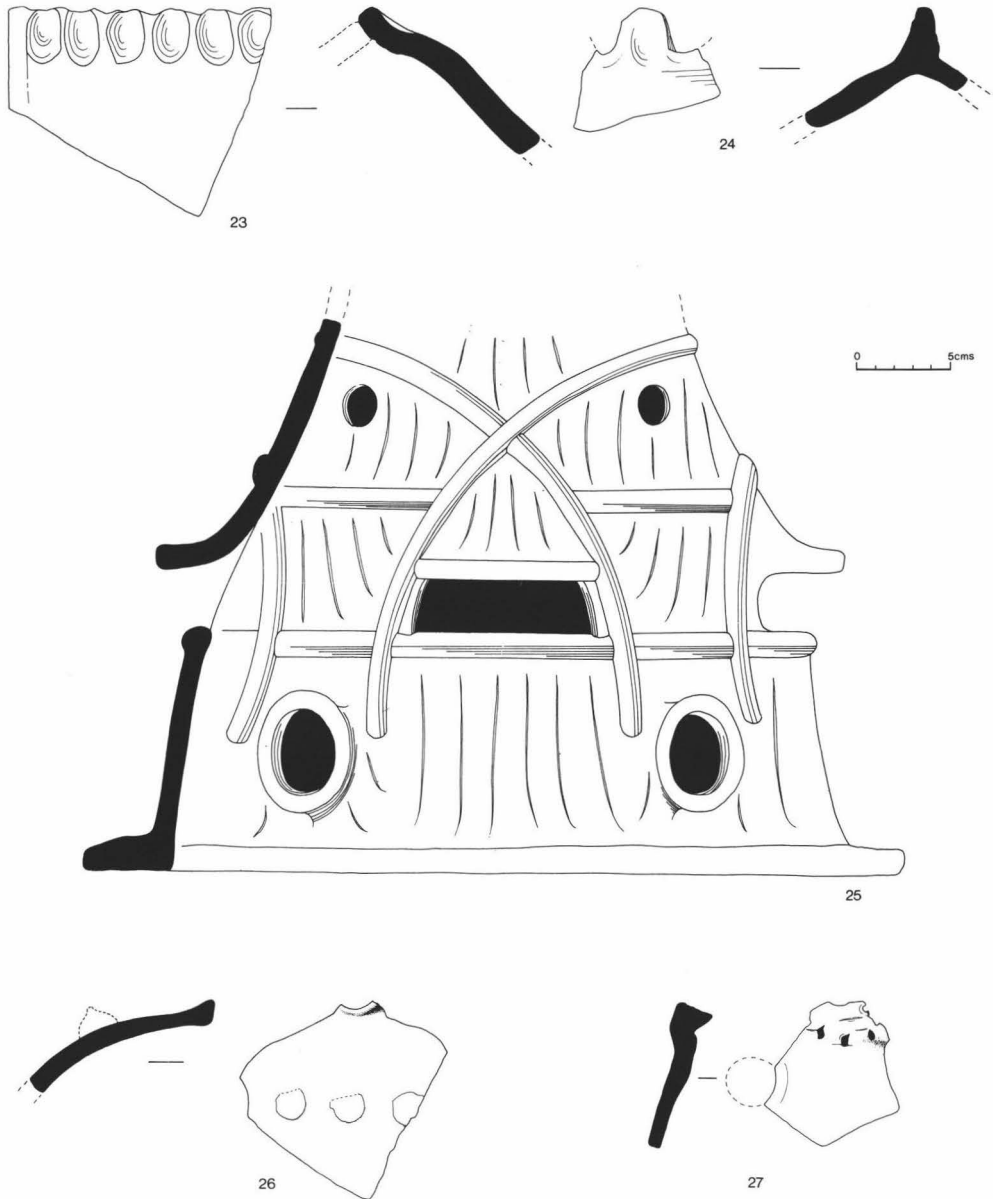


Fig. 26. Ridge tiles (nos 23-4) and roof furniture (nos 25-7). All $\times \frac{1}{4}$.

Fabric 3 - reduced core, sanded upper and lower surfaces, 1% flint inclusions 1-10 mm, soft.

Fabric 4 - reduced core, sanded lower surface, 3% ironstone inclusions 1-6 mm, 3% flint inclusions 1-2 mm, average hardness.

Fabric 5 - completely oxidized deep red-purple in colour, sanded lower surface, 3% ironstone inclusions 1-2 mm, hard.

Fabric 6 - completely oxidized red-orange in colour, sanded

lower surface, average hardness.

Fabric 7 - completely oxidized buff in colour, sanded lower surface, 3% ironstone inclusions 1 mm, average hardness.

Tiles in Fabric 5 had square peg holes which were set diagonally to the edge at the top of the tile. The variation in thickness is very small and the about 90% lie in the range 11 mm to 13 mm. This is probably a post-medieval fabric.

Slate By the late Eric Holden

Roofing slates, mostly broken, were found in destruction layers. They were in varying shades of grey, with lesser numbers of green, also a purple or lilac colour. Generically they are all known as blue slate. The possible source of these slates is the south coast of Devon and Cornwall, especially the former (Holden 1965; Murray 1965). The majority of slates from the 1985 FAU excavations bear traces of lime mortar, showing that they were bedded, and the margins (the visible part of a slate on a roof), where identifiable through differential weathering, vary between 50 mm and 102 mm (n=40). Forty-one slates were sufficiently whole to be measured, with lengths from 135 mm to 286 mm. Breadths were between 58 mm and 180 mm (n=233). Holes for wooden pegs or nails varied from 5 mm to 14 mm (n=228), half being 8 mm to 9 mm across. The average maximum thickness of slates was 9.90 mm (n=179).

Evidence has been established elsewhere that slate from coastal quarries of the West County was used for roof-covering in Sussex from the 12th to the 15th centuries, with perhaps some overlap at either end of that timescale. Its use at Lewes Friary also confirms that it was especially favoured for ecclesiastical and other buildings of high status (Holden 1989).

Roof furniture By Mark Gardiner (Fig. 26:25–7)

25. Eighteen pieces of a dark green glazed louver in a sandy fabric visually indistinguishable from ridge tiles (Fabric 1) were recovered. The base of the louver had a flat flange with mortar adhering to it. It was not intended to sit on the ridge, but must have been separately fitted over a hole in the roof or, less probably in this case, on a chimney shaft. Dunning (1975, 186) defined louvers of this sort as his Type 1.

The lower section of the louver had a series of flanged circular holes measuring about 45 mm in diameter with a neck projecting 20 mm forward from the body. The holes alternated with a series of rectangular openings with canopies and side pieces set above an applied horizontal strap. Though the canopies over the openings have not survived, they can be confidently reconstructed from the scars and from examples elsewhere.

Above the hooded apertures were a series of smaller holes about 25 mm across without necks. The top of the louver was open. The surface of the louver was decorated with applied straps and had been slashed, partly, no doubt, to aid firing. The whole louver was coil-built with an applied base flange and hoods over the openings.

This example is unusually elaborate in its combination of three types of apertures on the sides of the louver. Alternate hooded circular and rectangular openings are found in a louver from Southampton which prompted Dunning (1975, 186, 195, no. 1419) to note that this was an uncommon combination. (1989.6, context 107).

26, 27. Two fragments of two further louvers were found in the 1988–9 excavations. The first is in an identical fabric with a glaze similar to the louver described above. It was globular in form with a small circular hole at the top. Around the opening were the scars of closely placed applied features. These may have been either horns (*cf.* Dunning 1966, 79, fig. 28) or cones (*cf.* Dunning 1975, 194, no. 1414). The second louver was probably also globular with a raised projection at the top around which there were a series of stabbing marks to aid firing. Around the louver were a series of small circular holes of which only one survives. (1989.6, contexts 6 and 107 respectively).

Two large sherds from one chimney pot or two very similar

pots were found in the Field Unit's 1988–9 excavations. Both have the same fabric and are probably of local manufacture. The top of the chimneys had a diameter of 120 mm. Around the side, immediately below the rim was a single line of fine stabbing and the top of the pot is densely stabbed with larger holes. Traces of one side hole is present on one of the sherds and the other sherd has evidence of the central vent in the top of the chimney. These pots are of typical 'Sussex-type' as defined by Dunning (1961a) (1989.6, contexts 132, 136).

