EXCAVATIONS AT GUY'S HOSPITAL 1967

By G.J. DAWSON

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ABBREVIATIONS		

ABBREVIATIONS

С	century; core (pottery)
D	diameter
E	exterior
F	feature
GLRO	Greater London Record Office
H	Height
I	interior
L	layer
M	margin (pottery)
M	microfiche
OD	Ordnance Datum
P	pit
RT	robber trench
S	surface
T	trench
US	unstratified
W	width

SUMMARY

This report deals with the excavation of two trenches at Guy's Hospital. They revealed a number of ditches which were filled in and recut on a number of occasions. In one trench they were associated with a timber and later stone and brick building. They also produced evidence for two floods in the middle of the 15th century. The principal result, however, was the recovery of a large quantity of artefacts, particularly pottery, from a stratified sequence. Although the sequence produces some problems, solutions to these are proposed with the result that the site provides valuable evidence about the detailed development of pottery in the second half of the 15th century and the early 16th century. The implication of this for our knowledge of the various fabric groups represented is discussed. Its significance for the changes which occurred at this period is also discussed with an appraisal of the significance of foreign influence on these changes. Finally an attempt is made to interpret these finds as the product of economic, social and technological conditions at a particular time and place, both in their 'production' and use.

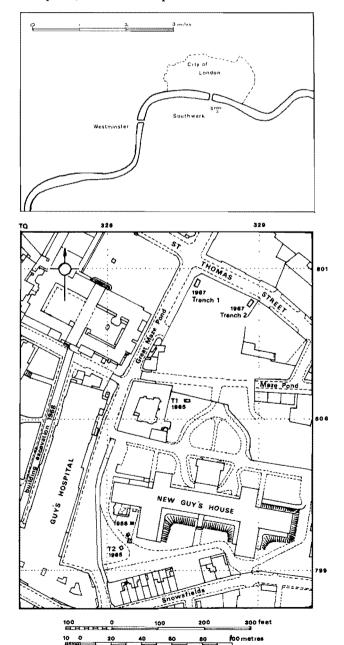


Fig 1 Location maps

INTRODUCTION AND ACKNOWLEDGEMENTS

In 1966 Guy's Hospital obtained planning permission for the erection of a new tower block in front of the then recently built New Guy's House. It was felt that excavations should be undertaken before this happened. Two trenches were excavated 6–28 August 1967. Because the area was used as a car park, these were sited in the northeast and north-west corners of the site, which, as it turned out later, were not actually within the area on which the Tower Block was built. However, a trench had already been dug within the area of the tower block (New Guy's House 1965 Trench 1 by Maitland Muller) and observation was kept during the building of the tower block itself. The excavation was done entirely with volunteer labour as has been the processing, apart from some of the drawings.

Many people have helped to make this report possible, both with assistance and advice, and many of them are acknowledged in the body of the report. Of those that are not, I would like to thank the following here: the Governors of Guy's Hospital for permission to excavate; the volunteers who dug and processed the material, particularly Mrs Rendell, who supervised the early stages of the processing while I was away from London; Southwark Borough Council who seconded me for three weeks to direct the site and gave financial support; John Hurst, a constant source of advice and encouragement; John Cresswell, P. Clare, Miss R. Jackman, J. Earp, Roy Edwards and Jeremy Haslam for the drawings. Miss R. Alston, Dr Jewell, and A. Wheeler for help with identifying the bones; Dr J. Taylor, Miss Cook and Dr George for advice on the mollusca and their parasites; John Nevinson for advice on the costume of the figural jug; Messrs Hoekstra and Jannssen for advice on the Dutch material; Dr C. Barron for advice on chronicle sources and G. Cowell for advice on bird bones. Last, but very far from least, I would like to thank my wife for all the typing and

The excavation was carried out under the auspices of the Southwark Archaeological Excavation Committee and the Southwark and Lambeth Archaeological Society. The latter have given a generous grant towards the cost of publication. The material and the site documentation are housed at the Cuming Museum (Registration Number 1967/7).

TRENCH 1—Feature Descriptions (see Fig 2)

Stratigraphically the earliest feature in Trench 1 was a gully or shallow ditch, F1, cut into grey clay which was regarded as natural. It was about 4 ft (1.3 m) wide and 1½ ft (0.46 m) deep at the maximum with an uneven bottom (+0.3 ft (100 mm) OD at deepest). It was confirmed for about 8½ ft (2.6 m) running approximately north-south and had a layer of light brown clay (L14) in its bottom. This layer probably continued over the eastern lip as L13, which was black clay.

Immediately west of its western lip was a row of postholes, either circular or sub-rectangular in plan, in a straight line almost contiguous with each other (F2). Fourteen (15?) postholes were exposed; the northern end of the row was found but it continued into the southern section. F2 was sealed by L11. Some of the postholes were not quite vertical but sloped to the south.

Varying between 4 in (100 mm) and 11 in (280 mm) behind F2 was another row of postholes, F3. Neither end of this row was found but 16 holes were exposed and another two are probable, so it was longer than F2. It was also less regular and consistent than F2. F3 was sealed by a layer of cement, mortar and clay which was probably part of F6 though it was difficult to distinguish it from L11 of F5.

Behind F3 was yet another row of postholes, F4, but this was rather obscured by F6 and the section. Six

postholes of this row were found.

30

Sealing the layer in the bottom of F1, and also F2, and lying up against the wall, F6, was a series of layers, F5, most containing large amounts of animal bones, shells and pottery mixed with clay, earth and rubble. Nine layers were distinguished in it (3/4 to 12 inclusive). All the layers of this feature sloped steeply down towards F6. The lowest layer (12), was grey earth and filled the eastern two-thirds of F1 but did not quite reach its western edge. Filling the dip in L12, covering the western edge of F1 and lying against F6 was a layer of mortar, tile and chalk rubble (L11). Against the western edge of F1 this included a patch of hard mortar. L11 stopped a little south of the north end of F6. Immediately overlying L12 in the eastern part of the trench was a layer of grey clay (L10), which also overlay L11. Sloping down above the eastern edge of F1 was a layer of loose sandy earth (9) overlain by a layer of grey earth (6) which also contained a mass of roofing tiles. L6 dipped south-westwards rather than westwards and in the northern part of the trench, L6 sloped down below the top of L9 on the western side for a short way. The edge of L6/9 against L5/8 also ran north-westwards. This left a 'ditch' between them and F6 which was filled by another layer of rubble (8), a layer of clay with earth (7) and another, thinner layer of rubble (5) above this, none of which extended beyond the north end of F6. Above this was a layer of grey earth (3/4 called 4a in northern half of trench) which also included P5 and P4. It is difficult to know whether these are the top layers of F5, because their base was fairly level and showed no signs of dipping down to the west as the other layers did but this may have been because the trench was too narrow to determine this. The top of L3/4 was probably truncated by the cellar.

F5, in part at least, was lying against a wall, F6. At the base of F6 was a layer of clay, mortar and cement, very like L11, which underlay a baulk of timber 2 in (50 mm) thick upon which sat the wall. This was composed of a rubble core of chalk, greensand and flint with

much mortar between them and faced with regular coursed chalk, greensand and ?limestone. Six rows of facing occurred capped by four rows of bricks. Above this was a trench filled with rubbly earth cutting down through L3/4 but sealed by L1/2 and containing one 18th century pipe and one salt-glazed brick besides material described below. This is presumably a robbing trench for the demolition of F6.

Also cut through L3/4 and sealed by L1/2 were two pits, P1 and P3. L1/2 was a thin layer of clay which peeled off the top of L3/4 clearly showing that it was a tread layer since it directly underlay the concrete floor of the cellar which occupied the rest of the space up to ground level. The digging of this cellar must have truncated the stratigraphy above L3/4 and the robber trench of F6 and P1 and P3 may well have been cut down from considerably higher up. In the northern half of the trench an earlier cellar had cut a few inches deeper and was filled with brick rubble containing 19th century pottery.

TRENCH 1—Finds

Note: In the provenances of the objects 'X' and '+' indicate joined sherds; 'and' and the absence of a separator indicate non-joining sherds. Thus, ' $2 \times L3 + 1 L4$, 3 L5 and $6 \times L6$ ' means 2 sherds of L3 join 1 sherd of L4 and there are three non-joining sherds of L5 and a unit of six joined sherds from L6.

For abbreviations used in the finds descriptions see p 28. For fuller descriptions and unillustrated finds see the microfiche. References are to page numbers in the microfiche version and have the prefix M in italic.

LATE MEDIEVAL AND EARLY POST-MEDIEVAL POTTERY

Off-white, Buff-surfaced and Overfired Surrey Ware (Fig 4)

A small group distinguished from the rest by having a medium to heavy temper of medium to large sand grains. They belong to the medieval Surrey Ware as opposed to Surrey White Ware which is either untempered or has a temper of very small sand grains usually only visible under low power magnification.

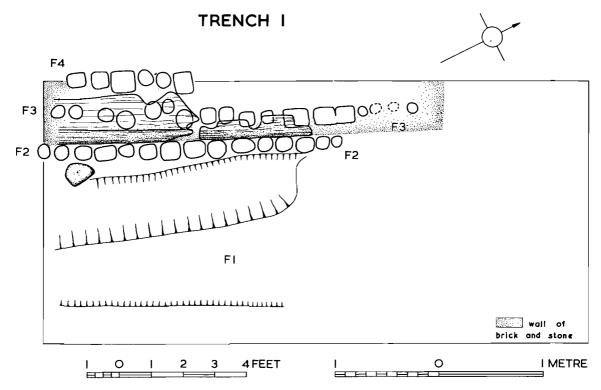


Fig 2 Trench 1 plan

COOKING POTS

Three rim forms are present

Bifid rims

Light grey C. Thin off-white M & S. Rim D 9 in. (1 L12)
 Light grey C. Very thin buff M & IS. ES glazed glossy mid

green, slightly mottled dark green. Rim D 6 in. (1 L6)

3 Light grey C & M. IS glazed glossy yellow mottled green, but unglazed buff S on rim. Buff ES covered by yellow sheen tinted slightly green. Ledge simply continuation of side with simple rim. Rim D 6 in. (1 L8) (M6)

Flanged rims

4 Buff C (light grey in rim), M & S. Rim D 5½ in. (1 L12) (M6)

Cauldron type

5 Pinkish C (light grey in rim) & M. IS buff but glazed yellow on rim. ES dirty buff. Smooth surface on underside and edge of rim where handle detached. Rim D 7 in (?). (1 L10) (M7)

Untyped

6 Off white C & IM. EM black (off-white in places). IS off-white to buff with yellow mottled green glaze on base. ES grey with areas of smoke-blackening. Area of ES of base missing (scar for foot?). Base D 6 in. (1 L6) (M7)

PIPKIN:

7 Light grey C. Very thin buff M. ES buff to light grey. IS buff with patch of green glaze. Handle edges turned up to form triangular section flange with broad 'trough' between having rounded end. Very large thumb pressing smoothed onto body. (1 L6)

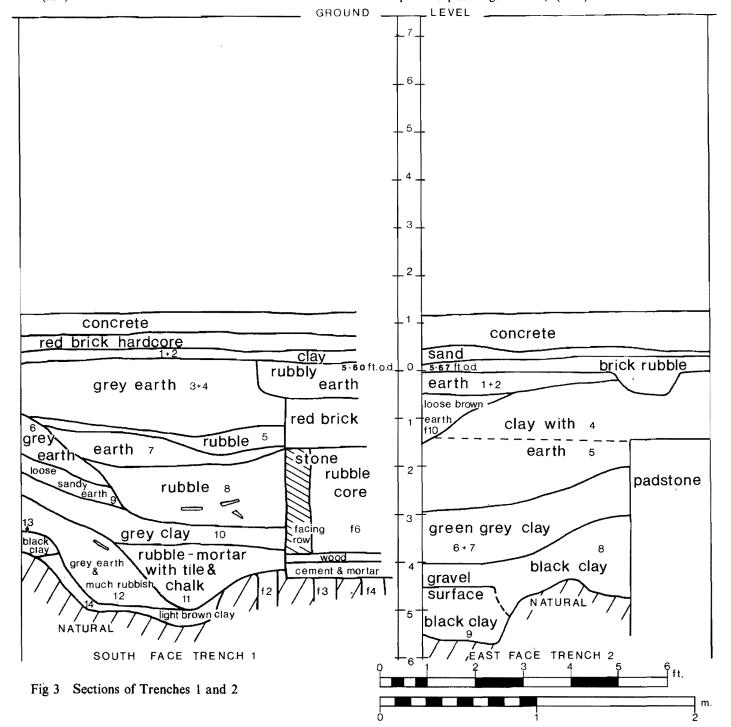
BOWLS

Flanged

8 Light grey C. Off-white M & S. Side of bowl curving inwards. Rim D 12 in. (1 L10) (M8)

Untyped

9 C & M pinkish to light grey. IS buff with vertical streak of light green glaze. ES glazed light greenish yellow with occasional dark green spots. Extant fragment not circular (from lip? or deep rectangular bowl). (1 L6)



JUGS

Represented only by sherds.

10 Off-white with dark grey S which is partly rubbed off. Concave upper S with groove down centre and row of deep pinholes on either side (one penetrates whole of handle). Lower S uneven. One edge rounded and one flattened but both show traces of thumbing. W 1½ in. (1 L4)

11 Grey C, thin off-white M and greyish S (inside pot off-white). Lower part of handle glazed yellowish brown mottled very dark green. Depression inside vessel opposite handle base. Interface in break shows wedge applied between handle and body. W 1% in. (1 L6) (M9)

MISCELLANEOUS AND UNTYPED

12 Lid? C & M pink above and black below. ?Upper S off-white. ?Lower S glazed fairly uniform green. Rim D 8in? (1 L4a) (M10)

13 Narrow mouthed vessel (bottle?). Off-white C & M. Buff S. Red slip paint on shoulder, one horizontal line and one vertical. Neck slightly everted with flat-topped rim. Rim D 2in. (1 L7) (M10)

Surrey White Ware (Fig 4)

This is by far the largest group. They are hard fired and white throughout unless described otherwise. Principally jugs.

JUGS

- 14 Globular, footed jug. ES glazed slightly mottled mid-green to an irregular line below its girth. On the front has two applied 'thumbed' strips delineating a shield-shaped area in which is a cross composed of stamped circlets. Unglazed streak on the back which probably indicates position of handle. Base has a thick lustrous green glaze which has run down in two streaks over foot (indicating fired upside down). Pronounced fingering marks internally. Base D 4½ in. (10 × L1 + 15 × L10 + 5 × L7 + 2 × L9) (M11)
- 15 Almost straight-sided jug with constriction at level of handle top. ES mottled yellow-green to uniform mid-green glaze over the whole except for patches at bottom of sherd (some glaze chipped off). On IS a very wide vertical band of the same glaze from top to bottom of sherd. Two scars externally on body and one on handle. Strap handle has three thumbings at base and at top interface with body visible. (14 × US + 1 L7)

The sides of this jug probably continued vertically down to the base. Five such bases occurred but none seems to belong to it.

16 White C & M with buff S. On ES two patches of lustrous uniform mid-green glaze one at least with scar in centre. Internally patchy yellow mottled green glaze on base. Pronounced fingering marks internally on side and base. Base D 3¼ in. (2 × L4a and 1 P4) (M12)

A different type of jug is represented by two bases with outward sloping sides.

17 Nearly complete base. Internally patches of yellow mottled green glaze on basal angle. Pronounced fingering marks on side and basal angle. Spot of light green glaze with scar attached on ES of base. Base D 3¼ in. (1 L9 + 1 L6 + 1 L4a) (M12)

A third jug type is represented by a small basal angle sherd.

18 White with buff ES. Frilled foot-ring on basal angle. ES lustrous light green glaze with dark green spots. (1 L10)

It is unfortunately impossible to associate any of the jug rims with the body and base sherds. Most of the rims which can be definitely attributed to jugs are flat-topped.

19 ES glazed lustrous light green with darker patches and some red streaks. On IS narrow band of patchy yellow mottled green glaze below rim. Pulled out lip. Rim D 3 in. (1 L8 + 2 L6 + 2 L4) (M13)

20 ES glazed lustrous dark slightly mottled green. On IS narrow band of same glaze below rim and patch of mid green on neck. On top of rim circular scar (D 3/16 in). Lower S of handle unglazed with depression at its top into which fits tongue on neck of jug. From jug with tall vertical neck. Rim D 2¼ in. (2 × L6 + 1 L8) (M13)

21 C & M off-white. E & IS glazed lustrous grey-green.

Internally depression opposite handle attachment. Also from inc with tall vertical neck. Rim D 314 in? (1 1 4)

jug with tall vertical neck. Rim D 3½ in? (1 L4)

22 ES glazed lustrous light to dark green. Top of rim mainly unglazed. Pulled out lip with shallow pouring trough formed on top. Rim D 3 in. (2 × L6) (M14)

23 Shoulder? sherd possibly from jug. IS dirty white. ES

23 Shoulder? sherd possibly from jug. IS dirty white. ES covered with yellow mottled green to dark green glaze. One small amorphous lump of clay attached and glazed (so not kiln scar). Band of three horizontal incised grooves in middle of sherd and 2+? at bottom. (1 L6)

Three other closed forms were present.

MONEYBOX

Two body sherds. Buff ES (1). Patchy yellow mottled green glaze (1) or all over light-dark green glaze (1). IS unglazed. Identifiable by presence of part of slot. Too small to indicate form. (1 L10 and $2 \times L6$)

COSTRELS

Sherds of two possible costrels occurred.

24 Vessel with very narrow neck. IS buff with patches of light green glaze just below rim. ES glazed lustrous light-dark green. Fingering marks on neck horizontal. Just over half circumference extant so one handle possible. Rim D 1¼ in. (1 L3-4) (M15)

25 Body sherd. Probably costrel because side curves inwards 'above and below' though of latter only small amount extant and may just be distorted jug. Largely unglazed but area of light green mottled mid-green glaze on 'upper' part and below it S purplish grey but buff elsewhere. Fingering marks internally would be vertical if costrel. (1 L3-4)

JAR

26 Rim and body sherd of jar-like vessel. Buff S. ES glazed light green mottled dark green on body. Rim D 2 in, but distorted at both edges of sherd (by handle and lip?). (1 L10 (M15)

CANDLESTICK

27 Hollow lower part of candlestick. ES largely yellow glazed and drip-ring and stem decorated with incised oblique lines. D of foot 2½ in. D of stem (internally at surviving top) ¾ in. (1 L10) (M16-17)

The second commonest vessel type present was:

CUPS

At least five are present and all belong to the same generic type with a pedestal foot, an outward sloping lower side and a vertical upper side with one vertical strap handle. They can be divided into two groups by the form of the pedestal.

28 Nearly complete vessel with footed, waisted pedestal. IS glazed all over light green heavily mottled dark green. Externally vertical side glazed in same way and one patch of more uniform dark green glaze on foot and base. Unglazed ES buff to off-white. Foot D 2½ in. Rim D 4½ in. (10 × L6 + 1L8 + 2 × L7)

Of the other form with an unfooted pedestal and no waist, only base and body sherds survive (these might be dishes, cf example from Farnborough Hill, Holling 1971, fig 2: B1a). The largest is:

29 Short vertical-sided pedestal and part of lower, outward sloping side. IS glazed overall mid green mottled dark green. ES glazed light greenish yellow including base with unglazed patches buff. Arc of incised circle on base. Base D 2¾ in. (2 × US) (M17)

30 Similar vessel but with lobes on rim. Only one lobe extant.

Lobe closed. S glazed mid-green heavily mottled dark green.

Vertical side deeper than in 28. Scar externally. (1 L9)

(M18)

A different type of cup may be represented by

31 Slightly pinkish C & M. Buff unglazed S. Body curves in gently towards base. Rim D 3 in. (1 L9)

Other open vessels present are:

DOUBLE BASIN CONTAINERS (CONDIMENT DISHES)

32 Two biconical basins with solid strip between them to which is attached a horizontal loop rod handle. Simple rim. Mid-

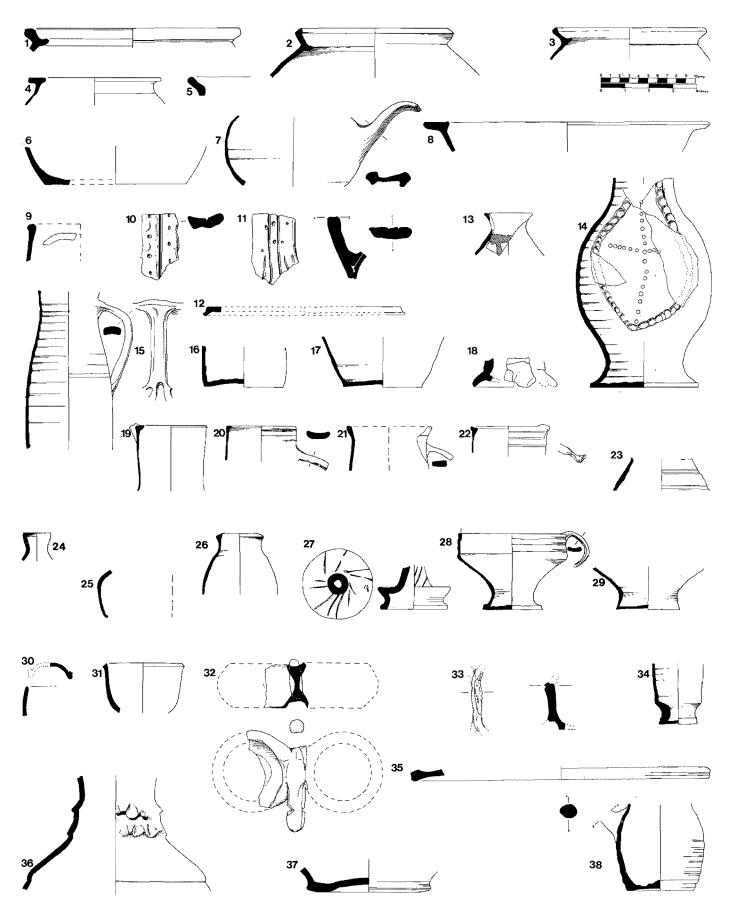


Fig 4 Surrey Wares and Other White Wares Nos 1-38

green glaze mottled dark green internally and yellow externally; only patchily covers lower half and base, which is buff where unglazed. The handle has two deep 'V' notches in it, from opposite sides, which was done after firing since completely unglazed. Rim and base D 21/2 in. (1 L10)

33 Dividing wall of similar vessel but without solid strip between two basins and no handle extant (but scar on rim may suggest basket-type handle. Vertical loop handle not possible). Flattopped rim. Mid-green glaze mottled dark green internally and on upper part externally. Lower part and base unglazed. (M19)(1 L4)

ALBARELLO TYPE CONTAINER TYPE 1? (See Bloice 1971, 127)

34 Completely unglazed. Vertical side, constriction at its base and shallow cordon immediately above basal angle. Without upper part impossible to know whether it has second constriction to make it an albarello type container. Base D 11/2 in. (1 L6)

LID?

