

EXCAVATIONS AT FULL STREET, DERBY, 1972

BY RICHARD HALL

(Archaeology Department, Southampton University)

WITH A REPORT ON THE POTTERY BY GLYN COPPACK

(Inspectorate of Ancient Monuments)

Summary

Investigation of an area of 480 square metres on the south-west corner of Full Street, Derby, revealed a complex of pits, dating from the later eleventh century onwards, and a stone-lined well of c. 1500. Excavation of these produced a good series of medieval and post-medieval pottery, and other small finds, including a ring-headed pin and a bronze bowl. Damp conditions encountered during the excavation of the well allowed the survival of organic remains, including wood, leather, and textile. Only one tenuous indication of a building, or, more probably, a property division, was encountered, although other, more tangible, evidence was observed in the vicinity.

INTRODUCTION

The excavation, referred to in all site records as Full St. 72, was concerned with an area of 20 by 24 metres on the corner of Full Street, Derby, where it runs in to the Market Square (Grid ref. SK 3532 3640). Demolition in advance of construction of the new Civic Centre left the site clear, and at the instigation of the staff of Derby Museum, and with the collaboration of members of the Borough Architect's Department, a preliminary three-week investigation was undertaken by the author during June 1972. This involved the mechanical digging of three trenches, and demonstrated the existence of a fairly high density of medieval pits which yielded a quantity of pottery.

In view of this, as well as the paucity of previous excavation within the core of the medieval town (Fig. 1; Heighway 1972, 68), it was decided to initiate the excavation of an open area in the hope of extending the pottery sequence, finding traces of the structures to which the pits related, and determining whether any traces of Saxon or Viking occupation were present. A six-week season was therefore undertaken during July and August 1972, financed by Derby Corporation through Derby Museum, and with an average of ten volunteers per week on the site. The first week was spent mainly in mechanical clearance, leaving five weeks' true excavation. At the time of writing the site is being destroyed in the course of building operations. Site records and finds from the excavation are deposited with Derby Museum.

ACKNOWLEDGMENTS

I should like to record with gratitude the assistance received throughout from the staff of Derby Museum, particularly from Mr. B. P. Blake, Curator, and Mr. R. G. Hughes, Deputy Curator; from the Borough Architect's Department, particularly Mr. R. Wyatt, and Mr. A. Earp who surveyed the site; from the Borough Engineer's Department, whose staff shored up the well; and from the Highways Department, who arranged for the site to be sprayed during the prolonged dry weather. My thanks for their hard work to Miss Helen Nicholson, who acted as site assistant, and to all those members of the Derbyshire Archaeological Society and students who volunteered their services, notably Messrs. P. Brady, J. Earp, R. Harrison, and B. Williams, who spent long periods on the site. Mr. Brady's assistance was especially valuable. I should also like to express thanks to the specialists who have either contributed reports or discussed specific details of the excavation. My final debt is to Mr. Nick Bradford of the Conservation Laboratory, Southampton University, for his painstaking reconstruction of the bronze bowl.

THE SITE

Before demolition, shops and offices stood on the site, with a car park behind. The street is first mentioned in the cartulary of Darley Abbey, in the reign of Henry III, as 'le Fullestrete'. A more revealing form of the name appears in the cartulary of Tutbury Priory (1326) where it is called 'le Foulestrete'. The name appears to mean 'dirty street', probably because of its situation near the river, where it may have been liable to flooding. On the evidence of the surviving early forms, it cannot be the 'vico Fullonum', the area inhabited by the community of cloth fullers, mentioned in the Darley Cartulary (Cameron 1959, 448).



Fig. 1 Plan of central Derby showing excavation sites: 1 Full Street; 2 St. Alkmund's; 3 Cockpit Hill.

John Speed's early 17th century plan of the town shows that the area recently occupied by the car park was then open ground behind the houses, and succeeding plans show that this particular area remained open, although other spaces behind the street facade were gradually encroached upon. The preliminary investigations demonstrated that almost the entire area had been disturbed in its upper levels over the last century, and

in view of the limited time available, it was decided to remove these levels mechanically. The depth to which the soil was removed varied from 50 cm. to 1 m., the greater depth being taken from the north-west corner of the site, where disturbance went deeper. There was a natural slope, containing a drop of approximately 1 m., from the north-west to the south-east. This effectively removed all the overburden, exposing the yellow, sandy alluvium below. The Geological Survey (Sheet 125) shows that the site lies over the junction of the alluvium, deposited by the River Derwent, with Keuper Marl, but during the excavation the Marl was only encountered as thin streaks running through the alluvium. The area chosen for excavation was that on which disturbance by cellars,

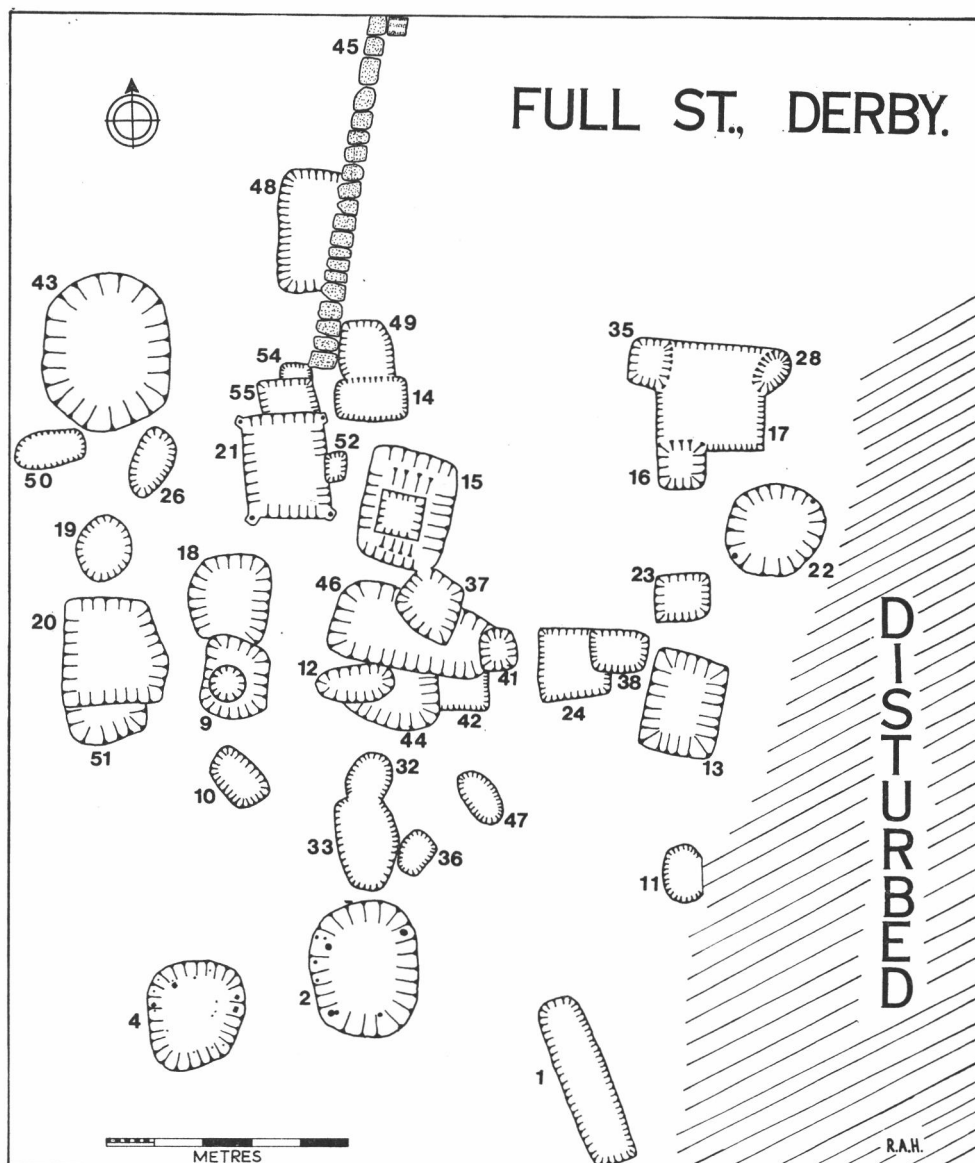


Fig. 2 Full Street, Derby: site plan.

foundations and utility trenches was minimal. The following features were excavated. Where dimensions varied, those given are the maximum. Numbers missing from the sequence below are those given to features caused by modern disturbance, or those which on examination proved to be of natural origin.

DESCRIPTIONS OF FEATURES

- 1 Rectangular trench, 3.65 m × 80 cm – 1 m × 50–60 cm. The south end markedly more squarely cut than the north, and the sides near vertical. A wedge of light grey clay sealed a filling of dark, sandy clay, which in places contained numerous twigs lying horizontally, and thicker vertical stakes, suggesting that there may originally have been a continuous lining; pottery content suggests a date in the mid-14th century.
- 2 Approximately circular cess pit, diameter 2.2–2.8 m, depth 90 cm, sides covered with a hard layer of green staining 2 mm thick. A 45 cm thick upper layer of dark, sandy silt sealed a sequence of organic deposits ranging in colour from light brown to blue-black, and containing much decayed vegetation. At the base, a 5 cm thick deposit of seeds (see p. 43) sealed a layer of clay stained silver-blue. Similarly coloured layers were encountered in several other cess pits, and may be interpreted as the result of small quantities of vegetable matter subjected to anaerobic conditions. Evidence for a circle of thin stakes revetting the sides was found, and in the bottom, the remains of three posts of 10 cm diameter were uncovered. These may have also served to stabilize the sides, or alternatively supported a seat over the pit. The few sherds from the pit suggest a date in the later 12th century.
- 4 As 2, diameter 2.2–4 m, depth 80 cm. Evidence for stakes and posts was again recovered, this time the posts being 10 cm square. The little pottery recovered suggested a date in the late 13th century.
- 9 Sub-rectangular pit, 1.7 × 1.3 m. At a depth of approximately 90 cm, an unlined circular shaft descended for at least another metre; excavation beyond this depth was impossible due to the rising water table. Mid-late-16th-century date.
- 10 Sub-rectangular pit, 1.25 m × 84 cm × 70 cm, filled with dark sandy soil containing a large quantity of charcoal fragments, and with a layer of lime green clay 2–3 cm thick at the base. The complete cooking pot FS 72 356 was found standing upright with the remains of the two jugs FS 72 361 and 362 lying horizontally beside it. They, and the other pottery, suggest a date in the late 14th century.
- 11 Oval pit, 1.15 m × 84 cm × 35 cm. Fill of dark sandy clay containing charcoal flecks, with a thin wedge of brown organic material at the base. Modern disturbance has removed the easternmost third. Dated to the early 14th century.
- 12 Oval pit, 80 × 40 × 85 cm, with steeply sloping sides, cut in to the complex of medieval pits including numbers 44 and 46. Filled with coarse dirty clay with a high density of charcoal, and dated to the 17th century.
- 13 Rectangular pit with rounded corners, very regularly cut, 2.1 × 1.6 m × 75 cm. Fill of dirty sandy clay over layers of brown organic material. Pottery suggests a date in the early 13th century.
- 14 Shallow rectangular pit, 1.44 m × 90 × 14 cm, filled with ash, and dated c. 1760–80.
- 15 Stone-lined well with robber pit above; this measures 2.5 × 2.1 m on the surface, but at depths of 80 cm and 1 m offsets decrease its dimensions to 1.6 × 2.1 m. The uppermost surviving stone from the 80 cm square shaft was found 1.7 m from the surface, sealed by a thin layer of redeposited Keuper marl. Above this the fill consisted of mixed earth and charcoal, interspersed with tip lines of pure charcoal and broken tile. The shaft descended to a maximum depth of 3.72 m. From the Keuper marl to within 20 cm of the bottom the fill was of silty clay; the final 20 cm was silt. The wooden bowl (FS 72 4843), cloth fragments (4842), leather remains (4851–53), clay ball (4849) and pottery fragments, including the storage jar and stoneware jug (4840 and 4847) were all recovered from the silt, which would therefore seem to belong to the period of the well's initial use. The silty clay above was sterile, apart from the skeleton of a dog and a few tile fragments; in view of the lack of domestic refuse it would appear that the dog fell in accidentally rather than its carcass being disposed of here on purpose, and the layer seems to represent a period when the well was simply left to silt up. This was followed by the robbing of the stonework in the upper levels, and the filling of the robber pit with domestic refuse. It may be that the tip of broken tiles is the remains of a structure originally covering the well, which had already fallen into disrepair when the well was abandoned (viz. the tile fragments in the silty clay) and which was dismantled during the robbing; however, no evidence for any superstructure was recovered from around the well. The pottery from both the silt and the upper fill suggests that the well had a short period of use in the later 15th–early 16th century. (Fig. 3)
- 16 Small square pit, 1 × 1 m × 57 cm, its north edge removed by feature 17.

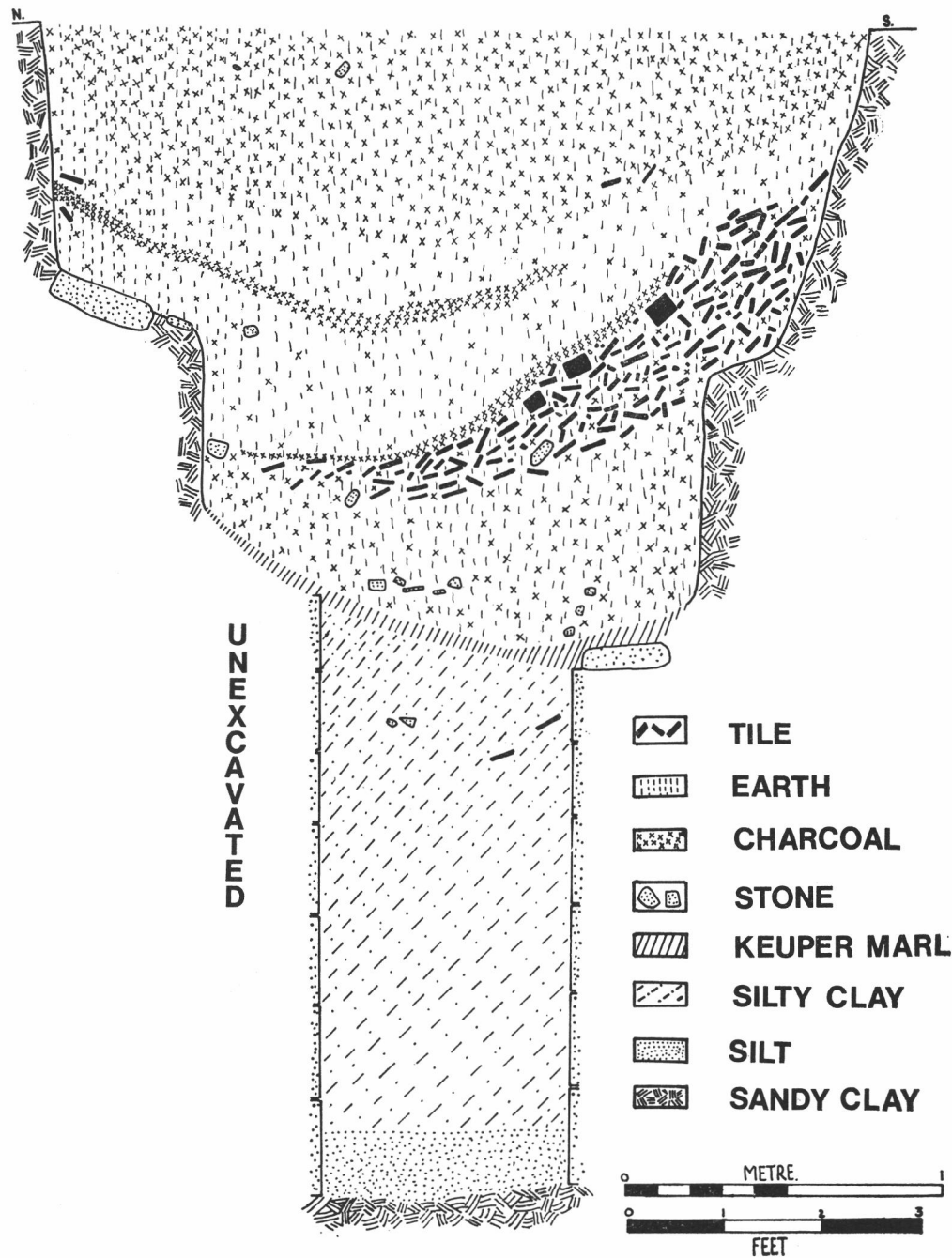


Fig. 3 Full Street, Derby: section of the well, feature 15.

- 17 Fill of consolidated grey ash and charcoal, with some cassy material at the bottom. Dated to the 16th century.
- 17 Square, shallow pit, $2.25 \times 2.25 \text{ m} \times 45 \text{ cm}$, and cutting features 16, 28 and 35. Fill of charcoal and mortar flecks in dirty grey clay. Dated to the later 18th century.
- 18 Irregularly shaped pit, $1.8 \times 1.7 \text{ m} \times 90 \text{ cm}$, cut to the south by feature 9. The bottom 50 cm was filled with grey ash containing charcoal flecks and pebbles, above which was a 15 cm thick wedge of rust-coloured sand and pebbles sandwiched between thin spreads of charcoal. The upper fill was similar to that at the base. Dated to the last quarter of the 13th century.
- 19 Shallow oval depression, $1.3 \times 1.15 \text{ m}$, with its sides sloping gently to a maximum depth of 20 cm. Fill of dirty yellow/grey clay with a layer of small stones on the surface. Dated to the 13th century.
- 20 Irregular polygonal pit cutting feature 51, $2.3 \times 2.1 \text{ m}$, the sides sloping steeply to a depth of 1.2 m. Fill of series of tip lines of ashy clay, charcoal and burnt clay. Dated to the last years of the 13th century by the imported pottery found in the fill.
- 21 Rectangular pit, $2.2 \times 1.7 \text{ m} \times 65 \text{ cm}$, with nearly vertical sides. A small square post-hole protruded diagonally from each corner, the posts themselves being circular, with a diameter of 10 cm. The pit was the latest in a sequence of three, the others being 54 and 55. The fill was of ash, soil and charcoal; the feature dates to the later 12th century.
- 22 Approximately circular pit, diameter 2 m, with vertical sides, and a depth of 95 cm. Fill of layers of cess and grey, ashy clay. Dated to the early 12th century. The remains of two diametrically opposed posts, of diameter 15 and 10 cm, were found in the bottom.
- 23 Small rectangular pit, $1.16 \text{ m} \times 96 \text{ cm}$, the vertical sides curving in at the bottom to a maximum depth of 55 cm. A 3 cm thick layer of cess at the bottom was covered by ash, charcoal and earth. Dated to the late 15th century.
- 24 A trapezoidal pit, $1.6 \times 1.5 \text{ m}$, the steeply sloping sides curving in at the bottom to a maximum depth of 40 cm. The north-east corner had been disturbed by feature 38. The fill was of dirty grey clay with occasional charcoal flecks and some small pebbles; the bronze bowl (FS 72 4841) was found near the base of the pit. Dated to the early 13th century.
- 26 Sub-oval pit, $1.46 \text{ m} \times 80 \times 53 \text{ cm}$. Fill of dark grey clay and charcoal. Dated to the last quarter of the 13th century.
- 28 Small oval pit $1.2 \text{ m} \times 70 \text{ cm}$, but almost completely cut away by feature 17, and with only 10 cm surviving below its base. Fill of dirty clay and charcoal, and dated to the late 12th century.
- 32 Small, shallow, oval pit, $1.1 \text{ m} \times 90 \text{ cm}$, sides sloping gently to a depth of 15 cm. The fill of dirty grey clay with charcoal flecks was similar to that of 33, which it adjoined, and it could not be determined which was earlier. Dated to the late 12th-early 13th century.
- 33 Large sub-oval pit, $2 \times 1.3 \text{ m}$, the east side sloping gently, the other more steeply to a maximum depth of 40 cm. Fill as 32, dated to the early 12th century.
- 35 Rectangular pit, $1 \text{ m} \times 80 \times 37 \text{ cm}$. The eastern part cut away by feature 17, and the fill of charcoal.
- 36 Small, irregular pit, $90 \times 70 \times 20 \text{ cm}$. Fill of grey clay with charcoal flecks. Dated to the later 11th century.
- 37 Trapezoidal pit, $1.4 \times 1.3 \text{ m} \times 85 \text{ cm}$, with steeply sloping sides. At the base, a 25 cm thick layer of rust-coloured clay was covered by a 45 cm thick layer of grey ashy clay with charcoal. Above this was an orange-brown sandy clay containing pebbles. The pit just cut the south-east corner of feature 15; the pottery suggests a date in the early 15th century.
- 38 Small, sub-rectangular pit, $1.2 \text{ m} \times 90 \times 50 \text{ cm}$, with vertical sides. A 15 cm thick layer of grey clay at the base was covered by a 5 cm thick wedge of cess, over which there was more clay. Dated c. 1600.
- 41 Rectangular pit, $90 \times 70 \times 50 \text{ cm}$, with steeply sloping sides. The majority of the fill consisted of light grey clay with charcoal, but just above the base there was a 15 cm thick layer of almost pure charcoal. Large stones covered the top of the pit, which had removed part of the east end of feature 46. Dated to within the early 16th century.
- 42 Shallow pit, originally either square or rectangular, but largely removed by features 41, 44 and 46. The surviving depth of 5 cm was filled with dirty clay. Dated to the early 13th century.
- 43 Very large oval pit, $3.3 \times 2.6 \times 1.25 \text{ m}$, with steeply sloping sides. Fill of a series of layers of grey clay, sometimes containing charcoal, dirty yellow clay which had either slumped or been thrown in from the sides, and brown cassy material. Dated to the late 12th century.
- 44 Pit of indeterminate shape, being cut by features 12 and 46, and itself cutting 42. The sides slope steeply to a depth of 1.1 m. Fill of dirty grey clay. Dated to the early 13th century.