STAINED GLASS By Jill Kerr

As might be expected of the context, none of the glass is of top quality in design or execution. There are no survivals among the fragments of any heraldry, heads, hands, inscriptions, or any architecture of sufficient completeness to indicate the scale or indeed the stylistic affinities of the glass. There were no glaziers' sorting marks or etched surface inscriptions. Neither can the location of the finds shed any light on the relationship between the glass and the building where it came.

None of the glass shows any signs of fire damage, and all of it is destruction debris — there was no evidence of reglazing or construction detritus. It appears from the fragmentary state and the incompleteness of the material that this glass was smashed out for the stripping of the leads. The lead came found in association with the glass confirm this. All are destruction debris with soldered joints and edge-leads wrenched into distorted lumps. They are all cast leads of the medieval period.

Condition

None of the surfaces of the glass had been treated or subject to any form of consolidation or conservation. The glass had been allowed to dry out before being stored. Most of the painted surfaces are intact. On both faces of the majority of the glass there are lead shadows, corrosion pits and weathering entirely consistent with the glass having been *in situ* for a sufficiently significant period of time for the characteristic etching to occur. None of the glass is still translucent, although much of it is still vitreous. All of the glass is fragmented and broken. There are only three complete pieces in the whole collection.

As the majority of the finds come from four distinct contexts, they are catalogued within their locations as excavated.

1. 18th- and 19th-century soil (Figs 27:28–38)

This contained some of the most substantial and interesting finds including the most extensive repertoire of decorative leaf forms (all illustrated).

Formalized foliate designs (Fig. 27:28–31)

Nos 28–31 form a group of similarly executed pointed leaf designs picked out very cursorily and imprecisely from a matte brown wash. All are on thick white glass (2–5 mm) with no traces of back-painting or yellow stain. No. 28 is entirely complete and clearly a border design. Nos 29 and 30 are related in form and function but no. 31 is probably from a background design. The naturalistic veining and layout of these designs is 14th century.

Nos 32 and 33 are the most complete examples of a quantity of fragments of large, veined, serrated and stemmed leaf forms set against an unpainted background on white glass with a pointed line frame to counterpoint the lead. No. 32 has

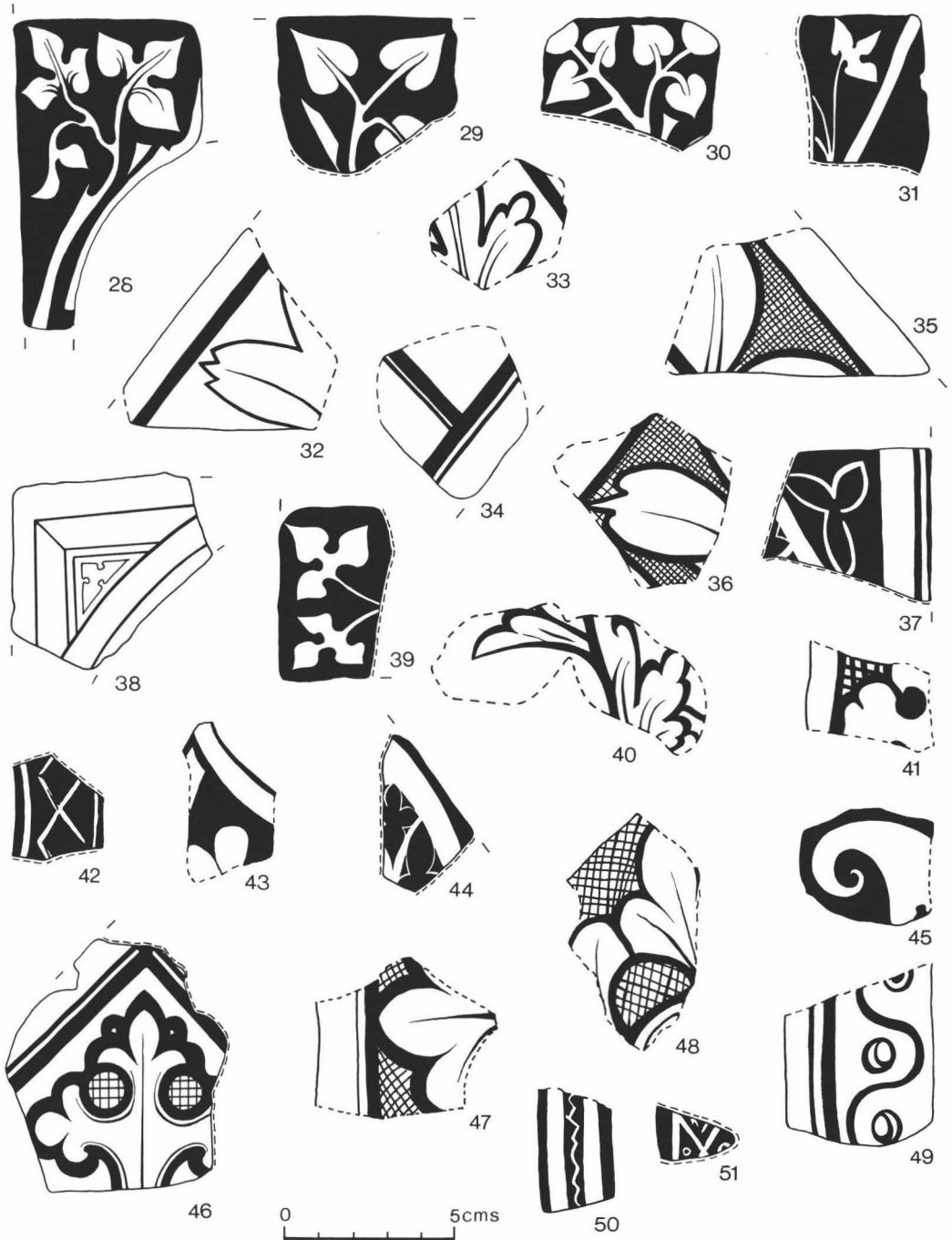


Fig. 27. Stained glass $\times \frac{1}{2}$.

pointed edges and no. 33 rounded. These are very typical 14th-century quarry designs commonly used as backgrounds to figures or the setting of heraldic shields. No. 34 is a very

common form of painted quarry glazing, the thick and thin lines counterpointed the lead lines to form a diamond — or sometimes square — lattice network of glass and lead.

Nos 35 and 36 are the most complete pieces of a very precisely painted group of formalized foliate forms with veins set against a cross-hatched background. Painted on high-quality 2 mm thin white glass in a strong dark brown paint, this is consistently good geometric grisaille — unfortunately too fragmentary to determine a typology. Late 13th to early 14th century in date.

Architectural fragments (Fig. 27:37–8)

There are only two pieces bearing what appear to be evidence of canopy designs, although there may be fragments of architectures among the small painted pieces catalogued below. Both of these are illustrated. No. 37 has a trefoil picked out of a matte wash set in a spandrel design within a double cut-line to the grozed edge and fragmentary traces of picked-out cusping on the inner, broken edge. No. 38 has a very precisely painted line drawing of a spandrel with a cusped trefoil design painted in the centre. The third dimension is indicated by perspective line drawing. There are also two pieces of very old thick line at right angles to a thinner line (not illustrated) which may well have been part of an architectural frame.

Painted fragments

There is a small quantity of very incomplete fragments bearing painted designs — none of which is big enough to determine precisely, and none of which is substantial enough to convey either scale or form illustrated. The brush strokes which survive on several pieces would be entirely appropriate for drapery painting. Where it is possible to discern the colour of the base glass, only three of these are painted on pot-metal coloured glass — two on murrey and one on flashed red. There are also what appear to be fragmentary remains of a very cursive trilobed foliage design picked out of a very scumbled matte wash on white glass. This is probably a background design although it is painted on white glass.

Unpainted pieces

A surprisingly small collection — there are only two relatively complete pieces: a white oblong 4 mm thick, 28 mm wide and 77 mm long — probably a border, and a small strip of blue glass. There are also small fragments of flashed red and pot-metal yellow.