35 ?Upper S glazed yellow mottled light to dark green. Lower S has patch of similar glaze on rim but buff where unglazed. C & M slightly grey. Rim D 13 in. (1 L3-4) (M19)

Other White Wares (Fig 4)

There are a number of other sherds in white ware for which no source can be confidently assigned. The Yellow Glazed White Wares might be included amongst them (see p 53).

36 Vessel of unknown type. Off-white C (light grey in places)
M & S. IS has streak of orange-yellow glaze with green spots and patches. Lightly sand-tempered. Comprises inward sloping ?upper shoulder of vessel with constriction near bottom of sherd. Above shoulder side becomes vertical. On angle and a little way above it two frilled bands. (9 × L6). Probably Surrey ware but form not known.

37 Off white C (pink in places), M & S. Heavily sand-tempered but mostly small grains. Flat base with countersunk centre.

Slightly footed basal angle. Base D 5 in. (1 L10)

38 Jug. Off white C & M and dirty white S. Moderate sand temper. Suggestion that body becomes vertical at top of sherd. Handle has rough thumbing at base. Pronounced fingering marks internally and externally and raised cone internally in centre of base. Base D 24 in. (9×L9). Possibly Surrey ware but profile not unlike 195.

Red Wares (Figs 5-9) PITCHERS (Fig 5)

The distinction between a jug and a pitcher is rather hard to draw, but the term pitcher is frequently used for this type of vessel though Kelly calls them large jugs. Nevertheless there does seem to be a group of vessels which can be distinguished from jugs even if defining the difference is not simple. Hardy-Smith's definition as a large jug used mainly for storage is not adequate since it is not intrinsic but depends on interpretation as to use. The principal morphological difference seems to be that while jugs are basically tall and narrow, pitchers are low and wide, which means that their rim diameter is a smaller proportion of their maximum girth. The basic definition would then be a low wide pot with a narrow mouth and one handle from it to the body. Have fine sand temper unless stated otherwise.

Since there are no complete profiles, it is not possible to be sure what the shape of the pitchers is. But from what survives, there appear to be two shapes present; a globular bodied type and one with a fairly flat high shoulder and a somewhat conical lower body (cf Fennelly 1969, fig 37:1).

Globular type

39 Red C, M & S. Tempered with coarse sand, finely crushed shell and few grits. Slight depression internally opposite

handle base. Lip, opposite handle, pulled out from rim. Rim D 4¼ in. (2 × L1 + 2 × L6 + 4 × L8)

40 Grey C. Thin red M. IS red, grey on rim. ES grey with two vertical streaks red. Pulled out lip with thumbing externally on either side. Slight thickening at one point of rim (handle?) Fingering marks internally (but on lower body smooth) and externally. Ridge and groove externally on shoulder just below neck. Rim D $4\frac{1}{2}$ in. (1 L3-4 + 1 L4 + 18 × L5, 2 × L5 and 1 L5)

High shouldered type

This is best illustrated by a base to shoulder sherd.

41 Grey C. Thin red M. IS dark purplish grey. ES brown with grey patches. Brown glaze spots on side and large number on base with black spots and circular scar, D 2½ in+. Apparently continuous frilling round base. Base D 8½ in. $(5 \times L6 + 2 \times L4a + 2 \times L4, 2 L6 \text{ and } 1 L10)$

42 Grey C (red in places). Red M. IS red. ES grey. Pulled out lip opposite handle which is missing. Rim D 4\% in. (5 \times L6+

There were also eight rim and handle fragments where little or no body survives. These can be divided into two types; one where the handle is attached to the rim (as on the two globular pitchers); the other where the handle is attached to the neck which is therefore longer.

Handle on rim

43 Red C, M & S with purplish grey patches (some soot patches). ES spots of brown glaze on neck below handle. Strap handle with hollowing vertically down middle. Rim D 7 in. (1 L6) (M23)

Handle on neck

44 Dark grey C, thin red M (in places outer grey M beyond red). S purplish grey to red. Rim slightly beaded internally. Rim D 4½ in. (1 L9)
45 Red-brown C & M. Brown S. Fabric rather sandier than

usual. Suggestion of smoothed out tongue of clay internally opposite handle and externally of tongue of clay on body smoothed into cut-out in underside of handle. (1 L10)

46 Red C, grey in handle. Red M. Brown S. Band of white slip paint vertically on slight hollowing of strap handle and trace of horizontal band on neck, level with top of handle. Rim D 4¾ in. (1 L6) (M24)

There are 16 rim sherds without handles. Six of these have short necks like those with handles on the rim. Two have different rim forms.

47 Red C but grey in places. Red M. IS red with grey area. ES grey. Horizontal curving band of white slip on upper body. Rim D 5½ in. (1 L6)
48 Red C, M & S. Slight thicknening on IS. Rim D 5 in.

(M25)(1 L6)

Bases are taken as belonging to this type of vessel if they are unglazed internally (implying closed vessels) and the sides slope outwards. None of the bases could be attributed to any of the rim sherds.

49 Red C, M & S (latter has purplish grey area). Two small thumb pressings on basal angle, probably four originally. Spots of orange brown glaze on underside. Knife trimming on lower body. Base D 8 in. $(4 \times L4 + 3 \times L6)$ (M26-7)

Eight bung holes occurred and though none joined or could be associated with any of these bases or rims, they usually belong to this type of vessel. They are all of the collared type.

50 Grey C. Red M. IS red with white encrustation. ES red. Impinging on bung hole collar is small 'thumbing' on basal angle with two overlapping pressings. Residue of clay remains internally round hole. Interface of collar and body visible in places round edge of collar but not in hole. D (of hole) 14/16 in. (1 L6) (M 28)

A number of body sherds were decorated with painted white slip.

51 Red C, M & IS. ES purplish grey. Spots of orange glaze on ES. Two horizontal grooves at shoulder. Tempering coarser than usual. Has slip on non-joining sherd suggesting two motifs at least on pot. Profile probably globular. $(3 \times L6)$ $(\dot{M}\ 29-31)$ and 1 L6)

CAULDRON TYPE COOKING POTS (Figs 6 and 7)

The commonest shape amongst the cooking pots in F5 has a globular body with three solid feet and two vertical loop rod handles rising from the upper part of the body to the rim which is sharply everted, very wide and usually concave. The bases are sagging and the feet are attached to the basal angle and slope outwards. The bottoms of the feet are pressed upwards

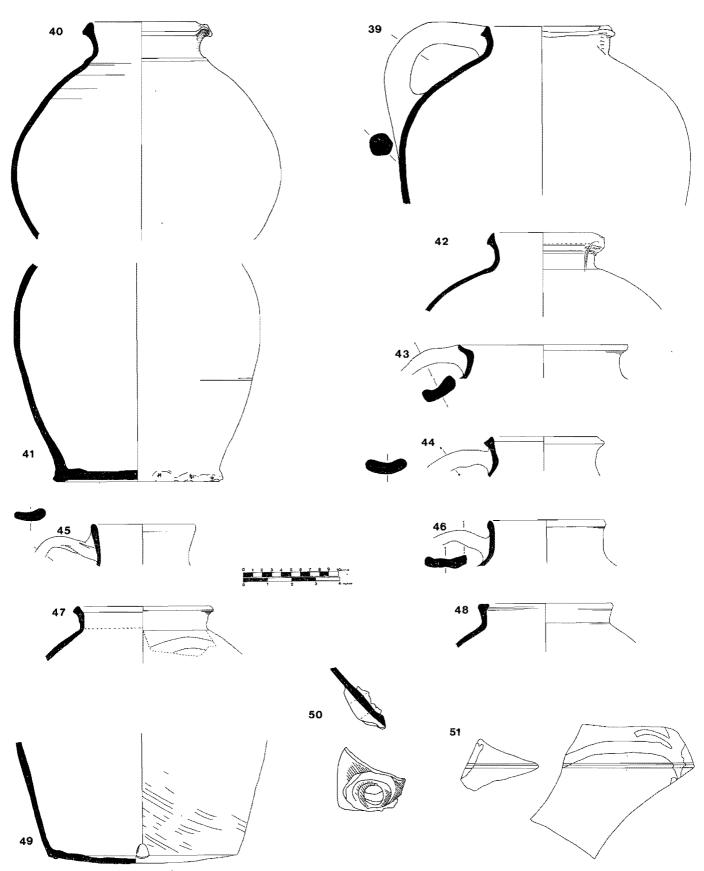


Fig 5 Red Ware pitchers Nos 39-51

which counteracts the slope of the foot and makes more of the foot touch the ground, though since this pressing is done by finger or thumb, the bottom is always dished. The top of the handle is applied directly to the rim with little or no thumbing but at its base a lump of clay is pushed out from the inside, leaving a depression internally, and presumably this fitted into a depression in the handle since there are no thumbing marks round the base of the handle. The term cauldron type cooking pot is suggested for this type since they are morphologically very similar to the metal cauldrons of the Middle Ages (see Drescher 1968). Two types occurred in F5.

Green glazed

These have the rim and base internally glazed brown and a variable amount of the lower side but are distinguished by being glazed externally with an all over glossy mottled green glaze though with quite a lot of variation. Most if not all are clearly over-fired, often making the green black in colour. The handles are nearly always unglazed. Only variations from these features will be noted. The above description is composite for no one vessel could be proved to have all these features. Superficial microscopic examination of the larger sherds shows that they are all sand tempered varying from light to moderately heavy with occasionally a few grits.

- 52 This is the best preserved. Complete profile from base to rim including one handle and two feet with slight thickening where the third was. The rim has a groove internally opposite the top of the cordon. Body has a number of wide corrugations on it. Grey C & M (thin red IM in body and handle). IS dirty grey to red. IS glaze ginger brown. On the lower side above and partly over the glaze is a band of white encrustation on which there is a large patch of 'smoke-blackening'. ES glazed khaki brown with a moderate number of black spots. Feet and some of rim unglazed. ES purple or dirty grey though the bases of the feet have white encrustation on them. Rim D 7 in. (14×L9+15×L6+6×L7+5×L4a+2×US and 1L7, 2L9 and 2L6)
- 53 Complete profile but with no surviving feet. Two sections of almost certainly the same pot. Both parts include a handle. Grey C & M (thin red IM on body). IS purplish grey and glazed dark yellow with brown spots (on rim spots of green too). ES similar near handle but elsewhere dull or glossy dark green with little mottling apparent. In one area glaze becomes almost white. Handle partly glazed. Band of two wide grooves round pot at level of handle bases which are applied over it. Rim D 5 in. (7×L10 and 19×L10)
- 54 Complete profile of two non-joining sections plus two non-joining body sherds and two feet. Grey C & M. Brown IS. IS glaze yellow/brown with sparse light green spots. ES glaze varies from glossy almost uniform dark green glaze to yellow/brown with green spots in area under handle. Wide groove with ridge below at level of handle base. On base scar of foot and semicircular scar of another pot round its inside. Rim D 8 in. (10×L9+1L8, 4×L9+1L7, 3L9 and 1L7)

55 Complete circumference of rim, one handle and stub of second and part of body. Grey C, red in places. Both M red. IS purple (area of grey) with some white encrustation. Glaze brown with some green spots on rim. ES grey. Glaze dark yellow/brown, heavily mottled with dark green (in places matt off-white). Pronounced ridge on carination which is at level of handle base. Rim D 6½ in. (15×L9)

56 Red C (grey in rim near handle) & M. Internal glaze dark brown (black streaks on rim). Nearly all of unglazed IS and part of glazed IS covered with thick white encrustation; otherwise dark purple, as is ES. ES glaze black but mainly confined to upper half of pot. Ridge at level of handle base. Number of corrugations especially on lower body. Rim has groove internally opposite beginning of thickening. Rim D 9½ in. (11×L7)

9½ in. (11×L7)

57 Red C & M. Grey IS. Glaze, on rim internally and externally, glossy, almost uniform, black. Slight thumbing on handle. Rim D 7½ in. (4×L9+1L6+1 US)

58 Grey C, red M and dark grey S with some smoke-blackening and off-white encrustation internally. Glaze on IS glossy uniform dark brown; ES patchy, dark brown with black spots. No grooves or ridges on body. No depression internally opposite handle base but there is hole into which handle has been pressed. Rim D 5 in. (3×L4)

59 Red C (grey in places) & M. IS grey, glaze dark brown. ES grey, glaze varies from brown to black. Large patches of glaze on handle. Rim D 7½ in. (6×L9) (M 35-39)

Unglazed

These cauldron type cooking pots are called this not because they are completely unglazed, which they are not, but because they are distinguished from the green glazed type by lacking any glaze externally (though spots and patches of brown glaze do occur). It is thus a name *not* a description. The general description of the shape applies equally to these and only variations will be mentioned.

It was possible to reconstruct three complete profiles.

- 60 Complete profile with handle and three feet. C & M pinkish orange. IS pinkish but mostly covered by a whitish encrustation. ES pinkish but smoke-blackened on base and lower body though not the feet. Internally greenish brown glaze in spots on rim and covering lower base and side. Two shallow grooves between handle and rim. Handle oval in section with oblique thumb pressing at base and no internal depression. Feet plano-convex in section. Fabric heavily sand-tempered with a few white inclusions. Rim D 8 in. (15×L10)
- 61 Complete profile with one handle, one foot and scars for other two. Brick red C (grey in places). Red M except for little of base and lower body which is black externally corresponding to smoke-blackening on ES, which is otherwise purplish/dark grey with red patches. IS has heavy white encrustation over unglazed parts and in places over glaze. Otherwise unglazed S dark grey. Glazed dark brown on base and lower body, with straight upper edge, and patchily on rim. Band of five narrow grooves at level of handle base. At least two feet have large thumb mark on external face. Body uneven where it joins base, which has broken off straight (as though base applied to pot). A second handle probably belongs. Rim D 8 in. (3×L10+1L9+20×L6+2×L8 and 2 L6)
- 62 Complete profile with one handle and one foot surviving. Brick red C & M. IS dark grey with areas of white encrustation, glazed a consistent reddish brown. ES purplish grey though the base is reddish grey with a large number of brown glaze spots. Foot has rough thumbing on its outer face. At level of handle base is a narrow and a broad shallow groove with a slightly raised cordon between. Rim D 7 in. (2×L1+5×L4+2xL6+2×L7 and 1 L4a and 1 L6+1 L7)
- 63 Rim and body fragment with one handle. C grey. EM black. IM & S orange-brown with smoke-blackening especially on rim where only traces of brown glaze. ES completely smoke-blackened except for one small area of buff brown on handle. Handle rises above level of rim and pinched near it. At level of handle base, band of three broad grooves. Rim D 4½ in. Fragment with handle base almost certainly belongs. (3×L10 and 2×L10) (M 41-3)

PIPKINS (Fig 7)

The term pipkin is here restricted to vessels with one horizontal straight-out handle as opposed to the two vertical loop handles of the Cauldron Type Cooking Pots.

Green glazed

There is one complete profile made up of two non-joining parts which almost certainly belong to the same vessel.

64 Red C, grey in rim. Red M except for part of rim which is

black associated with smoke-blackening externally. IS purple but large areas covered by white encrustation. ES purplish grey. IS glaze mid-brown mottled with black spots on rim and with yellow on base (almost no glaze on body). ES glaze dark brown/yellow heavily mottled black. Externally base completely unglazed and dark grey with black outer M & C. Apart from the handle, which curves upwards and turns horizontal at end, the other differences in shape from the Cauldron Type Cooking Pots are the presence of a lip (which is pulled out), feet not solid but pressed (one present (5 finger grooves) and indications of second suggesting four altogether) and a sharper basal angle (perhaps because of different sort of feet). Rim D 5½ in. (20×L4 and 6×L4)

65 Complete profile with handle but no certain feet, though trace of pressed foot below handle. Nearly complete circumference of rim but sherd which is missing is where lip would be. Grey C, red in places. Red M (grey in base). IS red with smoke-blackening in places; glaze glossy brown. ES grey; glaze patchy, dark yellow-brown mottled black. No glaze on base. Handle unglazed with very wide thumbing on underside and it appears that tongue pushed through body from outside

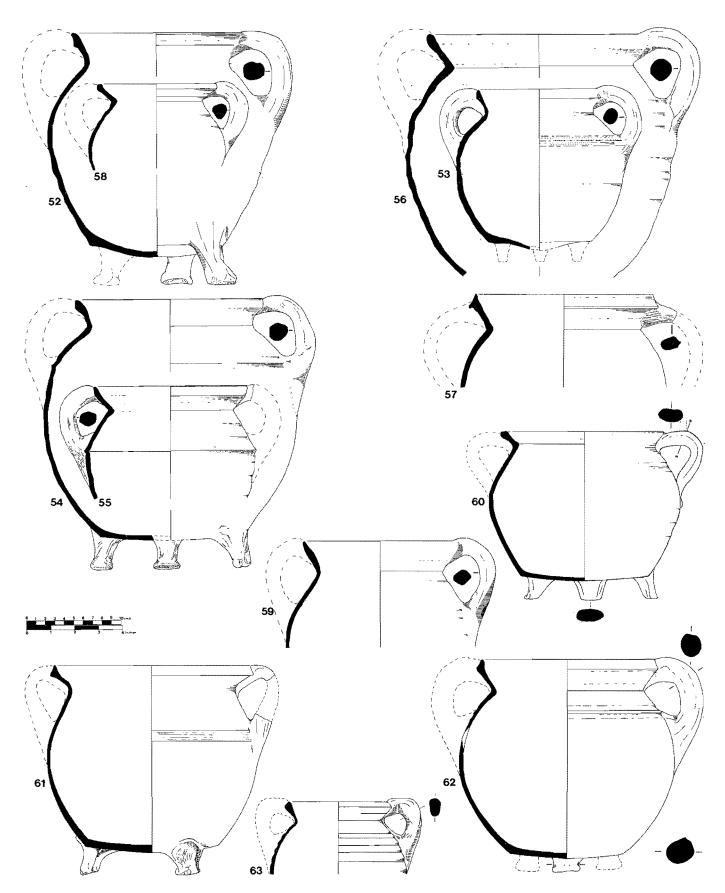


Fig 6 Red Ware cooking pots Nos 51-63

and smoothed over internally. Rim D 61/2 in. (9×L4a+ $5 \times L7 + 1L6$

Besides this, form is represented by five body sherds with handles (incomplete in one case). As with 64 the handles curve upwards and turn over at the end, though varying lengths are turned over. All have a thumbmark at the end.

66 This has the largest turnover. Red C & M. IS purplish. ES red to grey; glaze orange brown mottled black. (1L4)

(M 44-5)

67 One possible profile made up of four non-joining fragments of a vessel with a pulled-out lip, which is probably therefore a pipkin, but has a solid, not a pressed, foot. Red C & M. IS dark red to grey; glaze mid brown. ES glaze dull brown/yellow heavily mottled with dark green. Body corrugated. Rim D 5½ in. (2×L6, 1 L6, .1 L8+1 L6 and 1 L8+1 L6) (M 45)

"Unplazed"

Only one vessel with a pipkin handle occurred in this group. 68 Red C & M though EM on base black. IS grey, with patches of brown glaze on base and side. ES bluish grey with some white encrustation, and smoke-blackening all over base; patch of glossy dark brown glaze. One pressed foot survives. Small globular body. (1 L4+1 L3-4) (M 46) 69 Red C, grey in rim. Red M. Dark grey S. Dark brown glaze on rim internally. Lip formed by pushing rim downwards. Rim D 4½ in. (1 L6)

SHERDS WHICH PROBABLY BELONG TO CAULDRON TYPE COOKING POTS, BUT COULD BELONG TO PIPKINS OR BOWLS (Fig 7)

Green glazed

Thirty-two rim sherds of this type.