- 45 Line of stone slabs running diagonally across the north part of the site for a distance of 7 m. The slabs, mostly approximately rectangular, were set in a shallow trench, but there was no trace of a second course at any point, or of any return, except at the north end where the worked fragment (FS 72 4846) was set to the east of the last excavated stone. The stones could not be traced further north due to the encroachment of the foundations of a row of three modern cottages. As regards date, the feature must be later than 48, which it overlies, and 49 appears to have been cut up against it (see below p. 76).
- 46 Large sub-rectangular pit, $3.3 \times 1.6 \times 1.1$ m, with steeply sloping sides. Fill of grey/blue clay with thin wedges of brown cassy material; at the top was a 45 cm thick layer of small pebbles. The pit cuts features 42 and 44, and is cut by 37 and 41. Dated to the early 13th century.
- 47 Small sub-oval pit, $1.2 \text{ m} \times 70 \text{ cm}$, with steeply sloping sides curving in at the bottom to a maximum depth of 45 cm. Fill of dark grey and dirty yellow clay with pebbles. Dated to the early 12th century.
- 48 Large rectangular pit, $2.6 \times 1.2 \text{ m} \times 55 \text{ cm}$, with steeply sloping sides. Fill of alternate layers of grey clay and brown cess. Date in the late 12th century.
- 49 Sub-rectangular pit, $1.3 \times 1.1 \text{ m} \times 40 \text{ cm}$. A 3 cm thick spread of lime-green clay at the bottom was covered by grey, ashy clay with charcoal flecks. The south end had been removed by feature 14, and the western edge was delimited by 45.
- 50 Shallow, sub-oval pit, $1.5 \text{ m} \times 75 \text{ cm}$, with sides sloping gently to a maximum depth of 10 cm. Fill of dirty yellow clay. Undated.
- 51 Pit with near vertical sides and a maximum depth of 1.4 m, but largely cut away by feature 20. The fill of alternate layers of light grey and lime-green clay preserved the post-hole for a timber 12 cm square inserted near one edge. Dated to the end of the third quarter of the 13th century.
- 52 Small, rectangular pit, $60 \times 40 \times 25 \text{ cm}$, with vertical sides. Fill of dirty clay.
- 54 Pit, originally square or rectangular, but largely destroyed by 55. Fill of grey clay. Dated to the mid-13th century.
- 55 Pit, originally square or rectangular, but largely destroyed by 21. Fill of dirty grey clay. Dated to the mid-12th century.

THE FINDS

WORKED STONE

- 1 Block of sandstone, originally a cube of 40 cm, but now broken on one face. The interior has been hollowed out, the concavity being square in section at the base, and ending in a dome shape. The top is unworked, but each of the remaining sides has two shallow grooves, in each case approximately 9 cm wide and 2 cm deep, running from top to bottom. It was found lying adjacent to the northernmost block of stone in feature 45, with one of the grooved sides uppermost. FS 72 4846 (Fig. 4, no. 1)

FIRED CLAY

- 2 Approximately spherical fired clay ball, diameter 4.3 cm, decorated around its circumference with a series of irregularly applied fingernail impressions. It is extremely battered, and has been chipped at one point. It seems to serve no functional purpose, and may have been made and used simply for amusement. Found in the silt at the bottom of the well, feature 15, and thus probably made in the second half of the 15th century. FS 72 4849 (Fig. 5, no. 2)

IRON

- 3 Small bill-hook, its stem quite badly corroded above the blade, and with concretions on both the stem and the tip of the blade. Length 9 cm, width of blade 4.7 cm. Found near the base of feature 43, and thus dated not later than the late 12th century. FS 72 4850 (Fig. 5, no. 3)
- 4 Pot-hanger, measuring $19.5 \times 2.35 \text{ cm} \times 8 \text{ mm}$, and quite badly corroded. Found amongst the debris filling the robber pit of feature 15, the well. It is tempting to see this object as being part of the equipment belonging to the well, but its context does not prove this, and it could equally well have been used in the kitchen. Dated from the pottery to c. 1500. FS 72 4781. Fig. 5, no. 4.
- 5 Key, with kidney shaped bow and plain stem thickening above the symmetrical bit. The bow is broken and the whole object badly corroded. Found in feature 23, and thus dating to c. 1500. FS 72 1182. Fig. 5, no. 5.
- 6 Hinge, heavily concreted, and shown by X-ray to be broken. From the top layer of feature 15, and thus of early 16th-century date. FS 72 4780. Fig. 5, no. 6.

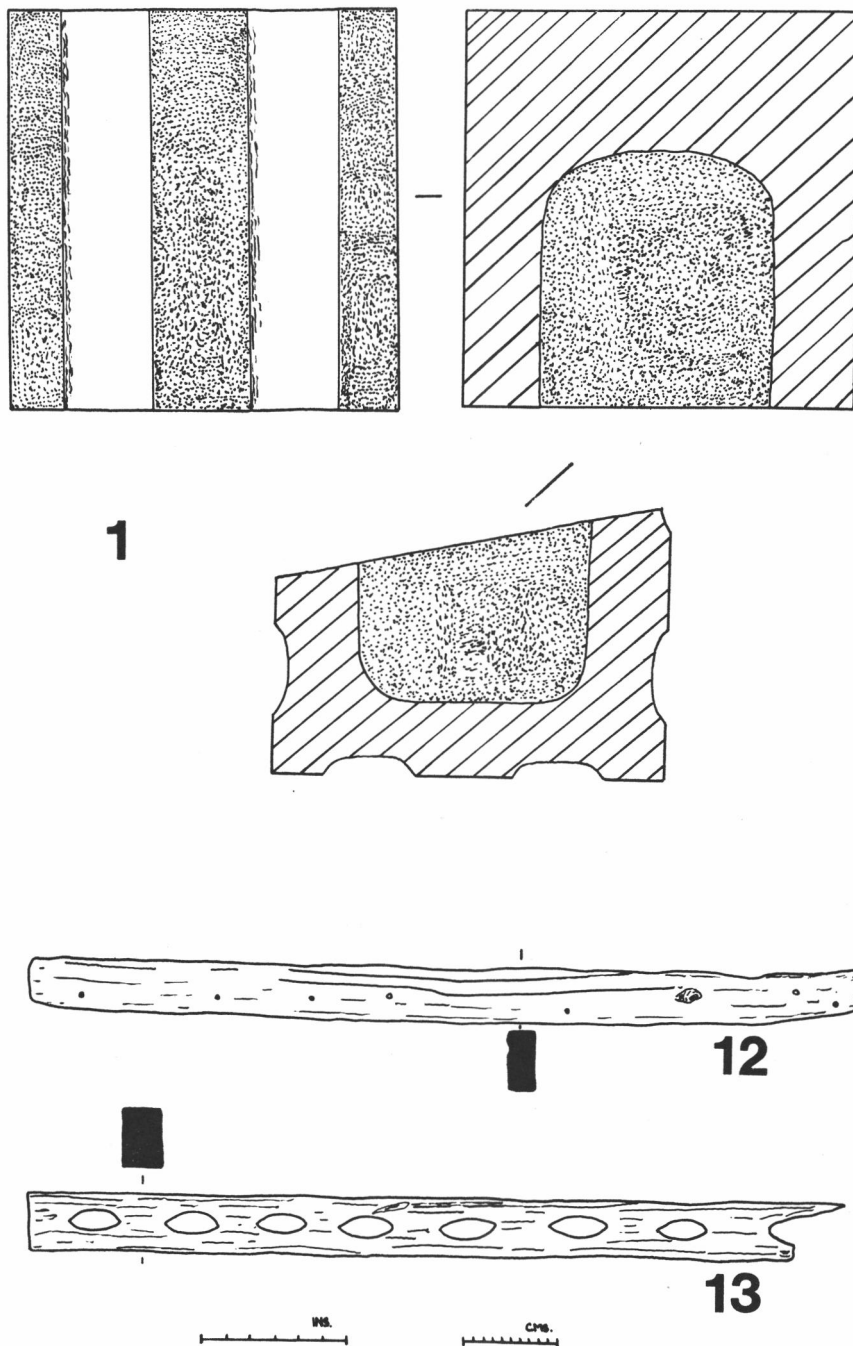


Fig. 4 Full Street, Derby: objects of stone and wood.



Fig. 5 Full Street, Derby: objects of metal, wood, bone and fired clay.

BRONZE

- 7 Ring-headed pin, missing its ring, and with its patination slightly chipped in places. The head is decorated on both sides with two rows of three dots, rather irregularly placed. Pins with heads of this type are found in Ireland in contexts ranging from the 9th to 12th centuries; e.g. at the royal crannog of Lagore in Co. Meath (Hencken 1950, 72–73), at Ballinderry Crannog No. 1, Co. Westmeath (Hencken 1936, 145) and at the rath at Lissue, Co. Antrim (Bersu 1947, 50 and Fig. 10, no. 1). Recently an example has been recovered from the High Street site in Dublin, and this is the only one known which has glass insets as decoration. Examples are also recorded from York, which had particularly close contacts with Dublin during almost one hundred years of Viking domination in the ninth and tenth centuries (Waterman 1959, 78–79 and Fig. 11, nos. 13 and 14). The present example was found in feature 21, which is of late 12th century date, and this in addition to the somewhat earlier contexts referred to above, suggest that it was perhaps a century old when buried. FS 72 2568. Fig. 5, no. 7.
- 8 Ring, made from three interwoven strands of bronze wire, making a slightly irregular circle with an internal diameter of 1–2 cm. One end is clean cut, as if the original terminal; the other has a ragged break. Thickness 2 mm. Found near the top of feature 43, and dated before the later 12th century. FS 72 2569. Fig. 5, no. 8.
- 9 Disc or plaque, badly corroded and partly missing. The outer zone is 1 cm wide, and contains two nail or rivet holes, which were probably originally diametrically opposed, and allowed attachment to a backing which has perished. This zone is contained within two small *répoussé* ridges, the outer of which is decorated by groups of shallow transverse grooves. Diameter 8.5 cm. Found in feature 11, and thus dated c. 1400. FS 72 1637. Fig. 5, no. 9.
- 10 Bowl, severely corroded and with several large fragments missing. It has a narrow everted rim which is on average 1 cm wide; from rim tip to rim tip the average diameter is 30.5 cm, although this varies due to distortion. The rim is the thickest part of the vessel, averaging 2.5 mm thick, but corrosion on the body has reduced that to only 1 mm in places. One side of the bowl has been patched, a sub-rectangular piece 10.5 cm long being applied to the interior. To either side of the break the original rim has been pierced from below, and the patch has been correspondingly pierced, although there is now no trace of the rivets which originally held this upper part of the patch. Lower down, small sub-rectangular bumps are visible along the edges of the patch; under X-ray these are revealed as a series of staples, averaging 8×6 mm, with wedge shaped ends, which were inserted from the outside through pairs of overlapping slits in the bowl and patch, and then bent over to secure the join (Fig. 6, lowest). The trouble gone to in effecting this repair demonstrates the value of metal vessels, which would be expensive to replace, and repair work of a similar nature can be seen on a bowl from Kings Lynn, Norfolk, mentioned below, while Grieg (1967, Fig. 2) illustrates a further example.

The only other distinctive feature is a small circular hole, diameter 3 mm, in the centre of the rim nearly opposite the patch. Although it is possible that another hole was removed when the patch was inserted, a minimum of three would be necessary for suspension during use, and consequently it can only be suggested that a single hole may have been for suspension during storage, although no wear marks are visible under X-ray.

Mr. David Leigh, of the Conservation Laboratory at Southampton University, has contributed the following note on analysis of the bowl:

"A small fragment that could not be used for the reconstruction was mounted for metallographic examination and for analysis by an electron probe microanalyser. The analysis, by Mr. K. Tabeshfar, of the Department of Mechanical Engineering, Southampton University, showed a composition of copper alloyed with 12% tin, 5% iron, and small traces of manganese and zinc, a standard bronze having an unusually high iron content.

The metallographic section, showing as it did a highly twinned structure, revealed a very heavily worked metal indicating repeated heating and annealing to produce the extremely thin metal of the bowl, particularly round the curve at the junction of the base and side. The high iron content, causing brittleness, and the extreme thinness of the metal in places, have no doubt given rise to the fractures which the bowl suffered in antiquity, necessitating the repair patch. The bowl had been beaten out from a flat disc of metal which itself may have already been beaten out from a somewhat thicker ingot or casting. It is noticeable however that the bowl displays no signs of the pitting that might be expected at the basal and rim curves, either visually or X-radiographically, thus again attesting to the very high degree of working the bowl must have received."

The bowl was found resting upright near the base of feature 24, the pottery from which shows that it was open during the early 13th century. It is difficult to estimate the probable life span of such an object, but up to 50 years would not be impossible, depending, of course, on the uses it was put to. Undecorated bronze bowls of comparable date are rarely found, corrosion and the melting pot presumably being the major factors limiting their chance of survival. This is in contrast to decorated bowls, where artistic considerations more frequently ensured their preservation (Dalton 1922; Grieg 1967). Only three comparable examples from England are known to the writer—two from Canon Street, London, found in the early 19th century, and without an archaeological context

(British Museum 54, 11–30, 38 and 39) and a rim fragment from Bodiam Castle, Sussex, excavated in association with late 13th–early 14th century pottery (Med. Arch. 1962–63). Plain copper bowls are also found; there is, for example, an as yet unpublished example found without context during building work in King's Lynn, Norfolk. (I am grateful to Miss J. E. S. Robertson of the Battle and District Historical Society for information on the Bodiam example, and to Miss A. S. Mottram, Curator of King's Lynn Museum and Art Gallery concerning that from King's Lynn.)

All these conform to approximately the same pattern, and have counterparts throughout Europe; Grieg (1967, 49–51) illustrates two comparable examples from Norway, and suggests that the earliest decorated examples were produced in monastic workshops in the Rhine–Maas area in the first half of the 12th century. The widespread distribution throughout both east and west Europe and Scandinavia may be due to the activities of the Hanseatic traders, and Grieg further suggests that some bowls may have been manufactured in England by the Flemish merchant colony resident in London in the 13th century. However, the skill demonstrated in the repair work suggests that local craftsmen may have been more competent than is usually thought. FS 72 4841. Fig. 6, no. 10.

Wood

- 11 Two fragments of a bowl, identified by Dr. F. A. Bisby of the Botany Department, Southampton University, as being of Ash (*Fraxinus excelsior* L.). The larger fragment consists of the base and part of the side, the smaller being part of the rim. The vessel, which has gently sloping sides, thickens gradually from its bevelled rim towards the base. Diameter at base 5 cm, height 5 cm. Despite their rare survival, wooden vessels such as this must have been common in the medieval household, and their simple form altered little over the centuries; compare those from a 14th-century context in London (Dunning 1937, 418 and Fig. 2). A very similar example (un-numbered), now in the Castle Museum, Nottingham, was allegedly found in the walls of Dale Abbey, near Derby. The present example came from the silt at the bottom of the well, feature 15, and is thus dated c. 1500. FS 72 4843. Fig. 5, no. 11.
- 12 Thin beam of oak (*Quercus robur*) measuring $85 \times 6 \times 4$ cm, with oval holes averaging 6×3 cm every 5 cm up its length. One end is broken. Found near the base of feature 15, and possibly, along with number 13, part of the well's equipment. FS 72 4784. Fig. 1, no. 12.
- 13 Thin beam of oak (*Quercus robur*) measuring $87.5 \times 6 \times 3$ cm, with nails or nail holes spaced irregularly along its length. The nails protrude only a few millimetres at the other side of the beam, and in all cases except one, which is badly corroded, their heads are missing. A shallow groove along one face is probably natural. Found with number 12 at the base of the well. FS 72 4845. Fig. 1, no. 13.

TEXTILE by John W. Hedges, Department of Archaeology, Southampton University

Two small fragments of textile were found in the silt at the base of feature 15, and thus dated c. 1500. The two pieces of textile, which are merely torn scraps without edges, found in close proximity, are so similar in all respects that there can be little doubt that they both belonged to the same piece of cloth. Their preservation can be attributed to the constantly damp, possibly acidic conditions in the well, as such a micro-environment deters the bacteria normally responsible for decay.

Both fragments are rather coarse plain weave with approximately seven 'S' spun yarns to the centimetre in one direction and six in the other. (The number of yarns per unit length in each system (the count) is intended to give an indication of the coarseness of the textile. The direction of spin is conventionally represented by an 'S' or 'Z' as the fibres in the yarn may slant from left to right or vice versa like the middle stroke of these letters.) The spinning is somewhat variable, although quite competent, and there are two possible weaving errors. On the smaller piece two yarns, instead of one, pass together across its width. The same phenomenon was noticed on the larger piece except that the fault extended as far as a tear and no further. In both cases the doubled yarns are in the system with the marginally lower count. Such doubling is difficult to interpret as it may be caused by a number of things including an error made in separating the sheds while heddlng, or two wefts being accidentally put through the same shed. The doubled yarn in the larger piece might have yielded some information were it not for the fact that its disappearance coincides with a gap in the fabric. It is possible that the mistake, caused in either of the fashions mentioned above, was noticed by the weaver and rectified. Alternatively it could be seen as the joining point between two bobbins of weft, particularly as the yarns seem twisted together. There is no evidence to suggest that the cloth was finished in any way after leaving the loom; the nap has not been raised and such matting of the yarns as there is could have been caused by wear as easily as by fulling.

The fibres are in such good condition that all the characteristic features, including the scale pattern, could be seen under the microscope. Sparse pigment granules were present but not in sufficient numbers to explain the brown colour of the textiles—this can be better attributed to the conditions under which they were found, or possibly to dyeing. (Two fibres were noticed with a blue/black accretion on their surfaces but this could easily have been caused by contamination.)

