
THE POTTERY

ACKNOWLEDGEMENTS

A pottery report inevitably involves consultations with a large number of people and to all who have assisted I am grateful. In particular to Mr B R Hartley, Mr R Hunter, Miss K Kilmurry and Dr D Williams for their contributions; to Mrs M D Lobel for documentary references relating to rubbish disposal; to Miss M Day for initially drawing the pottery from the site; to all members of the Unit who helped improve and refine the report and especially to Mr J H Williams for help in many ways.

The following identified individual sherds and provided useful suggestions: Dr H Bamford, Mr D and Mrs E Baker, Mr A Carter, Mr J Cherry, Dr G C Dunning, Mr B Durham, Mr M Farley, Mr D Hall, Miss J Hassall, Miss M Healey, Dr R Hodges, Mr J G

Hurst, Mr D Jackson, Miss C Mahany, Miss M Mellor, Mr W R G Moore, Mr D C Mynard and Mr T Pearce.

The collections of the following museums or units were made freely available: the Ashmolean Museum, Bedfordshire County Council Archaeological Unit, the British Museum, Coventry Museum, Kettering Museum, Leicester Museum, Lincoln Archaeological Trust, Northampton Museum, Nottingham Museum, Oxfordshire Archaeological Unit and Stamford Archaeological Unit.

In addition I wish to thank all those others too numerous to mention individually who have helped at various times.

INTRODUCTION

by M McCarthy

The St Peter's Street excavations have provided the largest quantity and the greatest range of pre-Conquest and medieval pottery so far recovered from Northampton and the county and its importance is greatly enhanced in that it can be firmly linked into a stratigraphic sequence which extends from the Early or Middle Saxon period to the 17th century.

The development of the pottery can be broadly outlined as follows. Before the 9th century the local wares are characterised by very simple forms in a hand-made, gritty fabric which can be matched among the decorated funerary wares in local Early Saxon cemeteries. It is possible, perhaps likely, that this type continued in use without a break until some time in the 9th century although, unlike in East Anglia, a definite Middle Saxon ceramic horizon cannot as yet be defined, despite the occasional sherds of Ipswich type and others in some aspects reminiscent of Maxey Group III wares.

At a date probably in the later 9th century competent potters using a throwing technique and proper wheels are locally established and act as the main suppliers to the town until the 11th century. The character of their cooking pots and bowls, together with the regional imports, at a time which is one of the most critical in Northampton's development, provide a strong link with the rest of the Danelaw. After the Conquest, probably in the late 11th or early 12th century, the character of the pottery begins to change with the introduction of a wider range of shapes, larger cooking pots and subtle differences in manufacturing techniques. By the 13th century some if not all the old kilns had been supplanted by newer industries which at times show a marked degeneration in potting ability and which owe little or nothing to existing traditions. The marked increase after the Conquest of wares from Oxfordshire, Buckinghamshire and Bedfordshire and a lack of anything definitely west Midland in origin may reflect the main areas of economic interest although, as is to be expected in a shire town, pottery from all directions is represented.

The transition from essentially medieval to post-medieval wares is very imperfectly understood at present due mainly to a dearth of good sequences and a lack of Tudor kiln sites. Even so, the pottery from Houses 4 and 10 suggests that elements of post-medieval traditions can, perhaps, be discerned in some aspects of Potterspurty wares and Types W20 and W29 as early as the 15th century.

Over 24,000 sherds were recovered from the site of which 11,685 or 135kg were stratified in Houses 1-4 and 7-10. Apart from some pottery in areas E and N, the remainder is regarded as unstratified because it could not be related to the stratigraphic sequence, coming either from recent levels or the general garden deposits, such as lay behind Houses 2 and 3, and which were much disturbed in medieval times.

Nearly all the pottery was washed, marked, bagged and boxed during the course of the main excavation in 1973-4 on days unsuitable for outdoor work. After the excavation the pottery was processed on pre-printed sheets and quantities recorded against codes describing vessel types and fabrics. The processing involved first a layer by layer examination of all the pottery followed by a phase by phase viewing. The initial sorting involving 105 boxes (425 × 230 × 180mm) took approximately four months to complete. Detailed correlation of the ceramic and structural analyses was only begun once the structural phasings had reached an advanced state.

The report consists of the following parts:

- i a gazetteer of all ceramic types found on St Peter's Street.
- ii a detailed layer by layer description of all the stratified pottery.
- iii house/phase summaries.
- iv a catalogue of illustrated pottery.
- v a brief synthesis.
- vi an appendix by R Hunter.

The gazetteer is an attempt to define in a broad sense ceramic types taking account of fabric and form characteristics and including a summary of the dating evidence for each.

The description of the pottery is a codified account of the ceramic contents of every layer which can be either definitely or tentatively assigned to a phase. In the description the order of stratigraphic data, i.e. house, phase, layer and layer type, follows that in the structural layer list. The order of ceramic data is as follows: number of sherds, minimum number of vessels, fabric group, vessel type and number of sherds per vessel type, and illustration number. Italics have been used for all quantities. The ceramic types are described in the gazetteer. The vessel types are codified for the purposes of the description in the following manner:

A	cooking pots	E ₁	lids
B	bowls	E ₃	chafing dishes
C	jugs—general	E ₄	costrels
C ₁	tripod pitchers	E ₅	fish dishes
C ₂	bottles	E ₆	curfews
C ₃	cisterns	E ₇	miscellaneous
D	lamps	E ₈	storage jars
F	cups, general	U	uncertain
F ₁	lobed cups		
F ₂	Cistercian ware cups and tygs		

A combination of letters in the description, e.g. ABC, indicates the degree of uncertainty as to vessel form—in this case a cooking pot, bowl or jug—and often means that the sherds have no features diagnostic of shape. The following is an example of how the description should be read.

235 G 159 22 T2 A12/B1/C17/ABC128/DE,1 155-6
reading: Layer 235, general, 159 sherds, minimum 22 vessels, ceramic

type T2, cooking pot 12 sherds, bowl 1 sherd, jug 17 sherds, cooking pot, bowl or jug 128 (probably featureless body) sherds, lamp or lid 1 sherd, see illustrations 155-6.

Codes used in column 2 are: C — construction trench; D — depression; F — floor; G — general; H — hearth; M — ditch or gully; O — other; P — pit; R — robber; T — post-hole or slot; W — wall; X — destruction level; Y — yard; Z — Grubenhaus.

A phase summary is appended to each house description. The summaries consist of a table of sample sizes and ceramic types followed by a brief account of the contents of each main phase or sub-phase, drawing out points of particular interest for dating purposes.

The catalogue of illustrated pottery also follows the same stratigraphic sequence as occurs in the structural layer list and the description of the pottery. After the contextual information the ceramic type is followed by the colours of the interior, core and exterior (as in the table below). For example:

26 4C 551 W1 3/9:3:3

Illustration no. 26, Phase 4C, layer 551, ceramic Type W1, interior light grey or white, pinkish white to very pale brown; core light grey; exterior light grey.

No attempt has been made to describe all the subtle variations in colour which occur on the pottery. The colour descriptions which occur both in the catalogue and in the gazetteer are intended only as a general guide to those most prevalent on the sherds. The colours are defined by reference to the Munsell system. The hues R, YR and Y and their names are quoted from the 'Munsell Soil Colour Chart' (1973). The names for hues G and GY, taken from the 'Munsell Book of Colour' (1973) have been improvised by the present writer in the absence of Munsell names. These terms appear in the following table in inverted commas.

Colour number	Name	Hue
1	black	YR
2	grey	YR
3	light grey	YR
4	weak red and dusky red	10R
5	red	10R—2.5YR
6	brown, dark brown and yellowish brown	YR
7	reddish brown	YR
8	reddish yellow	YR
9	white, pinkish white and very pale brown	YR
10	yellow	YR and Y
11	olive, olive brown	Y
12	'green yellow'	7.5GY
14	very dark brown and yellowish brown	YR
20	'pale blue green'	2.5G

A detailed assessment of the medieval pottery in Northampton cannot be attempted on the basis of St Peter's Street alone and must await the analysis of material from other sites, notably the Castle and Greyfriars. The synthesis is an attempt to draw general conclusions about the quality of the evidence, technology and socio-economic factors revealed by the pottery on St Peter's Street. Undoubtedly discussion of the ceramics could be carried a good deal further but it is felt that more comparative data not only from Northampton but other Midlands towns is required before this major research project can be satisfactorily undertaken.

The appendix is a summary by Mr R Hunter of neutron activation analyses carried out at the University of Bradford chiefly on St Neots type wares and limited quantities of post-Conquest calcareous pottery.

GAZETTEER OF CERAMIC TYPES

by M McCarthy with contributions by K Kilmurry and D Williams

Ten main fabric types were recognised and labelled P to Z. Types P, R, S and Z are chronological terms referring to prehistoric (P), Roman (R), Early and/or Middle Saxon (S) and post-Tudor (Z; additionally W17 and X2b are 17th century). These categories, together with V, X and Y account for less than 8½% of the total stratified pottery. U, unidentified, accounts for less than 2% but the two main divisions, T and W, comprise 89%.

Types P, R and Z are not described individually in the gazetteer but, where possible, they are identified in the pottery description as, for example, 'Drag.37 Cent.Gaul Ant.' or 'Staffs. press-moulded dish'. The excavations provided no basis for a detailed classification of these types as the quantities recovered were extremely small.

Type S has five main sub-divisions of which S1 and S2 are certainly Early or Middle Saxon. S3 is probably Middle Saxon though there are affinities with St Neots type ware (T1) and S4 may be Saxon though here there are affinities with local Iron Age wares. S5 includes Ipswich wares and, possibly, some Roman material.

Type T is predominantly calcareous, the inclusions showing in the core and on the surface as white or grey specks. The presence of calcitic material in quantity probably indicates a kiln source on or close to the Jurassic system and most of the sherds in this fabric may be regarded as local to central Northamptonshire.

Type V, intermediate between Types T and W, contains a mixture of quartz sand and calcareous material though the latter is often only a minor element.

Type W is sandy and virtually entirely non-calcareous. The sub-divisions are based upon a variety of factors including quantities of sand, colour, surface appearance and form. It is thought that many of the sub-groups are non-local and have originated from somewhere off the Jurassic system, partly because of the absence of calcite and partly because of other factors such as rarity or aspects of form and decoration. For the medieval pottery in general the presence or absence of calcareous inclusions can be used as an indicator of a local or non-local kiln source but the rule is not invariable as can be seen with Northampton ware (W1), some Saxon wares (S1,2) and the local Roman grey wares.

Type X is a miscellaneous category with two main sub-divisions. Stamford ware (X1) is placed in this rather than the W category because most of the sherds that can be firmly attributed to Stamford origin contain very few inclusions and have a texture very much finer than most of the other sherds. Type X2 comprises Cistercian ware (X2a) and the later Midland Black wares (X2b) and these too occasionally contain quartz sand but in very small quantities. The fabric, like Stamford ware, is very fine.

Type Y is a general term incorporating all continental imports ranging from possible pre-Conquest red-painted wares (called X1-Y), possible French grey wares, resembling Class X1 wares, and a post-Conquest Rouen jug handle, to south Netherlandish maiolica and German stonewares.

The individual entries in the gazetteer are arranged in a standard sequence.

Heading: The type code is followed by the name by which it is commonly referred to in the literature, e.g. W1 (Northampton ware). The date is the broadest likely range based on stratigraphic considerations on St Peter's Street. The importance of the type is assessed as either major or minor and its origin indicated as local, regional (non-local) or foreign. This is intended as a general guide only. Clearly some types such as Potterspury ware (W18) can change their status from being a minor to a major type or vice versa, and other difficulties arise.

General comment The kiln location, if known, and other studies relevant to the fabric type, together with references, are indicated.

Fabric Manufacturing technique and general appearance are described. The vessels are either wheel-thrown or hand-built, usually coiled. Other surface indications of the manufacturing process such as the presence of knife-trimming are also noted. The general appearance covers: hardness described as either fairly soft, hard or stoneware; surface texture—smooth, rough or harsh; fracture—smooth, rough, hackly or laminated; thickness of body sherds measured in millimetres. Other aspects of the general appearance include decoration and the presence of glaze.

Colour For description of colours see page 152.

Inclusions Although lacking a petrological training the writer has, with a few exceptions, identified the inclusions using a binocular microscope ($\times 20$), dilute hydrochloric acid and the 'Key to the Identification of Common Inclusions in Pottery' (Peacock 1976). The inclusions are described by frequency, that is plentiful, common, rare or none, and type (e.g. quartz). The grains have not been measured except in occasional instances where they are unusually large, and the degree to which they have been sorted is not noted unless there are obvious factors requiring comment. There is very little indication of the extent to which the inclusions can be regarded as deliberate additives rather than a natural constituent of the clay.

Form Despite the almost infinite number of subtle variations in shape, the assumption has been made for descriptive purposes that only a few are significant. These are defined below under the heading cooking pots, bowls and jugs which account for most of the vessels recovered and which exhibit the greatest diversity of shape (Fig. 79). The reader is referred to the illustrations for further specific examples, for instance, a reference to a bifid rim may be followed by (386,410).

Date Dating is based upon stratigraphic evidence from St Peter's Street and the reader is referred to individual house/phase summaries for details. The dates quoted in the gazetteer refer primarily to phase or individual contexts, whichever is relevant, and then to evidence from elsewhere. The use of parallels from other sites both in Northampton and in the county has been deliberately kept to a minimum especially for local wares as limited sample sizes or insufficient contextual data render comparison difficult if not invalid. Greater use of parallels has of necessity been adopted for many of the regional imports though these too have been treated with caution because of the inherent difficulties of identification especially from published descriptions.

S1 c. AD 400-900 Major local and regional (?)

This type, by far the commonest of the Early-Middle Saxon wares on St Peter's Street, can be distinguished from local Iron Age wares by the black, gritty nature of the fabric. Although the term S1 embraces several fabrics (see below) it has been retained because of the difficulty in distinguishing the sub-divisions in hand sample. S1, therefore, embraces all black, gritty hand-made types believed to be Early or Middle Saxon in date.

Fabric Fairly hard, smooth to harsh texture and rough to hackly fracture varying from 5-10mm thick. Some sherds are burnished on one or both surfaces but others are uneven, fingered and extremely harsh to the touch. The colour is generally black throughout but tinges of brown on the surfaces do occur occasionally. For the inclusions and further comments see Dr Williams' report below.

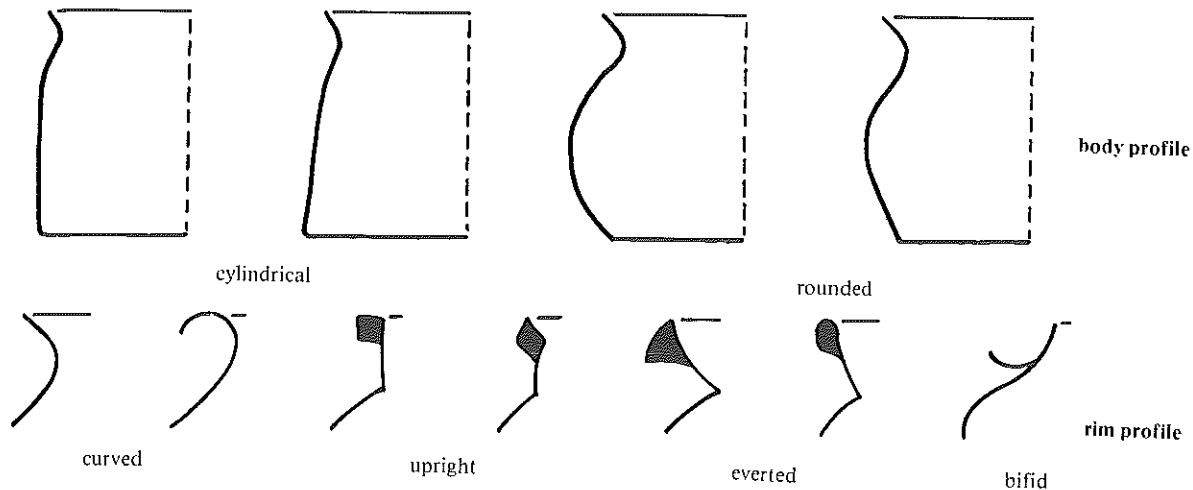
Form The only features indicative of shape are a few small very simple, upright (317-9, 329, 651) or very slightly inturned rims. The vessels are hand-made, probably coiled and are likely to be small and globular in shape.

Date Most of the sherds from St Peter's Street were found in Phases 1-3 and stratigraphically earlier than the Late Saxon Phase 4. The fabric can be matched on both the stamped and incised sherds from Chalk Lane, Northampton and in local Early Saxon cemeteries (as at Stamford Road, Kettering, for example). The terminal dates suggested above must be regarded as tentative. There are no good late Roman sequences from the area but S1 sherds have been found in field-work on sites which also produce Roman pottery and building materials (pers. comm. Mr A E Brown) so that some

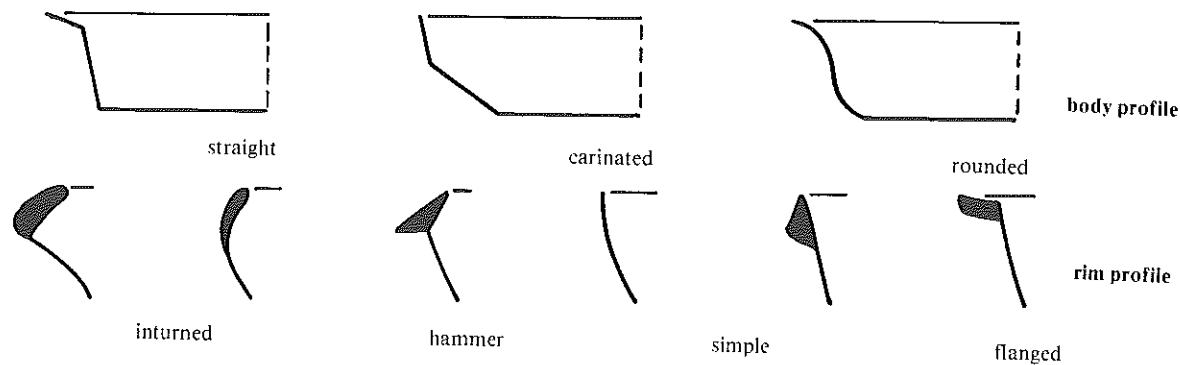
Main pottery forms

Fig 79

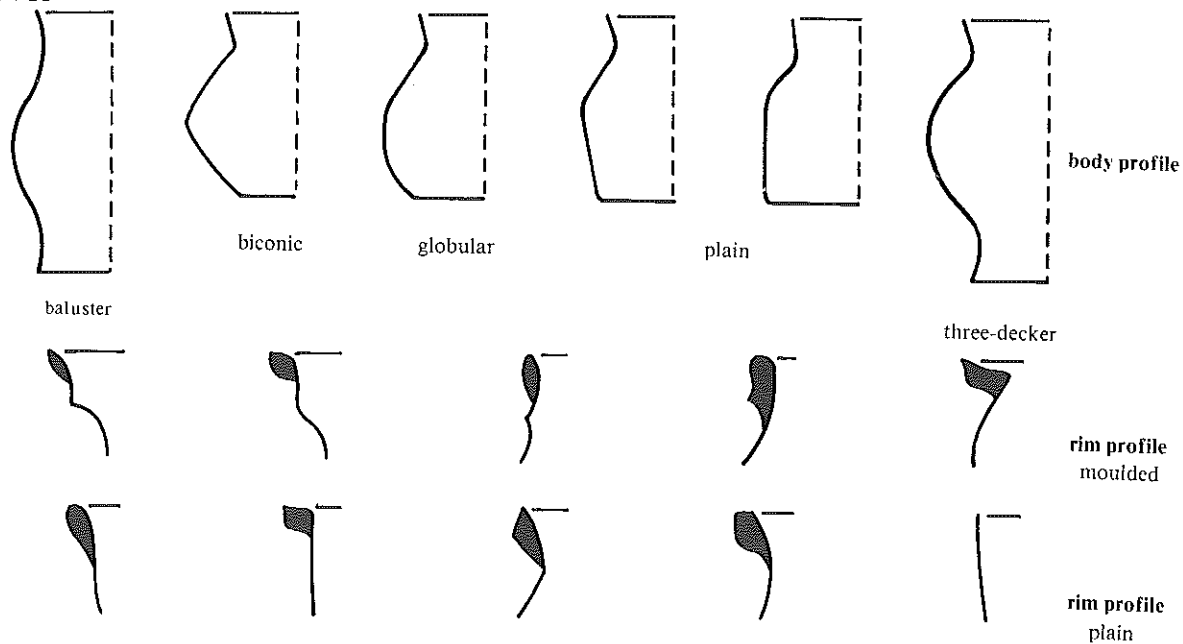
COOKING POTS



BOWLS



JUGS



overlap with the end of the Roman period can be postulated. As there is no evidence locally for a distinctive Middle Saxon ceramic type comparable with Ipswich ware in East Anglia it is thought that S1 may continue right through to the introduction of wheel-thrown pottery in the late 9th century.

Petrological analysis of Saxon pottery from St Peter's Street and Briar Hill, Northampton by D Williams. Eighteen sherds of Early-Middle Saxon pottery from the St Peter's Street site, Northampton and Briar Hill, just to the south of the town, were examined in thin section under the petrological microscope. Three fabrics were recognised, Fabric A comprising five sherds, B twelve sherds and C one sherd. Fabric A appears particularly distinctive as it contains granitic inclusions made up of large fragments of plagioclase feldspar and brown amphibole. Large mica plates can be seen on some surfaces of the sherds. Fabric B contains coarse sandstone fragments and plentiful dissociated sand grains. The sandstone consists mostly of quartz grains, often polycrystalline, with a slight ferruginous coating. Many of the samples also contain some plagioclase and microcline feldspar.

Fabric C is characterised by a grog temper (crushed up pieces of pottery).

Discussion The probable source of Fabric A is difficult to identify. Similar inclusions in Early-Middle Saxon pottery have already been recognised at a number of other east Midland sites including Brixworth, Northamptonshire (Williams D 1977), Orton Hall Farm, Huntingdonshire and Kirby Bellars and Rothley, Leicestershire (Walker 1976). The nearest igneous formations to these sites, including Northampton and Briar Hill, lie in the Charnwood Forest area (including the Mountsorrel granodiorite) to the south-west of Leicester and the post-Tremadoc 'diorites' around Nuneaton. It is quite possible, therefore, that this granitic-tempered pottery was made in a specific locality in one of these areas, some distance from the majority of the find spots, and that Fabric A can be considered a potential regional import. This seems much more likely than that the raw materials themselves were deliberately transported for localised manufacture.

Alternatively, as nearly all of the find spots are situated close to boulder clay glacial deposits it may be that this pottery merely represents locally made products, the granitic inclusions being present in the local clays due to glacial action. Small amounts of granodiorite from Charnwood have been recognised in the boulder clays of Northamptonshire (Martin and Osborn 1976: 22), though unfortunately a detailed description of the boulder clays is lacking. However, it seems unlikely that there would be enough igneous erratics in the local drift to satisfactorily account for the results obtained from the Saxon pottery from Northampton, Briar Hill and Brixworth outlined above. Previous work on the chalky boulder clays of the east Midlands revealed very few far-travelled erratics (Perrin *et al.* 1973: 102). In addition, a small programme of sampling of the drift deposits around Northampton by the writer produced no igneous inclusions.

Firm conclusions cannot yet be drawn due to the small sample submitted for petrological examination from Northampton and Briar Hill and the lack of detailed descriptions of the local boulder clays, though present evidence is, perhaps, in favour of the granitic-tempered pottery being a regional import into Northamptonshire. The closeness of Kirby Bellars and Rothley to the Charnwood Forest would seem to indicate that area as the probable source. It might also be worth noting that inclusions of granite have been recognised by Frechen in Saxon pottery from northern Germany, derived from the local glacial moraine (in Steeger 1948: 249-98), and so, for the Northamptonshire and Huntingdonshire samples at least, it is possible that this fabric could have been imported from the other side of the North Sea.

Fabric B appears similar to Saxon sherds from Brixworth examined by the writer (Williams D 1977). A local source or sources is likely as sandstone occurs in the local Northampton Sand deposits (Martin and Osborn 1976: 7-8) and is also present in the form of pebbles of Bunter (Triassic) Sandstone which are found in some quantities in

the local boulder clays (*ibid.*: 21).

Pottery comparable with Fabric C has been recognised by the writer at Bingham and Kingston on Soar, Nottinghamshire (sherds kindly submitted by Mr Malcolm Todd). The use of grog tempering for Saxon pottery is not common and, as far as the writer is aware, has only been recognised at these three sites.

S2 Saxon Minor local(?) regional(?)

In view of the comments expressed about S1 above it is not safe to assume that grass-tempered ware (S2) is a local product because it is crudely made and simple in form. It may be a regional import as the very small quantities recognised both in Northampton and in field-work carried out in the county might suggest.

Fabric Fairly hard, smooth to rough surface and rough fracture, 5-10mm thick. The surfaces are sometimes uneven and fingered but are invariably covered with grass or chaff impressions. The fracture also shows elongated voids sometimes with striations down the length or dark linear marks. The colour of the core and surfaces is mostly black though tinges of brown can occur. Apart from grass or chaff the only other inclusions appear to be rare quartz grains varying in size and shape.

Form Hand-made, almost certainly coiled in some cases though others are less definite because of the small size of the sherds. The only form reconstructible is a simple globular vessel with an upright undeveloped rim from an unstratified context from Northampton Castle.

Date The earliest examples are House 2, Phases 1-3 and House 8, Phase 3, indicating an Early or Middle Saxon date. Occasional sherds occur in later contexts but they are likely to be residual. Grass-tempered pottery is elsewhere (Hurst 1976: 294) regarded as typical of the Early and Middle Saxon periods.

S3 c. AD 650-1100 Minor regional

The fabric affinities of this calcareous pottery are with the Middle Saxon Maxey Group III wares of Lincolnshire (Addyman 1964: 47-50; Addyman and Whitwell 1970) and the hand-made calcitic pottery from Bedford believed to be Middle Saxon (pers. comm. Miss J Hassall and Mrs E Baker). The main difficulty with S3 is in distinguishing it from the unusually large or crude vessels of St Neots ware (T1) type and the identification of small sherds as S3 must, therefore, be regarded with caution.

Fabric Fairly hard, smooth texture and hackly fracture, 6-10mm thick. The internal surface often shows the inclusions but externally they are masked by a slip. Apart from occasional finger marks no other surface treatment is apparent. The colour of the core is black and the surfaces usually brown or very pale brown though grey and weak red colours occur occasionally. The inclusions are as T1 below.

Form Hand-built cooking pots(?) and bar-lip vessels. There are very few sherds with features diagnostic of vessel type though occasional flat-topped rims (e.g. 522) or pointed rims (3) may represent cooking pots or bowls (426). The bar-lip vessels are included as they may well be hand-made and, therefore, S3, rather than wheel-thrown and T1. They show few of the characteristics of thrown vessels though this may be because most of the sherds are from the junction of the bar and rim and slightly distorted. The vessel from House 1 (1) has been tentatively reconstructed after Maxey Group III cooking pots (Addyman 1964: 47-50), which incidentally resemble Cornish bar-lug vessels (illustrated in Dunning 1959: 46-8, Figs. 20, 21) though the basal and lug forms are uncertain.

Date Examples occur in most phases but the earliest are in House 1, Phase 2, House 2, Phases 1-3 and House 8, Phase 2, all believed to be Middle Saxon in date and others occur in Late Saxon contexts in Houses 1, 2, 7 and 10 (Phase 4). There are very few published bar-lip vessels from eastern England with secure archaeological contexts and dating tends to be based on technological considerations. The Northampton sherds are thin-walled competently made vessels in a fabric closely resembling St Neots ware. However, the absence of marks characteristic of throwing may align these vessels more with hand-made Middle Saxon wares than later vessels.

S4 Saxon(?) Minor local(?) regional(?)

This heading includes sherds with little apparent filler and which are similar in general appearance to local Iron Age wares.

Fabric Soft, smooth texture and rough fracture, 8mm thick. The external surface is burnished. The colour is black throughout. Inclusions consist entirely of very rare sub-rounded quartz grains.

Form Hand-made sherds but there are no features diagnostic of any specific form. If the sherds are Saxon the general appearance can be compared with some local funerary wares though none is decorated.

Date The contexts of all the stratified examples are Early or Middle Saxon (House 1, Phase 2, House 8, Phases 2 and 3).

S5 (Ipswich ware(?)) c. AD 650-850 Minor regional

The fabric of this type bears some resemblance to Ipswich ware but as only two sherds (joining) have been recovered from St Peter's Street the attribution must remain doubtful.

Fabric Hard, rough texture and fracture, 11mm thick. The surfaces show uneven finger marks as if turned on a turn-table and the core appears to have diagonal lines across the fracture indicative of a coiling technique. The core and internal surface are black to grey and the outside is brown to light grey. The inclusions consist of minute sub-angular to sub-rounded quartz grains. These sherds have been examined by Mr J Hurst who suggested an affinity with Ipswich ware. If this is right the fabric is closest to Fabric a (Hurst 1976: 299).

Form Probably coiled and finished on a turn-table. The two sherds are from a rim with an almost square external thickening (140). It is an unusual form for Ipswich ware and does not match any of West's main rim categories found in the Cox Lane kilns, Ipswich (West 1963: 248). The size of the sherds and possible diameter of the pot (c. 280mm) suggest a storage vessel.

Date The sherds occur in House 1, Phases 4 and 5/6A respectively. If they are Ipswich ware their stratigraphic positions suggest that they may be residual as the type is firmly dated to c. 650-850 in East Anglia (Hurst 1973).

T1 (St Neots type ware) c. AD 850-1100 Major local

No definite kilns have been located but the assumption is that they lay within the core distribution area of Northamptonshire, Bedfordshire and Cambridgeshire. The type has been the subject of extensive archaeological comment (for example Hurst 1956; 1976; Addyman 1965; 1969) as well as more recent scientific examination (Hunter 1975 and appendix in this volume; Coleman 1976).

Fabric Fairly soft, smooth texture except when overfired when it becomes rough to harsh, rough or laminated fracture, up to 7mm thick and frequently 5mm. Core is black or grey, surfaces black, brown or weak red, the outer surface often darker than the internal. Plentiful angular and plate-like white, calcareous material often incorporating fossil shell, particularly bryozoa, giving a distinctive speckled appearance. Rare sub-rounded to rounded quartz grains.