70-71 Sixteen are cordoned (cf 52 and 57) all but three of which are concave internally. Two are slightly convex and one is straight. Grey C (12 – one red in body) or red C (4 – 2 with small areas of grey). ES, where showing, grey. Brown glaze internally (15 – 2 with green and 1 with black spots). IS red (2), grey (4) or purplish (1). Heavy white encrustation (2). External glaze varies from almost uniform glossy black to brown with green spots (1 L9, 5 L6, 2 L7, 1 L3, 2 L4, 1 L3-4, 1 L4a, 1 P1, 1 L6+1 L9 and 2×L6+1 L4). Rim D 6½ in (5), 7 in (2), 8 in (1), 9 in (1) and 12 in (1)

(The illustrated sherds show range of variation in rim.)

Eight are chamfered (M47)

72 Six are carinated. All more or less concave internally. Grey C (4-3) with two red M and one with thin internal red M on body angle) or red C (2-1) grey in places). IS grey (2). ES grey (2) or purplish grey (2). None exposed in other examples. IS glaze brown (3-2) with black spots), greenish brown (3), yellow/brown (1) or black (1). ES glaze as above (3 L7, 1 L6 and 2 L3-4). Rim D 7 in (2), 8 in (1). One has cordon externally on rim besides carination.

One is simple. (M47)

One has a thickened rim. (M47)

There are also 19 feet.

73 Two of these are on two thirds of a base. Red C & M. IS purple with some white encrustation. ES purple to grey. Reddish brown glaze internally. ES glaze glossy dark yellow/brown heavily mottled black; starts about 1 in above basal angle and below this and on base only spots and patches. Two feet; both have deep finger impressions on external face. $(11 \times L4 + 2 \times L3 - 4)$ (M 48-9)

The rest are body sherds. In three of these a considerable part

of the profile is present.

74 Red C & M. IS grey; glaze yellow-brown with green spots on rim and spots of brown near base. ES glaze glossy yellowgreen mottled green. On shoulder ridge with deep furrow below. (4×L9+1 L8+1 US)

75 Red C (grey in lower body which stops abruptly, about midway). Red M. IS red with some white encrustation; IS

glaze (on rim and lower body) orange brown. ES glaze nearly uniform glossy dark green. Ridge on upper body. (4×L9) (M 49-50)

Unglazed

Ten rim sherds of this type.

76 Four are cordoned. C red (2), black (1) or grey (1). M red
(2) or purplish red (1) or thin red EM and grey IM except

near body (1). IS red (1), grey (2), glazed brown (2), orange brown (1) or brown with green tinge (1). In two cases, where body angle survives indication that body is unglazed. ES grey (1), 7 in (1). (1L8, $2 \times L4$ and 2L3-4)

One is carinated. (M 51)(M 51) (M 51)Three are chamfered. One is simple.

77 Type not described before. C & M reddish brown. S brown but rim internally has a red and yellow encrustation on it. Everted rim narrower than others and squared with an outward sloping top which is shallowly grooved. Rim D 8 in.

Eighteen basal sherds have feet attached.

78 Three of these may belong to the same vessel plus four nonjoining base or body sherds. Grey C (red in places). Red M. IS dark red to pinkish red with very patchy thin light green glaze and areas of white encrustation. ES red to brown but heavily smoke-blackened. Feet applied to basal angle (in one case causing a dome internally) and slope outwards. Plano-convex in section and bottom of feet broken (1) or appear to be cut off (2). (1 L9+1L4, 3×L7, 2×L10, 1 L10+1 L6, 2 L10 and 1 L6) (M 52-55)

MISCELLANEOUS CAULDRON TYPE COOKING POTS OR PIPKINS (Fig 7)

Besides green-glazed and 'unglazed' types, there are a few sherds which probably come from other varieties of this type but they are, comparatively, very few in number.

The commonest of these have a brown glaze externally which either covers the whole sherd or a large part of it and is thus distinct from those 'unglazed' examples which have spots or small areas externally.

79 Red C & M. IS red, but rim glazed reddish brown. ES glazed reddish brown including handle, but small unglazed areas purplish red. Bottom of sherd blackened (but since this affects IS, M, C and ES probably post breakage). Deep round depression internally opposite handle base. Handle pinched near rim and applied directly to outside of rim. Rim slightly beaded externally with cordon at rim/body angle and two grooves between. Rim D 7 ins (1L9). Since this has a vertical handle, it is a Cauldron Type Cooking Pot.

Besides this there are ten rim sherds. One has a slight thickening on the rim for the beginning of the handle.

80 Rim and body sherd. Dull red C & M. IS red with thin white encrustation all over. Rim glazed whitish green and brown in places. ES glazed orange brown with areas of white slip on rim and on body glazing yellow. Rim D 7 in. (1 L3-4)

None of the other nine certainly have handles and may therefore be bowls. Three of them are cordoned.

81 Red C & M. IS glazed brown including surviving body. ES glazed brown. Rim D 5 in. (1 L3-4) (M 56)

82 Red C & M. IS dark grey with trace of smoke-blackening. ES grey above cordon, glazed glossy dark brown below. Rim D 7 in. (1 L6)

Two are cordoned and carinated.

83 Red C & M. IS purplish red, rim glazed patchily brown. ES purplish red but mainly glazed glossy brown. Rim D 8 in (1 P5) (M 57)

Three are chamfered.

84 Grey C. Thin red to purplish red M. IS and ES glazed dark brown. Slightly rough ridge on edge of chamfer. Rim D 6 in (1 L6)(M 57)

85 Red C & M. IS red. ES glazed orange brown. Rim D 6 in. (1 P1)

One is thickened internally.

86 Red C & M. IS glazed brown. ES purplish red but mostly glazed brown. Rim D c 6 in. (1 L3-4) Perhaps late 17th century (see below M 144)

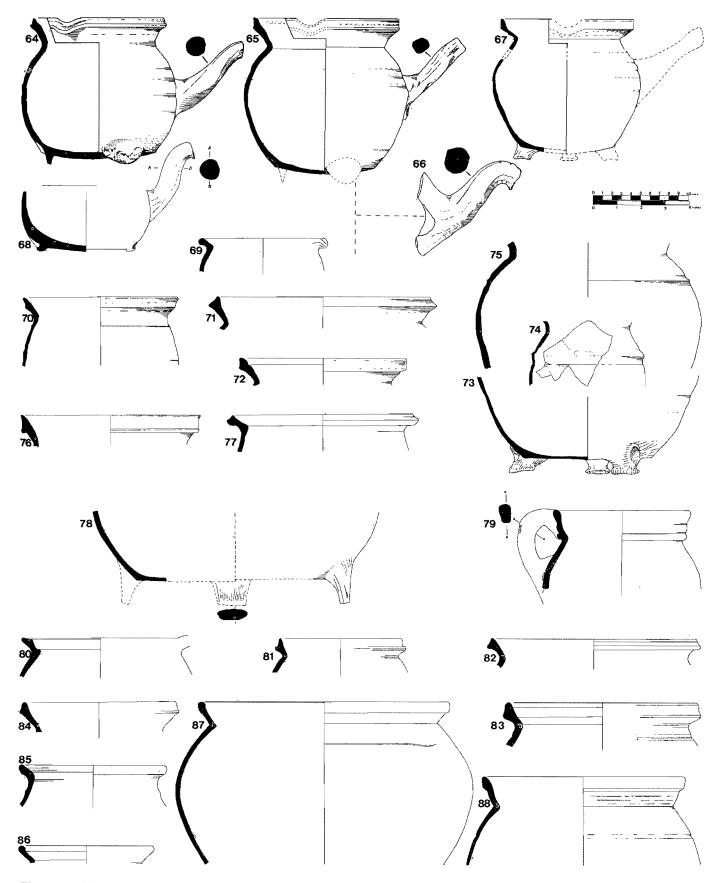


Fig 7 Red Ware cooking pots and pipkins Nos 64-88

BOWLS (Figs 7 and 8)

The distinction between bowls and dishes has always been the most difficult in archaeological literature. In the Norfolk House report (Bloice 1971, 123) a bowl was defined as a hemispherical vessel on a foot-ring whose rim diameter is less than three times its height. The foot-ring part can be ignored because this is a late feature. Thus the hemispherical character is crucial to that definition and the height/rim diameter ratio is really consequent upon that shape. By this definition all the cooking pots and pipkins are bowls but they are distinguished by their use. While generally it is unwise to use definitions based on usage, cooking pots and pipkins often have evidence for their being used over a fire and in this group can be distinguished by the presence of vertical loop or horizontal straight out handles.

Everted rim bowls

In fact there are a number of possible bowls of cooking pot/pipkin shape but lacking the handles, though in the absence of complete circumferences this is difficult to prove.

- 87 Red C, grey in rim. Red M & S. Unglazed except for patch of reddish brown glaze on rim and spots towards bottom. White encrustation over much of IS except just below rim. Smoke-blackening externally towards base. Horizontal groove on upper body. Just over ¾ of rim survives. Rim D 10½ in. (16×L4+1 L8+2×L6+1 L4a+1 L10) (M 59)
- 88 Grey C (even in body). Red M. Grey IS with streaks of dull red and 6 large spots of orange/brown glaze with streaks running down from them and a green depression in the centre of each spot. ES bluish grey with fewer streaks of dull red. Some white encrustation. Shallow groove on upper body. Rim D 8½ in. Just over ¾ of circumference survives. $(1 L10+2\times L9+1 L7)$ (M60)

A number of similar but narrower rims occur.

89 Grey C. Red M. Red S. Little white encrustation internally. Purplish to black in places externally on rim. Rim D 8 in. 5/16 of rim survives. $(4 \times L9)$ (M61)

Vertical rim bowl

A bowl with probably a similar profile but a different rim form is represented by:

- 90 Red C. Grey M, red in places. IS dark grey but brown at top and on rim. ES brown with grey areas; greenish brown glaze on body with vertical and horizontal bands of white slip; band of three contiguous grooves on upper body. Rim D 7% in. Nearly % of circumference survives. (6×L9, 4×L9, 1 L9 and 2×L6)
- 91 Rim sherd of similar type. Grey C. Thin purplish red M. Dark grey S. Externally large area of yellow encrustation just below rim and slip painted decoration on upper body. Ridge at base of rim. Rim D 7½ in. (1 L9)

Horizontal flanged bowls

However there are a number of vessels which would normally be called bowls which do not fit this definition. Since the only type they would be confused with is dishes, the part of the Norfolk House definition, that the height is a third or more of its rim diameter, is the significant point. Thus a subsidiary definition of a bowl would be a relatively shallow open vessel whose height is one third or more of its rim diameter.

Since there are no complete profiles, it is difficult to prove that any belong to this class but there are a number of rim sherds from vessels with vertical or near vertical sides and horizontal flanges which seem likely to be deep enough to qualify at least in one case. Although only small sherds occur, the number of rim varieties is considerable and no two sherds are the same. Six types can be discerned.

- a Flange more or less flat on top but expanded below.
- 92 Red C (grey in rim and upper body). Red M. IS dark red with grey patches. ES and top of rim grey but with few areas of red. Flange has slight groove on top. Two slight ridges on upper body. Below lower, body changes direction slightly. Irregular grooving on ES. Rim D 10 in. (1 L6) (M 62-3)
- b Flange flat underneath with very pronounced thickening at end of flange on top
- 93 Grey C (red in body). Red M. S grey. IS dark brown glaze on flange. ES same glaze on edge of flange and body/flange

- angle to which adheres thin white particles. Pronounced quarter round moulding on edge of flange delimited by groove. Rim D 13 in. (1 L4) (M64)
- c Similar to b, but slight thickening below flange as well as
- 94 Grey C. Red M. IS dirty red. ES grey. Brown glaze only on upper flange. Rim D 8 in. (1 L6) (M 64)
- d Hammer headed rims
- 95 Grey C. Thin red M. IS red with spots of orange brown glaze on outer edge of flange. ES purplish red. Rim D 11 in. (M 64-5)
- 96 Flange sherd. Grey C & M. IS red on rim with orange brown glaze on flange. ES dark red. Rim D 12 in. (1 L3-4) (M 65)
- e Similar to d, but with frilled edge
- 97 Grey C. Thin red M. IS red with greenish brown glaze on flange. ES brick red to purplish red. Upper edge of flange pushed in at regular intervals to produce frill. On body thumb mark where body pressed inwards, below which body comes sharply out. Rim D 12½ in. (1 L3) (M 65-6)

Other bowls

- a Three vessels, which are small hemispherical bowls, rather cup-like (M 66)
- 98 Pinkish red C & M. IS glazed reddish brown. ES grey with bluish white and some smoke-blackening. Ridge at base of chamfer on rim. Too deep to be dripping pan. Rim D 5½ in. (1 L3)
- b Similar to a, but seem to be square or rectangular, some with (M 66)lips
- 99 Red C & M. IS glazed brown. ES purplish red. Rim folded down since join between it and body visible in section. Possible lip caused by pulling body and rim outwards but may be corner of vessel. Sherd 2 in long. (1 L6) (M 66)
- c Three rim sherds with upward sloping flange with slight thickening internally on rim
- 100 Grey C. Red M. S dirty red. IS of rim glazed brown with black spots. Body unglazed. ES brown glaze with greenish tinge. On upper surface of rim large scar roughly circular (D c ¾ in). Rim D 12 in. (1 L4) (M67)
- 101 Grey C. Red M. IS patchily glazed orange brown with green tinge in places and purplish red where unglazed. ES purplish red. Rim D c 8 in. (1 L7) (M 68)
- f Three rims from unknown type of vessel
- 102 Grey C (red in places). Red M. IS glazed orange brown with green tinge in places. ES dirty red with trace of smokeblackening. Wall appears to be levelling out just below rim, perhaps sort of bifid arrangement. Rim D 8½ in. (1 L9) (M 68)

DISHES (Fig 8)

Thus dishes can be defined as shallow open vessels whose height is less than one third (and more than one seventh, see Bloice 1971, 121) of their rim diameter. There are three main groups of dishes and in the first there are some similarities in rim form with the last but one group of bowls, but the body slopes inwards instead of being nearly vertical.

Horizontal flanged dishes

As with the bowls, nearly every rim is different but four main types can be discerned.

- a Hammer headed rims
- 103 Dark grey C. Purplish red M. IS grey with patch of smokeblackening. ES grey. Rim D 14 in. (1 L4)
- b Upturned rim
- 104 Grey C (red in body). Red M. IS red. ES grey/red. Groove internally on carination of flange. Rim D 18 in? (1 L4) (M69)

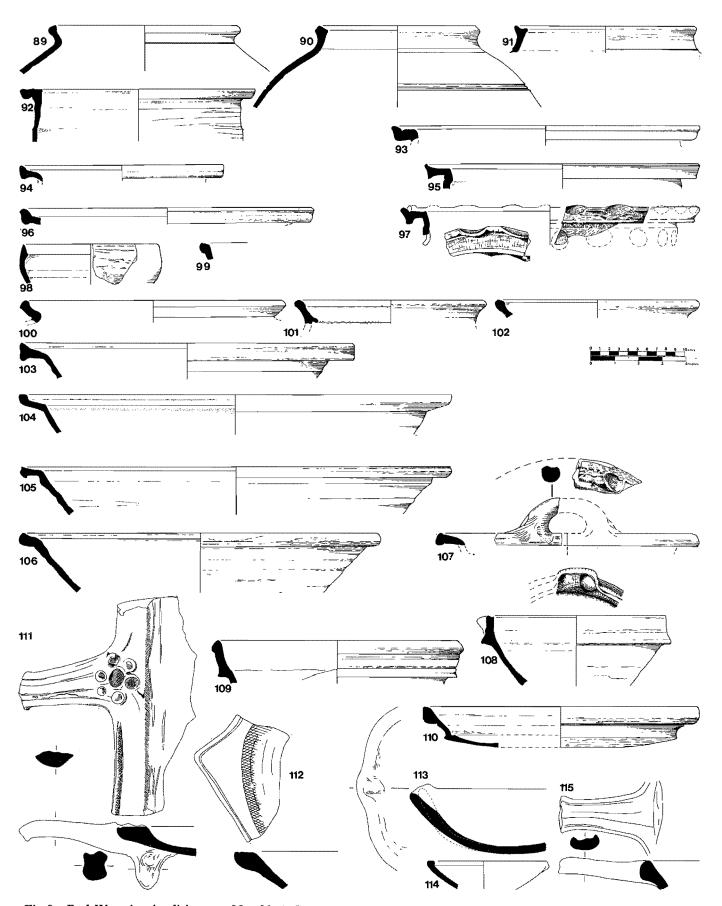


Fig 8 Red Ware bowls, dishes etc. Nos 89-115

c Hooked rim

105 Grey C. Red M. IS red, dirty in places. ES purplish red with traces of smoke-blackening. On upper body ridge externally. Rim D 18 in? (1 L7)

d Simple rim flanges

106 Red C, grey in lower body. Red M. IS red to purplish red with spots of orange brown glaze on body. ES dirty red. Rim D 15 in. (1 L7)
(M 70)

e Others

107 Flange fragment with handle. Grey C. Red M. IS grey with brown glaze on body angle. ES dark grey. Flange has loop rod handle rising vertically from rim with thumb pressing at base of outer side and fingering mark inside. On underside of flange two small depressions below handle. Also deep groove obliquely across flange on outer side of depressions. Rim D 11in. (1 L9) (M 70-1)

Wall sided dishes

In this type of dish the lower body slopes gently upwards and then turns sharply, sometimes to an almost vertical position. This carination is marked by a ridge externally.

108 Red C & M (grey on rim). IS glazed reddish brown all over. ES bright red with some smoke-blackening. Very wide pulled down lip (not quite complete — two finger marks internally and thumb mark between them externally). Rim D 7½ in. (2×L7) (M71-2)

One vessel has upper body which slopes slightly outwards.

109 Red C & M. IS purplish grey with areas of reddish brown glaze. ES glazed reddish brown. Grooving on upper body. Knife trimming externally. Rim D 10½in. (1 L6+1 L4)

There are three vessels whose upper bodies slope sharply outwards.

110 Brown C & M. IS glazed orange but purple to red on rim where no glaze. ES damaged but pinkish red (with some smoke-blackening) with areas of orange glaze probably originally overall on lower body. Ridge on carination slight. Dish shallower probably than others of this type. Trace of ?lip on edge of sherd. Rim D 11½ in. (2×L10+1 L1) (M72-3)

BOWL OR DISH SHERDS (Fig 8)

Handles

Three, probably horizontal, loop rod (2) or oval sectioned (1) handles occurred which may come from dishes (or perhaps bowls) (M 73)

Rases

Bases of bowls and dishes, in the absence of complete or substantial profiles, are difficult to distinguish from each other or from cooking pots. They have been separated from the latter on the following criteria; absence or relative absence of smoke blackening; angle of side where sufficient survives (this was done by eye not measurement); similarity of glaze or fabric with rims of dishes or bowls where these do not occur in cooking pots. The same criteria have been used to assign the body sherds too.

Bases with vertical sides

Despite the fact that all the horizontal flanged bowls had vertical sides where these survived, only two bases with vertical sides occurred.

(M 74)

Bases with sloping sides

This would suggest that the flanged bowls' sides bend in towards the base. These bases can be divided roughly into three groups on the basis of the angle of the side, of which the first two could derive from flanged bowls or wall sided dishes whose bodies also slope quite steeply while the third group probably come from flanged dishes. (M74-6)

DRIPPING PANS (Fig 8)

Again a usage term but to be preferred to earlier name of Fish Dish, for there is pictorial evidence for their use as dripping pans under spits and it is a very specialised vessel form. It is defined here as a long and narrow, very shallow vessel with a lip on one of the short sides and usually handle(s) and a foot or feet along one of the long sides. Because they were pushed

into the fire, the side opposite to the handle and foot are smoke-blackened. Two forms occur here, the flanged and the unflanged.

Flanged type

111 Section of side with handle and foot. Of pseudo flanged type. Grey C, red lower M and grey upper one (but red in places). Upper S glazed greenish brown but handle unglazed and red. Lower S red. The lower S is flat though roughened and the effect of a flange is produced by reducing the thickness of the vessel in the dish part. On flange, ridge runs parallel to rim a little within it. The handle is applied mainly to the underside of the flange so that its upper surface is level with that of the flange. Where it overlaps with top of flange deep cuplike depression surrounded by six shallower ones. Handle has had edges wrapped over top and pressed down, its end curves downwards and has thumb pressing at its end. The foot is applied roughly to the base with four rough finger pressings round its top while its base has been pressed up to form ridge. (1 L4)

112 Corner of properly flanged vessel. Grey C in rim, red in body. Both M red. Upper S glazed orange brown and purplish red where glaze lacking. Lower S bright red. Knife trimming internally. Deeper vessel than 111, flange squared and thicker on end than side. On upper S of flange deep groove just within rim and parallel to it. End curves outwards at edge of sherd to form projecting part where lip will be. (1 L6)

Unflanged type

113 End of dripping pan with lip. C pinkish red. M light grey (lower black in places). IS glazed orange brown. Unglazed upper S brown. Lower S brown to purplish red but spalling in places reveals core. Round lip and on one edge of sherd smoke-blackening. In form simple sub-rectangular dish with simple rim slightly chamfered on the inside and rounded base. Pulled down lip. (1 L7) (M 78)

114 One rim sherd possibly from dripping pan. C & M red. IS purplish red glazed orange brown. ES grey but heavily smoke-blackened. Lip formed by removal of beading and pulling downwards of rim. (1 L4a) (M 78)

FRYING PAN (Fig 8)

Frying pans are defined as very shallow usually circular pans with one horizontal handle. Only represented by:

115 One handle. Light grey to purplish red C. Red M. IS glazed a glossy brown streaked with green which also covers one edge of handle which is otherwise unglazed red. Lower S dirty red with traces of smoke-blackening. Rim appears to be simple. Edges of handle pushed up to form ridges especially near its end which has been pressed inwards making a ridge on its under edge. (1 L4)

LIDS (Fig 9)

Five probable lids are represented by sherds.