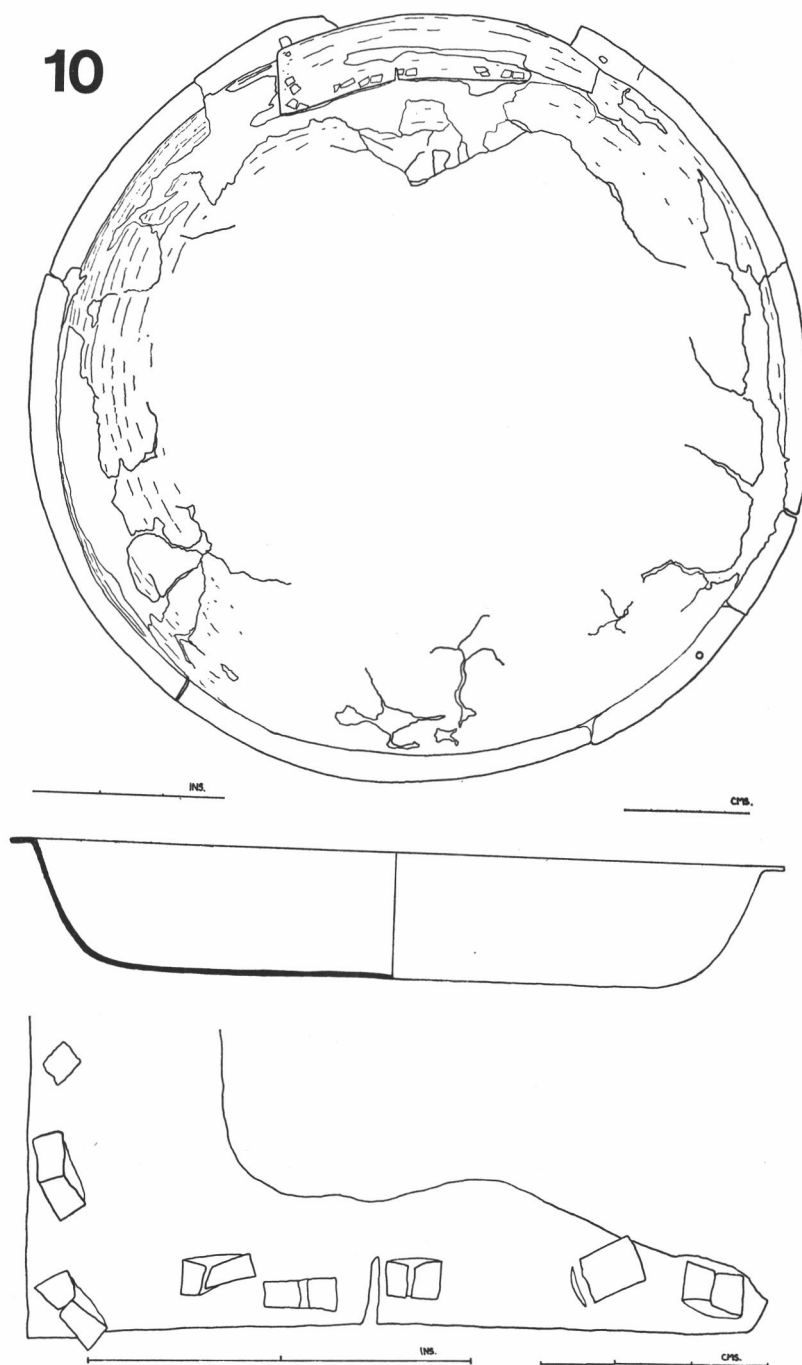


Fig. 6 Full Street, Derby: bronze bowl.

Although it was not possible, due to lack of equipment, to investigate the fleece type by the method used by Ryder (1969), it can be said that the sample studied came from a 'non-primitive' breed, as there are no coarse fibres and only one or two medullated ones.

Textiles of this date have been found on other sites, but are still being studied and published. (The textiles from C. Platt's excavations at Southampton and M. Biddle's at Winchester have been studied by Miss E. Crowfoot, while the fibres have been analysed by M. L. Ryder and J. W. Hedges. Recent textile finds from Exeter and Southampton are at present being studied by J. W. Hedges.) Mention of parallels for the two pieces described here would be therefore premature.

WORKED BONE

- 14 Spindle whorl, slightly encrusted with organic remains made from the proximal epiphysis of a femur, which has been fairly cleanly cut from its parent bone and then had a hole of 1 cm diameter bored through it. Diameter 3.9 cm, height 2.25 cm. Found in feature 21, and thus of pre-late 12th century date. FS 72 2560. Fig. 5, no. 14.

ANIMAL BONE by S. J. Patrick, B.Sc., Keeper of Natural History, Derby Museum, and M. F. Stanley, Assistant Keeper of Natural History, Derby Museum

The figures below tabulate the incidence of animal remains by species, within the framework of the chronology established by assessment of the ceramics. Groups of remains of comparable date have been tabulated together; in each group details are given of the total number of bone fragments recovered, the number of these that are identifiable by species, and the number of bones of each species. This number is expressed as a percentage of the total identified from the group as a whole, and an indication is given of the minimum number of animals needed to account for the bones present.

Early 12th century

Features 47, 33, 22

Total fragments	..	303	<i>per cent</i>		
Identified	..	216	71.2		
Ox	..	69	31.89	(2)	
Horse	..	3	1.38	(1)	
Pig	..	11	5.09	(5)	
Sheep	..	31	14.35	(2)	
Goat	..	2	0.92	(2)	
Sheep/Goat	..	77	35.64	(2)	
Chicken	..	21	9.72	(1)	
Sheep/Goat/Dog	..	2	0.92	(1)	

Late 12th century

Features 43, 21, 28, 48

Total fragments	..	217	<i>per cent</i>		
Identified	..	100	46.8		
Ox	..	33	33	(2)	
Horse	..	1	1	(1)	
Pig	..	6	6	(3)	
Sheep	..	9	9	(2)	
Goat	..	6	6	(5)	
Sheep/Goat	..	33	33	(2)	
Chicken	..	10	10	(3)	
Roe Deer	..	2	2	(1)	

End 12th century

Feature 2

Total fragments	..	144	<i>per cent</i>		
Identified	..	88	61.1		
Ox	..	32	36.36	(2)	
Pig	..	12	13.63	(3)	
Sheep	..	12	13.63	(3)	
Goat	..	1	1.13	(1)	
Sheep/Goat	..	27	30.67	(5)	
Chicken	..	6	6.81	(1)	

Early 13th century

Features 44, 46, 13, 24

Total fragments	..	499	<i>per cent</i>		
Identified	..	167	35.6		
Ox	..	60	35.31	(6)	
Horse	..	8	4.79	(2)	
Pig	..	28	16.76	(3)	
Sheep	..	22	13.17	(2)	
Goat	..	3	1.79	(1)	
Sheep/Goat	..	21	12.57	(4)	
Chicken	..	12	7.12	(1)	
Horse/Ox	..	12	7.12	(2)	
Starling	..	1	0.59	(1)	

c. 1270

Feature 51

Total fragments	..	21	<i>per cent</i>		
Identified	..	20	95.2		
Ox	..	16	80	(1)	
Goat	..	1	5	(1)	
Sheep/Goat	..	3	15	(1)	

Last quarter of 13th century

Features 20, 26, 18

Total fragments	..	221	<i>per cent</i>		
Identified	..	116	52.4		
Ox	..	34	29.31	(3)	
Pig	..	3	2.58	(2)	
Sheep	..	20	17.24	(4)	
Goat	..	4	3.44	(2)	
Sheep/Goat	..	27	23.27	(2)	
Sheep/Goat/Deer	..	1	0.86	(1)	
Cat	..	6	5.16	(1)	
Dog	..	21	18.10	(2)	

Early 14th century

Feature 11

Total fragments	..	59	<i>per cent</i>		
Identified	..	49	83.1		
Ox	..	5	10.20	(1)	
Cat	..	44	89.80	(3)	

Mid 14th century

Feature 1

Total fragments	..	29	<i>per cent</i>		
Identified	..	5	23.8		
Pig	..	1	20	(1)	
Sheep/Goat	..	4	80	(2)	

Late 14th century

Feature 10

Total fragments	..	112	<i>per cent</i>		
Identified	..	46	41		
Ox	..	43	98.62	(10)	
Sheep/Gpat	..	3	1.38	(1)	

Later 15th century

Feature 23

Total fragments	..	80	<i>per cent</i>		
Identified	..	80	100		
Ox	..	17	21.2	(2)	
Pig	..	1	1.25	(1)	
Sheep	..	6	7.50	(1)	
Sheep/Goat	..	1	1.25	(1)	
Goose	..	22	27.50	(1)	

Late 15th/early 16th century

Feature 15

Total fragments	..	224	<i>per cent</i>		
Identified	..	172	76.7		
Ox	..	65	38.37	(7)	
Sheep	..	6	3.48	(1)	
Sheep/Goat	..	15	8.70	(1)	
Sheep/Goat/Deer	..	1	0.58	(1)	
Chicken	..	9	5.22	(2)	
Dog	..	76	44.18	(1)	

Mid/late 16th century

Feature 9

Total fragments	..	91	<i>per cent</i>		
Identified	..	59	65		
Ox	..	13	21.97	(1)	
Horse	..	1	1.69	(1)	
Sheep	..	2	3.38	(1)	
Sheep/Goat	..	21	35.49	(2)	
Chicken	..	2	3.38	(1)	
Horse/Ox	..	19	32.11	(1)	
Sheep/Goat/Deer	..	1	1.69	(1)	

17th century

Feature 12

Total fragments	..	37	<i>per cent</i>		
Identified	..	28	75.6	(1)	
Ox	..	13	46.41	(1)	
Sheep	..	1	3.57	(1)	
Sheep/Goat	..	4	14.28	(1)	
Horse/Ox	..	2	7.14	(1)	
Cat	..	8	28.56	(1)	

1760-80

Features 14, 17

Total fragments	..	92	<i>per cent</i>		
Identified	..	38	41.3		
Ox	..	18	47.37		
Sheep	..	1	2.63		
Sheep/Goat	..	2	5.26		
Chicken	..	17	44.74		
Also 18 oyster shells					

LEATHER

15-17 Three large fragments of a left boot, originally 28 cm long, consisting of the front part of the sole (15), nearly the whole of the inner sole and heel (16), and part of the upper (17). The insole was presumably glued to the outer sole, as there are no stitch marks on the latter; the upper was sewn on to the insole through its side. Found in the silt at the bottom of the well, and thus dated c. 1500. FS 72 4851-53. Fig. 7, nos. 15-17.

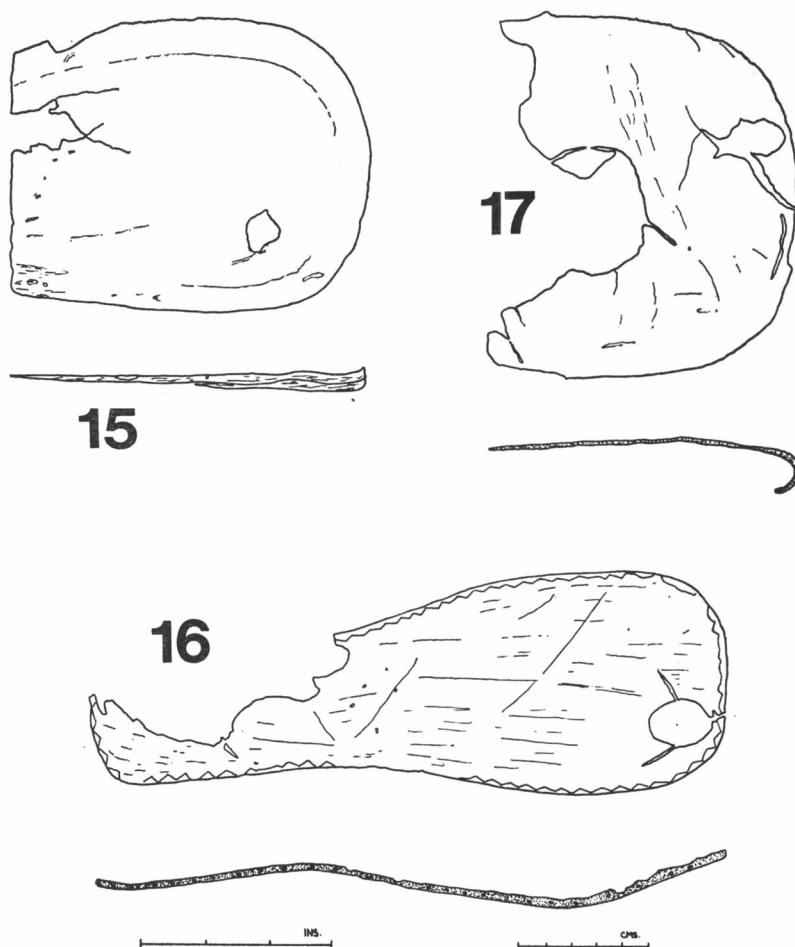


Fig. 7 Full Street, Derby: leather remains.

SEEDS by Mr. F. Richardson, Jodrell Laboratory, Royal Botanic Gardens, Kew

A sample of seeds was taken from the basal layers of feature 2 and found to contain seeds of the following species:

Prunus domestica L. ssp. *domestica*
Prunus domestica L. ssp. *insisitia* (L) Schneid
Prunus avium (L.) L.
Prunus spinosa L.
Crataegus monogyna Jacq
Rosa canina L.
Rubus fruticosus agg.
Corylus avellana L.

Plum
 Bullace
 Cherry
 Blackthorn, Sloe
 Hawthorn
 Dog Rose
 Blackberry
 Hazel

MEDIEVAL AND POST MEDIEVAL POTTERY

BY GLYN COPPACK

Before the excavation at Full Street, there were no stratified groups of medieval or early post-medieval pottery from Derby. Indeed, there was hardly any pottery at all, and most of the known pieces were not localised or dated. The importance of the pottery published here is that it gives the first impression of the medieval and later pottery industry in the vicinity of Derby, and it is possible to construct a type-series of vessels and wares. All finds from this excavation are lodged with Derby Museum.

The stratified pottery from this site comes from a series of rubbish-pits, cess-pits, and wells. Altogether, 41 of the excavated features produced pottery groups, ranging from a few body-sherds to upwards of 50 vessels. Unfortunately, the upper part of the site was disturbed, and was removed mechanically. In this way, the upper filling of several pits was lost. This may explain the relative lack of complete vessel profiles in many of the groups. It is noticeable that deeper features produced several restorable vessels. Several features intersected, giving some clue to the chronological order of their contents. However, in the majority of cases, the pits and wells were unrelated, their relationship was not clear, or they obviously differed widely in date (Fig. 2).

On such a site, the main problem is to find a method of dating pottery from a series of unrelated groups. Hurst (1962) has suggested that there are five techniques: by associated dateable objects such as coins; by association with documentarily dated structures; by association with structures dated architecturally; by comparison with pottery from other sites which can be dated; or by typological study. At Full Street, there were no dateable associated objects, and no documentary or architectural dating evidence. Dating by analogy and typology is all that remains, and neither method has been found reliable. In the past, most pottery has been dated by typology or by association with other wares which, to some degree, can be dated. In England, the most readily dated pottery-types are imports—the late-13th-century south-western French polychrome wares, and later, in the late 15th century and later, imported stone-wares from the Rhineland and the Low Countries. There is a lack of adequately dated pottery between these two periods, and very little before the late 13th century. One is thrown back on to local dated groups, the nearest to this site coming from sites in Nottingham. Here, it is not possible to date more than a few groups closely, mainly in the 13th century.

At Full Street, it is necessary to rely on a typological study of all the pottery in all groups. However, it must be understood that this study is purely local, and has no meaning on a wider level. It is possible to detect a series of vessel forms and fabrics in Derby, which from the few related groups can be seen to develop in a particular fashion, and it is fairly easy to fit unrelated groups into the series. It is essential in constructing such a typology that equal significance should be given to both fabric and form, and to the incidence of both factors in each group. Too often, a typology is based only on vessel form, not taking into account the development of fabrics and glazes. On many dateable sites, it is noticeable that vessel forms may not change at all, although techniques of glazing and fabrics do change, even over a period of several centuries.

The series established here must not be regarded as final. It only represents the pottery-types recovered from one particular site in Derby, a city whose archaeological potential is virtually unknown. It is only to be hoped that the excavation of other sites will modify and enlarge this series.

FABRICS

In order to simplify the report, and cut down on unnecessary repetition in the description of the published wares, the most common fabric-types are described here,

in order of their occurrence or development, and are given a type-name which is used in place of a fabric description in the text. Non-local or uncommon sherds will be described in full.

1 *Stamford-type ware*

A smooth, fine, hard fabric, ranging in colour from white to pale grey, often with a dark grey core, and a slightly metallic surface. Some vessels have a thin yellowish green lead glaze. On the whole, this ware is restricted to cooking-pots, though there are a few pitcher fragments.

2 *Grey gritty ware*

A hard, reduced, gritty fabric, usually dark grey in colour. The gritty texture is caused by the use of sharp, quartzose grits as a tempering agent. The colour depends greatly on firing, and some sherds are light grey in colour. The fineness in gritting varies greatly from vessel to vessel. This ware is used for cooking pots.

3 *Orange gritty ware*

Apparently the oxidized version of grey gritty ware, although it appears in different vessel forms. Again the fabric is tempered with sharp quartzose grits, and occasionally with finely crushed pottery-grog. Colour varies from pale orange to red-orange, with a dark grey core. Cooking pots, bowls and jugs appear in this ware.

4 *Limestone-tempered ware*

A local variant of medieval shell-tempered ware. The fabric is hard, but smooth, and varies in colour from grey-buff to red-brown, usually with a dark grey core. The tempering consists of finely crushed fragments of limestone, which have often burned out in firing, or have been leached out. This fabric is used for cooking pots and occasionally bowls.

5 *Local developed splashed ware*

A hard, slightly gritty pale orange ware, often with red-orange surfaces and a dark grey core. It is best distinguished by the method of glazing-splashes of yellow-green glaze, the result of dusting on galena in a powder form whilst the vessel is still wet, which leaves, after firing, a circular patch of glaze around a minute 'crater' in the surface of the vessel. This is primarily a jug fabric. This ware is much coarser than the developed splashed wares from Nottingham, and can easily be distinguished.

6 *Cream sandy ware*

A finely sand-tempered, off-white to orange-cream fabric, usually with a grey core. Where a glaze occurs, it is patchy, yellow green in colour, and often mottled. This fabric is used for jugs, cooking pots and bowls. The degree of sand-tempering is related to the size of the vessel, large jugs and cooking pots are much coarser in texture than smaller vessels.

7 *Burley Hill-type ware*

A hard, sandy, orange-red fabric, identical to that produced by kilns at Allestree, and Burley Hill, Derby. The products of these kilns cannot yet be separated, and the generic name of 'Burley Hill-type' seems appropriate. The ware can be divided into two classes: fully oxidized, and internally reduced, and it is primarily a jug fabric, although cooking pots and bowls also occur. Plastic decoration is common on jugs in this ware.

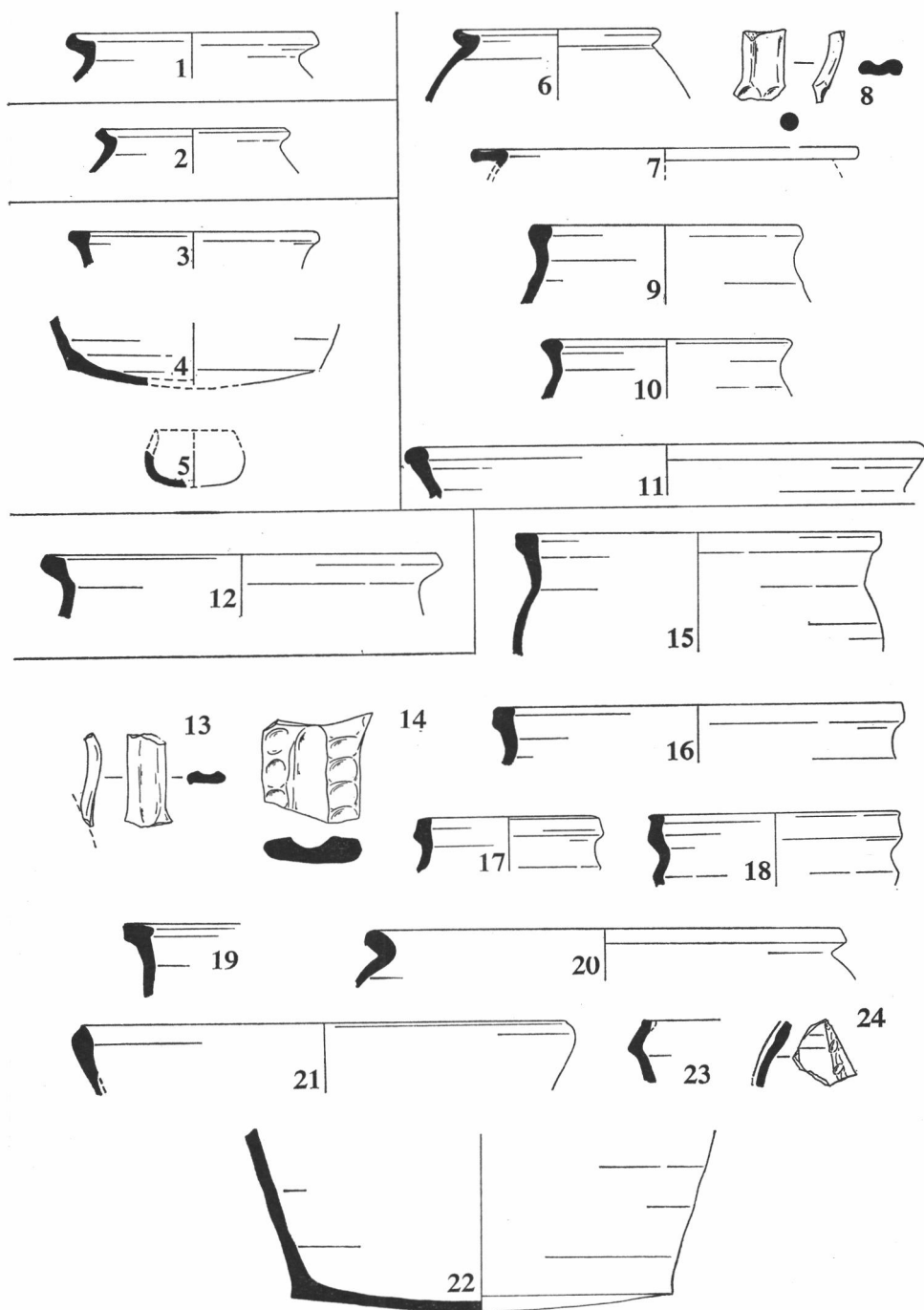


Fig. 8 Pottery from features 36, 47, 33, 22, 55 and 43 (scale one quarter).