2. Mid-16th-century destruction layer (Fig. 27:39–46)

Context 198 (1989.6) yielded a very small group of fragments but with some important pieces painted with foliate designs that extend our knowledge of motifs. All the most complete are illustrated. No. 39 is a border design of two pointed trefoils on thin stems picked out of matte wash. Unfortunately, the bottom half is lost and so the information is incomplete; probably 14th century. Equally frustrating is the partial survival of an elegant and elaborate formalized foliate design painted in precise and bold strokes on white glass. Illustrated as no. 40, this design bears an affinity with the formalized foliate design with the line border (illustrated as no. 33) from the topsoil context catalogued above. There are also several fragmentary examples of 13th-century geometric grisaille with stiff-leaf foliage and cross-hatched backgrounds. One is of sufficient size to illustrate: no. 41. There is also a fragment of a criss-cross border design (no. 42) of intersecting triangles picked out of a very relaxed matte wash whose paint strokes are clearly visible. Another fragment of formalized foliate design (no. 43) shows one part of a lobed form picked out of a

very strong matte wash. One grozed edge survives with a painted cut-line. No. 44 is a fictive window design, probably from a border. It is painted on white glass with the cusped design of the tracery lights picked out of the paint. Among the collection of painted pieces whose design is too incomplete to determine are more examples of drapery brush strokes. No. 45 is a bold volute picked out of a strong wash — again, scale and design too incomplete for this function to be determined. There are only six discernible survivals of coloured glass — one blue strip 15 mm wide — one green, one red and three pieces of murrey drapery. All these are likely to date from the 14th century.

Also from this context is the most complete and remarkable survival of geometric grisaille design illustrated as no. 46. It is a quarry, almost complete, it bears a sophisticated and very boldly painted stiff-leaf fleur-de-lys in a frame consisting of a thin line containing a thicker one. The circles formed by the meeting of the points of the lower petals of the lily are cross-hatched although the design is set on a plain ground of white glass. 13th century.

3. Mid-16th-century destruction layer (Fig. 27:47–51)

Context number 86 includes painted fragments of geometric grisaille, veined formalized foliate forms similar to 1 above, and one plain white border piece 70 mm by 23 mm. In addition to these are three pieces of 13th-century glass painted with two geometric grisaille designs (3a & 3b) and a serpentine border design frequently found in association with geometric grisaille (3c). All are painted on white glass. Two further, more cursive designs of this type (3d & 3e), both picked out of a matte wash, may also have served a similar function. This context contained no coloured glass that could be determined, although much is so decayed as to be totally black and opaque.

4. 18th- and 19th-century wall containing re-used medieval debris

All the glass from this context is very fragmented and decayed. When set out, the amount recovered occupies two sheets of A4 paper and represents the most substantial find from this site. There are fragments of 13th-century geometric grisaille with characteristic cross-hatching none of which is sufficiently complete to merit illustration. There are pieces of the thick and thin parallel line from quarry glazing (13th to 14th century) and fragments of foliate forms including examples of the designs illustrated as nos. 28 and 30. There is also one piece only of a veined leaf, similar to no. 33, painted on very thick — 5 mm in parts — pot-metal yellow.

The unpainted fragments include pot-metal yellow, green, blue, flashed red and plain white glass some of which is unusually thick — 4 mm — and one piece of the edge of a white cylinder or muff, partly grozed and no less than 6 mm thick at its edge.

There was also a single piece of incomplete plain white glass recovered from context 66, a mid-19th-century disturbance of the eastern end of the church. Undatable.

METALWORK By Miles Russell (Fig. 28:52–68)

Copper alloy

52. Decorated tap. Hollow spout terminates in a heavily grooved zoomorphic face. Small, circular hole, 4 mm diameter at the other end suggests the presence of a tap key to regulate flow. Two identical taps were found with this in the same fill (1986.4) 299.

Mark Gardiner adds: Tap handles of this type are known

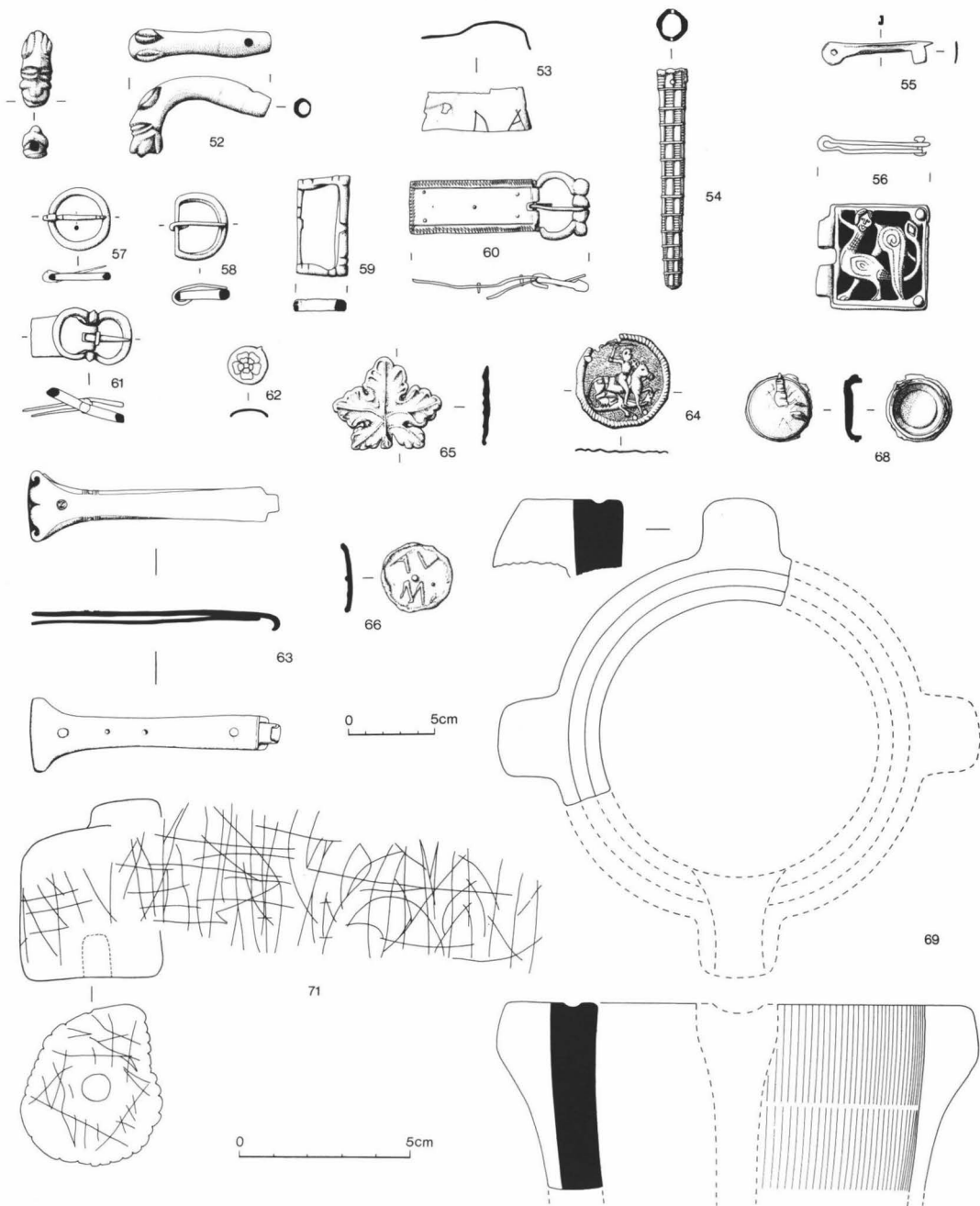


Fig. 28. Copper alloy (nos 52-64), lead (nos 65-6), pewter (no. 68), stone artefacts (nos 69 & 71). Scale A nos 52, 55, 65, 68. The remainder scale B.

from Wallands (Lewes), Kirkstall Abbey and elsewhere. Dunning (1968) has argued that these came from monastic lavatoria situated outside the frater for the monks to wash their hands before eating. He suggests the tap handle from Wallands might have come from Lewes Priory.

