

THE WESTERN DEFENCES OF THE INMOST WARD, TOWER OF LONDON.

GEOFFREY PARNELL

SUMMARY

Excavations against the west curtain of the Inmost Ward revealed a north-south ditch that antedated this part of Henry III's defences. The imposing base of the Wakefield Tower (began 1221) was located within a defensive ditch. Though concealed shortly after construction, the base of the tower was almost certainly intended to be seen. The adjoining curtain was constructed in at least three stages. The completion of the first was marked by the excavation of a temporary defensive ditch south of the Coldharbour Gate. The completion of the curtain and the building of the Coldharbour Gate was probably achieved by 1238; the later was rebuilt at a subsequent date.

INTRODUCTION

The information contained in this report is largely derived from excavations carried out by the Department of the Environment in 1974/5,¹ though results from earlier, largely unpublished, investigations in 1953 and 1972 are included. The 1974–5 excavations yielded several well-dated groups of 13th-century pottery which are described here in some detail. The opportunity has also been taken to publish additional medieval assemblages from the 1963–4 Jewel House excavations in order to provide a comprehensive pottery series for the 11th to 13th centuries at the Tower of London.

To understand the development of the western defences of the Inmost Ward it is necessary to summarise the early history of the Tower as described in the *History of King's Works* and subsequently modified by the results of Brian Davison's excavations on the site of the Jewel House (Davison 1967). It is also necessary to rehearse certain points made by Peter Curnow concerning the Wakefield Tower and western curtain (Curnow 1977), not only to provide continuity, but also to record the documentary evidence to which the latter part of this report is anchored.

THE DEVELOPMENT OF THE DEFENCES c. 1066–1240

There is much that is obscure about the early history of the Tower of London. It has long been assumed that the area of the Inmost Ward, lying as it does within the south-east angle of the Roman city defences, formed part of the stronghold raised by William the Conqueror to 'overawe the vast and fierce population' of London in 1066/7. Evidence for an early enclosure was recorded by Brian Davison during excavations on the site of the Jewel House (Fig. 1). A ditch c. 8m wide and 3.5m deep was located running north-east to south-west across the Parade Ground north of the White Tower (Ditch B, Fig. 17). Near the north-west corner of the White Tower it turned south in the direction of the river. Since the White Tower (begun c. 1080) seemed curiously hemmed in by this arrangement, it was postulated that the ditch might have formed part of an earlier enclosure – perhaps a fortification dating from the emergency period that followed the Norman invasion (Davison 1967, 41).

The most likely route of the southern continuation of the ditch appeared to be down the west side of Henry III's Inmost

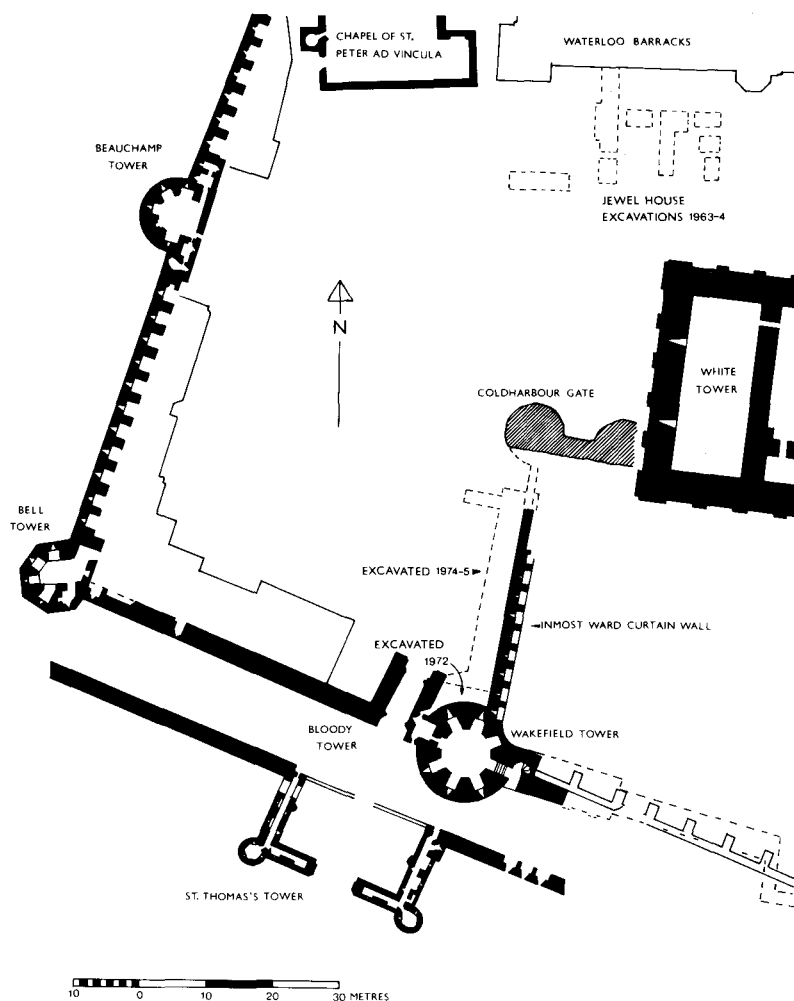


Fig. 1 General plan with location of excavations.

curtain, in the general direction of the Bloody Tower. Information obtained from an excavation against the north face of the Wakefield Tower in 1972 erroneously tended to support this theory.² The 1974-5 investigations, which sought to throw further light on the matter, did indeed locate a pre 13th-century ditch, though on a north-south alignment somewhat further to the east than had been expected. When projected it was evident that the two ditches could not have formed

a straight line of defence. The significance of this is open to debate (see below) but nevertheless there can be little doubt that they did co-exist in some form or other.

Whatever the form of the early castle, the reign of Richard I witnessed a major development of the defences in 1190. Under the direction of the King's Chancellor, William Longchamp, the outer *enceinte* was extended westwards to encompass what is now the south-east angle of the Inner Ward (Davison 1967,

42). Work involved the excavation of a new ditch behind the White Tower (on the line of the earlier one) westwards towards the site of the Beauchamp Tower (Ditch A, Fig. 17). From here it presumably turned south along the line of the inner curtain to the Bell Tower; the existing Bell Tower and curtain to the east, largely date from this period.

In 1958, excavations against the south-west jamb of the Bloody Tower were extended westwards to reveal the footings of Longchamp's curtain wall. The seven offsets of Purbeck, which form the base of the wall, were found to die away below the outer arch and in their place was a later plinth of Reigate which continued around the base of the Wakefield Tower. The fact that Longchamp's wall stopped short of the corner of the Inmost Ward strongly suggests that by the end of the 12th century the ditch located on the north side of the Wakefield Tower was still a conspicuous feature (Fig. 5). By 1221, however, it must have gone out of use since another ditch associated with the construction of the Wakefield Tower was found to cut through its infill (see below).

Archaeologically it can be demonstrated that the construction of Henry III's Inmost curtain involved at least three phases (Fig. 5). The first comprised the preparation of some 19.00m of foundations north of the Wakefield Tower. The southern section was integral with the construction of the lower part of the tower and can, therefore, be dated *c.* 1221–5 (Colvin 1963, 710–4, 719 and references). The second stage involved the raising of the main body of the wall above the foundations, a task almost certainly carried out hand-in-hand with the building of the upper part of the Wakefield Tower. This can probably be dated *c.* 1225–35, for by 1238 the interior of the tower was being furnished (Curnow 1977, 173–4). Work on the remaining

northern section of the wall and adjoining Coldharbour Gate was presumably completed by 1238, when a major expansion of the outer defences was set in motion (Colvin 1963, 711–2).

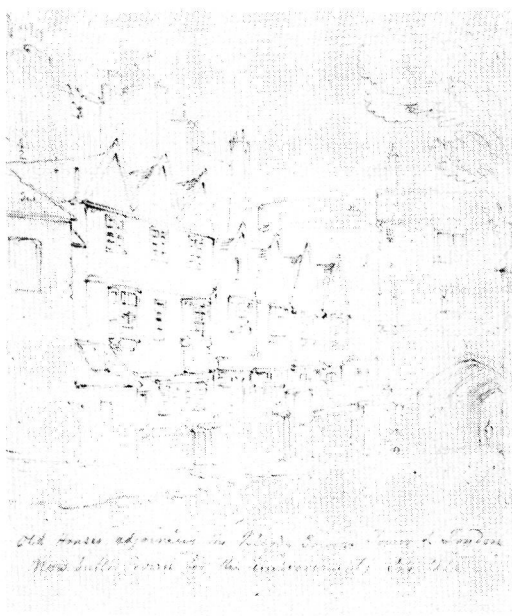


Plate 1 16th-century timber-framed buildings against the west face of the Inmost curtain, as viewed from the north-west by G. H. Shepherd in 1826 (*Courtesy of Guildhall Library*).

THE SITE

The main excavations were conducted between November 1974 and June 1975. Most of the work was confined to a 4.50m strip along the west face of the standing curtain. Since it had been assumed that only the eastern edge of the conjectured ditch would be encountered in such a narrow area, an additional 2.20m – 6.50m trench was opened towards the north end of the site, in the hope of obtaining as complete a profile of the feature as was possible (Fig. 2).

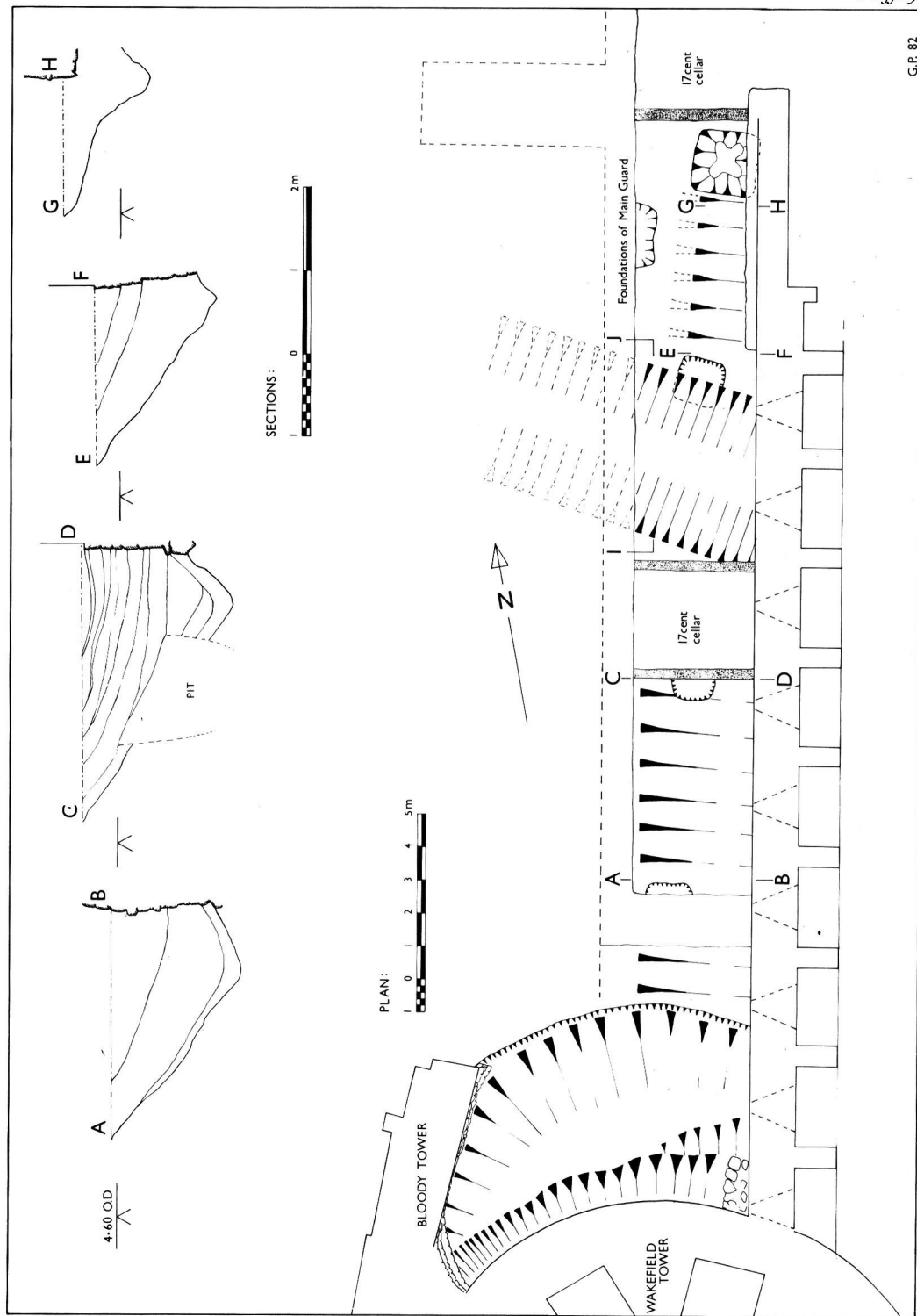


Fig. 2 Inmost Ward western defences 1974/5: Site plan and north-south ditch sections.

The west and north sides of the main area of excavation were ringed by the massive concrete foundations of the Main Guard - a daunting edifice erected in 1899 amidst much antiquarian protest and gutted by German bombs forty one years later (Plate 2). The medieval curtain itself was embedded in the heart of the building and only revealed after the Victorian masonry had been cleared away.

Until 1826 the area on the west side of the wall was occupied by a row of timber-framed buildings which, at least from 1682, served as Warders' lodgings (Plate 1). It seems possible, if not probable, that the same buildings are shown on the Haiward and Gascoyne survey of 1597. Their only surviving archaeological evidence were two deep cellars (probably

17th-century additions) and some very fragmentary ground floor footings. All cut through a cobbled road of late 15th or 16th-century date which lay directly over medieval deposits. The cobbles extended over much of the site and demonstrate that by the 16th century the ground level north of the Bloody Tower was only marginally lower than it is now.

1. PRE-HENRY III DEFENCES

The earliest medieval feature on the site was a V-shaped ditch on a north-south alignment which veered some 5° further to the north-east than the standing curtain (Fig. 2). It was traced for a distance of 26m from a point 5.70m north of the Wakefield Tower, where it had been completely cut away by a ditch associated with the tower's construction, to the



Plate 2 The 1899 Main Guard building viewed from the south-east after being gutted by German incendiary bombs in 1940.



Plate 3 The pre-13th-century defensive ditch viewed from the south. (1 m scale).

northernmost extent of the standing curtain, where its shallow remains were replaced by a 17th-century cellar. Throughout much of its course the ditch was severely cut about and truncated by later activity. Most of the eastern edge lay beneath and beyond the base of the extant curtain (Plate 3), while in the centre of the site a large section had almost entirely been destroyed by a later medieval ditch and another 17th-century cellar. Moreover, a general scarping of the site during the 13th century resulted in all but the lowest 1.00 m of the ditch surviving towards the north end of the site (Fig. 2, Section G-H). The best preserved section lay towards the south, where the scarping was least damaging. Here some 10 m of the feature survived to a maximum depth of 1.80 m; the width, when allowing for a projection of the east face, was 5.20 m.

The sides of the ditch were cut at an angle of some 35° and in the bottom was a shallow irregular runnel which had been formed by running water (Plate 3).

Over its exposed length, the bottom of the ditch sloped continuously from 4.30 m O.D. in

the north, to 3.00 m O.D. in the south.

The ditch cut through Roman deposits overlying natural London clay, which in places was sealed by sterile bands of orange-coloured river gravels and sand. Towards the south end of the site the Roman levels were covered by over 1.00 m of dark featureless earth. The top of this material, together with any subsequent deposits, had been removed during the 13th century, dating the excavation of the ditch by means of a *terminus ante quem* therefore proved impossible.

Against the sides of the ditch, in the southern half of the site, was a band of fine silty soil the surface of which marked a final scouring of the feature before its eventual backfilling (Plate 3). The deliberate infilling lay directly over this material, with little evidence for any intervening activity. It seems reasonable to assume, therefore, that the ditch went out of use shortly after its final scouring – an interpretation supported by a comparison of the pottery from both the silts and the dumping (see below).

At some stage after the infilling of the ditch,

a number of cess pits were excavated along the length of the site, their rough, north-south alignment indicating an affinity with the line of the buried ditch (Fig. 2). Doubtless this association was dictated by a pre-Henry III curtain wall lying further to the east. The largest and most elaborate pit, lay partly beneath the north end of the Henrican curtain wall and showed signs of having contained four posts, presumably to support staging (Plate 4).

II. HENRY III DEFENCES

(a) *c.* 1221–5.

The principal work during this period involved the construction of the lower part of the Wakefield Tower to at least a height of 3.70 m (the level of the plinth). The drum was sited within a large quadrant ditch which at its maximum measured 6.00 m wide and 4.50 m deep. It comprised two parts; an almost

vertical open ditch up to 3.50 m deep sloping gently southwards to a narrow cut which formed the construction trench for the lowest part of the tower (Plates 6 & 7).

Almost simultaneously with the start of the work on the Wakefield Tower was the construction of the lower part of the adjoining curtain wall within the tower's ditch. The majority of the masonry was bonded into the tower and clearly integral with it. There was, however, a rough, trench-poured footing at the base of the wall which was laid after the lowest four courses (75 cm) of the tower had been covered by a combination of silting and dumping (Plate 6).

At a height of 1.85 m and 2.55 m were two offsets in the face of the curtain. These were associated with working surfaces that extended over a mass of dumping lying against the face

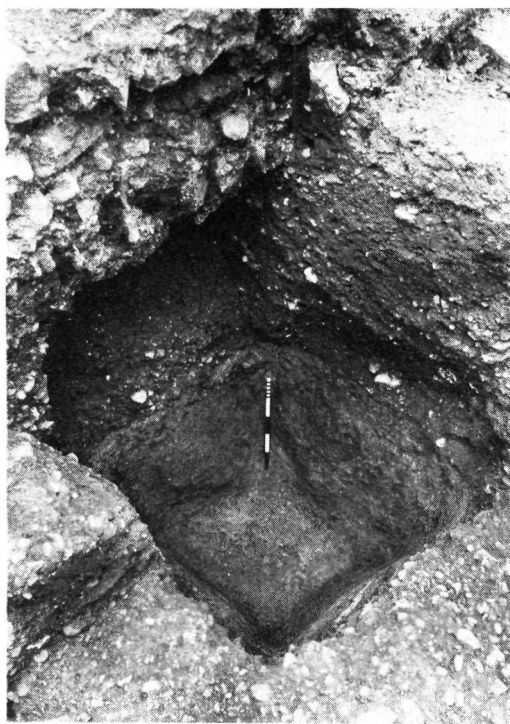


Plate 4 Early 13th-century cess pit, showing settings for internal timber staging, partly concealed beneath northern end of the curtain wall. (50cm scale).

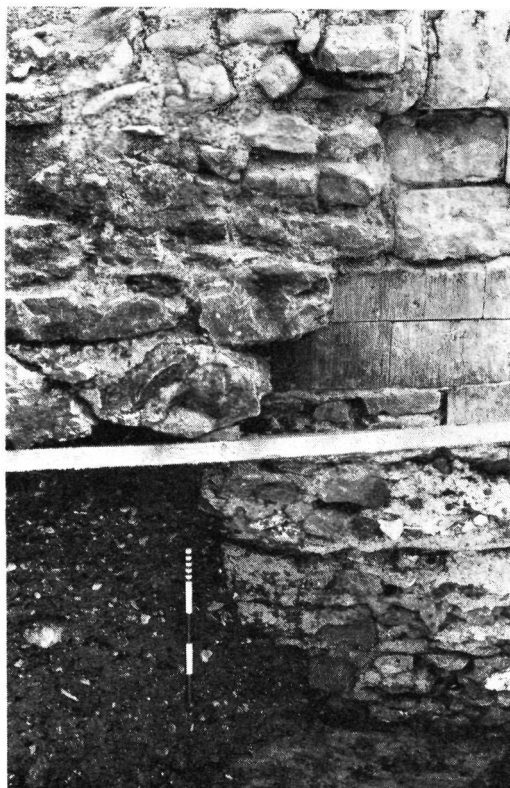


Plate 5 Foundations of northern continuation of curtain wall (left) clasped onto earlier ashlar faced masonry to the south. (50cm scale).