Form Wheel-thrown cooking pots, bowls, spouted bowls, hand-made storage jars and possibly bar-lip vessels (see under S3). Cooking pots have rounded profiles, curved rims (17, 19, 29, 141, 212, 484-6), flat or slightly moulded rims (199, 200, 634) and sagging bases (42, 43). Bowls have straight or slightly rounded profiles with turned (11, 12, 14, 566-8) and hammer-headed (189, 492, 503) rims. There is no apparent chronological significance attached to the bowl rim types. Spouted bowls (15) are similar. Only one example of a storage vessel (664) that can be positively attributed to T1 has been recognised although a very large example (449) in T1-2 is another possible candidate. Decoration is only present on the storage vessel and it is likely that the applied and thumbled strips of clay were intended more as a strengthening device. One sherd from St Peter's Street and others from Chalk Lane in fabrics very similar to T1 have bands of diamond rouletting. As this is unknown on local St Neots type wares these sherds could be regarded as potentially from Lincolnshire.

Dating The *floruit* is clearly Phase 4, the best groups and sequences occurring in Houses 1, 8 and 10. There are several associations on St Peter's Street and Chalk Lane with pennies of St Edmund indicating a start date c. 900, possibly in the later 9th century from c. 850, though this has yet to be confirmed. Other coin associations include one of Athelstan (House 10, pit K160) and one of Ethelred II on Chalk Lane (pit A18). The terminal date is difficult to establish as St Neots type ware merges almost imperceptibly into the post-Conquest calcareous tradition (T2). A date c. 1100 is possible for the change-over from Late Saxon to medieval forms (see below page 227 for a discussion on the transitional period). There are occasional examples in earlier phases (House 1, Phase 2; House 2, Phases 1-3; House 4, Phase 2) but all could be intrusive and of doubtful value for dating purposes.

T1-2 pre- or post-Conquest

Where doubt exists about whether sherds should be attributed to types T1 or T2, as is sometimes the case with featureless body sherds, the term T1-2 is used. The surface texture, general appearance, colour and inclusions are as T1 and T2, Group 1.

T2 c. AD 1100-1400 Major local

A general term embracing vessels known to have been made at kilns at Olney Hyde, north Buckinghamshire (Wilson and Hurst 1968: 206-7; 1970: 203), Lyveden, Northamptonshire (Steane 1967; Bryant and Steane 1969; 1971; Steane and Bryant 1975), Stanion, Northamptonshire (Hadman 1974) and suspected at Harrold, Bedfordshire (Hall 1972). In view of the similarity in fabrics produced at each of these centres and the difficulty which sometimes arises in distinguishing the products of one kiln from those of another, most of the local calcareous types have been regarded as a single entity and labelled T2. This term includes fabrics variously known as developed St Neots type ware, fine, coarse and corky shelly wares.

Fabric Wheel-thrown and hand-made wares (see Synthesis—Technology, below page 228). Hard, fairly smooth to harsh texture and rough to hackly fracture, from 5mm to 10mm thick. Glazing on Lyveden-Stanion jugs is frequently patchy and thinly applied. Slip occurs as a decorative element on jugs. Core and sometimes surfaces are black to light grey, the latter colour being more frequent in the core. Surface colours more usually brown, weak red, reddish brown and reddish yellow. Two main colour ranges can be distinguished. There appears to be a preference for browns and weak reds in the early medieval period (Group 1) followed by a slightly later tendency towards reddish browns and reddish yellows (Groups 2-3; see House 1, Phase 5). Plentiful angular to rounded and plate-like calcareous fragments including some fossil shell and ooliths. Some sherds are predominantly oolitic, others contain few or none at all whilst others have a mixture. There is considerable variation in the size and shape of the calcareous fragments but visual inspection of kiln material shows that there is less variation in the Olney Hyde products than at Lyveden or Stanion. In addition there are rare to common quantities of unsorted angular to rounded quartz grains and rare examples of soft red iron ore fragments and occasional voids often with striations down the length. As with T1 the calcareous inclusions provide a distinctive, white speckled appearance against the reddish brown to reddish yellow surface.

Form Cooking pots, bowls, jugs, lamps and curfews. The most important form is the cooking pot which has a cylindrical body profile early on (e.g. 130-2) and develops a more rounded shape later (e.g. 299). Rims are of three main types, i) curved, sometimes with a hook externally (37, 52-4, 152) or slight internal moulding (124), ii) upright with more or less square (99, 278, 530) and triangular (35) rims, occasionally beaded internally (90, 93), iii) everted, usually straight, outbent sometimes with an internal bead or flange to act as a possible lid seating (60, 62, 142, 465, 528, 595).

The basal type is flat (77, 123), true sagging or convex bases (83, 117) being very unusual. The very simple curved rims persist throughout the period of T2 production but the other two shapes seem to have a general chronological significance, the everted form

i) appearing in the earliest groups and the upright (ii) form not starting until the 13th century.

Bowls are generally carinated or slightly rounded (112, 253, 582) with simple rims, sometimes pointed or slightly thickened on the top (97) and fingered on one surface. The bowls appear to be a late development of St Neots type ware (T1) intumed forms and are uncommon on St Peter's Street.

Jugs are essentially cylindrical with a tall, sometimes flaring neck (288). Rims are both moulded and plain (76, 115, 116), the former being more usual and bases generally flat or slightly convex and plain. Strap handles either plain (286), stabbed (542), slashed, thumbbed (114), or a combination of the four are common especially on unglazed jugs. Rod handles which may be plain, stabbed or twisted (133) appear to be confined to glazed wares. Decoration is unimaginative and often clumsily executed, unglazed wares being sometimes rouletted (268, 359) whilst glazed forms have lines of white slip and sometimes white blobs of slip impressed with a grid stamp (305).

The main differences amongst the lamps are in the stem form, the most usual being a hollowed stem (581, 660) but solid (72) and pointed types (234) occur occasionally. The single curfew sherd (231) is not large enough for useful comment.

Date Although there are a few possible intrusive sherds of T2 in Phase 4, there is no good evidence on St Peter's Street for a start date earlier than c. 1100. The main period of use is Phase 5 and early Phase 6 in some houses. The terminal date is probably c. 1400±50 at which time the T2 wares were being replaced by W18 (Potterspurty) wares as the dominant local type. This change-over can be seen in many of the houses but is clearest in House 4 where coins of Edward III and Richard II from Phase 6A show the T2 wares continuing as the main fabric until the end of the 14th century. The T2 element in Phase 6 is sometimes fairly substantial but in most cases the contexts from which the bulk of the pottery has come may be expected to include T2 as a residual element.

The dating of T2 wares at Olney Hyde is based entirely upon typological considerations. At Lyveden coins and good documentary references clearly indicate potting in the 13th and early 14th century and also in the 15th century, at the latter date in sandy fabrics (W29).

T6 c. AD 1200-1400 Minor local

This type is a very minor element of the St Peter's Street pottery. It compares closely with some of the Lyveden products.

Fabric Hard, rough texture often with calcitic lumps protruding from the surface, hackly fracture, 5-7mm thick. No other surface treatment or decoration visible. Core and surfaces black to light grey and surfaces sometimes in orange red to reddish brown. Plentiful angular and plate-like calcareous fragments varying in size but up to 3-4mm long. Occasional sub-rounded to rounded quartz grains and occasional specks of soft red iron ore.

Form Hand-made and possibly wheel-finished cooking pots. The rims often have curved (308) or upright (661) profile with slight moulding or fingering on top. The bases are uncertain but are probably more or less flat. The body profile is basically cylindrical with rounded shoulders.

Date Within T2 range.

T11 c. AD 1100-1300 Minor regional

The general affinities of this type are with the early medieval wares of the Cotswolds in Oxfordshire and Gloucestershire (Jope 1959: Fig. 10). Although a kiln is suspected in the village of Ascot Doilly, Oxfordshire (Jope and Threlfall 1959: 246), this is not necessarily the source of the Northampton finds as all the non-clay fragments can be found in valley bottom alluvial deposits in the Oxfordshire Cotswolds area (*ibid*: 244-5).

Fabric Fairly hard, smooth to rough texture and rough fracture, 5-7mm thick. Surfaces sometimes uneven and fingered. Diagonal strokes on rim and neck sherds. Core is black to grey and surfaces occasionally black but more commonly brown, light grey or reddish brown. Plentiful elongated and sub-angular to rounded calcareous

grains. Oolites are especially prominent. Rare rounded quartz grains. Rare fragments of red brown sandstone and possibly flint or chert.

Form Probably hand-built though rims show signs of wheel-finishing. Cooking pots of Jope's Type bi (Jope and Threlfall 1959: 240-1, Fig. 9, D7) with a clubbed rim and straight-sided body profile wider at the base than the rim have been identified both on St Peter's Street (672) and Northampton Castle. Other rims are simpler everted forms with slight external folds and diagonal slashes, a widespread feature of early medieval pottery occurring in Leicestershire (Hurst 1967-8: Fig. 2), Norfolk (Hurst 1963: 156), Gloucestershire (Jope 1952: 62) as well as Oxfordshire (Jope and Threlfall 1959: 241) but not, it seems, in central Northamptonshire. No basal sherds have been recognised.

Date Only a single sherd from pit 121, House 7 has been recognised on St Peter's Street. The date c. 1100-1250 attributed to this pit broadly confirms the dating given at Ascot Doilly, Oxfordshire, a small castle occupied during the mid-12th century (Jope 1959).

V1 c. AD 1100-1400 Minor regional

A general heading probably incorporating more than one type. Although calcareous matter occurs in the fabric it is possible that some sherds are related to the non-calcitic types W7₁₋₄. The general heading, however, has been retained as sub-division would be unreliable at present.

Fabric Hard, rough texture and fracture, 4-6mm thick. A few sherds have external scratch markings very similar in appearance to the scratched wares of Wessex. The core is light grey but surfaces are chiefly in the range of brown to reddish brown or occasionally black or very pale brown. A foot from a tripod pitcher has a patchy olive glaze externally. Plentiful sub-angular to rounded quartz grains. Rare to common sub-angular to sub-rounded and plate-like white calcareous fragments. Rare sub-angular to sub-rounded dull black grains and rare fragments of soft red iron ore.

Form Cooking pots, jugs and tripod pitchers. Cooking pot rim forms are predominantly upright with an external slightly squared thickening and everted (470, 593) with a rolled top (349). Jug sherds are very fragmentary and cannot be used to define forms closely. A single pod from a tripod pitcher is the only indication of this form.

Date Examples are known from Phases 5 and 6. The earliest, in House 1, Phase 5, layer 391, House 7, Phase 5, pit 121 and House 9, Phase 5, pit 142, are all associated with Group 1 of the local T2 wares. A tripod pitcher foot may lend confirmation to an early medieval starting date. The terminal date is uncertain and the occurrences in Phase 6 could be either *in situ* or residual, so the suggestion of c. 1400 should be regarded with caution.

V3 c. AD 1200-1450 Minor regional

A distinctive, black, well potted type of uncertain source. Very similar vessels have been found at Bedford, site 28 (pers. comm. Miss J Hassall and Mrs E Baker). The type may be related to W7₄.

Fabric Hard, rough texture and fracture, 4-5mm thick. Occasional faintly incised lines on the body but no other surface treatment apparent. Core and surfaces usually black but occasionally brown. Plentiful sub-angular to sub-rounded quartz grains. Common angular to sub-angular, dull grey and white calcareous fragments. Rare pieces of soft brown iron ore.

Form Wheel-thrown cooking pots and bowls. Cooking pot rims are always upright and squared (280) and have affinities with those in Brill (W14) and Potterspurty (W18) fabrics. The only bowl rim (559) has a possible lid seating and compares directly with some Potterspurty bowls (Mynard 1970: Fig. 2, 44). Bases generally appear to be flat and cooking pot bodies have a rounded profile.

Date This fabric occurs in Phases 5 and 6, the earliest sherds recognised so far being in Houses 1 and 9 where they are associated with T2 wares of Groups 2 and 3. The terminal date is very uncertain but may lie in the 15th century.

V7 c. AD 1100-1500 Minor regional(?)

The similarity of this type to some Potterspurty wares suggests that a kiln source in the Potterspurty area may be possible. The V7 type, however, is uncommon on St Peter's Street and is, therefore, regarded as a regional import.

Fabric Hard, smooth to rough and occasionally fingered texture. Rough fracture, 5-7mm thick. Glazed jugs sometimes have grey white painted lines. Core is usually light grey but occasionally black. The surfaces are reddish brown or reddish yellow. Common sub-rounded to rounded quartz grains. Rare white calcareous fragments and pieces of red iron ore at times up to 2mm across.

Form Wheel-thrown cooking pots, bowls, jugs. Cooking pots include rims with a rounded profile thickened externally, flat bases and globular bodies. There is also an everted rim form squared on the outside. Among bowl rims are simple forms, thickened externally, and other flanged forms, sometimes with a slight channel on the top, and squared or hammer-headed shapes. All bowl types can be matched in Potterspurty ware (Mynard 1970: Fig. 2). Jugs are represented by a rod handle with diamond stabbing and occasional decorated sherds.

Date A general medieval date is all that can be suggested as very few stratified examples have been found on St Peter's Street. A *floruit* within the 12th to 14th centuries is confirmed by the associated wares including T2, T6, V3, W13 and X1 as well as a typological consideration of the cooking pot rims and jug handle.

W1 (Northampton ware) c. AD 850-1100 Major local

A feature containing wasters and burnt material and interpreted as a kiln was found in Horsemarket, Northampton (Williams 1974b). Fabrics comparable with Williams Types 5, 9, 10 have been discovered on several sites in Northampton and are referred to in the text as Northampton ware. However, the similarity to the pottery from the Wharf Road and Castle kilns, Stamford is at times so close that it is impossible to distinguish Stamford from Northampton ware. The assumption is made that when W1 is found in Northampton it is a local product unless there are clear fabric, glaze or form distinctions which indicate a Stamford origin. Future work may prove this assumption to be incorrect in which case both W1 and X1 fabrics in Northampton will need to be re-assessed.

Fabric Hard, smooth to rough texture and rough fracture, 3-10mm thick. Both surfaces have throwing grooves but the lower part of the body and underside of the base are frequently very rough (see Synthesis—Technology below page 226). Core and surfaces of sherds from domestic contexts in the range of black, grey, light grey, reddish brown and very pale brown. Greys are the commonest colours and reddish browns the rarest. Rare to common sub-rounded to rounded minute quartz grains often difficult to see in the grey clay matrix. Rare hard and soft reddish brown lumps of iron ore. Rare sub-angular and elongated grey and black granular inclusions of uncertain type.

Form Wheel-thrown and hand-built cooking pots; bowls, pitchers, costrels and possible crucibles are all very rare. Cooking pot rims have a curved profile frequently moulded internally for a possible lid seating (628-9). The flat bases are usually rough and unfinished (417, 649) and the bodies are globular like St Neots type wares. Bowl rims appear to be fairly simple with slight external thickening (31, 36) but the base and body profiles are uncertain. Some bowls have a spout attached to the rim (230). The only pitcher sherds are a cooking pot type rim pierced for a spout (206) and a spout on its own. The upper section of the lamps consists of a simple open bowl set on a moulded pedestal base (examples in Northampton Museum). Round-based cup-like vessels with a lip for pouring (20) could have served as lamps though a more likely explanation is that they are crucibles. The only example of a costrel is a large wall sherd found on the kiln site (Williams 1974b: no. 44).

Date The main period of use is clearly within Phase 4. There are four sherds in Phase 2 (Houses 1, 2, 7) all of which could be regarded as intrusive. The number of examples in Phase 5 shows a marked decrease from the previous phase.

Table 9

	Phase 4 (% of phase totals)	Phase 5
House 1	26	4
House 2	27	12
House 3	nil*	6
House 4	nil*	$\frac{1}{2}$
House 7	55	1
House 8	11	3
House 9	0	5
House 10	38	3

* = no pottery present

The very limited quantities present in Phase 5 suggest that W1 had probably gone out of use by the time the phase began. This is particularly clear in Houses 1, 7, 8 and 10 where there are good samples from both phases. (For other fabric and coin associations see comments under T1). Possible Northampton wares have been recovered from Phases 2 and 4 at St Aldates, Oxford where a 9th-10th century date seems likely (pers. comm. Mr B Durham).

W2 c. AD 850-1100 Minor regional

Only five sherds of this type have been recovered from St Peter's Street though others are known from pre-Conquest levels on Chalk Lane. The kiln source is uncertain but is thought to be in eastern England.

Fabric Hard, smooth to rough texture and rough fracture, 8-10mm thick. The only apparent surface treatment is the applied and thumbled strip of clay. Core is mainly black with a brown tinge and surfaces invariably black. Plentiful sub-rounded to rounded minute quartz grains. Rare quartz grains of similar shape but up to 1mm across.

Form Wheel-thrown; no rims, bases or handles have been recognised so far. The only indications of form are the thumbled strips of clay which suggest a storage vessel (632). All the sherds from St Peter's Street could belong to the same vessel. Similar sherds are known from Chalk Lane.

Date All the sherds were found in Grubenhau K23, House 10, Phase 4, in association with Late Saxon wares including T1, W1 and X1. A pre-Conquest date is all that can be suggested.

W3 (Thetford type ware) c. AD 850-1200 Minor regional

In view of the extensive literature on Thetford ware discussion will be restricted to comments relevant to Northampton material (see Hurst 1957; 1959; 1976; Wade 1973; 1976; Hawkin 1977).

Fabric Hard, slightly rough texture and fracture, 6-9mm thick. The only apparent surface treatment is decoration consisting of diamond rouletting and applied and thumbled strips of clay. The core and surfaces are usually light grey but the surfaces are occasionally black. Common to plentiful sub-rounded to rounded minute grains of quartz. Rare sub-rounded black grains of uncertain type and very rare blue white flint.

Form Wheel-thrown cooking pots and storage jars. Cooking pots are identified by rims in Thetford ware forms (353) and fabrics present only occasionally on St Peter's Street. There are a few flat bases probably from cooking pots with cheese wire rings on the underside. Storage jars with applied and thumbled strips and diamond rouletting (33) are present on St Peter's Street and Chalk Lane.

Date Most of the stratified sherds occur in Phase 4, Late Saxon. Since Thetford type wares continue into the 12th century in East Anglia the occurrences within Phase 5 (Houses 1, 7, 8) could be *in situ* rather than residual. The evidence from this site adds nothing to the argument put forward elsewhere by others working on Thetford type wares.

W4 c. AD 1050-1250 Minor regional

The kiln source is uncertain but fabric affinities with sherds from Leicestershire may suggest a source north of the Welland.

Fabric Hard, rough to harsh texture and hackly fracture, 4-8mm thick. The core is often light grey to very pale brown and the surfaces are either similar or reddish brown. Plentiful sub-rounded to rounded quartz grains up to 0.50mm across.

Form Wheel-thrown jugs and possibly hand-made cups/lamps/crucibles. The only example of a jug has a foot-ring base, globular body, strap handle, applied and thumbled strips of clay and a form of complex rouletted decoration. There are several sherds known from small round-based vessels with simple undeveloped rims and a pinched-out lip (471). The form is the same as that used for crucibles though none of the examples known in this fabric has metal accretions.

Date No examples from Phase 4 contexts have been recognised so far but this may not be significant in view of their rarity. All the sherds have been found in Phases 5 or 6, the earliest, attributed to c. 1100-1250, coming from pit 121, House 7 which also contained the largest number of examples from any single feature. Pit 12 on the Mayorhold produced one sherd associated with pottery believed to be early 12th century in date (McCarthy 1976: 138-9). The examples in Phase 6 could be residual though there is no evidence for a terminal date. The form occurs widely, examples being known at Exeter (pers. comm. Mr C Henderson), London in association with a coin hoard c. 1070 (Thompson 1956: hoard 250), Leicester (Leic.Mus.Acc.No. 47.11) and York which also had 11th century coin associations (Thompson 1956: hoard 386).

W5 date uncertain Minor regional

Only one unstratified sherd has been recognised. Its affinities are uncertain.

Fabric Wheel-thrown hard, smooth texture and rough fracture, 10mm thick. The uneven fingered surfaces have a thin clear glaze externally. The core is reddish yellow and the surfaces reddish brown. Common sub-rounded to rounded quartz grains.

Form Indeterminate.

Date Uncertain but possibly within Late Saxon and early medieval range (c. 850-1300).

W6 c. AD 850-1100(?) Minor regional

Only two glazed sherds have been recognised. They have been visually examined by Miss K Kilmurry who notes that they resemble neither Stamford nor Winchester ware. The source is uncertain and may be continental.

Fabric Hard, smooth texture and smooth to rough fracture, 7mm thick. The core is red and unglazed parts of the surfaces light grey to brown. Splashes of glaze on both surfaces show as olive and yellow. Fine fabric with common to plentiful minute quartz grains.

Form Probably a jug or pitcher if the glaze is deliberate but otherwise there is nothing to suggest a shape.

Date The sherds occur in House 1, Phases 4 and 5-6A and the Phase 4 sample is firmly pre-Conquest though a single intrusive T2 sherd should be noted.

W7, c. AD 1100-1400 Minor regional

The W7 group, embracing sherds from several possible kiln sources, is an umbrella heading incorporating very sandy grey or brown wares. W11, another umbrella term, is distinguished from W7 by the white or buff-firing colour of the clays used. The differences within the W7 category are subtle and, at times, difficult to quantify. Some attributions have been made purely on an intuitive basis because the sherds 'look' or 'feel' right for one or other sub-division and some sherds may, therefore, be incorrectly assigned but this is unlikely to affect the dating or the overall picture. The subtlest differences occur with W7₁, W7₂ and W7₄.

Fabric Hard, rough texture and fracture, 5-6mm thick. The surface treatment is decorative and consists of incised horizontal lines, narrow, applied and thumbled strips of clay and dark, painted lines (? weak red in colour) below an olive glaze. The core is grey, light grey and brown. The interior is light grey to very pale brown or reddish brown to reddish yellow. Unglazed external surfaces are

similar in colour to the inside. Plentiful sub-angular to rounded quartz grains.

Form Wheel-thrown jugs and tripod pitchers. Tripod pitchers can be certainly distinguished only by their feet (472, 666), a few examples of which occur on St Peter's Street. However, the presence of sherds decorated with features (296) that occur on examples in the Oxford region suggests that they were more numerous than the number of feet indicate. Only a few rims likely to be from tripod pitchers have been recognised but they are directly paralleled at Oxford (Jope and Pantin 1958: 53, Fig. 19) as are the handle sherds with twisted clay in a channel on the spine (281), the tubular spouts and the decoration. Featureless glazed body sherds may in some cases be jugs rather than tripod pitchers but jugs can only be inferred from the occasional instances of slip-painted motifs.

Date Sherds in W7₁ occur in Phase 5 and throughout Phase 6. The tripod pitcher in pit 121, House 7 is the earliest stratified example and is datable to c. 1100-1250. Other stratified sherds definitely or likely to belong to tripod pitchers are found in A441 and K75 attributed to the 13th-14th centuries. There is nothing in the St Peter's Street material to contradict Jope's suggested dating for tripod pitchers c. 1120-1220 (Jope and Threlfall 1959: 258) unless the occurrences in Phase 6 are regarded as *in situ* rather than residual.

W7₂ c. AD 1100-1400 Minor regional

The chief means of distinguishing W7₂ from W7₁ is the splashed or spotted nature of the glaze on the former suggesting links with the north Midlands. The internal surface and fabric are otherwise close to W7₁ and especially W7₄. For further comment see W7₁ above.

Fabric Hard, rough texture and fracture, 5-8mm thick. The only surface treatment is glazing which appears as splashes showing a 'pin-holing' effect coloured olive in the centre and red at the edges. The core is light grey and the internal surface brown to reddish brown. Externally the colour is usually reddish brown or simply brown with splashes of yellow and green yellow glaze. Common sub-rounded to rounded quartz grains.

Form Wheel-thrown; indeterminate forms but the presence of glazes might indicate jugs or pitchers.

Date Examples occur in Phases 5 and 6, the earliest being in pit 121, House 7 attributed to c. 1100-1250. If these sherds are correctly assigned their affinities probably lie within the Derby, Nottingham or Lincoln areas where 'splashed' wares were fairly common in the 12th-13th centuries. (For the date of 'splashed' wares see Hurst 1967-8; 1976: 332.)

W7₃ c. AD 1100-1400 Minor regional

The kiln source is uncertain but probably lies in the east Midlands. A few similar sherds have been recovered from Bedford (pers. comm. Miss J Hassall and Mrs E Baker) but they are not common.

Fabric Hard, slightly rough texture and rough fracture, 4-8mm thick. The only surface treatment is decorative and consists of incised wavy lines and rouletting executed with a single-toothed, square-notched roulette wheel. The core is grey and the surfaces reddish brown. Plentiful sub-rounded to rounded quartz grains.

Form Wheel-thrown unglazed jugs. The only indications of a specific vessel shape are sherds from a decorated neck and a large strap handle with an applied strip on the spine and thumbled decoration.

Date Examples occur in Phases 5 and 6, the earliest recognised coming from pit 142, House 9, which is equated with ceramic Group 1, House 1 and attributed to c. 1100-1250. Later examples include one from pit 414, House 1 believed to be within the period c. 1250-1400. Very few examples have been recognised and most are from garden deposits for which only a general medieval date can be suggested.

W7₄ c. AD 1100-1400 Minor regional

The type is very similar to W7₁ and W7₂, the chief difference being in the colour and the absence of glazed wares in W7₄ (see comment under W7₁ above).

Fabric Hard, rough texture and fracture, 5-8mm thick. Some sherds show signs of fingering as if the walls of the vessel have been kneaded between the fingers. One rim sherd has a minute spot of yellow glaze externally. The core is grey and the surfaces weak red, brown or reddish brown and sometimes black externally. Plentiful sub-angular to sub-rounded quartz grains. The grains are well sorted in some sherds but others show some variation of shape and size. The less well sorted inclusions are often associated with rare soft red iron ore fragments.

Form Wheel-thrown cooking pots and in some cases possibly hand-made examples. The rims have curved and everted profiles (65, 66) the latter either plain (662) or sometimes with a (?) lid seating. Both types have a thickened top usually externally developed and occasionally thumbled. Basal types include more or less flat examples (64).

Date Most of the stratified examples belong to Phase 5, possibly the earliest coming from pit 391, House 1 where it belongs with Group 1, attributed to the period c. 1100-1250. If the absence of decorated glazed wares and Lyveden types in this pit is significant a 12th century date may be preferred, a suggestion not inconsistent with the splashed wares (W7;) in the same pit (for the date of W7, as possible north Midlands splashed ware see Hurst 1967-8). A complete cooking pot in this fabric was found at Gorefields Grange, Buckinghamshire below the hearth of the first period kitchen and attributed to the mid-12th century (pers. comm. Mr D C Mynard). The fabric is also known in Bedford where it forms a very important element of the local material and occurs as bowls and unglazed jugs. The fabric has further affinities with some Leicestershire pottery which has been attributed a 12th century date (pers. comm. Mr T Pearce).

W7, c. AD 900-1500 Minor regional(?)

An umbrella term for reduced sandy wares of uncertain source and date though there are general similarities with Late Saxon fabrics.

Fabric Hard, smooth to rough texture and fracture, 4-6mm thick with signs of wiping on some sherds. The core and surfaces are light grey though the core is sometimes closer to brown. Common sub-rounded to rounded quartz grains.

Form Probably wheel-thrown; there is a single sherd from a basal angle (46) with the suggestion of a flat-based vessel. There are no other diagnostic sherds though the reduced unglazed nature of the sherds may indicate cooking pots or bowls.

Date Although all samples occur within Phases 5 and 6 it is possible that they are Late Saxon and residual. Only the most general Late Saxon to medieval date can be suggested.

W8 c. AD 1200-1400 Minor regional

The kiln source is uncertain but the fabric and decoration suggest the London or west Kent areas as possibilities.

Fabric Hard, smooth texture and rough fracture, 5-7mm thick. Apart from one sherd with signs of knife-trimming the surface treatment is decorative, consisting of blobs and vertical and horizontal lines of white paint or slip. The core, where it differs in colour from the surfaces, is a very narrow pale brown band. Internal surfaces are reddish brown and the exterior is usually glazed. The glaze is sometimes patchy with numerous 'pin-holes' and olive in colour but more evenly spread glazes show as a green yellow or red over a white slip. Common, sub-rounded well sorted minute quartz grains and rare, sub-rounded white grains of uncertain type.

Form Wheel-thrown jugs. The presence of jugs on St Peter's Street is suggested by glazed and decorated sherds, rims or bases being absent.

Date Examples occur in Phases 5 and 6, the earliest stratified sherds belonging to Phase 5, House 4 which probably terminates in the 13th century. The highly decorated nature of some of the sherds, especially examples recovered from Northampton Castle, indicate a general 13th-14th century date range.

W9 c. AD 1100-1500 Minor regional

This is an umbrella heading incorporating oxidised, sandy wares probably from more than one kiln source, some possibly in the Midlands and others from south-east England.

Fabric Hard, smooth to rough and rough fracture, 5-10mm thick. Surface decorated with incised and painted lines and rouletting. The core and surfaces are light grey, reddish brown and very pale brown. The sometimes patchy external glaze is either olive or reddish brown. Common to plentiful sub-rounded to rounded quartz grains. Rare sub-rounded to rounded shiny, black grains which may be iron ore and very sub-rounded non-calcitic white grains.

Form Wheel-thrown jugs. The occasional rims, bases and rod handles, including some thumbled, glazed and decorated sherds, imply the presence of jugs. Apart from one example (409) the sherds are too small to enable the form to be ascertained.

Date Examples occur in Phase 5 and throughout Phase 6. Most of the sherds appear to belong within the highly decorated tradition and may, therefore, be tentatively assigned to the 13th-14th centuries though this does not preclude a slightly earlier or later date.

W11 c. AD 1200-1500 Minor regional

This is an umbrella heading incorporating sandy, buff or white-firing wares probably from more than one kiln source some of which are probably in the Midlands, Nuncaton being a possibility, whilst others may lie further afield, for example in Surrey.

Fabric Hard, smooth to rough texture and rough fracture, 5-8mm thick. Some sherds from near the basal angle show signs of knife-trimming, but otherwise surface treatment is confined to glaze and decoration. This includes incised lines, applied strips of dark coloured slip, rilling and applied leaf(?) motifs. The core and unglazed surfaces are reddish yellow to very pale brown. The glazes are usually olive or less commonly yellow. Sub-rounded to rounded quartz grains. In some sherds the quartz is rare and in others it is plentiful. Rare dull black grains of uncertain type and rare pieces of red iron ore.

Form Wheel-thrown jugs. The limited number of rims, basal sherds and large body sherds generally precludes the identification of precise vessel forms. The exception is a very fine, biconical jug (376) with a simple upright rim, a narrow D-sectioned handle and a thick, lustrous, green glaze on both sides of the rim but only on the exterior of the body. The general shape of this jug can be matched both at Coventry, where an unglazed example was attributed to the 14th-15th centuries (Goode *et al.* 1966: 109 and Fig. 7. 18), and in Surrey.