Two tap handles from Kirkstall Abbey were found in the frater and three in the kitchen nearby; they are attributed to the 12th century. Their decoration is almost identical to that of the examples from the friary, which were found in a socket for a post supporting the pentice roof, close to the presumed lavatorium and entrance to the frater (Pirie *et al.* 1967, 20). They must have been hidden in this position shortly after the Dissolution when the friary buildings were being demolished. The attributed 12th-century date presents some problems for the finds from Lewes Friary. If it is correct, the tap handles may have been re-used at the friary.

53. Gilded sheet metal plate with possible rivet hole. Broken at both ends. It may have formed part of a folded buckle plate. Incised lettering, 'A....' at the base. 13th century or earlier, layer 13 (1989.6), clay above the Period 2, but below the Period 4 friary church.

54. Elongated, hollow hexagonal rod, closed at one end and decorated with alternate bands of grooving. Two small perforations are evident at the open end. ?Pen or stylus with separate point not present. Mid-13th century or earlier, layer 132 (1989.6), pre-friary deposit below church.

55. Casket key with plain bit and sub-rectangular section. Late 13th century, layer 32 (1989.6), fill of foundation trench for wall 21.

56. Gilded and enamelled ornamental buckle plate. The central plate has the design of a griffin with human face. Emphasis is given to the figure by addition of gilt (traces survive around the head and rivets) and blue enamel (traces on chest, wings and tail). The excess metal around the griffin was cut away exposing the belt leather beneath. 15th or early 16th century, fill 370 (1989.6) from grave with skeleton 425, Period 5 church burial.

57. Annular buckle. Medieval, from layer 11b (1989.6), Period 6 church demolition rubble.

58. D-shaped buckle. Mid-16th century or earlier, layer 243b (1989.6), Period 6 demolition rubble.

59. Trapezoidal buckle with grooved frame. Traces of gilding evident at former joint with buckle plate. Mid-16th century or earlier, layer 146 (1989.6), Period 5 demolition rubble in church.

60. Ornamental D-shaped buckle and buckle plate of common 13th-/14th-century type. Layer 488 (1989.6), Period 6 disturbance in church.

61. Spectacle buckle and buckle plate. The plate is formed by a single, folded sheet of copper alloy and held by two well finished rivets at its base. Unstratified.

62. Small heraldic disc. Head has a grooved Tudor rose motif. Casting present. Late 16th/early 17th century. Unstratified.

63. Book clasp with minimal incised decoration. Traces of gilding evident. Back and front plates held by four rivets, the top three of which are well finished and virtually invisible from the front. Below wall 198 (1989.6) in Period 6 church demolition debris.

64. Circular plaque with repoussé decoration. The central 'Saint George slaying dragon' motif is surrounded by border. Three sets of double perforations are evident: two at bottom right and four (an original pair placed too close to the edge and a corrective set) on the opposing top left. A similar plaque with a pietà scene from Colchester was dated to the 19th century (Crummy 1988, 86, no. 3284). The association of this plaque with Dissolution rubble may, however, indicate an earlier date. Boundary wall 198 (1989.6) over remains of church.

Iron

Large quantities of medieval and post-medieval iron were recorded from all excavations. Generally speaking, preservation was poor due to the wet condition of the surrounding soil. All details of iron material have been archived with the finds.

Lead

65. Ornate leaf with four central perforations. Possibly livery or other secular badge (Spencer 1990, 93 ff.). 14th/15th century, layer 84 (1989.6), clay build-up over Period 4 floor level.

66. Lead token (by David Rudling). Probably 17th/18th century. 4.57 g, 20 mm diameter. Uniface. Central pellet; above: the letters A (?) and V (?); below: the letter M. Context 2 (1989.6).

67. (Not illustrated). Three lead musket balls, two fired and partially impacted, and two musket shot were recovered from 17th-century contexts associated with the end of Period 6.

Pewter

68. Fragmented concave disc. Attachment fracture (for handle?) on smoothed outer face. Possibly part of a seal matrix or ampulla. Mid-16th century or earlier, layer 198a (1989.6), Period 6 church demolition rubble.

Slag By Miles Russell

Quantities of slag were recovered from all three trenches. This material, together with two fragments of furnace bottom recovered from 13th-century contexts 135 and 277 (1986.4), may indicate iron working during the construction of the friary. A total of 42 fragments of copper alloy ingots weighing 392 g, associated with quantities of charcoal, slag, copper alloy and lead melts was recovered from Period 6 context 277 (1989.6). The ingots varied between 24 and 26 mm in thickness. These seem to indicate post-Dissolution copper alloy working during the 16th century.

COINS AND JETONS By David Rudling

John, 1199–1216. Cut farthing. Short Cross Coinage, Class 5b (1205–10). Reverse legend: JLM.B], i.e. the moneyer Willelm B of the London mint (North 1980, 970). 1989.6 unstratified.

John 1199–1216. Cut farthing. Short Cross Coinage, Class 5b/c

(1205–10). Reverse legend:]GIPE, i.e. the mint of Ipswich (North 1980 970/1). 1989.6 unstratified.

English jetons (reckoning counters). Edward II, Class XI: 1310–14. Two jetons struck from the same pair of dies. Both jetons are partly pierced on the obverse.

Obverse: King's bust (Class XI) in circle: border, pellets.

Reverse: Long cross patonce, six-pellet cluster in each angle: border, pellets.

The king's bust has the same details as on the Class XI penny coins. These jetons are therefore official issues from the king's mint (Mitchiner 1988, 118). Latten: 1.25 g; 20 mm. 1989.6, contexts 2 and 22.

French jeton. 'King under canopy' Series: Standing king with sceptre: after 1326.

Obverse: Crowned king standing facing, holding sceptre in his right hand, beneath a gothic canopy; five small trefoils in exergue: AVE M - ARIA.

Reverse: Triple stranded straight cross fleuretty, with a lys between each arm: all within tressure: A-V-E-M (Barnard 1917, French jeton 21; Mitchiner 1988, 403). Latten: 2.86 g; 25 mm. 1989.6 unstratified.

Nuremberg jeton. Period of Frederick III, 1440–93. Bavarian type.

Obverse: Knot (?) within three-arched tressure: margin: fictitious legend.

Reverse: Lozenge shield of Bavaria (reversed): in three-arched tressure: margin: fictitious legend (Mitchiner 1988, 997). Brass: 1.1 g; 21 mm. 1986.4, context 18.

Nuremberg jeton. Anonymous issue, c. 1500–50. 'Rose/Orb' type.

Obverse: Three crowns, alternately with three fleurs-de-lys, arranged centrifugally around a five-petalled Rose: fictitious marginal inscription.

Reverse: Large imperial orb surmounted by a cross: within an ornamental tressure that has three main arches: fictitious legend (type as Mitchiner 1988, 1190). Brass: 1.42 g; 22 mm. 1989.6, context 1 over 198.

Nuremberg jeton. Hans Krauwinckel II: master 1586; died 1635.

Obverse: Three crowns, alternately with three lys, arranged centrifugally around a central Rose with six heart-shaped petals: rosette GOTES. SEGEN. MACHT. REICH.

Reverse: Imperial orb surmounted by a cross patty, within a tressure with three main arches: HANNNS. KRAUWINCKEL. IN. NV (cf. Barnard 1917, German jeton 84; Mitchiner 1988, 1504). Brass: 1.37 g; 20 mm. 1989.6, context 319.

STONE OBJECTS By Mark Gardiner

69. Purbeck marble mortar. Approximately one quarter of the rim and adjoining body together with one complete and one fragmentary lug remain from a Purbeck marble mortar. The rim, which has a diameter of 210 mm, bears a groove in the top surface. There are no evident signs of wear on the surviving

fragments. After the mortar was broken an attempt was made to cut a small notch out of the side of one piece as indicated by clear saw or chisel marks. The mortar is represented by three conjoining pieces, two of which were found in the Lewes Archaeological Group excavation and one in the work in 1985 by the Field Archaeology Unit. The pieces were separated by a horizontal distance of 14 m.

This mortar presents certain problems of interpretation. Sufficient remains of the two lugs to show that they had different profiles. The complete lug has a rib which is prolonged downwards towards the base, Type 1 in the Dunning (1961b, 282) classification. The fragmentary lug projects outwards further and is more tapering in plan. It appears from the adjoining body of the mortar that it may have been pierced lower down to form a handle, though none of the handle itself remains. Pierced ribs or vertical handled mortars belong in Type 4 of the Dunning classification.