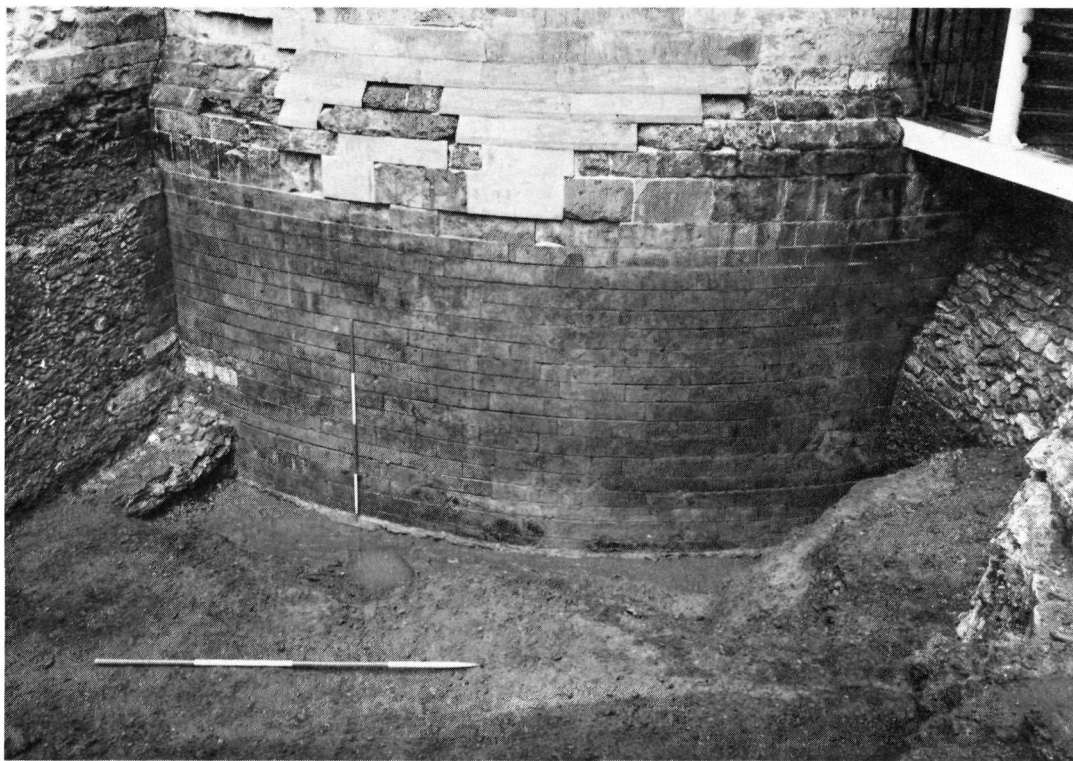


Plate 6 The excavated north face of the Wakefield Tower within its quadrant ditch. To the east (left) lies the lower part of the contemporary curtain wall, to the west the later revetment beneath the Bloody Tower. (2 m scale).

of the curtain and tower. At an early stage in the building programme, therefore, the decision to abandon the ditch around the Wakefield Tower had already been taken. That a change in concept had occurred was further supported by the character of the buried curtain itself, the coursed rubble masonry being carefully constructed and finely rendered and having all the appearance of being built to be seen (Plate 6).

Revetting the west face of the Wakefield ditch, beneath the Bloody Tower, was a wall some 1.90 m in depth. The east wall of the Bloody Tower relied on the revetment as a foundation – a function it seems to have been designed for. Though well-coursed and of stout build the revetment was not as meticulously constructed as the curtain wall opposite, it was not rendered and probably was

never intended to be seen. It butted against the face of the Wakefield Tower and was sealed by the same dumping that covered the lower part of the curtain wall (Plate 7).

Contemporary with, or immediately after, the construction of the lower part of the curtain within the Wakefield Tower ditch, was the laying of some 8 m of curtain foundations on the higher ground to the north. Initially the builders employed a trench-poured construction, but this sagged considerably while the mortar was in a fluid state – evidently because the infilling of the earlier ditch, through which the footing was inserted, had not yet consolidated. To avoid further problems the next 12 m of the foundation were laid in a face-built manner. This change necessitated an almost complete re-excavation of part of the earlier ditch in order to accommodate the

masons; once the footings had been constructed the ditch was again infilled and levelled.

After the ditch had been backfilled, but before work on the main body of the wall had begun, a defensive ditch was excavated towards the northern end of the foundations on an east-west alignment (Figs. 2 and 5). This enigmatic feature survived to a width of 4.50 m and a depth of 1.50 m (Fig. 3); its dimensions might originally have been greater as the northern edge of the ditch appeared to be truncated.

(b) *c.* 1225–35

The small amount of silting within the east-west ditch, together with the absence of any evidence for recutting, indicate that the ditch was not in use for long. The deliberate infilling was sealed by a thick deposit of Reigate chip-pings and mortar waste which extended almost as far south as the Wakefield Tower, where it was cut away by later activity. The debris coincided with an offset in the curtain wall just below the lowest course of Reigate ashlar and

clearly marked the construction level of the main body of the upstanding masonry. This is a little over 2 m wide and contains a formidable row of nine embrasures pierced with loops (Figs. 2 and 5).

(c) *c.* 1235–40

The final stage of the Henrican work involved the construction of the northern continuation of the curtain wall and the Coldharbour Gate itself (Fig. 5). The surviving part of the curtain is fragmentary, though what remains indicates a significant change in build. Unlike that to the south, the main body of the masonry is founded on a wide, but shallow raft. At ground level the wall is only some 90 cm wide (as opposed to 2 m elsewhere); there is no evidence for embrasures.

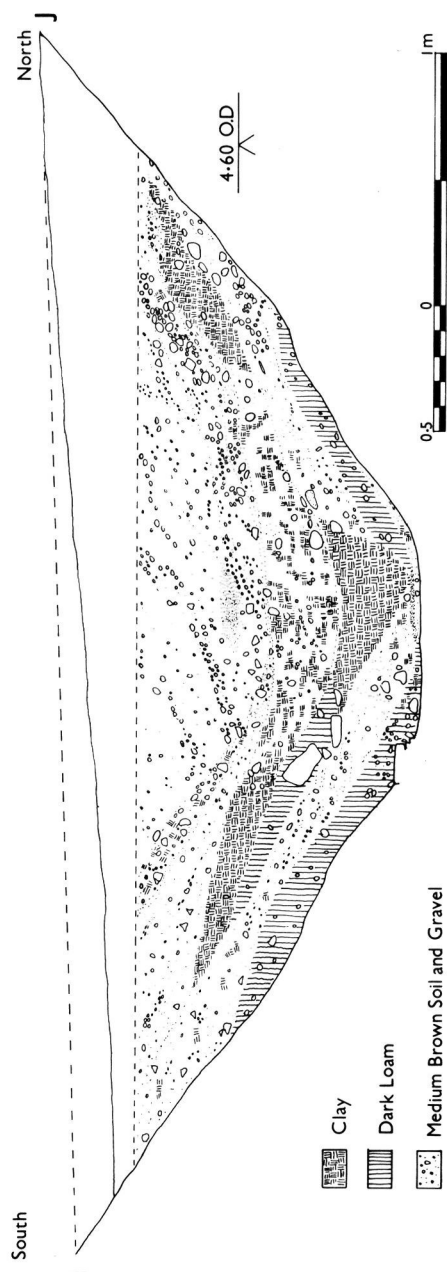
Examination of the recorded remains of the Coldharbour Gate indicate the presence of two separate structures. The earliest (that recorded in 1953) comprised the remains of a gatehouse with projecting circular towers standing just above foundation level. The plan conforms with typical twin-towered gatehouses of the 13th century and the remains can probably be attributed to the work of Henry III. The second structure (recorded in 1899), a much larger affair planted over the remnants of the former, was evidently of angular form with a large *c.* 2.50 m wide wall attached to the west flanking tower which ran south to the point in the curtain wall where the masonry narrowed (Fig. 4). It is possible, though by no means certain, that the second structure relates to documentary evidence for a proposed rebuilding of the gate in 1532 (Colvin 1975, 264).

DISCUSSION

The evidence presented here is principally concerned with two phases of the western defences of the Inmost Ward. The earliest, represented by a V-shaped ditch, could not be dated and its relationship with the Norman ditch north of the White Tower can only be conjectured. The profiles of the two features are similar and both are directed towards points along the Roman city *enceinte* where late Roman



Plate 7 Junction of the Wakefield Tower and revetment beneath the Bloody Tower. (2m scale).



G.P. 82

Fig. 3 Inmost Ward western defences 1974/5: Section across east-west ditch.

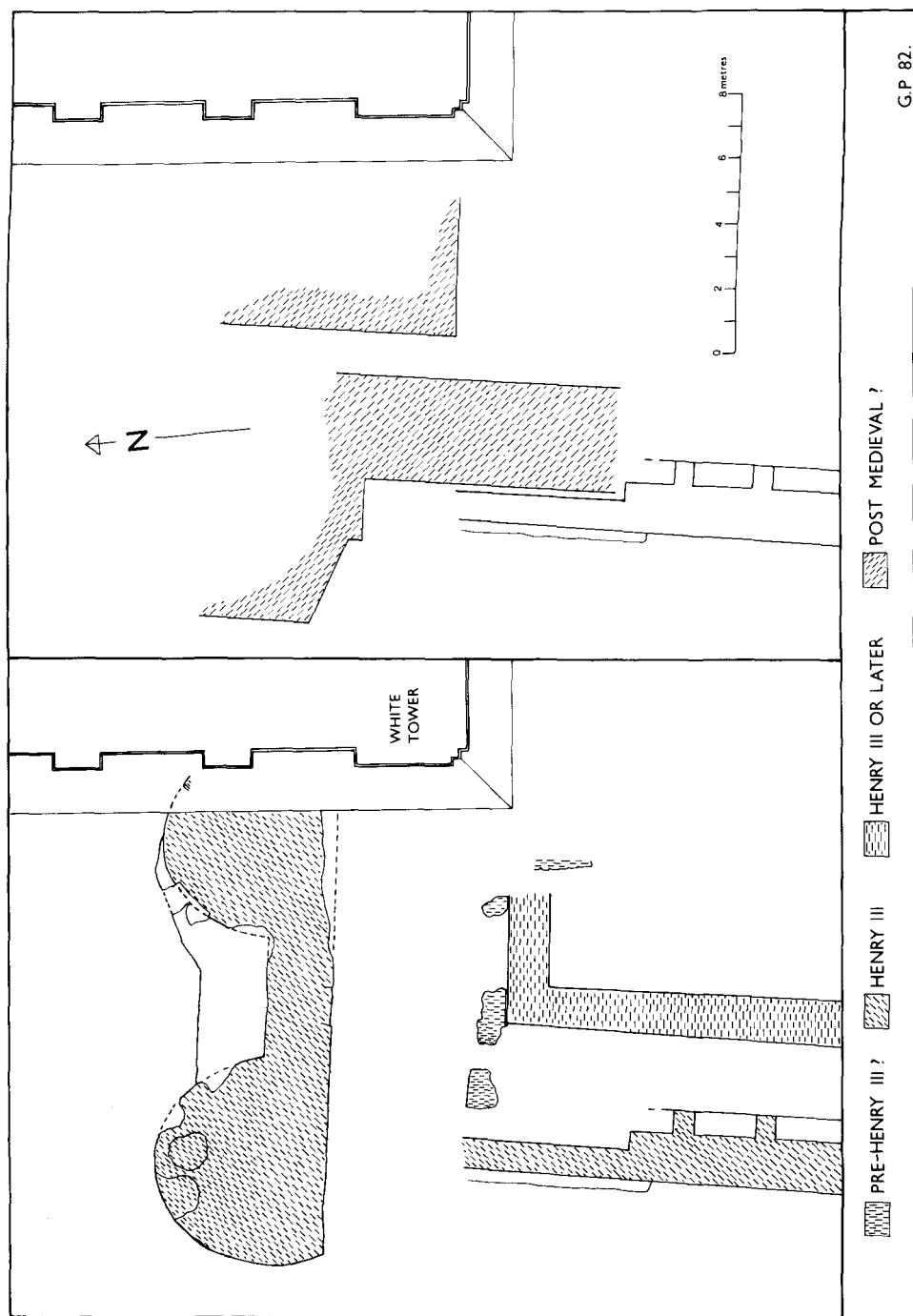


Fig. 4 Goldharbour Gate: Suggested phasing.

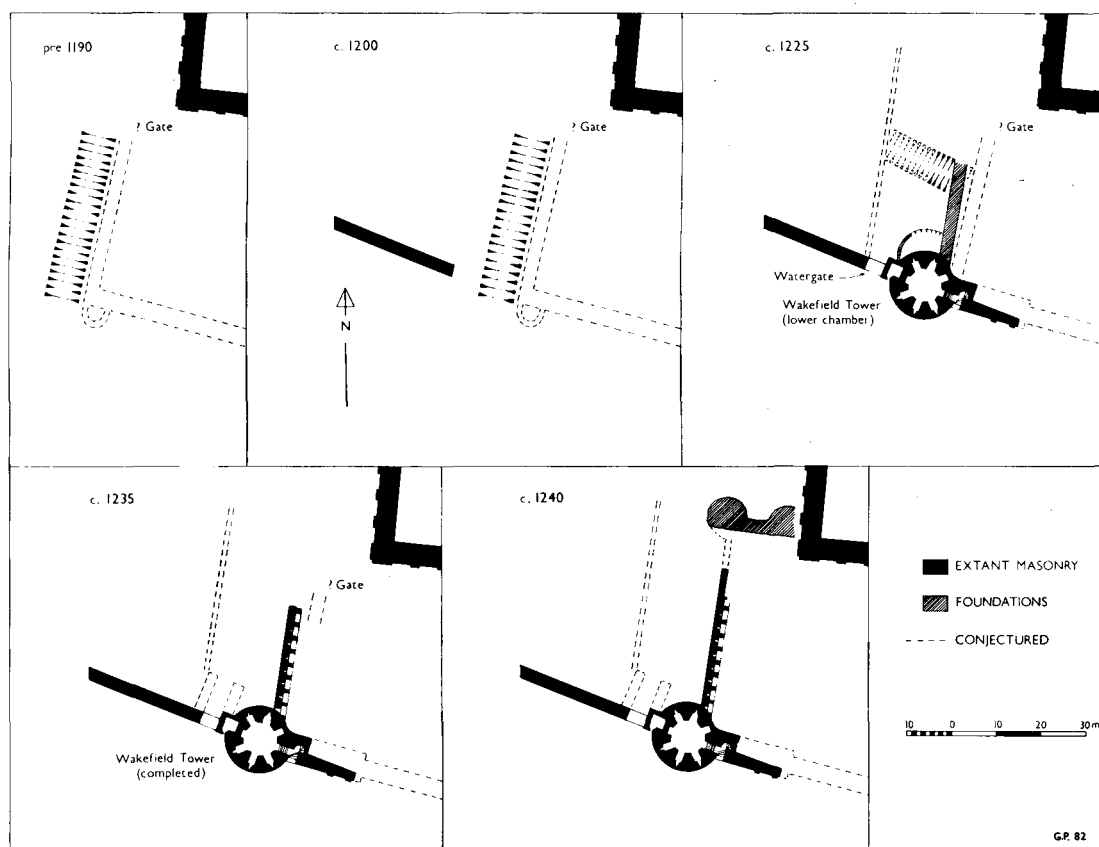


Fig. 5 Development of western defences c. 1190–1240.

bastions might have stood (Parnell 1980, 73). The fact that a simple projection of the two ditches does not produce a straight line cannot, in itself, exclude affinity. Hypothetically, the ditch turning south near the north-west corner of the White Tower might have skirted around the site of the great keep to form a semi-circular enclosure against the rear of the Roman landwall. If so, the ditch north of the Wakefield Tower might have marked the western limit of a bailey to the south. Alternatively, if projected, the two ditches might have produced a re-entrant on the site of the Coldharbour Gate – probably a point of entry into the castle from the

earliest time, since it occupies a position along the projected line of Tower Street (Curnow 1982, 66). Norman gates are invariably sited over straight lines of defence, but the situation at the Coldharbour Gate might have been complicated by the presence of a substantial Roman building that is known to exist in the area (Parnell 1980, 71–2).

The rebuilding of the defences during the reign of Henry III, as part of the general improvement of the palace within the inner sanctum, appears remarkably indecisive in its execution. Both the base of the Wakefield Tower and the southern end of the curtain wall were constructed within

a large defensive ditch and the quality of the masonry indicates that they were intended to be seen. Before construction work had passed the level of the tower's ground floor plinth, however, the ditch was infilled.

The addition of a wall against the west side of the Wakefield ditch before its backfilling may be significant for the dating of the Bloody Tower. The east side of the gate passage rests precisely over the wall and there seems to the author to be a *prima facie* case for regarding the wall as a deliberately planned foundation. The Bloody Tower itself was evidently conceived as a single arched watergate within the thickness of the curtain wall, and it was only the subsequent addition of the flanking walls and rear arch which effectively converted the structure into a gatehouse proper (Fig. 5). The Royal Commission considered the work to be late 14th century (RCHM 1930, 80 and plan), the King's Works as an extension dating from the latter part of Henry III's reign (Colvin 1963, 711 and plan), while more recently Peter Curnow has argued for Edward I (Curnow 1978, 57). Architectural arguments aside, if the wall excavated beneath the east side of the tower is accepted as integral with its build, then it therefore follows that the conversion was probably an innovation of the 1220s.

The excavation of an east-west ditch some 19m north of the Wakefield Tower is perhaps best interpreted as a temporary line of defence thrown up while work on the Wakefield and Bloody towers was in progress. There may, in fact, have been a halt in building work which left the towers indefensible (the infilling of the Wakefield ditch has already been commented upon). Since the main body of the new curtain had not yet been erected, it might be supposed that the east end of the ditch terminated before the earlier wall lying to the

east. The western limit probably rested before a wall running north from the west jamb of the Bloody Tower (on the line of the present one) which retained the higher ground to the west (Fig. 5).

In the wake of the backfilling of the temporary ditch came a resumption of work on the main body of the curtain wall. Presumably the masonry was carried up to at least the tops of the embrasures, if not in fact to the full height of the wall. Curiously, however, no attempt was made to construct the northern continuation of the wall to the Coldharbour Gate. This enigmatic decision might indicate an intention to utilise an existing gate to the east, either as a temporary or permanent measure (Fig. 5). Clearance of the ground north and east of the extant wall in 1899 and 1953 revealed numerous foundations in this area, some of which may be associated with the pre-Henrican defences (Fig. 4).

It is perhaps to be expected that during a building programme spread out over fifteen years or so, a number of structural alterations might have occurred. The vacillations evident in the fabric of the western defences of the Inmost Ward, however, suggest appraisals of a more fundamental nature. The most striking examples are associated with the Wakefield Tower, which underwent a major revision at a very early stage in its construction, and the curtain wall, which might have been designed to engage an earlier gate. The impetus behind these changes could have stemmed from either Henry III's financial and political considerations and/or the revised demands of a monarch popularly remembered for his building zeal.

NOTES

1. The medieval aspects of this investigation are presented as a synopsis owing to the fact that the present author (who occupied a subordinate position during the excavation) has access to only part of the site record.
2. The ditch encountered during this work was in fact associated with the construction of the Wakefield Tower.

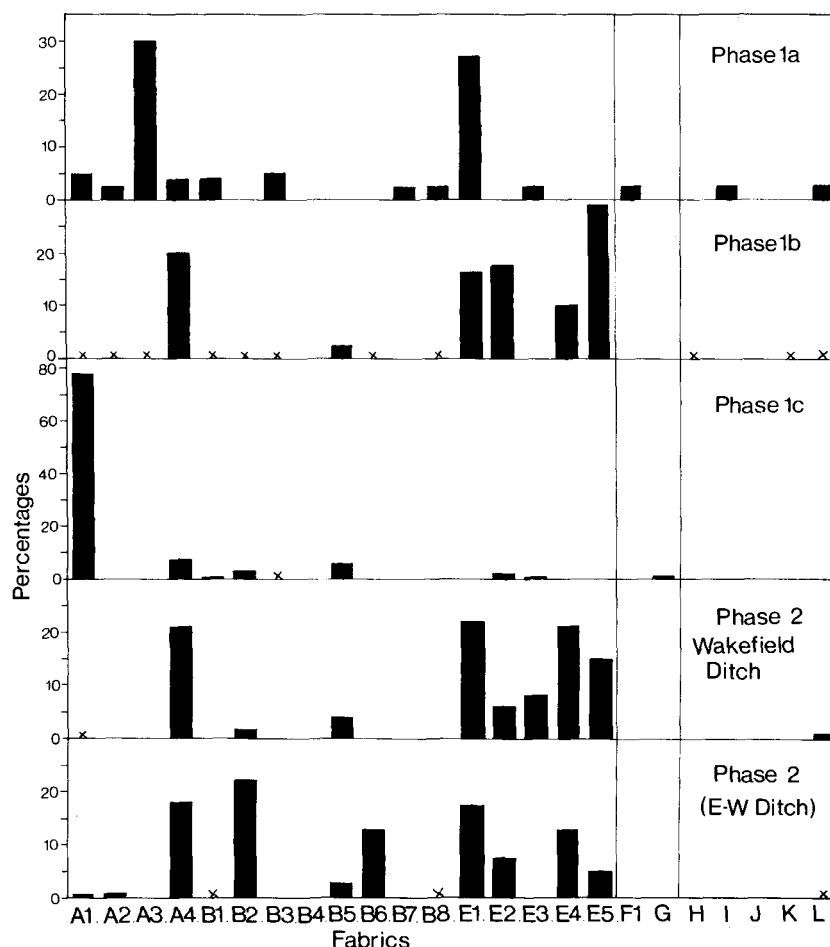


Fig. 6 Inmost Ward western defences 1974/5: Medieval pottery fabric percentages (X = 1% or less).