116 Red C & M. S purplish red with heavy smoke-blackening on edges and one large spot of brown glaze. Rim D 6 in. (1 P3) (M 79)

117 Grey C. Red M. IS red with some smoke-blackening. ES red with trace of smoke-blackening; rough as if cut. Rim D

6 in. (1 L

118 Red C & M (IM black in places). IS purplish red to grey with area of smoke-blackening. ES dark red. Internal contour comes nearly straight down but just above bottom, groove demarcates change of direction. Rim D 8½ in. (1 L10)

119 Red C, grey in places. Red M. IS red. ES dirty red to grey. Shallow domed lid with 'hammer headed' rim. Two eccentric incised lines internally. Rim D 9 in. (1 L3-4)

JUGS (Fig 9)

Jugs are very rare amongst the Red Wares, but two occurred with frilled bases which appear to be copying stoneware ones:

120 Red C & M. ES glazed orange brown all over (including base) but chipped off in many places. IS has white coating which is missing over large areas; in places appears to be decayed brown glaze. Body has pronounced rilling externally. Base is flat and foot-ring appears to be added and thumbed all round. (8×L9) There is one non-joining body sherd which may belong but it has glossy orange brown glaze internally as well as externally. (1 L4)

121 Pinkish red C & M. IS dark red with spots of brown glaze. ES of body glazed dark orange brown but base red (mostly

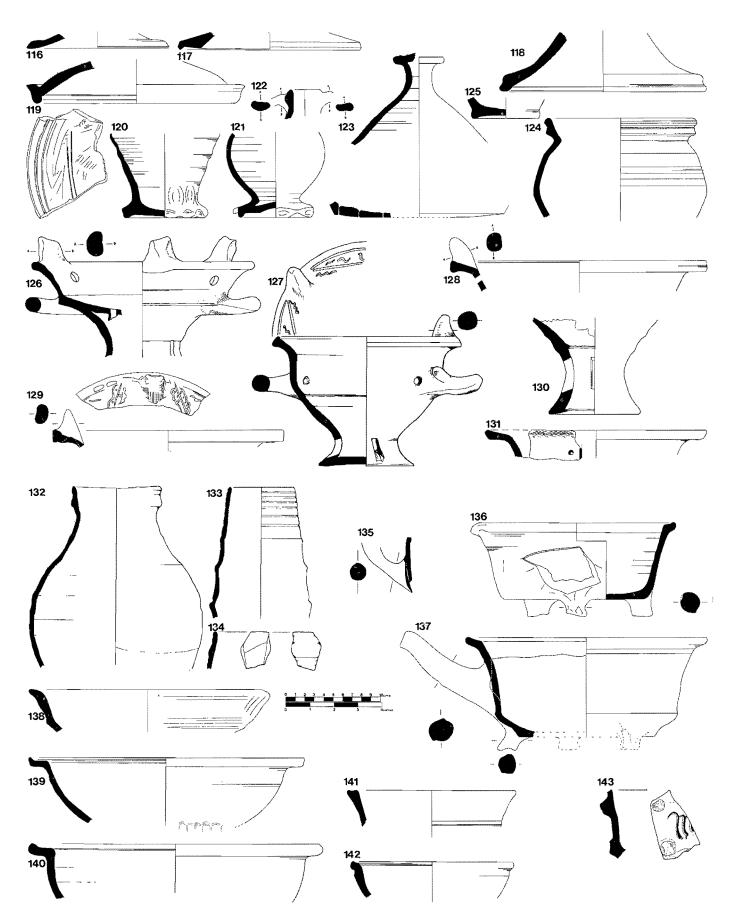


Fig 9 Guy's Ware Nos 116-143

heavily smoke-blackened). Base inset internally and flat externally (kicked in centre). Flaring foot bent downwards in long oval frills which are of standard length except for two short ones (to fill in at end?). (3×L7)

COSTREL (Fig 9)

122 Grey C & M. S red. Tops of handles and rim glazed dark brown with black spots and streaks and spots vertically down neck externally and patches internally. Neck short for it appears to be turning outwards at bottom of sherd. Just below rim a cordon at which level two strap handles attached. (1 L3-4)

WATERING CAN (Fig 9)

The modern type of watering can did not occur, but the top of a type which consists of a bell shaped body with a flat perforated base and a knob at the top did occur.

123 Grey C. Thin red M. ES glazed brown, purplish grey where unglazed. IS red with some grey picking out the fingering marks. Short cylindrical neck with flat discoid top closing it except for rough hole in one part (may be expanded by subsequent breaking). Body sloping rapidly outwards. (6×L7+1 L6) Base which probably belongs. Same except no glaze externally and S purplish red. 19 small pin size holes in surviving fragment, stabbed from outside, most of which seem to fall into three concentric circles. Traces of knife trimming externally. (1 L6) (M81)

UNTYPED

Brown glazed

A number of small sherds have brown glaze externally. None of the above forms have brown glaze as a usual feature on the external surfaces except for the jugs and a few Cauldron Type Cooking Pots and none of these sherds can be attributed to these types. None have sufficient profile extant to show vessel type. (M81-3)

Orange Glazed Pink Ware (Fig 9)

There is a small group of sherds which seem distinct from the Red Wares in having a more pinkish core and a more orange glaze but they may be one end of the range of variation of the Red Wares or more especially of the browner examples described above. No complete profiles occur and the vessels from which they derive are therefore largely unknown.

- 124 Two non-joining rim and body sherds from the same everted rim bowl. Light pink C & M (black in places). IS purplish red patchily glazed orange which covers rim completely. ES glazed all over orange but blackened in one area and near this orange turned green. Pronounced rilling externally on globular body. Rim D 7 in. (2×L4+1Pl and 2×13-4)
- 2×L3-4)
 125 Pink C & M. IS glazed orange. ES pinkish red but much of what survives of body glazed orange. Basal angle rough. Basal D 2¾ in. (2×L6) (M 84-5)

Buff Ware

Three sherds in a rather distinctive colour which is very buff tending towards pink but very different from preceding group. (M85)

Guy's Ware (Figs 9 and 10)

This name is suggested for a distinctive variety of Red Wares in which a thick white or buff slip (in descriptions yellow glaze implies a slip below it), is applied internally to open vessels and externally to closed ones, which glazes yellow, contrasting with the brown glaze of the unslipped parts. This is not, unfortunately, an exclusive definition, for cream slipped wares (also called West Kent Ware) occur in the 13th and 14th centuries, although only in closed forms. The two types can be distinguished visually quite easily (except perhaps for very small fragments) but definition of the difference in words is more difficult. The glaze, however, is certainly more uniform on Guy's Ware and the slip thicker, and the forms are quite different.

CHAFING DISHES (Fig 9)

This vessel type is not represented amongst the other groups. Essentially it consists of a bowl-like upper half with three or four knobs on the rim and a hollow pedestal below. A number of different variants of this type of vessel are known but all the examples here seem to belong to the type in which the pedestal

has a base and a number of cuts in its side, a 'plate' between the bowl and the pedestal with perforations in it and perforations in the side of the bowl.

The example which demonstrates the presence of most of these is:

126 Grey C. Very thin red M. IS of bowl glazed brown with greenish tinge in places except for rim and just below which is glazed yellow. IS of pedestal red. ES glazed yellow above handle including top part of handle though the knob and some of handle has buff slip unglazed. Pedestal unglazed red with area of grey and spots of brown glaze of which band on lower part of handle and on either side of it. Bowl has outward curving upper part in which are large holes (½ in D — three occur on surviving c third of circumference. There seems to be one just below knob (2) and one midway between (1) suggesting six in all). Below this the bowl slopes sharply inwards, and externally, at the carination, is a ridge from which the horizontal loop rod handle slopes slightly upwards. The 'plate' over the pedestal survives in part but is clearly applied and has two square holes in surviving part (% in +?). Enough of pedestal survives to show at least one square topped opening 1/4 in+ wide. One knob and trace of second occur on rim suggesting three in all. Knob sub-rectangular in cross section and pressed flat at top. Rim D 9 in. $(6 \times L6 + 1 L9)$

This is the only example with this type of rim. Three vessels are similar but have wide flanges with sgraffito decoration.

127 Grey C. M grey but thin red in pedestal. IS of pedestal red and of bowl glazed matt brown with one patch of yellow glaze. Flange glazed yellow. ES as on 126 but no areas of brown glaze and unglazed surface dull red. Base of pedestal has number of scribed lines on it. The pedestal has three narrow slits in it, about ¼ in wide. The plate between the pedestal and the bowl is missing but a loose fragment almost certainly belongs. Upper S glazed brown. Lower S red. The bowl has small perforations in its side (¼ in D) of which three low down and one high up are extant. Two horizontal loop rod handles with thumb pressing at both ends and two knobs (one over handle, one to side of it implying three or four) which are sub-circular and not pressed in at top. Externally on flange below them shallow depression. Decoration comprises line near edge, diagonal line across flange with wavy line on either side. Rim D 7½ in. (1 L3-4+1 RT of F6, 5×L3-4 and 1 L3-4)

The other two are rim sherds with a little of the upper body in the first case.

128 Grey C & M. IS glazed yellow over the slip (which here on body as well as rim). ES same. Rim as 127. One hole in upper body (¼ in D). Knob sub-circular not pressed at top. Very shallow depression externally below it. Decoration similar to 127 but wavy line and has Z motif. Rim D 10½ in. (2×L3-4 and 1 L3-4)

129 Grey C (red in body). Red M. IS glazed brown, yellow on flange. ES glazed yellow. Knob sub-rectangular but not pressed at top. Externally on flange deep round hole below knob. Decoration on flange comprises diagonal line with wavy line on either side and dots between (leaves) and other wavy lines. Rim D 9½ in. (2×L3-4)

inies. Kini D 372 in. (2×L3–4)

In all these examples the back of the knob is slipped but unglazed and in two cases also the edge of the rim.

Otherwise chafing dishes are represented by:

130 Grey C (red in places in bowl). Red M. IS of pedestal red, that of bowl glazed brown. ES red but most of S (which is brown and on bowl glazed brown) flaked off. All S rough and large amount of white tempering. Base of pedestal very thin and little survives. 'Plate' also missing. Two slots in side of pedestal in surviving part (½ in+ wide) (1 L9+1 L6)

131 Grey C & M. IS glazed brownish yellow (all surviving body slipped). ES same. Body has one round hole (D ¼ in)

body slipped). ES same. Body has one round hole (D ¼ in) and edge of slot (½ in long). On flange decoration of line with diagonal lines above and below in opposite directions. More carelessly drawn than above. Rim D 9 in. (1 L3-4) (M 89)

JUGS (Fig 9)

Jugs are relatively tall, narrow vessels with the rim diameter nearly always less than its greatest girth. 132 Grey C. Thin red M. IS red with spots of brown glaze except for band below rim which is glazed yellow. ES glazed yellow to below greatest girth below which it is glazed brown. Greatest girth seems to be at middle or below, making profile globular. Wide, flat cordon on neck, making it appear collared. Rim D 3\(^4\) in. (1 L6+3\times L7+1 L1)

133 Red C & M. IS red with large number of spots of brown glaze especially towards rim where band of yellow glaze. ES glazed yellow but brown with no slip at bottom of sherd. Edge between two slopes upwards. Side slopes inwards towards rim and greatest girth is probably at base (cf example from Foyle Road, Greenwich, Moorhouse 1971a, 207). Body has three corrugations and above these six shallow grooves. Rim D 2¾ in. (1 L1+1 L7)

134 Probably from similar type of jug. Red C & M. IS glazed brown except for band below rim which is yellow (edge slopes downwards). ES glazed yellow. Broad flat cordon below rim with two narrow ridges below and slight one above.

Rim D 3 in. (1 L6) (M90).

135 Red C & M. IS red with whitish encrustation. ES glazed yellow but outside of handle has unglazed buff slip and bottom of sherd unslipped and glazed brown. Handle applied directly to outside wall of vessel and interface visible in (M91)section. (1 L3)

PIPKINS (Fig 9)

See above, p 36, for definition.

136 Almost complete except for handle. Grey C, red M. IS glazed yellow except for band round top and rim which is unslipped and glazed brown. Slip has straight edge except for one place where it laps over. ES grey with splashes of buff slip. On base two patches of brown glaze with scar attached (roughness where third would be and one spot of brown glaze). Three short cylindrical feet applied to edge of base with thumb pressed bases and deep fingering (2 – 1 partly refilled — other, 2 finger impressions), above foot on side of pot. Pulled down lip. Traces of handle externally above one of feet and of depression opposite it internally, but remarkably near lip. Rim D 8¼ in. (4×L6+10×L7+1 L8) 137 Grey C, red in places. Red M. IS as 136 but edge of slip

irregular and unslipped band wider. ES red to grey but largely smoke-blackened except for most of handle. One foot on surviving sherd with handle above which is thumbed at end. No lip on surviving sherd (which means at least 90° from handle) but otherwise as 136 except that carination just below handle which internally is effective basal angle but not externally. Rim D 10 in. $(3 \times L6 + 1 L7 + 1 P1)$ (M 92) 138 From vessel similar in profile to 137 but shallower. Grey

C red in places. Red M (EM black in places). IS glazed greenish yellow except for rim which dull brown with yellow patches. In one place thick run of slip at rim/body angle stands proud of rim. ES reddish grey but largely smoked-blackened. Lip made by pulling out upper side. No handle or feet on surviving sherd. Rim D 10 in. (2×L9) May be bowl rather than pipkin.

BOWLS (Fig 9)

Horizontal flanged bowls

139 Grey C, red M. IS glazed yellow except for rim and narrow band at top of body which is unslipped and glazed brown. ES red with spots of brown glaze below flange. Body curves in and beginning of pressed foot occurs (5+ pressings). Rim D 11 in. (2×L4a+1 L7)

140 Grey C, red M. IS glazed yellow: Narrow band at top of

body and rim unglazed (as is some of slipped part) but rim has splashes of slip on. ES completely smoke-blackened. Rim D 12 in. (1 L6) (M 93-4)

D 12 in. (1 L6)

Other bowls

a Bowls with steep sides:

141 Grey C. Very thin red M. IS glazed yellow. Band on upper body and rim unglazed except for spots of brown glaze. ES dirty brown. Groove and ridge on upper body. Rim D 7 in. (M94).(1 L3)

b 'Cup like' bowls:

142 Grey C, red in places. M red. IS including most of rim glazed dull yellow. ES grey with smoke-blackening and spots of brownish yellow glaze. Could be dish. Rim D 6½ in (1 L6) (M94)

143 Body sherd with handle scars. Grey C, red in places. Red M. IS glazed brown except for band at top of sherd which is yellow. ES glazed yellow over slip except for bottom of sherd which is brown. On slip 'M' in sgraffito (perhaps AVE MARIA) and possible pinched up decoration on unslipped part. Groove at level of handle top. Vertical rod loop handle. Bottom of sherd appears to be turning inwards which makes this more likely to derive from a bowl than a jug. (1 L3-4)

DISHES (Fig 10)

Wall sided dishes

Most dishes seem to be of the wall sided type (see p 42). Five examples occur with loop handles:

144 Red C, grey in rim. Red M. IS glazed yellow except for area above carination which has only patches of brown glaze. ES red with areas of slip and patch of glaze with scar attached. Low cordon on carination and just below rim externally with shallow grooving between them. Horizontal rod loop handle applied between cordon and rim with deep thumbing at each end and slight depressions internally opposite ends. Two pressed feet extant with six pressings on each which divided into two by horizontal smoothing mark. Rim D 12 in. (3×L6+1 L8+3×L7+1 L4) (M 95)

145 Red C, grey in rim. Red M. IS glazed yellow except for

rim which is glazed brown. ES purplish grey with large amount of unglazed slip. Internally at carination narrow 'ledge' and external ridge has been pressed up so that base is flat (interface between it and lower body visible), leaving only small triangular ridge. Wall above nearly vertical with two grooves externally. Handle applied to carination and pulled upwards. Has thumbing at each end but no depressions

internally. Rim D 10 in. (1 L6)

146 Grey C. Very thin red M, except below slip. IS glazed yellow except for patches on rim and upper body which purplish red or glazed brown. ES red but lower body heavily smoke-blackened. Upper body slopes slightly inwards. Rim flat-topped, slight ridge in centre of upper body. In one part upper body projects downwards below carination but in other place simply cordon on carination. Handle applied onto carination and upper side with no thumbing at ends or depressions internally. Rim D c 16 in. (1 L6) (M 96)

147 Grey C. Red M but IM grey below slip. IS glazed yellow except for rim and broad band below it which (except for spots of brown glaze) is unglazed red. ES dark red with much smoke-blackening. Upper body projects downwards a little beyond carination. Externally slight ridge on middle of upper body. Rim slightly thickened externally. Wide pulled-down lip (c 3½ in wide). Trace of pressed foot (3+ pressings). Rim D c 15 in. (4×L9+2×L8) (M 96-7)

148 Base sherd of dish with pressed foot which is smoothed over in surviving part. Red C, M. & ES. IS glazed yellow (most of which has flaked off) with sgraffito decoration in brown of ?fanciful shield. (1 L3-4)

149 Red C, grey in places. Red M. IS purplish red glazed brown on body with tongue of dark buff slip glazing orange. ES red to purplish red. Appears to be very shallow dish. Cordon on body appears to be applied (interface visible). Rim D 9½ in. (1 L3-4).

150 Body sherd. Grey C, red in places. EM red. IM grey, red in places. IS glazed yellow with brown spots. ES purplish red. Shallow dish with wide flange? Pressed foot externally with six or seven pressings and smoothed at bottom (1 L4) (M97-8)

151 C red (grey in places). M red. IS glazed dark yellow and heavily crazed. ES smoke-blackened. Rise and swelling at edge of sherd (perhaps handle, since lips not formed in this way). On this and edge of rim, dark brown glaze. Slight corrugations externally. Rim D 8 in. (1 US) (M 98-100)

Other Slipwares

GREEN GLAZED

Similar to Guy's Ware but instead of being glazed yellow over the cream slip it is glazed green. All sherds come from open vessels.

One base and body sherd. Red C, brown M. IS glazed green. ES dirty brown. Part of pressed foot (at least three pressings). No sign of basal angle (round bottomed vessel?). Probably dish or bowl. (1 L1).

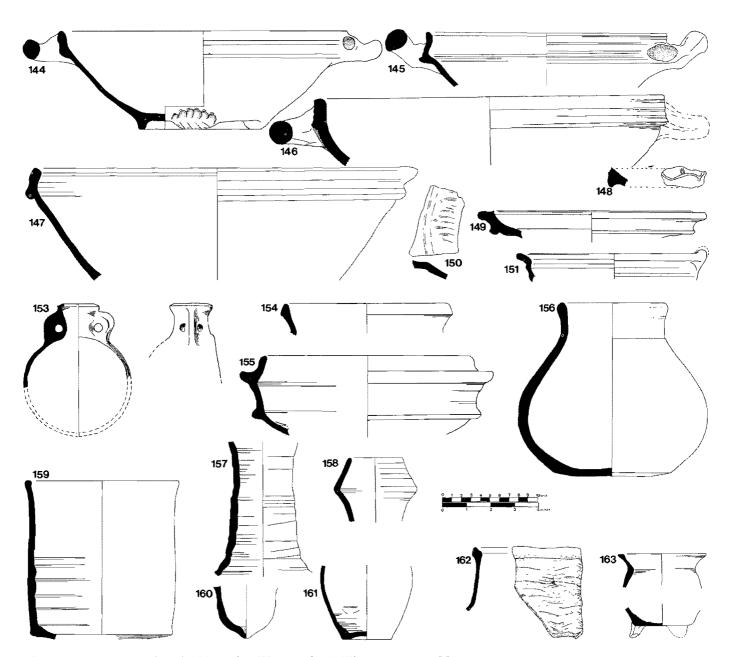


Fig 10 Guy's Ware (cont), Cistercian Ware and Distilling Apparatus Nos 144-51, 153-163

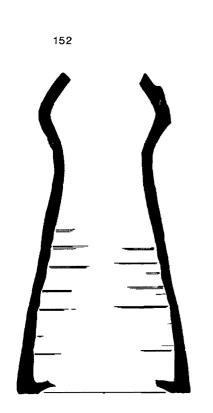
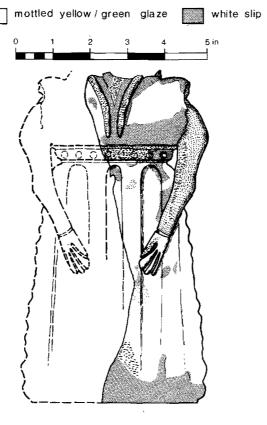


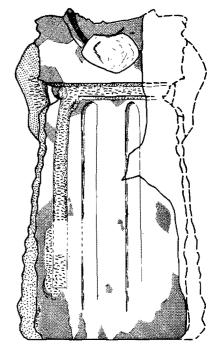
Fig 10a Figural Jug No 152





brown glaze

unglazed red



Five body sherds. Red C & M (5-1) has thin black EM). IS glazed green (5-3) light green, 1 mid green and 1 dark green). ES red (3), purplish red (1) or grey (1). Streak of orange brown glaze and patches of brown yellow mottled black glaze (1). (2 P3, 1 L3-4, 1 L4) and $2 \times L4$

FIGURAL JUG (Fig 10a)

152 Jug in the form of a woman. Bright red C (grey in basal angle), M & S. Hard, almost untempered fabric. ES covered all over with white slip including base, except for slit down side and arms which are glazed brown (latter with spots of green). Slip glazed yellow, heavily mottled dark green but shoulders, 'V' neck and above handle at back unglazed. High waistline and protruding bust with 'V' neck, turned over revers and possible indication of hood on back of head above handle. Projecting, horizontal shoulders with 'pie crust' edging which also occurs on edges of slit in skirt. Applied band round waist (mostly missing) with stamped circles and this originally continued in strip down back. Handle just below head on back, applied onto the ES with no other method of fixing. (14×L6)

Cistercian Ware (Fig 10)

This distinctive type of ware has long been recognized and is very widely distributed (see Le Patourel 1964). The classification used is that of Le Patourel. Unless otherwise stated, all are hard fired and thin walled.