This latter form is comparatively rare and found only on Caen stone and Purbeck marble mortars. As Dunning has noted, Purbeck marble is fissile and this form is quite unsuited to the material, which may explain why only one lug was pierced. A feature of the Purbeck marble mortars, to which attention may be drawn is the groove in the top surface of the rim. This is also found on mortars from Northolt in Middlesex (Dunning 1961b, fig. 74, nos 1, 3), Winchester (Dunning 1961b, fig. 75, no. 1), Kings Lynn (Dunning 1977, fig. 147, no. 30), Little Ringstead in Norfolk (Dunning 1977, fig. 148) and Southampton (Platt & Coleman-Smith 1976, 2, fig. 268, no. 2202). 1985 context 315, small find 179; 1985–86 context 44, small find 2.

70. Hone (not illustrated). The Norwegian mica-schist hone survives to a length of 79 mm and the only complete side measures 10 mm across. It has been pierced for suspension about 20 mm from the end by an 'hour-glass' shaped perforation. Fine hones such as this were commonly pierced and suspended from the waist for sharpening small personal knives (Cowgill *et al.* 1987, 53). 1988–9 excavations, context 411.

71. A crude chalk cylinder measuring about 100 mm in diameter and with a similar height was found in context 5 (1989.6), a firmly stratified medieval deposit. It has a hole at one end 27 mm deep and tapering from 18 mm to about 16 mm in diameter. The opposite end is irregular. The surfaces have been inscribed with a rectilinear pattern which may not be representation, but could be a graffito. It is possible that the design may incorporate two overlapping representations of a gable wall. These occur on the right of the illustration. The left-hand gable is pierced by a round arch and the right-hand by a pointed arch. This interpretation is subjective insofar as certain lines are identified as significant and others ignored, and the whole representation is extremely crude.

Architectural sketches on stone are known from elsewhere, the best example being that from St John's College, Cambridge, which is similarly inscribed in clunch. The quality of work on the Cambridge piece is of much higher standard and was evidently intended as a working drawing (Biddle 1961). The Lewes piece is evidently no more than a graffito.

72–5. Grave covers (not illustrated). Four fragments of grave covers made in Sussex marble were found during the

excavation, all disturbed from their original positions. Sussex marble, though it is rather coarse and prone to laminate, was evidently considered a suitable material for making grave covers and was used for covers surviving *in situ* at Poyning's church (West Sussex).

Three of the grave slabs from the friary had been re-utilized to form the edges of a soakaway (1986.4, context 85). The largest piece comes from the base of a grave cover and has a polished upper surface with chamfered edges, now partially damaged, and depicts in raised relief the stepped foot and central bar of a cross. A further portion of this or a similar grave cover was found with a further length of the bar of a cross. The third piece is undecorated and has an uneven and unpolished upper surface suggesting that lamination has removed the original face. It is thicker than the other two and has a hollow chamfer at the edges.

The final fragment was found in context 193 in the 1988–9 excavations. It has a polished upper surface and a band from the upright of a cross in raised relief.

CHARCOAL By Simon J. Dobinson

Charcoal from 17 contexts from the 1988–9 excavations was examined. These included the clays on the floodplain predating the friary foundation, deposits below the primary floor layers, charcoal from within the wall mortars and from upon the floors of the Period 6 buildings. The charcoal was recovered by hand during excavation and most of the samples consequently were more than 10 mm along their longest axis. The charcoal was analyzed in terms of fragment number, weight and in terms of presence/absence by context. A full report is available in the site archive and at the Institute of Archaeology, London.

The charcoal taxa displayed indicate typical components of the vegetation of the chalk downland environs, i.e. *Quercus*, *Corylus*, *Fagus*, *Betula*. Thus the fragments could derive from the nearby vegetation of the Downs and could have been brought in for specific purposes such as fuel, building etc. Alternatively, they may derive more locally from common ground near the town or from the domestic gardens of local tenements. A number of trees represented could possibly have been from the friary orchards, namely *Castanea*, Pomoideae or *Populus/Salix* which could have been hedging.

The friars never aspired to the self-sufficiency characteristic of other orders and were chiefly concerned with the provision of fruit and timber. Perhaps it is in this context that the Lewes Friary charcoal should be seen. Pomoideae and *Castanea* being orchard trees and *Populus/Salix* as hedges bordering the gardens and *Betula* used for timber. There is, however, no distinct diachronic patterning in the charcoal assemblage in the samples' composition at Lewes Friary.

ANIMAL BONE By Rod O'Shea

A total of 6071 bones from the 1985 FAU excavation was examined. Of these 3835 (63%) were identified at least to some extent, and 2236 (37%) were not. The bones came from 117 contexts, the majority of which did not provide certain evidence of the friary's meat consumption. Four contexts were, however, from the kitchen during Periods 4 and 5. The bones were mostly from sheep, with a few cow and pig bones. No particular body part was well represented.

The meat bones at Oxford Dominican friary (Harman 1976), the Austin Friars in Leicester (Thawley 1981) and the Greyfriars in London (West 1985) were mostly cattle, followed by sheep and then pig. The Lewes Friary bones follow a

different pattern with sheep bones being consistently the most numerous, followed by cattle and then pig. This, perhaps, reflects the position of Lewes in the Sussex Downs with the wooded Weald at some distance. The bones were counted, not weighed, and cannot be directly related to meat weight. Differential preservation of the various meat animal bones cannot be assessed. Thawley (1981) notes that bones from the Austin Friars, Leicester were from no particular body part and that both head and feet bones were present. This leads to the conclusion that live animal or carcasses were brought into the friary, rather than particular joints of meat. The bone data and conclusions from Lewes Friary are similar. Horse and deer bones occurred but in too small numbers to draw a conclusion. Only a few bones showed signs of burning, and there is no evidence in the contexts examined of an organized method of disposal of animal bones. It is possible that horn was removed from horn cores in the friary. A possible floor layer (context 132) had a larger number (14) of cattle horn cores than would be expected. Most of them were from young adults (see Armitage 1982).

As well as mammals, birds were also consumed. Chicken bones (never in large numbers) were found in a total of 38 contexts, and domestic goose bones in 16 contexts. Other birds represented by single bones were heron, crow, cormorant, partridge and pigeon. Fish bones were also found in many contexts, but have not yet been examined.

MARINE MOLLUSCS By E. M. Somerville

Introduction

A considerable quantity of marine molluscs were retrieved by hand collection. In this report I hope to show how a detailed examination of these can lead to some interesting conclusions. For analysis, the contexts containing shells were combined to give three major groups; early (Periods 1/2, 2, 3 & 3/4), middle (Periods 4, 4/5 & 5) and late (Periods 5/6 & 6) as well as a small amount of post-medieval material.

Species present

The total MNI (minimum number of individuals) are given in Table 1. For each species this was calculated as the sum of the MNIs from each context. When only fragments were present, this was recorded as a MNI of one.

The only obvious 'missing' species amongst the edible molluscs is the winkle (*Littorina littorea*). The *Acanthocardia* fragments were too worn to be identified to species. The presence of *C. fornicata* is clearly anomalous and most probably serves to confirm that the context in which it was found (1986.4, context 8) was not well sealed. A likely source for this intrusive species would be beach gravel, perhaps imported from the track-bed of the railway construction work in the late 19th

Table 1. Marine Molluscs from 1985 excavations at Lewes Friary.

	Early	Middle	Late	Post-medieval
<i>Ostrea edulis</i>	138	879	214	21
<i>Mytilus edulis</i>	6	9	3	0
<i>Cerastoderma edule</i>	0	12	2	0
<i>Pecten maximus</i>	1	1	0	0
<i>Acanthocardia</i> sp.	1	1	0	0
<i>Crepidula fornicata</i>	0	1	0	0
<i>Anomia ephippium</i>	0	2	0	0
<i>Patella vulgata</i>	1	0	1	0
<i>Venerupis pullastra</i>	0	1	0	0
<i>Buccinum undatum</i>	0	5	1	1

or 20th century, after this species had arrived from North America.