THE POTTERY

by MARK REDKNAP

The medieval pottery from the 1974–5 excavations north of the Wakefield Tower is of considerable interest as it forms the first securely dated assemblage of the 12th and 13th centuries so far discovered at the Tower of London.

Deposition on the site can be divided as follows:

PHASE 1 (*c.* 1190–1220)

1a. Silting within north-south ditch: layers 63, 101, 102, 106 and 122.

1b. Deliberate backfilling of north-south ditch: layers 32, 40, 45, 47, 48, 49, 62 and 103.

1c. Cesspits cut into above: layers 46, 144 and 147.

PHASE 2 (*c.* 1225–1235)

Backfilling of temporary east-west ditch and Wakefield ditch; Layers 77, 78, 87, 93 and 96, 97, 136, 137, 141, 153 (east-west ditch) and layers 227, 233 and 253 (Wakefield ditch).

Consequently the pottery has been examined and illustrated by phase. This material is now lodged in the Well Tower at the Tower of London.

METHOD OF ANALYSIS

Sherds were classified primarily by fabric, based on a visual examination 'life-size' and by 20x (area) binocular microscope of surfaces and fresh fractures. However subdivision of some fabrics depends also on surface treatment (e.g. glazed decoration). For convenience the fabric descriptions presented below include additional fabric types from the Jewel House material (Appendix). Common names are used whenever possible, and should permit correlation with other fabric indices.

In view of the small numbers involved, sherd count only has been used to quantify the different fabrics. The phasing employed represented particular events rather than periods of equal duration

THE FABRICS

The following fabric groups could be established:

A: SHELLY FABRICS

A1 (Early Medieval Sandy/Shelly Ware). Fairly hard fabric with irregular fracture. Inclusions are abundant coarse, angular (5mm), though predominantly fine to medium shell; moderate well sorted sub-angular, medium, clear and white quartz and sparse fine black iron ore. Colour: grey core, with buff-orange margins and surface.

A2 (Early Medieval Shelly). Fairly hard, irregular fracture. Inclusions are very coarse to very fine (6mm–0.1mm) shell; sparse fine black and red iron ore, sparse very fine mica. The shell often lies flat on the surface. Grey core, buff-orange margins and surfaces.

A3 (coarse variation on A1). Fairly hard, with irregular fracture. Inclusions are abundant, fine (occasionally very coarse: 1mm) white and clear sub-rounded quartz, moderate very coarse shell (5mm), moderate fine black iron ore, occasionally coarse red iron ore (0.5mm)

A4 (variation on A2: Shelly Ware). Abundant predominantly coarse shell (4–5mm) not so much finer shell as A2. Very fine sparse mica, moderate coarse (2mm) irregular limestone and moderate well-sorted medium white quartz. Grey (often dark grey) core, orange-buff margins. Characteristic later shelly fabric.

B: SANDY FABRICS

B1 (Early Medieval Sandy). Hard, harsh fabric with irregular fracture. Abundant medium, occasionally very coarse (2mm) sub-angular pink and clear quartz (sometimes grey); moderate angular red and black iron ore. Grey surfaces, often lighter buff/yellow margins and core.

B2 Fairly hard with irregular fracture. Inclusions are abundant medium sub-rounded red and black ironstone (occasionally very coarse: 1mm); sparse sub-rounded

white quartz, moderate well sorted red and clear quartz (0.6mm). Light grey core, orange-buff margins and surfaces.

B3 (variation on B1: finer Sandy Ware). Hard, fine feel, finely irregular fracture. Inclusions are moderate fine to medium sub-angular clear, white and grey quartz, sparse fine black ore; sparse coarse limestone (1mm).

B4 Similar to B3, but with abundant, predominantly coarse sub-angular and white quartz, sparse fine red and black iron ore. Grey core, orange margins with reduced dark grey surfaces.

B5 (Northolt/South Herts. Grey Ware). Very hard, with irregular fracture, friable. Moderate medium to coarse white and clear, sub-rounded quartz (occasionally angular); sparse fine black iron ore. Very occasionally coarse flint visible on surface.

B6 (Surrey?). Variation on B5, with the addition of medium limestone. Smoother outer texture.

B7 (variation on B5). Abundant fine to coarse, predominantly medium white and grey quartz, sparse fine black iron ore. Light grey core, grey surfaces.

B8 (Early Surrey?). Hard, rough with irregular, occasionally slightly laminar fracture. Inclusions are abundant ill-sorted fine to medium, sometimes coarse (2.5mm), red, white, grey and brown quartz (occasionally clear); sparse fine to medium black iron ore. Generally grey outer margin and surface, whitish-cream inside margin and surface.

C: FLINTY FABRICS

C1 (Early Medieval Flinty). Hard, rough with irregular fracture. Abundant medium to very coarse (4.5mm) angular white flint, abundant medium to coarse sub-rounded white and grey quartz, sparse fine black iron ore. Core is reddish-orange, with greyish-brown surface.

D: CHALKY FABRICS

D1 (Early Medieval Chalky). Fairly hard, irregular fracture, with abundant ill sorted coarse (0.6–1.5mm) sub-angular white red and clear quartz, moderate coarse chalk (1–1.5mm).

E: SANDY LONDON WARES

E1 Hard with finely irregular fracture. Grey core, red-orange margins and surfaces, with moderate, predominantly fine to medium clear and whitish sub-rounded quartz, abundant fine black iron ore, occasionally red iron ore. Surface treated often with white slip and green splashed glaze.

E2 (variation on E1). Abundant fine sub-rounded white quartz, occasionally coarse clear quartz (1mm): abundant fine black iron ore; occasionally grog. Not always glazed.

E3 (coarse variation on above). Hard, harsh texture, with abundant sub-rounded, coarse brown, grey and white quartz. Occasionally very coarse (1.5mm).

E4 Fabric as E1, distinguished by external treatment of clear/amber glaze over white slipped lattice decoration (appears as yellow).

E5 ('Rouen Copies': London/N. French Ware). Fabric as E1. Surface treated to yellowish green glaze direct on body, alternating with dark brown glazed panels bordered

in white slip in imitation of true Rouen Ware.

E6 As E5, but with all over white slip beneath glaze, over which decoration has been formed.

F: THETFORD TYPE WARE

F1 Hard, fine fabric with finely irregular fracture (slightly laminar). Abundant very fine angular white quartz, occasionally coarse (1–3 mm). Grog? Sherds are frequently trimmed/scraped inside. Dark grey to black colour throughout (surfaces darker).

F2 Possibly oxidised version, though definition as Thetford uncertain. Similar surface appearance to H, but in hard orange fabric with finely irregular fracture and inclusions of abundant very fine ironstone and fine to very fine sub-rounded clear and white quartz. Trimmed internally.

G: STAMFORD

Very fine, smooth fabric, slightly laminar fracture. Inclusions are sparse fine clear quartz (predominantly very fine); very fine red and black iron ore; mica flecks. Cream-buff throughout, leaf green glaze out.

H: EARLY GERMAN 'STONEWARE'

Very highly fired, though not true at stoneware, it is hard dense, with conchoidal fracture. Inclusions are moderate coarse, angular clear quartz/felspar, moderate sub-angular coarse ironstone, sparse angular coarse white quartz, with moderate yellow clay flecks (0.6 mm) contrasting with the dark reddish brown core. Sparse coarse angular black inclusion (0.6 mm). Grey margins and dull, matt brown clay slipped glaze. Resembles the 12th century early stonewares from the middle Rhineland (e.g. Aachen, Trier, Mayen) The angular inclusions do not suggest a Rhine sediment source.

I: 'PINGSDORF TYPE' WARE

Dense, hard, highly fired fabric with finely irregular, slightly laminar fracture. Inclusions of abundant very fine to medium well sorted sub-angular white and clear quartz (0.3 mm), sparse ill-sorted, generally fine, red and black iron ore. Surface treated often with red paint (fires dark brown). For analysis of the numerous red-painted ware fabrics from the middle Rhineland see Janssen and De Paepe (1976). The sherds from the Tower resemble samples collected by the author from material excavated at Brühl-Pingsdorf (now in Bonner Landesmuseum) but granulometric analysis is really necessary for source identification, and much work remains to be done on fabric ranges.

J: 'BLAUGRAUE WARE'

Finely rough surface texture, very hard with conchoidal fracture. Abundant ill-sorted sub-angular fine and medium grey and white quartz, abundant very fine to medium black iron ore (occasionally 0.5 mm). Light grey with creamy margins; greyish-black surfaces. Outer surface decorated by deep horizontal finger rilling.

K: ANDENNE WARE

K1 Smooth, hard buff-orange fabric with finely irregular

fracture. Inclusions are moderate very fine well-sorted sub-rounded clear and pink quartz; sparse very fine black and red iron ore. Outer surface covered in amber-brown glaze.

K2 Coarse variation on above. Sandier orange fabric with abundant medium sub-rounded pink and clear quartz, sparse fine black and red iron ore. Amber glaze in and out.

L: ROUEN WARE

Smooth, hard, finely irregular fracture, with moderate very fine sub-angular clear quartz, occasionally very coarse (1.5 mm); sparse very fine black and red ironstone; sparse coarse sub-angular pink quartz. Creamy white colour throughout with yellow glaze on outside.

M: NORTH FRENCH?

Smooth, hard, finely irregular fracture with abundant very fine red and black iron ore; sparse coarse angular white quartz; occasionally fine sub-angular pink quartz. Creamy white fabric with leaf green outer glaze.

CATALOGUE

Descriptions have been kept minimal, concentrating on detail not apparent from illustrations. The following abbreviations have been used: HM = hand-made; G = green; B = brown; Y = yellow; GR = grey; O = orange; M = margins.

Fig. 7. A. Cooking pot found by excavations at the foot of the inner curtain wall west of the Bloody Tower in 1958 in deposits overlying the base of the wall and therefore probably deposited sometime after its construction in 1190. For triple finger tipping on a similar example see Curnow 1977, Fig. 10, No. 2 from a mid 13th-century context against the south side of the Wakefield postern. Six pie-crust strips around circumference. Fabric A4.

Phase 1a (c. 1190–1220).

Fig. 7.

No.	Fabric	Layer	References, comments
1	B3	63	(Thorn 1978, Fig. 50, No. 19) Stamped top.
2	B3	63	(Durham 1977, Fig. 17, No. 5) Sooted out.
3	A3	102	(Durham 1977, Fig. 18, No. 1, Fig. 19, No. 13) Not obviously HM.
4	A3	102	(Durham 1977, Fig. 17, No. 6) HM.
5	B1	106	(Durham 1977, Fig. 17, No. 17) Fine, sandy. G core and M., O surfaces.
6	A1	63	HM, reduced.
7	E1	63	Green glaze direct on body.
8	E1	63	Green glaze direct on body.
9	E1	63	Green glaze direct on body. Rod handle.

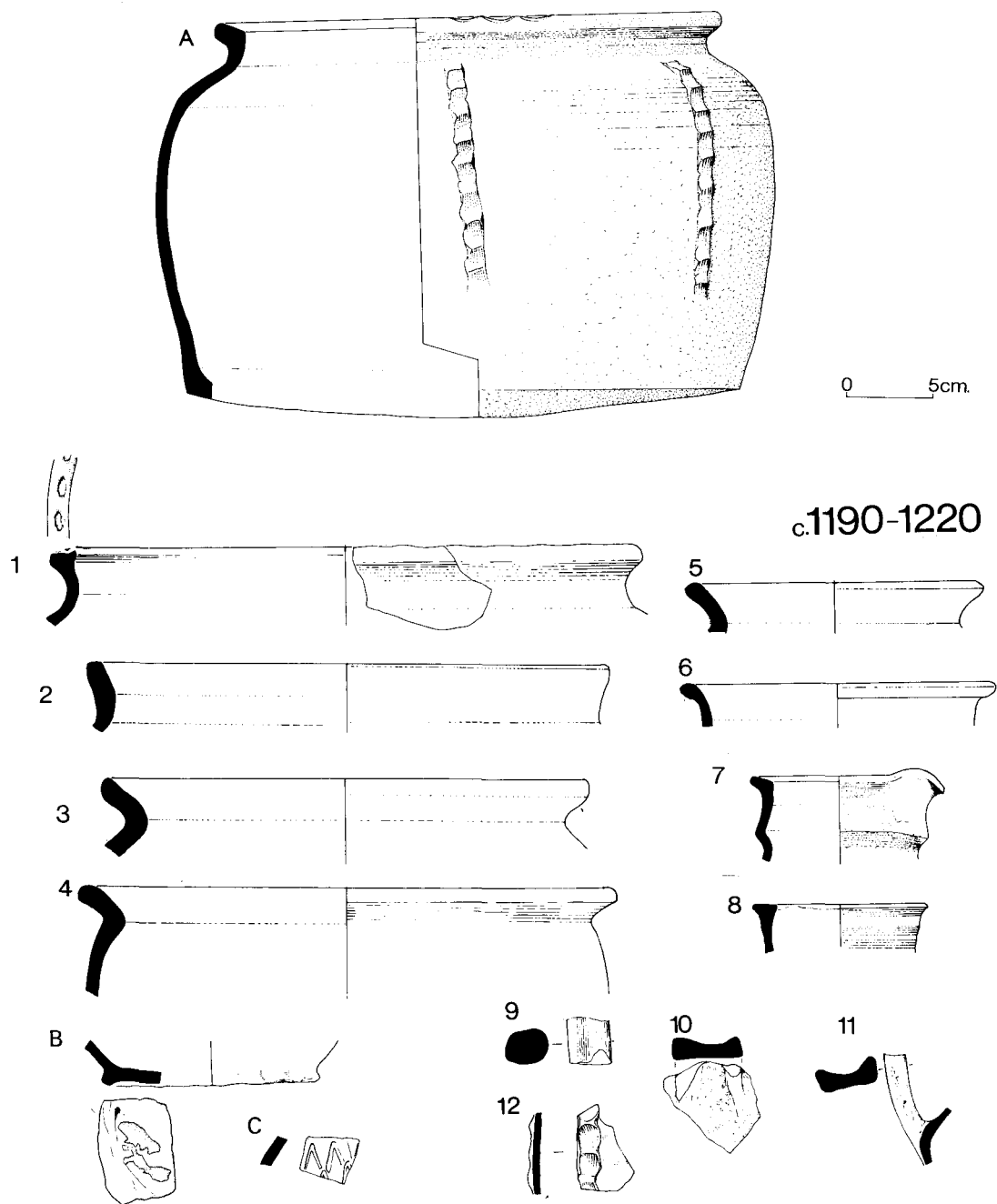


Fig. 7 Inmost Ward western defences 1974/5: Medieval pottery Nos. 1–12. (1/4)

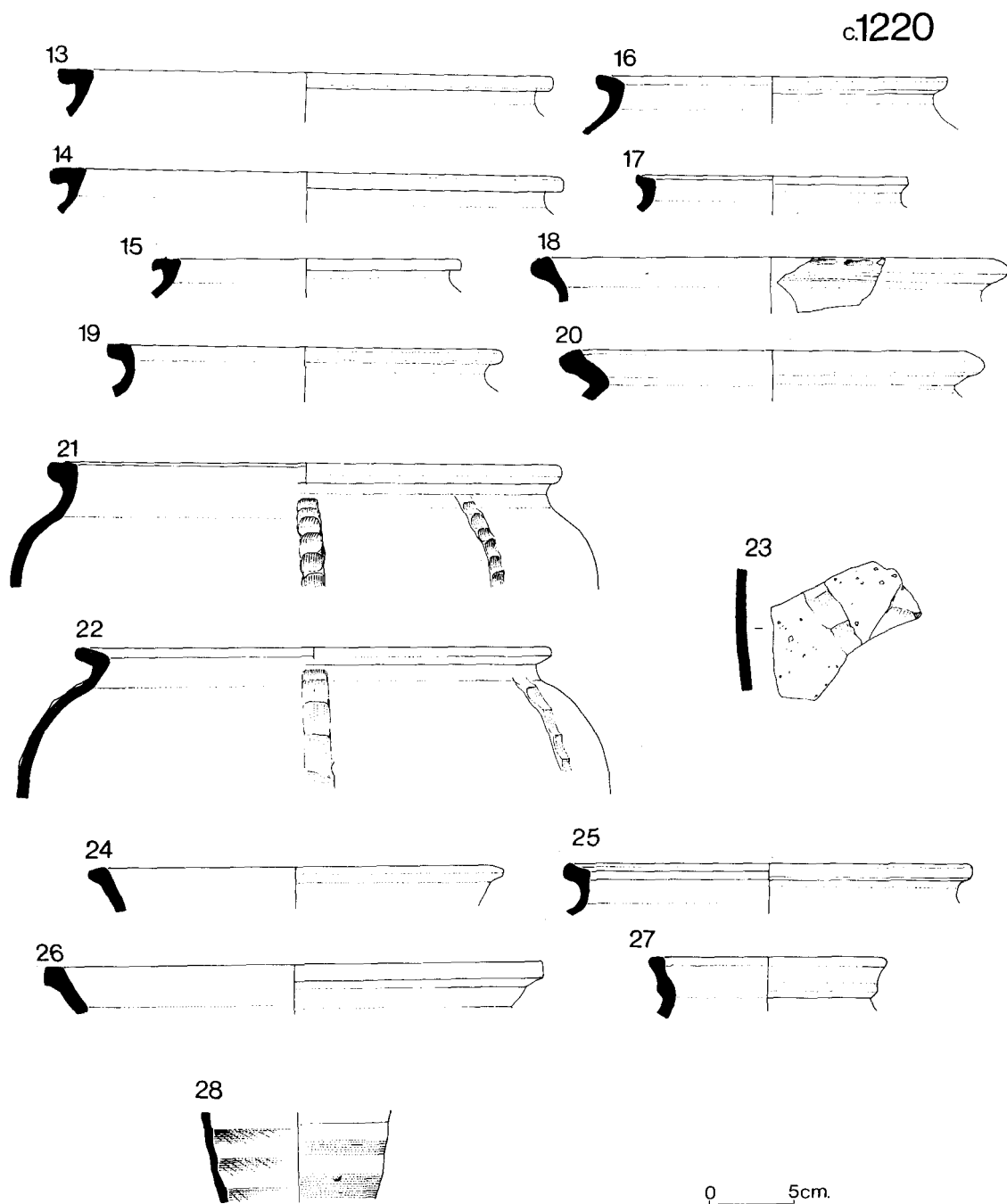


Fig. 8 Inmost Ward western defences 1974/5: Medieval pottery Nos. 13–28. (1/4)