8 *Midlands purple ware*

A sand-tempered fabric, fired to the point of vitrification, and characterised by its purple colour. In effect, colour varies from a dull grey to a reddish-purple where the ware is fully fired. Some vessels have a patchy lead glaze on the outside, or on the inside of the base. Associated with Midlands purple ware is a similar fabric which has not been fired to such a high temperature, but is obviously related, and this has been termed 'underfired purple ware' here. This ware occurs as cooking pots, skillets, storage jars, cisterns, lids and occasionally jugs.

9 *Cistercian ware*

A finely sand-tempered grey-purple fabric, with flecks of white clay occasionally breaking through the surface. This feature is noticeable on almost all vessels from this site, and is apparently the result of an impure clay source, suggesting that all vessels present are from the same source. The vessels are all covered with a lead glaze, through which the body colour shows through as brown-purple. In a few cases, where the vessel is underfired, the fabric has remained red-brown, showing brown through the glaze. Cups, mugs, jugs, bottles and jars are represented in this fabric.

10 *Midlands yellow ware*

A finely sand-tempered off-white to cream fabric, covered on the outer surface, and occasionally on the inner surface, with a clear lead glaze, through which the fabric shows a pale yellow.

STRATIFIED GROUPS

The following groups have been selected from the contents of 41 features. Only duplicate material has been omitted.

Pit 36 (Fig. 8, 1)

- 1 Cooking pot rim in a hard, sandy, brown grey fabric with a pale grey core. This ware has been identified as Derby ware, a ware of Saxo-Norman type.

This sherd was associated with a base sherd of Stamford-type ware.

Pit 47 (Fig. 8, 2)

- 2 Cooking pot rim in Stamford-type ware. Two similar sherds, possibly from the same vessel, make up the remainder of this group.

Pit 33 (Fig. 8, 3-5)

- 3 Cooking pot rim in Stamford-type ware.
- 4 Base of a cooking pot in Stamford-type ware.
- 5 Fragment of a crucible in Stamford-type ware. This vessel has vitrified with repeated use, and has a stoneware-like appearance.

Pit 22 (Fig. 8, 6-11)

- 6-7 Cooking pot rims in Stamford-type ware.
- 8 Thrown strap-handle from a pitcher in Stamford-type ware.
- 9-10 Cooking pot rims in grey gritty ware.
- 11 Large cooking pot rim in orange gritty ware.

Pit 55 (Fig. 8, 12)

- 12 Lid-seated cooking pot rim in grey gritty ware. This sherd was associated with a jug base of orange gritty ware.

Pit 43 (Fig. 8, 13–24)

- 13 Strap-handle, apparently thrown, from a pitcher in Stamford-type ware, covered with a thin, pale green glaze.
- 14 Broad strap-handle from a jug in a fine, slightly sandy pink-buff ware with pale grey outer surfaces, and splashes of yellow-green glaze. Each side of the handle is thumb-impressed.
- 15–6 Large cooking pot rims in orange gritty ware.
- 17–8 Jar rims in orange gritty ware; 18 has splashes of clear lead glaze on the outside.
- 19 Bowl rim, diameter not known, in orange gritty ware.
- 20 Cooking pot rim in limestone-tempered ware.
- 21 Wide-mouthed bowl-rim in limestone-tempered ware.
- 22 Base of a large jug in local developed splashed ware. The glaze is yellow-green.
- 23 Rim fragment of a jug in Nottingham developed splashed ware, with a hard, finely sanded orange-pink fabric with a dark grey core. The glaze is pale green in colour.
- 24 Wall sherd from a jug in a smooth off-white/pale pink fabric with a strip of self clay as decoration on the outer surface. The strip has been impressed with a blunt tool, diagonally, and at regular intervals. The whole is glazed outside with a mottled yellow-green glaze. This is a West Midland piece.

Associated with this group were body sherds in grey gritty ware, cream sandy ware, and several sherds of Burley Hill-type ware.

Pit 21 (Fig. 9, 25–45)

- 25–8 Cooking pot rims in Stamford-type ware.
- 29–30 Bowl rims in Stamford-type ware.
- 31 Large fragment of crucible in Stamford-type ware. The outside is encrusted with metallic slag.
- 32 Rim sherd from a large cooking pot in mis-fired grey gritty ware. Diameter not known.
- 33–6 Cooking pot rims in grey gritty ware.
- 37–8 Bowl rims in grey gritty ware. 38 has a sinuous incised line on the upper surface of the rim. 37 is smoother than normal for this ware.
- 39 Fragment of ?jug rim in orange gritty ware, diameter not known. There is a splash of yellow-green glaze on the outside.
- 40 Bowl rim in orange gritty ware.
- 41–2 Rim and handle of a flaring necked jug in local developed splashed ware. The strap handle is pulled, and has rows of thumb-notching down the margins. Further developed splashed ware sherds were present in this deposit, and most probably represent the same vessel. It was not possible to reconstruct a profile.
- 43 Two sherds from the neck of an oxidized Burley Hill-type jug with grid-stamped pads.
- 44 Jug rim in oxidized Burley Hill-type ware.
- 45 Sherd from the shoulder of a reduced Burley Hill-type ware jug, with a series of grid-stamped pads. Several sherds of this vessel were present.

Associated with this pit-group were many sherds of Stamford-type ware, local developed splashed ware, both jug and cooking pot sherds of Burley Hill type and cream sandy ware.

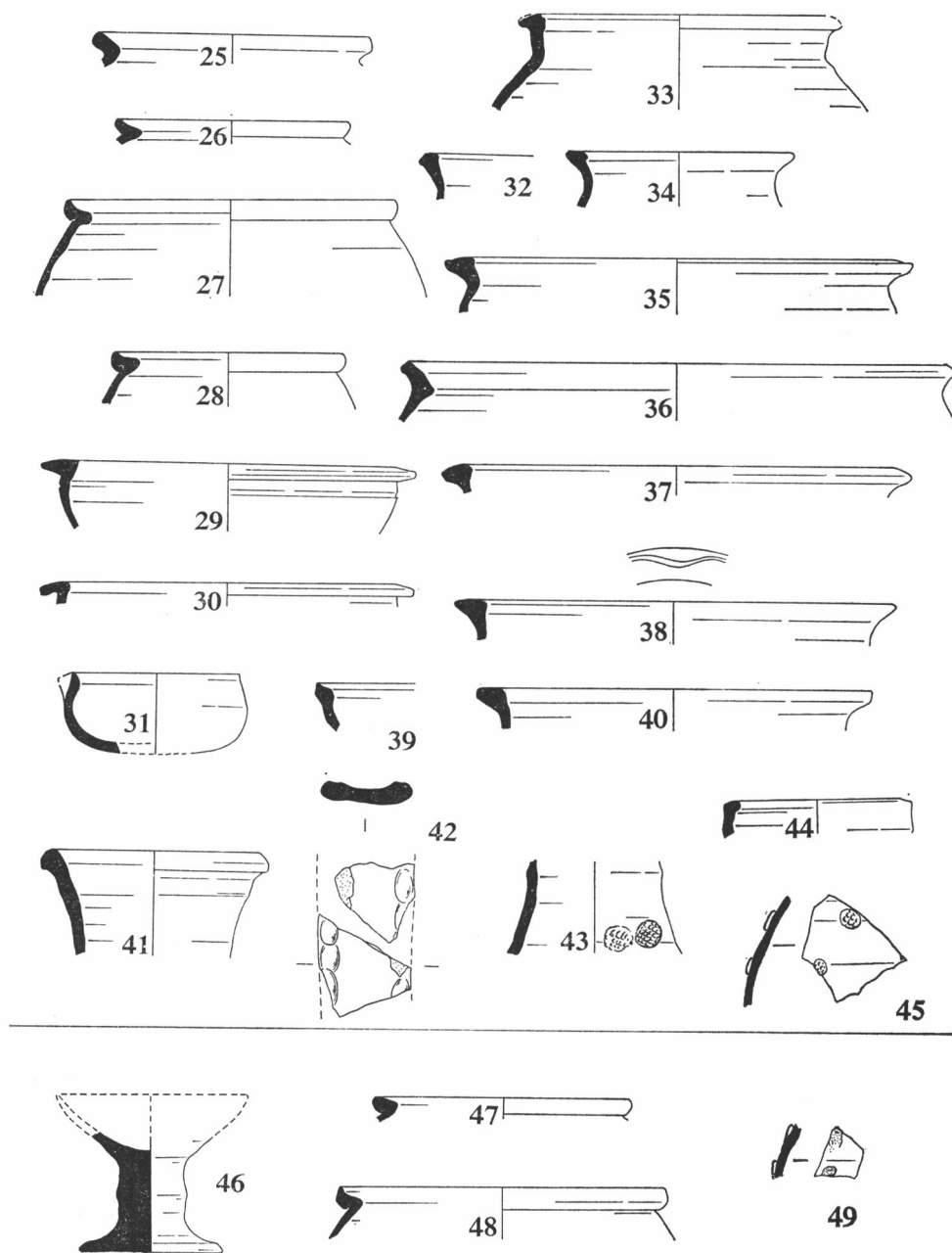


Fig. 9 Pottery from features 21 and 28 (scale one quarter).

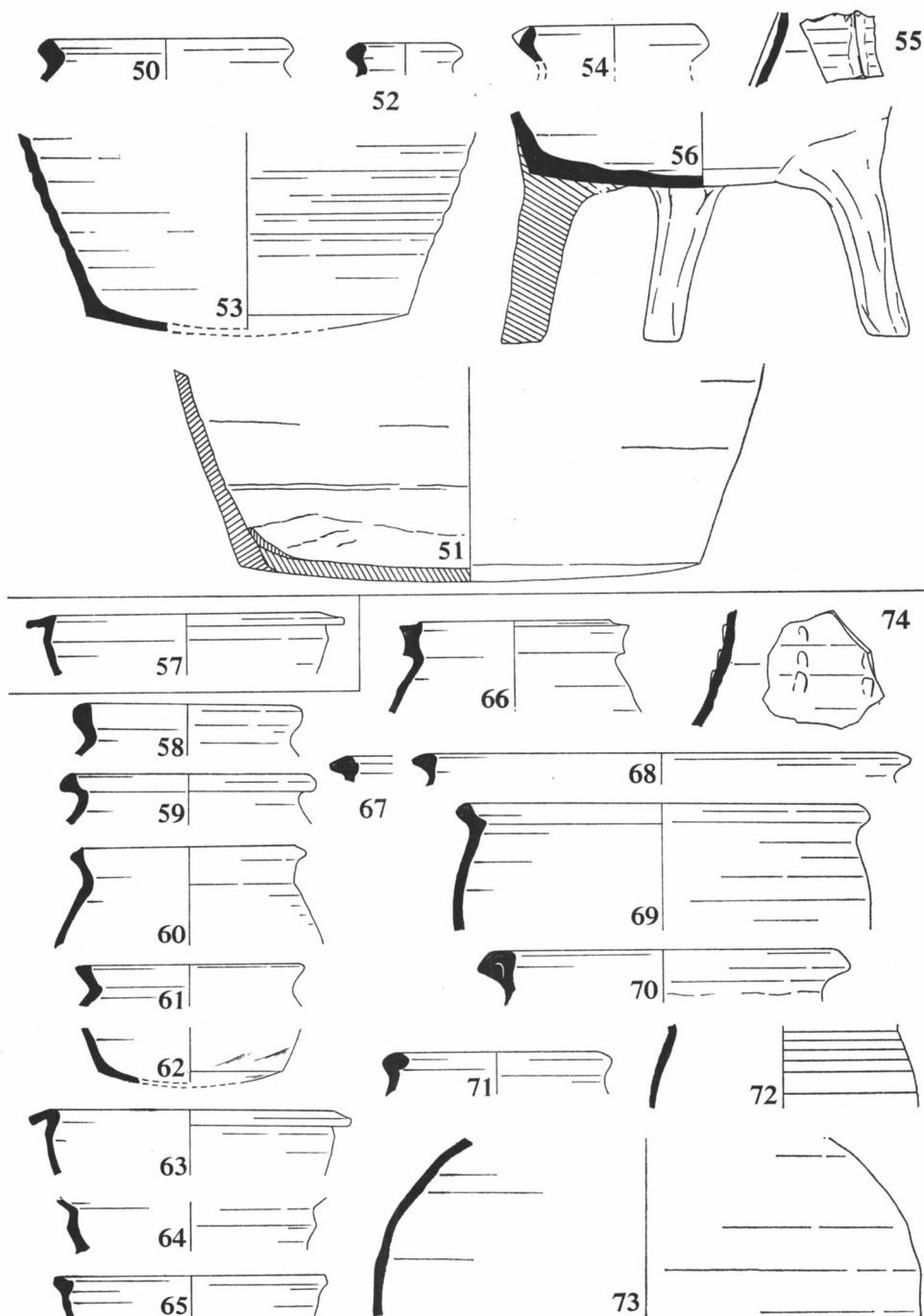


Fig. 10 Pottery from features 48, 32 and 2 (scale one quarter).

Pit 28 (Fig. 9, 46–49)

- 46 Stem of a pedestal lamp in Stamford-type ware.
- 47–8 Cooking pot rims in Stamford-type ware.
- 49 Jug wall-sherd in a hard, finely sanded off-white ware with a light grey core. On the outside is a vertical row of scale decoration in iron-rich clay which shows green-brown through the pale green glaze.

Associated with this group were several sherds of Stamford-type ware with a pale green lead glaze, and one sherd of local developed splashed ware.

Pit 48 (Fig. 10, 50–56)

- 50 Cooking pot rim in grey gritty ware.
- 51 Lower part of a cooking pot in grey gritty ware. At least the body of this vessel was handmade, the walls being coil constructed around a base cut from a sheet of clay. The join is strengthened by the addition of a clay fillet on the inside of the vessel.
- 52 Urinal rim in cream sandy ware with a yellow-green glaze.
- 53 Base of a large jug in Burley Hill-type ware. The walls have heavy throwing rings, the base angle is neatly knife-trimmed.
- 54 Rim of a jug in Nottingham developed splashed ware. In a slightly sandy orange ware with splashes of yellow glaze.
- 55 Sherd from the neck of a jug in off-white, sandy, Nottingham ware with a mottled green glaze. Decoration is by way of an applied pinched strip.
- 56 Base of a three-footed skillet, of which only one foot survives, in a hard, sandy off-white/pale grey ware with a pale grey core. This fabric, though apparently related to the Stamford-type fabric on this site, would seem to be imported.

Also associated with this group was a quantity of Stamford-type ware, limestone-tempered ware, cream sandy ware, and oxidized Burley Hill-type ware.

Pit 32 (Fig. 10, 57)

- 57 Bowl rim in Stamford-type ware. The rest of this group consists of similar sherds possibly from the same vessel.

Pit 2 (Fig. 10, 58–74)

- 58–61 Cooking pot rims in Stamford-type ware.
- 62 Knife-trimmed cooking pot base in Stamford-type ware.
- 63–5 Bowls in Stamford-type ware.
- 66 Cooking pot rim in a pale orange, finely sand-tempered ware, which contains some mica. The fabric has a pale grey core. The collar and rim fabric would suggest that this is an import from Northern France.
- 67–71 Cooking pot rims in grey gritty ware.
- 72 Body sherd from a straight-sided cooking pot in grey gritty ware, decorated with incised horizontal lines.
- 73–4 Jug shoulder or neck sherds in oxidized Burley Hill-type ware. 74 is decorated with vertical rows of applied scales.

Associated with this group were vessels in creamy sandy ware, and one sherd of limestone-tempered ware. There was also a considerable quantity of Stamford-type ware.

Pit 44 (Fig. 11, 75-77)

75 Straight-sided carinated bowl in Stamford-type ware.

76 Large cooking pot rim in cream sandy ware.

77 Shoulder sherd from a jug in internally reduced Burley Hill-type ware.

Associated with this group were sherds of grey gritty ware and oxidized Burley Hill-type ware.

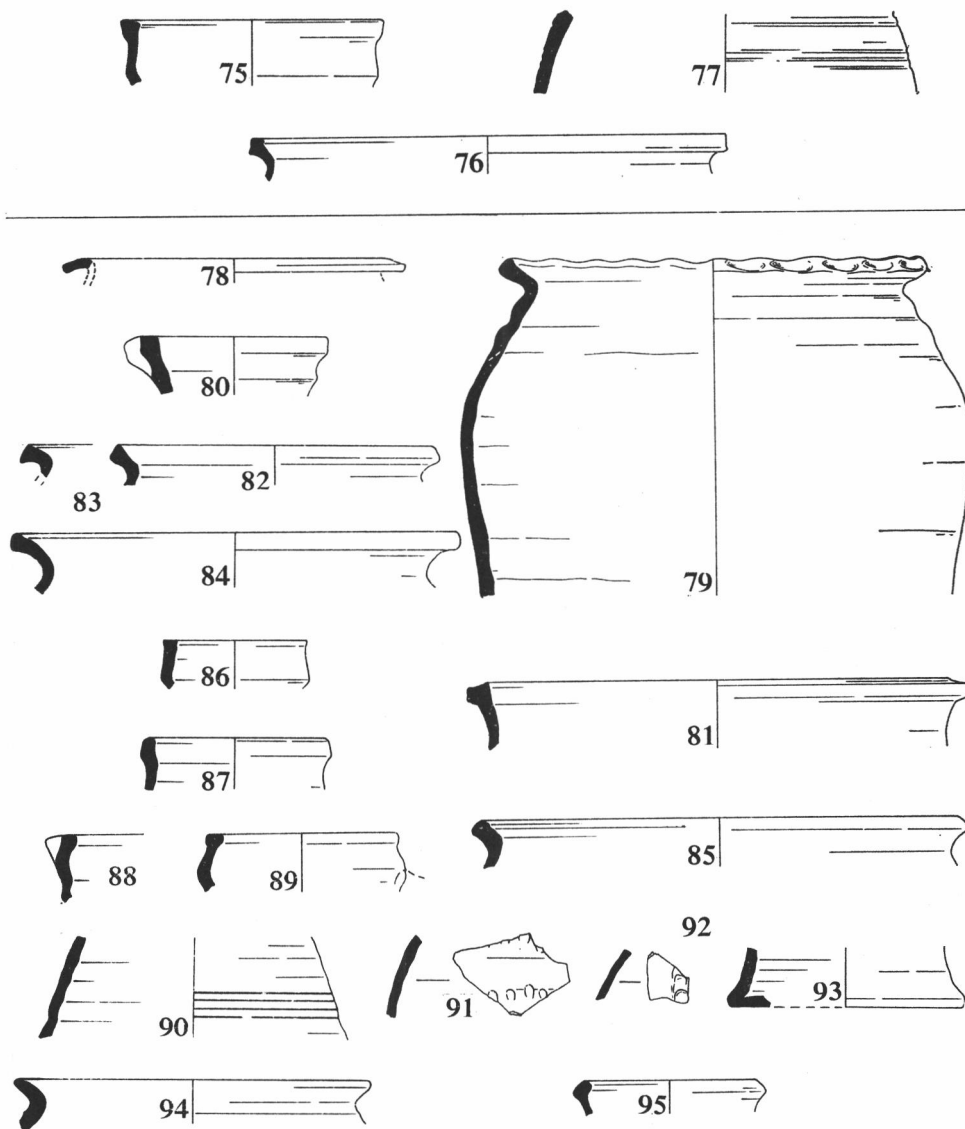


Fig. 11 Pottery from features 44 and 46 (scale one quarter).