The domination of the assemblage by oysters seems to be a genuine contrast with other urban sites, for example at *Hamwic* (Winder 1980) and at *Okehampton* (Rouillard 1982) where winkles and whelks respectively were well represented. In *Sussex*, whelks are described as being nearly as numerous as oysters in the post-1300 contexts at *Pevensay* (Dulley 1967). At *Hangleton* (Holden 1963), mussels and oysters are both described as plentiful, whereas in *Lewes* (Freke 1976) it would appear that oysters dominated, but did not overwhelm an assemblage which also contained mussels, winkles and whelks. The meat-weight represented by the oyster shells is not great. Using Winder's (1980) method this is 1035.0 g for the early period; 6592.5 g from the middle period and 1605.0 g for the late period.

Oysters

The methods used in further study of the oysters were adapted in part from Smith (1987) and Winder (1980). Unfortunately, a portion of this assemblage was discarded before a full inspection could be made of the oyster shells. A detailed study was made of 29 whole valves from the early period, 298 from the middle period and 149 from the late period. Figure 29 shows the distribution of shell length classes for these three groups, which in all cases is close to a normal distribution.

The proportion of shells between 7.0 and 8.9 cm length declines from 69% for the early period to 54% for the later period. Modern oysters reach this length between three and six years (Walne 1974). However, direct ageing of shells by counting growth lines at the hinge consistently gave a somewhat lower proportion in this age range and the distribution had a tail of older shells. Observer error is obviously a possibility, but it may be the case that the shells coming to the friary included a number of oysters which were relatively small for their age. Such shells are called 'stunters', and in modern industry with relaying would be rejected (Cole 1956).

A marked feature of the shells, although not one which was quantified, was that the shells themselves were often very thick, which is itself a result of poor growth. For all periods more than two-thirds of the shells had traces of infestation, mostly by *Polydora hoplura* and *Cliona celata*. The number of severely affected shells increased from 3% in the early period to 7% in the middle period and 10% in the late period. In the middle and later periods some of these were 'rottenbacks'. These tend to break in transport (Cole 1956) and their presence here may indicate a local source. The vast majority of shells were subtriangular in shape and lacked beaks. This would seem to indicate a relatively uncrowded bed on fairly firm ground (Smith 1987). At least some of the shells were 'recycled' since a small number of these shells had traces of mortar and 'pegholes' (cf. Holden 1963) were also found. Few of the shells had notches from opening.

Discussion

The size distribution of oysters at this site differs somewhat from that found at *Hamwic* (Winder 1980) and *Okehampton* (Backway 1982), with a greater representation of larger (8+ cm) shells. The shape of the distributions implies that a large population was being exploited. It is therefore rather surprising that badly infested shells are also present. This could be taken as indicating either that the oysters were not graded before marketing, or that the shells coming to the friary included some of the rejects from such a grading process! Together with the presence of 'stunters', the impression given is that a proportion of the oysters are of low grade.

Deep-water beds are the most likely source for the majority of the oyster assemblage. This could account for the morphology of the shells, the infestation pattern, and might also explain the presence of 'stunters' if the management of the oyster bed(s) did not include relaying. However, thinking in terms of a single source may be misleading, since scattered throughout the contexts were light, ribby shells, which could have come from a reef, including four conjoined shells from

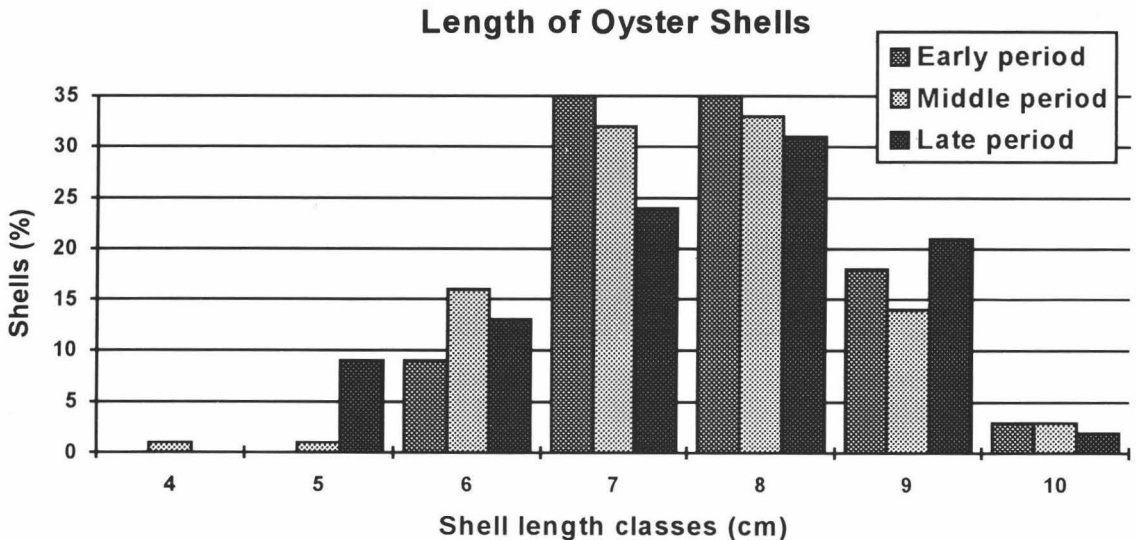


Fig. 29. Length of oyster shells.

the middle period. Tracking down the actual source(s) of the oysters will require more work, and information comparable to that presented here, and in detail in the archive report, needs to be obtained from other excavations in Sussex.

HUMAN BURIALS By Sue Browne

Fifty-two medieval burials from graves in the church, the cloister walk, the cloister garth and the graveyard at Lewes Friary were submitted for examination. Three burials from earlier excavations in the cloister walk were examined in 1985 by Janet Henderson (whose report appears in the site archive) and, where possible, her results are included here; thus the total number of burials discussed in this report is 55. The samples from the four locations are too small to analyze separately and, as there are no outstanding differences in the four burial groups (see Tables 2–5 (Tables 4 onwards on microfiche)), they have been treated as one sample. Because

Table 2. Burials examined.

Location	Bone preservation			Total no. of burials
	Good	Fair	Poor	
Church	11	3	3	17
Cloister Walk	9	16	4	26+3
Cloister Garth	3	2	1	6
Graveyard	2	1	–	3
Total	25	22	8	55

Table 3. Completeness of skeletons.

Location	Complete almost complete	Half complete	A quarter or less
Church	15	1	1
Cloister Walk	21	2	6
Cloister Garth	3	2	1
Graveyard		1	
Total	39	6	10

space was limited for the published report, this is an abbreviated version of the fuller report on the human bones in the site archive.

Generally preservation of the bone is good and 45% of the burials are well-preserved (Table 2); the cloister walk is the only location where the majority of the skeletons are only moderately well-preserved. Thirty-nine (71%) of the skeletons are more or less complete (Table 3). The methods of study used by the writer follow the guidelines outlined in Brothwell (1981). Inevitably there are small differences in the range of data recorded by the writer and by Henderson, but generally the methods used by both workers are similar.

Demography

The burials are listed in Table 4 on microfiche. Perhaps not surprisingly, since this was a friary, most of the burials are adult males. Forty-six (84%) of the individuals are adult (Table 5) and of the 44 sexed burials, 42 (95%) are male or probably male (Table 6). The age range is from approximately eight years to over 50 years; 19 individuals could not be aged more precisely than 'adult' because there are no dental remains (Table 7).

Stature estimation (Table 4)

The height range for 34 males is 1.62 m to 1.86 m (5 ft 4 in. to 6 ft 1 in.) and the mean is 1.73 (5 ft 8 in.). The estimated height of the two females is 1.53 m (5 ft) and 1.67 m (5 ft 6 in.).

Osteometric data

Lists of individual measurements and statistics for samples of 20 or more individuals are shown in the archive and in Table 11. The wide range in the height of the males reflects the degree of variation in the lengths of the long-bones in this burial group.

Discontinuous, morphological characters

A summary of the non-metric characters recorded is shown in Table 8. The frequency of metopism (17.2%) is relatively high, but the sample is small ($n = 29$) and the burials concerned are not clustered together, so no conclusions can be drawn about the possible significance of this finding.



Fig. 30. Right and left 1st metatarsal of skeleton 503 compared with a normal metatarsal (right). The bony expansion and multiple scooped-out defects adjacent to the articular surfaces proximally and distally are characteristic of chronic tophaceous gout (see also Figs 31–6).