Other rims are plain (691) and sometimes flat-topped with external thickening (297). Handles include a broad strap handle with a deep central groove and elaborate slashing (407, 600) that may be a Nuncaton product (pers. comm. Mr K Scott) and rod handles. Some bases are thumbled (166).

Date Examples occur in Phase 5 and throughout Phase 6. Terminal dates cannot be fixed precisely though the wares are unlikely to be much earlier than the early 13th century. The presence of about half a small biconical jug in House 4, Phase 6Di suggests that they continue into the last half of the 15th century but this may be an exception and a general 13th-14th century date is probably to be preferred for most examples.

W11, c. AD 1200-1500 Minor regional

The kiln source for W11, is uncertain but probably lies within the Midlands, perhaps the Oxford area (pers. comm. Miss M Mellor) or conceivably Leicestershire (pers. comm. Mr T Pearce).

Fabric Hard, rough texture and fracture, 3-7mm thick. The core and unglazed surfaces are normally reddish brown, the core occasionally being a light grey. The glazes are often uneven and show as olive or a richer green yellow. Common to plentiful sub-rounded to rounded quartz grains. Rare pieces of reddish brown iron ore. Rare dull black grains of uncertain type.

Form Wheel-thrown jugs. The most diagnostic features are

sherds from the basal angle. They include thumbled and plain, slightly sagging bases.

Date Examples only occur in 15th century contexts though a general 13th-14th century range is likely on external evidence.

W12 c. AD 1200-1500 Minor regional

Kiln source unknown but possibly from more than one centre in the Midlands or south-east England.

Fabric Hard, smooth with rough fracture, 4-9mm thick. One sherd has signs of knife trimming, otherwise surface treatment is confined to red-painted horizontal and diagonal lines. The core is grey or light grey. The interior and unglazed external surfaces are brown to very pale brown. Glazes are olive coloured. Common sub-angular to sub-rounded quartz grains. Rare reddish brown pieces of (?)iron ore.

Form Wheel-thrown jugs. The only diagnostic sherds are decorated and likely to belong to jugs.

Date Examples occur in Phases 5 and 6, none being likely to be earlier, on stratigraphic grounds, than c. 1200. The highly decorated nature of some of the sherds suggests a date range in the 13th-14th centuries.

W13 c. AD 1200-1500 Minor regional

These sherds compare closely with products of kilns in Nottingham and although the attribution is not certain as Nottingham and Nuneaton products are at times very similar, they are regarded as probably from the former area.

Fabric Hard, smooth and rough texture and fracture, 4-7mm thick. The core is either grey or reddish brown. Internal surfaces are normally similar but one sherd from Northampton Castle has a green yellow glaze. External surfaces have the same or an olive coloured glaze. Common sub-angular to sub-rounded quartz grains. Rare, sub-angular black inclusions of uncertain type and rare fragments of weak red (?)iron ore.

Form Wheel-thrown jugs. The only features diagnostic of form are the glazes and a single springer for a strap handle and a possible bridge spout (136). A small basal sherd has a squared angle which, with the strongly marked grooves seen on some examples, is a feature of some Nottingham types.

Date Examples occur in Phases 5 and 6 though none are likely to be earlier than c. 1200. In Nottingham they are attributed a 13th-14th century date, one vessel from a cave on Drury Hill being associated with a coin of Edward III (pers. comm. Mr A G McCormick).

W14 c. AD 1250-1500 Major regional

This type is visually identical to the products of the Brill, south Buckinghamshire, kilns, some of which have been excavated (Jope 1952). It is, perhaps, the single most important regional import in medieval contexts on St Peter's Street.

Fabric Hard, smooth texture and fracture, 4-5mm thick. The only surface treatment is decorative and often takes the form of narrow vertical strips of a dark coloured slip sometimes impressed with square-notched rouletting. Baluster jugs have painted lines. Most sherds are fully oxidised with a core and unglazed surfaces reddish yellow to very pale brown. Glazes, often thickly applied, are in the olive, green yellow or yellow range. Occasional sherds are reduced to a uniform light grey. Rare to common sub-angular to sub-rounded quartz grains. Rare reddish brown granular fragments, possibly iron ore.

Form Wheel-thrown jugs, cooking pots, bowls and chafing dishes. Three well-known types of jug, namely baluster (355, 438), biconical and 'three-decker', are represented on St Peter's Street and many other sites in the town. The baluster jugs have painted lines and spots, the biconical and 'three-decker' have applied strips of dark and light coloured slip and rouletted motifs (565) and the 'three-decker' also has applied pads arranged in a foliate design. Other jug sherds include simple upright rims (175) with external thickening (361, 561, 565), some plain bases and some with external

thickening (289, 438, 601). Rod handles (602) are also present. Cooking pots and bowls are rare. It is assumed that cooking pots are represented by the fully reduced fabrics. The solitary bowl was found on Northampton Castle and is comparable with a small post-medieval type dish or porringer. A chafing dish is also present (611).

Date Examples occur in most houses in Phase 5 and throughout Phase 6. The earliest sherds belong to Phase 5 in which there are no contexts containing W14 which can be dated more precisely than the late 12th to late 14th centuries. Indeed in some cases it is the presence of Brill sherds that lends precision to the dating. In Oxford, Brill products are believed to start in the mid-13th century perhaps as an offshoot of an earlier, as yet unlocated, industry (pers. comm. Miss M Mellor). Brill sherds have been found all over the Midlands, several times in association with coins of Henry III and Edward I, as in Oxford and London (Bruce-Mitford 1939: 122), Edward I at St Neots Priory, Huntingdonshire (Hurst 1966: 56) and Edward III in Oxford (Bruce-Mitford 1939: 124) (see also Jope 1953-4; VCH Bucks. 2: 115). The industry at Brill continued in use until the 19th century. The terminal date for the medieval jugs on St Peter's Street is uncertain and they could continue well into the 15th century as their continual occurrence within Phase 6 may suggest.

W15 c. AD 1200-1500 Minor regional

The main affinities of this fabric appear to lie in the east Midlands, notably Cambridgeshire and Essex where kilns have been located and excavated but not fully published.

Fabric Hard, smooth texture and fracture, 4-6mm thick. Knife-trimming is evident on some sherds but otherwise surface treatment is decorative comprising white painted lines in a curvilinear motif below a thin (?)glaze. The core and unglazed surfaces are red. The glazes show as red but have spots of green yellow (?)copper. Common sub-rounded to rounded quartz grains. Rare, soft reddish brown (?)iron ore.

Form Wheel-thrown jugs. The only evidence for form is from the glazed and decorated nature of the sherds.

Date Stratified sherds occur in Phases 5 and 6, but none of the contexts is likely to be earlier than c. 1250. These sherds resemble the pottery in Cambridge and Essex where red wares are thought to make an appearance in the mid-13th century and to continue through to the Tudor period (Bushnell and Hurst 1952; Addyman and Biddle 1965: 114; Rahtz 1969: 94; Huggins 1976: 103).

W16 (Midland Purple) c. AD 1350-1550 Minor regional

The affinities of this type are with the late medieval 'Midland Purple' tradition of the north Midlands. It is unlikely that the Northampton examples come from Castle Donnington, north Leicestershire, the products of which are very coarse in comparison. A general source within the area of north Warwickshire, Derbyshire or Nottinghamshire is possible.

Fabric Very hard, almost stoneware, rough texture and smooth to rough fracture, 4-8mm thick. Core and surfaces usually weak red. Unglazed surfaces occasionally light grey. The glazes are usually very thinly applied. Common sub-rounded to rounded quartz grains.

Form Wheel-thrown cooking pots and bowls; cooking pots are best represented by a vessel from House 4, which has a simple curved profile and globular body with a short strap handle attached (377). Rims frequently have a shallow scoop removed from the top. Bowl rims are flanged externally, bases are flat and the body profile straight (378). Jugs, suggested by fragmentary handles, may be present but the evidence is inconclusive.

Date The earliest stratified, but possibly intrusive, example occurs in House 4, Phase 6A attributed to the mid-13th century (layer 61). Possibly of similar date but probably rather later is a sherd from House 9, Phase 5/6 but all the other examples were found in contexts clearly 15th century or later in date.

The dates c. 1350-1550 should be regarded as a suggestion, especially in view of the very limited number of sherds recovered from the site. Sherds were recovered from a domestic context

pre-dating the construction of a length of Coventry city wall on Well Street dated by documentary references to c. 1404-1432 (Gooder *et al.* 1966: 96, 103-4, 113-4). As the fabric occurs in House 10 in both Phases 6 and 7, a terminal date of 1550 is very provisional.

W17 (Midland Yellow ware) c. AD 1550-1700 Minor regional

The kiln source for this type is unknown, though Woodfield, who defined Midland Yellow wares (1966), suggested the Coventry region as a possibility.

Fabric Hard, smooth texture and fracture, 4-7mm thick depending on vessel type. The core and unglazed surfaces are a very pale brown to white and glazes, internally applied on the pancheons but externally otherwise, are yellow to a pale green yellow. The fabric is very fine with no apparent inclusions.

Form (Following Woodfield 1966). Part of candlestick holder (Type A) from an unstratified context on the Mayorhold. Tankards (Type Eb) straight-sided with single handle (476). Jar rim (Type H, sub-type unrecorded) of simple everted type with internal hollowing and slight external moulding (690). Pancheons (Type M, sub-type unrecorded) with simple rim, thickened externally and slightly moulded, and a steep body profile (687). Others (625) are simpler.

Date All examples occur within Phase 7, Houses 7 and 10 associated with Frechen stoneware, including a Bellarmine, and post-medieval coarse wares. There are no examples from contexts believed to be early 16th century in date, all being likely to belong to the late 16th-17th century, which is in accord with Woodfield's suggested date of late 16th to late 17th century based on evidence from Coventry (*ibid.*: 78).

W18 (Potterspurys ware) c. AD 1250-1500 Major local

Medieval kilns have been excavated in Potterspurys (Jope 1950; Mynard 1972) and the adjacent village of Yardley Gobion (Moore 1974). The products of the Potterspurys kilns have been summarised by Mynard (1970) though no final reports have appeared. A 17th century kiln has also been excavated in Potterspurys (Mayes 1968). The pottery attributed to Type W18 is visually identical to that recovered from the kilns excavated by Mynard and Moore.

Fabric Hard, smooth texture and fracture, 5-7mm thick. Signs of knife-trimming on the lower walls and often on the underside of the base are a common feature, especially of cooking pots, bowls and jugs. The core is frequently light grey. Unglazed surfaces are reddish yellow but can vary to within the range reddish brown or very pale brown. Some sherds are fully reduced to a uniform light grey but these are uncommon. Glazes, generally olive or clear(?)—in which case they appear as red with olive spots—occur on the inside of bowls and exterior of jugs. Spots of glaze can be present on cooking pots so the presence of an externally glazed sherd is not necessarily an indication of a jug. Rare to common sub-rounded to rounded quartz grains. Rare black or reddish brown fragments of iron ore. Very rare white calcareous fragments. The suggestion that 'grits are added' (Mynard 1970: 50) has not yet been verified.

Form Wheel-thrown cooking pots, bowls, jugs, cisterns, bottles, cups, lids, chafing dishes, dripping pans and costrels are all present. It is impossible to be certain of the form represented by a great many body sherds as decoration is very rare and the presence or absence of glaze, useful for some fabrics, is not a reliable indicator of likely form.

All types of cooking pot and bowl defined by Mynard (1970: 53-55) are represented (167, 176, 180-182, 293-294, 309-325) though pipkins have not been recognised. Bifid rims from cooking vessels (not mentioned by Mynard) are occasionally present (670). Most types of jug rim (243, 254, 371, 392, 401, 402), base and handle (282, 357, 370) are present including some vessels very much larger in size than those illustrated by Mynard. Cups, too small to illustrate, have been recognised by fragmentary rims, some of which are lobed. Bottles are identified by very narrow necks and simple rims and very small bases. All other forms are extremely rare on St Peter's Street. There are fragments of two lids shaped like inverted bowls, one with a knob on the top. The chafing dish sherds are too small to enable the type to be identified though one has knobs on the rim

and holes perforated through the wall. There is only one sherd from a dripping pan or fish dish. It is from the corner of a rectangular or squared vessel with a thumb rim and flat base (316). One costrel (403) of the type with a rounded base and two small perforated lugs was recovered. Cisterns (242, 380, 389) are also present occasionally.

Date Examples occur in Phases 5, 6 and 7. The stages by which W18 emerged as the dominant ceramic element on St Peter's Street are most clearly seen in Phase 6, House 4 (see phase summaries). The evidence of the quantitative data together with the two late 14th century coins sealed on the floor of Phase 6A suggests that Potterspurys ware was present in only small amounts before the turn of the 14th-15th centuries (Phase 5 1%; Phase 6A 11%) and that it subsequently increased dramatically (Phase 6A end 35%; Phase 6B-C combined 21%; Phase 6Di 52%). The increased popularity of W18 also coincides with the appearance of new ceramic types of which W16 (Midland Purple), W21 (Tudor Green) and east Midlands reduced and oxidised wares (W20, W29) are the most important.

This pattern of an increase in Potterspurys wares associated with new types is also apparent in Houses 1, 2, 3 and 10 where there are useful structural sequences. In view of the lack of other absolute dates it is assumed that the change took place at about the same time in each property.

Potterspurys ware appears to have continued in use right up to the destruction of the street early in the Tudor period and, perhaps, well into the 16th century. Indeed it is possible, though as yet unconfirmed, that kilns producing Cistercian wares (X2a) and the later Midland Black wares (X2b) are in or close to Potterspurys village, in which case the Potterspurys industry may have supplied Northampton well into the 17th century (cf. House 10).

Excavations and field work in central Northamptonshire and adjacent areas of north Buckinghamshire consistently produce sherds of Potterspurys ware but it is only at the deserted settlement of Wythemail (Hurst and Hurst 1969), halfway between Northampton and Kettering, that adequate published data from stratified contexts exists to facilitate comparisons. Here Potterspurys ware was found in a Period I ditch associated with Lyveden ware and attributed to the mid-13th century. Sherds also occurred in greater quantities in Periods II and III, the terminal date occurring before c. 1400 (Mynard 1969: 174-7). The early appearance of W18 at Wythemail compared with St Peter's Street is of some interest, but what may be more surprising is that the Potterspurys products are so rare before the end of the 14th century when place-name evidence suggests that the kilns had been operating from the late 13th century (quoted in Mynard 1970: 49). It is possible, however, that other perhaps wealthier establishments in the town such as the Castle had access to the superior Potterspurys wares from an earlier date than the occupants of St Peter's Street.

W20 (East Midlands late medieval Reduced ware) c. 1350-1600 Minor regional

The kiln source for this type, first defined by Moorhouse (1974a) is not known though it has affinities with material from the medieval kilns at Great Brickhill, Buckinghamshire. Within the Northampton type series the closest type is W7., thought to be from Bedfordshire.

Fabric Hard, rough texture and fracture, 5-8mm thick. One sherd has wipe marks on the lower part of the vessel walls. The core and surfaces are usually grey to light grey, sometimes with a brown margin just below the surface. Plentiful sub-rounded to rounded quartz grains. Rare fragments of reddish brown iron ore and very rare occurrences of white, calcareous inclusions.

Form Wheel-thrown cooking pots or bowls, porringers and jugs. A rim with a short external flange bevelled on the underside is broadly comparable with a bowl from Sawtry, Huntingdonshire (Moorhouse 1971a: Fig. 3.13), as is a small flat-based bowl or porringer. Jugs are represented by one undeveloped rim with a groove on the top and a plain strap handle.

Date The earliest examples are likely to date to c. 1400 or shortly before. All the other examples are from contexts which are stratigraphically and by other associations 15th century or later.

The latest sherds are from House 10, Phase 7: two examples were recovered from G87 attributed to the period c. 1550-1600 and one from a pit (G67) probably filled in the 17th century. The evidence from Northampton, therefore, broadly accords with Moorhouse's (1974a) conclusions which were that the type was introduced early in the 15th century and persisted to the end of the Tudor period.

W21 (Surrey white ware ('Tudor Green')) c. AD 1350-1600 Minor regional

As this type has been the subject of an extensive literature (Hurst 1964: 140-1; Matthews and Green 1969; Holling 1969; Moorhouse 1970: 59-62; 1971b: 44-6; Brears 1971: 23-26) discussion will be confined to points relevant to St Peter's Street material.

Fabric Hard, smooth texture and fracture, cups 1-2mm thick and jugs 3-5mm thick. The core and unglazed surfaces are a very pale brown to white. Glazes are a rich, smooth, green yellow and occasional sherds approximate to red. Glazes occur on both surfaces of cups but only partially cover the exterior of jugs. Rare sub-rounded to rounded quartz grains, otherwise no visible inclusions.

Form Cups and jugs. Cup sherds are usually too small for one to be certain of their precise form (390). Two types, however, can be recognised—lobed cups and Brears Type 4 (1971: 24), an imitation of Cistercian ware Type 4. Basal sherds show two forms, one with a pedestal (375) for lobed or carinated forms and one plain as for Type 4. Two jug forms are also present. The most common form has a conical or cylindrical neck (404-405) and plain base though it is not clear whether it is the larger early or the later squat type (Matthews and Green 1969: 7-8, Figs. 1-2). The other form has a waisted base (391) imitating German stoneware, notably Siegburg and Cologne products.

Date The earliest stratified example is a tiny chip probably from a cup on floor 266, Phase 6A, House 4, attributed, partly on numismatic grounds, to the late 14th century. All the other stratified sherds are from contexts probably 15th century or later, the latest occurring within House 10, Phase 7 which terminates in the 17th century. The dating suggested by the stratigraphy and associations is in broad agreement with many other sites in the Midlands and southern England where 'Tudor Green' has been recognised (Moorhouse 1970: 59-62; 1971d).

W29 c. AD 1350-1600 Major regional

This type is the oxidised counterpart of W20. The fabric is similar to, though not identical with, Fabric D found on Site J at Lyveden (Webster 1975: 77-82). Whilst Lyveden is not ruled out as the source of W29 it is possible that kilns operating elsewhere in the east Midlands produced similar fabrics.

Fabric Very hard, rough texture and fracture, 5-10mm thick. Surface treatment is confined to wipe marks though some sherds show occasional dribbles of white slip. The core is light grey and unglazed surfaces a reddish brown or more usually red. Glazes may be olive (rarely) or red to very dark brown or clear. Plentiful to common rounded quartz grains. Rare to common pieces of black, brown or reddish brown (?) iron ore of varying size.

Form Wheel-thrown pots, bowls and jugs but order of importance not clear. Cooking pots have plain everted rims with a slight thickening at the top (684). Bowls have plain external flanges (385) and a body profile that is slightly curved. Jugs have plain, upright rims with a slight groove on the top or internally (384) and plain strap handles dowelled into the body (682, 685). Glazes occur patchily on jugs and possibly on bowl interiors. One jug base has a frilly foot and a profile reminiscent of Raeren drinking mugs. Another base has notches on the external angle comparable with examples from the St Neots fishpond (Addyman and Marjoram 1972: Fig. 37, nos. 24, 26-7).

Date The earliest possible example is in House 4, Phase 6A, a small sherd with white slip and splashes of green glaze attributed to c. 1300-1400. All the other stratified examples are from later contexts. The largest collection was found in House 10, Phase 7 (G87) and attributed to c. 1550-1600. Five sherds occurred in the slightly later

fills of the (?)tanning pits. The dating compares favourably with that suggested for this and similar fabrics (Lyveden Fabric D) elsewhere (Moorhouse 1971a: 81-2; Addyman and Marjoram 1972: 81-85).

W32 c. AD 850-1100 Minor local

The kiln source is unknown though the forms show a clear affinity with Northampton ware (W1).

Fabric Hard, rough to harsh texture and rough to hackly fracture, 5mm thick. Strongly marked throwing ridges and occasional wipe marks are a feature of some sherds. Others have fingerprints and appear to have been splattered with wet clay. The core and surfaces are black to light grey or red to reddish brown. Common sub-rounded to rounded black and dull reddish brown non-magnetic grains. Rare to common flakes of white mica. Rare sub-rounded to rounded quartz grains.

Form Wheel-thrown cooking pots with a curved profile (229), sometimes with an internal hollowing for a lid seating. Very similar to Northampton ware cooking pots. No other diagnostic features recognised.

Date Examples occur in Phases 4, 5 and 6Bi though possibly residual in the latter two. See also under W1 (Northampton ware).

W34 c. AD 850-1100 Minor local

Kiln source uncertain but forms and fabrics have an affinity with Northampton ware (W1).

Fabric Hard, smooth to rough surface and fracture, 4-7mm thick. The core is grey to light grey and the surface reddish brown though the exterior can be black. Plentiful sub-rounded to rounded minute quartz grains. Rare sub-angular to sub-rounded quartz grains up to 0.5mm across. Rare granular reddish brown grains.

Form Wheel-thrown cooking pots and spouted bowl. Cooking pot rims have a curved profile sometimes with internal hollowing, similar to Northampton ware (W1). One example of a spouted bowl has a simple short flange externally and a hand-modelled spout attached with small pads of clay and by smoothing down surfaces.

Date Examples occur in Phases 4-6 but the *floruit* is probably Phase 4—Late Saxon. For further comment see Northampton ware (W1) of which W34 may be a sub-division.

W35 c. AD 850-1100 Minor regional

Kiln source unknown but the surface texture is similar to some Stamford ware.

Fabric Hard, smooth texture and rough fracture, 5-9mm thick. Wipe marks on both surfaces are a feature of this type. Core is light grey. The surfaces are grey, light grey, very pale brown or rarely reddish brown. Common sub-rounded to rounded quartz grains. Rare, granular, dull reddish brown fragments of (?)iron ore.

Form Uncertain, probably wheel-thrown—no diagnostic features recognised so far.

Date Examples occur in Phases 4 and 5 though probably residual in the latter. Late Saxon. For further comments see under Northampton ware (W1).

W36 (Leicester type ware) c. AD 850-1100 Minor regional

The closest affinities of this type are with the products of the Southgate Street, Leicester, kiln (Hebditch 1967-8).

Fabric Hard, rough to harsh texture and rough fracture, 5-6mm thick. There are cheese wire rings on the underside of a base. Some sherds show a core and interior in a very pale brown colour and part of the core and exterior a light grey. Others are completely reduced to a uniform light grey. Plentiful sub-rounded to rounded quartz grains.

Form Wheel-thrown. The only diagnostic feature is a flat base from a small globular shaped body, probably a cooking pot.

Date The only examples are in Phase 4, Houses 1 and 10. The presence of a sherd in pit 576, House 1 associated with a St Edmund Memorial penny suggests that this fabric was in use by the first half

of the 10th century. For further comments on date see under Northampton ware (W1).

W37 c. AD 1200-1500 Minor regional

Kiln source uncertain but possibly Oxfordshire.

Fabric Hard, smooth to rough texture and fracture, 3-5mm thick. The surface treatment is decorative and consists of thin applications of slip in lines and scrolls, some the same colour as the body and some a very dark brown. The core is light grey. The unglazed internal surface is light grey to reddish yellow and the glazed exterior is olive. Plentiful sub-rounded to rounded minute quartz grains.

Form Wheel-thrown. Highly decorated jugs are implied by the glazed and decorated sherds, the only other diagnostic feature being a stabbed strap handle.

Date The only examples are from trench E where sherds were associated with W14 (Brill) and V3. Examples from Northampton Castle are associated with large quantities of Potterspurty ware (W18) and sherds of Surrey white ware (W21).

W47 c. AD 1100-1500 Minor regional

The kiln source is unknown but the coarse texture may suggest an origin in Leicestershire.

Fabric Hard, harsh texture and hackly fracture, 4-7mm thick. One basal sherd has been fingered internally. The only other surface treatment visible is square-notched rouletting on one sherd. The core is black and brown. The surfaces are similar or light grey. Plentiful rounded quartz grains.

Form Possibly, though not certainly, wheel-thrown. There are no features diagnostic of any particular form.

Date Only one sherd has been recognised on St Peter's Street (Phase 7, House 10), almost certainly residual in its context. Others are known from Northampton Castle in association with St Neots type ware (T1) and Stamford ware (X1) though this does not necessarily reflect the fabric's date. A general medieval date range is the most that can be suggested on present evidence.

X1 (Stamford ware) c. AD 850-1250 Major regional

Kilns have been found in Stamford, Lincolnshire in Wharf Road (Wilson and Hurst 1969: 234-5, Fig. 70) and in levels sealed below Stamford Castle (pers. comm. Miss C Mahany). (For further discussion on Stamford ware see Hurst 1958; 1976; Kilmurry 1977a; Kilmurry 1977b.) The fabric descriptions below were kindly contributed by Miss K Kilmurry who has examined all the St Peter's Street material in connection with her work on Stamford ware.

Fabric A Moderately sandy varying from medium to light grey due to incomplete oxidation. Some sherds, especially those with glaze are completely oxidised. The basic colour range following Munsell (1973) is Neutral 2-8.5; 5YR with values greater than 5 but less than 8.5 and a chroma less than 5; 7.5YR values between 6 and 8.5 and chroma between 2 and 4. Frequent grains of sub-angular quartz, the majority in the range 0.03 to 0.17mm and some up to 0.40mm.

Fabric B Very fine texture and nearly always oxidised to a pale cream or whitish colour. Colours are Neutral values greater than 6.5; 2.5YR values greater than 6.6, chroma greater than 3.5 especially value 9, chroma 2; 7.5YR to 10YR 9/2. A few sub-angular quartz grains ranging from 0.03 to 0.13mm and occasionally larger; about half the grains are approximately 0.04mm. The clay matrix is full of smaller angular quartz grains approximately 0.02mm long.

Fabric C Very close visual resemblance to Fabric B but is slightly finer in texture. The Munsell range is as B above with more sherds having Neutral values greater than 8.5. Microscopically the clay matrix is also as B above except that there are fewer quartz grains.

Fabric D Very sandy often reduced to a dark grey colour and sometimes to a medium grey or even lighter. The reduced sherds are of Munsell range Neutral values less than 5.5 and 5YR values 2-4, chroma 1. Otherwise the colours are those of Fabric A. The quartz grains are fairly evenly distributed in the range 0.03-0.20mm.

Fabric G Finer texture than Fabrics A and D but slightly sandier

than B and C. Sherds are usually oxidised to a pale pink, the most common range being 2.5YR values greater than 6.5 and chroma greater than 3.5 though colours typical of Fabric B are also found. Quartz grains are generally between 0.03 and 0.17mm and only occasionally larger. They are in a clay matrix containing angular quartz grains approximately 0.02mm diameter.

Form The three main forms are cooking pots (446), bowls and pitchers (73, 139, 444, 473-4), though lamps, crucibles, ring-vases and others occur occasionally. No attempt is made here to define the forms and the reader should consult Kilmurry 1977a.

Date Examples have been found in Phase 4 and all subsequent phases. The earliest may be the sherds in House 2, Phase 4A and House 8, Phase 4B, pit 79 which can be linked with House 1, Phase 4B which contains a penny of St Edmund. An early 10th century date is suggested. It is not possible to point to a terminal date as Stamford ware is present in most subsequent phases. However, it appears to have been an important element in the 12th-early 13th centuries.

X2a (Cistercian ware) c. AD 1470-1550 Major regional

Cistercian wares, formally defined by Le Patourel (1966: 262-9) and extended by Brears (1971: 18-23) are known to have been made in several places in Yorkshire and the Midlands. The nearest definite kilns to Northampton were at Nuneaton (Wilson and Hurst 1968: 209; 1969: 287; Webster and Cherry 1974: 221; 1976: 200). It is possible that Cistercian ware was made at or near Potterspurty, Northamptonshire prior to the operation of the 17th century kilns excavated by Mayes (1968) but no positive evidence has been discovered so far.

Fabric Hard, smooth texture and fracture, 2-7mm thick—usually very thin. Cheese wire rings can be seen on some bases. The core is usually red but the range includes weak red and reddish brown. The surfaces are usually completely covered with a very dark brown glaze except for the undersides of the bases which show as a weak red. The fabric contains only rare, rounded quartz grains and no other discernible inclusions.

Form Wheel-thrown (following Le Patourel 1966 and Brears 1971). Cups, Type 4a, 4b, possibly Type 3 or 6 (convex rims to take lid), Type 5 costrel, and Type 1 lid. Some Type 4 cups and the lid are decorated with applied blobs of white slip. A small wide-mouthed bowl with a handle from House 1 may be a small chafing dish different in form to that illustrated by Le Patourel (1966: Fig. 7) and not included in Brears' type series.

Date Apart from a single intrusive sherd in Phase 5, House 1 and a few sherds in Phase 5, House 7, all examples occur in Phases 6 and 7. The introduction of Cistercian ware is perhaps evidenced in House 4 where, at the end of the stratigraphic sequence Cistercian ware appears in only small quantities in association with a high proportion of Potterspurty wares together with fabrics W20, 21 and 29. The earliest example in House 10 is associated with Raeren stoneware (Phase 6Aiii-B). A start date in the late 15th century seems reasonable. The change-over from the Cistercian to the Midland Black ware tradition can be seen in House 10 (phase summaries 6B-7) and a date c. 1600±50 is indicated but with the suggestion that c. 1550-1600 may be preferred. The associations in nearly all cases are with types known to be current during the 16th century and the very few sherds associated with 17th century material (House 7, Phase 7; House 10, Phase 7) could be explained as residual.

X2b (Midland Black wares) c. AD 1550-1700 Major local/regional

Beakers and mugs in this fabric defined by Brears (1971: 37-9) were made from Yorkshire to Kent (*ibid.*: 158-9, notes 61-7), the nearest kilns known being at Potterspurty (Mayes 1968). Sherds from Northampton probably came from a variety of sources of which Potterspurty and another perhaps close to Cambridge, on the basis of visual comparisons, are two possibilities.

Fabric Hard, smooth texture and fracture, 4mm thick. The core is usually weak red to red but occasionally grey. Apart from the

underside of the base the surfaces are covered with a very dark brown to black glaze. Rare sub-rounded to rounded quartz grains in a slightly granular matrix.

Form (After Brears 1971: 37-9). Wheel-thrown. Tall two-handled beakers with concave profile (480) (Type 1) and tall single-handled beakers with straight sides (Type 2) (478-479).

Date The earliest examples occur in House 10, Phase 7 associated with an otherwise Tudor or earlier pottery assemblage. If the dating to the late 16th century is correct the change-over from Cistercian to later forms must have occurred within the 16th century. There is no archaeological evidence for the terminal date of this type though a point towards the end of the 17th or early 18th century is usually accepted.