TWO HANDLED POSSET POTS (TYPE 1)

Base and body sherd. Thick walled with two vesicles. Purplish grey C & M. IS purplish grey partly glazed black, including all base. ES glazed black but with areas near base unglazed purplish grey (the glaze appears to have run down to cover parts of this unglazed band), and base dark grey. One irregularly shaped slipped 'dot' glazed yellow but no evidence for any others. Base of handle near maximum girth. Typical slightly flaring foot. (1 L10)

Body sherd. Thick walled and somewhat vesicular. Grey to red C & M. IS glazed glossy dark brown. Also has 'dots' of white clay glazing yellow which are applied to slight depressions in body, so do not stand proud very much. Two large and one small extant, perhaps representing two rows. (1 L7)

Rim sherd. Red C & M. with one void. S glazed dark reddish brown with few white spots. (For form see Brears 1967, fig 6: 3-4.) Rim D c 3 in. (1 L3-4)

TWO-HANDLED CUP (TYPE 4)

Two rim and handle sherds. Purplish grey C & M (2 — 1 partly red). S glazed rather matt black. Underside of handle unglazed purplish red (1). Handles narrow straps attached just below rim. Everted upper body narrower (1) than in most illustrated examples (Brears 1967, fig 6: 9, 12, 14 & 17). Rim D 4 in (1). (113-4 and 11.6)

(1 L3-4 and 1 L6)
Three rim sherds. Red C & M. One large inclusion (1). S glazed dark brown (2) or brown (1). One has scar attached to inside of rim. Rim D 4 in (1), 3 in (1). (2 L6 and 1 L8)
Two body and handle sherds. Red C & M. S glazed dark brown

(1) or orange brown (1 — patch towards base externally unglazed red). Complete handle (1 — top attached a little above central constriction) or base of handle (1) present. (2 L6)

FLASKS (TYPE 5) (Fig 10)

153 Grey C & M (but red in places in EM — two large white inclusions). IS unglazed grey. ES glazed black with large number of white flecks in it. Body appears to be circular with one face flat and a suggestion that the other face was domed. Neck slightly everted towards top with inturned rim. On either side two pierced lugs. Body seems to have been thrown in one piece and neck has been added (as shown by smoothing marks). Rim D 1¾ in. (1 L9)

UNTYPED

154 Rim sherd. Thick walled. Light grey C with brownish red M. S glazed black. Everted rim similar to Cauldron Type Cooking Pot or Pipkin rim. Concave internally and cordoned externally. Enough of rim/body angle survives to show comes from this type of vessel. Rim D 6-7 in. (1 L3-4) (M 103-4)

Possible distilling apparatus (Fig 10)

A recent publication on medieval distilling apparatus included an object from this site which it described as a distilling base (Moorhouse 1972b, fig 32: 6).

155 Two non-joining fragments perhaps from same vessel. Grey C & M, but EM pink where surface unglazed. IS has uniform olive green glaze. ES pinky brown but mostly smoke-blackened where unglazed. Seems to be a carinated bowl with an 'external' bifid rim and a pronounced cordon on the carination. The form of the base is not known. On the larger piece the smoke-blackening is a distinct band just below the carination, which was interpreted as a soot ring. Internally, curving applied strip on base (this does not seem to be radial as Moorhouse states). (3×L6 and 1 L7)

156 May from shape and fabric be a Cucurbit (cf Moorhouse 1972 b, fig 28: 5 & 11). It is made of a coarse, grey fabric which is light and 'corky' in texture. It is gourd shaped with a flat base and sharp basal angle. The base is slightly thinner than the sides. Narrow cordon at base of neck. Area of dark brown glaze externally. Areas of white and light brown encrustation internally but very thin. Rim D 4 in. (5×L7 and 1 L7) (M 105-6)

There are also two objects which may be necks of bottle-like vessels (Moorhouse 1972b, 114-5) or possibly spouts of alembics.

157 Grey C. Red M. IS red but purplish grey towards base. ES red but large areas of grey especially towards top and much thin white encrustation. Tall narrow neck expanding at base where presumably joins body of vessel. Possibly expanding outwards at top too. Fingering marks very pronounced. (1 L6+1 L9) (M 106)

There are two cup-like vessels which may come from the tops of necks like those above though no parallels for this form are known.

158 Red C, M & S. Upper part slopes inwards to simple rim. Slight ridge on carination and lower part slopes inwards but appears to be straightening out towards bottom of sherd as though becoming neck. Fingering marks externally above carination. Internally patches of heavy white encrustation. Rim D 2¼ in. (5×L4) (M 106)

There are three vessels which might more tentatively be included here, partly because it is difficult to see what other use they could have:

159 Nearly straight-sided vessel. Grey C, red M. ES red and very rough. IS has fingering marks and varies from grey near base to red near rim with patches of dark smoke-blackening and thin white encrustation. Side is very, very shallow 'S' curve. Rim D 6 in. Possibly curcurbit to sit inside distilling base. (5×L4+1 L6+1 L7 and 1 L4) (M 107)

The other two vessels are small and cup-like and may be receivers whose form has not yet been recognized in pottery:

160 Small cup-like vessel with suggestion of everted rim and round base. Red C, M & S. Internally traces of white encrustation. Externally area of orange/brown glaze on base. Internally depression in base causing slight swelling externally. (1 L9)

161 Grey C, red at top of sherd. Red M. IS red. ES completely covered in white slip. Base slightly kicked but assymetrically. Fingering marks visible on lower part internally. (3×L3-4 and 2×L3-4)

There is a fragment of another vessel whose form it is impossible to suggest but which might feasibly be associated with distilling.

162 Grey C, red in thinner parts. Red M. Dark grey IS with areas of white or offwhite encrustation. ES glazed dark brown but one patch unglazed grey with off-white encrustation. Squared flat-topped 'rim'. Body concave with one vertical runnel and beginning of second. May be some sort of 'collector' for distilled product if it ran down 'runnels'. But does not seem to fit easily with alembic heads. May be development of conical objects associated with pedestal base at Weoley Castle (Oswald 1962, fig 13: 59) but length of rim which survives (c 3 in) more or less straight.

Miscellaneous fabrics (Fig 10)

There are a number of small groups of sherds which are different in one way or another from all the recognized fabrics. (M 109)

163 Two base and one rim sherd. Probably from same vessel. Pink C & M (but EM dirty grey near base). ES pink on rim sherd (with spots of greenish brown glaze) but grey with patches of smoke-blackening on base. Internally dark greenish brown glaze on base and rim. Rest of body purplish grey. Externally on rim/body angle applied band of clay. Two (of three?) small feet on base. Rim D 3¾ in. Base D 2½ in. (2×L6 and 2 L6) Probably very small pipkin or Cauldron Type Cooking Pot. Just over a quarter of rim survives with no trace of handle. $(M \tilde{1}09-11)$

Stoneware (Fig 11)

Stoneware from five different kiln sources, all (then) in Germany, can be isolated from F5, but in many cases these attributions cannot be made with complete certainty since copies of one factory's products are made in small quantities at the other factories and the fabric of three of the kilns (Raeren, Aachen and Cologne) is very similar.

RAEREN (Fig 11)

Stoneware from Raeren has a grey core and margins though these vary from light to dark grey, and is glazed completely externally in light grey, brown or a mixture of the two. Internally some are glazed and some not, some have a brown wash and some do not.

The commonest form is the Raeren drinking jug or mug.

Three almost complete examples occurred:

164 From the lower part of F5. Mainly light grey glaze with patches of brown scattered over surface. IS unglazed light grey except for very small area at rim. Flat base with frilled basal angle. Globular body and vertical neck with simple rim, with pronounced fingering marks especially on lower body. Strap handle plano-concave in section, from middle of neck to greatest girth. Applied only to surface of pot with no thumbing. At greatest girth one groove crudely cut without, in parts, removing clay, which forms crude ridge below it. Two similar grooves at top of body and one on lower neck. X scratched on lower body after firing. Two small scars of other pots on lower body (round these S grey though in middle of brown patch). Rim D 2½ in. (M 112-13)

There is also a larger version represented by a complete upper half.

165 Globular body. 'Inset' rim. Two well executed grooves at handle base and pronounced cordon on lower neck. Handle plano-concave. IS & ES glazed brown but with two light grey patches on lower body. Rim D 3 in. (8×L7+1 L1) (M 113)

166 Rim and body sherd. Similar to 164 but 'inset' rim like 165. Has well executed groove just above girth, cordon at base of neck and two discontinuous shallow grooves at top of body. ES glazed very glossy uniform mid brown. IS unglazed pinkish (purple on neck). Rim D 2½ in. (I P4) (M 114)

167 More globular than usual and decorated by rouletted band of 'V's overlying groove at top of body. Ridge at bottom of neck has similar band but very badly incised. Handle concavoconvex. ES glazed brown and grey and IS uniform grey. (M 114-6)(1 L6)

168 Small body sherd, ES glazed mottled brown and IS unglazed grey but decorated with rouletted band of inverted V's above groove. Probably from just above maximum girth. 'V's better executed than on 167. (L4) (M116)

Besides these there are vessels which are not of this typical shape.

169 Base and body and non-joining rim and neck sherd which almost certainly belongs. Base and body same as mugs described above but neck instead of being vertical slopes outwards towards the top with pronounced ridge on lower neck. Simple rim and groove some way below (also on upper body and at girth). ES glazed mainly brown. Very mottled on neck with unglazed area (with light grey area round it). IS uniform lightly mottled brown. (I L8+1 L6+1 L4a and (M 117)

170 Small, very globular, version of typical Raeren mug. Glaze lightly mottled brown on upper part and light grey below. IS glazed light grey. Grooved inset on lower neck and groove at base of neck and just above maximum girth. Very pronounced

fingering marks below maximum girth. (1 L4a)

171 From a mug which much less globular than typical Raeren type and with handle on body not from neck to body. IS & ES glazed light grey. Pronounced fingering marks all over. Handle usual plano-concave type applied onto surface of mug with a thumbing at each side of the handle. Perhaps from mug like Von Bock 1971, fig 140. (1 L6)

172 From two handled cup. Simple rim, usual handles applied either side of maximum girth which is high on pot with two wide deep rillings and shallow ones above. Thumbing on underside of handle unusual. ES glazed brown with light grey patches and IS overall brown. (10×L10) Type narrows to frilled base (see Mertens 1966, fig 190: 15)

(M118)

173 Flat base cup. Vertical neck with 'inset' rim and ridge on lower neck, globular body with well executed groove just above maximum girth and flat base which is knife trimmed and has amorphous depressions in it (where lumps of clay have come away in the potting). Fingering marks all over, especially pronounced near base. ES glazed brown with grey patches one of which is large and partly delimited by scars (of other pots touching in kiln). At this point basal angle slightly deformed. IS glazed overall grey. (2×L7+1 L4)

AACHEN (Fig 11)

This kiln, which is very close to Raeren, produced pots with the same fabric as Raeren but one shape is believed to be peculiar

174 Globular jug with narrow neck. ES glazed grey with brown patches and IS grey, except for upper part of neck which is mottled brown. One area of grey has scars on it, one defining its boundary with the brown and one associated with a slight depression. It has three incised lines just above maximum girth but the upper one discontinuous. It has three ridges at the base of the neck and pronounced fingering marks on the rest of the neck and lower body. It also has a very pronounced cordon just below the rim. The handle is plano-concave in section and goes from the cordon to the upper body. Rim D $1\frac{1}{2}$ in. $(8 \times L7 + 1 L3 - 4 + 2 \times L1 + 1 T2L5 + 1 T2L8)$ (M 119)

175 From narrow neck. ES glazed light grey and brown and IS unglazed purple. Has ridge below rim and beginning of handle on one edge of sherd. Bottom of sherd flaring outwards which makes neck very short so perhaps belongs to Siegburg type with narrow neck (see Von Bock 1971, nos 168 and 169), copied at Aachen (or Raeren). Rim D 1½ in. (1 L6) (M'119)

COLOGNE (Fig 11)

This is also in a dark grey fabric but can be distinguished from Raeren and Aachen by a number of characteristics.

176 This is the most typical Cologne type of mug with applied decoration though a few of these were made at Raeren. ES glazed brown, with band of mottling on upper body. IS unglazed light brown. Globular body with vertical neck. Groove on upper neck above which simple rim, which is not reduced in thickness as on Raeren jugs, is slightly everted. At base of neck very pronounced ridge. Between groove and ridge is applied flower with five petals. On body applied decoration of acorns and oak leaves attached to tendril-like branch. Handle oval in cross section with heavy groove down middle and pressed in at bottom and especially at top. Rim D 3 in. (6×L4a+1 L4)

177 Base of probably taller, less globular jug distinguished from Raeren by having flat not frilled base. ES mottled brown glaze but on base two rectangular areas of grey both partly delimited by scars (edge also tends to be grey). IS unglazed light brown/grey. Flaring foot with wide groove immediately above, in which two slight ridges. Trace of applied decoration on upper edge of sherd. Base has 'cheese wire' marks and four parallel grooves. (2×L3-4) (M120)

SIEGBURG (Fig 11)

This can be distinguished from all the other types by its lighter fabric, being off-white to light grey.

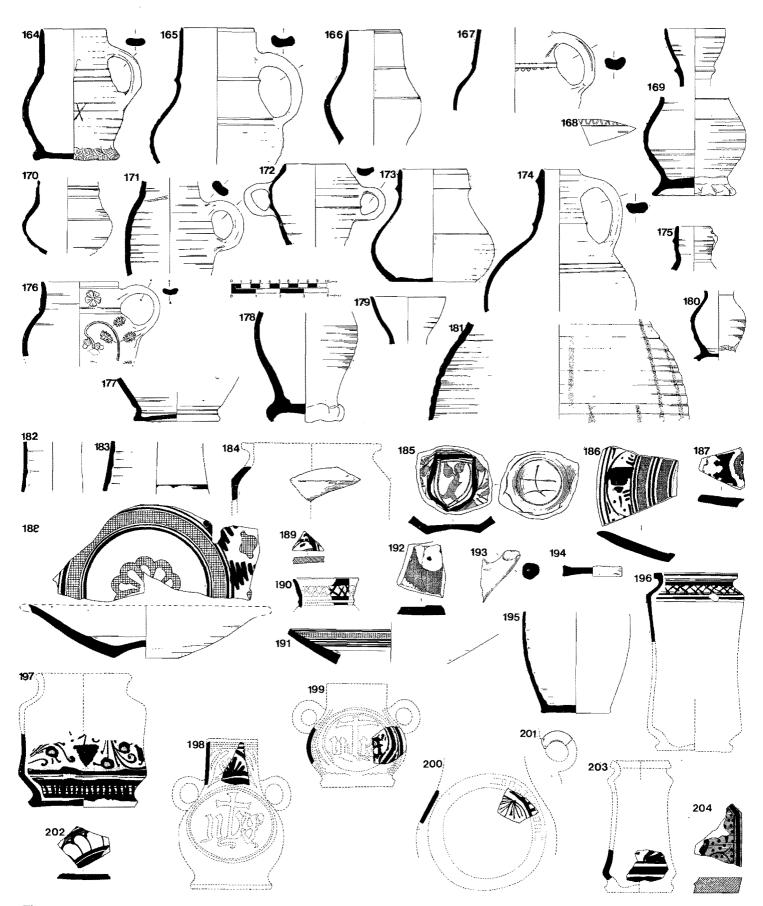


Fig 11 Stoneware and other imports Nos 164-204

178 Jacoba type jug. C, M & IS pinkish (underfired). ES light grey with sheen all over and patches of pink and greenish yellow. On the base area of pink to light grey and area of dark grey, which extends in band up body. Frilled base. Body tall and narrow with maximum girth near top of sherd. Fingering marks visible internally and externally. One depression in body in dark grey area and two lumps of vitrified material adhere to it. (1 L7) (M 121)

179 Funnel neck rim probably from jugs like above. Light grey S. No sheen. Outward flaring neck with simple rim. Rim D 3¼ in. (1 L10) (M 121)

3¼ in. (1 L10)

180 Complete body with some of neck and frilled base of funnel-necked jug (Trichterhalskrug). IS light grey. ES light grey with areas of brown on upper body, and frilling. No sheen. Fingering marks pronounced on lower body. Slight groove at top of body. (1 L11) (M 121)

LANGERWEHE (Fig 11)

Also has a dark grey fabric but distinguished by tendency to have a matt glaze, to be large in size and to have pronounced

181 Demonstrates all these features. Large body sherd from large jug or storage jar. Mid grey C with dark purplish grey M. IS mid grey. ES has matt dark to light brown glaze with vertical streaks of darker brown. Pronounced rilling internally (M121-2)and externally. (1 L10)

Other imported pottery, by J.G. Hurst and Pamela Clark SPANISH FINE WARES (Fig 11)

182 Body sherd. Buff to pinky-buff C & M with minute darker inclusions. Decayed tin glaze on IS & ES. Faint traces of what was probably blue decoration, but brown staining, which usually indicates the presence of lustre decoration. Difficult to be certain what type of vessel the sherd is from; possibly part of the lower portion of an albarello. Decayed surfaces typical of Andalusian ware current in late 14th to early 15th (Hurst 1977, 84-9). (1 L10)

183 Sherd from a comparatively large vessel. C & M creamybuff with some dark inclusions. Decayed tin glaze on IS & ES. Decorated externally with a band of blue. Dark stains on ES may represent decayed lustre decoration typical of

Andalusian ware. (1 L7)

184 Sherd from the shoulder of an albarello. Light pinky-buff C and creamy-buff M with minute dark inclusions. Decayed white tin glaze on ES, while white patches indicate that IS also probably glazed. Patches of brown staining on ES indicate the probable presence of lustre decoration. The vessel is

typical of Andalusian ware. (1 L6) 185 Base sherd from Spanish lustreware dish in a hard fabric. Dull pink C and creamy-buff M. IS & ES covered with white tin glaze and painted internally with a mock armorial design in dull opaque blue, with lustre. Colour differences may indicate that two kinds of lustre used, but soil conditions may be responsible. ES has a crude decoration of concentric circles in lustre, and on the bottom of the base an arrangement of three lines roughly resembling an H. Product of Valencia, and can be paralleled at Southampton. It has a date range of late 15th to early 16th C. (1 L9)

186 Sherd from a wide flanged dish in a hard creamy-buff fabric with minute darker inclusions. IS & ES covered with white tin glaze. IS decorated with alternating bands of blue and mauve, while on the outer flange is a band of mock Arabic script. Faint traces of lustre decoration visible, but too slight to reconstruct design. Of Andalusian/Valencian type, with a date range in the 14th and 15th C. (1 L5)

187 Sherd from Calatayud dish. Hard but friable creamy-buff fabric, glazed on I & ES with white tin glaze, and with painted design in blue and mauve, copying lustre ware

examples. (1 L6)

188 Sherd from a dish. Kicked up base. Hard fired but friable creamy-buff fabric with few visible inclusions. White tin glaze on IS & ES. Decorated internally with central motif of false gadroons in purple, and on the flange with bands of blue and purple. ES undecorated. An example of Calatayud ware with a date range from second half of 15th to early 16th C. 1 L4+1 L3-4)

189 Small sherd from a similar vessel to 188. Hard pink-tinged buff fabric with a white tin glaze on IS & ES. Decorated in blue and purple, probably with mock Arabic script, which is (M124)commonly used on these wares. (1 L4)

190 Sherd from the neck of a jar. Pinky-red fabric with few visible grits. IS & ES glazed with white tin glaze. ES decorated with a lattice pattern enclosed by bands of blue. A band of colour in the groove of the neck cordon may have been purple, though the glaze running into the groove obscures the true colour. (1 L3-4)

191 Sherd from a dish of Calatayud type. Hard creamy-buff fabric with minute darker inclusions. IS & ES covered with white tin glaze, which is pitted and damaged on both S. Traces of a decoration of blue and purple bands. (1 L3)

192 Sherd of Calatayud ware. Hard creamy-buff fabric similar to 191. White tin glaze on ES & IS. IS has decoration of indeterminate form, in blue and purple. (1 L4a) (M 125)

SPANISH COARSE WARES (Fig 11)

193 Part of handle of Merida type ware vessel in a brick-red, sandy, micaceous fabric. Pinky red C with very few inclusions visible, and lighter, brownish-red M. ES has a dark paint or slip coating, giving it a brownish colour. (1 L9)

194 Almost complete base of a Merida type vessel in brownish red micaceous ware with a grey C. Base D 2 in. (1 L9)

(M125)

195 Lower half of a small jar or jug, in a hard well fired fabric with light orange-red S, grey M and red C; thin walled.