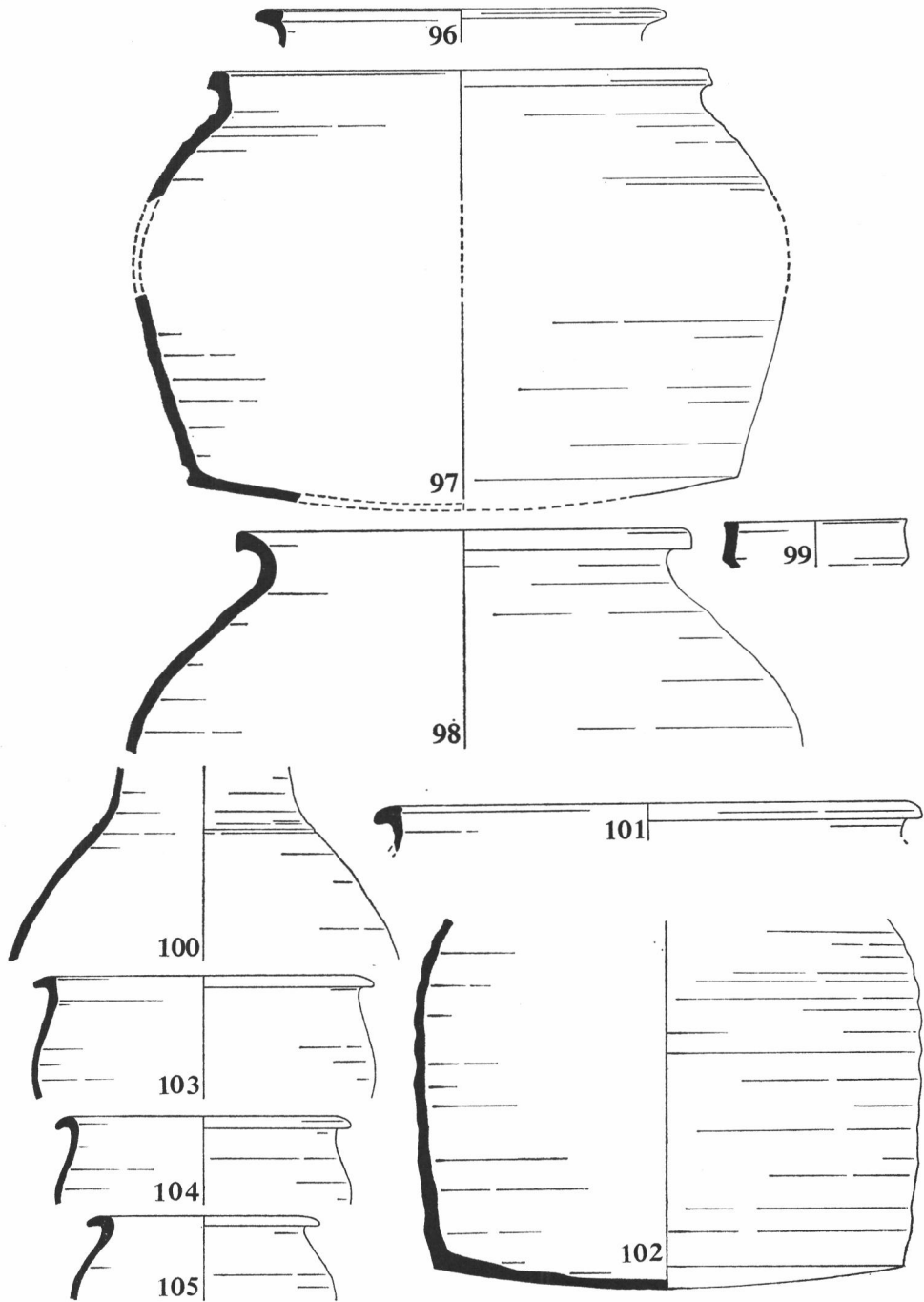


Fig. 12 Pottery from feature 13 (scale one quarter).

Pit 46 (Fig. 11, 78–95)

- 78 Cooking pot with flanged rim in Stamford-type ware.
- 79 Cooking pot in grey gritty ware. The lower body is hand made, apparently by coiling, with a rim thrown on.
- 80 Jug rim with pulled spout in orange gritty ware.
- 81 Cooking pot rim in orange gritty ware.
- 82–4 Cooking pot rims in limestone-tempered ware.
- 85 Cooking pot rim in what is apparently overfired orange gritty ware.
- 86–7 Jug rims in cream sandy fabric with splashes of pale green glaze.
- 88–9 Jug rims in oxidized Burley Hill-type fabric.
- 90–2 Body sherds in Burley Hill-type ware. 90 is decorated with incised horizontal lines, 91 and 92 with horizontal and vertical scales.
- 93 Base of balluster jug in oxidized Burley Hill-type ware.
- 94 Cooking pot rim in oxidized Burley Hill-type ware.
- 95 Jug rim in a hard, smooth off-white to pale orange fabric, glazed with a mottled green glaze on the outside surface. Apparently a Nuneaton product.

Also associated with this group were sherds of local developed splashed ware.

Pit 13 (Fig. 12, 96–105; Fig. 13, 106–108)

- 96–7 Cooking pots in grey gritty ware.
- 98 Upper part of a cooking pot in limestone-tempered ware.
- 99 Jug rim in cream sandy ware.
- 100 Upper body of a jug in cream sandy ware with patchy green glaze. A second similar vessel occurred in this group.
- 101–2 Rim and lower body of cream sandy ware cooking pots.
- 103–5 Rims of small cooking pots in cream sandy ware.
- 106–7 Bowl rims in cream sandy ware.
- 108 Neck sherd in internally reduced Burley Hill-type ware, decorated with scales and sinuous pinched strips.

Also associated with this group were several purple ware sherds.

Pit 24 (Fig. 13, 109–115)

- 109 Cooking pot rim in Stamford-type ware, with a clear lead glaze on the outer surface.
- 110–1 Cooking pots in cream sandy ware.
- 112–4 Cooking pots in Burley Hill-type ware.
- 115 Fragment of urinal rim in oxidized Burley Hill-type ware.

Also associated with this group were sherds of grey gritty ware and limestone-tempered ware.

Pit 51 (Fig. 13, 116–133)

- 116 Cooking pot rim in Stamford-type ware.
- 117 Large body-sherd from a cooking pot in Stamford-type ware.
- 118 Shoulder-sherd from a pitcher in Stamford-type ware. The vessel is decorated with horizontal grooves, and has a patchy yellow glaze on the outer surface.

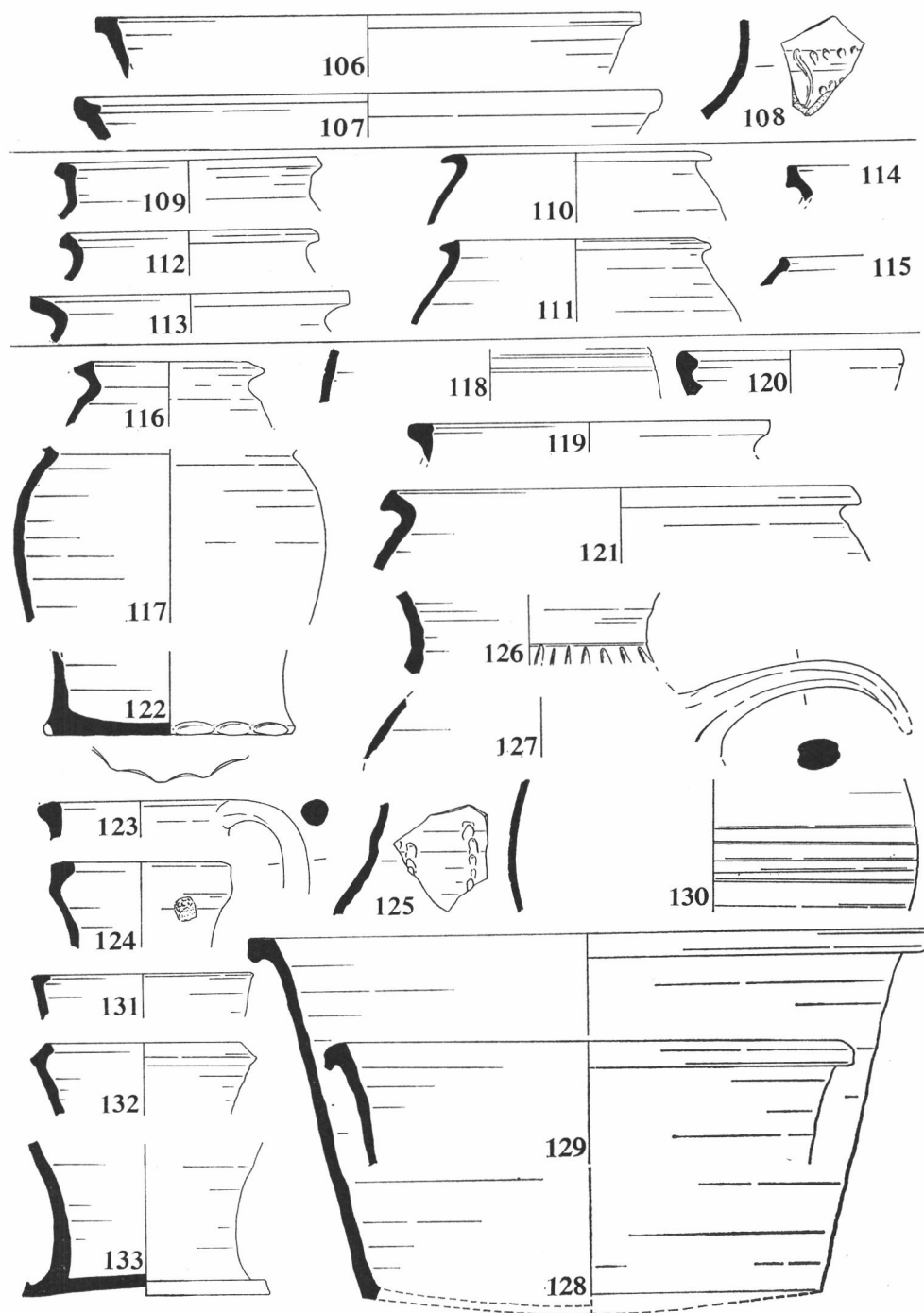


Fig. 13 Pottery from features 13, 24 and 51 (scale one quarter).

- 119 Cooking pot rim in grey gritty ware.
- 120 Jug rim in orange gritty ware, with splashes of apple-green glaze.
- 121 Cooking pot rim in limestone gritted ware.
- 122 Jug base in cream sandy ware, with notching on the base angle.
- 123-4 Rims of jugs in Burley Hill-type ware. 124 is decorated with a grid-stamped pad.
- 125 Jug neck sherd in Burley Hill-type ware, decorated with vertical rows of scales.
- 126 Lower body sherd from a balluster jug in Burley Hill-type ware, with traces of knife frilling around the base.
- 127 Jug neck and handle in cream sandy ware. The handle is glazed on the upper surface only.
- 128-9 Bowls in cream sandy ware.
- 130 Body sherd from a cooking pot in a hard sandy buff ware, decorated with horizontal grooves. The vessel is handmade, but trimmed on a slow wheel, and is almost certainly a product of the Duffield Kilns.
- 131 Jug rim in a pale orange, slightly sandy ware with a dark grey core.
- 132 Jug rim in hard, orange, sandy, Nottingham developed splashed ware, with a light grey core, and a yellow-green glaze.
- 133 Base of a balluster jug in light buff, internally reduced Nottingham ware. The rim of a second vessel of typical Nottingham form has fused to the base.

Many sherds from similar vessels were associated with this group, including a number of sherds of Stamford-type ware.

Pit 20 (Fig. 14, 134-158)

- 134-7 Cooking pot rims in Stamford-type ware.
- 138 Cooking pot rim in grey gritty ware.
- 139 Jar rim in orange gritty ware.
- 140-1 Handmade cooking pots in limestone-tempered ware with finger-impressed rims.
- 142 Fragment of jug rim in orange gritty ware with splashes of clear lead glaze.
- 143 Bottle or cruet neck in orange gritty ware, the outer surface covered with a clear lead glaze.
- 144 Jug neck and handle in cream sandy ware with a mottled green glaze.
- 145-6 Cooking pot rims in cream sandy ware.
- 147-9 Jug rims in Burley Hill-type ware. 149 is internally reduced.
- 150 Jug shoulder sherd in oxidized Burley Hill-type ware, decorated with horizontal rows of coarse, square-notched rouletting.
- 151 Jug shoulder sherd in internally reduced Burley Hill-type ware, decorated with an applied rosette and stamped strip. A further rosette, not illustrated, was apparently from the same vessel.
- 152-3 Body sherds of Burley Hill-type ware jugs, with applied decoration. Both are from 'Knight jugs'.
- 154 Bowl in Burley Hill-type ware.
- 155 Cooking pot rim in overfired Burley Hill-type ware, which cannot be differentiated from purple ware. Wavy-line decoration on the rim.
- 156 Bowl rim with a thumbled flange in a hard, dark grey, sandy, Thetford ware with pale grey margins and a grey core.

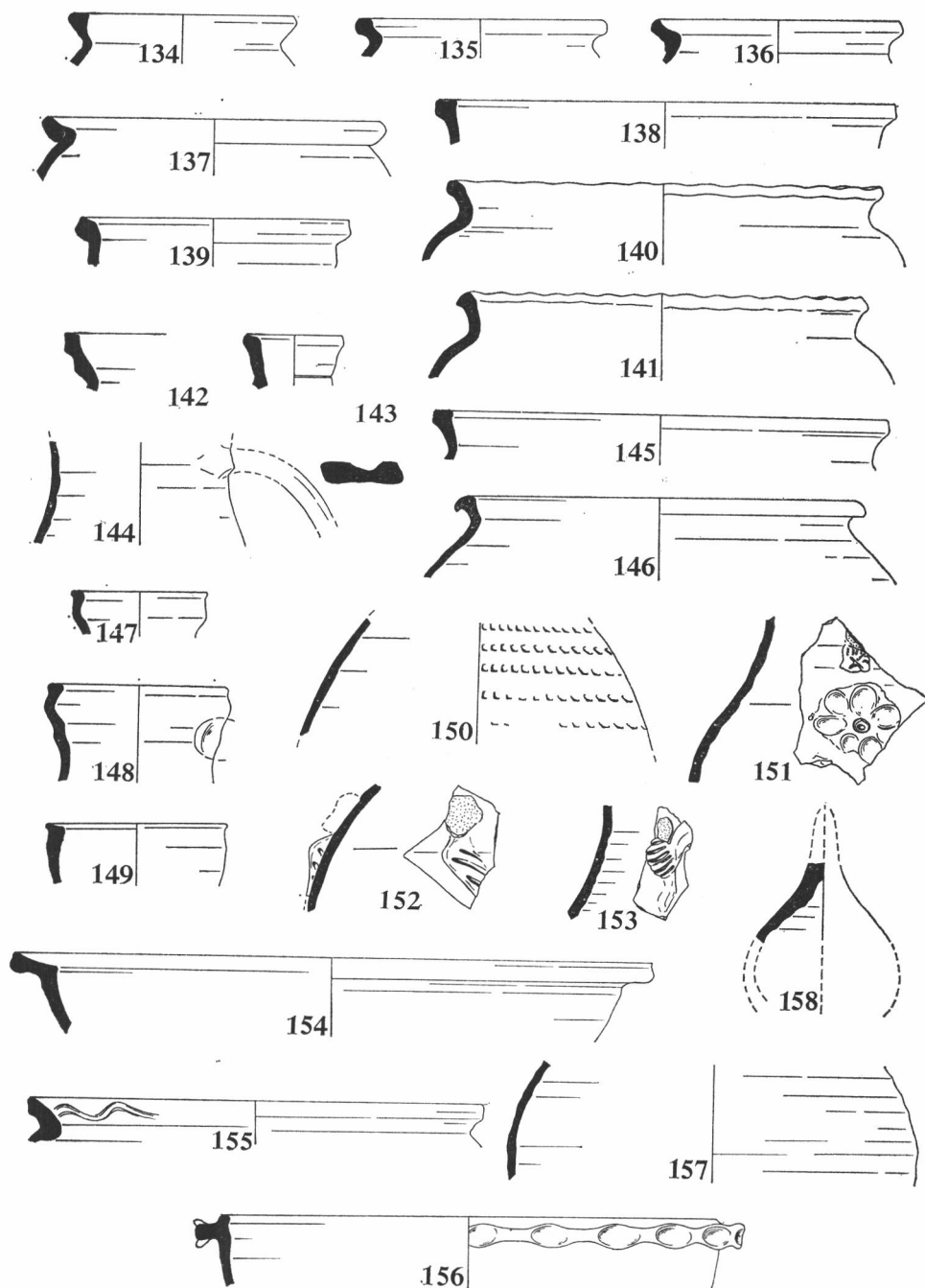


Fig. 14 Pottery from feature 20 (scale one quarter).

- 157 Shoulder sherd of a jug in a light grey, finely sand-tempered Nottingham ware with a rich, dark green glaze. This sherd has the characteristic shoulder rilling of the Nottingham kilns.
- 158 Fragment of a finial from a ridge-tile or louver in a very gritty pale orange fabric with a light grey core and purple-brown surfaces. The outer surface is covered with an olive green glaze.

Also associated with this group were several sherds of south-western French polychrome ware.

Pit 26 (Fig. 15, 159–169)

- 159 Cooking pot rim in Stamford-type ware.
- 160 Jug rim in orange gritty ware.
- 161 Upper part of a conical jug in oxidized Burley Hill-type ware.
- 162–3 Body sherds from jugs in reduced Burley Hill-type ware with applied and incised decoration. Both are from 'Knight jugs'.
- 164 Body sherd from a jug of reduced Burley Hill-type ware with incised comb decoration.
- 165 Jug base in reduced Burley Hill-type ware with clumsy knife-cut frilling.
- 166 Cooking pot in Burley Hill-type ware.
- 167–8 Bowls or pancheons in Burley Hill-type ware. 167 is glazed internally.
- 169 Greater part of a cooking pot in a fine purple-grey vitrified ware. The ware is too fine to be Midland purple ware, but may be related to this fabric. J. G. Hurst suggests that it may actually be a Burley Hill-type drastically overfired to produce a stoneware.

Also associated with this group were several sherds of local developed splashed ware, and a single sherd of limestone gritted ware.

Pit 18 (Fig. 15, 170–178; Fig. 16, 179–185)

- 170–1 Cooking pot rim and knife-trimmed base in Stamford-type ware.
- 172 Cooking pot rim in orange gritty ware.
- 173–5 Jug rims in oxidized Burley Hill-type ware.
- 176–7 Rod handle and frilled base from a jug in internally reduced Burley Hill-type ware.
- 178 Large portion of the body of a jug in oxidized Burley Hill-type ware, decorated with applied and incised standing figures, separated by clusters of scales.
- 179–81 Cooking pot rims in Burley Hill-type ware.
- 182 Bowl or pancheon rim in overfired Burley Hill-type ware.
- 183 Large fragment of a jug with pulled lip in Midland Purple ware.
- 184 Cooking pot rim in Midland Purple ware.
- 185 Body sherd from a jug in a hard, sandy pale grey to off-white fabric, decorated with a rouletted strip of self clay below a pale yellow-green glaze.

Associated with this group were several sherds of cream sandy ware, and Stamford-type ware, much of which was abraded. Two sherds of Nottingham ware were also present.