X1-Y (Stamford or continental ware) c. AD 850-1100 Minor regional/foreign

The only sherds incorporated in this type are a) red-painted wares, b) sherds in similar fabrics but without paint, c) grey wares. All the sherds in a) have been assigned to the Beauvais region of north France by one or more of the following scholars: Mr J G Hurst, Mr K J Barton, Dr R Hodges, Mr F Verhage, Mr R Thomson. The likelihood that they were foreign was undisputed until the discovery of red-painted 'wasters', some with splashes of glaze, from a pre-Conquest context below Stamford Castle, Lincolnshire (Kilmurry 1977b). The red-painted wares (32, 209-10, 425) from St Peter's Street have been compared visually with those from Stamford by Miss C Mahany, Miss K Kilmurry and the present writer and a Stamford origin seems probable. In view of the fabric affinities of some English and continental wares and before detailed scientific analysis can resolve the question of kiln source, the sherds must be regarded as potentially either Stamford or continental ware.

The sherds in category c) were identified as possibly of continental origin, perhaps Dutch or Rhenish, by Dr R Hodges. However, recent work on late Saxon pottery in eastern England, notably the discovery of more kilns at Stamford (pers. comm. Miss C Mahany), indicates at least the possibility that they may be English.

The sherds in category b) (208) were isolated by the present writer as appearing to differ in general appearance from native Late Saxon wares and to be similar to the red-painted wares. It now seems likely that they too should be regarded as only potentially foreign.

Y (Continental imports) Minor

Norman French grey ware Rim (517), possibly Hodges Class X1 cooking pot. Stratified in House 8, Phase 4. 10th-11th century. Identified by Dr R Hodges (pers. comm.).

Rouen ware Jug rod handle in white, sandy fabric with white pellets and red to clear glaze (259). Unstratified, House 2. 12th-13th century. Identified by Mr D C Mynard.

Pingsdorf type Rim for a narrow-mouthed vessel in a very gritty weak red fabric with diagonal strokes of reddish brown paint externally. Stratified in House 3, Phase 6Di. 13th-14th century. Identified by Mr J G Hurst and Mr K J Barton.

South Netherlands maiolica Small sherd from an altar or flower vase stratified in House 10, Phase 6B. Also a sherd from lower part of an altar vase with start of roundel which would have contained the IHS monogram. Unstratified. Date range well established to late 15th and early 16th century. Identified by Mr J G Hurst.

Stoneware The following types are present: Raeren drinking mugs in a dark brown or grey stoneware with globular body and frilly base (673, 678), late 15th to early 16th century though some survive into late 16th century (see Hurst 1967: 73-4); Frechen jugs (679-80) in a light brown often mottled stoneware, with narrow cylindrical neck, globular body and flat grooved base with cheese wire marks (Hurst 1964: 142-3); also Frechen Bellarmine (483) with Type IV mask (Holmes 1951); Cologne jug (683) in a light brown, shiny bronze stoneware possibly belonging to Group 2 dated 1525-75 (Hurst 1971: 46-7).

ANALYSIS OF POTTERY BY HOUSE AREA

by M McCarthy (Samian identified by B R Hartley)

House 1

Pottery phase summary

Phase 2 (1)

On stratigraphical grounds, only Middle Saxon or earlier pottery should be present. The bar-lip vessel (1) is tentatively reconstructed after the model of Cornish examples which it appears to resemble rather than the smaller round-based forms from the east of England, although a connection with the South-west appears unlikely.

Phase 4A-C

Several Late Saxon contexts on St Peter's Street contain large quantities of St Neots type ware (T1) (4-5, 11-19, 21) and negligible amounts of Northampton ware (W1), while others contain roughly equal proportions of both. They are referred to in this report respectively as T1 and W1 horizons although it is uncertain whether there is any chronological implication.

Phase 4A (3-9)

There is a high proportion of W1 but no significance can be attached to this because of the very small sample size.

Phase 4B (10-20)

Pit 576 would appear to belong to the T1 horizon. On stratigraphical grounds and the presence of metal-working debris, the phase can be tied in with Phase 4B in House 8 which has clear T1 horizon characteristics. Two St Edmund Memorial pennies from A575 and A576 perhaps indicate a date in the first half of the 10th century.

Phase 4C (21-8)

Phase 4C conforms to the W1 pattern and is also similar in composition to House 2, Phase 4B and House 8, Phase 4D, which are regarded as being contemporary. On ceramic grounds the phase can only be dated imprecisely to the 10th or 11th century. Stamford ware (X1) and red-painted wares (X1-Y), possibly either from Stamford or the Continent, are present in Phase 4C? and Phase 4C contained one thick possibly hand-made glazed sherd (W6) which is conceivably a Stamford product.

Phase 5 (34-139)

A notable feature of House 1 is the particularly large sample available for the period c. 1100-1400, although the structural contexts unfortunately contain little that is closely datable. More helpful are the pits, especially 391, 407, 436, 441 and 557, which can be linked in a stratigraphic sequence and grouped on the basis of characteristics of the local calcareous T2 wares and the associated regional imports. Discussion is more conveniently focused on the groups than on individual pits.

Group 1 (pit sequence 557, 391, 407) The T2 fabric is present in purple brown colours reminiscent of pre-Conquest St Neots type ware and includes cooking pots with curved (51-7) and everted (58, 60, 62) rims, unglazed jugs (61) and the base of a large storage vessel (67). The associated pottery includes splashed ware (W7₂) probably from the north Midlands, Stamford ware (X1) (73) and fabric V1. The only highly decorated sherd is from a Lyveden jug from pit 407, the latest pit in the sequence.

Group 2 (pits 603 and 436) Local T2 wares, present in brown and bright orange colours, now include squared and upright cooking pot rims (90-3). In the earlier pit (603), Potterspury wares (W18) are associated with regional imports from Oxford (W7₁), possibly the west Midlands (W11) and Brill (W14), the latter including '3-decker'

and biconical jugs. The later pit (436) contains a similar range of local and non-local wares with an absence, notable for such a large group, of Brill (W14) and Potterspury (W18) wares. This is perhaps a clear illustration of the extent to which the chance element determines the contents of a pit.

Group 3 (pits 441 and 414) The local T2 wares are now fully oxidised to a bright orange colour and are associated with glazed and decorated Lyveden jugs, as well as Brill and Potterspury sherds.

Although each of the three groups has a potential date range from the early 12th through to the 14th century, a chronological sequence which takes account of the stratigraphy, the affinities of the local T2 wares and the regional imports can be suggested as follows:

Group 1—c. 1100-1250, Group 2—c. 1200-1350,

Group 3—c. 1250-1400.

The changing character of the local T2 wares evident in this sequence finds broad confirmation in pits 142 and 92, House 9. Pit 121, House 7 and pit 12 on the Mayorhold (McCarthy 1976: 139) also belong to Group 1.

Phase 5-6A (141-8)

Layer 256 is directly comparable with Group 3 in Phase 5 above. Local T2 wares are present in bright orange colours in association with a variety of regional imports, notably decorated jugs possibly from the west Midlands (W11) and Brill (W14), as well as Potterspury ware (W18—6%). A date range terminating by c. 1400 seems likely for this phase.

Phase 6A (149-76)

The most useful contexts are the general layers 235 and 334. The local T2 wares, predominantly orange in colour, include cooking pots (155-160), bowls, unglazed rouletted jugs and glazed, decorated Lyveden jugs. There are 11 sherds of Potterspury (W18) ware (168) and a wide range of regional imports, chiefly jugs from Oxford (W7₁), the west Midlands (W11 and W11₁) (166), Nottingham (W13), Brill (W14) (175) and Stamford (X1). Others are from either the Leicestershire (W4) or Bedfordshire (W7₁) areas, or else of uncertain origin (V3, W8).

Taking the group as a whole it is interesting to see that the quantity and range of local T2 wares, together with the regional imports, is almost identical to that in Phase 5, Group 3. Potterspury (W18) wares, whose presence in quantity is a useful indicator of 15th century date (cf. House 4), are here comparatively few (29 sherds—6%). The pottery is consistent within the period c. 1250-1400, possibly extending even into the early 15th century if the paucity of Potterspury ware is regarded as fortuitous (see above Phase 5, Group 2).

Phase 6Bi (178-187)

Local T2 cooking pots (184, 6), bowls (183), jugs (185) and a lamp are associated with Potterspury (W18) (179-82), Oxford (W7₁), possible west Midlands (W11, W11₁), Brill (W14) and Stamford (X1) ware, and two fragments of a jug in an East Anglian oxidised fabric (W15).

The regional imports and local T2 wares on their own are consistent with a date range in the 13th to 14th century but the fairly large quantity of Potterspury ware (W18—21%), comparable to Phase 6B levels in House 4, perhaps lends support to a date in the 15th century, as is argued from the structural evidence (p. 17f). The absence of specifically 15th century forms or fabrics is probably not significant.

Phase 6Bii

The very small sample from this phase includes late medieval fabrics, notably a reduced ware (W20), a Surrey cup (W21), a local copy of a Raeren jug (W29) and Cistercian ware (X2a) besides Brill (W14), Potterspury (W18) and the local T2 wares. The pottery is typical of the late 15th or early 16th century.

Phase 6Biii

The only indication of a late medieval date is the solitary Surrey ware (W21) cup. The other sherds are unhelpful for dating but a curfew in the local T2 fabric is an interesting addition to the range of forms.

Table 10: House 1 sample sizes and types

Phase	2	4	5	5/6A	6A	6Bi	6Bii	6Biii	7	Totals
No. of sherds	11	164	1374	181	444	269	13	27	67	2550
Weight (kg)	0.025	2.390	16.815	1.640	4.355	2.415	0.265	0.180	0.500	27.185
Min. no. of vessels	4	35	118	24	61	31	7	5	11	c. 296
Types										
P										
R	1									1
S1	5									5
S2										
S3	2	7	3	1						13
S4										
S5		1		1						2
T1	2	86	48	3						139
T1-2		10	84	2	1	1				98
T2		2	1050	119	351	183	3	22	1	1731
T6										
T11										
V1			10	1		1				12
V3			4	1	11	2				18
V7			1							1
W1	1	43	54	16	4					118
W2										
W3		4	3							7
W4					1	2				3
W5										
W6		1		1						2
W7 ₁			9		10	3				22
W7 ₂			1		1					2
W7 ₃			1							1
W7 ₄			11		6					17
W7 ₅			1		1					2
W8					1					1
W9			2						1	3
W11			8	4	5	3				20
W11 ₇					3	4				7
W12			1	1						2
W13			2		2					4
W14			5	3	5	6	1		1	21
W15				1		2				3
W16										
W17										
W18			9	11	28	56	4	3	16	127
W20					1(?)		1			2
W21							1	1	2	4
W29							2			2
W32			1							1
W34		1	1							2
W35										
W36		1								1
W37										
W47										
X1		2	35	5	9	1		1		53
X2a			1				1		44	46
X2b										
X1-Y		2	2							4
Y										
Z					1	1				2
U		4	27	11	3	4			2	51

Phase 6Biv

The robber trenches 5, 23 and 409 contain a wide variety of wares from the pre-Conquest period onwards but with nothing later than the mid-16th century.

Phase 7

Pit 4 contained a useful group of Cistercian ware (X2a), Surrey ware (W21) and several Potterspury sherds (W18), which is consistent with a date in the period 1470-1550.

Comment

The pottery in House 1 is chiefly important for the sequence of Late Saxon and early medieval wares (Phases 4 and 5). Material assignable to the 15th century or later is not well represented. The range of regional imports is impressive and comes from all directions. Some (V3, W7₃ and W7₁) are cooking pots but most (W7₁, W7₂, W11, W11₁, W13, W14) are glazed jugs sometimes in the highly decorated tradition. One sherd of red-painted ware, probably from Stamford but conceivably from north France, is present in a pre-Conquest context, and there are other possible examples.

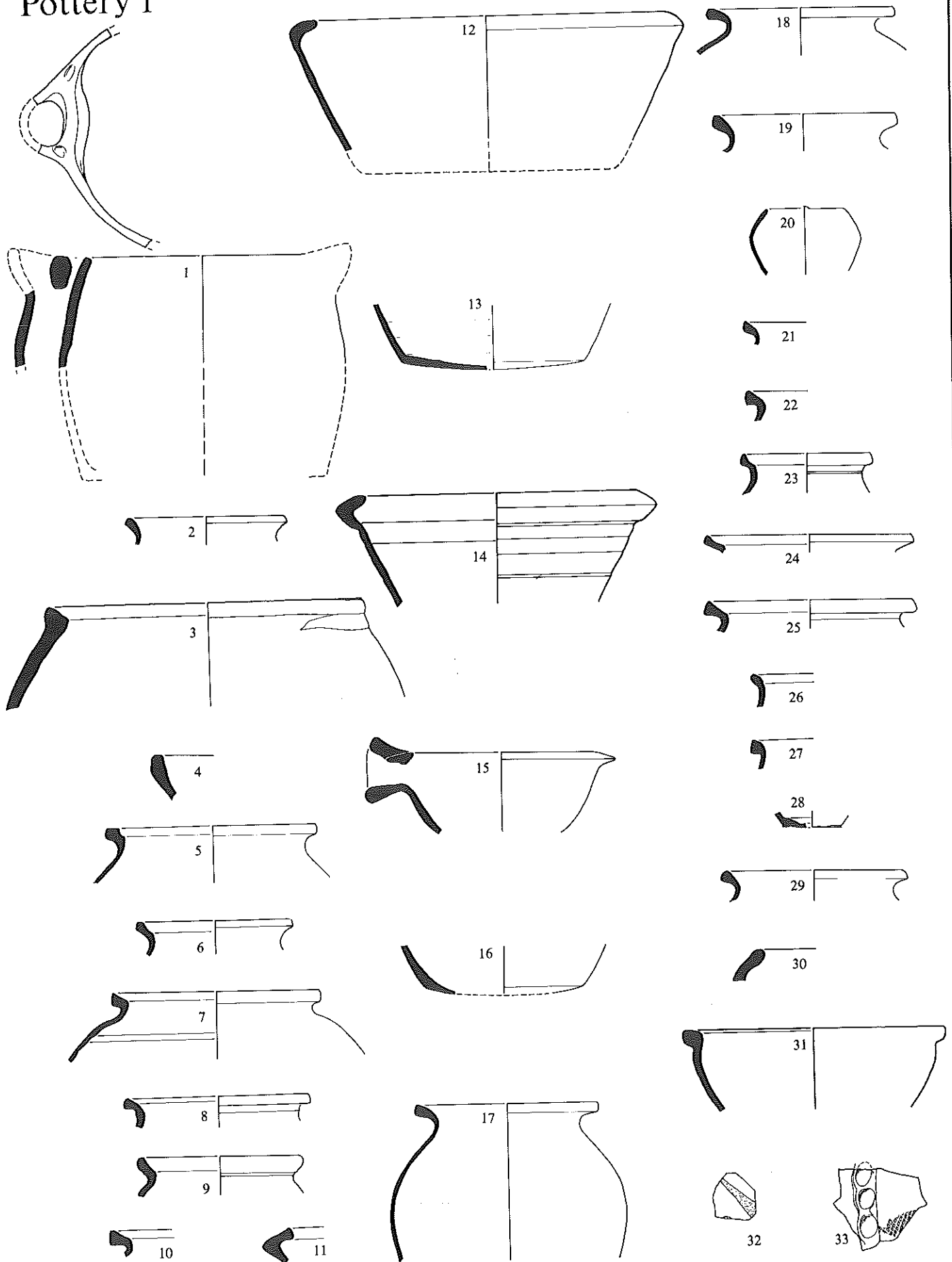
Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
1	2	796	S3	1/6:2:1	
2	3-4	467	T1	1:1:1	
3	4A	582	S3	1:1:1	
4	4A	582	T1	3:3:3	
5	4A	582	T1	3/9:3/9:3/9	burnt.
6	4A	582	W1	3:3:3	
7	4A	582	W1	3/9:3/9:3	
8	4A	582	W1	3:3:3	
9	4A	582	W1	3:3:3	
10	4B	574	W1	3:3:1/3	
11	4B	576	T1	6:2:1	
12	4B	576	T1	1:1:1	
13	4B	576	T1	4/6:4/6:4/6	
14	4B	576	T1	6:1:6	
15	4B	576	T1	1:1:1/6	
16	4B	576	T1	6:1:1	
17	4B	576	T1	6:1:6	
18	4B	576	T1	1:1:1	
19	4B	576	T1	1:3:1	
20	4B	576	W1(?)	1:1:1	? crucible.
21	4C	551	T1	1:1:1	
22	4C	551	W1	3/9:3/9:2/3	
23	4C	551	W1	3:3:3	
24	4C	551	W1	3:3:3	
25	4C	551	W1	5/7:3:5/7	
26	4C	551	W1	1:1:1	
27	4C	551	W1	1:1:1	
28	4C	551	W1	3:3:3	
29	4C?	550	T1	1:1:1	
30	4C?	550	T1	6:3:1	
31	4C?	550	W1	9:3/9:1	
32	4C?	546	X1-Y	7:2:4/7	painted
33	4	528	W3	2:2:2	
34	5	120	T2	6:3:6	
35	5	120	T2	7:3:7	
36	5	120	W1	3:3:2	
37	5	418	T2	1:1:1	
38	5	418	T2	7:3:7	
39	5	418	W7 ₁	3/9:3:5	
40	5	439	T1	6:6:6	
41	5	439	T1	1:1:1	
42	5	439	T1	6:1/6:6	

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
43	5	439	T1	3:1:1	
44	5	439	T1-2	1:1:1	
45	5	439	T1-2	1:1:1	
46	5	439	W7 ₃	2:2:2	
47	5	308	W1	3:3:3	
48	5	391	T1-2	1:1:1	
49	5	391	T1-2	6:4/6:1	
50	5	391	T1-2	1:1:1	
51	5	391	T2	1:1:1	
52	5	391	T2	6:3:1	
53	5	391	T2	8/9:3:6	
54	5	391	T2	6/9:3:6/9	
55	5	391	T2	7:3:7	
56	5	391	T2	1:1:1	
57	5	391	T2	6/9:2:6/9	
58	5	391	T2	1:1:1	
59	5	391	T2	1:1:1	
60	5	391	T2	7:3/6:3/6	
61	5	391	T2	6/8:2:6/8	
62	5	391	T2	7:3:2	
63	5	391	W1	9:9:1/9	
64	5	391	W7 ₁	1:1:1	
65	5	391	W7 ₁	7:1:6	
66	5	391	W7 ₁	2/3:1:1	
67	5	407	T1-2	3/6:2:3/6	
68	5	407	T2	7:3:7	
69	5	407	T2	7:3:6	
70	5	407	T2	7:3:7	
71	5	407	T2	7:3:7	
72	5	407	T2	7:3:7	
73	5	407	X1	8:8/9:10	
74	5	414	T1-2	1:1:1	
75	5	414	T2	6:6:6	
76	5	414	T2	7:3:7	
77	5	414	T2	7:2:7	
78	5	436	T1-2	1:1:1	
79	5	436	T2	6:3:2	
80	5	436	T2	7:3:7	
81	5	436	T2	8/9:8/9:8/9	
82	5	436	T2	6:3:6	
83	5	436	T2	6:3:1/6	
84	5	436	T2	7:3:7	
85	5	436	T2	7:3:7	
86	5	436	T2	6:3:1/6	
87	5	436	T2	9:9:9	
88	5	436	T2	7:1:7	
89	5	436	T2	7:3:7	
90	5	436	T2	7:3:6	
91	5	436	T2	7:3:7	
92	5	436	T2	6:3:6	
93	5	436	T2	7:3:7	
94	5	436	T2	8:3:1	
95	5	436	T2	7:2:1	
96	5	436	T2	6:3:6	
97	5	436	T2	6:3:6/7	
98	5	436	T2	7:3:7	
99	5	436 ⁹	T2	7:3:7	
100	5	436	T2	7:3:7	
101	5	436	T2	7:3:7	
102	5	436	T2	7:3:7	
103	5	436	T2	6:3:7	
104	5	436	T2	6:3:11	

Fig 80

Pottery 1

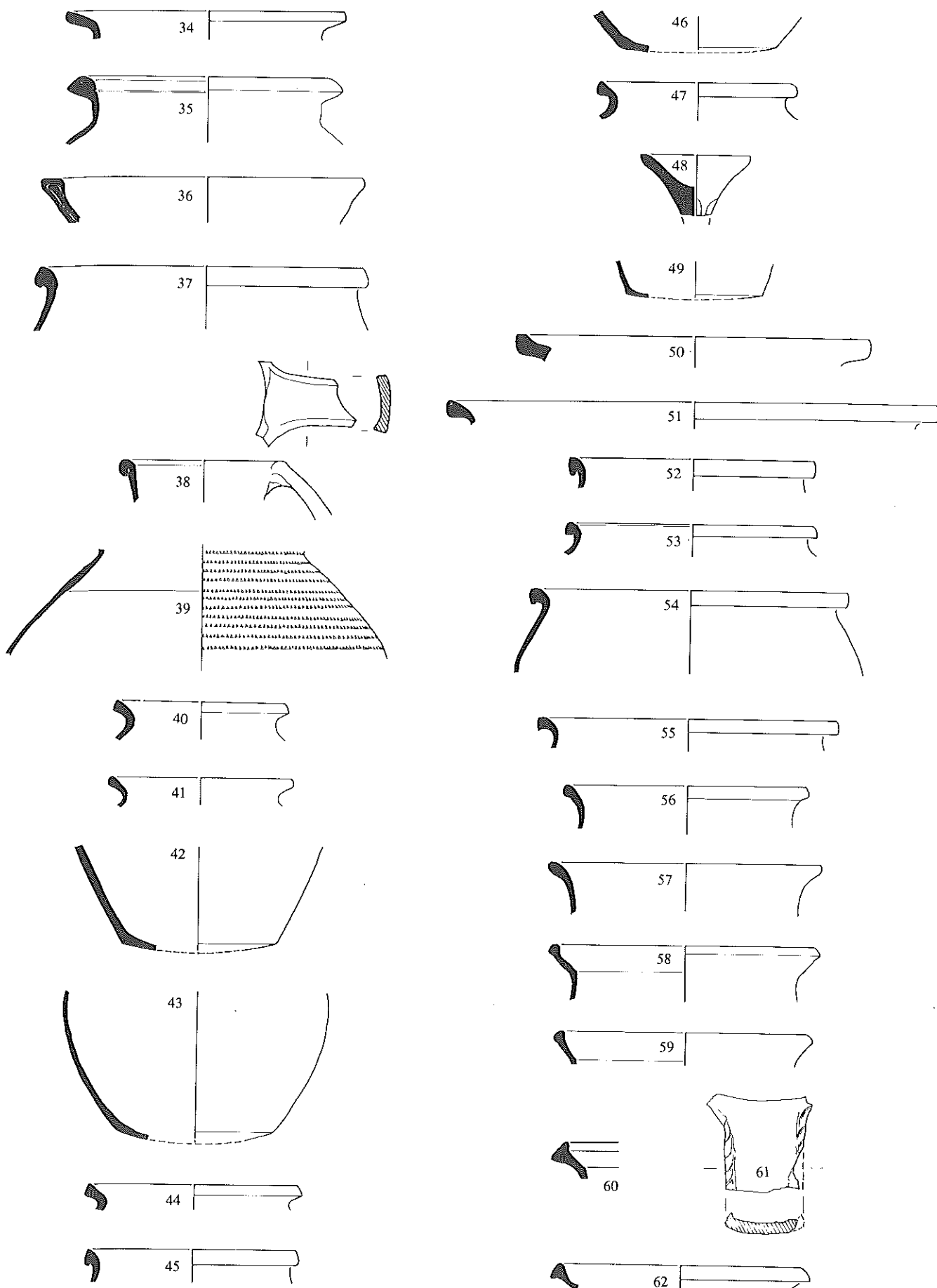


Scale 1:4

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Pottery 2

Fig 81

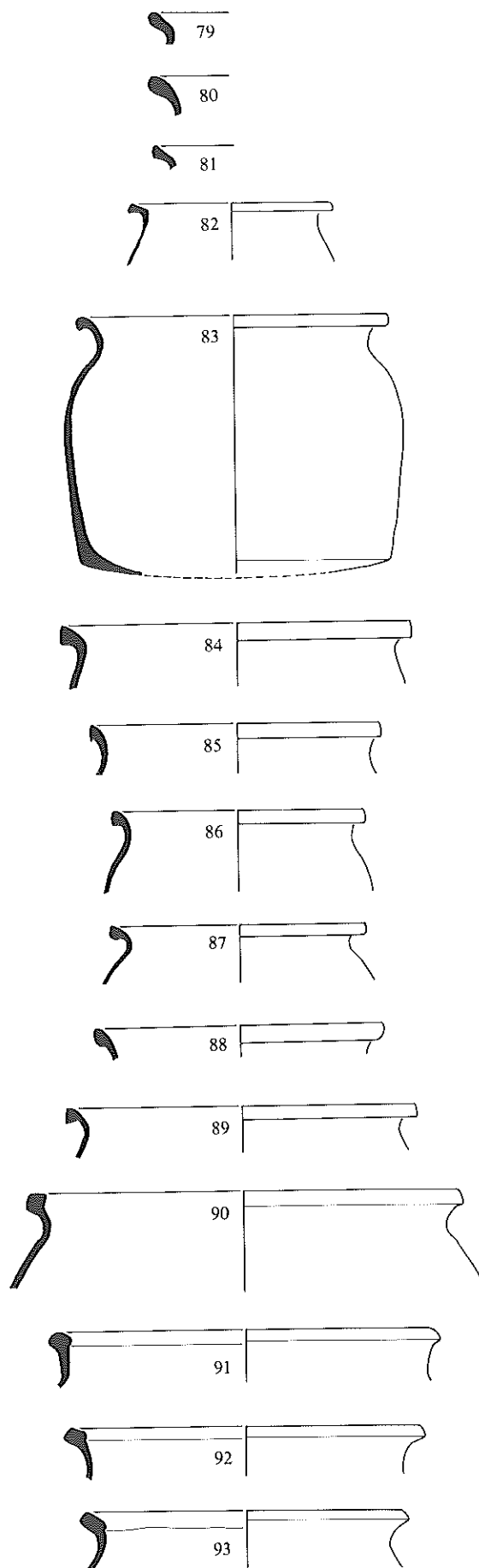
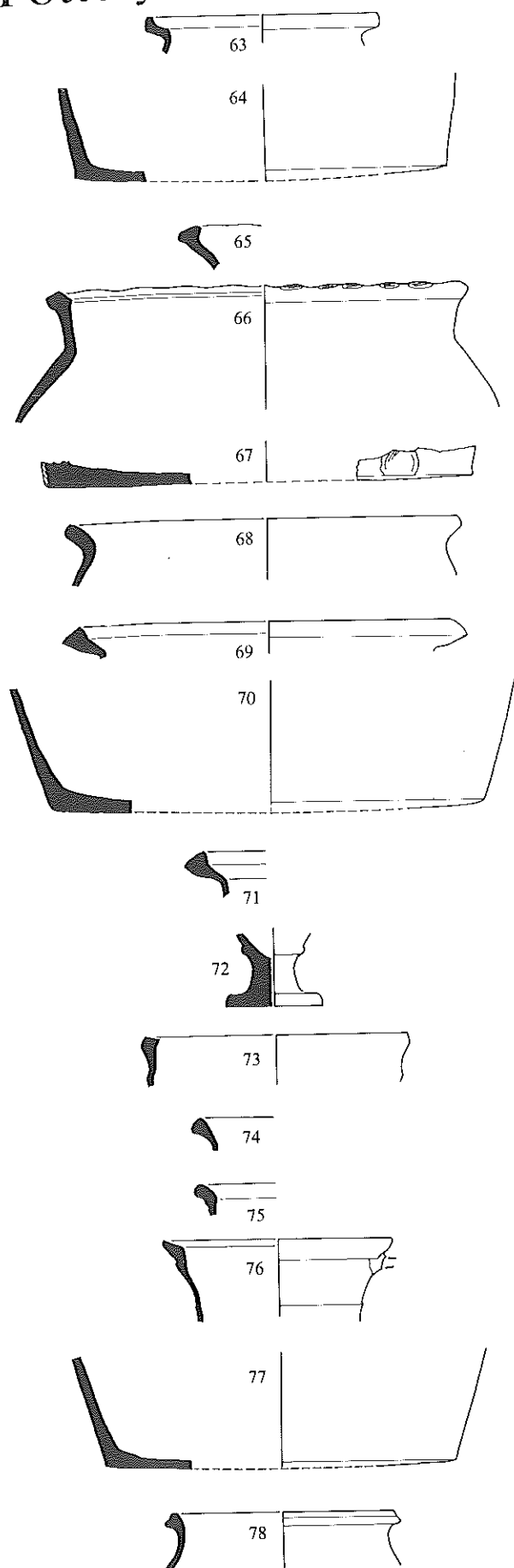