Minute opaque white grits visible. Red S presumably due to use of a slip, as patches of grey visible on S. (11×L7)

ITALIAN MAIOLICA (Fig 11)

196 Slightly less than half of the rim and shoulder of an albarello in a hard creamy-buff fabric. IS covered with white tin glaze. On ES glaze extends only 1 in below the shoulder of the vessel; rest of ES presumably unglazed. The vessel can be paralleled at Southampton and is presumed to be of Italian origin (Mallett 1972). (1 L6)

SOUTH NETHERLANDS MAIOLICA (Fig 11)

197 A considerable part of the lower portion of a South Netherlands maiolica ointment pot in a hard well-fired creamybuff fabric. Traces of probable very thin white tin glaze on IS. ES has white tin glaze. Decorated below the carination with horizontal bands in blue, joined at intervals by vertical strokes also in blue, giving a ladder type design, similar to that surrounding the medallion on the vase no 200. On the main body of the vessel is a design of running foliage in blue and dull yellow. Base unglazed. (7×L10)

198 Sherd from the neck of a vase in a hard creamy-buff fabric.

IS & ES covered with tin glaze discoloured a pale mauve internally, but a purer white externally. Has usual decor of

strokes and bands in cobalt blue typical of this ware. (1 L7) 199 Sherd from the body of probably the same vessel. Hard creamy-buff fabric with the internal tin glaze discoloured to pale mauve. The sherd shows a portion of a medallion decoration consisting of bands of cobalt blue of differing width, enclosing the S of an IHS monogram which is common on these vessels. The paint has run on application for some reason, slightly obscuring the design. (1 L7)

200 Sherd showing a portion of the medallion of a vase. Hard creamy-buff fabric with a white tin glaze on IS & ES. Medallion consists of a ladder pattern border, enclosing an arrangement of lines. As medallions enclosing the IHS monogram only rarely contain other details it is likely that the motif here is the less common stylised floral motif of which examples exist at Southampton (Platt 1975, no 1158) (M127)(1L6)

201 Sherd from the handle of a South Netherlands maiolica flower vase in a hard creamy-buff fabric covered with a white tin glaze. (1 L3-4) For South Netherlands flower vases see Hurst 1970.

202 Sherd from dish in a hard creamy-buff fabric. IS has white tin glaze decorated with false gadroons in blue and purple; ES has over-all blue tin glaze. (1 P3)

203 Sherd from base of albarello in hard creamy-buff fabric. IS & ES glazed with white tin glaze and decorated externally

with bands and strokes of bright cobalt blue. (1 P3+1 L4)
204 Hexagonal floor tile of Herckenrode type. Sandy hard
fabric with a pale pink C and creamy-buff M. The sides and upper S of the tile covered in opaque tin glaze, which in places dripped onto the underside. The glaze on the sides of the tile white in colour, but on upper surface shows a pale blue colouration, presumably derived from the blue painted decoration which consists of a Spanish style double line

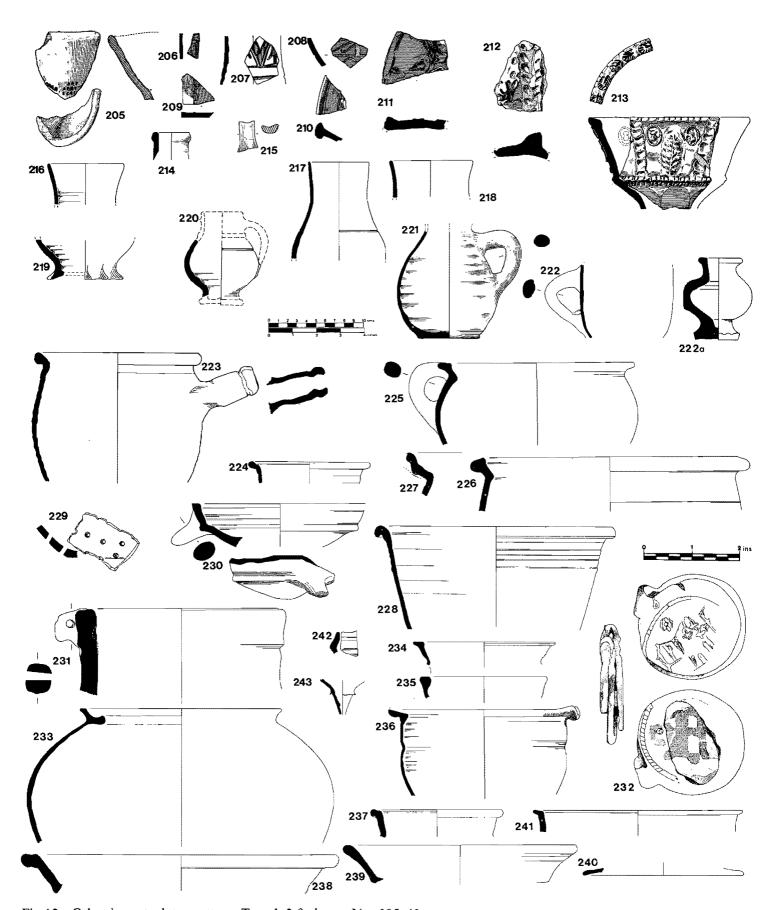


Fig 12 Other imports; later pottery; Trench 2 finds etc. Nos 205-43

border enclosing a tendril and foliage design against a background of blue spots (Rackham 1926). (1 L10+1 L9) (M 128)

SOUTH WEST FRENCH WARES (Fig 12)

205 Spout from large pegau. Hard well-fired fabric. Pink C and creamy-buff M, with traces of red inclusions and small dark grits; slightly micaceous. Signs of wheel throwing. Square-notched rouletting around the base of the spout. (1 L9) (M 128)

BEAUVAIS SGRAFFITO (Fig 12)

206 Small sherd of single slip sgraffito, in off-white fabric, with a red slip-coat applied to ES and with sgraffito decoration cut through this to the white body beneath. The surface has been covered with a clear glaze giving a brown and yellow colour scheme. The design is probably a portion of a letter, as vessels of this type sometimes carry inscriptions (see Fay 1973). (1 L4a)

207 Sherd from a double slip sgraffito albarello, in a hard creamy-white fabric covered externally first with a brown slip, then with a white slip, sgraffito decoration being cut through the white slip to reveal the brown beneath; green colour added below the clear lead glaze gives a polychrome yellow, green and brown decor. IS has clear glaze on the unslipped body. (1 L4)

208 Sherd of Beauvais single slip sgraffito in a hard white fabric. IS unglazed; ES has brown slip; a design cut through this to the white body beneath gives a two colour decor of brown and yellow. The sherd is probably from the same vessel as no 206 and may show elements of an inscription. (1 L3-4)

209 Sherd of single slip sgraffito similar to 208 but from an open vessel probably a dish. Hard white fabric, with IS covered with an orange-brown slip, cut back over half of the sherd to give a brown and yellow two colour effect under a clear yellow glaze. ES has neither glaze nor slip. (1 L3-4)

210 Sherd from the rim of a dish in double slip sgraffito in a hard pinky-buff fabric. On IS but not ES a white slip coat has been applied and over this a second orange-red slip; design cut through this to the white underslip beneath, giving a brown and yellow colour scheme. ES unglazed. (1 L3)

BROWN POLYCHROME WARE (Fig 12)

211 Sherd probably from a firecover in hard reddish, but discoloured and blackened, fabric, with a decor consisting of deeply incised markings and applied pads of white clay, forming what seems to be a foliage decoration. Pigment or paint has been added over this decoration giving a green colour contrasting with the red-brown of the body, under a clear glaze. It is not possible to reconstruct the object, because the curve of the sherd is very slight, and has broken at a point of direction change. (1 L10)

212 Sherd from a vessel similar to 211 in friable sandy pale orange fabric, decorated with deep stabbing and applied strips of white clay. The additional use of some kind of pigmentation gives a three colour effect beneath a clear glaze. The colours are brown, yellow and black in this case, but it is probable that the intention was to produce brown, yellow and green as in the other examples described here. Encrusted with mortar. (1 L5)

While these two sherds have obvious similarities, they must be from different objects, as there are differences in the fabric, and this example shows traces of glaze (brown) on its IS as well as ES. It is unusual to have evidence for two firecovers from the same site.

213 Bowl in a hard well-fired fabric with a dark grey C and brick red M. The lower portion of the bowl is facetted and the upper portion is decorated with applied pads, of both self-coloured and contrasting clay. Thumbing, stabbing, two different leaf stamps, and an object possibly the end of a knucklebone have all been used to decorate these applied pads and strips, while the white clay strip around the carination of the bowl shows a series of small holes, which probably indicate that it was held in position with wooden pegs, which would have burnt away during firing. The top of the rim, which is also leaf stamped, has been coloured black. IS & ES glazed with a lustrous lead glaze. (5×L3-4)

There seem to be similarities in the production technique of all of the three items described above, particularly the polychrome effect involving use of applied clay pads and green colour (the black on the rim of the bowl described above seems to have been intended to be green but has fired too dark). It is likely that despite some difference in fabric texture these objects have a common origin, but it is not possible at present to locate this. They seem to belong to the tradition of sgraffito and polychrome wares (Hurst 1975) current in both the Low Countries and Northern France in the 16th C.

FLASKS (for classification see Hurst 1966) (Fig 12)

Fragmentary sherd from a type 1 flask, in a hard stoneware, or almost stoneware fabric, with a creamy buff C, narrow M of grey, and with orange IS and purplish grey ES. (1 L4)

Two similar body sherds but without grey M and in one case with red/purplish-grey ES. (1 L3 and 1P1)

214 Sherd from the neck of a type III? flask in a hard brownish fabric with a darker ES. (1 P3) A similar sherd from a different flask, plus a body sherd, come from P1.

YELLOW GLAZED JUGS (Fig 12)

Sherds from at least eight vessels in hard white fabric with surfaces ranging in colour from creamy buff to pinky buff, and glazed on their ES with a clear glaze ranging in colour from greenish yellow to pale lemon yellow.

greenish yellow to pale lemon yellow.

215 Part of a handle in pinky buff fabric with a patchy acid yellow glaze. (1 L9)

(M 132)

216 Rim sherd from a jug in hard white fabric. ES has pale yellow glaze which has dripped down onto the inside of the vessel. (1 L6+1 L8) (M 132)

217 Neck and shoulder of a jug in hard white fabric with a pale yellow glaze on ES; IS pinky buff and unglazed except just below rim. Incised groove marks beginning of the constriction of the neck of the vessel. (1 L10+1 L6+1 L5)
218 Two sherds from the rim of another similar vessel, in

218 Two sherds from the rim of another similar vessel, in hard white fabric glazed on ES with greenish yellow glaze. (1 L6+1 L8)

219 Sherd from base of similar jug. Hard white fabric, yellow glazed on ES; drips of glaze run down the unglazed IS. The base has a frilled or faceted foot, possibly copying similar stoneware forms (ie Raeren, Siegburg). (1 L6)

220 Body sherd of a similar jug, in a hard white fabric with a yellow glazed ES; IS unglazed. There is a groove at the neck/shoulder junction, and a scar of a handle base. (2×L6) (M 132)

MISCELLANEOUS (Fig 12)

221 Complete lower part of a jug, light grey C with thin darker grey M and a further red M externally in places. IS orange-brown. ES covered in an off-white all over slip. Hard untempered fabric with pronounced fingering marks internally and externally. Barrel shaped body with rod handle on the side of the barrel. Handle applied to ES with some thumbing. On lower body opposite handle finger-shaped depression externally and bulge internally. Form of neck and rim unknown. (1 L7+18×L4a) Origin of this vessel not known but fabric not obviously local.

222 Body sherd with handle. Slightly pinkish buff fabric with buff ES. Oval sectioned rod handle which on side of jug like one above but side straighter. Handle has thumbing on base and two wedges between base and body of jug. Internally opposite top of handle, slight depression and two short incised lines on top. Heavily sand-tempered with red and white grains. (1 L9) Could be a Surrey ware but form unknown and parallel with above may suggest import. Could be copy of Raeren mug (cf 171 above). (M 133)
222a Complete 'bottle'. Hard, thick, red fabric, completely

222a Complete 'bottle'. Hard, thick, red fabric, completely covered externally and partly internally by a glossy, dark green glaze. Many dents and bumps in surface. Scar on base and one on body. Globular pot with flaring pedestal with rough chamfer on its base. Concave neck with flat-topped rim thickened externally. Rim D 1 13/16 in. (M 134-8)

LATER MATERIAL

Besides objects which derive from F5, Layers 1 and 2, Pl and P3 and the robber trench of F6 also included a small amount of later material. Unfortunately a little similar material also occurred in the upper layer of F5. (M 139)

Surrey White Wares (Fig 12)

Some of the Surrey White Wares clearly belong with the later material but since Surrey White Wares do occur in F5, certainty is not always possible especially with the small body sherds. White unless otherwise stated.

PIPKIN

223 Complete profile apart from base. On IS all over thin yellow glaze tinted green. One or two unglazed patches on rim buff. ES dirty buff round handle with patch of similar glaze; elsewhere smoke-blackened. Near base one patch of 'burnt yellow' glaze with scar attached. One hollow tubular handle with 'collar' at end. Body ribbed all over. Greatest girth at mid point. Rim D 6½ in. (12×P3 — breaks look new) (M 140-1)

OTHER

224 Rim sherd of small bowl. IS glazed glossy yellow with brown streaks and light green patch. ES off white with patches of yellow glaze. Ribbing on body externally. Rim D 5 in. (1 L4) (M 141-3)

Red Wares (Fig 12)

GREEN GLAZED

- 225 Red C & M. IS purplish red but glazed brown mottled dark green on lower side and part of rim. ES purplish grey with much smoke-blackening. Small rod handle vertically from rim to maximum girth. Shallow vessel. Rim D 8 in. (2×P3)
- 226 Rim and body sherd. Red C & M. IS purplish red to grey with large patches of glossy brown mottled dark green glaze on rim and side. ES purplish red with patch of brown glaze. Rim D 9 in. Over quarter of circumference survives with no trace of handle. (3×P3) (M 143)

BROWN GLAZED

Cauldron Type Cooking Pots or Pipkins

227 Red C & M. IS glazed orange brown. ES purplish red with smoke-blackening. Bend in flange demarcated by groove on upper surface. Cordon on lower surface in middle of flange. Scar for handle on rim so probably Cauldron Type Cooking Pot. Rim D 12 in. (1 L2)

Rowls

228 Red C & M. IS glazed glossy dark brown flecked with black streaks. ES brown/purplish red. Rim D 9 in. (2×L4) This piece is rather difficult to explain. It is much larger than any other sherds of later pottery in L4, L3-4, L3 or L4a and yet such a glaze seems unlikely in the early 16th century. (M 145-6)

Others

229 Red C & M (IM grey in places). IS glazed glossy brown. ES dark red with patch of brown glaze. On body at least 3 rows? of large holes (D 1/8 in) and at least one on body (Colander?) (2×P3)

230 Red C & M. IS glazed brown with areas of black and

230 Red C & M. IS glazed brown with areas of black and white (overfired glaze). ES brown to red with band of yellow glaze on rim/body angle. Sharply carinated body on which cordon and short straight 2+ strap handles/foot. Traces of everted, flat-topped rim. (1 RT of F6)

UNGLAZED

231 Grey C. Very thin red M. Red S (spots of brown glaze internally). Thick walls. Opposite lug, depression internally. Groove externally below lug. ES roughly finished. Rim D 7½ in. (1 RT of F6) (M 146-165)

METALWORK (Fig 12)

232 Lead cloth seal. Two discs of lead attached together by a loop. One has a hole through which the tongue on the other has been pushed and stamped with an R and rose. On other disc royal coat of arms and a rose likewise been impressed. (1 L4a)

TRENCH 2—Feature Descriptions

The earliest features in this trench were also narrow ditches or gullies cut into light brown clay (+1.3 ft OD

at highest). Both ran from east to west and parallel to each other across the trench. F8, the northern of the two, was filled with black clay (L9) with hard, thin gravel surface above it which did not quite extend across its full width.

Immediately to the south of this about one foot of another gully, F9, was excavated, also filled with black clay (L8) but without any gravel layer above. L8 also covered natural and the gravel layer above F8, and its surface dips to the north. Above this were two layers of green clay (L6 & L7) and, distinguished only by stiffness, above this a thick clay with earth layer (L4 & L5 — the distinction between them is entirely arbitrary). Cut into the surface of L4 on the north side of the trench, was the beginning of another ditch or gully, F10, filled with loose brown earth, with a gravelly fill at the bottom. Above this was a black earth layer (L1/2), again arbitrarily separated, underlying a brick floor to the north of the padstone which occupied most of the southern part of the trench. This brick floor ended about the middle of the trench probably against a wall (destroyed largely by the padstone) and L3 overlay a grey clay with earth layer (like L4) to the south of it and was itself overlain by L1. All was sealed by a concrete floor associated with the padstone.

TRENCH 2—Finds (Fig 12)

The pottery divides itself into three groups, Roman, nearly all from L9 to L7 but with smaller amounts from the upper layers, late medieval — early post medieval group from L6 to L3 and F10 and a later group from L1 and L2.

LATE MEDIEVAL-EARLY POST MEDIEVAL POTTERY Off-white, Buff-Surfaced and Overfired Surrey Ware

This comprises the bulk of the material and all is sand tempered. COOKING POTS

233 Thin light grey C, pinkish M and dirty white S. Tempered with large red and black grits many of which have come out leaving very pitted surface. Light green glaze mottled dark green on upper ES, some of rim and internally just below rim (some flaked off so perhaps originally more extensive). Rim D 7 in. (3×F10) (M 167)

234 Grey C. Off white M & S. Neck slopes inwards, below which body turns sharply outwards. Rim D 6 in. (2×L5) (M 168)

HIGS

235 Grey C. White M & IS. ES brown/buff with patches of glossy dark green glaze. Surfaces slightly pitted. Rim D 5 in. (1 L5) (M 169-70)

FLANGED BOWLS

236 Light grey C, M & S. Pulled down lip. At least one pronounced corrugation on nearly vertical side. Rim D 8 in. (4 × F10). Very Overfired Surrey Ware? (M 171-3)

Red Wares

COOKING POTS

237 Light red C & M, blackened in places. S light red with area of smoke-blackening and traces of brown glaze externally and on top of rim. Rim D 5½ in. (1 F10) (M 174)

BOWLS

238 Red C & M. IS glazed brown. Unglazed patch and ES purplish red. Rim rolled over? Side slopes inwards and at bottom of sherd internal surface begins to turn sharply inwards which is matched externally by cordon, glazed brown. Rim D 11 in. (1 F10)

DISH

239 Red C & M. IS glazed brown. ES red. Simple thickened rim with shallow groove and line externally at its base. Sharp basal angle. Long narrow rough unglazed slot internally (organic inclusion burnt out?). Rim D 9 in. H of bowl 1½ in. (L4) (M 174)

OTHER

240 Rim sherd of lid? Red C, M & S. Rim D 6 in. (1 F10) (M 175)

Slipped Ware

241 Rim sherd of bowl. Grey C & M (red in places). S covered in white slip and glazed yellow mottled green. (1 L5) (M 176)

Stoneware

RAEREN

242 Glazed light grey externally and brown internally. Body turns sharply inwards little below rim. Rim rises at one point (near handle? or does rim go up and down as decorative feature?). (1 L3) (M 176-190)

BUILDING MATERIAL

Glass

243 Fragment of hollow cone of glass which bends outwards at base of cone (probably top of vessel). Externally cordon which is broken and internally ring, also broken. Part of goblet? (1 L4) (M 190-90a)

DISCUSSION

Internal sequence

The interpretation of the features and finds is rather complex, but Trench 2 represents the simpler picture. It begins with two ditches (F8 and F9) cutting into apparently sterile clay of unknown age. These were filled in by clay layers containing mostly abraded Roman sherds but with a little medieval pottery (L9-7). Then another layer of clay (L6-4) with some earth. The odd feature is that the division between L6 and L7 was difficult to distinguish (the visual difference being very slight) but it clearly is an important dividing line from a finds point of view since 94% of the Roman pottery occurred below it (151 of 160 sherds) and only 9 sherds of medieval pottery. F10 was then dug, which must be an attempt to re-establish F8.

After the digging and filling in of F10, which must have ensued very rapidly, a black earth layer (1-2) was laid down all over the trench (and sealing, in the south edge, L3, which differed from L6-4 in being a brown sandy layer). Since this extends beyond the brick floor it is probably not associated with the floor, which must therefore be later. Finally a cellar with concrete floor and padstones was dug.