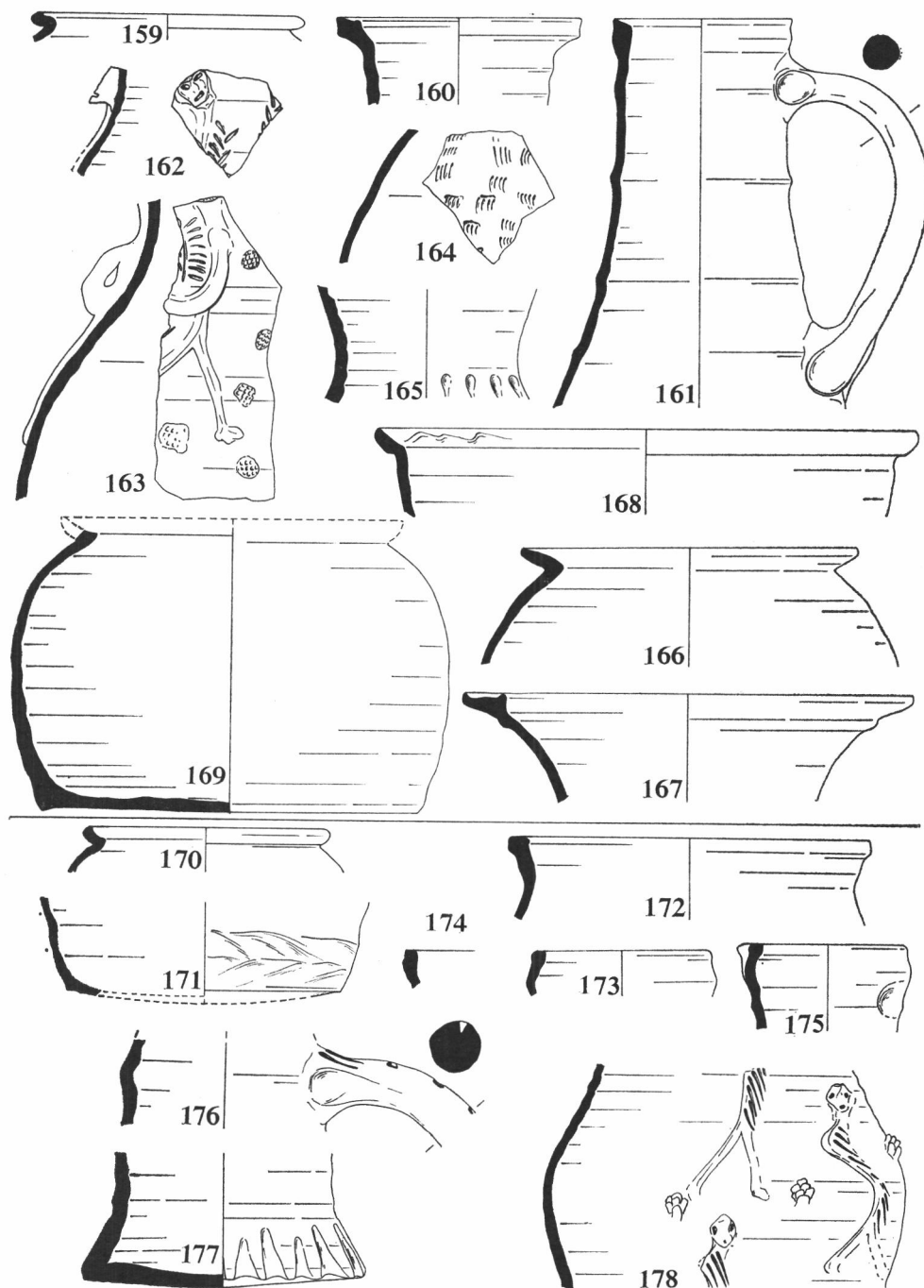


Fig. 15 Pottery from features 26 and 18 (scale one quarter).

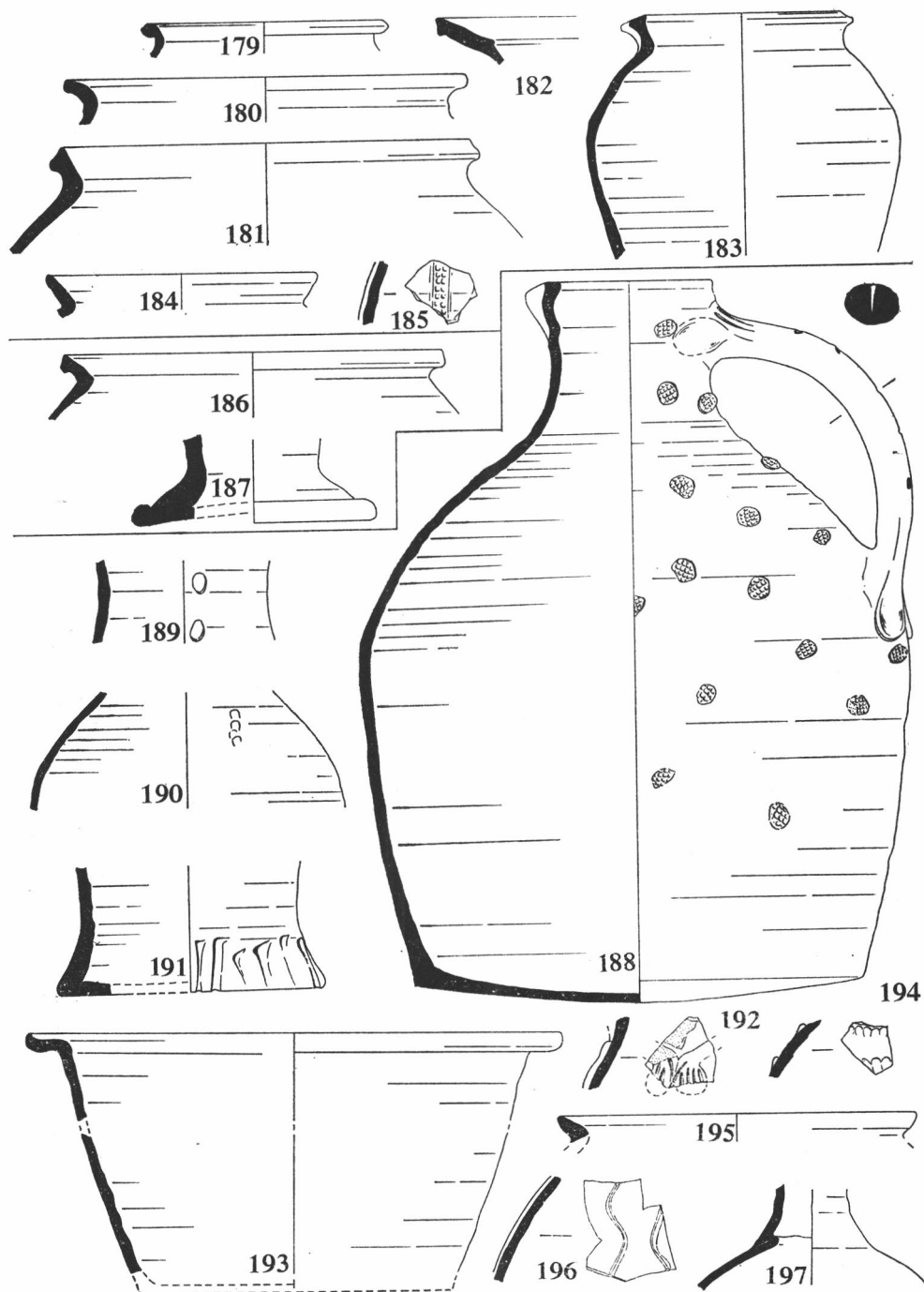


Fig. 16 Pottery from features 18, 11 and 1 (scale one quarter).

Pit 11 (Fig. 16, 186–187)

- 186 Cooking pot in Burley Hill-type ware.
- 187 Moulded base from a balluster jug in internally reduced Burley Hill-type ware.

Pit 1 (Fig. 16, 188–197)

- 188 Almost complete jug in internally reduced Burley Hill-type ware, decorated with random grid-stamped pads. The upper attachment of the rod handle has six knife-slashes, and it has been pierced at intervals.
- 189–90 Neck or shoulder sherds from jugs in Burley Hill-type ware. Both are decorated with scales, and are oxidized.
- 191 Base of balluster jug in Burley Hill-type ware, notched on the base angle, apparently with a blunt tool.
- 192 Fragment of a face-jug, with applied clasped hands, in Burley Hill-type ware.
- 193 Several sherds from a bowl or pancheon in Burley Hill-type ware. There is a rich, mottled green glaze on the lower walls inside.
- 194 Fragment of a jug with horizontal rows of scale decoration, in a soft, finely sanded, orange, brown fabric, with a dull, dirty yellow glaze. A product of the Brakenfield kiln, near Alfreton. (Information from the excavator, Dr. P. Strange.)
- 195 Cooking pot rim, as 194.
- 196 Jug wall-sherds in a hard, off-white/pale grey, finely sanded Nottingham ware, decorated with applied 'wavy' vertical strips below a pale apple-green glaze.
- 197 Neck of a mammiform costrel in a coarse, gritty, dark grey/black stoneware. This piece is not an import, and must be of English manufacture.

Pit 10 (Fig. 17, 198–212)

- 198 Cooking pot rim in cream sandy ware.
- 199 Almost complete jug in oxidized Burley Hill-type ware, decorated with vertical rows of iron-rich scales below a pale green-yellow glaze. The base, which has several grain impressions, is rather battered and burned.
- 200–1 Jug rims in Burley Hill-type ware. 201 has traces of a grid stamp not shown on the drawing.
- 202 Neck sherd of a jug in oxidized Burley Hill-type ware decorated with random pierced pellets of iron rich clay.
- 203 Shoulder sherd of a jug in Burley Hill-type ware decorated with a series of horizontal grooves.
- 204 Body sherd from a jug in reduced Burley Hill-type ware with a grid-stamped pad, apparently placed *over* the olive green glaze covering the vessel.
- 205 Large fragment of the lower part of a jug in reduced Burley Hill-type ware decorated with random grid-stamped pads of poor quality.
- 206 Base of balluster jug, complete as drawn, as 205, glazed to the base angle, which is clumsily notched or frilled. There is the imprint of a jug rim on the base.
- 207–10 Cooking pots in Burley Hill-type ware. 210 was found complete, containing food residues.
- 211–2 Pancheon rims in Burley Hill-type ware. 211 has a thumbled applied strip outside below the rim.

Associated with this group were several sherds of orange gritty ware, and many sherds of Midland Purple ware.

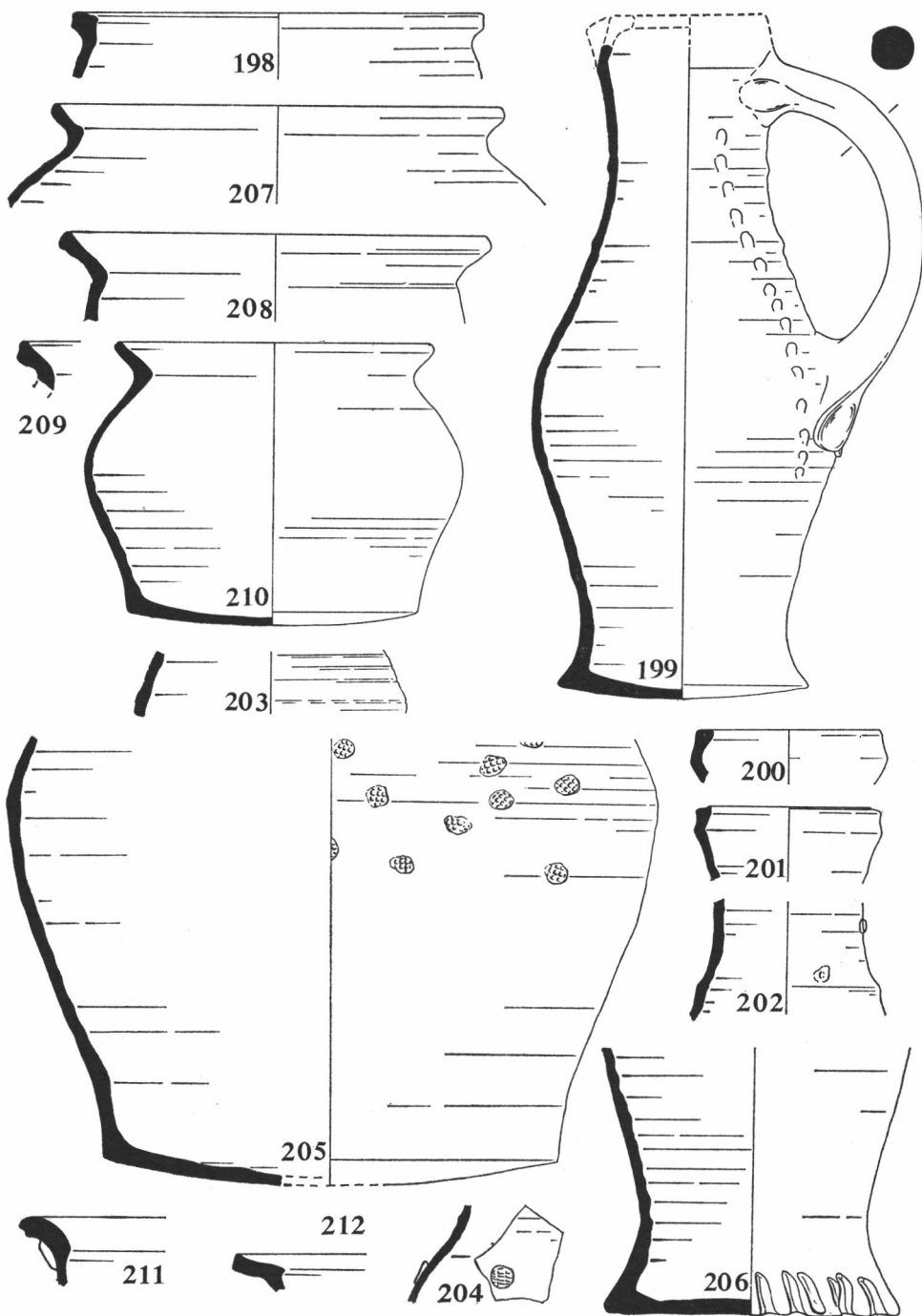


Fig. 17 Pottery from feature 10 (scale one quarter).

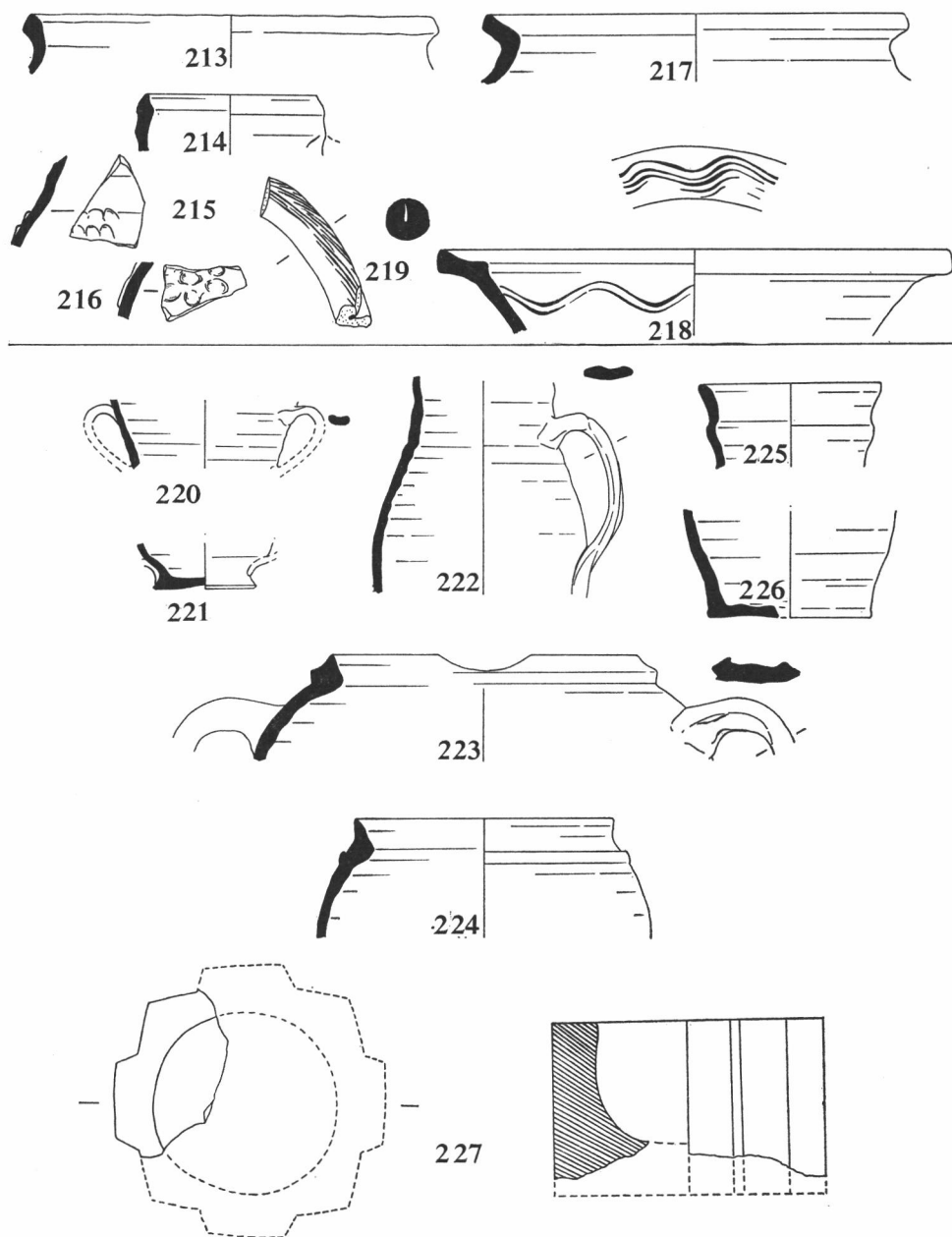


Fig. 18 Pottery from features 37 and 23 (scale one quarter).

Pit 37 (Fig. 18, 213–219)

- 213 Cooking pot rim in limestone-gritted ware, apparently handmade, and possibly a residual piece derived from Pit 46.
- 214 Jug rim in Burley Hill-type ware.
- 215 Jug body sherd in Burley Hill-type ware, with two horizontal rows of scale decoration.
- 216 Jug body sherd in Burley Hill-type ware, decorated with a clumsy applied rosette.
- 217 Cooking pot rim in Burley Hill-type ware.
- 218 Pancheon in overfired Burley Hill-type ware with 'wavy line' comb decoration.
- 219 Rod handle from a jug in a slightly sandy, pale orange-buff fabric with a dark grey core. The upper surface has a yellow-green glaze over random combing. The handle has been rolled up from a strip.

Associated with this group were sherds of Midland Purple ware, and abraded fragments of limestone-gritted ware.

Pit 23 (Fig. 18, 220–227)

- 220–1 Fragments of two-handled cups in Cistercian ware.
- 222 Large body-sherd from a jug in Cistercian ware.
- 223–4 Rim sherds of cisterns or storage jars in Midland Purple ware. 223 has a notch cut from the rim and handles.
- 225–6 Jug rim and base, not from the same vessel, in underfired Midland Purple ware.
- 227 Fragment of a mortar in an orange-buff brick-like fabric, not unlike underfired purple ware in appearance.

Well 15 (Fig. 19, 228–251; Fig. 20, 252–257)

- 228–31 Two-handled cups with flaring rims in Cistercian ware.
- 232–4 Flaring cup rims in Cistercian ware.
- 235 Lower part of a narrow, straight-sided mug with a single handle in Cistercian ware.
- 236–7 Jugs in Cistercian ware. 237 was found virtually intact.
- 238 Base of a costrel or bottle in Cistercian ware.
- 239–40 Bowl and lid in Cistercian ware. The lid, 239, is knife-trimmed inside, and does not match 240.
- 241 Fragment of bowl rim in Cistercian ware, with applied pipe-clay decoration. Illustrated at half-scale.
- 242–6 Cooking pot rims in Midland Purple ware. Some pieces are not fully fired, and do not have the usually purple, metallic appearance, though the same clay and tempering have been used.
- 247–53 Storage jars or cisterns in Midland Purple ware. Usually, a scoop has been cut from the rim, either between the handles, or, as with 252, over one handle. These scoops suggest the use of a lid, and were provided to prevent air-locks if a spigot was fitted. However, 253 has no spigot-hole, but still has cut-out scoops on the rim. 252 would suggest the usual cistern form, 253 the usual storage vessel form.
- 254 Lower part of a bottle or costrel in Midlands Yellow ware.
- 255 Shallow bowl in Midlands Yellow ware.
- 256 Three small fragments from a South Netherlands majolica altar-vase.
- 257 Almost complete drinking mug in Raeren stoneware.