c.1220

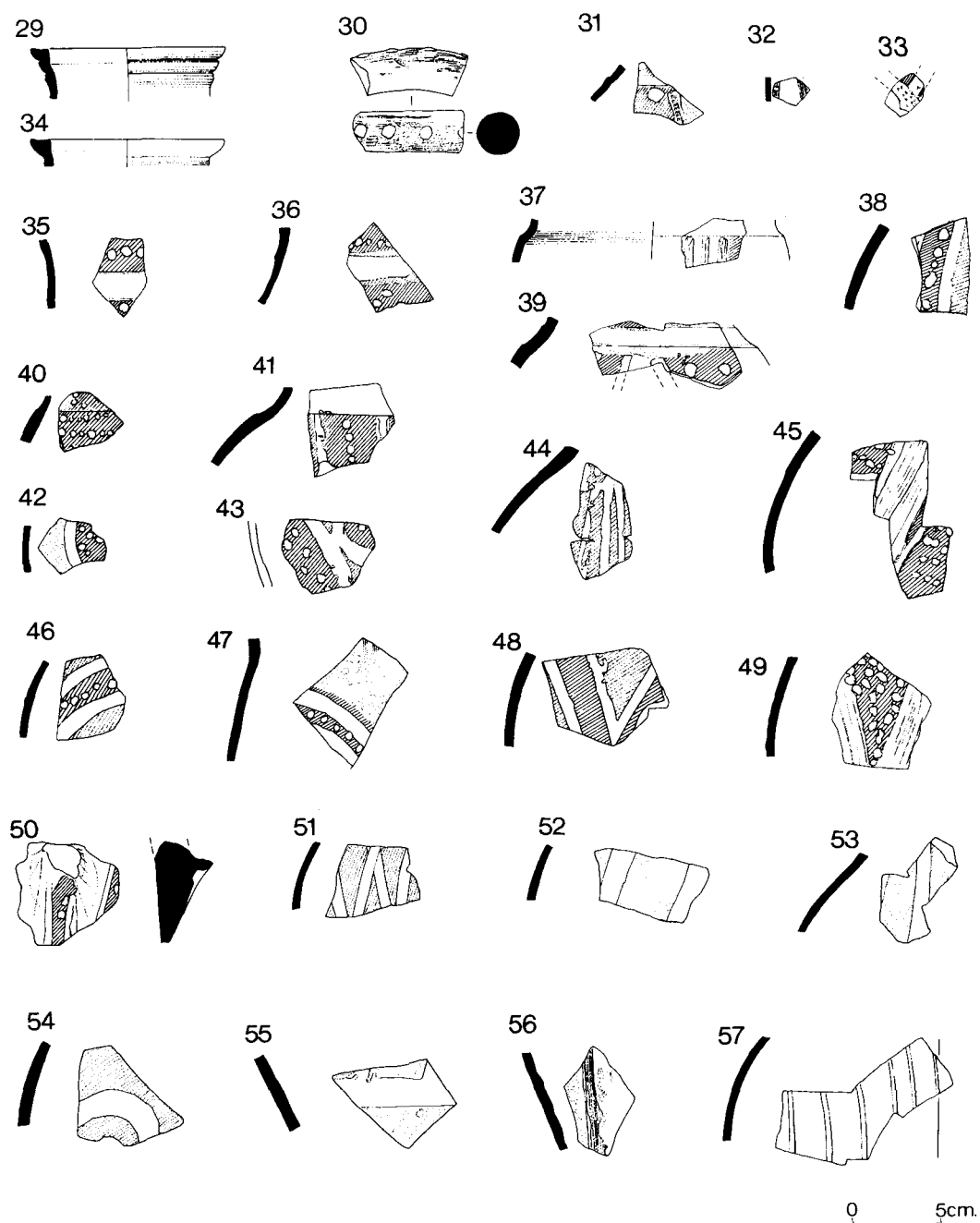


Fig. 9 Inmost Ward western defences 1974/5: Medieval pottery Nos. 29–57. (1/4)

10	E2	102	Fine light grey sandy fabric, light G glaze.
11	E1	63	Glaze direct on body. Possibly same vessel as No. 7.
12	L	122	Grey.
B	I	106	Slightly pinched base (early).
C	F1	63	Rouletted. Dark grey wall sherds.

PHASE 1b (c. 1220)

Fig. 8

No. Fabric Layer References, comments

13	A4	48	(Thorn 1978, Fig. 50, No. 12) Buff-0.
14	A4	32-48	As above.
15	A4	32	
16	A4	32-48	
17	A4	43	Gr. core.
18	B2	43	(Durham 1977, Fig. 20, No. 6).
19	A4	32	
20	A3	62	Possibly HM, not clear. Gr. core and M.
21	A4	46	Thumb applied strips—possibly 8.
22	A4	32-48	Possibly 5 or 6 applied strips.
23	A4	32	As above.
24	B1	62	Sandy, Gr.
25	B4	49	(Thorn 1978, Fig. 50, No. 15; Hurst 1961, Fig. 70, No. 3 and Fig. 67, No. 47).
26	B3	32-48	
27	B8	45	(Hurst 1961, Fig. 71, No. 3) Gr. Pitcher?
28	H	32	(Beckmann 1974, Figs. 17-18, Nos. 124-140; Redknap, in progress).

Fig. 9

29	L	48	Green spot on rim edge.
30	L	32-48	
31	L	32	
32	L	32-48	Right hand rouletted strip G glazed, rest Y.
33	L	48	Brown darker glaze.
34	L	32-48	
35	E5	48	B and Y glaze. Oxidised.
36	E5	32	(Tatton-Brown 1975, Fig. 14).
37	E5	48	B and G glaze with Y band and dots.
38	E5	32-48	(Tatton-Brown 1975, Fig. 24) Light G and B glaze, Y applied strip.
39	E5	32-48	Reduced. Dark B, G and Y glaze.
40	E5	48	Oxidised. Dark B glaze under Y dots.
41	E5	32-48	Oxidised. Y over light B/reddish B glaze.
42	E5	32-48	Amber/B and Y glaze.
43	E5	32-48	Dark B, G and Y glaze.
44	E5	32-48	B and G background, Y strips.
45	E5	48	Y and G applied decoration, Y dots.
46	E5	32-48	Dark brown glaze, Y and G also.
47	E5	32-48	G, B and Y glaze. Hard grey fabric.
48	E5	32	Dark B, G, Y and black.

49	E5	48	Y and B.
50	E5	49	B and Y, with splashed O/clear glaze.
51	E54	48	Weathered B and Y.
52	E5	32-48	Y and G.
53	E1	32-48	O fabric, G glaze with Y bands.
54	E5	32-48	Jug base. G and Y.
55	E2	32-48	Mottled G, and Y.
56	E1	48	Dark B-G applied rib. Mottled G glaze over white slip.
57	E1	32-48	(Platt and Coleman-Smith 1975, Fig. 143, No. 258: c. 1200) Amber streaky glaze out.

Fig. 10

No. Fabric Layer References, comments

58	E1	38	Pitcher. Slashed G glaze.
59	E1	32-48	Clear glaze out. Handle probably fits.
61	E4	48	Clear O glaze, white slip out.
62	E4		Splashed clear/O glaze out.
63	E1	32-48	White slip in, traces of clear glaze out.
64	E1	48	White slip. B-G glaze out below Y glaze.
65	E4	48	White slip inside rim. Splashed amber glaze.
66	E1	48	White slip. Y glaze out.
67	E1	48	Grey fabric, white slip in and out. Y lower band. G/O glaze out.
68	E5	46	Dark B/G glaze, Y applied decoration.
69	E1	48	G/B glaze out, white slip out below Y band.
70	E1	32-48	Dark G splashed glaze out; hard, fine, sandy fabric.
71	E2	32-48	G glaze out (Y-white decoration).
72	E2	32-48	Rod handle, dark G glaze.
73	E1	48	Mottled G glaze over white slip; dark brown ribbing.
74	E1	32-48	Possibly same vessel as No. 70.
75	E1	32-48	Splashed G glaze out.
76	E4	48	Speckled G glaze out; splashed below.
77	E4	32-48	O glaze on bottom.
78	E2	32-48	Dark G glaze out. Pinched base.
79	E4	32-48	Mottled clear O/G splashed glaze out.
80	E2	32-48	Dark Gr-G glaze.
81	E2	32	Green glaze.
82	E4	32	Rod handle, French copy. Clear/O splashed glaze. (Platt and Coleman-Smith 1975, Fig. 179, Nos. 966-9 (c. 1250-1300); Curnow 1977, Fig. 12, No. 27).

PHASE 1c (c. 1220)

Fig. 11

83	A1	144	Lumpy appearance. HM?
84	A1	144	(Joep 1953, Fig. 33, No. 17). Vesicular surface.

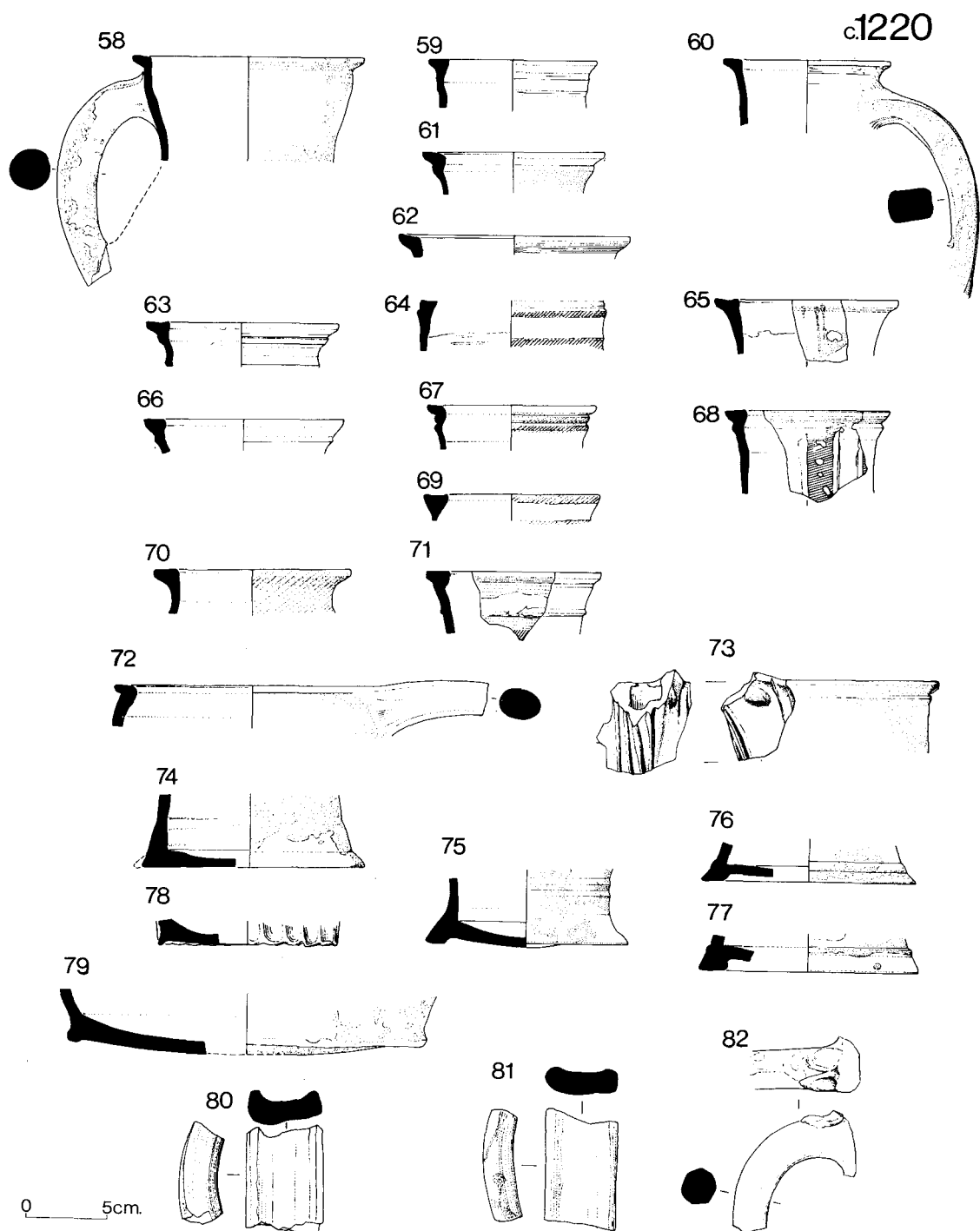


Fig. 10 Inmost Ward western defences 1974/5: Medieval pottery Nos. 58–82. (1/4)

c.1220

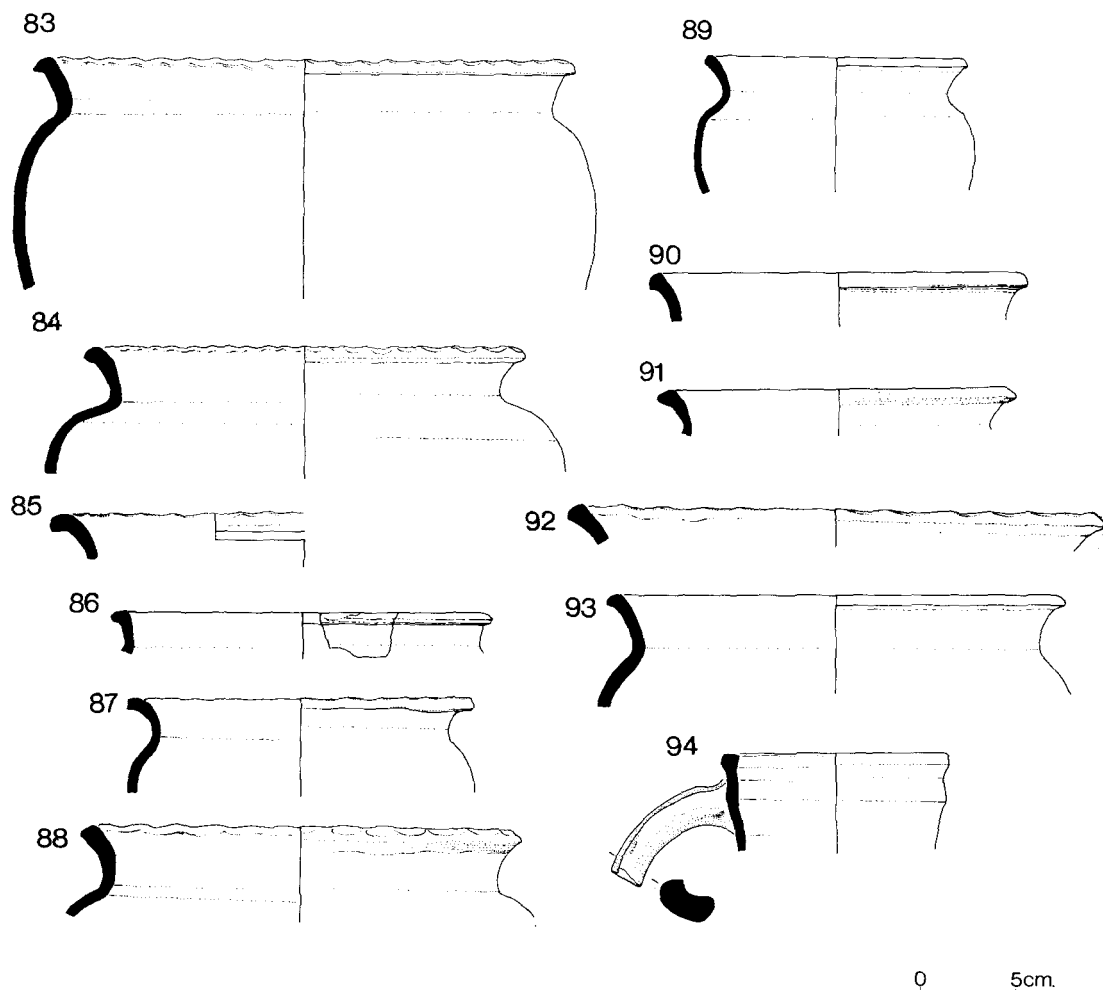


Fig. 11 Inmost Ward western defences 1974/5: Medieval pottery Nos. 83–94. (1/4)

85	A1	144	Oxidised.
86	A1	144	Buff, sandy.
87	A1	144	Slight finger-tipping on rim top. Buff, sandy.
88	A1	144	(Crummy 1981, Fig. 32, No. 29). Grey.
89	A1	144	Sandy buff- Gr, sooted black.
90	A1	144	Gr.
91	A1	144	Sandy.
92	A1	144	Gr.
93	B1	144	Sandy; white slip out?
94	B3	144	Thorn 1978, Fig. 53 No. 43) Clear/O splashed glaze out on handle. Gr core. Pitcher.

PHASE 2 (c. 1225–1235).

Fig. 12

95	B5	233	Gr, sandy.
96	A1	227	Gr-black top.
97	B5	233	Sooted Gr-black.
98	E2	233	Skillet cf. Fig. 9, No. 72. Diameter possibly smaller. Gr glaze. Handle perforated from inside vessel; clay plug inserted into hole.
99	E4	227	Amber/clear glaze. Plugged handle. Trimmed to shape.
100	E1	227	(Thorn 1978, Fig. 52, C) White slip in and out under dark G glaze.

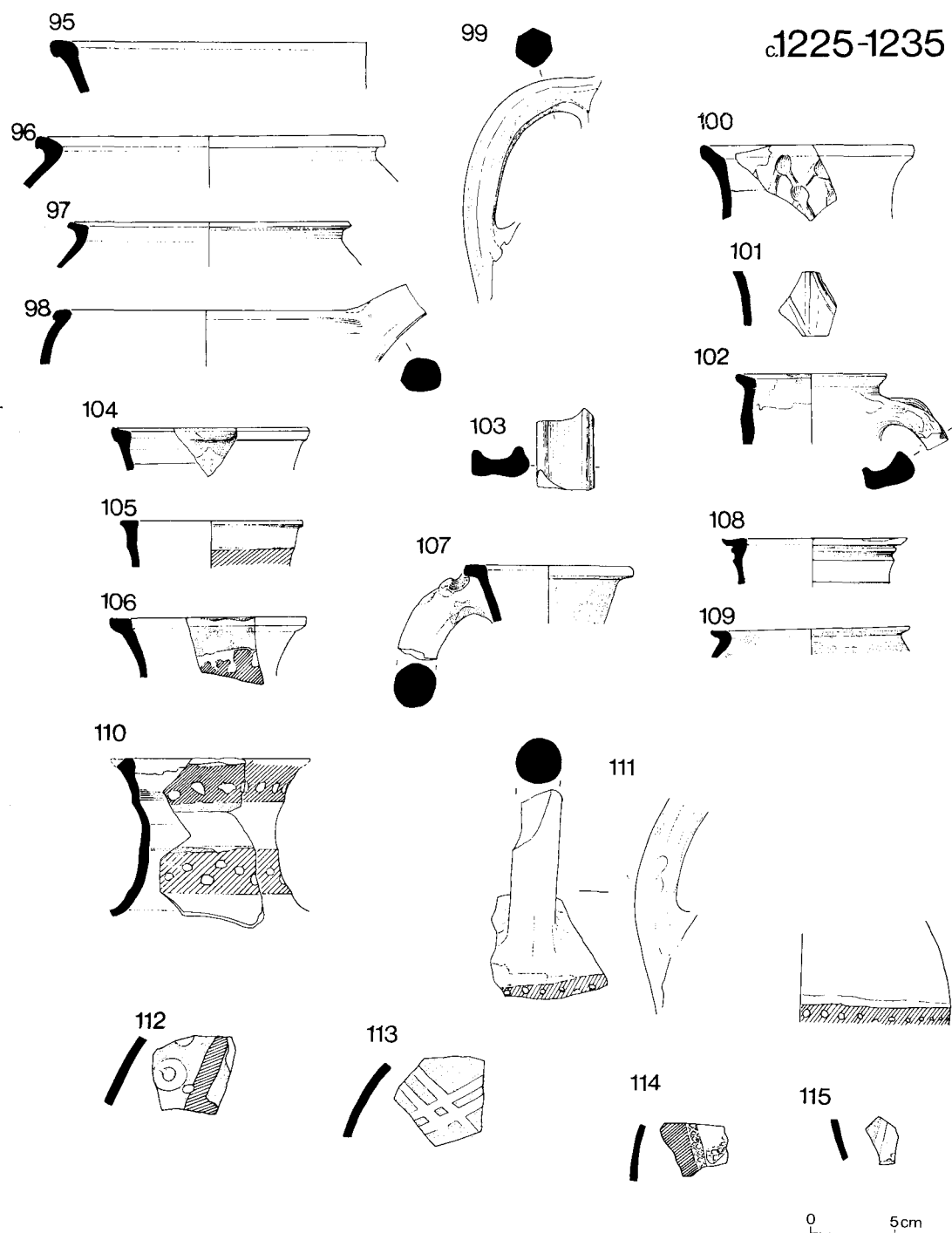


Fig. 12 Inmost Ward western defences 1974/5: Medieval pottery Nos. 95–115. (1/4)