The sequence in Trench 1, though much more complex, provides a surprising parallelism to this. It too starts with the digging of a 'ditch' into apparently sterile clay (F1) which was filled in by clay layers (L14 and L13) containing mostly abraded Roman sherds, but again with a medieval sherd (Surrey Ware). However, the thickness of L14-13 is much less than that of L9-7 in T2 and the conformation of their upper surface suggests that an attempt was made to maintain F1 after they were laid down (especially since their surface rose quite steeply in the eastern edge of the trench). This 'recut' was then filled with a clay-with-earth layer (L12) similar, therefore, to L6-4 in T2. F1 was again recut after L12 was laid down (in this being equivalent to F10) but instead of being filled with sandy earth, it has building rubble (L11) dumped in it. After that the parallel ceases. Filling the redug ditch were L10-6 (there is possibly a recut between L9 and L6 for which a little evidence occurred in the northern half of the trench) followed by a recut filled with L8, L7 and L5 and then L3/4 over the top, truncated, as in T2, by the concrete floor and padstone (largely outside the trench) of a cellar, though here a phase of pit digging (Pits 1 and 3), the robbing of F6 and the digging of a deeper cellar in the northern half of the trench (Pit 2) occurs before the cellar floor. (See Fig 13)

L11, L8 and L5 must derive from building operations. In F6 two phases of building operations can be detected,

the original construction of a stone wall with a faced rubble core and the rebuilding of it entirely in brick. L11 corresponds stratigraphically with the original construction and L5 with the rebuilding. Neither L5, nore L11, extends right along F6, but they both stop short of its northern end, demonstrating their association with it. L8 must derive from some other building operation, probably also on F6 since it too stops short of its north end.

The distribution of thin flat roofing tiles throughout the sequence, even though they were not deliberately collected, shows that this building was roofed with tiles. The distribution of the nails, however, is interesting, since these do not occur in the layers of building rubble at all (L11, L8 and L5) but amongst the domestic rubbish. This may mean that the wall was a full height stone (and

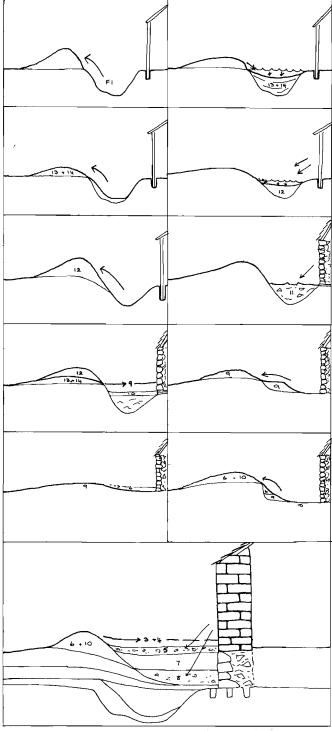


Fig 13 Interpretation of sequence in Trench 1

later brick) one and not half timbered above. It must mean that the nails were not used in the structure itself. Many of them show good evidence for having been used (shanks bent, heads bent round at edges) and two provide evidence that they penetrated wood by 45 mm and 25 mm respectively, and must therefore have been used for attaching boards or planks to something. One possibility is that they were used to secure the floorboards, for their installation would take place after the building of the walls which produced the rubble layers. Only the smaller group are clearly too small for this and are probably lath nails (hence probably for internal partitions or for the laths on the roof). Unless one discounts the two glass fragments in L6 and L9 as contamination, it implies that the building had glazed windows, but there is very little glass until L3/4 when there is a lot (see below, p 63)

The crucial problem of interpretation is whether these layers are significantly different from each other. Are they laid down at one instant (archaeologically this could mean over several years) or is there enough difference in date between them for this to show up in the archaeo-

logical record?

Stratigraphically, the sequence could be divided into seven groups: (1) L1 and L2, Pits 1, 2 and 3 and robber trench of F6. L1 and L2 were thin clay layers which peeled off the top of L3/4 and are clearly tread layers associated with the digging of the cellar (presumably in origin a reworking of part of L3/4). The pits and robber trenches are all cut down from the surface of L3/4 and are therefore subsequent disturbances of it. (2) L3, L4, L3-4, L4a and P4 and P5. (3) L5, L7 and L8. (4) L6, L9 and L10. (5) L11. (6) L12. These layers are all similar to each other but each 'block' coincides with a stratigraphical phase. (7) L13 and L14. These are different in being composed almost entirely of clay and having little domestic rubbish in them.

Study of the pottery descriptions will show that there are a large number of cross joins between layers 10 to 1. One of the most striking features of this is the number of joins between L1 and the lower layers. But this can be discounted because of an unfortunate error at an early stage of the processing when a 7 was mistaken for a 1. 89% of the Guy's Ware, 91% of the green glazed cooking pots, 81% of the brown glazed red wares, 83% of the stone ware, 66% of the Surrey wares (all by weight) and all the pitcher sherds listed as L1 come from L7 (though with any particular sherd one cannot be sure) and the distribution of cross joins closely models that of L7 itself.

That does not, however, explain the others which are still quite numerous and this could be held to demonstrate that all are layers of the same date or that, if of different dates, they have been thoroughly mixed together. This, indeed, was the initial interpretation. However, there are very strong objections to this. Firstly, there are the qualitative differences between the layers best illustrated by comparing their assemblage profiles (see Table 1).

The points which stand out are the absence from L12 of many of the groups (eg green glazed Cauldron Type Cooking Pots, Pipkins of any sort, Red Ware bowls, Guy's Ware, Cistercian Ware, any stoneware, etc) and of various types within groups (Surrey White Ware jugs, Red Ware flanged dishes, etc). This clearly sets L12 apart and there are, in fact, no cross joins between L12 and the upper layers, so that can clearly be accepted as different. But there are qualitative differences between some of the other layers or groups of layers. There are, for example, no flanged Red Ware bowls or dishes or Guy's Ware (apart from one very small body sherd, probably contamination) in L10 or Cologne stoneware, Beauvais sgraffito or green glazed Slipped Ware in any layer below L3/4. In the latter case, the small amounts present may be held to lessen its significance but taken as a whole, the picture appears convincing.

There are also a large number of quantitative differences (these can be calculated from the descriptions) between the layers. These will be discussed in a later section (see M213-40).

This implies that the normal interpretation of cross joins, that it implies mixing, is not always right, or at least right in the unqualified way in which it is used. There are a number of models for the deposition of sequences such as Trench 1 which archaeologists have in mind when interpreting them, though they are rarely discussed. There are, perhaps, two basic conditions, those of rapid accretion and those in which it takes place slowly. The former might be natural (deposition by river or sea, or by wind) or artificial (dumping to fill in a hole). In both cases the opportunities for disturbance are reduced by the speed of the operation and as long as the material was derived from different sources (particularly in the latter case), and if it was not there would be no layers, the number of cross joins would be small (work on the infilling of Kiln 2 at Montague Close would support this). It might be objected that in dumping to fill in a hole, efforts would be made to level out each load (by raking) but this would either merely spread a particular layer more thinly or, if it mixed them, would produce one layer out of two or more.

In periods of slow accretion, however, the upper surface of a layer would be exposed for a period. This would lead to the reworking of its top (either by natural forces of soil formation or by artificial means such as treading). If this goes on long enough unchecked or if material is slowly added to it, this will produce a new layer which will contain material (and hence cross joins) from the layer below. This is accentuated by the archaeological dictum that objects at the interface of two layers, or about which there is any doubt, should be included in the layer above. More important, however, is that opportunity is provided for disturbance by the digging of pits, ditches, gullies, etc., through the layer. Usually much of the removed material goes back into the feature, which will therefore cross join with the layer(s) it cuts through but some will remain on the surface from which the feature was cut and be incorporated in another layer, producing yet more cross joins.

This material should be distinguished from anachronistic material in a layer, which is there because it has survived in use. This would not produce cross joins, since

it is deposited in the layer it is found in.

The opposite, that is downwards, progression of objects has been much confused by concepts of earthworm action (Atkinson 1957). Although, as Atkinson pointed out, earthworm action can lead to the rapid burial of an object, this is somewhat irrelevant to our discussion since earthworm action does not lead to contamination of lower layers by such objects, but the creation of new layers. The only likely cause of contamination (defined as the occurrence of an object in a layer lower than that in which it was originally deposited) in antiquity is by objects being trodden into its top during periods when it is exposed. This cause operates more effectively during excavation (hence the injunction about clearing away spoil) as do several others (such as objects falling in from the section and the failure to determine the true edges of features) which is why such contaminants are not usually mentioned in excavation reports. It is not unknown for objects believed to be contaminants to have been thrown away, only later to be recognized as contemporary. For this reason, if for no other, it is felt such contaminants should be published. The implications of those in T1 will be discussed below (see p 60).

Theoretically, therefore, the number of cross joins should give some indication as to the mode of formation of the sequence and this is, indeed, the case. The problem is that the evaluation of them has to be largely subjective

TABLE 1

L9–5 L4–3	
Vares tempered ng pots ifid rim ipkin Surrey Wares Sand-tempered cooking pots	
d bowls jug lid	
White Ware Surrey White Ware jug	
y box costrels?	
al cup pedestal cup? condiment dish	
ner? lid?	
Red Wares pular type n shouldered dle on rim	
dle on neck handle on neck? gholes —bungholes painting —slip painting	
on type cooking pots glazed glazed loned rim nfered rim ple rim cauldron type cooking green glazed —cordoned rim? —chamfered rim?	pots
nated rim zed' mfered rim loned rim nated? ple ared? glazed, carinated rim 'unglazed'chamfered rim?cordoned rim?simple rim? pipkins green glazed	
nfered rim zed'? mbed feet on simple rim	
con type cooking pots glazed ded rim loned rim mfered rim ted rim cauldron type cooking brown glazed —flat-topped rim —cordoned rim —chamfered rim bowls	pots
ical rim slip painting) zontal flange types a, br types including bifid	types a,
ic sic	brown glazed ed rim oned rim fered rim ed rim eal rim ip painting) ontal flange types a, brown glazed —flat-topped rim —cordoned rim bowls —therefore rim bowls —horizontal flange b, d, e

Table 1 contd.

L12	L10	L9-5	L4-3
Red Wares contd. dishes	Red Wares contd. dishes	Red Wares contd. dishes —horizontal flange types a, b,	Red Wares contd. dishes —horizontal flange types a, b,
-wall sided	—wall sided?	c, d —wall sided —horizontal loop handles?	d —wall sided —horizontal loop handles?
	lid	dripping pans —flanged type —unflanged type lids jugs with frilled base	dripping pans —flanged type —unflanged type frying pan lid costrel
	Charle Piels Warr	watering can	watering can
	Orange Glazed Pink Ware	Orange Glazed Pink Ware	Orange Glazed Pink Ware
Buff Ware	Guy's Ware	Buff Ware Guy's Ware chafing dish jugs pipkin	Guy's Ware chafing dish sh with sgraffito jugs
		bowls —horizontal flange —other types dishes	bowls —horizontal flange —other types (one with sgraffito) dishes
		—wall sided	—other types incl. piece with sgraffito.
			Green Glazed Slip Ware
	Cistercian Ware Type I posset pot —decorated	Cistercian Ware Type 1 posset pot	Cistercian Ware Type 1 posset pot
	Stoneware Raeren mugs —inset rim Jacoba copy? 2 handled cup	Type 4 cup Type 5 flask Stoneware Raeren mugs —simple rim —inset rim —rouletting Jacoba copies 2 handled cup? flat base cup Aachen bottle	Type 4 cup Stoneware Raeren mugs —simple rim —inset rim —rouletting
	Siegberg Jacoba type jug Langerwehe	Siegberg Jacoba type jug Langerwehe	Cologne jug —acorn decoration Siegberg
	Other Imported Spanish Lustre Ware Andalusian	Other Imported Spanish Lustre Ware Andalusian Valencian	Other Imported
	Merida Type Ware	Valencian Calatayud Merida Type Ware Slipped Jug Italian? Albarello	Calatayud
	South Netherlands Maiolica Dutch N. French Polychrome	South Netherlands Maiolica Dutch N. French Polychrome French Pegau	South Netherlands Maiolica Dutch N. French Polychrome Beauvais Sgraffito
	Yellow Glazed Jugs	Yellow Glazed Jugs	Flask Type 1 Yellow Glazed Jugs?

since there is no experimental evidence or controls with which to compare them.

In the 'recutting' of the ditches, the normal position for the spoil would be along the edge of the 'ditch' and in this case along the eastern edge, since the western edge was occupied by F6. Natural processes of erosion would mean that this spoil would gradually become incorporated in the new layers filling the ditch and since they would contain material from the layers through which they were cut, cross joins would ensue. Strong cross-join linkages would therefore be expected between L14-13 and L12, L12 and L11-10 and between L6 and L9 (and L10 to a lesser extent) and L8, L7, L5 and L3-4. In fact there are no cross joins between L14-13 and L12 or L12 and L11-10. In the first case this is because the material in L14-13, is abraded very small sherds and in the latter case because of the small amount of material in L12. However, there is evidence that L12 did once fill the whole of F1 because the one cross join with L12 is a small sherd from the void of one of the post holes of F2, and it is difficult to see how it got there unless L12 once covered F2, as L11 now does. There is also evidence for the disturbance of L14-13 since they must be the source of the Roman material in the layers above. The fact that L12 contains only five of these implies that it was laid down rapidly with little chance for the spoil on the side to become incorporated while L11 has none. L10 has 26 which implies a somewhat slower mode of formation (the absence of any cross joins with L12 is a little puzzling). Most of the spoil from L14-13 must have been included in L9 which has 102 Roman sherds, more than all the other layers put together. The numbers drop off rapidly after that (13 in L6 and 14 in all the other layers). Thus the evidence would fully support these two recuttings, even though there are no cross joins.

For the third recut, the following table gives cross join indices:

TABLE 2 L3 L4 L4a L3-4 L5 L7 L8 L6 L9 0 L3 0 L4 L4a 0 113 0 80 0 L3-490 0 70 0 20 L7 42 0 14 126 1.8 0 120 0 0 54 3 65 60 5 77 L6 0 84 3 0 2.7 0 51 L9 O 38 2.5 L10 0 29 3 0 0 49 10 4 18

This index is compiled by adding all the sherds in layer a involved in cross joins with layer b, to all those sherds from layer b involved in cross joins with layer a, dividing by the sum of the self joins from layer a and layer b and multiplying by 100.

Ignoring those layers which have so few sherds that the cross join index is not significant and the various parts of L3/4, the strong linkages are between L6 and L7 and L6 and L4/4a (because latter derived from spoil from cutting of L6), L9 and L6 (suggests L9 was recut — L6 would then be partly derived from its spoil) and L10 and

L7 (suggests recut of L6 impinged into L10 while that of L9 did not). L5 is the only complete exception, implying that, like L11, it was laid down very rapidly. L11, L8 and L5 are all composed predominantly of rubble and contain very little pottery. About one quarter of the pottery in L5 is derived from layers below and a half of that in L8, so that, although the deposition of L8 was different in some respect, otherwise the three layers are similar. There thus emerges the somewhat peculiar picture of repeated attempts to preserve F1 and yet quite clearly deliberate dumpings filling it up. Even layers 10, 9, 6, 7 and 3-4 contain a large element of deliberate dumping, of course, in the large quantities of domestic rubbish contained within them (pottery, bone, shells etc).

There are thus the original cutting and two recuttings of F1 before F6 was constructed. It seems likely that F2-F4 are associated in some way with F1 since the latter respects F2, in its original cutting, though probably its 'recuttings' impinged on it (certainly the second did) and F2 must have been demolished before L12 was laid down in order for the sherd to get into the void.

The function of F2, F3 and F4 is problematical in the absence of a complete plan of their layout but their spatial relationship with F6 may suggest that they belong to a building which F6 replaced. If so, they presumably imply two rebuildings. The building must have been built completely of upright timbers, probably with a tile roof (on the evidence of thin flat roof tiles in L12), and perhaps with painted plaster on the walls (it is difficult to see where else the wall plaster in L14 could have come from it certainly cannot be Roman as it would not have withstood the abrasion the Roman sherds have suffered). It certainly seems unlikely that they were revetments since the normal method of construction for that is to have widely spaced verticals with horizontal timbers between. F1 may have been an attempt to allow surface water to drain away rapidly since the underlying clay would only slowly absorb it. However, the ditch is not below the water table today (though fairly near it at its base) and would hardly have been so in the 15th century, so that water would not have lain in it for long periods.

The sequence in Trench 2 is much simpler since it consists largely of superimposed layers and cross joins do not occur at all. Analysis of the pottery shows two main groups, L9-7 which contains 94% of the Roman material and very little medieval and L6-4 which contain almost no Roman but a large group of medieval pottery.

The distinction between these two groups is even clearer in the building material (where all the Roman material is in L9-7 and all the medieval or later in the upper layer) and the metalwork (which apart from one nail from L7 is confined to the upper layers). It also appears likely that F10 has a different assemblage profile to L6-4 though it is such a small group that it is difficult to be certain. The most obvious distinction is the difference in the quantity of sandy Surrey Wares present. In L6-4 they constitute 71% (by joined units) while in F10 they are only 27%. Since F10 is cut into L6-4, it is probable that some, and possible that all, these are derived from L6-4. The converse of this is that Red Wares are much commoner in F10, particularly pitcher or possible pitcher sherds (27% compared with 6% in L6-4). Thus the L6-4 group is close to L12 in T1, to which it corresponds stratigraphically, in being dominated by sandy Surrey Ware, in fact containing only one sherd of Surrey White Ware but with some Red Wares (pitchers, and unglazed? Cauldron Type Cooking Pots). However, it differs from L12 in having two slipped sherds and particularly, stoneware. F10, on the other hand, must be later (corresponding with L11 in T1) and the presence of brown glazed? Cauldron Type Cooking Pots and Flanged Bowls would suggest a parallel with L9-6 in T1. However, the assemblage is too small to go further.

A problem is however presented by the cross join in the Aachen bottle which has two sherds from T2 (L8 and L5) but is otherwise entirely from L7 in T1 (apart from one sherd from L3-4). The odds against such a cross join seem so enormous, especially since there are no other cross joins in Trench 2, that it is hardly credible. It seems most likely that this is another case of mismarking, certainly with the sherd from Trench 2 L8, since the initial analysis records no stoneware in that layer. This casts some doubt on the status of the stonewares in this assemblage, since apart from these Aachen body sherds (including one non-joining sherd) there is only a Seigburg body sherd which could be earlier than the Aachen. The assemblage may therefore be very close to L12 for the two Slipped Ware sherds with mottled green glaze do not fit easily into any known fabric group. In this case the Raeren sherd in F10 would again distinguish that from

The group from L1 and L2 must be later than F10 which they overlie. It appears to be a mixed layer comprising a few sherds which are contemporary with the L6-3/4 part of T1 (Surrey White Ware, typical Raeren mug, Guy's Ware chafing dish, and unglazed, brown glazed and green glazed Cauldron Type Cooking Pots) but the larger proportion appears to be later but largely too small or too undiagnostic to be closely datable. The three clay pipe stems may be derived from the brick floor above, though one falls outside the range of those certainly from that floor. Since the earlier component of these layers does not occur in the layers below, it cannot derive from them and therefore a layer a little later than F10 must be presupposed, which was completely reworked later to produce L1/2. It is possible that L3 is a relic of this layer but it is difficult to be sure since it contained only 14 small sherds but two were Raeren stoneware and 8 of the other twelve Red Wares.

External dating

It can be seen from the foregoing discussion that T1 contains within it four distinct, but closely related, assemblages. Since they are so closely related it is not to be expected that they span too long a period in time. This makes it difficult to date the different assemblages closely and it will be necessary in the following discussion to

group some of them together.

It has been shown (Hurst 1967) that Raeren jugs can be securely dated to the first half of the 16th century. To the examples given there, can now be added Kennington Palace (Dawson 1973, before 1531) Farnham Castle (Moorhouse 1971b, 1521) and Writtle (Rahtz 1969, before 1521). More recently, evidence has shown that Raeren jugs occur in the last two decades of the 15th century. At the Castle of Ellenburg (Netherlands) they occurred in a context of 1480-90 and at Dover Castle in a context dated to 1483-5 (Hurst, pers comm). It would therefore seem likely that they first appear in England c 1480 or perhaps a little earlier. At the other end of its date range, the terminal date is usually given as c 1550. It must certainly be after 1540 since a number occur at Basing House (Moorhouse 1970) where occupation does not start till c 1540. However, in a painting by Pieter Brueghel the Elder ('The Wedding Banquet') dated 1567-8 (Stechow 1970), a large basketful of typical Raeren jugs occurs. The depiction of so many in a painting of this date suggests that production of them continued well into the third quarter of the 16th century and this is supported by Brueghel's depiction of other frilled base Raeren jugs in 'The Peasant Dance' of the same date. They cannot last much after that for in the later 16th century Raeren was producing quite different vessels with flat bases

Since all but the earliest assemblage within F5 contains large numbers of Raeren jugs, they must be within the

brackets c 1480–c 1570 and the earliest, L12, must predate c 1480. This date bracket is supported by the presence in the same three assemblages of South Netherlands maiolica of which the earliest date is 1485–90 (Bodleian Library Douce MS 219, illustrated MS by the Master of St Mary of Burgundy), and which occur in datable contexts at Whitehall (1532) and Porchester Castle (1521–27, Cunliffe 1971). Since there is none at Basing House (after c 1540) this may suggest its terminal date is earlier than that of Raeren (for discussion see Hurst 1971b: Hurst dates South Netherlands Maiolica to 1475–1540).