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Fig 82

Pottery 3



Scale 1:4

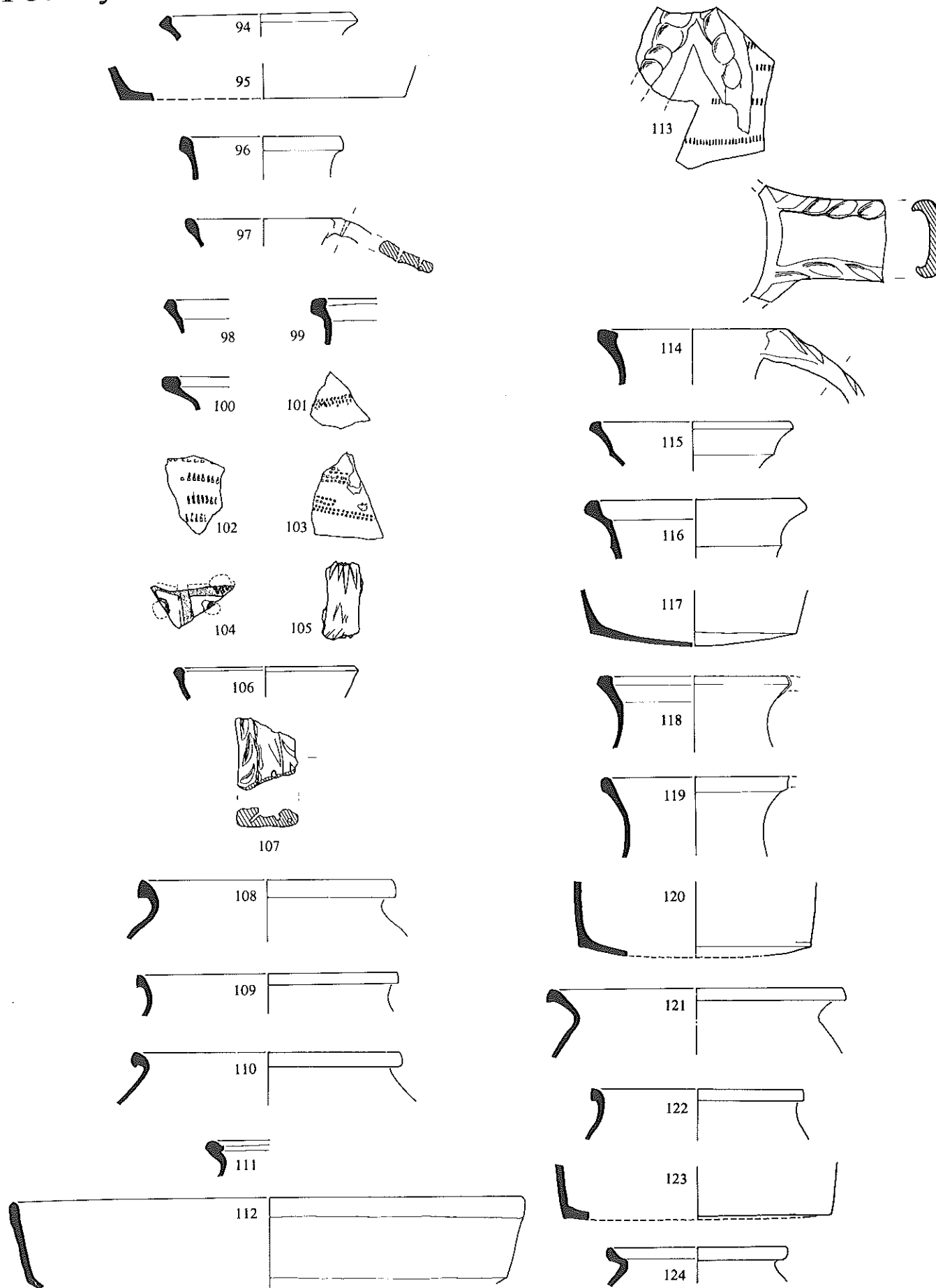
mm 0 50 100 200

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
105	5	436	T2	3/6:3/6:3/6	
106	5	436	W1	2:2:2	
107	5	436	W11	9:9:12	
108	5	441	T2	7:3:6	
109	5	441	T2	6:3:2	
110	5	441	T2	6:3:2	
111	5	441	T2	7:3:7	
112	5	441	T2	6:3:6	
113	5	441	T2	7:3:7	
114	5	441	T2	7:3:7	
115	5	441	T2	7:3:7	
116	5	441	T2	7:3:6	
117	5	441	T2	7:3:7	
118	5	441	T2	7:3:7	
119	5	441	T2	6:3:7	
120	5	441	T2	7:3:7	
121	5	508	T2	7:3:7	
122	5	508	T2	6/7:3:2/3	
123	5	545	T2	1:1:6	
124	5	545	W1	9:9:3/9	
125	5	557	T2	3:3:2	
126	5	557	T2	6:3:1/6	
127	5	557	T2	6:3:6	
128	5	557	T2	1:1:1	
129	5	557	T2	6:3:6	
130	5	557	T2	1/4/6:1/4/6:1/4	
131	5	557	T2	1/4:1:1	
132	5	557	T2	3:3:7	
133	5	603	T2	7:3:11	
134	5	604	T2	7:3:1	
135	5	604	T2	7:3:7	
136	5	604	W13?	9:3:11/12	
137	5	605	T2	7:3:6	
138	5	605	T2	1:1:1	
139	5	605	X1	9:9:11	
140	5-6A	256	S5	1:1/6:1	
141	5-6A	256	T1	1:1:1	
142	5-6A	256	T2	4/6:4/6:1	
143	5-6A	256	T2	7:3:7	
144	5-6A	256	T2	7:3:7	
145	5-6A	256	W1	1:3:1	
146	5-6A	256	W1	3:3:3	
147	5-6A	256	W1	3:3:3	
148	5-6A	385	T2	7:3:7	
149	6A	15	T2	7:3:7	
150	6A	15	T2	7:7:7	
151	6A	22	T2	7:3:7	
152	6A	22	T2	6:3:6	
153	6A	22	T2	7/8:3:7	
154	6A	149	W18	1:1:1	
155	6A	235	T2	7:3:7	
156	6A	235	T2	7:3:7	
157	6A	235	T2	7:3:7	
158	6A	235	T2	1/6:1:1	
159	6A	235	T2	7:3:7	
160	6A	235	T2	7:3:7	
161	6A	235	T2	6:3:1	
162	6A	235	T2	7:3:7	
163	6A	235	T2	7:3:7	
164	6A	235	T2	3:3:3	
165	6A	235	T2	6/7:2:2	
166	6A	235	W11	8:9:12	

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
167	6A	235	W18	6:2:6	
168	6A	235	W18	7:3:7/11	
169	6A	334	T2	7:3:7	
170	6A	334	T2	6:2:6	
171	6A	334	T2	6/8:3:6/8	
172	6A	334	T2	8:3:7	
173	6A	334	T2	6:3:6	
174	6A	334	T2	7:3/7:7	
175	6A	334	W14	8:8:8	
176	6A	257	W18	8:3:8	
177	6A?	419	X2a	14:3:14	
178	6Bi	177	T2	7:3:7	
179	6Bi	177	W18	8:3:8	
180	6Bi	177	W18	8:3:7	
181	6Bi	206	W18	8:8:8	
182	6Bi	206	W18	8/9:3:8/11	
183	6Bi	224	T2	7:3:7	
184	6Bi	224	T2	3/9:3:3/9	
185	6Bi	224	T2	7:3:6	
186	6Bi	224	T2	7:3:6	
187	6Bi	78	T2	11:9:11	

Fig 83

Pottery 4

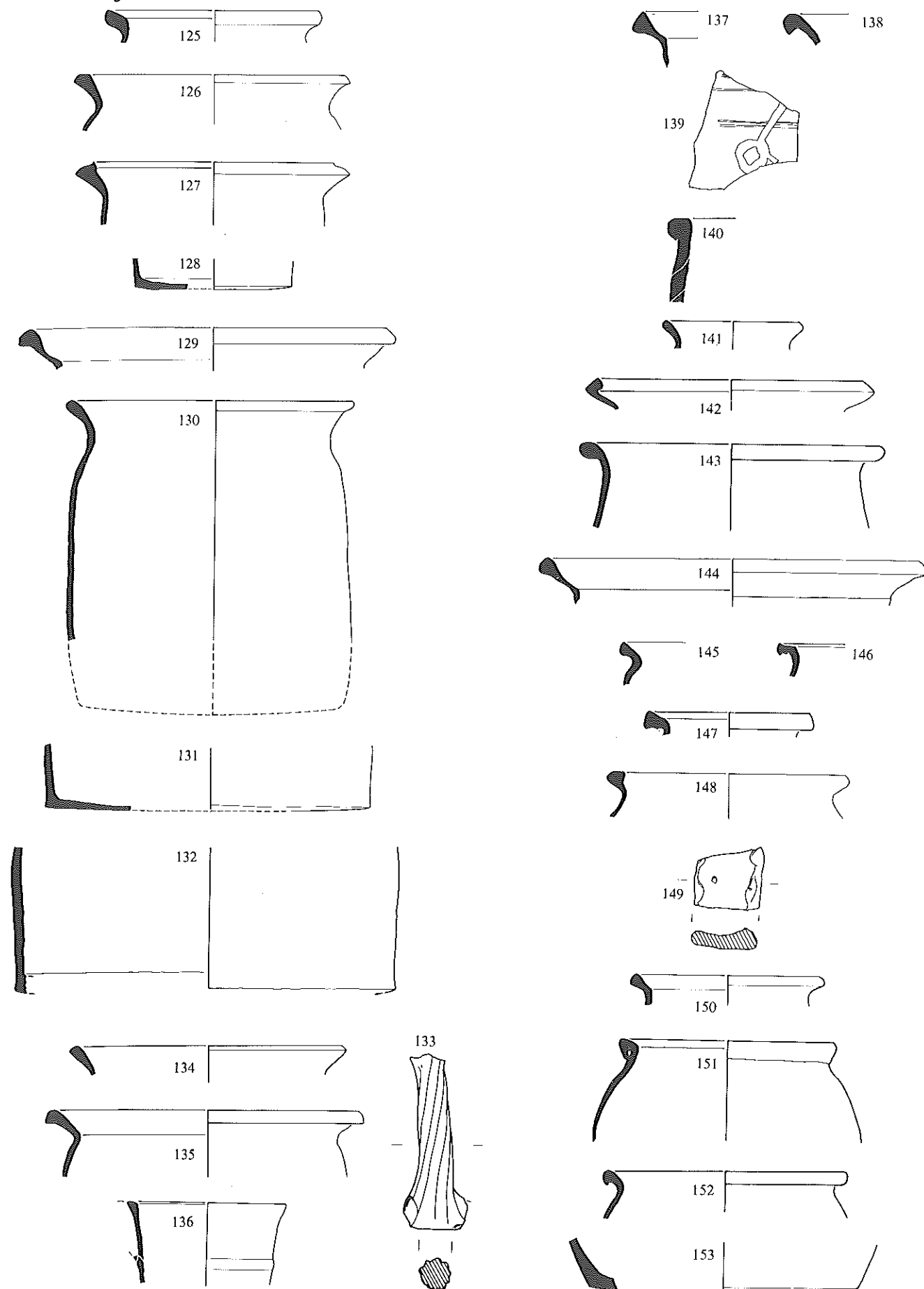


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Pottery 5

Fig 84

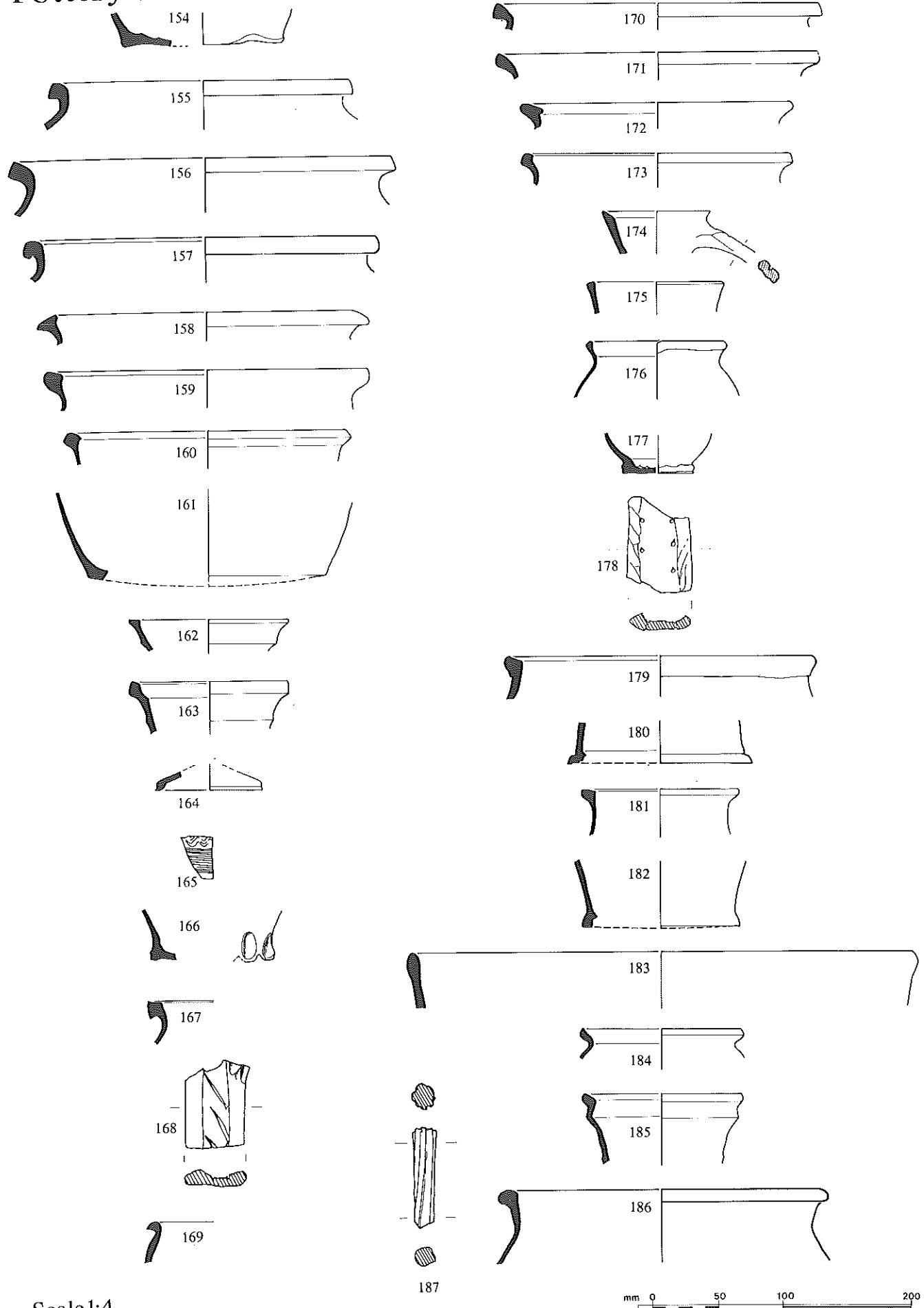


Scale 1:4

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Fig 85

Pottery 6



Scale 1:4

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 4						
140	P	5	3	S3 W1 U	AB1 AB2 ABC2	
528	P	8	2	T1 W3	AB5 E ₈ ?3	33
569	P	10	3	T1 T1-2 W1	A2 ABC7 AB1	
PHASE 4/5						
654	T	10	2	T1 W1	A2/AB7 AB1	
421	F	13	3	T1 T1-2 W1	AB8 ABC1 A3/AB1	
655	D	6	3	S3 T1 T1-2 W1	AB1 A1 ABC1 AB3	
PHASE 5						
125	O	4	2	T2 X2a	A1/AB2 F ₁ 1	
482	O	5	1	T2	ABC5	
484	T	24	3	T2 V3	A2/ ABC13/ AE ₈ 8 ABC1	
82	H	5	2	T1-2 W1	AB2 AB3	
119	G	13	4	T1 T1-2 W1 X1? U	AB2 A2/AB6 AB1 ABC1 ABC1	
120	G	60	7	T2 W1 W1? U	A29/C1/ ABC11 A1/B1/ AB7 A1 ABC9	34-35 36
118	P	54	9	T2 V1 W1 W7 ₁ X1-Y U	A5/C1/ ABC42 ABC2 AB1 C ₁ 1 ABC1 ABC1	37-38 39
39	P	42	7	T1 T1-2 T2 W1 W1? W7 ₅ W11 X1-Y U	A9/AB19 A2 A1/ABC4 AB2 AB1 AB1 C?1 ABC1 ABC1	40-43 44-45 46

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
473	P	4	2	T2 W9 U	ABC2 ABC1 ABC1	
526	P	3	1	T2	A1/ABC2	
541	P	17	3	T1 W1 W3 U	A1/AB10 A1/AB1/ ABC1 AB1 AB2	
543	P	1	1	T1-2	ABC1	
618	P	1	1	T1-2	ABC1	
308	P	16	7	S3 T2 W1 W7, W9 W11? W18 U	AB3 (SF 3305) ABC4 A1 ABC1 ABC1 ABC1 ABC2 ABC3	47
391	P	121	23	T1-2 T2 W1 W7, W7, X1 U	A2/D1 A16/ ABC74 A1/AB9 ABC1 A7/ABC3 ABC5/ E ₁ 1 ABC1	48-50 51-62 63 64-66
407	P	62	8	T1-2 T2 W1 W3 X1 U	AB1/E ₈ 1 A4/ ABC42/ D1 AB3 AB2 C2/ABC5 ABC1	67 68-72 73
414	P	84	8	T1-2 T2 V1 V3 W7, W7, X1 U	A1 C6/ ABC68 ABC2 ABC2 C1/ABC1 C1 C1 ABC1	74 75-77
425	P	4	2	T2 V3	ABC3 ABC1	
436	P	516	46	T1 T1-2 T2 V1 V3 V7 W1 W7, W11 W12? W32 X1 U	A1/B2 A4/B1/ ABC51/ AE ₂ 2 A61/B2/ C17/ ABC339/ D3 C1/ABC4 ABC1 ABC1 ABD1 ABC3 A3/C2 ABC1 ABC1 C8/ABC2 C1/ABC4	78 79-105 106 107

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 6Biii							PHASE 6B?							PHASE 7						
90	X	27	5	T2	C1/ABC7/ E ₆ 14		12	W	2	1	T2	A2		134	O	4	3	T2	ABC1	
				W18	ABC3													W18	ABC1	
				W21	F1		94	F	8	4	T2	ABC4						X2a	F ₂ 2	
				X1	C1						W7 ₁	C ₁ 1								
PHASE 6B											W18	ABC1								
											X2a	F ₂ 1		4	P	67	11	T2	A1	
223	F	19	3	T2	ABC4		176	G	2	1	W18	ABC2						W9	C1	
				W1	A1													W14	C1	
				W18	C14		PHASE 6											W18	A1/C2/ ABC11/ E ₄ 2	
							216	F	2	1	T1	AB2						W21	F2	
																		X2a	F ₂ 44	
																		U	ABC2	

House 2

Pottery phase summary

Phases 1-3
The Early-Middle Saxon sherds (S1,2; possibly also S3 of Maxey Group III type (Addyman 1964: 47-52) are all small and lack the features necessary to identify vessel shapes. The Late Saxon pottery is **probably** intrusive. A more precise date than the 5th-9th centuries is therefore not possible.

Phase 4A (188)
The phase contains a mixture of Early-Middle and Late Saxon wares. The latter include a sherd of Thetford type ware (W3) and one sandy, off-white sherd with light green glaze externally, identified by Miss K Kilmer as possibly Stamford ware. This is the earliest stratified post-Roman glazed ware so far recognised in Northampton. Associated finds include a sceatta (Nu6) and a penny of Berhtwulf (Nu7). The nature of deposit 713/4 (p. 25) would support the Early-Middle Saxon material being residual and a date for Phase 4A of c. 900±50 is possible on ceramic grounds and not inconsistent with the other evidence.

Phase 4B (189-210)
The pottery assemblages in layers 553 and 547 are similar and can be considered together. St Neots type ware (T1) (189-191, 199-205) and Northampton ware (W1) (192-6, 206-7) predominate in proportions (T1—38%; W1—28%) comparable to the W1 horizon in Houses 1 and 8. Among the St Neots type wares are cooking pots and bowls, while the Northampton ware includes part of a spouted pitcher rim with traces of a thin bluish slip externally (206). The red-painted wares (X1-Y)(208-210), originally thought to be foreign, must now be regarded as at least potentially from the Stamford ware kilns (Kilmer 1977b). There were no rims, bases or handles but the curvature of the body sherds is reminiscent of the large handled storage jars from Stamford Castle, (pers. comm. Miss C Mahany). Phase 4B should be dated within the 10th or 11th centuries.

Phase 5A (211)
The small mixed sample includes pre- and post-Conquest wares.

Phase 5A-B (212-214)
Much of the pottery consists of small, mostly featureless sherds of reduced St Neots type (T1-2—65%) ware, a fabric which in Northampton is characteristic of both the pre- and post-Conquest periods and which shows little discernible change until the 12th century. Apart from a few St Neots type wares (T1) (212-4) the other fabrics include Northampton and Northampton type ware (W1—16%; W34—1%) both of which are believed to have stopped being produced by the end of the 11th century. The uncertain attribution of the T1-2 wares together with the single post-Conquest

rim and the stratigraphic position of layer 271 combine to suggest a date beginning in the Late Saxon period and ending in the mid-12th century. The Stamford wares and potential continental imports (X1, X1-Y) are also consistent with this date range.

Phase 5B (215-218)
The range of pottery includes pre- and post-Conquest wares. The presence of several local calcareous wares (T2) (216-7) and the Oxfordshire type glazed sherd (W7₁) probably indicate a general post-Conquest date for this phase.

Phase 6Ai (223-230)
The chief element is the local calcareous fabric (T2) in cooking pot shapes (224-7). The fabric has a general date range of 12th to end-14th century, the same as the other fabrics excepting Potterspurty ware which has a *floruit* in the 14th-15th centuries (cf. House 4, Phase 6). The scarcity of Potterspurty ware and the absence of highly decorated wares may suggest a construction date before the 14th century but the small sample size must be borne in mind.

The Late Saxon spouted bowl (230) should be noted.

Phase 6Aii (231-236)
The local T2 wares include unglazed jugs with rouletted decoration, a curfew (231) and a lamp with a pointed base (234) as well as cooking pots (233, 235-6) and a bowl. There is little that is useful for dating purposes.

Phase 6A-B (237-240)
The local calcareous T2 wares represented by cooking pots and glazed, decorated jugs are generally comparable to ceramic Groups 2 and 3 in House 1. Six Potterspurty ware (W18) sherds include a probable bowl with internal glazing and a decorated Brill (W14) jug with a bulbous body. A date within the 13th or 14th centuries is probable.

Phase 6Bi (241-248)
Three Potterspurty ware (W18) (242-3) sherds incorporated in wall 16 may suggest a construction date in the 14th century or later. The generally high proportion of Potterspurty wares (W18—48%) and the presence of a Surrey cup (W21) indicate occupation continuing into the 15th century (cf. Phases 6B-D, House 4, confidently assigned to the 15th century). Among the other pottery is a Brill type baluster jug with painted criss-cross decoration (W14), sherds from the north Midlands (W7₂) and possibly Surrey (W11).

Phase 6Bii
The Cistercian ware (X2a) is unlikely to be earlier than c. 1470 and with the robber trenches 23 and 103, which contain nothing necessarily later than c. 1550, suggests a destruction date in the late 15th or early 16th centuries.

Unstratified (255-259)
A rod handle, with applied white pellets and stabbing, belonging to a Rouen jug (259) was found in association with local T2 wares

Table 11: House 2 sample sizes and types

Phase	1-3	4	5	6Ai/ii	6A-B	6Bi	6Bii	Totals
No. of sherds	52	231	179	147	89	190	10	898
Weight (kg)	0.200	2.545	0.970	1.505	0.660	1.850	0.075	7.805
fin. no. of vessels	6	32	24	23	11	26	6	c.128
Types								
P								1
R		1						41
S1	35	6						8
S2	5	3						24
S3	2	21		1				
S4								
S5								106
T1	2	75	19	8		2		136
T1-2	2	1	86	37	7	3		248
T2		1	35	79	64	67	2	1
T6			1					
T11								6
V1				2	1	2	1	2
V3				1		1		1
V7					1			97
W1	1	64	23	6	2	1		
W2								2
W3		2						
W4								
W5								
W6								3
W7 ₁			1	1	1			3
W7 ₂						3		
W7 ₃								
W7 ₄								2
W7 ₅				2				
W8						1		1
W9						1		1
W11								
W11 ₁								
W12								
W13					1	5	1	7
W14					1			5
W15				4			2	2
W16								
W17				1	6	86	2	95
W18						2		2
W20						7		7
W21								
W29						1		3
W32		1		1				15
W34		13	2					15
W35		15						
W36								
W37								
W47								15
X1		3	2	2	4	4		2
X2a							2	
X2b								19
X1-Y		12	7					
Y								
Z								28
U	5	13	3	2	1	4		

and Oxfordshire and Stamford ware jugs in a disturbed area of the
ard to the north of the house.

Comment

The quality of the ceramic evidence is rather low, chiefly because
of the small sample sizes. Phase 4 can usefully be compared with
the W1 horizon in Houses 1 and 8. Subsequent phases follow the
trend evidenced by Phase 5, House 1 and Phase 6, House 4, but
only the larger quantities of pottery in Phase 6Bi enable more
positive statements on dating to be made.

Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
88	4A	664	W1	1:3:1	
89	4B	553	T1	1:1:1	
90	4B	553	T1	1:1:1	
91	4B	553	T1	6:3:6	
92	4B	553	W1	9:3:9	
93	4B	553	W1	3:3:3	
94	4B	553	W1	3:3:3	
95	4B	553	W1	3:3:3	
96	4B	553	W1	4:4:4	
97	4B	553	X1-Y	9:9:9	
98	4B	547	R	1:3:1	
99	4B	547	T1	1:1:1	
200	4B	547	T1	6:3:1/6	
201	4B	547	T1	1:1:1	
202	4B	547	T1	1:2:1	
203	4B	547	T1	6:3:1	
204	4B	547	T1	1:1:1	
205	4B	547	T1	1:1:1	
206	4B	547	W1	9:3/9:3/9	
207	4B	547	W1	3:3:2	
208	4B	547	X1-Y	3/7:3/7:3/7	
209	4B	547	X1-Y	7:7:4/7	
210	4B	547	X1-Y	7:9:4/7	
211	5A	434	W1	1:3:1	
212	5A-B	271	T1	1:1:1	
213	5A-B	271	T1	1:1:1	
214	5A-B	271	T1	3:3:3	
215	5B	372	T1	1:1:1	
216	5B	372	T2	1:1:1	
217	5B	367	T2	3/6:3:3/6	
218	5B	410	W1	3:3:3	

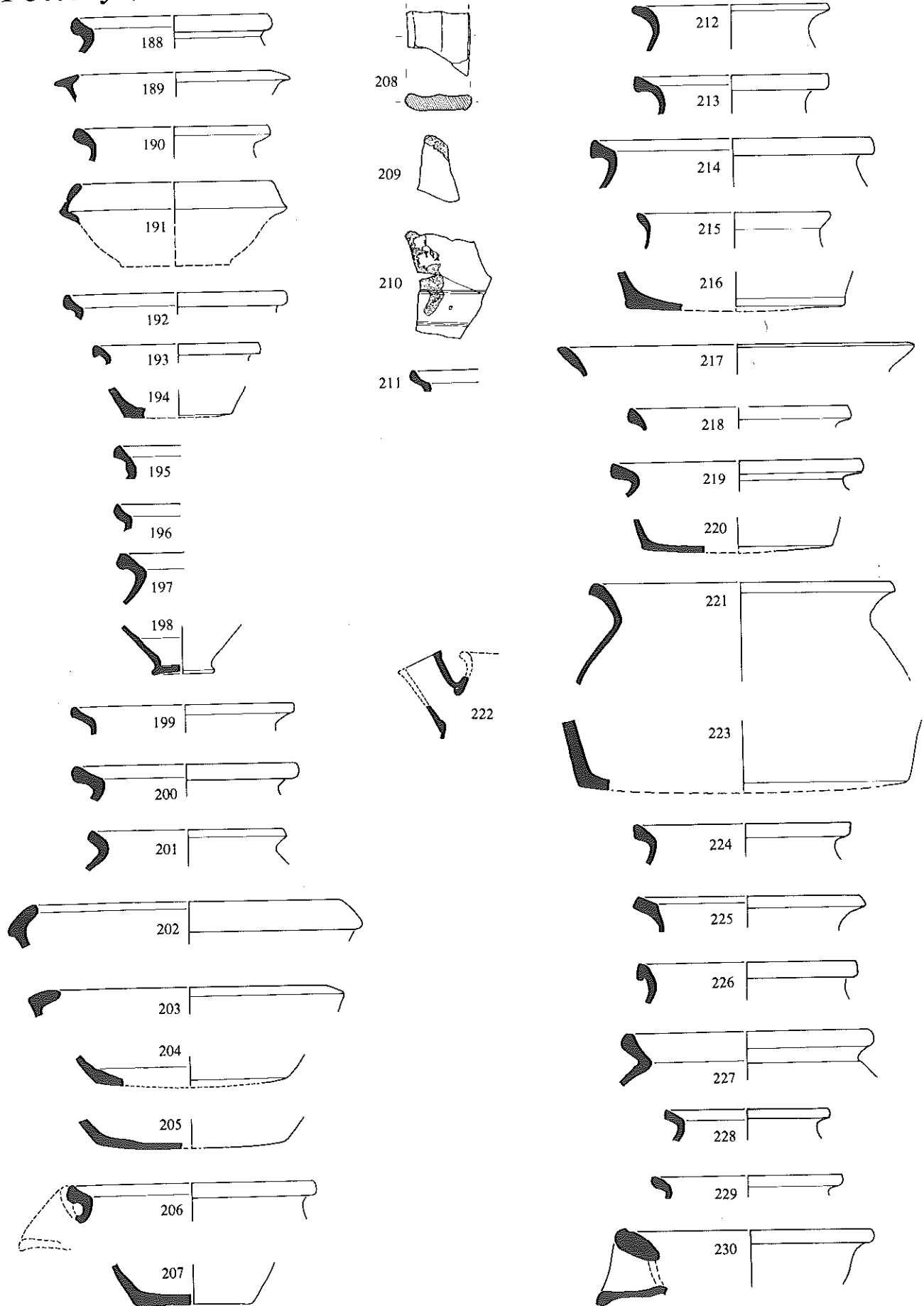
Dwg. no.	Phase	Layer	Fabric	Colour	Comment
219	5B?	386	T1-2	1:1:1	
220	5	599	T2	4/6:2:1	
221	5	599	T2	4/7:3:4/6	
222	5	599	T2	7:3:7	
223	6Ai	39	T1-2	1/6:3:1/6	
224	6Ai	39	T2	8:3:8	
225	6Ai	39	T2	7:3:7	
226	6Ai	39	T2	6:3:6	
227	6Ai	40	T2	6:3:6	
228	6Ai	40	W32	7:6/8:1/6	
229	6Ai	461	T1	3:3:2/3	
230	6Ai	461	W1?	3:3/9:2/3	
231	6Aii	442	T2	1:3:6	
232	6Aii	442	T2	6:1:1/6	
233	6Aii	442	T2	7:3:6	
234	6Aii	442	T2	6/9:6/9:6/9	
235	6Aii	442	T2	3:3:3	
236	6Aii	442	T2	6/9:3:6/9	
237	6A-B	144	T2	7:3:7	
238	6A-B	144	T2	7:3:1/6	
239	6A-B	144	T2	6/7:3:6/7	
240	6A-B	144	T2	7/8:7/8:7/8	
241	6Bi	34	T2	?/2:3:6	abraded
242	6Bi	34	W18	9:3:1/9	
243	6Bi	34	W18	9:9:9	
244	6Bi	49	T2	7:3:7	
245	6Bi	49	T2	6:3:6	
246	6Bi	49	T2	7:3:6	
247	6Bi	49	T2	7:3:7	
248	6Bi	225	T2	7:3:6	
249	6Biii	103	T2	7:3:7	
250	6Biii	103	T2	7/8:3:7/8	
251	6Biii	103	T2	7:3:7	
252	6Biii	103	T2	7:3:7	
253	6Biii	103	T2	6:3:6	
254	6Biii	103	W18	6:3:11	
255	unstrat.		T2	7/8:3:7/8	
256	unstrat.		T2	5/7:3:5/7	
257	unstrat.		W1	1:3:1	
258	unstrat.		W1	3/9:9:2/3	
259	unstrat.		Y	9:9:9/11/13	Rouen jug