c.1225-1235

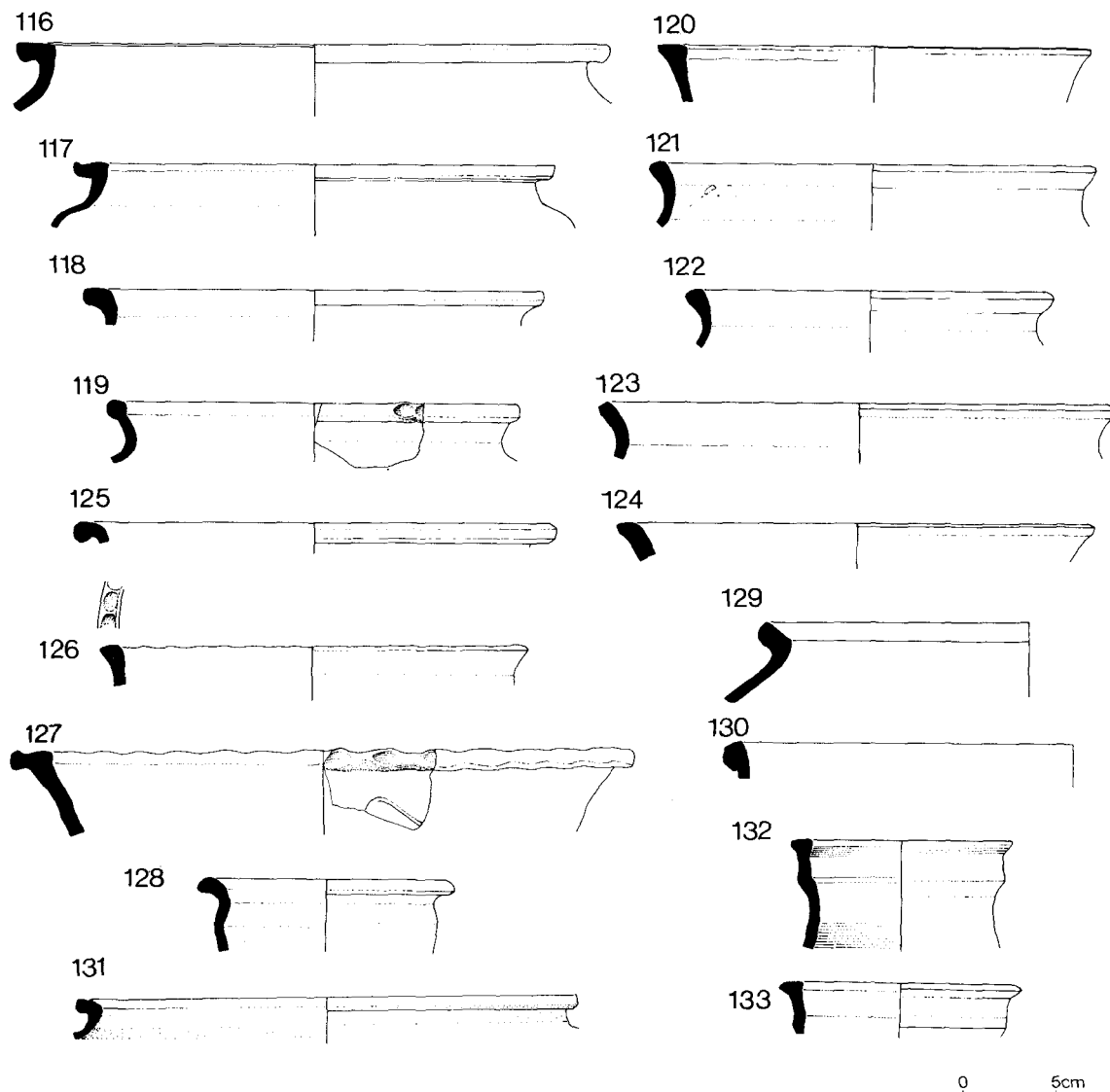


Fig. 13 Inmost Ward western defences 1974/5: Medieval pottery Nos. 116–133. (1/4)

101	E1	233	Leaf G glaze over white slip.	108	E1	233	White-buff slip in and out, leaf G glaze below rim.
102	E1	227	As 101.	109	E1	227	Sandy; mottled G-black glaze out.
103	E4	233	Buff/amber glaze out (partial).	110	E5	253	White slip in and out; Y-G glaze out. Upper strip poorly made; pushed out from inside).
104	E1	227	Dark G glaze over white slip (inside and out).	111	E4	233	Hole inside plugged? Y strips, amber glaze.
105	E4	233	B-amber glaze below, Y above.	112	E1	227	Leaf G glaze, maroon and Y decoration.
106	E1	233	Splashed leaf G and black – B glaze.				
107	E2	227	Roughly made. Leaf G glaze over white slip.				

113	E4	233	Y strips, clear amber glaze.
114		233	Rouletting on applied strips. Y and tan glaze out.
115		233	As above, with brown centre strip.

Fig. 13

No.	Fabric	Layer	References, comments
116	A4	78	No later than 1200 (A. Vince pers. comm.).
177	A4	141	Buff.
118	A4	153	Buff.
119	A1	77	Buff.
120	B1	141	White flint? Very weathered. Gr out, buff in. HM?
121	A1	136	Buff; smooth surface.
122	A2	93	Gr. Late 11th Century.
123	A1	142	Gr.
124	A4	141	Very coarse. Gr-buff.
125	A2	78	Gr.
126	A3	136	O. Late 11th/12th century (A. Vince, pers. comm.).
127	A2	?	St Neots type. HM. Sooted black.
128	A3	93	
129	A4	136	Buff.
130	A4	87	Buff.
131	A1	141	Light Gr.
132	B5	153	Gr. (Hurst 1961, Fig. 71, No. 3).
133	B5	93	As above.

Fig. 14

134	E4	136, 253	(Tatton-Brown 1975, Fig. 14) Clear amber glaze, Y applied decoration on O Fabric. Also c.f. Rackham 1972, Plate 87 from London Austin Friars.
135	E4	217	Y/clear amber glaze.
136	E1	153	Probably jug base. Splashed G glaze, Y bands.
137	E1	78	Mottled G/B glaze. Late 12th century.
138	E4	78	Very dark G glaze. Typical.
139	E1	153	B/G glaze, brown dots.
140	E1	153	Gr-buff surfaces; dark Br/G and Y glaze.
141	E1	141	White slip under mottled G glaze, reddish-B decoration (stamped).
142	E6	153	Y/G glaze (red-brown) on all over white slip. (Rackham 1972, Plates 78 and 79).
143	E5	142	B and Y glaze.
144	E5	136	B/G and Y glaze.
145	E5	153	Y and B glaze; white slip.
146	E6	153	Y and B glaze on all-over white slip. Grey core.
147	E5	141	Amber glaze; Y and reddish brown decoration.
148	E5	141	Reddish brown and Y glaze.
149	E1	136	Dull Y outer glaze.
150	E5	142	Weathered. O fabric; white/Y applied decoration.

151	E5	136	Y and G glaze; buff Gr fabric.
152	E5	137	G and Y glaze. O-Gr fabric.

Fig. 15

153	E1	153, 78, 141	Mottled leaf G glaze over white slip
154	E1	136, 141, 153, 261	(Thorn 1978, Fig. 52, No. 33; Fig. 53, No. 43) Mottled G glaze; white slip out and top in.
155	E1	113, 136, 153	As above.
156	E1	78	Reduced exterior, Gr core. Traces of glaze.
157	E1	153	Clear glaze splashes. Sooted in.
158	A4	136	Orange.
159	E1	153	O fabric; G splashed glaze out.
160	E4	136	Mottled black - G glaze in O fabric.
161	E1	93	Smooth, buff, hard. Splashed G glaze out.
162	E2	153	Soft, buff. London drinking jug base.

Fig. 16

163	E1	87, 136, 141, 153	(Curnow 1977, Fig. 10, No. 10) G glaze on white slip. Hard; O core.
164	E1	136, 141, 153	As above, Gr core with buff margins.
165	E4	153	Clear amber glaze on white slip; O fabric.
166	E4	141	Clear O glaze; Y splash left of right ear.
167	E1	136	(Curnow 1977, Fig. 12, No. 30) Splashed G glaze out over white slip in and out. Dark B strips. (Rackham 1972, pl. 37)
168	E1	136	(Curnow 1977, Fig. 12, No. 42) O out; Y band below.
169	E4	153	White slip in and out (worn).
170	E4	153	Clear O glaze on O fabric.
171	E4	141	Jug rim with slashed decoration. (Thorn 1978, Fig. 52, No. 30). Mottled splashed clear/G glaze out.
172	E1	153	Splashed G glaze out.
173	E1	93	Hard; mottled dark G glaze out.
174	E1	141	Dark G glaze; Gr surfaces.
175	E1	136	G glaze streaks on white slip out. Post firing cuts on outside.
176	E1	77	Coarse, weathered. Splashed G glaze.

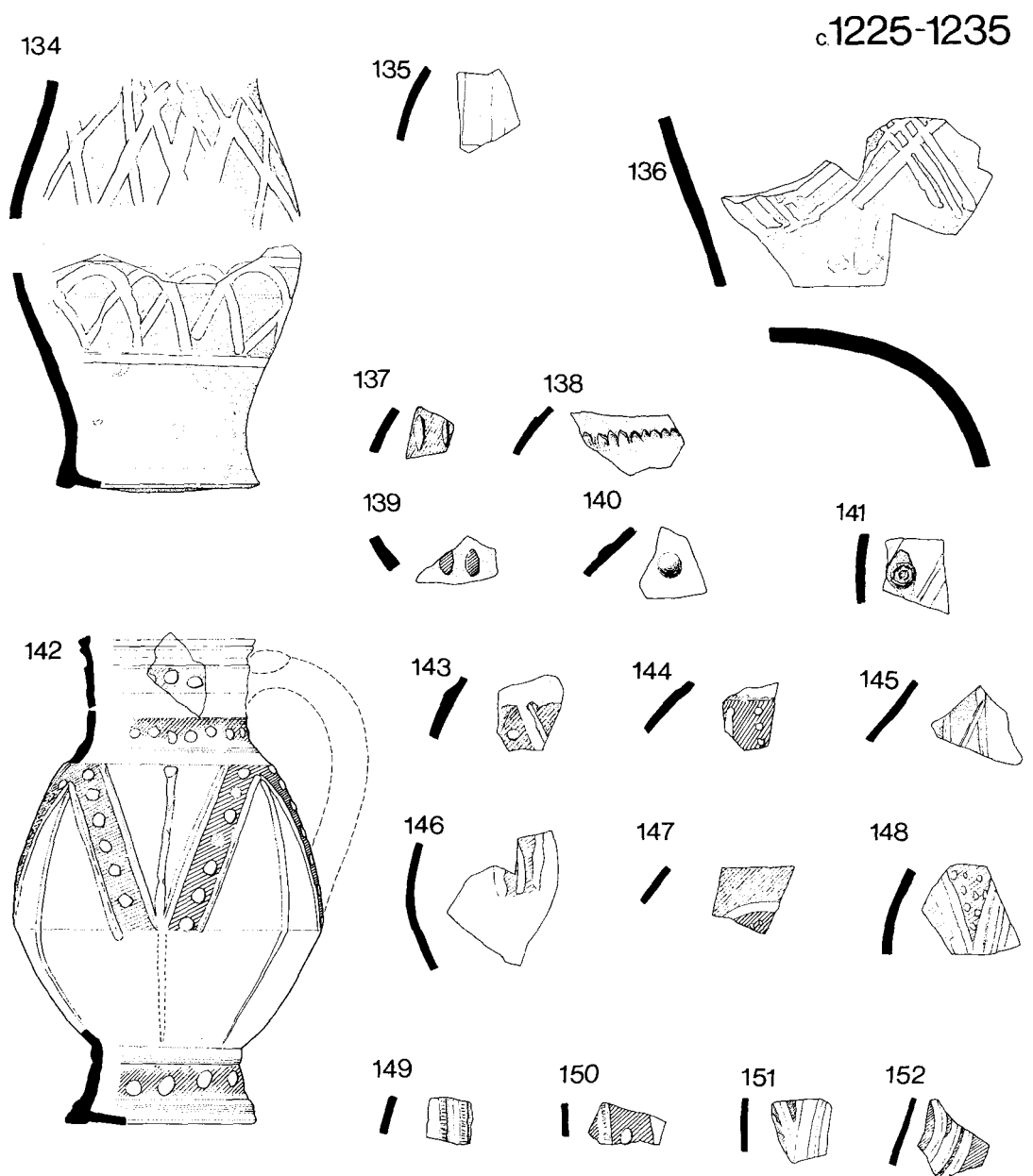


Fig. 14 Inmost Ward western defences 1974/5: Medieval pottery Nos. 134–152. (1/4)

c.1225-1235

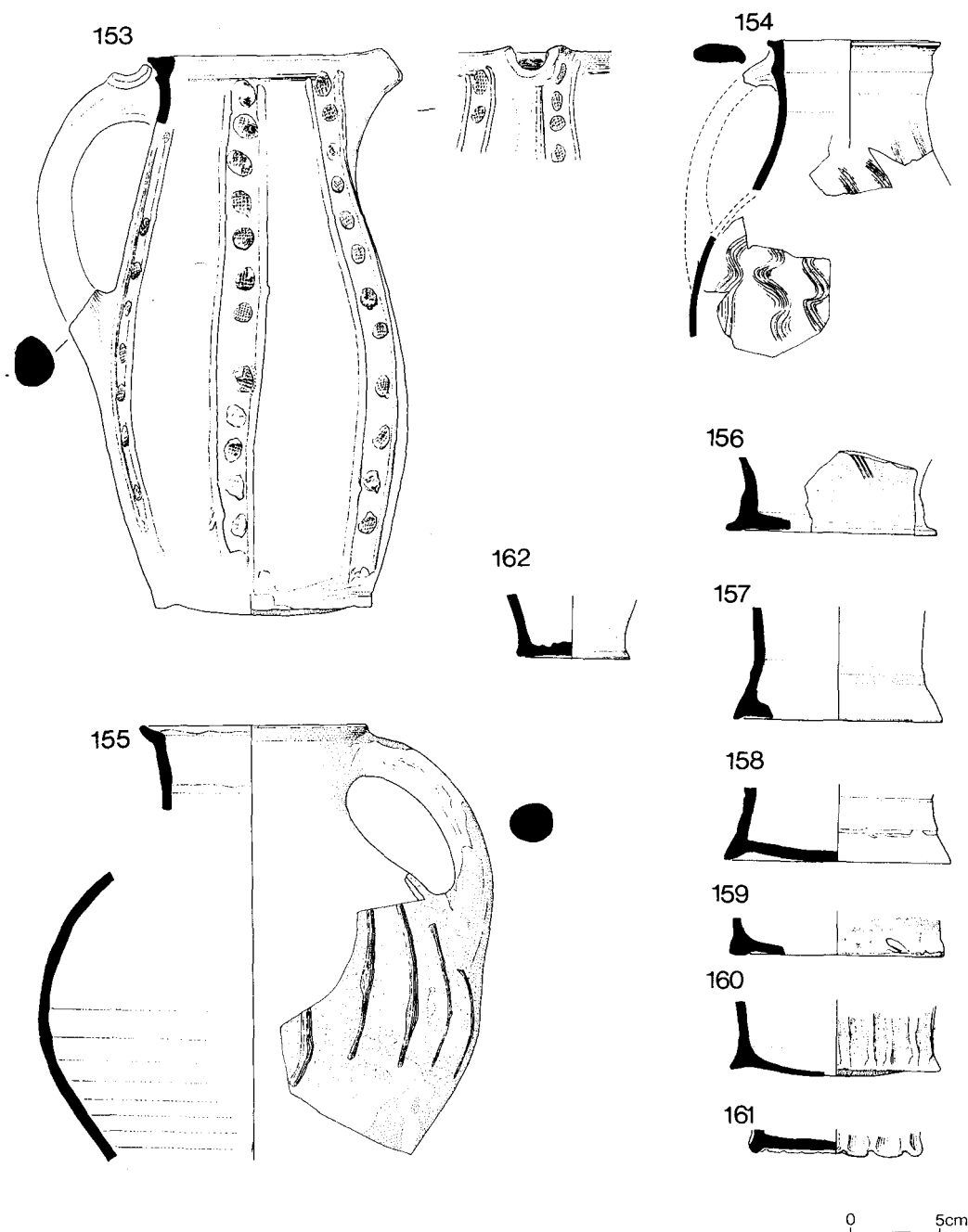


Fig. 15 Inmost Ward western defences 1974/5: Medieval pottery Nos. 153 – 162. (1/4)

c.1225-1235

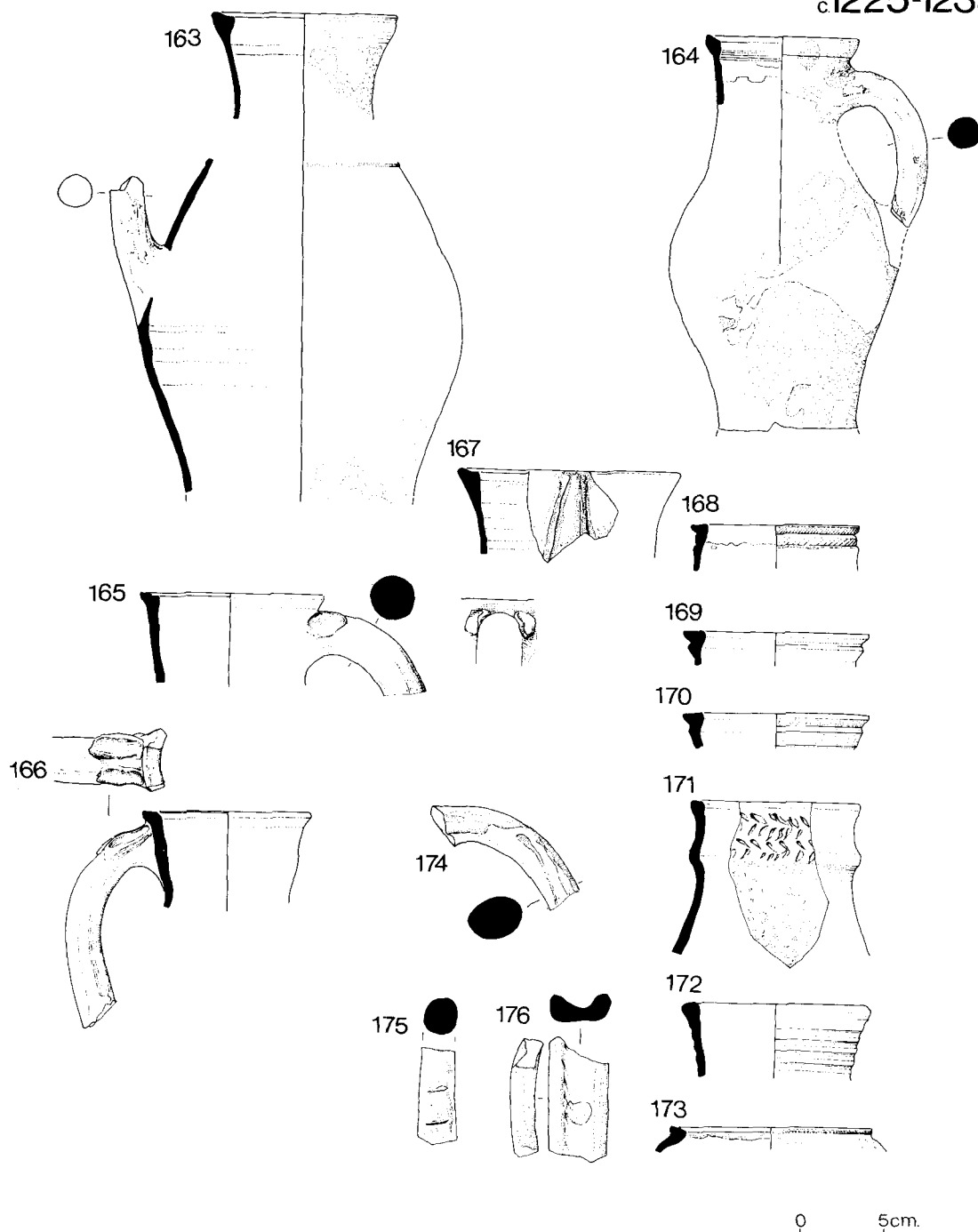


Fig. 16 Inmost Ward western defences 1974/5: Medieval pottery Nos. 163–176. (1/4)

DISCUSSION

These 12th and 13th-century groups are very similar to those from Westminster (Black 1976, 135f.) and the Wakefield Tower (Curnow 1977, 155).