Although 1570 was given as an outside date for F5, it can be shown that a number of the types of pottery which distinguish the L3/4 complex from the others were already current in the first half of the 16th century. This is particularly so with the Cologne stoneware for which Hurst (in Moorhouse 1971b) has argued an initial date of c 1500 on the basis of its occurrence at Wharram Percy in Yorkshire which has a desertion date of c 1510 and at Farnham Castle in a pit of 1521. A sherd also occurs at the Manor of the More in a context of 1521-9 (Biddle et al 1961, fig 12:12). On its own this would not be completely convincing but it is supported by the fact that green glazed Slipped Ware and Beauvais sgraffito both occur at Whitehall all in a context of 1532 and sgraffito decorated chafing dishes in Guy's Ware occur there too and at Kennington in a context of 1531. Thus all these three types, which only occur in the latest assemblage in F5, are all current by 1530.

Thus the assemblages other than L3/4 in F5 must predate 1530, are probably earlier than 1520 and may go back before 1500. Establishing a terminus ante quem for the L3/4 assemblage is more difficult. As has been said, it is basically so similar to the two preceding assemblages that it is unlikely to be very much later. The absence of Saintonge chafing dishes which are common in the 16th century would suggest that it is not very late in that century. These are difficult to date but type 1 examples occur at Quilters Vault, Southampton, in a context believed to be of the second quarter of the century and in an early 16th century context at Dumbarton while later types occur in contexts of c 1550 (Amsterdam) and the late 16th century (Cuckoo Lane D, Southampton Hurst 1974). The latest likely date would thus seem to be 1530-40. It may well be before 1532 because the Guy's Ware jugs at Whitehall 1532 pit are bibbed, a common type in the London area but which does not occur in F5.

Thus date ranges for the four assemblages can be suggested as follows:

L12 before c 1480 L10/11 c 1480-1520 L9/5 c 1480-1520 but later than L10/11 L3/4 1500-1530

It could be objected, in respect of the last group, that it also contains some much later material. In fact, L3/4 itself only contains 21 sherds which have been described with the later pottery. This is less than 3% of the sherds in L3/4 which implies that they are more likely to be contaminants than contemporary. Four, at least, of the sherds are included in this category for safety since they cannot be dated at all, and five others are included because the colour of the glaze was felt to suggest a late date for them, though this is somewhat subjective. Further, all but one are small sherds which is a characteristic of contaminants. The reason for the occurrence of these sherds can probably be sought in the difficulty that was experienced in defining the edges of Pit 1 and Pit 3 and this would explain why the contaminants only occur in L3/4, and not in lower layers, since these and all the other intrusive features only intruded into L3/4. The contaminants in L4a, may derive from a possible intrusion

right in the northern section of the trench. One other contaminant can be detected in the thumbnail sherd of Guy's Ware in L10, since this is so small and is the only sherd of this fabric in L10.

Unfortunately there is, at the moment, no certain external dating evidence for the site for the relevant period and the absolute dating must therefore depend largely on the pottery (a possible piece of external dating evidence is discussed below, see p 62). The only other piece of dating evidence is provided by the cloth seal from L4a. If the R is the royal initial, as presumably it must be if this is a royal customs seal (as the royal coat of arms implies) then it must be Richard III and date to 1483-5. The rather exaggerated and bulbous serifs on the R are paralleled in 15th century coins and the rose is a particularly common symbol of the Yorkist dynasty (Archibald, pers comm), which clearly supports a date in Richard's reign. This is totally consistent with the pottery dating but does not help to refine it any further (especially as the seal could be residual in L4a, derived from a lower layer).

The dating of L1-2 and the Robber Trench of F6 is rather difficult as the two layers were very thin and the material in them largely residual and because some material from the robber trench was not kept. However, there can be little doubt that the building, of which F6 was part, was demolished before 1704, because a lease of that year refers to Great Maze Pond, then New Street (GLRO, St Thomas' Hospital Leases S 16/17), though one of 1707 (S 17/15) still describes it as the 'intended street'. Since F6 is less than 10 ft from Great Maze Pond, most of the building to which it belongs must underlie that street. The same lease (S16/17) states that houses fronting New St are to be built within a year, and presumably these occupied the area of Trench 1. The building or occupation of these houses might be the cause of the digging of Pits 1 and 3. The average stem bore diameter for Pit 3 (ignoring the one 3.25 mm as lying well outside the range) is 2.55 mm which according to the Binford formula (Walker 1968) in a metric version (Bloice, pers comm) would give a date of c 1710. The three bowls have a much wider date range of 1700-70 (Atkinson and Oswald 1969, 179) though Atkinson has suggested a date of 1720-40 (unpublished) for sub type 25/2, 1720-50 for 25/5 and 1710-20 for sub type 25/1, of which an example occurs in Pit 1. These would fit well with the stem bore date.

The problem is that the Surrey White Wares present, in Pit 3 in particular, would seem to date, where it is possible to date them, somewhat earlier. The best preserved of the pipkins is closely paralleled at Hawley in being ribbed all over, having its greatest girth at its mid point and in the rim form (Holling 1971, 76) and Holling believes that Hawley dates to early to mid 17th century. The other pipkin rims are also paralleled at Hawley or Farnborough Hill whereas none are paralleled at Ash which is believed to post-date Hawley. In fact pipkins with their maximum girth low down already occur before 1645 at Basing House (Moorhouse 1970, fig 10:1) and c 1642-5 at Farnham Castle (Moorhouse 1971b, fig 2: 28) though at both sites ribbing is also common. The rolled-under rims on the flanged dishes are paralleled somewhat at Basing House (Moorhouse 1970, fig 14: 116-7) and the hammer-headed one too. Other parallels with Basing House, Ash, and the Cove (Haslam 1975) dated to the second quarter of the 17th century are noted in the descriptions. Likewise the delftwares, which, though they occur mainly as contaminants in L3/4, are presumably derived from Pits 1 and 3, would fit better in the 17th century than the early 18th. Not because individually they could not be early 18th century but because by the early 18th century the type 3 Dish is becoming rare and any group of that date should be dominated by plates and domestic vessels which are completely absent here. The quantity involved is quite small and it could be that it is an unrepresentative sample, were it not that a similar problem has arisen with a very much larger group at New Guy's House (1965 Muller pers comm). Unless it is assumed that either the dating of Surrey White Wares or clay tobacco pipes is inaccurate by over fifty years, and there is no evidence to support this, this dichotomy does seem to exist, but since the evidence bearing on it is more plentiful at New Guy's House, its explanation is better discussed there.

By 1799 (Horwood's Map) the area of Trench 1 was included within an open space, presumably attached to Guy's Hospital and it was not built on again till 1903 when a warehouse was erected, to which the cellar presumably belonged, and with it Layers 1 and 2, their late date being confirmed by the inclusion within them of white earthenware sherds.

The dating of Trench 2 follows closely that of Trench 1. It has been shown above that L6-4 closely parallels L12, especially if the Aachen stoneware is ignored, so that a date of before 1480 (for its deposition) would apply there too. F10 is a little later, perhaps contemporary with L9-5, and therefore c 1480-1520. L1 and 2 comprise two elements. The one a little later than F10, but also contemporary with L9-5, and a later element not closely datable but perhaps 17th or 18th century. If the pipe stems are taken as contemporary, they might suggest a period not far removed from the brick floor. This is datable by the tobacco pipe fragments it contained. There were five type 26 which are usually dated c 1740–1800 (Atkinson and Oswald 1969, 179), one type 25? (1700-70), one type 27? (1780-1820) and one type 15 (1660-80). Apart from the odd 17th century example, these would together indicate a date towards the end of the 18th century. This is strongly supported by the mean stem bore diameter of 1.54 mm, which on the metricated Binford formula would give a date of c 1783. The area seems to have been built up from at least the second half of the 17th century (Lea and Morden's Map and GLRO lease H1/ST/E/S10/28) though the latter may imply that in 1653 it was still only a garden. The later element of L1-2 and the brick floored cellar must belong to these tenements. The padstone, which occupied most of Trench 2, must belong to the warehouse built in 1875, before which Trench 2 was within the open space within which Trench 1 was situated.

Position in local sequence

Trench 1 provides evidence for the erection of a wooden building in the middle or later 15th century, its renewal perhaps twice, and its conversion to stone c 1480 and to brick c 1500-30. This is important as the earliest evidence for expansion of Southwark from its nucleus along Borough High Street, to which, it is believed, it was confined in the Middle Ages, onto the lower lying clay lands. All the other evidence for its expansion falls in the period 1550-1650 (Dawson 1972, 7). It is also somewhat earlier than the usual date for the recovery of medieval towns from the decline which set in after the early 14th century and demonstrates not merely recovery but expansion into areas apparently not occupied in the early Middle Ages.

This is particularly important in relation to the evidence from Trench 2. Here there is no evidence for any buildings being erected before the last two decades of the 18th century. Instead there is a series of clay layers succeeded by earth and clay layers. Both sections can be dated to the later 15th century and the whole sequence seems to have been laid down fairly rapidly. Since the main constituent is clay and the lower part contains a large amount of very abraded Roman pottery, it seems likely that this is water lain, and that most of the pottery has been rolling around for some time and had not been eroded immedi-

ately before. However, there is a little which is fresh and so may have been, and this applies also to the 15th century pottery. There is evidence elsewhere in Southwark for a flood in the late 15th century (Bankside Power Station (Marsden 1971, 25–7. His date of c 1500 for the material from L3 is probably a little too late) and Hopton Street (personal observation — clay here only post 1200)), and in Trench 1 at New Guy's House 1967 (Muller, pers comm) a similar clay layer with abraded Roman sherds was found.

Evidence for this flood may be provided by an Inquisition held at the Sheriff's tourn (court) in Southwark in April 1464 (King's Bench 'Ancient Indictments' 306/2. Transcript publ in SyAC 31, 1918), at which the jury presented certain defects caused by the default of the Abbot of Bermondsey, causing flooding in Bermondsey and Rotherhithe. Many of these defects relate to drainage of landwater but seven breaches in the river wall are mentioned. The effect of both types of defect is flooding which would produce the same effect in the archaeological record. However, although 1464, or rather 1463, would fit quite well with the dating evidence for L9-7 or L6-3, of T2, the equation must be treated with reserve. The documentary evidence implies that trouble with ditches flooding or the river overflowing was quite common in Southwark. For example there is a whole series of cases about ditches overflowing and defects in river walls in the Coram Rege Rolls of the third quarter of the 14th century and in the Bermondsey Annals there are references to the Breach of Rotherhithe (1376) and Bermondsey (1416) though in neither case are they specifically to floods. There is a specific reference to a flood in 1448 (Gardner 1880).

The gravel surface between L9 and L8 in Trench 2 may imply that the deposition took place over more than one year, if it be related to the winter flow of the river (a sequence of alternating clay and gravel layers at Montague Close Trench 8 would seem to be seasonal in this way). This would not be unexpected since, until a breach was sealed, the river would be able to flood the area at every high tide (since it is much below probable high tide levels of the period). If there are two floods it would be tempting to equate L9-7 and L13-14 with 1448 and L6-4 and L12 with 1464, but much more evidence will need to be forthcoming before this can be advanced

with any certainty.

The highest surviving point of L4 in T2 is 5.4 ft (1.62 m) OD, compared with only c 2.8 ft (0.81 m) for the highest point of L12 in T1, but the upper surface of L12 was still rising at the eastern edge of T1. The surface of the 15th century clay at Bankside was c 6 ft (1.83 m) OD (Marsden 1971, fig 5) as was the top of what was probably the same clay at Emerson Place (Lacaille 1966, fig 4). A similar layer of clay at New Guy's House, on which a 17th or 18th century layer was deposited, also had its top at 5 ft (1.5 m) OD (Muller, pers comm). On Bankside also the 15th century material overlay clay which filled in channels in sand banks which, with the clay, overlay the Lower Floodplain Terrace Gravels whose top lay at c - 2 ft (0.6 m) OD. There is less evidence for 'sand banks' to the east of Southwark, but Trench 2 at New Guy's House 1965 (Muller, pers comm) had sand at its base. Thus the clay here below L9 (T2) and L13-14 (T1) is probably the same clay as underlay the 15th century deposit at Bankside. It survives to c 2 ft (0.6 m) OD (T1) and 1.3 ft (0.4 m) OD (T2) compared with c 3 ft (0.9 m) OD at Bankside and the 15th century flood deposits clay on this surface. At this period ground levels in the nuclear settlement, along Borough High Street, were at, or more probably above, 10 ft (3.05 m) OD, so that the settlement must have stood about 8 ft (2.4 m) above the areas to the west and east of it, in the earlier 15th century.

This may lead to reconsideration of the dating on some adjacent sites. The mere presence of Roman pottery in a layer, even of only Roman pottery, cannot, on its own, be taken as convincing evidence of its Roman date. On this site there were very small quantities of later pottery associated but these could have been contaminants, though there were rather a lot in Trench 2. Even without these, however, the layers could be attributed to the post-Roman period due to the abraded nature of the sherds and the relationship with the later layers indicating a temporal connection. But they were, at first, regarded as Roman.

For a detailed discussion of the various fabric groups See M 213-40

Cultural significance

This section will consider what the material, mainly that in Trench 1, tells us about the establishment which produced it, which, as we have seen, is likely to be the structure of which F6 is one wall, and about what went on in this establishment. As has been shown, this establishment appears to be domestic. F6 demonstrates that it was built of stone and later of brick, and the tiles which occur throughout Trench 1 that it was roofed with thin red roofing tiles with pegholes, the normal type in southeast England. The floor tiles show that two different floors are involved, one of plain yellow and green glazed tiles and the other of decorated maiolica tiles, and the nails may imply wooden floors too (see above p 56). These imply some differentiation between rooms in the structure, the plain tiles perhaps being used in service room(s) (kitchen, buttery, etc) and the decorated ones in the living quarters. This suggests an establishment of some pretension, which the presence of maiolica hexagonal tiles indicates intrinsically, since these are otherwise known only from an abbey in the Netherlands (Herckenrode), royal palaces (Whitehall and Greenwich (Dixon pers comm)) and a great house (The Vyne, Rackham 1926) all indicative of great wealth. Other imports may also be indicative of wealth. For instance there are five or six vessels in South Netherlands maiolica whereas from the 13 years excavations at Southampton (Platt et al 1975, nos 1156-8 and 1173-5) only six vessels of South Netherlands maiolica are published (plus no 1216 of a little later date and though there are some which are not published (ibid 129, 185 and 311) this hardly changes the picture radically). Since maiolica is a fine ware and an import, one must assume that it was expensive, relative to other pottery (though not, of course, necessarily absolutely) though single vessels do occur on sites of low social status (see Crossley and Ashurst 1968, 38). Likewise Calatayud occurs at Whitehall Palace and Pleshy Castle, which again implies high social status, even though it is known as 'poor man's lustre'.

It is possible, therefore, that the establishment in question belonged to a member of the nobility. It would not be the only example of the nobility building houses in Southwark at this period for the Brandons (later Dukes of Suffolk) built a house in Borough High Street in the last decades of the 15th century. However, if this were so, it seems likely that the name of the owner would be known. The wide range of imports might suggest widespread connections in Atlantic Europe which may be indicative of trade. A more direct piece of evidence for the establishment being that of a merchant is the lead bale or cloth seal. These are used to tie round the necks of sacks, usually said to be of cloth, and impressed with the royal coat of arms and insignia by the Customs (the evidence for all except the cloth is intrinsic to the seals). It therefore seems more reasonable that the establishment is that of a merchant, perhaps involved in the wool trade. The figural jug could be taken as symbolic of this social class. The costume displayed by it is fairly grand but is

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not that of a noblewoman since it lacks jewelry round the neck and purses at the waist. This is not to suggest that it was meant to represent a particular individual, though, since this jug is almost unique, it must be a bespoke pot and it is therefore possibly modelled on a person.

However, documentary evidence shows that in the late 16th century St Thomas' Hospital owned the whole of St Thomas' parish in which both trenches are situated and there can be little doubt that this ownership stemmed from the original foundation of the separate hospital in 1215. Although in the 16th century the area was leased out in small plots, there is no evidence for this happening before c 1536 except for one plot near Borough High Street (this may, however, be due to gaps in the records) and it can be shown (Dawson, Estates of St Thomas Hospital in Southwark, unpublished) that a little to the west of T1 (approximately below the courtyard and west wing of Guy's Hospital) lay the communal domestic apartments of the Master and Brethren of the Hospital from at least 1388. It is possible that these buildings stretched far enough east to include F6 in T1 and if so the material in T1 would have come from them. The communal buildings would no longer be necessary after the dissolution of the Hospital as a monastic establishment in 1540 but documentary evidence shows that rooms within the complex were being leased out from at least 1537 (GLRO H1/ST/E/S1/3) and it may be that in its last years (after 1528?) its communal life ceased to exist (Parsons 1932, 115-7). This would fit well with the terminal date for F5 in T1 (assuming that the dump has not been significantly truncated). The quantity of glass in the L3/4 group may suggest a building in decline. The association of distilling apparatus with monastic or collegiate establishments has already been noted (M 252). The ditches which occur in both trenches are clearly not boundary ditches (since they do not tally with the boundaries of the plots which can be plotted in the 17th century) unless they demarcate fields into which the area was perhaps divided in the Middle Ages.

It should be stressed, however, that all the imported pottery, except for the Raeren stoneware mugs, is quantitatively insignificant and it could be that their number is merely a function of the large size of the group (the absence of quantitative data from other sites makes this difficult to judge). Certainly the ratio of local to imports is lower than at Southampton (Platt et al 1975, vol 2, 30) but this is probably a general difference between the two cities, for in London locally produced pottery has always dominated the market. Thus while enjoying the use of imports (nearly all fine wares used at table or in the living quarters), the basic domestic economy is dependent almost totally on local products.

It could be argued that the presence of large quantities of pottery and the scarcity of metal objects apart from nails implies not wealth but rather a lack of it. Pottery is certainly a cheap material and the scarcity of it in sites. of high social status in the Middle Ages has been attributed to the use of metal vessels (Dawson 1973, 277) but Guy's does not seem very different from the Whitehall 1532 pit group and this consideration, even if true for the Middle Ages, may not be operative after it. Nevertheless the quantity of metal objects other than nails is very small. Two factors which might contribute to this is the greater durability of metal vessels when in use and the greater durability of pottery afterwards. The answer lies really in relativities but comparison with other sites is usually impossible because of a lack of quantitative data and must remain a subjective evaluation since it is difficult to create a suitable numerical index for comparing

quantities of pottery and metal work. However, compared with Kennington Palace (Dawson 1973) there would seem to be many fewer metal objects in relation to the quantity of pottery and particularly a complete lack of any objects of dress (particularly buckles — the one which occurs is in a later pit). This may, however, be connected with the origin of the material. For, if they are indeed derived largely from the kitchen, they would compare with the kitchen group from Kennington (material from Structure C) which was the largest group of pottery on the site but contained no metalwork. However, evidence that it belongs to a grade of wealth below Kennington is provided by the complete absence of lead which might come from roofs or windows (cf Dawson 1973, 144-6 and Rahtz 1969, 85) which, if it had been present in the building, would have occurred with the building material and, as metal, would have been collected. It is also distinguished from Kennington and Writtle by the absence of any jettons. These are usually regarded as casting counters for arithmetical calculations using the exchequer board (Barnard 1916 and Berry 1974). If this is indeed a monastic establishment (the hospital being run by Augustinian canons), calculations would be an important aspect of its life, because of management of estates. This would, perhaps, support the contention that jettons are really a form of currency (Dawson 1973, 117) which would not bulk large in a monastic establishment. But it could also be explained if the material is derived largely from the kitchen (though at Writtle the kitchen produced six jettons and two coins). See M 261-71

Conclusion

This report has included an extended interpretation of the material recovered, too extended some might think. But artefact studies have now reached the stage where the basic sequential development has been, in most areas, worked out. Progress will only come from attempts to fill in the interstices of this framework with small pieces of infill, a much less glamorous stage than building the initial framework and requiring an attention to detail which seems to come hard to archaeologists. An attempt has also been made to interpret these finds as the product of economic, social and technological conditions at a particular time and place, both in their 'production' and use. This is a field in which surprisingly little has been attempted before, which makes it all the more difficult. The important point about this type of interpretation apart from the fact that it is, and is likely to remain, somewhat speculative, is that it requires large samples. Not only does this mean large samples from a particular site but also large numbers of sites. Repetition of a particular pattern may appear unexciting, and even be regarded as not adding to knowledge, but it is absolutely essential, if this type of study is to be placed on a sure footing. It is lucky that there are, for the period with which we are principally concerned at Guy's, a fair number of comparable groups, many of which are quite large. But even so, few are published and all are defective in that selectivity clearly entered into the collecting policy and the principles behind this are usually unknown. I must confess to erring in this way myself at Guy's since building material was only haphazardly collected, perhaps the worst way there is, and the faunal material was recovered in arbitrary samples which were far too small.

In the present 'rescue' situation, these concepts may be felt to be daunting, even impossible. Yet without them, artefact studies, and with them archaeology as a whole, will stagnate and even fossilize.

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