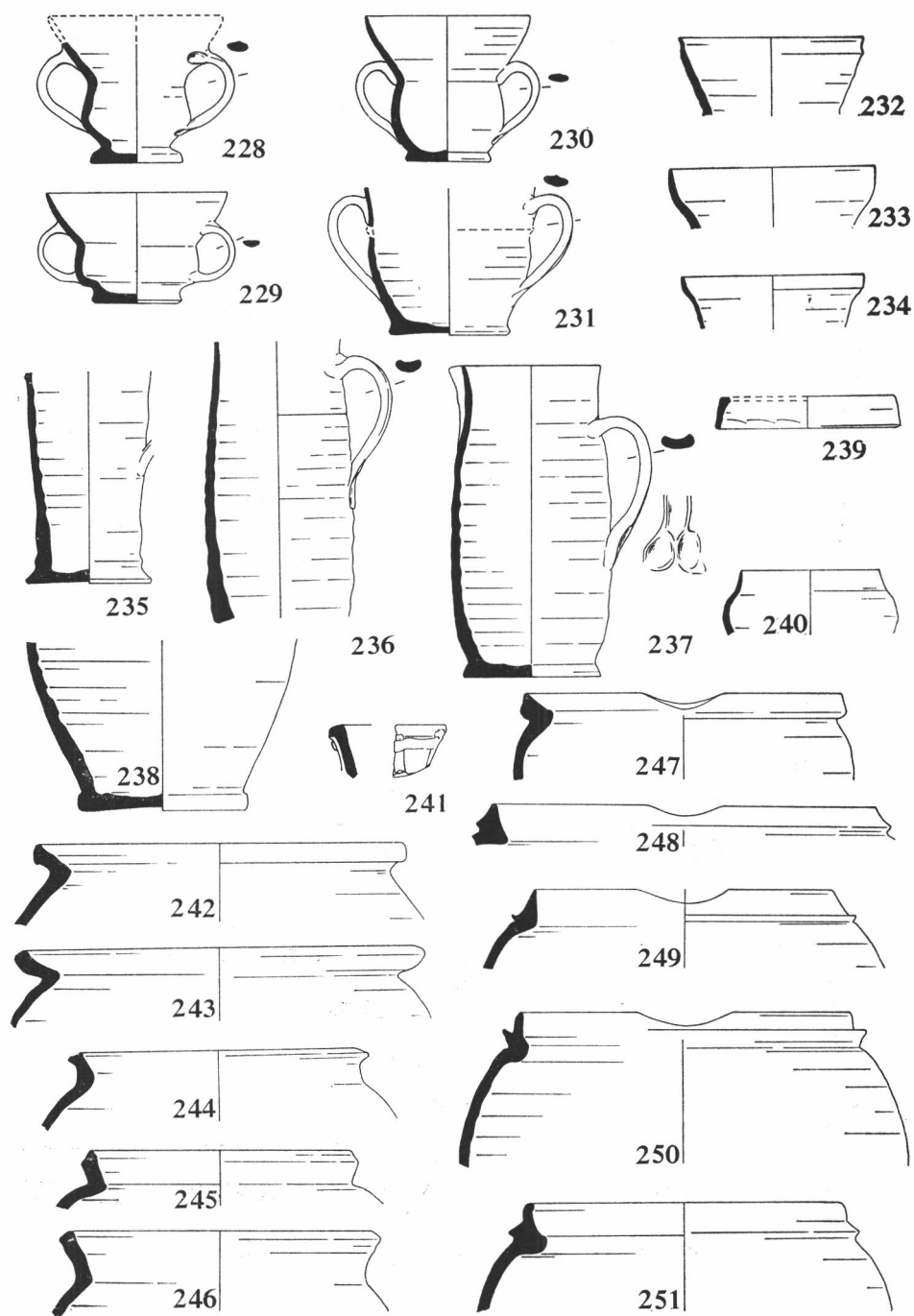


Fig. 19 Pottery from feature 15 (scale one quarter, except 241 one half).

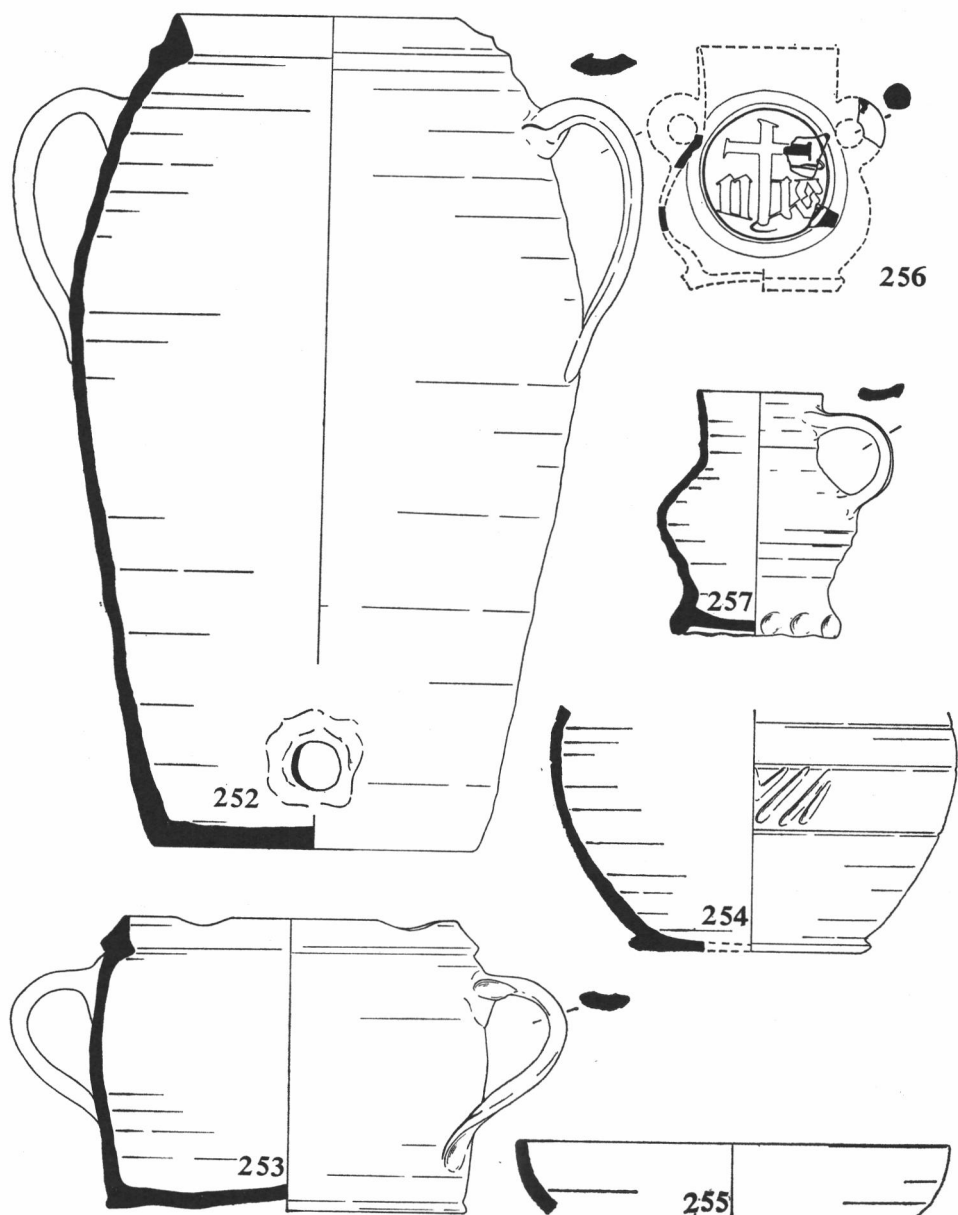


Fig. 20 Pottery from feature 15 (scale one quarter).

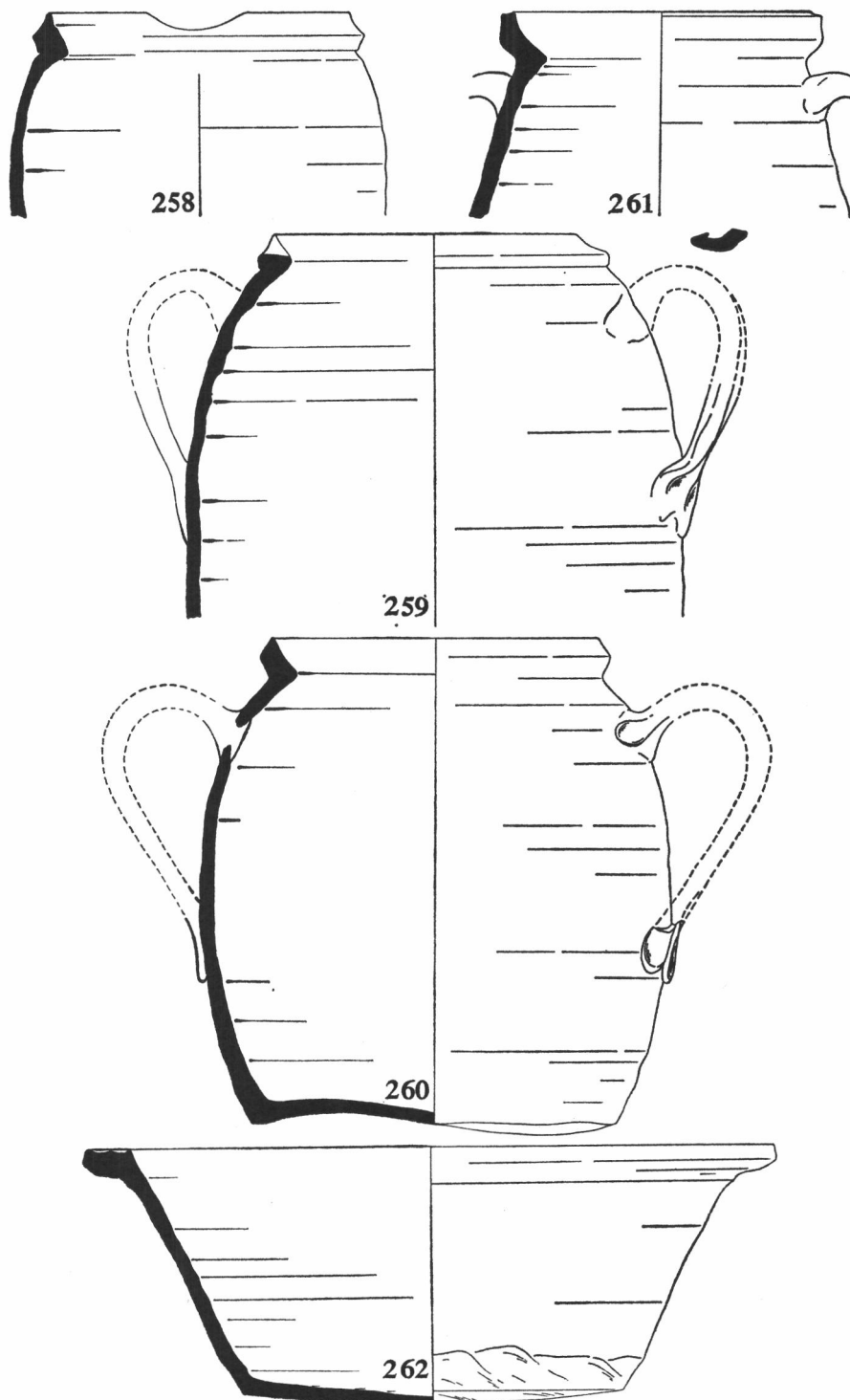


Fig. 21 Pottery from feature 41 (scale one quarter).

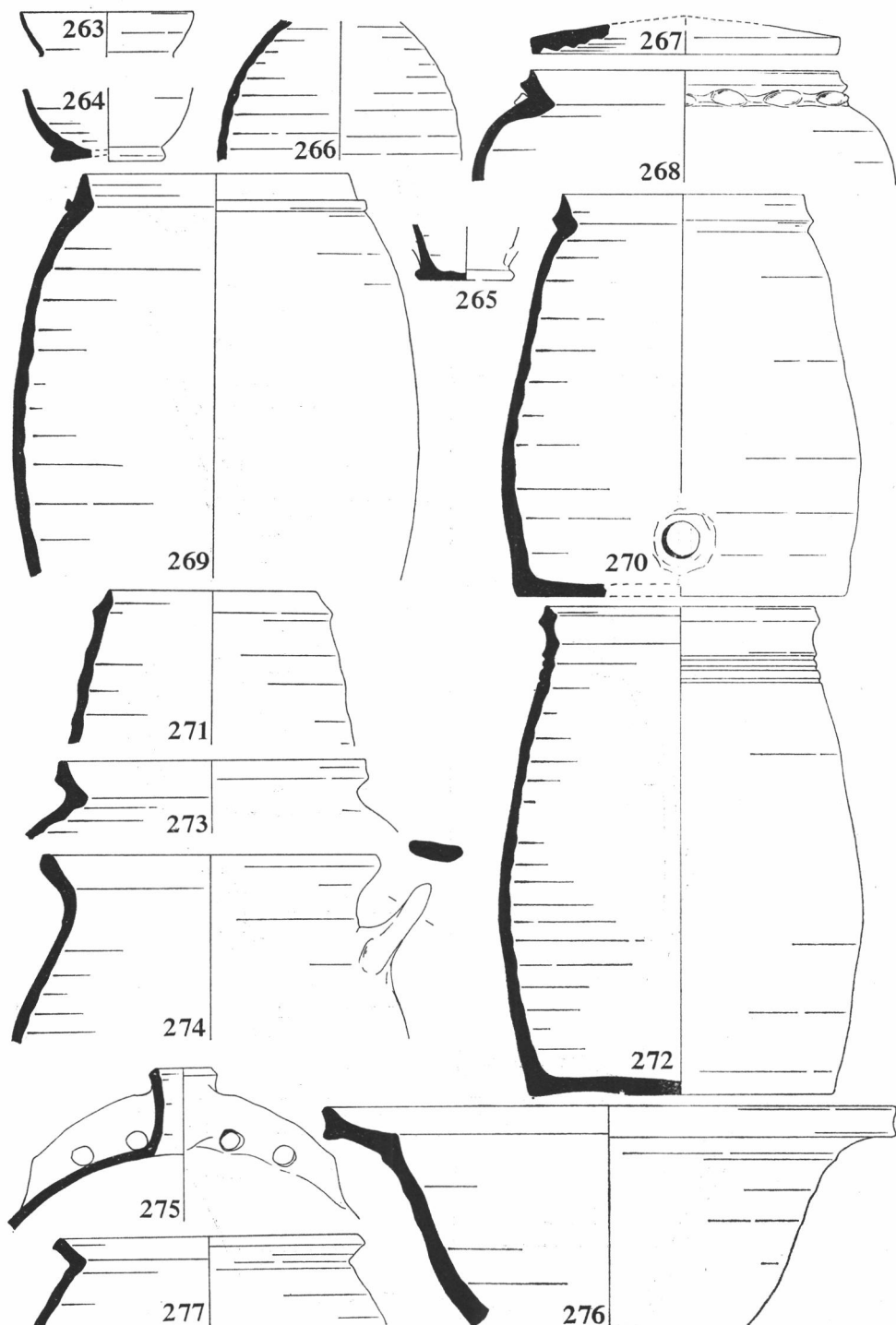


Fig. 22 Pottery from feature 9 (scale one quarter).

Pit 41 (Fig. 21, 258–262)

258–61 Cisterns or storage vessels in Midland Purple ware.

262 Virtually complete pancheon in a hard, gritty, orange fabric, tending to purple-grey on the surface, with a yellow-green glaze on the lower walls and base internally. The outer base angle is heavily knife trimmed. Possibly a late Nottingham product.

Pit 9 (Fig. 22, 263–277)

263–4 Sherds from cups with flaring rims in Cistercian ware.

265 Base of a straight-sided, two-handled cup in Cistercian ware.

266 Sherd from the shoulder of a bottle or costrel in Cistercian ware.

267 Cooking pot or cistern-lid in Midland Purple ware.

268–72 Cisterns or storage jars in Midland Purple ware. 268 has a thumb-impressed band about the neck. 270 and 272 are largely complete.

273–4 Cooking pots or skillets in Midland Purple ware. The short handle on 274 was represented by a scar on the shoulder of the vessel, but is reconstructed from a handle of another similar vessel in this group.

275 Fragment of a barrel costrel in Midland Purple ware.

276 Pancheon in a pale orange, hardish, sandy fabric with brick-coloured surfaces. Apparently an underfired variety of Midland Purple ware.

277 Cooking pot rim in a hard, smooth, slightly sandy brown-buff fabric with a grey core.

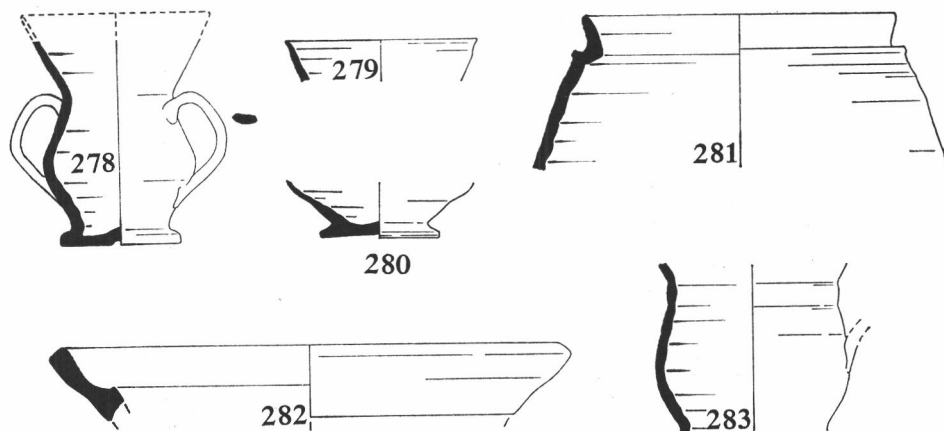


Fig. 23 Pottery from feature 12 (scale one quarter).

Pit 12 (Fig. 23, 278–283)

278–80 Two handled flaring-rim cups in Cistercian ware.

281 Storage jar or cistern in Midland Purple ware.

282 Pancheon rim in underfired Midland Purple ware.

283 Cup or porringer in a hard, finely sanded, brick-orange fabric with purple-brown surfaces, covered with a thick dark brown lead glaze. This may well be a local piece.

DATING

The pottery published here has been dated by typology of fabric and form, on a statistical basis. Certain groups (Table 1) contain dateable imports. Other groups come from intersecting pits, whose relative orders can be established (Fig. 2). On the whole, however, dating is relative, and the groups are listed below in relative date order.

TABLE 1

<i>Group</i>	<i>Date</i>	<i>Imports</i>	<i>Illustration nos.</i>
36	Second half of 11th century		1
47	Early 12th century		2
33	Early 12th century		3-5
22	Early 12th century		6-11
55	Mid 12th century		12
43	Late 12th century	X	13-24
21	Late 12th century		25-45
28	Late 12th century		46-49
48	Late 12th century		50-56
32	Late 12th century		57
2	End of 12th century	X	58-74
44	Early 13th century		75-77
46	Early 13th century	X	78-95
13	Early 13th century		96-108
24	Early 13th century		109-115
51	End of third quarter of 13th century	X	116-133
20	Last quarter of 13th century	X	134-158
26	Last quarter of 13th century		159-169
18	Last quarter of 13th century		170-185
11	Early 14th century		186-187
1	Mid 14th century	X	188-197
10	Late 14th century		198-212
37	Early 15th century		213-219
23	Later 15th century		220-227
15	Late 15th/early 16th century	X	228-257
41	Early 16th century		258-262
9	Mid-later 16th century		263-277
12	17th century		278-283
14	1760-80	X	not illustrated
17	1760-80	X	not illustrated

Only nine groups can be dated closely from their contents. The dates given to those groups without dated imports cannot be ascertained with any degree of accuracy at present, and it is to be hoped that further excavation will provide the evidence to fill these gaps in our knowledge.