The sandy/shelly cooking pot forms of Phase 1a closely resemble finds from Oxford and Nos. 3 and 4 may be coarse examples of late Saxon (Saxon-Norman) forms from earlier contexts (Fig. 7, No. 3 also occurs in Oxford during the third quarter of the 12th century: Durham 1977, 83 f.). The thumbled applied band (Fig. 7, No. 12) is very similar in form and manufacture to the *'fast-steinzeugartig'* products from the middle Rhineland, but the fabric viewed under magnification resembles more closely the Thetford-type ware.

The early stoneware wall sherd (probably from a tall beaker) from Phase 1b (Fig. 8, No. 28) is of a type generally dated to the 13th century (see Beckmann 1974). Waster deposits beneath the castle at Mayen, Rheinland-Pfalz (Genovevaburg constructed c. 1281) contained very similar fabrics and forms (dated c. 1190–1225: Redknapp, in progress).

The fabrics and near vertical rim forms of the cooking pots in Phase 1c (some with slight finger tipping on the top: Nos. 83, 84, 85, 88 and 92) correspond with 'Saxo-Norman' examples from the Jewel House excavations (see Appendix). Their association here with square-headed, everted rim cooking pot forms in fabric A4 (layer 46 contained examples with pie-crust applied strips) and London Ware (Fig. 11, No. 94) supports the late date (c. 1220), though the large number of 'early' cooking pot forms has yet to be explained.

To conclude (Fig. 6) most of the glazed wares were from the London area, supplemented by the occasional import of Rouen and Andenne wares from Belgium and Dutch Limburg (kilns are known at Namur, Andenne, Wierde, Liege). The Andenne imports probably travelled via the Maas/Meuse which also served the red-painted wares from Brunssum/Schinveld-Nieuwenhagen. By the end of the 12th century western French vessels were again being imported (Hodges 1977, 252; Dunning 1968) and the subsequent growth of British copies is evident by Phase 1b (c. 1220). Rouen copies

occur in every subsequent phase, but the variant with all-over white slip over which the decoration is trailed (fabric E6) only occurs in the final phases (1221–1235). True Rouen Ware, though present throughout in small quantities, is more common during the earlier phase.

Some 'Thetford type' pottery occurs in the early phases (along with German wares, and to the exclusion of other imports), but it is not clear to what extent they form residual material. At Colchester Thetford wares are replaced by sandy wares c. 1000–1050 (Crummy 1981, 40). Cooking pots in shelly fabric A3 are eventually replaced by shelly ware A4 and grey wares which have grown to 13% by Phase 2). This corresponds with the growth importance of deliberately reduced cooking pots in S. Herts. Ware from the mid 12th century onwards (to eventually overtake shelly wares).

APPENDIX

THE MEDIEVAL POTTERY FROM THE JEWEL HOUSE EXCAVATIONS 1963/64

The late Saxon and Medieval pottery from the Jewel House Excavations has been examined and illustrated in groups determined by the stratigraphic phasings of the site (Figs. 17, 18, 19 & 20).

The medieval strata have been divided into six interpretative phases. The dates for the pottery from Phases 4 and 5 are indirectly supported by documentary evidence from the 1190 Pipe Roll and the chroniclers Mathew Paris and Roger of Howden. Edward I's completion c. 1281 of the west part of the defensive circuit begun by Henry III provides a *terminus ante quem* for Phase 6.

The pottery from Phases 1–3 can only be dated by comparison with similar works from dated deposits elsewhere.

Phase	Details	Contexts within trenches			
		S	A	C	D
1	a) Occupation deposits b) Dumps c) Rampart bases	37, 39 36	98, 99, 100, 102, 103 96, 95, 94	158	
2	Infill of Ditch C			150, 153, 169	214, 217
3	Primary silting Ditch B	33			
4	Deliberate backfill of Ditch B ? <i>c.</i> 1190	24-30			
5	Primary silting of Ditch A, post 1190	89			
6	Deliberate backfill of Ditch A, <i>c.</i> 1250-1270	86		143	199

For fabric descriptions, see above pp. 00.

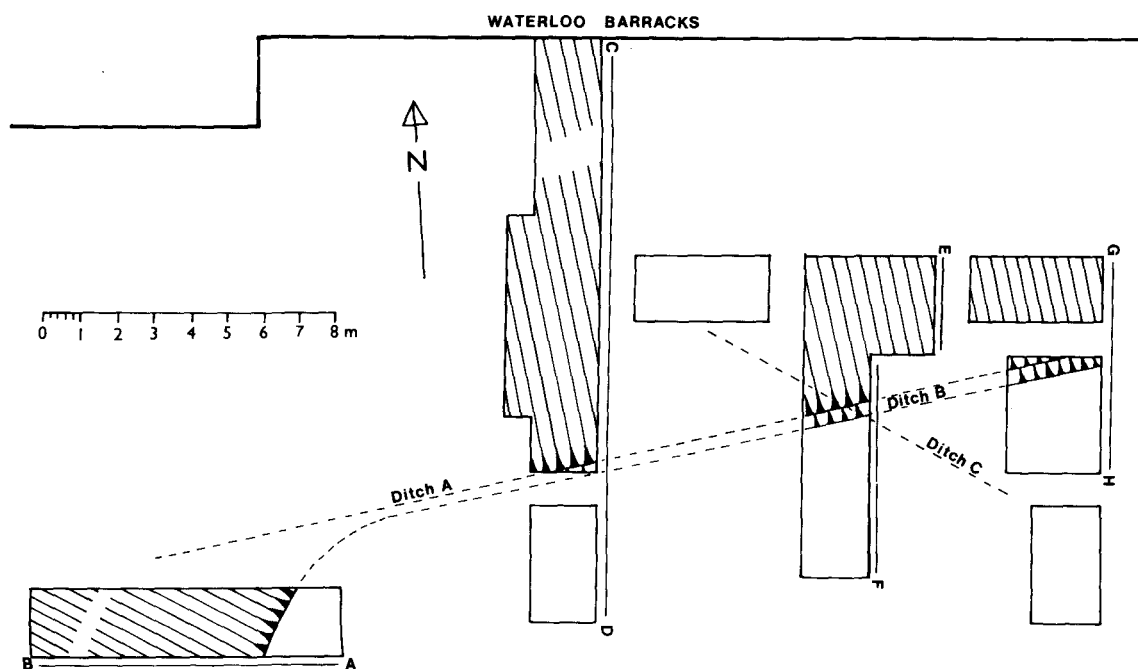


Fig. 17 Jewel House excavations 1963/4: Plan of trenches and excavated Ditches A, B and C.

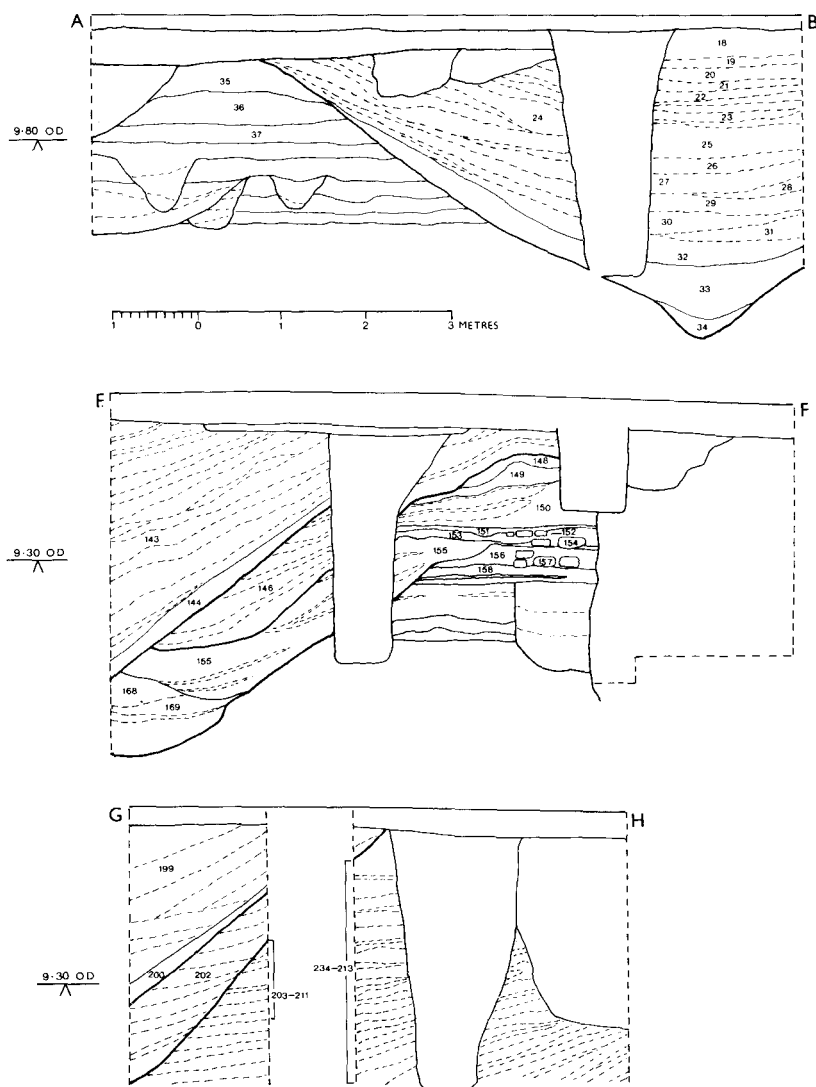


Fig. 18 Jewel House excavations 1963/4: Sections A-B, E-F and G-H across Trenches C, D and S.

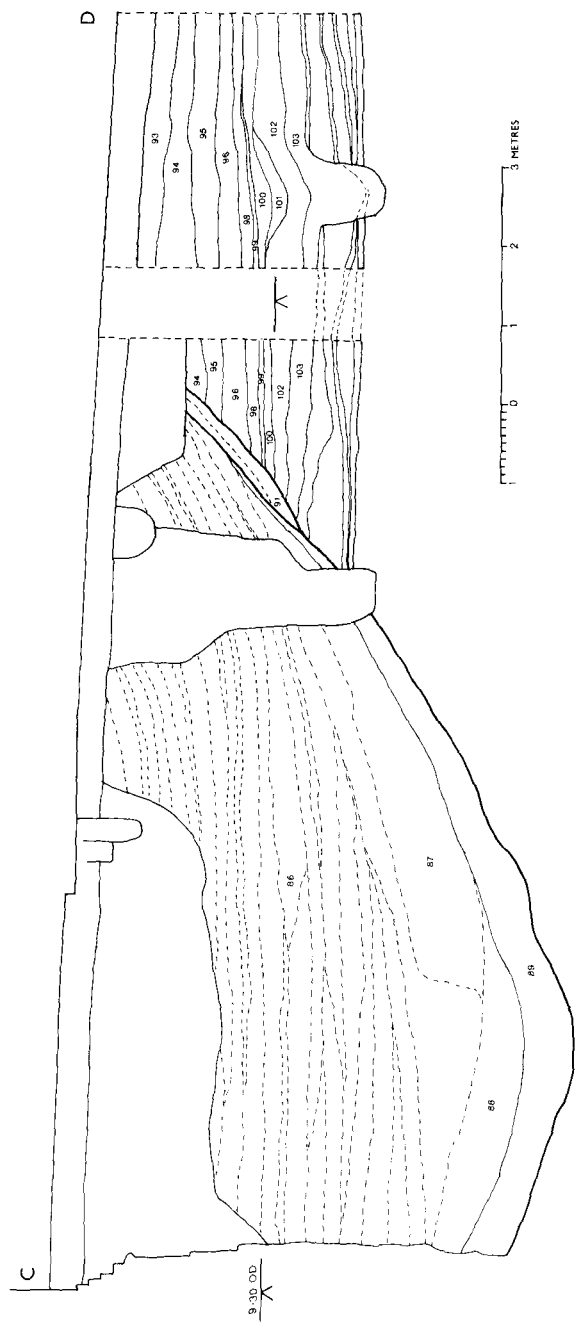


Fig. 19 Jewel House excavations 1963/4: Section C-D across Trench A.

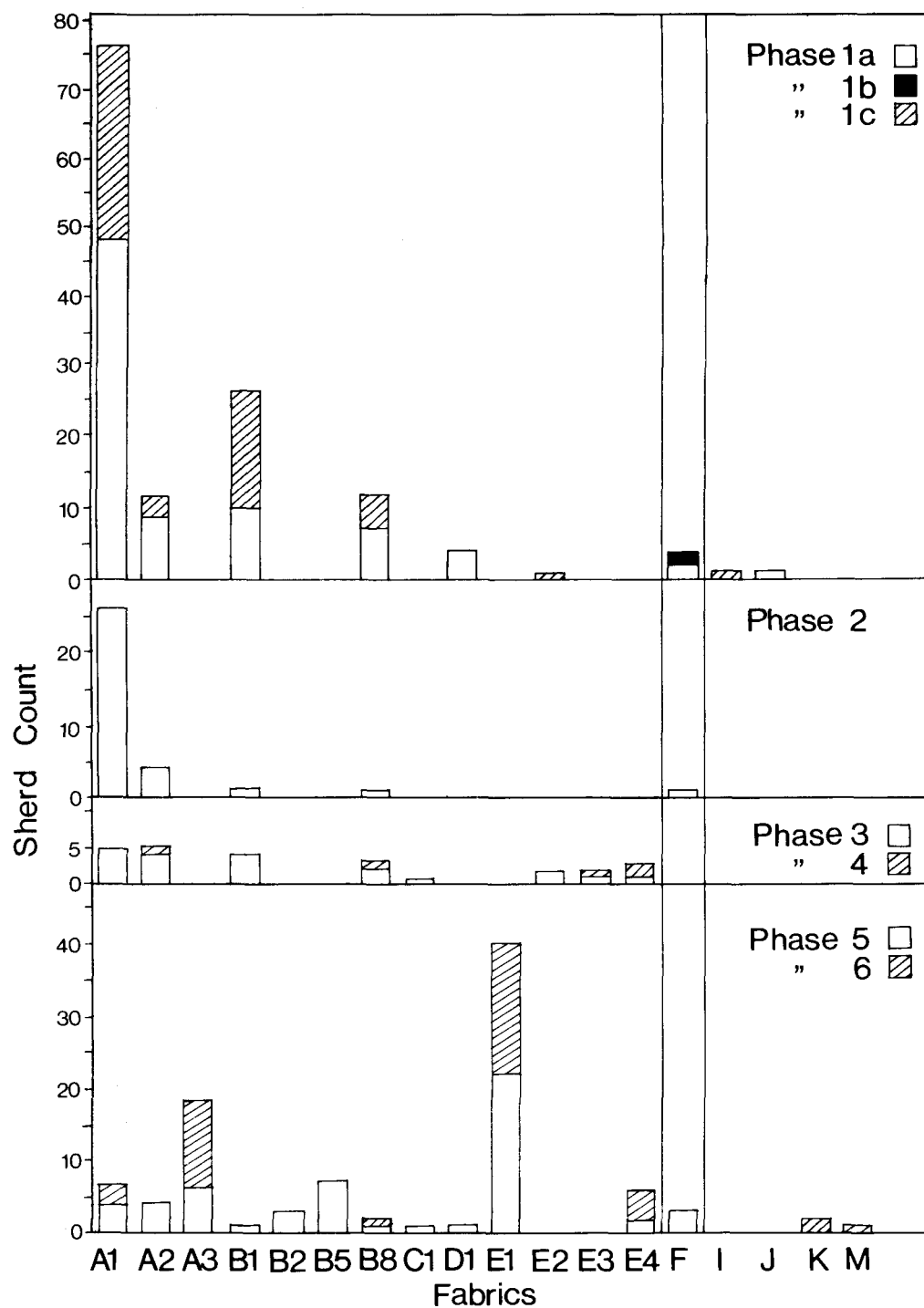


Fig. 20 Jewel House excavations 1963/4: Medieval pottery sherd count.

PHASE 1

Fig. 21

No.	Fabric	Layer	References, comments
1	A1	100	(Crummy 1981, Fig. 34, No. 97; Haldon 1977, Fig. 17, No. 23, mid/late 10th C.).
2	A1	39	Partially sooted out. Finger-tipped rim.
3	A1	39	
4	A1	100	Sooted out; reddish-B in.
5	B1	39	Blackish-Gr in and out.
6	A1	39	
7	B8	98	(Hurst 1961, Fig. 67, No. 32; Haldon 1977, Fig. 18, No. 12, mid/late 11th C.). Black 1978, Fig. 12, No. 5, Phase 1)
8	A1	39	
9	A2	39	Gr-black, HM?
10	A1	37	(Haldon 1977, Fig. 18, No. 7, mid/late 11th C.). Finger-tipped rim top.
11	B8	98	Same vessel as 40?
12-13	B1	39	(Nelson, forthcoming). cf. recent finds from new Fresh Wharf: 11th C.
14	B1	37	Gr interior, buff exterior. Tooth-combed wavy lines.

Fig. 22

15	A2	100	Pinched.
16	A2	39	Blackish-Gr. HM?
17	B8	37	Incised handle. G glaze: Surrey? Intrusive?
18		103	(Boddington 1979, Fig. 15, No. 84).
19	F1	158	Trimmed inside; wavy line decoration. Pitcher neck.

Fig. 23

20	A1	96	
21	A1	96	
22	A1	94	Very little shell. O.
23	A1	95	HM? As above.
24	A1	96	(Dunning 1960, Fig. 3, No. 11 for decoration).
25	A1	96	Incised lattice. Gr-buff.
26	D1	96	
27	A1	96	(Dunning 1953, Fig. 9, No. 5 (2-4) Dish, indented top. Gr buff.
28	A2	96	
29	B8	96	Gr.
30	B8	96	Gr.
31	B8	96	Blackened out.
32	B8	96	(Hurst 1961, Fig. 67, No. 31) Blackened out.
33	B1	96	Blackened inside below rim.
34	B8	94	Decorated with horizontal grooves.

PHASE 2

Fig. 24

35	A1	169	Gr core; oxidised out. Little shell.
36	A1	153	Buff. HM?
37	A1	153	HM? Buff.
38	A1	214-27	(Haldon 1977, Fig. 17, No. 5, mid/late 10th C.) Buff.
39	A1	153	Gr-black.
40	A1	169	(Davison 1973, Fig. 25, No. 1 for combing) Buff.
41	A1	153	HM?
42	A1	153	Black out. HM?
43	A1	150	HM? Little shell; Gr-black
44	A1	153	Gr in. Very little shell.
45	B8	169	

PHASE 3

46	A1	33	(Haldon 1977, Fig. 18, No. 5, mid/late 11th C) Sooted rim.
47	B1	33	Sooted out.
48	C1	33	(Jope 1953, Fig. 34, No. 37) Coarse; possible spout attachment on left.
49	E4	33	Splashed G glaze; Gr core, buff surfaces.

PHASE 4

50	A1	24	Cross-hatched round stamp. Moderate shell.
51	A1	24	Narrow vertical applied band with slight finger-tipping. Little shell.
52	A2	24	
53	A1/2	30	Much shell.
54	E4	24	Splashed amber glaze out.
55	E4	24	Diagonal splashed 'thumbing'. Splashed amber glaze out.
56	B8	30	O/oxidised.

PHASE 5

Fig. 25

57	E4	89	Sparse splashes of clear glaze over white slip in and out.
58	E2	89	Splashed G glaze. O out.
59	E2	89	(Curnow 1977, Fig. 10, No. 5). White slip beneath speckled G glaze.
60	E2	89	Same vessel as No. 59.
61	E2	89	Splashed G glaze over white slip. Stabbed decoration. Grey core.
62	E2	89	(Curnow 1977, Fig. 12, No. 27). Splashed G glaze over white slip; O.
63	E2	89	Splashed G glaze out. Grey.
64	E2	89	Y/White strip; clear glaze; O margins.
65	E2	89	B-Gr slip; G glaze.
66	E2	89	Brown applied strip; G glaze.
67	E2	89	G splashed glaze on white slip. B Strips.
68	E1/4	89	Splashed amber/clear glaze on O fabric.
69	E2	89	Light Gr fabric; G glaze out.