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASES 1-3						
770	T	1	1	U	U1	
771	T	2	1	S1	U2	
752	G	23	4	S1	U17	
				S2	U3	
				T1	AB1	
				T1-2	ABC1	
				W1	AB1	
761	G	20	4	RS	U1	
				S1	U14	
				S2	U2	
				S3	U1	
				U	U2	
Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
759	M	6	4	S1	U2	
				S3	AB1	
				T1	AB1	
				T1-2	ABC1	
				U	ABC1	
PHASE 4A						
666	T	1	1	T1-2	ABC1	
713/G	G	22	6	S1	U5	
714				S2	U3	
				S3	AB7	
				T2	AB1	
				X1	C1	
				U	U5	
Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
664	P	4	2	W1	A1/AB2	188
				W3	AB1	
871	R	3	2	W1	A1/AB1	
				W1-34 A1		
PHASE 4A?						
388	T	1	1	S3-T1	U1/lug?	
691	T	1	1	T1-2	AB1	
701	T	3	2	S1	U2	
				W1	AB1	

Fig 86

Pottery 7

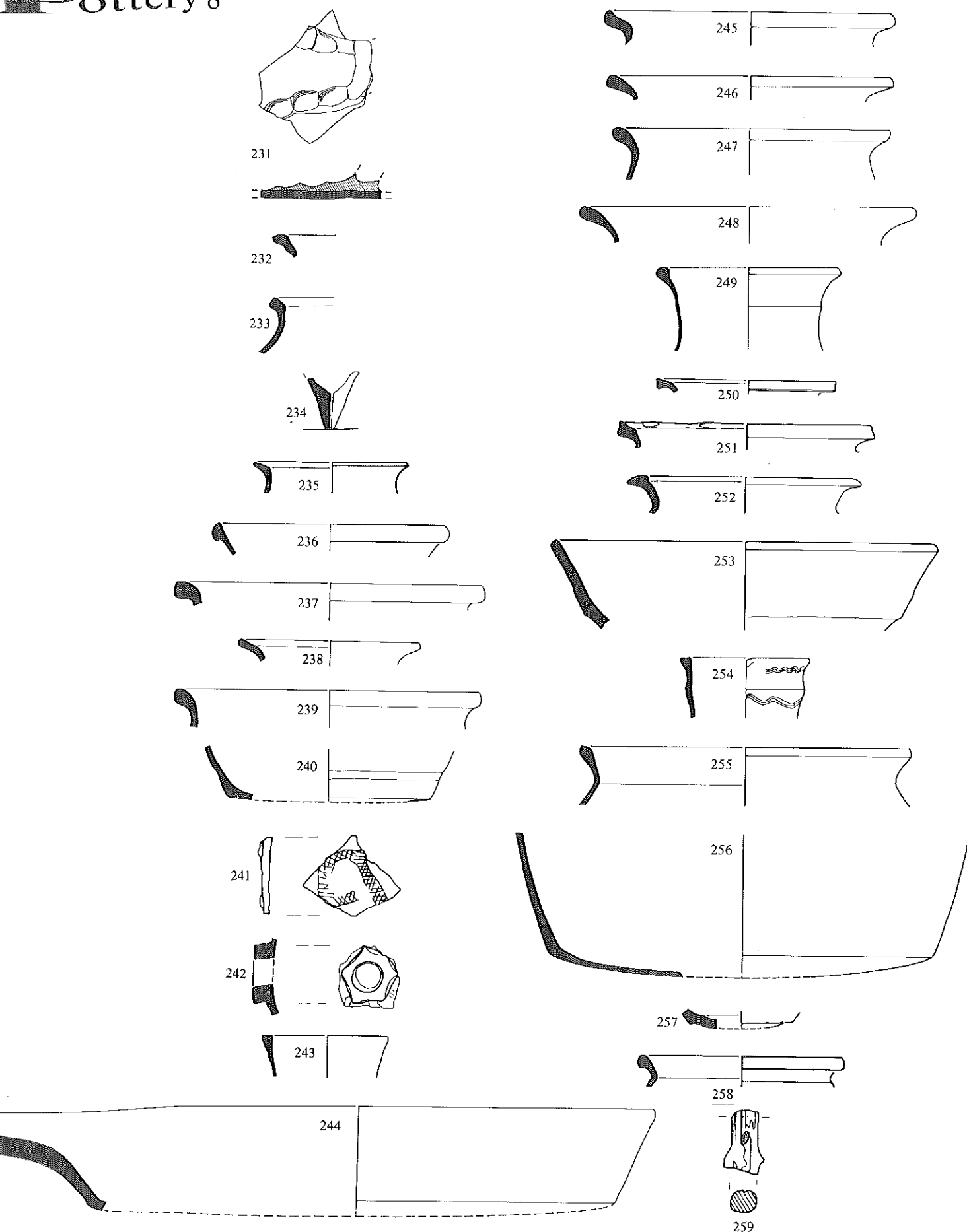


Scale 1:4

mm 0 50 100 200

Pottery 8

Fig 87



Scale 1:4

mm 0 50 100 200

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 4B							410	H	6	2	T2 W1	A21/ABC3 A1/AB1	218
553	G	80	11	S3 T1	AB8 A4/B2/ AB27	189-191	PHASE 5B?						
				W1	A6/AB17	192-196	386	G	78	10	T1-2 T2	A1 A5/C1/ ABC61	219
				W1-3	AB1						W1	ABC3 (inc. (?) crucible)	
				W34	AB6						W34	ABC1	
				X1-Y	A1/ABC4	197					X1	C2	
				U	ABC4						U	A1/ABC3	
547	P	121	23	R S1 S3	U1 U1 AB4/ Bar lip 2	198	PHASE 5						
				T1	A8/B1/ AB33	199-205	599	P	25	5	T1-2 T2	B1 A6/C1/ ABC16	220-222
				W1	A3/C1/ AE, 1/ AB30	206-207					T6	ABC1	
				W3?	AB1		PHASE 6Ai						
				W32	AB1		39	W	48	8	T1 T1-2 T2	A1 ABC25 A4/ABC13	223 224-226
				W34	A3/AB3						W1	AB2	
				W35	AB15						W18	ABC1	
				X1	ABC2						X1	ABC1	
				X1-Y	ACE, 5/ ABC2	208-210					U	ABC1	
				U	ABC4		40	W	27	9	T1 T1-2 T2	AB3/E, 1 A1/ABC5 ABC9	227
PHASE 5A											V1	ABC2	
527	T	1	1	T2	ABC1						V3	ABC1	
434	H	11	3	T1 W1 X1-Y U	AB7 A2 C?/1 ABC1	211					W7, W11 W14 W18 W21 X1 U	C3 ABC1 C4 C1/ABC32 F1 C2 ABC1	
PHASE 5A-B TRANSITION							461	W	8	5	T1 T2 W1? W7	A3/ABC1 ABC2 SpB1/AB1 C?/1	229 230
271	G	115	18	T1 T1-2 T2 W1 W34 X1 X1-Y U	A6/B2 A8/ABC67 A1 A3/AB16 ABC2 C1/ABC1 A1/C1/ ABC4 AB2	212-214	269	F	2	1	T1-2	ABC2	
PHASE 5B							PHASE 6Aii						
372	T	15	3	T1 T1-2 T2 W7, W1	A1/AB3 ABC7 ABC3 C1	215 216	442	R	62	13	S3 T1-2 T2	AB1 A1/B3 A9/B1/ C2/ ABC37/ D1/E, 1	231-236
374	T	2	1	T1-2	ABC1/D1						W7, W15	ABC2 ABC4	
538	T	1	1	T2	A1		PHASE 6A-B TRANSITION						
367	F	3	1	T1-2 T2	A1 ABC2	217	144	G	89	11	T1-2	ABC7	

House 3

Pottery phase summary

Phase pre-5 or 5

The small sample is a mixture of Early, Middle and Late Saxon material.

Phase 5

The local 12th to 14th century calcareous wares (T2) predominate in the shape of cooking pots and a handle from a large jug or pitcher. The rims and bases are comparable to examples in pit 121, House 7, attributed to the 12th or early 13th century, although there are few fully reduced wares typical of the immediate post-Conquest period. The absence of glazed wares other than Stamford ware (X1), if significant, again indicates a similar date.

Table 12: House 3 sample sizes and types

Phase	5	6A	6B	6C	6C-D	6Di	6Dii	6Diii	Totals
No. of sherds	76	80	167	117	291	78	10	2	821
Weight (kg)	0.750	1.005	1.715	1.095	1.250	0.565	0.065	c. 0.005	6.450
no. of vessels	14	15	23	13	29	9	6	1	c. 110
Types									
P									
R		1							1
S1			1						1
S2									
S3	1								1
S4									
S5									
T1	2	2	2						6
T1-2	11	2	7	1	1		1		23
T2	47	66	137	87	134	55	1		527
T6			2						2
T11									
V1	1				2				3
V3			1	6	4				11
V7									
W1	5	4	4						13
W2									
W3									
W4									
W5									
W6									
W7 ₁			1	1	1	1			4
W7 ₂			2						2
W7 ₃						1			1
W7 ₄									
W7 ₅	2								2
W8			1						1
W9					1		1		2
W11					4				4
W11 ₇									
W12									
W13			1						1
W14				7	32	5			44
W15						1			1
W16					1				1
W17									
W18			2	12	92	11	1		118
W20					1				1
W21					2				2
W29					3			2	5
W32									
W34									
W35									
W36									
W37									
W47									
X1	5	1	1	2	2				11
X2a							1		1
X2b									
X1-Y									
Y						1	3		4
Z					9	1	2		12
U	2	4	5	1	2	2			16

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.				
PHASE 4B							410	H	6	2	T2 W1	A?/ABC3 A1/AB1	218					T2	A5/C3/ ABC56	237-240				
553	G	80	11	S3 T1	AB8 A4/B2/ AB27	189-191	PHASE 5B?											V1 V7? W1 W7, W14 W15 W18 X1 U	A1 ABC1 AB2 C1 C1 ABC1 ABC6 C4 C1					
				W1 W1-3 W34 X1-Y U	A6/AB17 AB1 AB6 A1/ABC4 ABC4	192-196 197	386	G	78	10	T1-2 T2	A1 A5/C1/ ABC61	219											
											W1	ABC3 (inc. (?) crucible)												
547	P	121	23	R S1 S3	U1 U1 AB4/ Bar lip 2	198					W34 X1 U	ABC1 C2 A1/ABC3		PHASE 6Bi										
				T1	A8/B1/ AB33	199-205	PHASE 5							31	W	16	4	T1-2 T2 V1 W18 W32 U	ABC1 C1/ABC7 ABC2 ABC3 AB1 ABC1					
				W1	A3/C,1/ AE,1/ AB30	206-207	599	P	25	5	T1-2 T2	B1 A6/C,1/ ABC16	220-222											
				W3? W32 W34 W35 X1 X1-Y U	AB1 AB1 A3/AB3 AB15 ABC2 ACE,5/ ABC2 ABC4	208-210					T6	ABC1		34	G	51	9	T2 W9 W14 W18	C2/ABC4 C1 C1 B4/C,1/ ABC27/F1	241 242-243				
PHASE 5A							39	W	48	8	T1 T1-2 T2 W1 W18 X1 U	A1 ABC25 A4/ABC13 AB2 ABC1 ABC1 ABC1	223 224-226					W20 W21 X1 U	ABC2 F,5/F1 ABC1 C1					
527	T	1	1	T2	ABC1		40	W	27	9	T1 T1-2 T2 V1 V3 W1 W32 X1 U	AB3/E,1 A1/ABC5 ABC9 ABC2 ABC1 AB2 A1 C1 ABC1	227 228				49	F	68	14	T2 V3 W7, W11 W14 W18 W21 X1 U	A7/B1/ ABC14 ABC1 C3 ABC1 C4 C1/ABC32 F1 C2 ABC1	244-247	
434	H	11	3	T1 W1 X1-Y U	AB7 A2 C?1 ABC1	211	461	W	8	5	T1 T2 W1? W7	A3/ABC1 ABC2 SpB1/AB1 C?1	229 230					221	G	17	4	T1 T2 W1 W18	AB2 A1/ABC3 AB1 ABC10	
PHASE 5A-B TRANSITION							269	F	2	1	T1-2	ABC2						225	G	33	6	T2 W18 X1 U	A7/ABC19 ABC5 C1 C1	248
271	G	115	18	T1 T1-2 T2 W1 W34 X1 X1-Y U	A6/B2 A8/ABC67 A1 A3/AB16 ABC2 C1/ABC1 A1/C1/ ABC4 AB2	212-214	PHASE 6Aii							43	O	4	2	T1-2 W18	ABC2 ABC2					
							442	R	62	13	S3 T1-2 T2	AB1 A1/B3 A9/B1/ C2/ ABC37/ D1/E,1	231-236					44	O	1	1	T2	ABC1	
PHASE 5B											W7, W15	ABC2 ABC4		PHASE 6Bii										
372	T	15	3	T1 T1-2 T2 W7, W1	A1/AB3 ABC7 ABC3 C1	215 216	PHASE 6A-B TRANSITION							46	X	10	6	T2 T8 W14 W16 W18 X2a	ABC2 ABC1 ABC1 ABC2 ABC2 F,2					
374	T	2	1	T1-2	ABC1/D1		144	G	89	11	T1-2	ABC7												
538	T	1	1	T2	A1																			
367	F	3	1	T1-2 T2	A1 ABC2	217																		

House 3

Pottery phase summary

Phase pre-5 or 5

The small sample is a mixture of Early, Middle and Late Saxon material.

Phase 5

The local 12th to 14th century calcareous wares (T2) predominate in the shape of cooking pots and a handle from a large jug or pitcher. The rims and bases are comparable to examples in pit 121, House 7, attributed to the 12th or early 13th century, although there are few fully reduced wares typical of the immediate post-Conquest period. The absence of glazed wares other than Stamford ware (X1), if significant, again indicates a similar date.

Table 12: House 3 sample sizes and types

Phase	5	6A	6B	6C	6C-D	6Di	6Dii	6Diii	Totals
No. of sherds	76	80	167	117	291	78	10	2	821
Weight (kg)	0.750	1.005	1.715	1.095	1.250	0.565	0.065	c. 0.005	6.450
in. no. of vessels	14	15	23	13	29	9	6	1	c. 110
Types									
P									
R		1							1
S1			1						1
S2									
S3	1								1
S4									
S5									
T1	2	2	2						6
T1-2	11	2	7	1	1		1		23
T2	47	66	137	87	134	55	1		527
T6			2						2
T11									
V1	1				2				3
V3			1	6	4				11
V7									
W1	5	4	4						13
W2									
W3									
W4									
W5									
W6									
W7 ₁			1	1	1	1			4
W7 ₂			2						2
W7 ₃						1			1
W7 ₄									
W7 ₅	2								2
W8			1						1
W9					1		1		2
W11					4				4
W11 ₇									
W12									
W13			1						1
W14				7	32	5			44
W15						1			1
W16					1				1
W17									
W18			2	12	92	11	1		118
W20					1				1
W21					2				2
W29					3			2	5
W32									
W34									
W35									
W36									
W37									
W47									
X1	5	1	1	2	2				11
X2a							1		1
X2b									
X1-Y									
Y						1	3		4
Z					9	1	2		12
U	2	4	5	1	2	2			16

Phase 6A (260-263)

The large proportion of T2 cooking pots (261) and an absence of glazed sherds suggests a similar date range to Phase 5. It is perhaps interesting to note that a Stamford ware sherd in 282 joins a sherd from pit 436 in House 1, some 10m away, across two property boundaries.

Phase 6B (264-275)

Walls 345 and 361 account for nearly two-thirds of the pottery in this phase. The local T2 wares (268-270) include Lyveden type glazed and decorated jugs providing a general 13th-14th century date range and a mere two sherds of Potterspurly ware (W18) strengthen the case for a date before the 15th century. Apart from Stamford ware (X1), regional imports appear for the first time in House 3 with sherds possibly of Oxford (W7₁) and north Midlands, perhaps Nottingham (W7₂, W13) origin, amongst others (V3, W8) of uncertain source.

Phase 6C (276-287)

Many of the local T2 wares could date from as early as the 12th century (276) but the presence of baluster and other types of Brill (W14) jugs as well as an increasing proportion of Potterspurly ware (W18) (282), including a costrel, perhaps refine the date to the 14th century.

Phase 6C-D or 6Di (288-294)

Layer 170 contains the largest quantity of pottery recovered from any stratified context in House 3 and has a range of wares consistent certainly with a 15th and possibly a late 14th century date. However, contamination either in antiquity or more recently (Z) could have disturbed the balance and should be borne in mind. Cooking pots, bowls, jugs and lamps in fabric T2 predominate (45%) but Potterspurly ware (W18) (290-4) is now present in large quantities (31%) associated with Midland Purple (W16), Surrey ware (W21) and late medieval fabrics (W20 and W29).

Phase 6Di

Wall 349 incorporates medieval wares, including four sherds of Potterspurly ware (W18), probably indicating a 14th century or later construction date. Of interest is a red-painted rim from a small (?)cup in a hard gritty fabric, probably Pingsdorf type ware, attributable to the 13th or 14th century.

Phase 6Dii

The minute sample fortunately includes one sherd of Cistercian ware (X2a) and three sherds of German stoneware (Y) possibly of Raeren type. This is consistent with a late 15th or early 16th century date.

Phase 6Div

For robber trench 103 see House 2, Phase 6Bii.

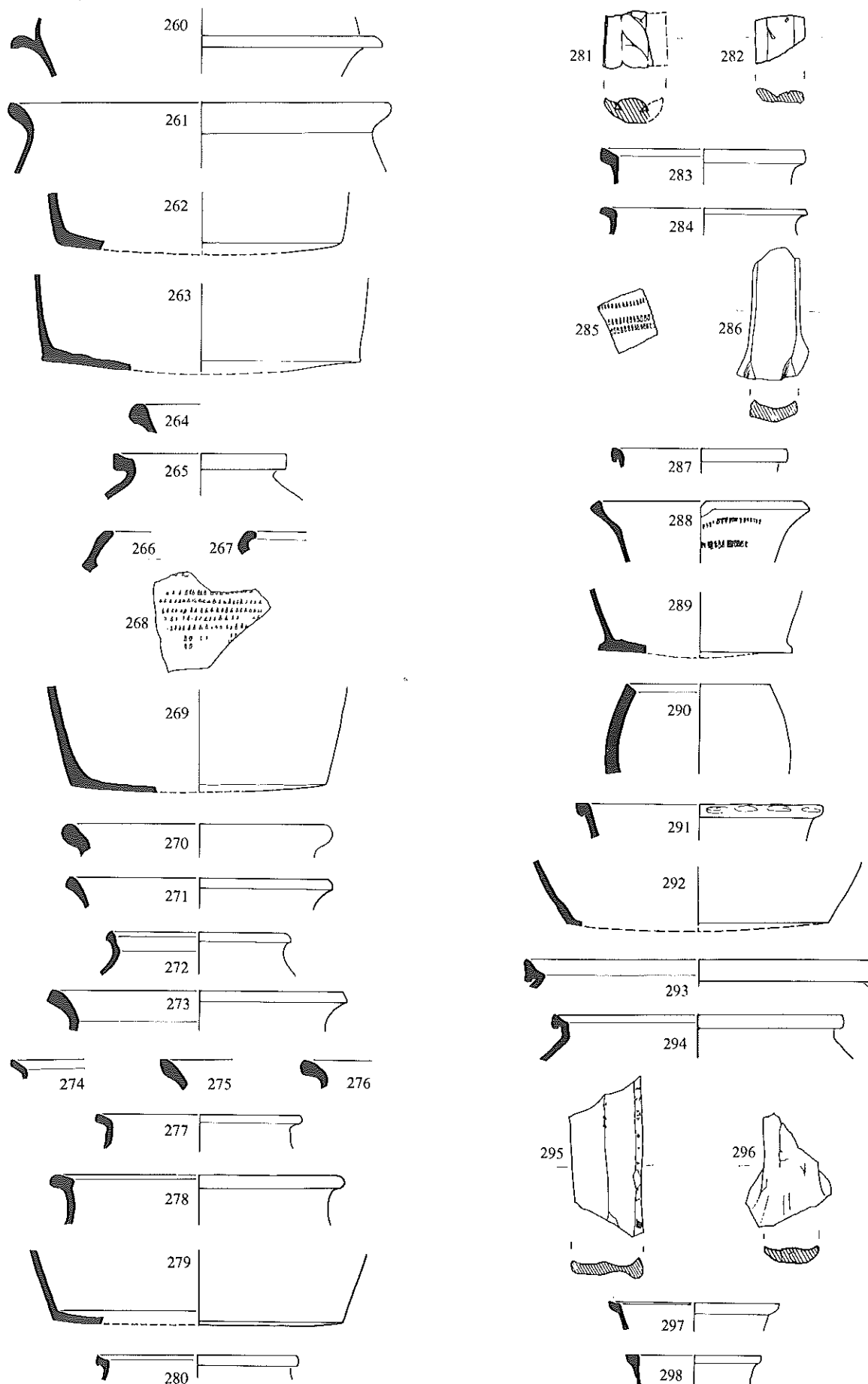
Comment

The quality of the ceramic evidence is limited, chiefly because of the fairly small sample sizes. Pottery from the pre-Conquest period is particularly sparsely represented. Phases 6A-C can be ascribed to the period of the 12th-14th centuries, but closer dating is not really possible because of the high proportion (81%) of featureless body sherds in local T2 wares and the limited number of distinctive regional imports which can sometimes be used as supporting evidence. Phase 6C-D or Di, in proportions and associations, is broadly comparable to House 4, Phases 6A-end-6C, which on coin evidence belong to the late 14th and 15th centuries. On the basis of four sherds from Phase 6Dii (X2a, Y) and the complete absence in the area of recognisable post-medieval wares, occupation would appear to terminate by the early 16th century.

Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
260	6A	282	R	5:7:5	imit. Drag. 38
261	6A	282	T2	7:3:7	
262	6A	282	T2	7/8:3:7/8	
263	6A	282	T2	6:3:1/6	
264	6B	361	T2	6:3:6	
265	6B	361	W1	2:2:2	
266	6B	345	T1-2	1:1:1	
267	6B	345	T1-2	6:3:6	
268	6B	345	T2	6:3:6/7	
269	6B	345	T2	7:3:7	
270	6B	345	T2	7:3:6	
271	6B	276	T2	8/9:2:8/9	
272	6B	328	T2	7:3:7	
273	6B	328	T2	7:3:7	
274	6B	328	T2	1:1:1	
275	6B	328	T2	1:1:1	
276	6C	267	T2	2:2:2	
277	6C	267	T2	1/6:2:1	
278	6C	267	T2	7:3:7	
279	6C	267	T2	7:3:6/7	
280	6C	267	V3	1/6:4/6:1	
281	6C	267	W7 ₁	11:4/6:11	
282	6C	267	W18	5/7:3:5/7	
283	6C	280	T2	7:3:7	
284	6C	280	T2	7:3:6	
285	6C	289	T2	7:3:7	
286	6C	289	T2	6:3:6	
287	6C	288	T2	6:3:1	
288	6C-D/Di	170	T2	7:3:7	
289	6C-D/Di	170	W14	8:8:8/10/12	
290	6C-D/Di	170	W18	8:3:7	
291	6C-D/Di	170	W18	7:3:7	
292	6C-D/Di	170	W18	9:3:1	
293	6C-D/Di	170	W18	8:3:8	
294	6C-D/Di	170	W18	8:3:8	
295	6D	451	T2	7:3:7	
296	6D	208	W7 ₁	11:6/9:11	
297	6D	208	W11	8:2:8/10/11	
298	6D	208	U	2:2:2	
299	unstrat.		T2	5/7:3:5/7	
300	unstrat.		T2	6:3:6	
301	unstrat.		T2	7:3:7	
302	unstrat.		T2	1:3:1	
303	unstrat.		T2	7:3:1/7	
304	unstrat.		T2	6/7:3:6/7	
305	unstrat.		T2	6:2:10/11	
306	unstrat.		T2	6:2:6	
307	unstrat.		T2	8/9:3:8/9	
308	unstrat.		T6	1/6:2/3:6	
309	unstrat.		W18	9:2:9	
310	unstrat.		W18	7:9:7	
311	unstrat.		W18	6:3:6	
312	unstrat.		W18	7/11:3:7	
313	unstrat.		W18	7/12:3:7	
314	unstrat.		W18	7/11:3:7	
315	unstrat.		W18	8:2:8	
316	unstrat.		W18	11:1/2:8/9	

Pottery 9

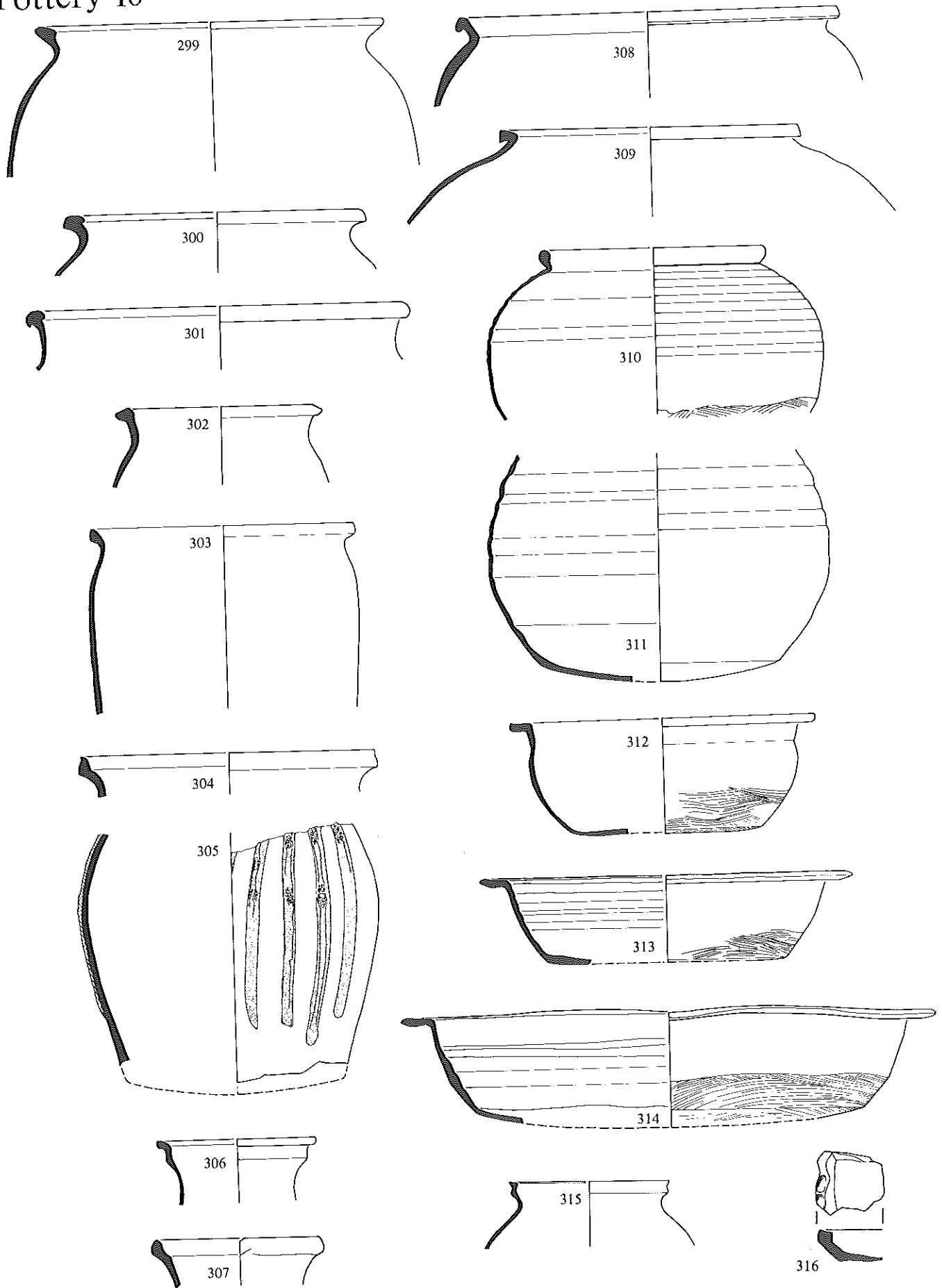


Scale 1:4

mm 0 50 100 200

Fig 89

Pottery 10



Scale 1:4

mm 0 50 100 200

Pottery description

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

PHASE Pre-5 or 5

611 G 9 6 S1 U1
S5 U3
T1 AB2
X1 AB1
Y? A1
U ABC1

750 G 6 3 S1 U5
S2 U1

674 P 10 6 S3 AB1
T1 AB5
T2 AB1
W32 AB1
W34 AB1
W35 AB1

PHASE 5

444 G 70 14 S3 A1
T1 A1
T1-2 A2/AB6
T2 A4/C1/
AB42
V1 ABC1
W1 A1/AB3
W7₅ ABC2
X1 ABC5
U ABC1

522 P 6 4 T1 B1
T1-2 ABC3
W1 ABC1
U U1

599 see House 2.