It is assumed that none of the pottery from this site dates from before the mid-11th century (see below, p. 72). The earliest dated group is 43, containing a rim-sherd of a jug in developed Nottingham splashed ware, and a body sherd with Nuneaton affinities. The former is comparable with vessels in an identical fabric from the Bishops Palace, Lincoln, from a dateable construction group of the third quarter of the 12th century. One would not expect the latter sherd to be greatly different in date, occurring in the same Lincoln group (Chapman, Coppack and Drewett 1973, esp. Group A, 14 and 16-18).

Pit 2 contains a developed collar-rim from a cooking pot of Northern French type and fabric. This vessel cannot be any later than the close of the 12th century, and when taken in consideration with the rest of the group, a date at the end of the 12th century must be expected.

An early 13th-century date is attested for Pit 46 by a sherd from a Nuneaton jug, of a type common in the early levels at Whichford Castle, Warwickshire, which are dated a little earlier than c. 1240 (excavated by Mr. T. L. Jones, unpublished; the pottery is lodged in the Department of the Environment store in London). A similar date can be expected here.

Pit 51 can be closely dated by the inclusion of two vessels—a jug rim in developed Nottingham splashed ware, and a balluster jug base in Nottingham sandy ware. Splashed ware does not seem to date after c. 1260 in Nottingham, occurring as a transition form after this date. Nottingham sandy wares begin to appear at this date, and develop towards the end of the century. A group from the Moot Hall Cave, Nottingham, would support a date of c. 1260-70 for the transition between splashed ware and Nottingham sandy ware (Moot Hall Midden 1). The cut base of the balluster jug is typical of the final quarter of the 13th century (as seen in the large group of such jugs from a cave below Lloyds' Cafe, Bridlesmith Gate, Nottingham, now in Nottingham University Museum), but may appear slightly earlier, as in this instance. Finding these two vessels together has wide implications in the East Midlands—showing clearly the overlap of splashed ware and sandy ware in Nottingham, and providing a terminal date for developed Nottingham splashed ware.

Pits 20, 26 and 18 must be very close in date, if not contemporary, as a study of the vessels from them will show. All the groups contain 'Knight-jug' fragments in Burley Hill-type ware, and this form of decoration is usually believed to belong to the later 13th century (Dunning 1955). A date in the last quarter of this century is confirmed by the presence of several sherds of south-western French polychrome ware in Pit 20.

A mid-14th-century date for Pit 1 is supported by the presence of a mammiform costrel of English stoneware. Neither the form nor the ware can be expected before that date. Indeed, this group may even be a little later than the middle of the century.

The final dateable group comes from the filling of the stone-lined Well 15. Here, a virtually complete Raeren stoneware mug from the very bottom of the well, and sherds of a South Netherlands maiolica altar vase from the upper filling date the deposit to the late years of the 15th century or the beginning of the 16th century. Other wares in the group would tend to suggest an early-16th-century date.

Pits 14 and 17 were apparently contemporary and can be dated to the period 1760-80 by Chinese and English blue and white wares, Nottingham and Staffordshire stonewares, English tin-glaze and Leeds cream wares.

DISCUSSION

It is fair to assume that the pottery from this site represents an accurate cross-section of the wares used in Derby from the 11th to the later 18th century. The nature of the site would suggest that all this pottery represents the domestic refuse from tenements close to the Market Place. The sample was sufficiently large to present an accurate series.

TABLE 2

Group	D	St	GG	OG	Lt	Sp	C	BH	MPW	Ct	MY
36											
47											
33											
22											
55											
43											
21											
28											
48											
32											
2											
44											
46											
13											
24											
51											
20											
26											
18											
11											
1											
10											
37											
23											
15											
41											
9											
12											

D Saxo-Norman Derby ware
St Stamford-type ware
GG Grey gritty ware
OG Orange gritty ware
Lt Limestone-tempered ware
Sp Local developed splashed ware

C Cream sandy ware
BH Burley Hill-type ware
MPW Midland Purple ware
Ct Cistercian ware
MY Midland Yellow ware

There is no evidence to suggest that any pottery from this site dates from before the Norman conquest. As one can see from Table 2, the earliest group from the site comes from Pit 36. Here, Saxo-Norman Derby ware was associated with sherds of Stamford-type ware. Derby ware was first identified at Barton Blount, ten miles west of Derby, in contexts which were almost certainly post-conquest in date. An 11th-century date was suggested at Barton Blount, and a similar date would seem appropriate here (information from Mr. Guy Beresford, the excavator, who made the material from this site available in advance of his own publication). Derby ware did not occur elsewhere on the site.

From the 11th century until the later half of the 13th century, Stamford-type ware was in constant use, occurring in virtually every pit from Pit 36 to Pit 20. Sherds from Pit 26 were somewhat abraded, and are likely to be residual. The occurrence of this ware in such quantities, and with such a date range is most significant. The ware from Derby is identical to material from Stamford and, indeed, the cooking pots and bowls from Pits 36-42 are identical to vessels from the Wharf Road Kiln in Stamford, which can be dated to the early 11th century (information from Miss C. Mahany). It is obvious that this dating is not acceptable at Full Street. Pit 43 contains Stamford-type ware associated with developed Nottingham splashed ware which is unlikely to be earlier than the middle of the 12th century. Pit 21 again contains a large amount of Stamford-type ware, here associated with local developed splashed ware and early Burley Hill-type ware, which cannot be earlier than the end of the 12th century. The latest group containing a significant quantity of Stamford-type ware comes from Pit 20, a group well dated in the third quarter of the 13th century by imports. It can be seen that the Stamford-type ware develops in form throughout the groups present at Full Street, and that the earliest and latest groups can be dated by associated sherds. However, it has always been presumed the Stamford-type ware disappeared by the early years of the 13th century in Stamford, and there are certainly no groups in Stamford containing this ware much later than the first quarter of the 13th century (information from Miss C. Mahany). It is difficult to assess the importance of this ware in Derby at the present. There can be no doubt that the fabric at Full Street is the same as that found in Stamford. There are two possible explanations—either the pottery in the Full Street pits is residual, or that the dating of Stamford-type wares is at present unsatisfactory. The bulk and condition of the vessels studied would suggest that they were not residual, and as the bulk came from unrelated pits cut into the undisturbed natural surface, it is difficult to see where the pottery is residual from, and it is necessary to examine the dating of Stamford-type wares more closely. Stamford has produced a number of dated groups, although the great bulk of Stamford-type ware in Stamford must be dated typologically. There is a lack of imported pottery in Stamford before the final quarter of the 13th century, and in many ways, it can be seen that pottery is no better dated there than it is in Derby. The latest securely dated Stamford-type ware recorded comes from the kiln-site at Lyveden, Northamptonshire, associated with transitional Nottingham splashed ware, dated within the third quarter of the 13th century. However, this group was suspected of being residual. In the light of the pottery being discussed here, it may not be. Set against this must be the evidence of a large pit group from Stamford, belonging to the final quarter of the 13th century, which contained no Stamford-type ware, but quantities of south-western French polychrome ware, Nottingham ware, and South Lincolnshire wares. The most likely answer would be that Derby and Stamford both received their Stamford-type ware from kilns not at Stamford, at least in the later 12th and 13th centuries, and that supplies continued to reach Derby many years after they had fallen from use in Stamford.

Grey gritty ware and orange gritty ware should be considered together, being in reality the same fabric, fired under different conditions. They are apparently local, for as yet they have failed to be identified elsewhere, continuing the late Saxon sandy ware tradition. The forms are distinctive—cooking pots with upright rims, and large bowls with flat-topped rims. The date range would seem to be from the 12th century to the

late 13th century, occurring in all pit groups from Pit 22 to Pit 20. Orange gritty ware also occurs in Pits 26 and 18. It is interesting to note that they run parallel to bowls and cooking pots in Stamford-type ware. There is no evidence to suggest that the finer ware was used as a table-ware, it was found to be equally sooted and burned. A change in the style of the large cooking pots in grey gritty ware in Pits 48 and 44 shows in vessels 51 and 79. Here the lower body of the vessel was handmade, with a rim thrown on with the part finished vessel set upon a wheel. Vessel 51 shows the base construction well, a circular base has been cut on a template, and a coiled wall has been added to it. The junction was strengthened with a strip of clay. Vessel 79 shows the manner in which the rim was applied. It can be seen that, in technique, at least in its later stages, grey/orange gritty ware is related to Lyveden wares, and harsh sandy wares as seen at Ellington, Huntingdonshire (Tebbut, Rudd and Moorhouse 1971, esp. pp. 59–61 and pls. i–iii).

Limestone-tempered ware is a local variety of shell-tempered ware, where the shell fragments used as tempering have been replaced with crushed limestone (cf. Addyman 1964). At Full Street, this ware first appears in Pit 43 in the late 12th century, occurring in all groups up to Pit 20. This would suggest a floruit of almost a century, although there is no great quantity of this ware. Its centre of production has yet to be located, but it is worth noting here that an identical fabric appears in some 13th-century groups in Nottingham, such as the group from a cave in St. Ann's Street, now in Nottingham University Museum. Limestone-tempered ware was certainly not produced in Nottingham, but similar quantities appear there. With one exception, all sherds represent cooking pots, and these vessels can be seen to develop throughout the 13th century. It is uncertain whether the handmade vessels 140–41 in Pit 20 belong to the end of the limestone-tempered tradition, or whether they are residual, for this group contains a Thetford ware rim (156) which is obviously residual. The state of vessels 140 and 141 would suggest they are not, for they are quite fresh, and are both from vessels of the same general form, which may be copied from contemporary grey gritty ware cooking pot forms.

A study of the Full Street pottery has shown that a developed splashed ware was produced in Derby in the late 12th and early 13th centuries, appearing in Pits 43, 21 and 28, and occurring later only as sporadic body sherds. All sherds seem to be from jugs, which were apparently barrel-shaped body with a tall, flaring rim, and a thumb-notched strap-handle. Both its form and fabric distinguish it from the developed splashed wares of Nottingham (Chapman, Coppack and Drewett 1973, Group A, 16–18) and Lincoln (*ibid.*, Group A, 20–21), and the closest parallels in form come from Leicester (Jewry Wall Museum, Leicester, 140, 1861), though here again, the fabric is obviously different. It can be clearly shown that developed splashed wares of Nottingham and Lincoln were established before the end of the 12th century, and the Derby product must have a similar date range. However, the early appearance of Burley Hill-type wares might suggest that the local developed splashed ware did not survive until the mid-13th century, the usually accepted date for the termination of such wares.

The first fine-ware to appear in Derby which is apparently of local manufacture is cream sandy ware. It first appears in Pit 43, where there is only one sherd, and as a few body sherds in Pits 21, 28, 48 and 2. From Pit 44, the ware becomes much more common, either as cooking pots or jugs. The most common jug rim is represented by vessels 86 and 99, whilst cooking pots are represented by vessels 103–05, for the smaller vessels, and 101–02 for the larger vessels. Bowls such as vessels 128–29 were also well represented. The latest group to contain cream sandy ware is Pit 20, and the main distribution of the ware lies between Pits 44 and 20, with a scattering of sherds in other earlier deposits. Unless the early sherds are intrusive, and there is no reason to suspect that they are, cream sandy ware would seem to date from the late 12th to the late 13th centuries.

Burley Hill-type ware appears in the late 12th century in Pit 28, although it does not become particularly common until perhaps the early years of the 13th century, and it continues into the 15th century in Pit 37. Kilns are known at both Burley Hill and

Allestree, near Derby, producing identical wares, and were obviously the main source of pottery for the city in the late 13th and 14th centuries. (Information from Mr. R. Hughes, who has excavated waster-heaps at both sites.) On the whole, the quality is poor, although it is noticeable that the earlier examples tend to be more finely executed. Cooking pots and bowls in this ware are plain, and purely functional, but many of the jugs are decorated with applied motifs. The most common decoration is in the form of applied grid-stamped pads, usually spread at random about the vessel below the glaze (Plate I, a-b), or applied scales. The former technique is not otherwise known in the East Midlands, although it does occur at Lyveden (Bryant and Steane 1969), and again in Surrey (London Wall, Guildhall Museum 10632) and London (Fenchurch Street, British Museum B 110). The latter technique is well represented in the East Midlands. Applied rosettes, such as that on vessel 151 (Plate I c) are less common, but are known from the kilns at Nuneaton, where grid-stamps onto the body of the vessel are also noted (information from Mr. K. Scott). The most distinctive form of decoration is the use of applied and incised figures, apparently in the form of knights with shields walking around the vessel (Plates II and III). The figures occur either with grid-stamped pads (Plate II) or bunches of scales (Plate III). This form of decoration is associated with the West Midlands industries, notably at the Audlem kiln and in Coventry (Webster 1960). In Derby, this type of decoration is common amongst wasters from the Burley Hill site. The late-13th-century date of these vessels fits well with the accepted date of 'Knight Jugs' in general. Burley Hill-type ware survives well into the 15th century, the only apparent changes in its appearance being a tendency towards plainer decoration, and a deterioration in workmanship as time progresses. There is also a marked resemblance to Midland Purple ware where some of the later Burley Hill wares have been overfired.

Midland Purple ware occurs from the early 13th century at Full Street, and is present in all groups up till the 17th century. This is a surprising date range, the earliest hitherto recorded vessel in this ware dated to the mid-14th century by a coin hoard, comes from Attenborough in Nottinghamshire (information from Mr. A. G. MacCormick, Nottingham Castle Museum). The Midland Purple ware from Pits 43-37 is remarkably similar to Burley Hill-type ware in appearance, the only obvious differences being the form of the vessel, and the degree of firing. There may be some connection between these wares, though it need be no more than a common clay source. In the later half of the 15th century, a new pottery factory-site was established at Ticknall, seven miles to the south of Derby, in the vicinity of Calke Abbey (Brears 1971, 175). Here, Midland Purple ware was produced in great quantities, occurring in all groups from this date at Full Street. The purple wares from Pits 23-12 are identical to sherds from the kiln site at Ticknall, now in Derby Museum. This site was also producing Cistercian ware. Kilns were excavated in the mid-19th century by Miss Lovatt of Calke Abbey, and some of the excavated pots, originally presented to the Jermyn Street Collection, survive in the Victoria and Albert Museum. In common with the Full Street examples, the Cistercian ware vessels from this site have small fragments of iron-free clay which have not been fully mixed into the iron-rich clay of the body, and shown through the glaze as white or yellow flecks. This would seem to be peculiar to the Ticknall kilns. It is interesting to note that Cistercian ware first appears at Full Street in Pit 23, the first group to certainly contain Midland Purple ware of Ticknall-type.

Midland Yellow ware occurred only in a single deposit, from the filling of Well 15, where it must belong to the late 15th/early 16th century, a slightly earlier date than one would have expected. The forms would seem to be copying Cistercian ware types, and unless further evidence can be produced to the contrary, it must be accepted that Midland Yellow ware appears as early as the first quarter of the 16th century.

CONCLUSION

It has been possible to construct a type-series of vessels based on both form and fabric from the contents of 41 pits and wells on this site. Several of the groups could be dated by the inclusion of dateable imports, or by stratigraphical relationships, whilst

other groups could be fitted into the series on a statistical basis. Although much of the dating remains relative, several important aspects of the pottery have been noted, and it is to be hoped that further work will either modify or augment this initial study.

* * *

CONCLUSIONS

Excavations have revealed a series of features dated by the pottery found in them to the second half of the 11th century onwards. No trace of any building was encountered, unless the line of stone flags set in a shallow trench, feature 45, is interpreted as a building foundation. The absence of pits to the east of it might imply that a building extended in this direction, but there is no trace of any return wall, except for the single worked stone at the north end, nor is any building shown on this alignment on any surviving map. The pottery from Feature 48, which is cut by, and thus earlier than, 45, demonstrates that it must date to after the mid-13th century, and it would thus be possible for a building to have been erected and removed again before the first maps were drawn.

Alternatively, two approximately straight alignments of pits, one including Features 15, 46, 44, 12, 32, 33, and 2, the other Features 4, 10, 9, 18, 21, 54, and 55, which have a distinct gap between them, possibly demonstrate that Feature 45 represents part of a major property division which ran diagonally across the area, but which only survives in this form on the northern part of the site. This interpretation is reinforced by the apparent clustering of pits along this supposed line, i.e. at the bottom of plots, understandable as they appear to have served as refuse and cess pits.

All traces of the medieval and later buildings to which the pits related had been removed by modern cellars. However, this should not discourage further excavation within the present urban nucleus, as observation of trenches cut during work on an extension at the rear of Messrs. Butler at No. 5 Irongate revealed the presence of three timber piles, ranging in diameter from 16–25 cms. and surviving to a height of 45 cm. These were apparently associated with pottery of 14th–15th century date, and demonstrate that medieval building foundations can and do survive in the area.

This leaves still unanswered the question of the precise location of the important Anglo-Scandinavian settlement. The sole object recovered during the excavation which could belong to the period before the Norman conquest is the ring-headed pin, commented on above, p. 38. However, even this could be of post-conquest date. The absence of pre-Norman pits suggests that no dwellings of that period were in the vicinity. Other factors point to the Late Saxon period town occupying the peninsula between the River Derwent and the Markeaton Brook, which ran approximately along the line now taken by Jury Street, Bold Lane, Strand, Victoria Street, and Albert Street, with perhaps a suburb south of the brook in the area of St. Peter's church. The recent excavation shows that if this hypothesis is correct, and further selective excavation is necessary to prove it, occupation within the area was not at a high level of density before the conquest.

REFERENCES

- ADDYMAN, P. V., 1964 note on the technology of Shelly Wares, *Medieval Archaeology* 8 (1964) 50–52.
 BERSU, G., 1947 'The Rath in Td. Lissue, Co. Antrim; report on Excavations in 1946', *Ulster Journal of Archaeology*, 3rd series 10 (1947) 30–58.
 BREARS, P. C. D., 1971 *The English Country Pottery, its History and Techniques*, 1971.
 BRYANT, G., and STEANE, J., 1969 'Excavations at the deserted medieval settlement at Lyveden, 2nd interim report', *Journal of the Northampton Museums and Art Gallery* 5 (1969).
 CAMERON, K., 1959 *The Place Names of Derbyshire*, 2 (1959).

- CHAPMAN, H., COPPACK, G., and DREWETT, P., 1973 'Excavations at the Bishop's Palace, Lincoln', *Lincolnshire History and Archaeology* (1973, forthcoming).
- DALTON, O. M., 1922 'On Two Mediaeval Bronze Bowls in the British Museum', *Archaeologia* 72 (1922) 133-60.
- DUNNING, G. C., 1937 'A Fourteenth-century Well at the Bank of England', *Antiquaries Journal* 17 (1937) 414-18.
- DUNNING, G. C., 1965 'The decorated jug from the Moot Hall at Nottingham', *Annual Report of the Peveril Research Group* (1955) 18-23.
- GRIEG, S., 1967 'Graverte Bronzeskåler fra Tidlig Middelalder', *Viking* 31 (1967) 47-93.
- HEIGHWAY, C. M. (ed.), 1972 *The Erosion of History*, Council for British Archaeology, 1972.
- HENCKEN, H. O'N., 1936 'Ballinderry Crannog No. I', *Proceedings of The Royal Irish Academy* 43 C (1936) 103-239.
- HENCKEN, H. O'N., 1950 'Lagore Crannog: an Irish Royal Residence of the 7th to 10th centuries A.D.', *Proceedings of the Royal Irish Academy* 53 C (1950) 1-247.
- HURST, J. G., 1962 'White Castle and the dating of Medieval pottery', *Medieval Archaeology* 6-7 (1962-63) 135-55.
- MED. ARCH., 1962-63 note on excavations at the Gun Garden, Bodiam, Sussex, in 'Medieval Britain in 1971', *Medieval Archaeology* 6-7 (1962-63) 334-35.
- O'RIORDAIN, B., 1971 'Excavations in Dublin', *Medieval Archaeology* 15 (1971) 73-85.
- RYDER, M. L., 1969 'Changes in the fleece of sheep following domestication (with a note on the coat of cattle), in P. J. Ucko and G. W. Dimbleby (eds.), *The Domestication and Exploitation of Plants and Animals*, London, Duckworth, 1969, 495-521.
- TEBBUTT, C. F., RUDD, G. T., and MOORHOUSE, S. A., 1971 'Excavation of a moated site at Ellington, Hunts.', *Proceedings of the Cambridgeshire Antiquarian Society* 63 (1971) 31-73.
- WATERMAN, D. M., 1959 'Late Saxon, Viking and Early Medieval Finds from York', *Archaeologia* 97 (1959) 59-105.