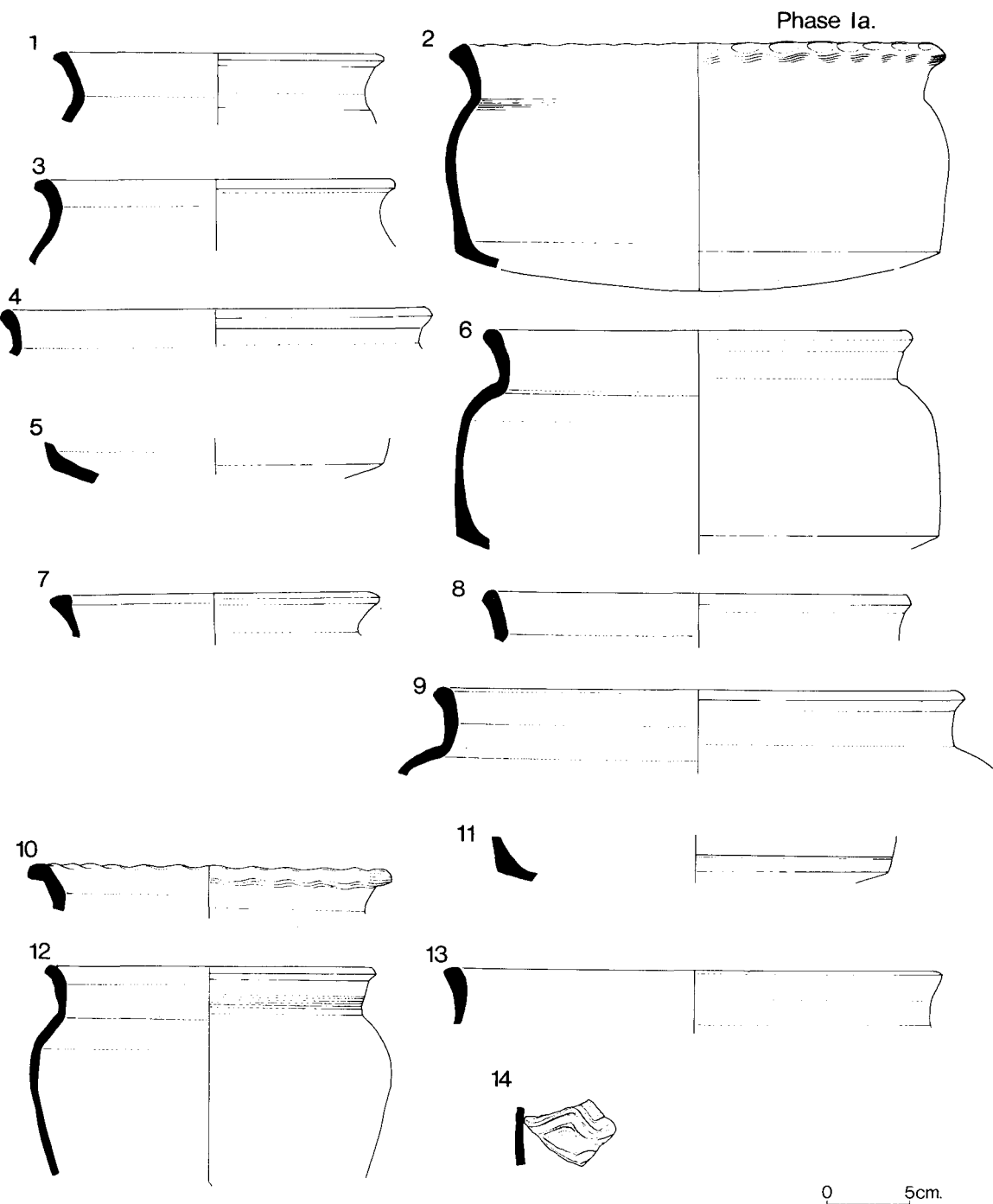


Fig. 21 Jewel House excavations 1963/4: Medieval pottery Nos. 1-14. (1/4)

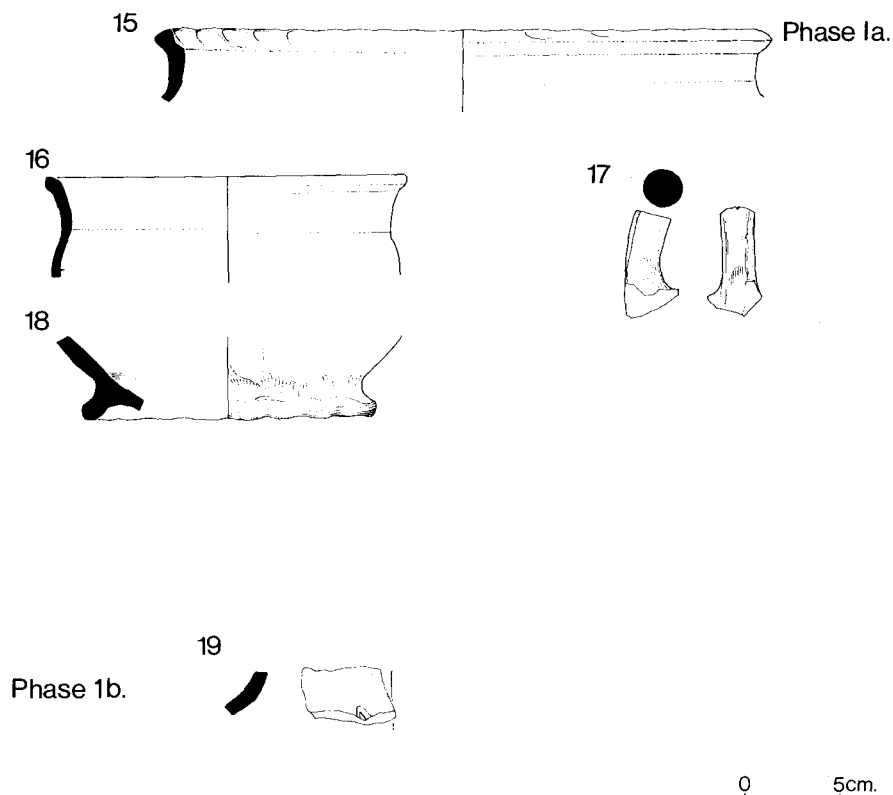


Fig. 22 Jewel House excavations 1963/4: Medieval pottery Nos. 15–19. (1/4)

70	E2	89	Splashed G glaze out on bottom; O fabric.	81	B1	89	Tripod cooking pot leg. O with Gr core; sooted.
71	E2	89	O.	82	M	89	Buff-white fabric; leafy G glaze out. Rouen?
72	E2	89	Splashed G glaze; O fabric.	83	E1	89	Dark G glaze (exfoliated), crazed, over white slip. Flagon?
73	E2	89	Feint splashed clear glaze on lower part; O.	PHASE 6			
74	E1	89	Unglazed O fabric.	84	B5	86	Gr (buff out).
75	E4	89	Unglazed; white slip inside and top out.	85	B1	199	Sooted rim. Sandy (sparse shell).
76	E2	89	Rouen copy. G glaze out over white slip.	86	A3	143	Flanged bowl. Black surfaces and Gr core.
77	E2	89	Hard. G mottled glaze over grey fabric.	87	A1	199	Sooted rim.
				88	A1	143	Oxidised.
				89	A3	199	(Thorn 1978, Fig. 50, No. 13) Reduced out.
				90	A3	143	Black surfaces.
				91	F2	86	Import/Thetford type? Brown, slightly burnished exterior.
				92	F1	86	Grey.
				93	F1	86	As above, black surfaces. Reief-band amphora.

Fig. 26

No.	Fabric	Layer	References, comments
78	A1	89	Grey.
79	B8	89	Grey.
80	B8	89	Gr out, cream in.

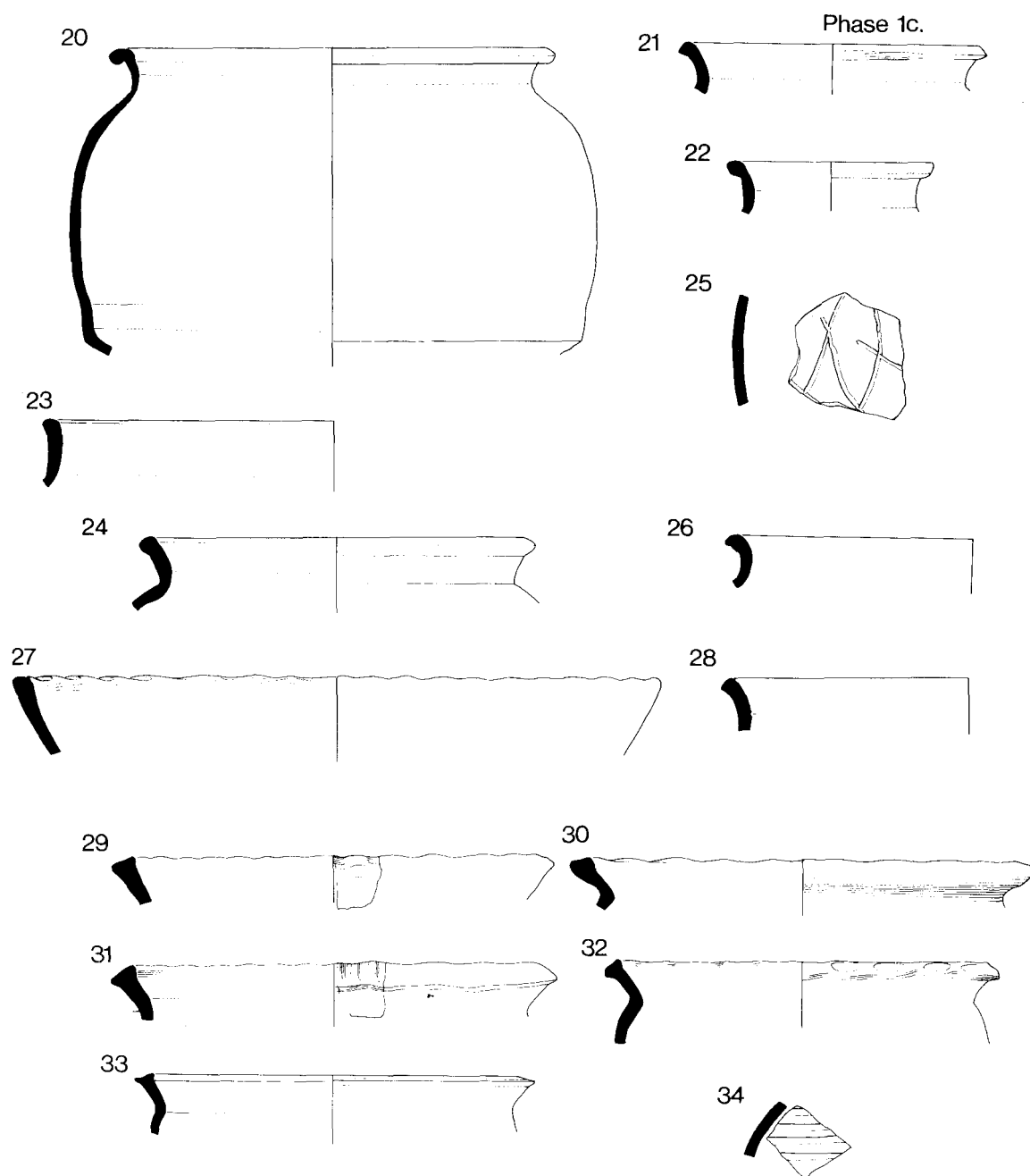


Fig. 23 Jewel House excavations 1963/4: Medieval pottery Nos. 20–34. (1/4)

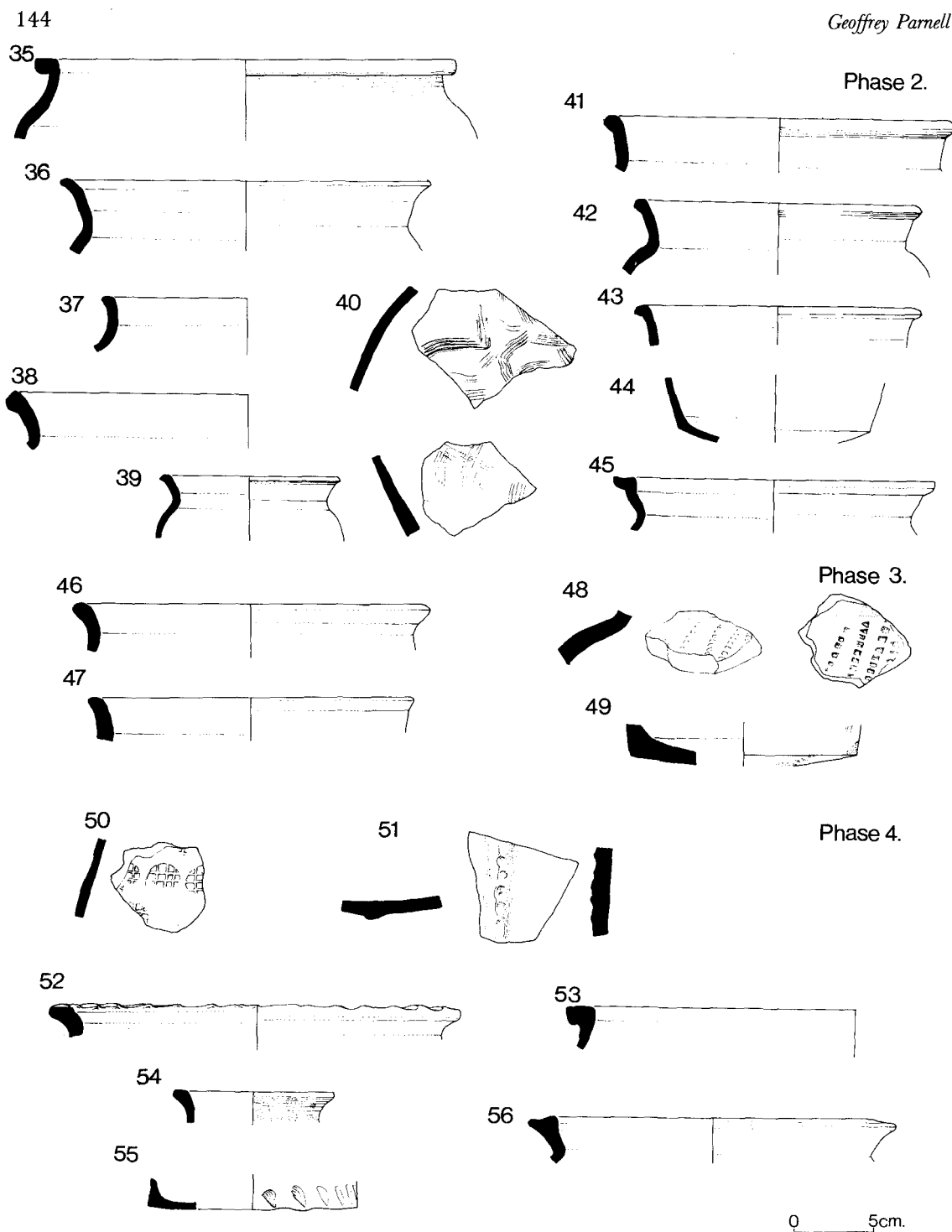


Fig. 24 Jewel House excavations 1963/4: Medieval pottery Nos. 35-56. (1/4)

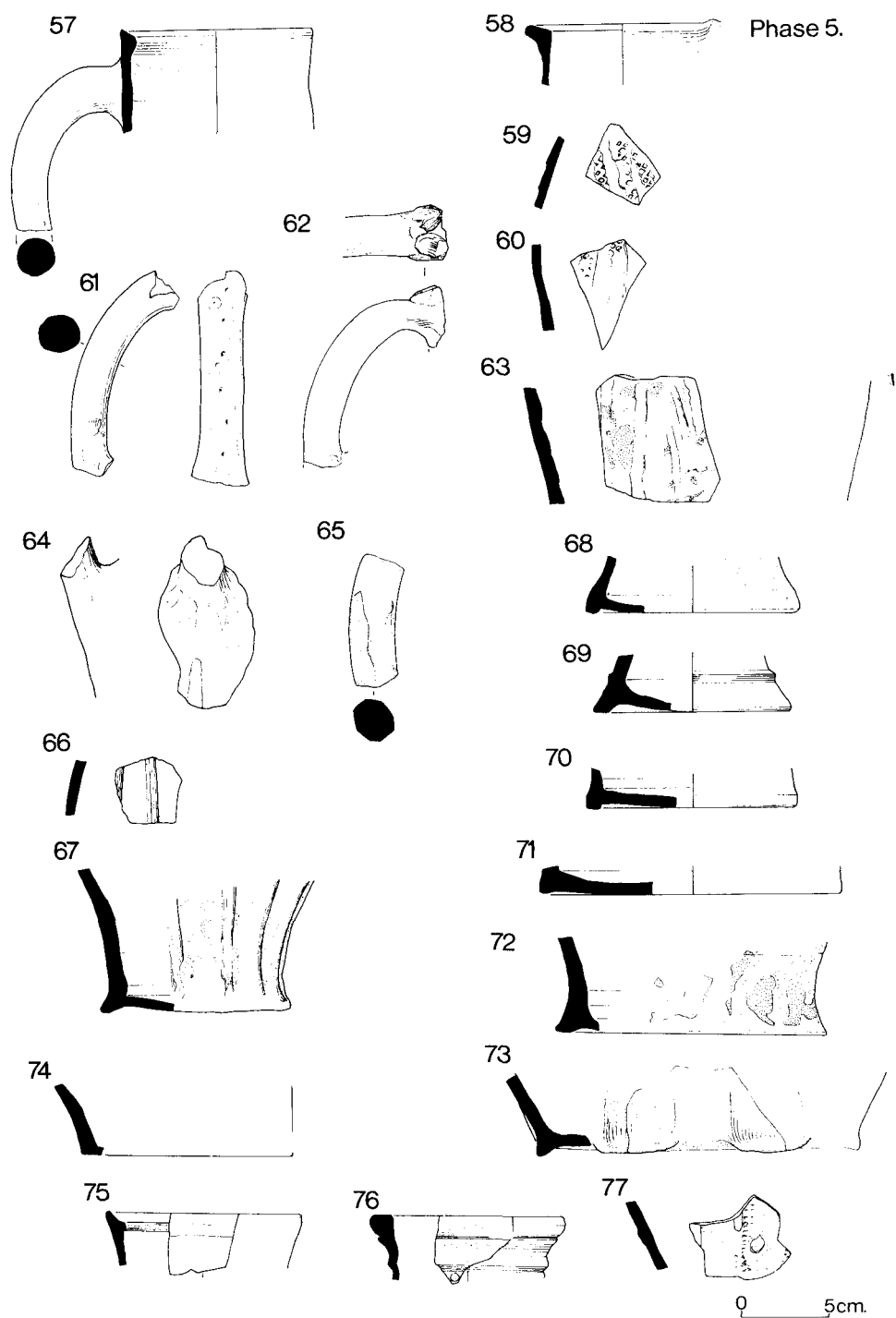


Fig. 25 Jewel House excavations 1963/4: Medieval pottery Nos. 57–77. (1/4)