PHASE 6A

432 W 12 3 T2 A1/C1/
ABC9/
E₁1

520 W 3 1 W1 A1/AB2

282 F 59 6 R U1 260
T1 A1/AB1
T2 A9/C1/
ABC40 261-263
W1 AB1
X1 C1
U ABC4

354 F 2 1 T1-2 ABC2

360 F 4 1 T2 ABC4

PHASE 6B

361 W 38 6 T1-2 ABC5
T2 A3/ABC23 264
V3 ABC1
W1 A1 265
W7₁ C1
W7₂ ABC1
W18 ABC2
U ABC1

345 W 72 8 S1 U1
T1-2 B2 266-267
T2 A6/C2/
AC4/ 268-270

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

T6 ABC48
W1 ABC2
W8 AB2
X1 AB1
U C1
ABC3

276 F 47 7 T1 B2
T2 A2/B1/
C1/ 271
ABC38/
D1

W1 ABC1
U ABC1

328 F 10 7 T2 A4/C1/
ABC3 272-275
W7₂ ABC1
W13 ABC1

PHASE 6A or B

355 W 28 5 T1-2 A2/B1/
ABC8/D1
T2 A1/ABC14
W1 AB1

PHASE 6C

399 W 7 1 T2 A1/ABC6
267 F 41 9 T2 A6/C2/
ABC17 276-279
V3 A1 280
W7₁ C1 281
W14 C5
W18 C1/ABC4/
E₁4 282

280 F 22 6 T2 A3/ABC11 283-284
V3 ABC3
W14 C2
W18 ABC1
X1 C2

289 F 21 3 T2 C1/ABC15 285-286
V3 ABC2
W18 ABC2
U U1

288 O 26 3 T1-2 A1
T2 A3/C1/
ABC21 287

PHASE 6C-D TRANSITION or 6Di

170 G 280 29 T1-2 B1
T2 A7/B2/
C9/AC1/
ABC111/
D3 288
V1 ABC2
V3 ABC4
W7₁ C1
W9 C1
W11 C3/ABC1
W14 C32 289
W16 ABC1
W18 A4/C4/
AC4/
ABC67/
E₁6 290-294
W20 ABC1
W21 F2
W29 ABC1
X1 C2

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

U ABC1
Z sewer pipe
6/U3

151 P 11 4 T2 ABC1
W18 ABC7
W29 ABC2
U ABC1

PHASE 6Di

57 W 39 6 T2 A3/B1/
ABC22
W7₁ C₁1
W14 C3/ABC1
W15 ABC1
W18 C1/ABC6

303 W 17 3 T2 A2/ABC14
W14 C1

349 W 20 6 T2 C2/ABC10
W7₁ ABC1
W18 ABC4
Y AC1
U ABC2

203 T 2 2 T2 ABC1
Z plant pot 1

PHASE 6Dii

158 T 1 1 T2 A1
163 T 1 1 X2a F₁1
226 T 1 1 T1-2 ABC1

187 F 4 3 W18 ABC1
Y CF3

152 P 3 3 W9 ABC1
Z U2

PHASE 6Diii

64 X 2 1 W29 C2

PHASE 6D

451 W 12 2 T2 C1/ABC10 295
W7₁ ABC1

208 F 25 10 T2 C1/ABC8
W7₁ C1 296
W11 C1 297
W14 C2/ABC1
W18 ABC7
W21 CF1
W29 ABC1
X2a F1
U C1 298

PHASE 6D?

96 W 57 7 T2 A4/C2/
ABC43
T6 A1
W1 A1
W7₁ C₁3/ABC1
W20? ABC1
W29? ABC1

House 4

Pottery phase summary

Phase 2 (317-319)

The 45 sherds of Early-Middle Saxon pottery (317-319) include one with two lightly incised parallel lines that may be decorative and a vertical lug (318).

Phase 5

The pottery consists chiefly of local T2 wares, none of which can be dated closer than the 12th-14th centuries. The three sherds of Brill ware (W14) in pit 187 may indicate a late 13th-14th century date for part of this phase. The other two pits in this phase contain nothing which need be later than the 13th century.

Phase 6A (320-358)

The dominant ceramic element for the phase as a whole is the local calcareous T2 ware indicative of a date range in the period c. 1200-1400. A breakdown of the phase, however, reveals an interesting pattern. In the walls (1, 61, 426), which belong to the beginning of this phase, there is only a single sherd of Potterspur ware (W18) and no Brill (W14), whereas in the floor and associated levels (266, 285, 294), which are believed to date to the closing years of the 14th century (cf. p. 49), there is considerably more Potterspur ware, if only a single Brill sherd, and little T2 ware. In general level 117, which accumulated during the phase, all three fabrics are present. The pottery evidence, while not conclusive, would seem to support a fairly long time span for Phase 6A.

Phase 6A-end (360-364)

As with the later Phase 6A floor level (see above), Potterspur ware (W18) is now present in quantity but the T2 wares are also fairly numerous. An early 15th century date is probable.

Phase 6B (365-373)

The range of material is similar to that in Phases 6A and 6A-end, but with fewer Potterspur ware (W18) sherds than might be expected. Most of the Phase 6B pottery is, however, from contexts where a large element of residual material would be expected. An early 15th century date seems likely.

Phase 6C and 6C-end (374)

The small sample hinders valid comparisons with other phases but it is worth noting that all layers are floors and that the ratio of T2 to W18 wares is evenly balanced. Midland Purple (W16) and Surrey wares (W21) are present though in indeterminate forms.

Phase probably 6C

The 42 sherds of Potterspur ware (W18—29%) may indicate a date roughly contemporary with Phase 6C. Of particular interest is a (?)leg attributed to W13 possibly from an anthropomorphic or zoomorphic vessel such as an aquamanile or a knight jug.

Phase 6D, possibly 6C

The large percentage of Potterspur ware is consistent with a 15th century date.

Phase 6Di (375-385, 387-410)

All the pottery was found in pits, most of which contain a similar range of material, though the quantities are never very large. The ratio of local T2 (17%) to Potterspur wares (W18—52%) is a complete reversal of that in Phase 6A. It is possible that the T2 sherds are entirely residual though this is, of course, incapable of proof. Surrey wares (W21—3%) (375, 390-1, 404-6) are relatively numerous compared to their spasmodic appearance in early phases and two other fabrics (W20, X2a Cistercian ware) are present, though in small quantities. Both begin in the 15th century and continue throughout the Tudor period. However, the absence of any stoneware (Y) and the very small quantities of Cistercian ware (X2a) in a sample containing 458 sherds suggest a terminal date not much later than c. 1500 for this phase. The largest and most interesting pit group is 171 which contained a lobed cup, costrel

(403) and chafing dish (398) in Potterspur fabric, as well as several sherds from Surrey (W21) jugs and cups. Another useful pit is 74 which contained Midland Purple (W16) (377-8) and Surrey wares besides a very fine drinking jug (W11) (376) from the Coventry or Nuneaton areas.

Comment

The importance of House 4 undoubtedly lies in the very good sequence of stratified late medieval pottery. In Phases 5-6Di the change in the ratio of T2—W18 wares can be seen very clearly. The changeover point may have occurred at the end of the 14th century or the beginning of the 15th century on the evidence of two coins sealed on top of Phase 6A floors.

Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
317	2	380	S1	1:1:1	
318	2	380	S1	1:1:1	lug
319	2	380	S1	1:1:1	
320	6A	1	T2	7:3:7	
321	6A	1	T2	6:3:6	
322	6A	1	T2	7:3:7	
323	6A	426	T2	7:3:7	
324	6A	426	T2	7:3:7	
325	6A	426	T2	6:3:6	
326	6A	426	T2	1:1:1	
327	6A	426	T2	7/8:3:7/8	
328	6A	426	T2	7:3:7	
329	6A	117	S1	1:1:1	
330	6A	117	T1-2	1:1:1	
331	6A	117	T1-2	1:1:1	
332	6A	117	T1-2	4/6:3:4/6	
333	6A	117	T1-2	4/6:3:4/6	
334	6A	117	T1-2	4:1:1	
335	6A	117	T2	7:3:7	
336	6A	117	T2	6/7:3:6	
337	6A	117	T2	6:3:6	
338	6A	117	T2	7:3:6	
339	6A	117	T2	4/6:1:4/6	
340	6A	117	T2	6:3:6	
341	6A	117	T2	6:2:1/6	
342	6A	117	T2	6:3:6	
343	6A	117	T2	1:1:1	
344	6A	117	T2	3:3:6	lamp stem
345	6A	117	T2	7:2:2	
346	6A	117	T2	1:1:1	
347	6A	117	T2	7/8:2:7/8	
348	6A	117	V1	6:6:6/11	
349	6A	117	V1	6:6:6	
350	6A	117	W1	3:3:3	
351	6A	117	W1	9:9:3/9	
352	6A	117	W1	1:3:1/3	
353	6A	117	W3	3:3:3	
354	6A	117	W7 ₁	1/3:1/3:1/3	
355	6A	117	W14	9:9:11	
356	6A	117	W18	3:2:6	
357	6A	117	W18	3:3:3	
358	6A	117	U	10:3/9:10	?W14
359	6A?	331	T2	6:2:6	
360	6A-end	297	T2	7:3:7	
361	6A-end	298	W14	8:9:8	
362	6A-end	371	T2	7:3:1	
363	6A-end	371	W14	8:8:8/12	
364	6A-end	254	W14	9:9:9/10	

Table 13: House 4 sample sizes and types

Phase	2	5	6A	6A end	6B	6C end	6Di	6Dii	Totals
No. of sherds	57	167	533	215	137	68	458	43	1678
Weight (kg)	0.230	3.015	4.975	2.510	1.185	0.550	7.450	0.340	20.255
Min. no. of vessels	5	22	54	15	20	11	49	5	c. 181
Types									
P	4								4
R									
S1	44		1						45
S2									
S3			1						1
S4	1(?)								1
S5									
T1	1			1					2
T1-2		2	53	8	1	3	1		68
T2	1	145	355	99	101	26	79	34	840
T6						2			2
T11									
V1		4	9		1	1	1		16
V3			1				4		5
V7									
W1		1	11						12
W2									
W3			2						2
W4									
W5									
W6									
W7 ₁			1		2	2	3		8
W7 ₂									
W7 ₃									
W7 ₄		1							1
W7 ₅									
W8		4	1				1		6
W9				2			9		11
W11			2		2	1	18		23
W11 ₇							1		1
W12						1			1
W13									
W14		3	18	23		7	6		57
W15									
W16			1				24		25
W17									
W18			61	77	20	25	241	5	429
W20							15		15
W21			1	2	1		26	1	31
W29			1		1		3		5
W32									
W34			3						3
W35									
W36									
W37									
W47									
X1		1	6		2		2		11
X2a							8	1	9
X2b									
X1-Y									
Y									
Z				1					1
U	6	6	5	2	6		16	2	43

<i>er</i>	<i>Fabric</i>	<i>Colour</i>	<i>Comment</i>	<i>Dwg. no.</i>	<i>Phase</i>	<i>Layer</i>	<i>Fabric</i>	<i>Colour</i>	<i>Comment</i>
	T2	7:3:7		388	6Di	86	W18	8:8:6/8	
	T2	3/7:3:3/7		389	6Di	86	W18	9:2/3:11/12	
	T2	6:3:6		390	6Di	86	W21	12:9:12	cup
	T2	7:3:8		391	6Di	86	W21	9:9:9/12/14	
	T2	7:3:7		392	6Di	158	W18	8/9:3:11/12	
	W18	5/7:1:5/7		393	6Di	158	W18	9:1:8/11/12	
	W18	3:3:3		394	6Di	158	W18	9:9:9/11	
	T2	7:3:7		395	6Di	166	W18	9/11:3:7	
	T2	1:1:1		396	6Di	171	T2	6:3:6	
	W18	8:3:6		397	6Di	171	T2	6:3:6	
	W21	12:9:12	cup	398	6Di	171	W18	11/12:3/9:3/9	chafing dish
	W11	8/11/14:8:8/11/14		399	6Di	171	W18	9:9:9	
	W16	4:4:4/14		400	6Di	171	W18	9:9:9	
	W16	4/14:4:4		401	6Di	171	W18	9:9:9	
	W18	7:3:7		402	6Di	171	W18	8:9:8/11	
	W18	6/7:2:6/7		403	6Di	171	W18	8/9:3:11	
	W18	6/7:1/2:6/7	cauldron foot	404	6Di	171	W21	9:9:12	
	T2	7:3:6		405	6Di	171	W21	9/11/12:9:12	
	W18	11:2/3:1		406	6Di	171	W21	9:9:9/11/12	
	W29	6/7:3:1		407	6Di	174	T2	6:3:6	
	W29	1/6:3:6/7		408	6Di	174	T2	7:3:7	
	W18	3/9:3:8/11/12		409	6Di	174	W9	7:3:7/11	
	W18	?:?:?	abraded	410	6Di	174	W18	8:3:11	

description

[illegible]

Table 13: House 4 sample sizes and types

<i>Phase</i>	2	5	6A	6A end	6B	6C end	6Di	6Dii	Totals
<i>No. of sherds</i>	57	167	533	215	137	68	458	43	1678
<i>Weight (kg)</i>	0.230	3.015	4.975	2.510	1.185	0.550	7.450	0.340	20.255
<i>Min. no. of vessels</i>	5	22	54	15	20	11	49	5	c. 181
<i>Types</i>									
P	4								4
R									
S1	44		1						45
S2									
S3			1						1
S4	1(?)								1
S5									
T1	1			1					2
T1-2		2	53	8	1	3	1		68
T2	1	145	355	99	101	26	79	34	840
T6						2			2
T11									
V1		4	9		1	1	1		16
V3			1				4		5
V7									
W1		1	11						12
W2									
W3			2						2
W4									
W5									
W6									
W7 ₁			1		2	2	3		8
W7 ₂									
W7 ₃									
W7 ₄		1							1
W7 ₅									
W8		4	1				1		6
W9				2			9		11
W11			2		2	1	18		23
W11 ₇							1		1
W12						1			1
W13									
W14		3	18	23		7	6		57
W15									
W16			1				24		25
W17									
W18			61	77	20	25	241	5	429
W20							15		15
W21			1	2	1		26	1	31
W29			1		1		3		5
W32									
W34			3						3
W35									
W36									
W37									
W47									
X1		1	6		2		2		11
X2a							8	1	9
X2b									
X1-Y									
Y									
Z				1					1
U	6	6	5	2	6		16	2	43

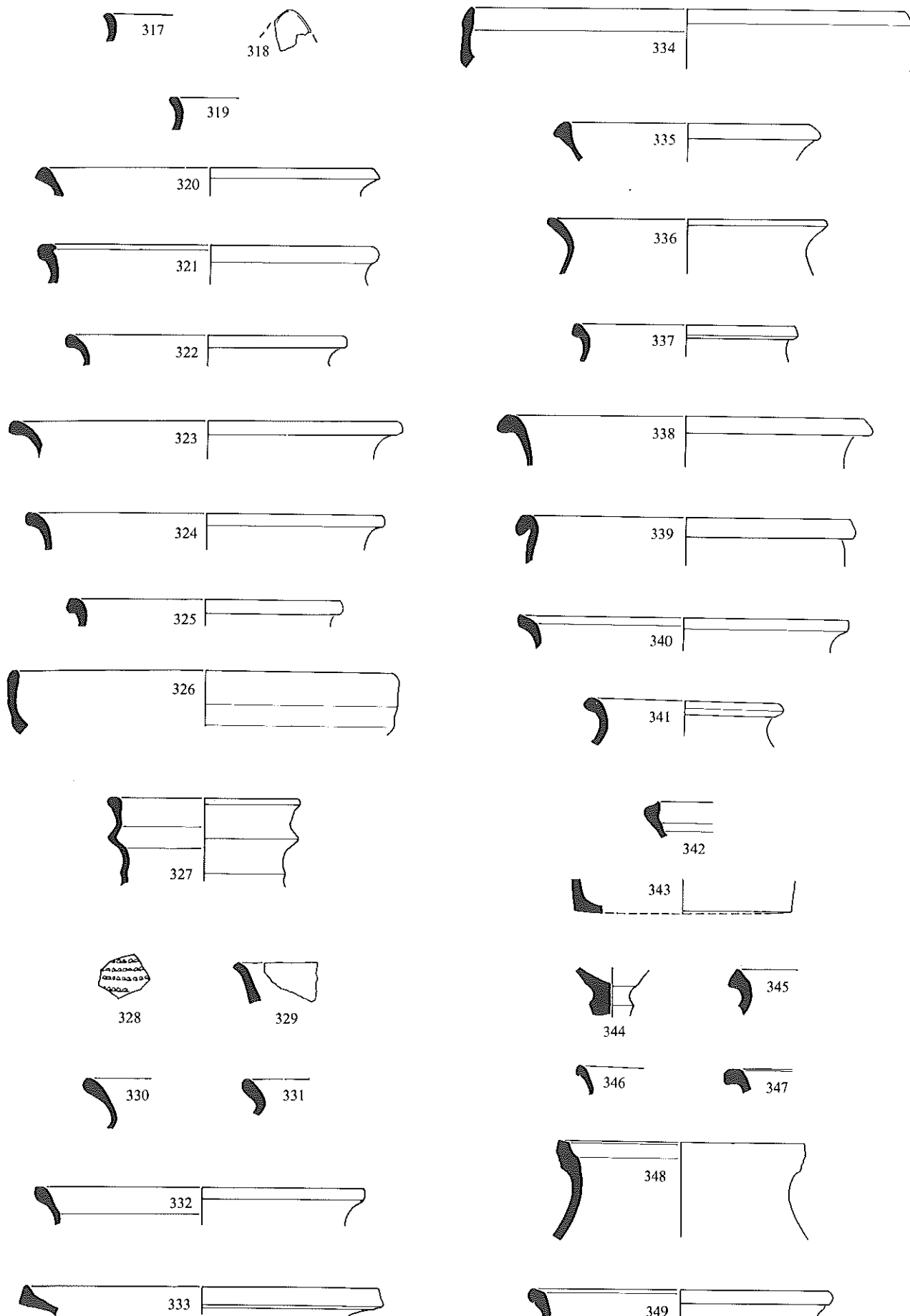
Dwg. no.	Phase	Layer	Fabric	Colour	Comment	Dwg. no.	Phase	Layer	Fabric	Colour	Comment
365	6B	13	T2	7:3:7		388	6Di	86	W18	8:8:6/8	
366	6B	13	T2	3/7:3:3/7		389	6Di	86	W18	9:2/3:11/12	
367	6B	13	T2	6:3:6		390	6Di	86	W21	12:9:12	cup
368	6B	13	T2	7:3:8		391	6Di	86	W21	9:9:9/12/14	
369	6B	15	T2	7:3:7		392	6Di	158	W18	8/9:3:11/12	
370	6B	259	W18	5/7:1:5/7		393	6Di	158	W18	9:1:8/11/12	
371	6B	259	W18	3:3:3		394	6Di	158	W18	9:9:9/11	
372	6B	198	T2	7:3:7		395	6Di	166	W18	9/11:3:7	
373	6B	198	T2	1:1:1		396	6Di	171	T2	6:3:6	
374	6C-end	159	W18	8:3:6		397	6Di	171	T2	6:3:6	
375	6Di	19	W21	12:9:12	cup	398	6Di	171	W18	11/12:3/9:3/9	chafing dish
376	6Di	74	W11	8/11/14:8:8/11/14		399	6Di	171	W18	9:9:9	
377	6Di	74	W16	4:4:4/14		400	6Di	171	W18	9:9:9	
378	6Di	74	W16	4/14:4:4		401	6Di	171	W18	9:9:9	
379	6Di	74	W18	7:3:7		402	6Di	171	W18	8:9:8/11	
380	6Di	74	W18	6/7:2:6/7		403	6Di	171	W18	8/9:3:11	
381	6Di	74	W18	6/7:1/2:6/7	cauldron foot	404	6Di	171	W21	9:9:12	
382	6Di	85	T2	7:3:6		405	6Di	171	W21	9/11/12:9:12	
383	6Di	85	W18	11:2/3:1		406	6Di	171	W21	9:9:9/11/12	
384	6Di	85	W29	6/7:3:1		407	6Di	174	T2	6:3:6	
385	6Di	85	W29	1/6:3:6/7		408	6Di	174	T2	7:3:7	
386	unstrat.		W18	3/9:3:8/11/12		409	6Di	174	W9	7:3:7/11	
387	6Di	86	W18	?:9:?	abraded	410	6Di	174	W18	8:3:11	

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 2							420	P	20	3	T2	A5/AB3/ ABC10	
380	G	57	7	P S1	U4 A22/ AB22	317-319					V1	AB2	
PHASE 4-5							PHASE 5?						
363	G	10	4	S1? T1 T1-2 T2 W1 U	AB1 B1/ABC1 ABC1 ABC4 ABC1 C1		410	D	4	1	T1-2 U	ABC2 ABC2	
PHASE 5							411	P	2	2	T2 U	ABC1 U1	
187	P	55	12	T1-2 T2 W1 W8 W14 X1 U	B1 A5/B2/ AB4/C1/ ABC26/ E1 A1 ABC4 C2/ABC1 C1 C2/ABC3/ U1		418	P	12	4	T1 T2 V1 W18 U	B1 A1/AB1/ C1/ABC5 ABC1 ABC1 ABC1	
217	P	92	14	T1-2 T2 V1 W7 ₄	AB1 A14/ AB17/ ABC55/ D2 ABC2 ABC1		423	P	3	1	T2	ABC1	
PHASE 4 or 5							PHASE Pre-6A or 6A						
441	D	2	2	T1 T2	A1 ABC1		485	T	2	2	S3 W1	B1 AB1	
444	D	1	1	T2	ABC1		405	D	1	1	T1-2	ABC1	
448	P	4	3	T1 W1	A2/B1 ABC1		PHASE 6A						
451	D	1	1	T2	AB1		1	W	43	6	T1-2 T2	ABC1 A5/B1/ C1/ABC32	320-322
461	P	9	3	T1 W1 W35	B1/AB1 AB6 AB1		61	W	3	3	S3 T1-2 W16	AB1 ABC1 ABC1	
PHASE 4 or 5							426	W	99	9	T1-2 T2	B1 A7/AB6/ C1/AC2/ ABC76	323-328
266	F	15	5	T2 W18 W21 W29 W34	ABC1 B1/ABC10 CF1 ABC1 ABC1		PHASE 4 or 5						
294	F	10	3	T2 W18	A1/AB2/ C1/ABC3 C1/ABC2		441	D	2	2	T1 T2	A1 ABC1	

Pottery 11

Fig 90

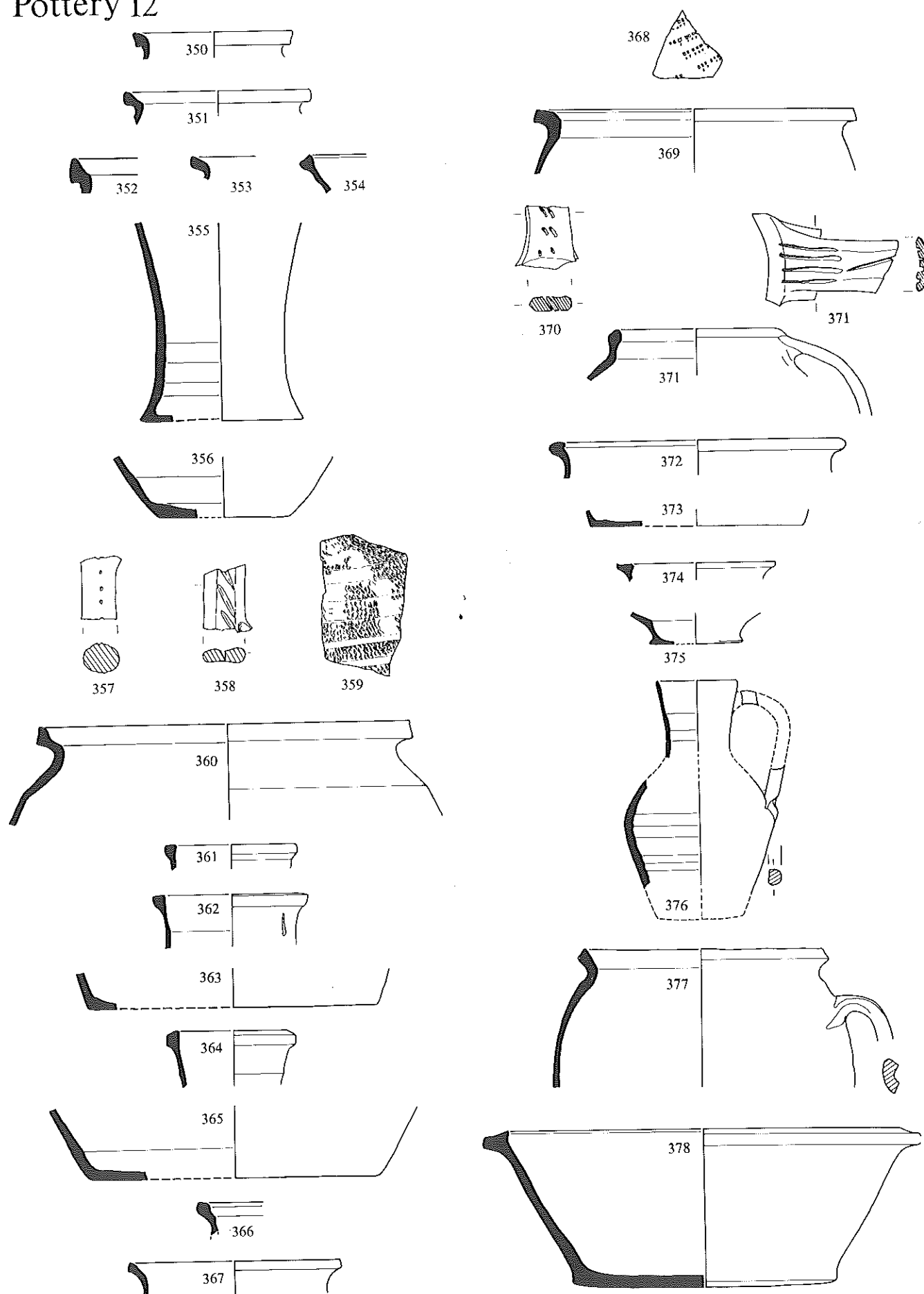


Scale 1:4

mm 0 50 100 200

Fig 91

Pottery 12

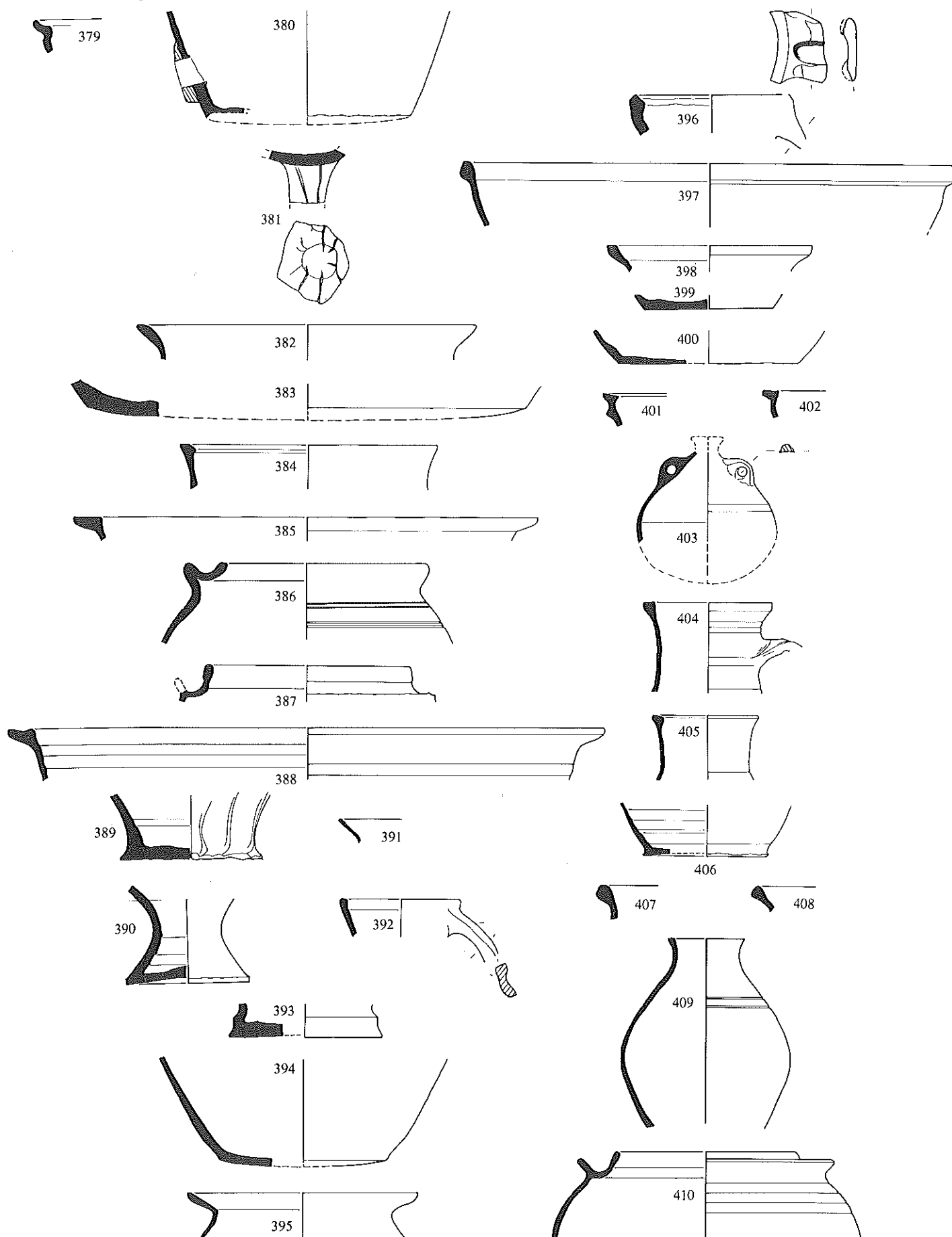


Scale 1:4

mm 0 50 100 200

Fig 92

Pottery 13



Scale 1:4

mm 0 50 100 200

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

117	G	342	54	S1	A1	329
				T1-2	A5/B9/ AB8/ ABC28	330-334
				T2	A23/AB6/ C1/ ABC181/ D1	335-347
				V1	A1/C1/ ABC3	348-349
				V1?	A1	
				V3	ABC1	
				W1	A4/AB4	350-352
				W3	A1/AB1	353
				W7 ₁	ABC1	354
				W8	ABC1	
				W11	ABC1	
				W14	C16	355
				W14?	AC1	
				W18	AB1/C1/ ABC29	356-357
				W34	ABC2	
				X1	C2/AC1/ ABC1	
				U	A1/ABC3/ C1	358
285	G	21	4	T2	A1/ABC3	
				W11?	ABC1	
				W14	C1	
				W18	A1/C1/ ABC13	
PHASE 6A?						
245	P	14	4	T2	ABC6/D1	
				V1	ABC4	
				W34?	ABC1	
				X1	ABC2	
331	P	11	2	T2	A1/AC1/ ABC8	359
				W18	ABC1	
333	P	46	7	S3	AB1	
				T2	A2/C2/ ABC33	
				V3	ABC1	
				W7	C1/ABC2	
				W11	C1	
				X1	AC1	
				U	ABC2	
PHASE 6A-END						
297	P	27	4	T1-2	B1/ABC2	
				T2	A1/ABC8	360
				W14	C5	
				W18	C1/ABC8	
				U	ABC1	
298	P	60	4	T1-2	B3	
				T2	AB1/ ABC26	
				W14	C6	361
				W18	AC21/ ABC3	
371	P	43	5	T1-2	B2	
				T2	AB1/ ABC29	362
				W9	C1	
				W14	C1	363
				W18	AB1/ ABC8	

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

218	O	79	8	T1	B1	
				T2	A1/AB1/ C1/ABC26	
				W9	ABC1	
				W14	C9	
				W18	B1/ABC34	
				W21	F _{1a} 1/F1	
				U	U1	
				Z	sewer pipe 1	
242	O	2	2	T2	AB1	
				W14	C1	
254	O	4	2	T2	ABC3	
				W14	C1	364
PHASE 6B						
13	W	49	9	T1-2	ABC1	
				T2	A4/AB3/ AC2/ ABC32	365-368
				W7 ₁	ABC1	
				W11	ABC1	
				W29	ABC1	
				X1	C2	
				U	ABC2	
15	W	36	6	T2	A3/C1/ ABC28	369
				V1	A1	
				W7 ₁	C1	
				W18	ABC2	
259	W	8	3	T2	ABC1	
				W18	C2/ABC3	370-371
				U	ABC2	
198	F	35	4	T2	A3/AB1/ ABC19	372-373
				W18	C1/ABC8	
				W21	CF1	
				U	ABC2	
22	O	2	1	T2	ABC2	
264	O	7	3	T2	C2	
				W11	ABC1	
				W18	ABC4	
PHASE 6C						
96	F	41	5	T2	ABC10	
				T6	ABC2	
				V1	C1	
				W11	C1	
				W14	C2/ABC3	
				W18	ABC22	
193	F	5	1	T2	ABC5	
231	F	9	4	T2	ABC4	
				W7?	ABC2	
				W14	C1	
				W18	ABC2	
PHASE probably 6C						
148	O	141	15	T2	A11/AB1/ C4/ ABC63/D2	
				W4	D1	
				W9	C1	
				W11	ABC3	
				W13?	C1	
				W14	C6	

Layer no.
Layer type
Sherd count
Minimum
no. of vessels
Fabric group
Form and
sherds count
Illustration no.