Fig. 31. 1st and 2nd phalanx of the great toe of skeleton 503 compared with normal phalanges (right).

Anomalies

An interesting range of anomalies is present in this burial group. In one individual (315, grave 194), L5 is sacralized and in another (331, grave 253), an extra lumbar vertebra (L6) is present and partially sacralized. There is slight lateral wedging of L6, which also shows a cleft arch. In this and two other individuals (181, 300; graves 290, 299), the vertebral arch of one of the lower vertebrae is separate from the vertebral centrum. In two adults (181, 315; graves 290, 194), the styloid



Fig. 33. Scooped-out defect in the anterior surface of the right patella of skeleton 503; localized osteitis in the cavity also extends downwards from its lower border.

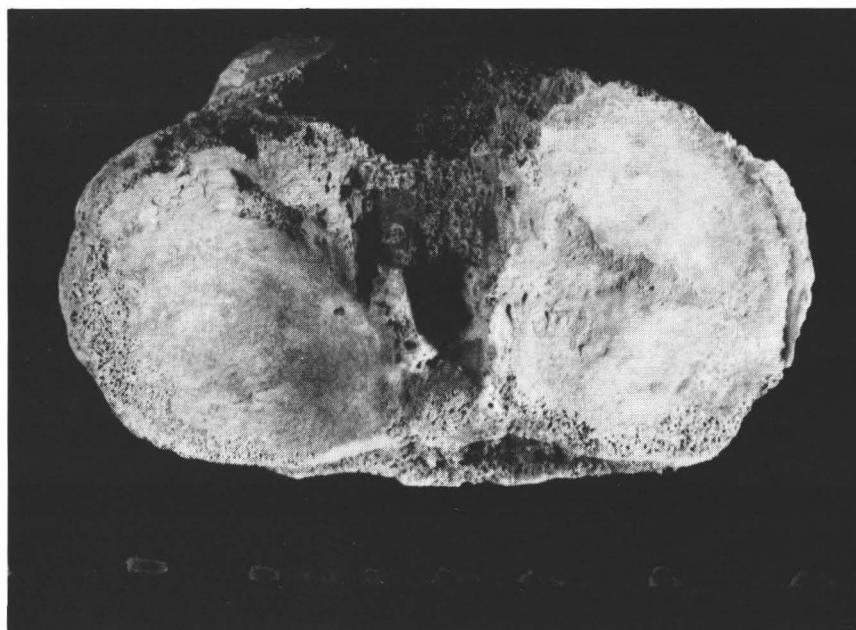


Fig. 32. Left proximal tibia of skeleton 503 showing morphological modification of the anterior intercondyloid fossa.



Fig. 34. Modified distal articulations in the radii and ulnae of skeleton 503.



Fig. 35. Multiple scooped-out defects proximally and distally in the metacarpals of skeleton 503.

process had not united with the distal ulna although otherwise epiphyseal union was complete in the arm bones. The reason for this non-union is uncertain, but perhaps it is an anomaly similar to the *os acromiale*. Henderson notes the presence of accessory ossicles in the navicular bones of one individual (LAG burial 1).

Dental anomalies include rotated incisors in two individuals (182, 259; graves 288, 261) and rotated premolars in four (182, 259, 350, 416; graves 288, 261, 388, 397). A lateral incisor and a canine are misplaced posteriorly and have erupted through the palate in two individuals (respectively 378 and 439; graves 403, 441).

Despite the wide range of anomalies, the frequency of any one anomaly is low. Although some individuals show more than one anomaly, there is no clear pattern in their distribution

between individuals, nor in the spatial distribution of the burials involved, so the significance of these anomalies is uncertain.

Oral pathology

The frequency of oral pathology recorded by the writer in individuals aged 12 years or more is shown in Table 9a; no pathology was recorded in the deciduous dentition of burial 485 (grave 487). In addition to the results in Table 9a, Henderson records that the mandible of burial 1 was edentulous and that burial 2 showed one caries cavity, one abscess site and ante-mortem loss of one tooth.

A total of 22 individuals (62.8% of the sample) show caries cavities, twelve (32.4%) show abscess sites and 29 (76.3%) had lost teeth before death (Table 9b). Alveolar recession was noted in 19 individuals (52.5%).



Fig. 36. Scooped-out defects (lateral view) in the palmar aspect of the distal third of the shaft of two 1st phalanges of the hand of skeleton 503 compared with a normal phalanx (right).

Enamel hypoplasia, probably indicating phases of infection or nutritional deficiency during childhood, was noted in the anterior teeth of 22 individuals (73.3%).

Non-oral pathology (Table 10)

a) Arthropathy

i) Erosive arthropathy

The skeleton of a male aged 35–45 years (503, grave 472) shows changes which are characteristic of chronic gout. Although the bones are rather fragmented and friable, the skeleton is more or less complete and multiple scooped-out defects and overhanging bony projections were noted in the feet (especially in the right 1st metatarsal), hands, wrists and knees (Figs 30–36). The right elbow has been damaged recently but appears to have been involved also.

Typically gout focuses on the small joints of the extremities and particularly on the 1st metatarsophalangeal joint; the feet are usually more severely affected than the hands, and the wrists and the knees are often involved also. Classic sites for the deposition of tophi (recognizable by pressure erosion in dry bone) are the para-articular areas of the hands and feet, the forearm and over the olecranon (Grennan 1984, 117). Tophi may become infected and ulcerated (there are certainly indications, in the form of localized osteitis, that this may have been the case in the wrist, knees and feet of this individual) and in untreated chronic gout, secondary arthritis often occurs. Nowadays nine out of ten patients are male and chronic gouty arthritis in an advanced stage usually affects old individuals (Ortner & Putschar 1981, 415–16). Towards the end of his life, this tall and strongly-built individual must have experienced considerable pain and loss of mobility as the disease progressed.

ii) Arthropathy involving eburnation and grooves on articular surfaces, modification of joint contours and spinal ankylosis (cf. Rogers *et al.* 1987).

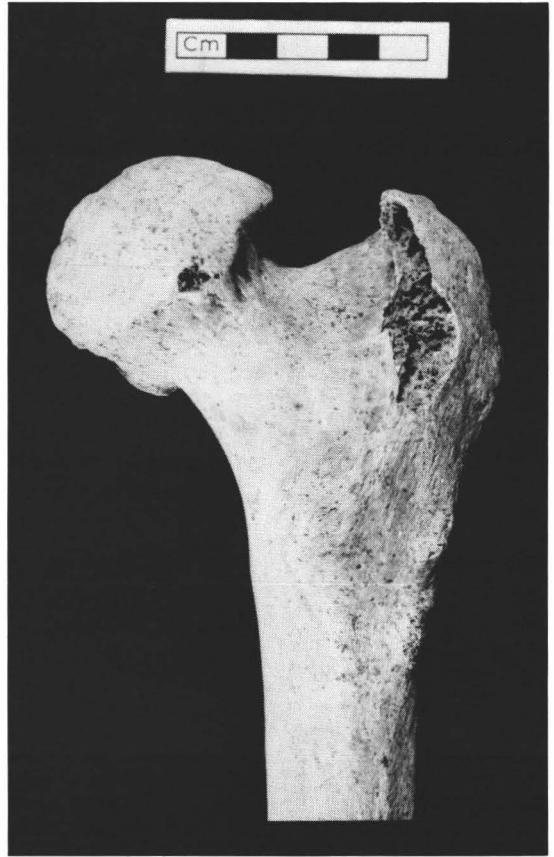


Fig. 37. Posterior view of the right proximal femur of skeleton 481.

Spinal ankylosis was recorded in four individuals (LAG burial 1, 432, 476, 489; graves LAG 1, 446, 478, 491). Henderson suggests DISH, Reiter's syndrome or psoriatic arthropathy as alternative diagnoses of the vertebral ankylosis and soft-tissue ossification observed in burial 1, an elderly male. The spine of burial 432 shows ankylosis and other bony changes (described in the fuller report in the site archive) which are not entirely characteristic of DISH nor of Ankylosing Spondylitis, but their pattern and nature suggest that this is a specific disease rather than age-related changes.