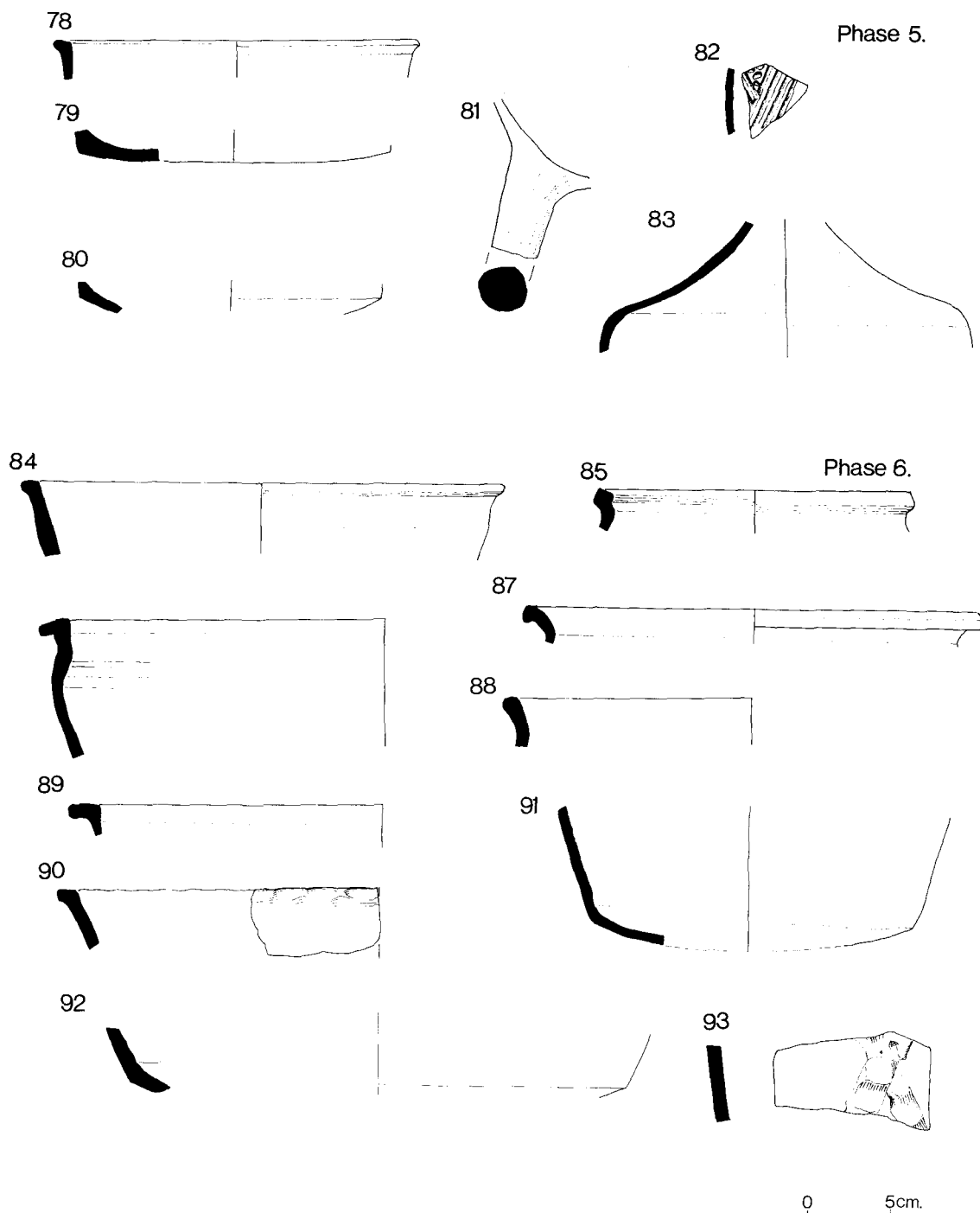


Fig. 26 Jewel House excavations 1963/4: Medieval pottery Nos. 78–93. (1/4)

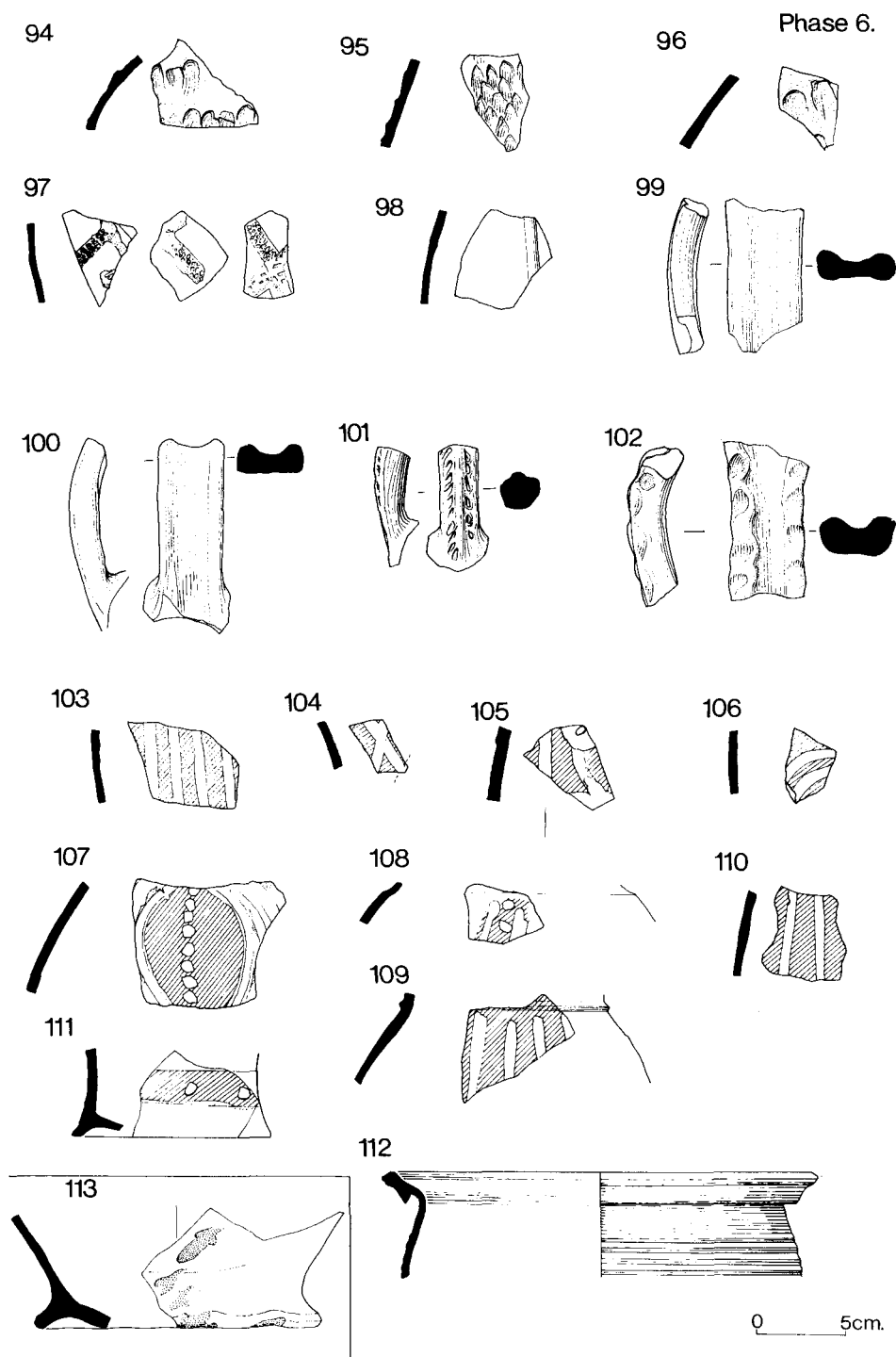


Fig. 27 Jewel House excavations 1963/4: Medieval pottery Nos. 94-113. (1/4)

Fig. 27

94	E1	199	G glaze out on O fabric.
95	E1	143	G glaze on white slip. Oxidised inner margin, grey outer margin.
96	E1	199	Br-G glaze out.
97	E1	143	Brown rouletted diamond strip. G glaze on white slip. O margins.
98	E1	143	G glaze on white slip. Grey core, O margins.
99	E2	199	Light G glaze on O fabric.
100	E4	143	(Curnow 1977, Fig. 11, No. 14). Clear amber glaze on O fabric.
101	E2	143	(cf. Armitage <i>et al</i> forthcoming, No. 25; Black 1976, Fig. 16, No. 101) G glaze, grey fabric.
102	E2	143	G glaze on grey core.
103	E4	143	(Curnow 1977, Fig. 11, No. 11). White slipped lines; splashed out.
104	E1/4	143	Y strips; G glaze. Grey outer margin, O inner margin.
105	E1	143	G-red base. White slip lines. Gr fabric.
106	E5	86	Red-Brown band. Buff glaze. Y applied strips.
107	E5	86	G glaze, Y strips.
108	E5	86	All-over white slip. Reddish-brown band.
109	E5	86	Y bands on G glaze.
110	E5	86	Same vessel as No. 109?
111	E5	86	Same vessel as No. 109?
112	K2	86	(Matthys 1971, Fig. 1, No. 10) Brownish-G glaze in and out; O fabric.

DISCUSSION

The past scarcity of independently-dated early medieval pottery in London is now being eliminated by excavations tied into absolute time-scales by C14 or dendrochronology.

The term 'Saxo-Norman' is loosely used here to describe pottery of late Saxon and/or early Norman date (i.e. AD 850–1150: for example Stamford Ware, Andenne and Paffrath Wares), and not specific wares. Generally insufficient body sherds survive to establish whether the early cooking pots were completely wheel-turned, or hand-made and wheel-finished. This distinction has been made whenever possible (HM = hand-made). All distinctive forms present in each phase have been illustrated.

As at Billingsgate (Jones, 1980) and other excavations in the Tower of London, all the Jewel House deposits contained a high proportion of residual Roman pottery. On the basis of medieval rim form alone, it is clear

that the earliest phases (1a–c) were dominated by cooking pots in late Saxon sandy/shelly ware (A1) with wide near-vertical rims and slightly sagging bases. Close analogies can be seen with cooking pot forms known from New Fresh Wharf (A Vince, pers. comm.) in London; from beneath Bristol Castle rampart (pre AD 1068–70); and from the Lion Walk ditch deposits (AD 1000–1075) and the castle bank (c. AD 1050–70) in Colchester (Crummy 1981, Figs. 33–35).

The earliest post Roman context, 103 in Trench A, contained a pinched base of imported red-painted pottery from one of the Rhenish centres (Brunssum, Schinveld, Pingsdorf, Nieuwenhagen: for recent work on granulometric analysis of these wares see Janssen and De Paepe 1970). A further example is shown on Fig. 00). Pingsdorf pinched bases are generally considered in vogue by the second half of the 12th century developing from the earlier *tandring* (cf Elten am Niederrhein = Binding *et al* 1970, 266). This late date contradicts that proposed by topography and other pottery. If it is 11th century in date (certainly no earlier than 1050) then it is a very early example of this base form in Britain. However no other pottery was recovered from this deposit, and it seems likely that this sherd is intrusive. The glazed handle (Fig. 22, No. 17) from context 37 indicates contamination elsewhere. Phase 1b is represented only by a few sherds of Thetford type storage jar.

Few differences are visible between Phases 1a and c. The cooking pot with near-vertical rim predominates, with a few examples of square ended fingered rims from the uppermost levels of Phase 1 that may be considered typologically later, as is the undercut rim (Fig. 23, No. 20). One wall sherd of Rhenish 'blue-grey' ware with wide shallow finger rilling on the outside (most probably from a globular vessel) reflects the accepted pattern of influences from the Belgian-Rhineland area (red-painted ware occurs at Dowgate and Billingsgate: Jones 1980, 142). Significantly, no French fabrics nor forms displaying strong Norman influence (as at Castle Neroche) have yet been identified

in the Saxo-Norman phase. Home viticulture and urban growth during the 11th century and the emergence of many English potteries may have eliminated much of the demand for French imports (Hodges 1977, 249), but their absence in these deposits at the Tower of London may equally be due to the nature of the site during this period as a post-invasion emergency enclosure concerned primarily with military rather than civilian supply, adequately attended by local craftsmen. It is not until the 12th century (Phases 5 and 6) that we see the re-introduction of French pottery and its subsequent imitation in this country.

The later deposits (Fig. 20) are dominated by typical London area products – pitchers and jugs. The final silting of ditch B is dated by a late 12th-century London Ware pitcher base (Fig. 24, No. 49) – suggesting that the ditch was kept clean until its deliberate backfilling *c.* AD 1200. The other rims within the silting are of Saxo-Norman form. One coarse, thick wall sherd with rouletted lines (Fig. 24, No. 48) is paralleled by a pitcher from Bristol Castle (pre. *c.* AD 1068/70: Ponsford 1974, Fig. 7, No. 80), one from Oxford (late Saxon: Jope 1953 Fig. 34, No. 37) and a spouted pitcher from Cannon St., London (late Saxon: Boddington 1979, Fig. 15, No. 87). Ditch B may therefore have been cut some time during the middle of the 11th century.

The small group of pottery from Phase 4 contains London ware pitchers and shelly wares identical to the late 12th-century material from the Wakefield Ditch excavations (Phase 1: *c.* 1190–1220), indicating a late 12th-century date for the backfilling of Ditch B.

The growth of deliberately reduced grey sandy ware cooking pots Phases 5 and 6 reflects the trend shown by the Wakefield material. The Andenne type bowl (Fig. 27, No. 112) from Phase 6 is paralleled by similar vessels dated by Matthys (1971, 144) to *c.* 1225–1300 (much work remains to be done on fabrics from the numerous centres in this area), supporting the date proposed for the back-filling of Ditch A during the second half of the 13th century.

BIBLIOGRAPHY

- APTED, GILYARD-BEER & SAUNDERS (1977) M. Apter, R. Gilyard Beer and A. D. Saunders *Ancient Monuments and their Interpretation* Essays presented to A. J. Taylor (London and Chichester, 1977).
- PEARCE, VINCE & JENNER (forthcoming) J. E. Pearce, A. G. Vince and A. Jenner *Medieval Pottery in London: a dated Type Series Part 2: London Wares*. London and Middlesex Archaeol. Soc. Special Paper (forthcoming).
- BECKMANN (1974) B. Beckmann 'The main types of the first four production periods of Sieburg pottery' in Evison *et al* (London, 1974 183–220).
- BINDING, JANSSEN & JUNGKLASS (1970) G. Binding, W. Janssen and F. K. Jungklass 'Burg und Stift, Elten am Niederrhein. Archäologische Untersuchungen 1964/5' in *Rheinische Ausgrabungen* 8 (Düsseldorf, 1970).
- BLACK (1977) G. Black 'Excavations in the sub-vault of the Misericorde of Westminster Abbey, February to May 1975' *Trans. London and Middlesex Archaeol. Soc.* 27 (1977) 135–78.
- BODDINGTON (1979) A. Boddington 'Excavations at 48–50 Cannon Street, City of London, 1975' *Trans. London and Middlesex Arch. Soc.* 30 (1979) 1–38.
- COLVIN (1963) H. M. Colvin (ed) *The History of the King's Works II* (London, 1963) 706–29.
- COLVIN (1975) H. M. Colvin (ed) *The History of the King's Works III* (London, 1975) 262–77.
- CRUMMY (1981) P. Crummy, *Aspects of Anglo-Saxon and Norman Colchester* Colchester Archaeol. Report 1. C.B.A. Research Report 39 (London, 1981).
- CURNOW (1977) P. E. Curnow 'The Wakefield Tower, Tower of London' in Apter *et al* 155–89.
- CURNOW (1978) P. E. Curnow 'The Bloody Tower' in *The Tower of London: its Buildings and Institutions* (London, 1978) 55–61.
- CURNOW (1982) P. E. Curnow 'Some Observations on the Planning and Construction of the West Curtain at the Tower of London' in *Mélanges d'archéologie et d'histoire médiévales en l'honneur de Guy Michel de Biard* (Fest.): Vienna, (1982) 65–74.
- DAVISON (1967) B. K. Davison 'Three Eleventh Century Earthworks in England' in *Château Gaillard II* (1967) 40–3.
- DAVISON (1973) B. K. Davison 'Castle Neroche: an Abandoned Norman Fortress' *Proceedings of the Somerset Archaeol. and Natural History Soc.* 117 (1973) 16–58.
- DUNNING & WILSON (1953) G. C. Dunning and A. E. Wilson 'Late Saxon and Early Medieval Pottery from Selected Sites in Chichester' *Sussex Archaeol. Collections* 91 (1953) 140–63.
- DUNNING, HURST, MYRES & TISCHLER (1959) G. C. Dunning, J. C. Hurst, J. N. L. Myres and F. Tischler 'Anglo-Saxon Pottery: a Symposium' *Medieval Archaeol.* 3 (1959) 1–78.
- DUNNING (1960) G. C. Dunning 'Early Norman Pottery from Recent Excavations in Winchester' *Hampshire Field Club Proceedings* 21 (1960) 134–44.
- DURHAM (1977) B. Durham 'Archaeological Investigations in St. Aldates, Oxford' *Oxonienia* 42 (1977) 83–203.
- EVISON, HODGES & HURST (1974) V. I. Evison, H. Hodges and H. Hurst *Medieval Pottery from Excavations* (London, 1974).
- FERRETI & GRAHAM (1978) E. Ferreti and A. H. Graham '201–211 Borough High Street' in *Southwark Excavations 1972–4* London and Middlesex Archaeol. Soc. and Surrey Archaeol. Soc. Joint Publications No. 1, Vol. 1 (London, 1978) 53–176.
- HALDON (1977) R. Haldon 'Late Saxon and Medieval Pottery' in Durham 1977, 111–39.
- HILL, MILLETT & BLAGG (1980) C. Hill, M. Millett and T. L. Blagg *The Roman Riverside Wall and Monumental Arch in London* London and Middlesex Archaeol. Soc. Special Paper No. 3 (London, 1980).
- HODGES (1977) R. A. Hodges 'Some Early Medieval French Wares in the British Isles: an Archaeological Assessment of the Early French Wine Trade with Britain' in Peacock (1977, 239–85).
- HURST (1961) J. G. Hurst 'The Kitchen Area of Northolt Manor, Middlesex' *Medieval Archaeol.* 5 (1961) 211–99.
- HURST (1976) J. G. Hurst 'The Pottery' in Wilson (ed) *The Archaeology of Anglo-Saxon England* (London, 1976) 283–348.
- JANSSEN & DE PAEPE (1976) H. L. Janssen and P. A. De Paepé 'Petrolological Examination of Medieval Pottery from South Limburg and the Rhineland' *Ber R O B XXVI* (Amersfoort, 1976) 217–27.
- JONES (1980) D. M. Jones *Excavations at Billingsgate Buildings, Lower Thames Street, London, 1974* London and Middlesex Archaeol. Soc. Special Paper No. 4 (London, 1980).
- JOPE (1953) E. M. Jope 'Late Saxon Pits under Oxford Castle Mound' *Oxonienia* 17–18 (1974) 77–111.
- MATTHYS (1971) A. Matthys 'Un établissement de potier à Namur (XIII^e siècle) *Revue des Archéologues et Historiens d'Art de Louvain IV* (1971) 141–54.
- NELSON (forthcoming) S. Nelson 'The Medieval Pottery' in G. Parnell *Excavations within the Inmost Ward, Tower of London, 1955–77* D.O.E. Occasional Paper (forthcoming).

- PARNELL (1980) G. Parnell 'Tower of London: Inmost Ward Excavation 1979' *London Archaeol.* 4 No. 3 (1980) 69–73.
- PEACOCK (1977) D. P. S. Peacock *Pottery and Early Commerce* (London, 1977).
- PLATT & COLEMAN-SMITH (1975) C. Platt and R. Coleman-Smith *Excavations in Medieval Southampton 1953–1969*, Vol. 2 (Leicester, 1975).
- PONSFORD (1974) M. Ponsford 'Appendix: Late Saxon Pottery from Bristol' in P. Rhaz 'Potters in Somerset, A.D 400–1066' in Evison *et al* (1974, 95–126).
- RACKHAM (1972) B. Rackham *Medieval English Pottery* (London, 1972).
- REDKNAP (in progress) M. Redknap *Mayen Ware and Eifelkeramik: the Roman and Medieval Pottery Industries of the Eifel, West Germany* PhD Thesis at the Institute of Archaeology, University of London.
- ROYAL COMMISSION (1930) Royal Commission on Historical Monuments. *London East* (London, 1930).
- TATTON-BROWN (1975) T. Tatton-Brown 'Excavations at the Custom House Site, City of London, 1973, part 2' *Trans. London and Middlesex Archaeol. Soc.* 26 (1975) 103–70.
- THORN (1978) J. C. Thorn 'Pottery from the Medieval Pit and Well' in Ferreti and Brown (London, 1978) 128–40.
- THORN (1980) J. C. Thorn 'The Medieval and Post-Medieval Pottery' in Hill *et al* (London, 1980) 98–103.
- WILSON (1976) D. M. Wilson *The Archaeology of Anglo-Saxon England* (London, 1976).

ACKNOWLEDGEMENTS

G. Parnell wishes to thank Brian Davison for making his Jewel House pottery available for publication and for his advice on aspects of the Tower's early history, Peter Curnow is thanked for examining the draft report and offering valuable suggestions. Derek Craig, who was responsible for photography during the 1974/5 excavations, is thanked for his helpful comments on aspects of the site. Jeremy Hall is thanked for the photographs of the Wakefield Tower which were taken after the main excavations had been completed.

Mark Redknap is grateful to Alan Vince and the Department of Urban Archaeology, Museum of London, for invaluable assistance, and to Val Horsman for discussing the chronology of the Jewel House site.