Severe arthropathic changes and grooves were recorded in the intervertebral facets of C2–T8 in burial 543 (grave 545); the centra are poorly preserved but appear not to have been united. Eburnation of joint surfaces was noted in burials 333 (hands), 453 (hips) and 515 (arms, hands, hips and knees) (graves 306, 455, 513 respectively).

iii) Other arthropathy

Bony changes were noted in the right hip (the left hip is normal) of a male aged 17–25 years (481; grave 483). The right femoral head is rather flattened, with an overhanging margin on its anterior aspect (Fig. 37). The surface of the femoral head

is irregular, although it does not show porosity or eburnation. Compared to the left side, the right femoral neck is slightly shorter, but not thicker, the right lesser trochanter is smaller and the right shaft is remodelled and shows modest atrophy. The articular surface of the right acetabulum has a disorganized appearance and a fissure in the iliac portion. Possible alternative diagnoses include Perthes disease, early TB or trauma (e.g. an impact fracture).

b) Schmorl's nodes

Thirty spines were scored for the presence or absence of Schmorl's nodes, which were present in 23 (77%). This somewhat neglected mild pathology, the bony evidence of herniation of the intervertebral disc into the vertebral body during late adolescence or early adulthood, which must represent stress in the intervertebral disc, is commonly seen in archaeological material and deserves fuller study.

c) Trauma

Healed fractures were recorded in the gonial region of a right mandibular ramus (331; grave 253) and a left humerus (521; grave 519), which shows a fracture at the proximal end and an oblique shaft fracture. Morphological anomalies in a right scapula (481; grave 483) are probably related to a healed fracture of the anterior border of the spine or a puncture wound. A left ulna (562; grave 560) shows a mid-shaft fracture which is in the process of healing; a large amount of callus has formed and there is movement still within the fracture zone, involving a false joint where the two pieces of shaft meet. Henderson noted healed fractures in the ribs of LAG burial 1.

Other healed lesions (described in the fuller report in the site archive) which are probably traumatic in origin (and are included in Table 10) were noted in a left temporal crest (181; grave 290) a metatarsal (371; grave 363), two carpals and metacarpals of the right hand (334; grave 332), and several tarsals of the left foot (182; grave 288).

d) Osteitis

Active inflammation at the time of death was recorded in the lower legs of two individuals (182 and 543; graves 288, 545). The lower half of the tibia and fibula shafts show osteitis and minor sub-periosteal deposition of new bone with striations, which are marked in 543.

e) Cribra orbitalia and Osteoporosis

Cribra orbitalia, which is thought to be indicative of a dietary deficiency, was recorded in four individuals (18%) out of 22 scored and supra-orbital osteoporosis in seven individuals (24%) out of 29 scored. One of them (182) showed biparietal osteoporosis also.

Summary

This group of burials, predominantly adult males, while obviously not representative of the medieval population of Lewes as a whole, adds to the data which are accumulating for the medieval monastic houses of Britain. The low frequency of caries cavities and abscess sites in the adult dentition suggests that the individuals in the sample had a relatively unrefined diet (or that they practised good oral hygiene), although a high percentage of them appear to have experienced phases of infection or nutritional deficiency during childhood. A range of skeletal anomalies was recorded, but their distribution and frequency do not indicate likely family relationships in the burial group. Non-oral pathology includes four individuals with ankylosed spines and nine individuals with healed traumatic lesions. Alternative diagnoses are suggested for an arthropathic hip in one individual and active inflammation was noted in the lower legs of two individuals. The most interesting burial is of an individual with chronic tophaceous gout; the skeleton is well-preserved and extensive lesions are visible in the bones of the hands and feet, wrists, ankles and knees and, probably, in the elbow.

Acknowledgements

The excavation by the Field Archaeology Unit in 1985 was funded by English Heritage and East Sussex County Council. Mark Gardiner would like to thank Colin Richards who acted as his assistant during the excavation, Deborah Baldwin and Mark Hinman who helped with the recording of the site, and Charles Luttrell for undertaking the greater part of the planning.

David Gregory wishes to thank members of the Lewes Archaeological Group who gave assistance with the excavation, particularly Anne Kneal and Jean Petrie. He is also grateful to Mike Allen, Mary Ap-Simon, John Dove, Janet D. Henderson, the late Eric Holden and Pat Stevens for their archive reports.

Sue Browne wishes to thank Don Brothwell for discussing some of the pathology of the burials with her.

The 1988–9 excavations were funded by Farmcote Developments Ltd and Lewes District

Council. The assistance and co-operation of Mr J. D. Franks and Mr. N. Henderson of Gamble Cook Partnership and Mr G. Large, Mr G. Pickering and Mr J. Tibbits of Farmcote Developments Ltd is gratefully acknowledged. Joy Thomas kindly undertook the onerous task of cleaning every skeleton.

Miles Russell would like to thank David Rudling, the project manager; Chris Place, Lawrence Pontin and Sabrina Rampersand, his fellow supervisors; Bernhardt le Beau, conservation officer and Jon Wallis for additional conservation work.

Miles Russell and Mark Gardiner both wish to thank David Gregory for his considerable help on site, Ms F. Marsden of the Sussex Archaeological Society, and Mr P. Milmore, Mr C. A. L. Reynolds, Mr P. Smith, Mr D. Walters and Dr A. G. Woodcock of East Sussex County Council, for help with access and facilities during the excavation, and also all the volunteers who helped in the work. East Sussex County Council Archaeology Section assisted with

the watching briefs after the excavations.

Post-excavation work on the excavations undertaken by the Field Archaeology Unit was funded by English Heritage. All the plans and illustrations were prepared by Jane Russell.

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NOTES

- ¹ *The Builder* **19** (1861), 397 (we owe this reference to Dr T. P. Hudson); S. Spokes, 'Reports of local secretaries: Lewes', *Sussex Archaeol. Collect.* **70** (1929), 222.
- ² Excavations unpublished, but notes and photographs in Barbican House library, Lewes.
- ³ E(ast) S(ussex) R(ecord) O(ffice), AMS 5897/61, printed in *Sussex Notes & Queries* **2**, 145–6. For their later sale, see ESRO, SAS/WS 152.
- ⁴ B(ritish) L(ibrary), Add. MSS. 29484, 29489.
- ⁵ ESRO AMS 2187. A modern copy of this misreads the owner as Shelley (W. H. Godfrey, 'The family of Kyme in Lewes', *Sussex Notes & Queries* **2** (1929), 182).
- ⁶ Public Record Office, SC6/HEN VIII/3677, m. 15r.; *Sussex Weekly Advertiser*, 18 July 1803.
- ⁷ Godfrey, *op. cit.*; W. H. Challen, 'Kyme family of Lewes', *Sussex Archaeol. Collect.* **100** (1962), 129.

The finds and site archive have been deposited in Barbican House, Lewes with the accession numbers 1986.4, 1986.7 and 1989.6.

The society is grateful to English Heritage for a grant towards the cost of publication.

- ⁸ ESRO, AMS 5720.
- ⁹ Sussex Archaeol. Soc. Library, Thomas Woolgar, Spicilegia **2**, 248–9.
- ¹⁰ *Sussex Weekly Advertiser*, 18 July 1803; ESRO, AMS 5569/25.
- ¹¹ ESRO, AMS 5720; W. H. Godfrey (ed.), *The Book of John Rowe* (Sussex Rec. Soc. **34** (1928)), 124.
- ¹² *Sussex Weekly Advertiser*, 5 April 1819.
- ¹³ Sussex Archaeol. Soc. Library, Spicilegia **1**, 533.
- ¹⁴ G. Mantell, *A Day's Ramble in Lewes* (1846), 24.
- ¹⁵ W. Figg, 'Some memorials of old Lewes', *Sussex Archaeol. Collect.* **13** (1861), 34.
- ¹⁶ ESRO, SAS/FIG 25.
- ¹⁷ BL, Add. MS. 5677, f. 2; Sussex Archaeological Society, picture no. 3513; T. W. Horsfield, *The History and Antiquities of Lewes and its Vicinity* (1824) **1**, opp. 283. Lewes.
- ¹⁸ We are grateful to Rob Scaife and Paul Burrin who visited the site in 1985 and advised on this point.

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