				W18	B2/C1/ ABC39	
				U	ABC6	
PHASE 6C-END						
159	O	13	4	T1-2	ABC3	
				T2	A1/ABC6	
				W12	C1	
				W14	C1	
				W18	C1	374
PHASE 6C-D						
110	F	3	2	W16	ABC2	
				W21	CF1	
PHASE 6D, possibly 6C						
114	P	33	6	T2	A3/ABC6	
				W14	C1/AC1	
				W18	B10/C2/ ABC8	
				U	ABC2	
240	P	29	8	T1-2	B1	
				T2	A2/ABC2	
				W14	C2/ABC1	
				W18	ABC14	
				W20?	A1	
				W21	CF2	
				X2a	F ₁ 1	
				U	C1/AC1/ ABC1	
246	P	2	1	W18	ABC2	
247	P	6	2	T2	C1/ABC3	
				W18	ABC2	
311	P	13	2	T2	ABC4	
				W18	ABC9	
323	P	2	2	W7	C1	
				W14	C1	
355	P	13	3	T2	C1/ABC2	
				W18	C1/ABC6	
				X1?	ABC1	
				U	ABC2	
357	P	8	4	T2	ABC3	
				W11	ABC1	
				W14	C2	
				W18	A1/ABC1	
PHASE 6Di						
19	P	33	3	W18	ABC29	
				W20	ABC2	
				W21	F _{1a} 1/F1	375
74	P	65	10	T2	A1/ABC1	
				W11	C16	376
				W11?	ABC1	
				W16	A3/B21	377-378
				W18	A1/AB1/ C ₁ 1/ ABC14	379-381
				W20	ABC4	
				W21	F1	
85	P	70	12	T2	A4/ABC20	382
				V3	ABC4	
				W9	ABC3	

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
				W18	AB2/B2/ C1/ABC20	383
				W20	ABC3	
				W29	A1/B1/ ABC1	384-385
				X1	C2	
				X2a	F ₂ 4	
				U	C2	
86	P	48	10	T2	A1/ABC6	
				W14	C2	
				W18	A1/B2/ C2/ABC25	387-389
				W20	ABC2	
				W21	C1/F1	390-391
				X2a	F ₂ 2	
				U	A1/ABC2	
97	P	2	1	W18	ABC1	
				U	B1	
158	P	35	7	T1-2	B1	
				T2	A1/ABC1	
				W7	ABC1	
				W8	ABC1	
				W18	C2/AC1/ ABC25	392-394
				W20	ABC1	
				U	ABC1	
163	P	7	3	T2	ABC2	
				W18	C1/ABC3	
				W21	F1	

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
166	P	7	4	T2	ABC1	
				V1	ABC1	
				W18	A1/B1/ ABC3	395
170	P	16	4	T2	ABC1	
				W18	AB3/ ABC10	
				W21	F1	
				U	ABC1	
171	P	80	12	T2	B1/AB1/ C1/ABC5	396-397
				W7	C1	
				W11	C1	
				W18	C2/ ABC42/ E ₃ 1/E ₄ 1/ F _{1a} 1	398-403
				W20	ABC3	
				W21	C3/CF14/ F1	404-406
				U	ABC2	
172	P	15	2	T2	C1/ABC6	
				W18	ABC8	
174	P	33	7	T2	A2/C1/ ABC4	407-408
				W9	C6	409
				W18	A4/ABC15	410
				U	ABC1	

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
181	P	17	3	T2	ABC14	
				W11,	C1	
				W18	ABC1	
				U	ABC1	
183	P	14	3	W18	A5/ABC4	
				W21	CF1	
				X2a	F ₂ 2	
				U	ABC2	
195	P	11	4	T2	A1/ABC1	
				W14	C3	
				W18	ABC4	
				U	ABC2	
216	P	2	2	W7	C1	
				W14	C1	
251	P	3	2	T2	ABC2	
				W18	ABC1	
PHASE 6Dii						
8	X	43	4	T2	A7/ABC27	
				W18	ABC5	
				W21	F1	
				X2a	F ₂ 1	
				U	ABC2	

House 5-6

Pottery phase summary

Phase 5-6

The quantities of pottery are generally too small for useful comment though the absence of Early-Middle Saxon wares may be significant. Pit D51 contained a Late Saxon group with a T1 horizon ratio comparable with Houses 1 and 8. The only sherd deserving special mention is a possible Thetford ware (W3?) storage vessel. The other layers contain mixed pre- and post-Conquest sherds.

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 4?						
D4	G	7	3	T1-2	AB2/ ABC1	
				W1	AB2/ ABC1	
				W14	C1	
PHASE 4 or 5						
D51	P	107	6	T1	A4/AB91	
				T1-2	A4	
				W1	A1/AB6	
				W3?	E ₈ ?1	
PHASE 5?						
B115	P	10	2	T2	A2/AB1/ ABC6	
				W1	AB1	
PHASE 6i						
B81	W	3	1	T2	ABC3	
B105	O	2	1	T1-2	ABC2	

House 7

Pottery phase summary

Phase 2 (411-412)

The three probable Iron Age sherds comprise a possible bangle (412) and a handle or rim with fingertip decoration on the external edge and an applied strip just below (411).

Phase 4 (413-429)

The most useful single group is from pit 123 with a range of Late Saxon wares comparable to the W1 horizon in Houses 1, 2, 8 and 10, with proportions of St Neots type ware (T1) to Northampton ware (W1) of 12:56%. The cooking pot type rim in St Neots type ware with a plain strap handle attached is more likely to be from a storage jar than a pitcher.

The pottery in the other layers is similar to that from pit 123. The T2 and T1-2 sherds from layers C61, 143 and B327 could indicate an overlap into the post-Conquest period but the relevant pieces were not well sealed. Of interest are the red-painted wares (X1-Y) from C143 and 144. The former is a fairly sandy body sherd with an area of red paint clearly visible, whilst the latter is a cooking pot rim with dribbles of red paint on both surfaces. They could be either Stamford ware or continental imports.

Phase 5 (430-474)

Pit C121 contains the largest number of sherds recovered from any one context on the site. The pottery appears to be internally consistent and shows few recognisable signs of contamination from overlying layers and is, therefore, regarded as a group. Many of the sherds are large, unweathered and clearly belong to only a limited number of vessels, chief amongst which are cooking pots.

The very numerous local T2 wares (86%) have a marked tendency towards oxidation especially on the internal surfaces unaffected by sooting. The basic shape of most of the cooking pots is a flat-based cylinder (e.g. 452) with simple curved (454, 460) or slightly angular (463-4) rims, sometimes with internal hollowing (465-6). More globular shapes and squared or triangular rims with internal beads are absent. The very few jugs present are unglazed and have simple un moulded rims, rouletted decoration and, on the one example where it can be seen, a plain strap handle springing from the rim (457).

Associated local wares include part of a very large flat-based storage vessel with applied, thumbled strips (449), and a bowl rim (448) in T1-2 fabric and a single sherd from the basal angle of a cooking pot or bowl in T6 fabric, a Lyveden type.

Amongst the regional imports is a complete base and part of the wall of an Oxford type (W7₁) tripod pitcher decorated with rouletting and applied strips (472). Another possible Oxford type ware (W7₁?) has a foot-ring base, a strap handle and decoration consisting of applied strips and a form of complex rouletting. Possibly from the Leicestershire area are several sherds (W4) from a small, round-based vessel (471) which would have served equally well as a cup, lamp or crucible. At least four Stamford ware fabrics are present.

The almost complete lack of anything characteristic of the Late Saxon period strongly suggests a post-Conquest date for this group and the absence of highly decorated wares, for example Lyveden or Brill jugs, should also be noted. If these factors are significant, a broad date range from c. 1100-1250 can be postulated. This agrees well with the Oxford type tripod pitchers, known to be in production by the mid-12th century, if not earlier, and the fabric W4 vessels, the shapes of which are associated with late 11th century coin hoards in London and York.

General layer 20 contains a very large sample ranging widely in date from the pre-Conquest to the Tudor period and this is consistent with the interpretation of the layer as an accumulation over some considerable time. The presence of Cistercian ware (X2a) is useful, however, in giving a *terminus post quem* of the late 15th century

for the overlying Phase 6 floor, confirmed by a jetton dated to after 1474 (Nu39).

Phase 6i (475)

The Cistercian ware (X2a) in the lowest course of wall 3/6 confirms the late 15th century construction date suggested by the Phase 5 deposits. Further sherds of Tudor ware were recovered from floor 17 (W29) and post-hole 55 (W29, X2a).

Phase 6ii

Sherds were recovered of Midland Purple (W16) and Cistercian ware (X2a), both current in the Tudor period. In the destruction debris was a jetton of c. 1520 (Nu40).

Phase 7 (476-483)

The Midland Yellow (W17) tankards (476), which have a form common throughout the 17th and early 18th centuries, may have been imported from Warwickshire or Staffordshire. The one- and two-handled black iron-glazed mugs may be of local (?Potterspur) origin or from Staffordshire (478-482). The jug is a typical Bellarmine (483), with a type IV mask, imported from Germany and probably Frechen. The group probably belongs to the early 17th century when Bellarmine of this type were in use, but a later date cannot be ruled out as there are only a limited number of vessels present.

Comment

There are no sequences of any value in House 7 but this is amply compensated for by pits 123 and 121. The former is a useful addition to the growing corpus of Late Saxon pit groups in Northampton, whilst pit 121 in the number and range of forms present is so far unparalleled in the town. The pottery in pit 63 is comparable with that associated with the tannery in House 10 and is one of the few early post-medieval groups to be excavated under archaeological conditions in Northampton.

Catalogue of drawn pottery

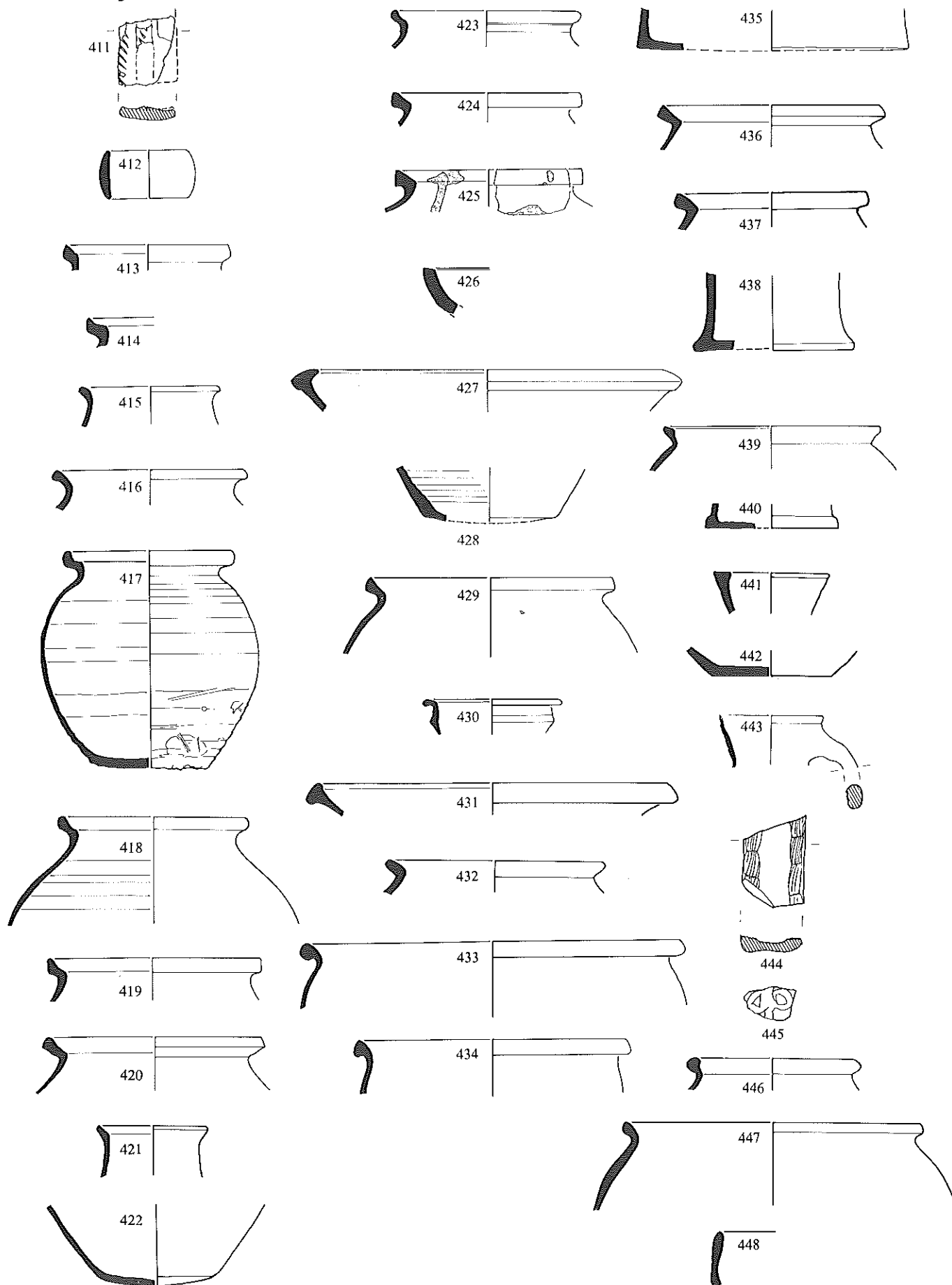
Dwg. no.	Phase	Layer	Fabric	Colour	Comment
411	2	186	P	1:3:1	prob. handle rather than rim
412	2	186	P	1:1:1	bangle ? Iron Age
413	4	B327	W1	1:1:1	
414	4	B327	W1	9:9:9	
415	4	B327	W1	1:1:1	
416	4	123	T1	1:1:1	
417	4	123	W1	3:3:3	
418	4	123	W1	3:3:3	
419	4	123	W1	3:3:2	
420	4	123	W1	9:9:3/9	
421	4	123	W1	9:9:9	
422	4	123	W1	3/9:3:3/9	
423	4	144	W1	1:1/4:1	
424	4	144	W1	6:3:3	
425	4	144	X1-Y	7/9:9:7/9	faint paint
426	4	160	S3	6:3:6	
427	4	160	T1	6:1:1	
428	4	160	W1	8:3/8:3	
429	4	160	W1	3/8:3/8:3/8	
430	5	20	T2	7:3:7	
431	5	20	T2	7:3:6	
432	5	20	T2	3:1:3	
433	5	20	T2	6:2:6	
434	5	20	T2	6:3:2/3	
435	5	20	T2	7:3:7	
436	5	20	W1	9:3:1	
437	5	20	W1	1/9:3:1	
438	5	20	W14	9:9:8/11	
439	5	20	W18	7/8:3:6/7	

Table 14: House 7 sample sizes and types

<i>Phase</i>	2	4	5(121)	5	6i	6ii	7	Totals
<i>No. of sherds</i>	10	185	651	853	67	17	70	1861
<i>Weight (kg)</i>	0.125	2.155	9.720	7.640	0.645	0.125	2.615	23.025
<i>Min. no. of vessels</i>	5	21	35	76	12	5	13	c. 167
Types								
P	3							3
R	1							1
S1	2			1	1			4
S2								
S3		6						6
S4								
S5								
T1		30		4				34
T1-2		8	12	16				36
T2		2	565	542	28	6	13	1156
T6			1	2				3
T11			1					1
V1			5	7				12
V3				6	1			7
V7								
W1	2	102	1	23	1			129
W2								
W3				1				1
W4			6	2				8
W5								
W6								
W7 ₁			35	7				42
W7 ₂			4					4
W7 ₃				2				2
W7 ₄				5				5
W7 ₅								
W8								
W9								
W11				3			1	4
W11 ₇								
W12								
W13								
W14				8	2			10
W15				1				1
W16						1		1
W17							6	6
W18				171	20	7	15	213
W20				2				2
W21				1				1
W29					3		2	5
W32		8		1				9
W34		20						20
W35								
W36								
W37								
W47								
X1		7	21	33	5		2	68
X2a				6	3	2	1	12
X2b							21	21
X1-Y		2						2
Y							8	8
Z	1				2	1		4
U	1			9	1		2	13

Fig 93

Pottery 14

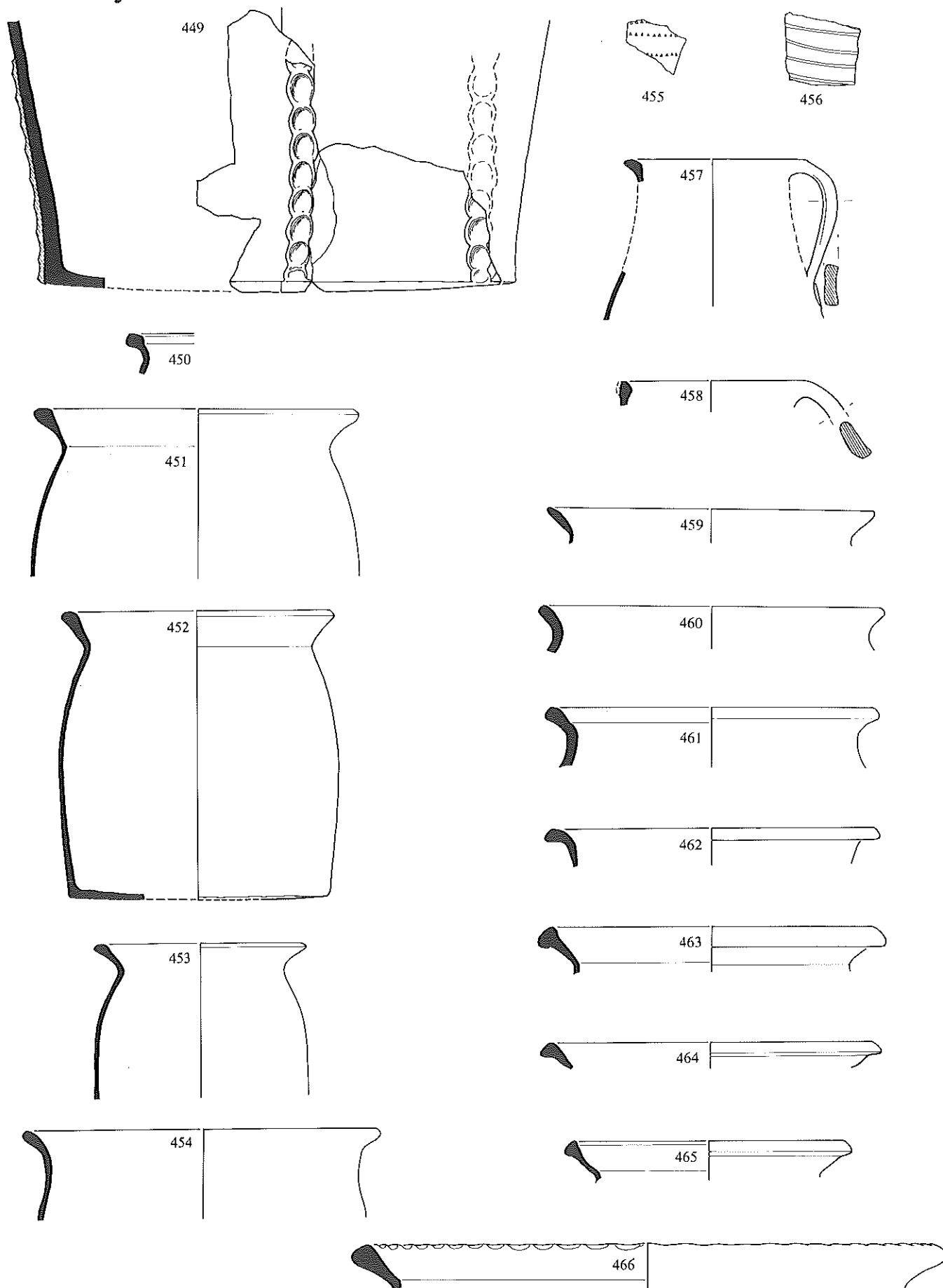


Scale 1:4

mm 0 50 100 200

Fig 94

Pottery 15

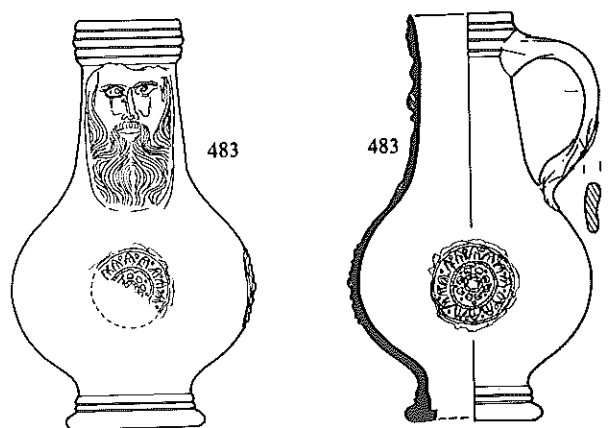
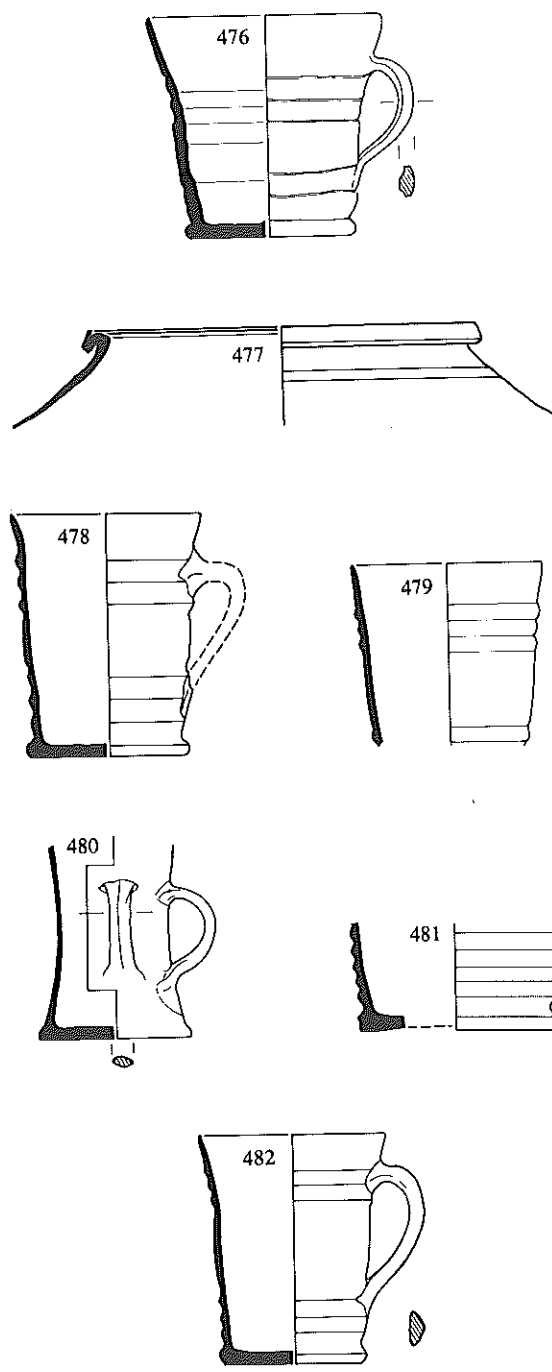
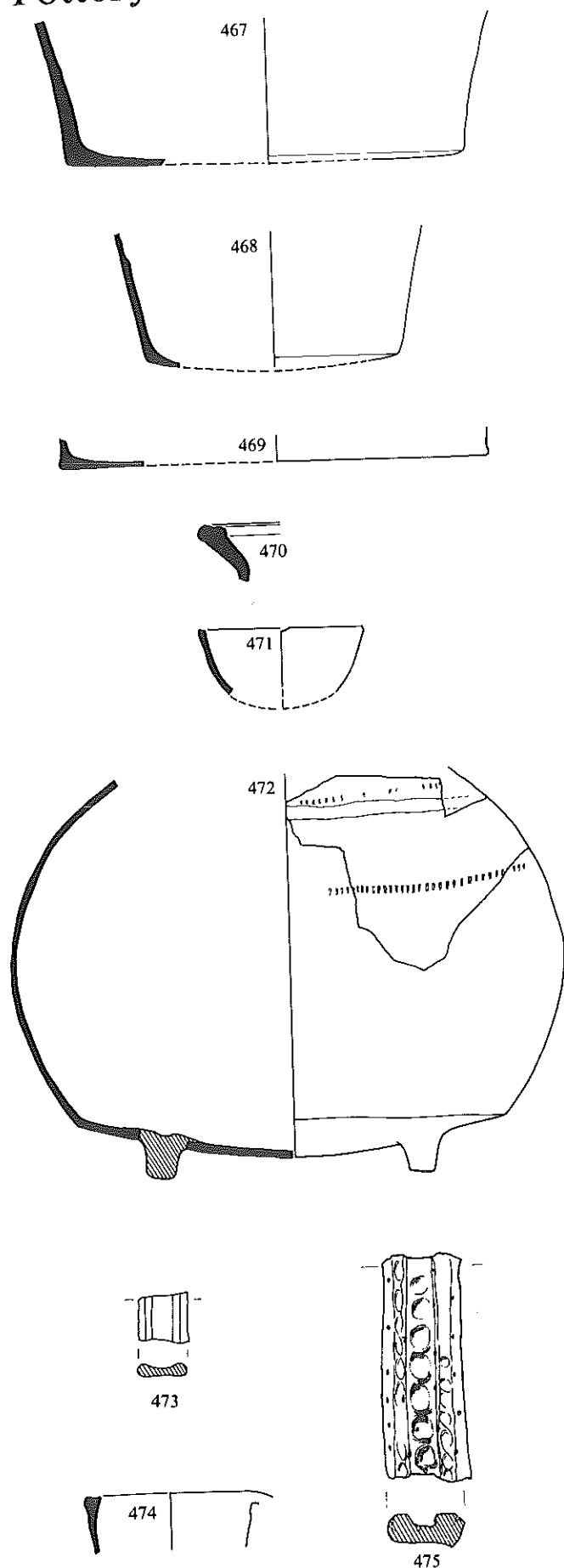


Scale 1:4

mm 0 50 100 200

Fig 95

Pottery 16



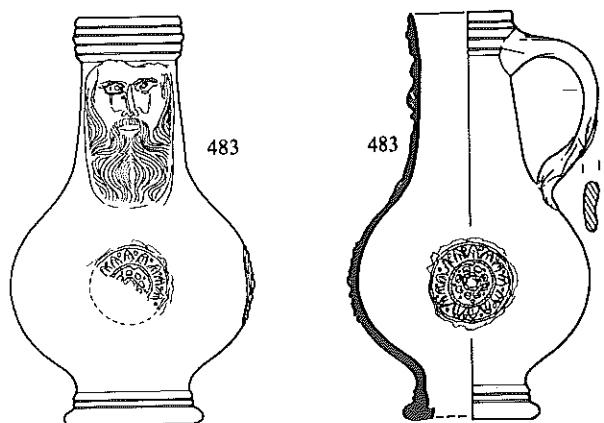
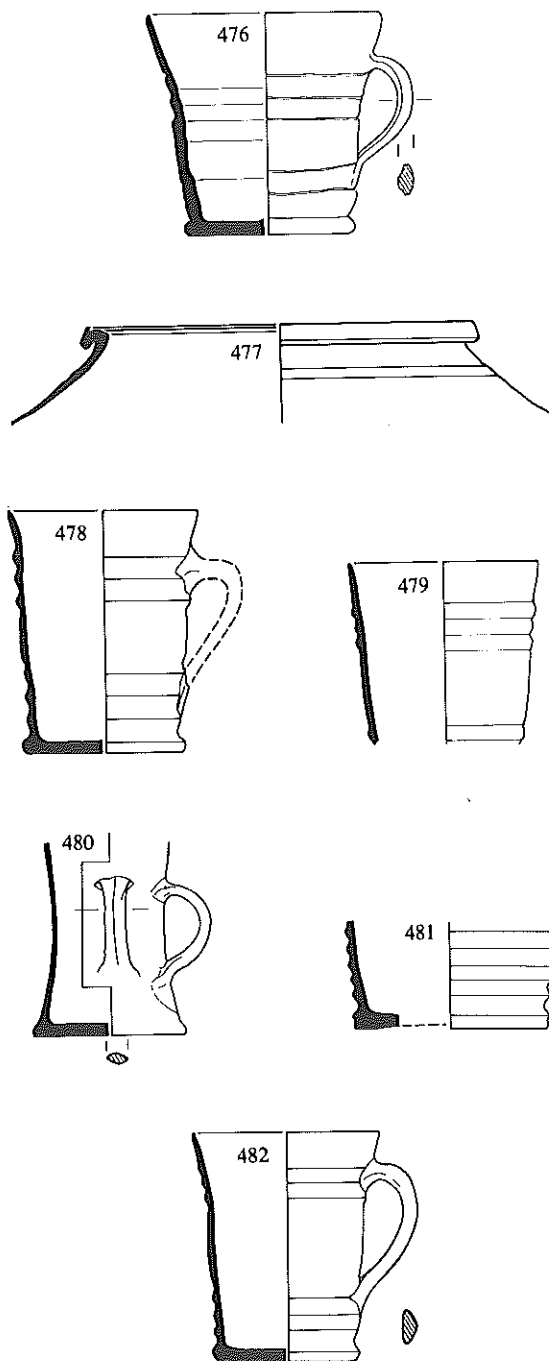
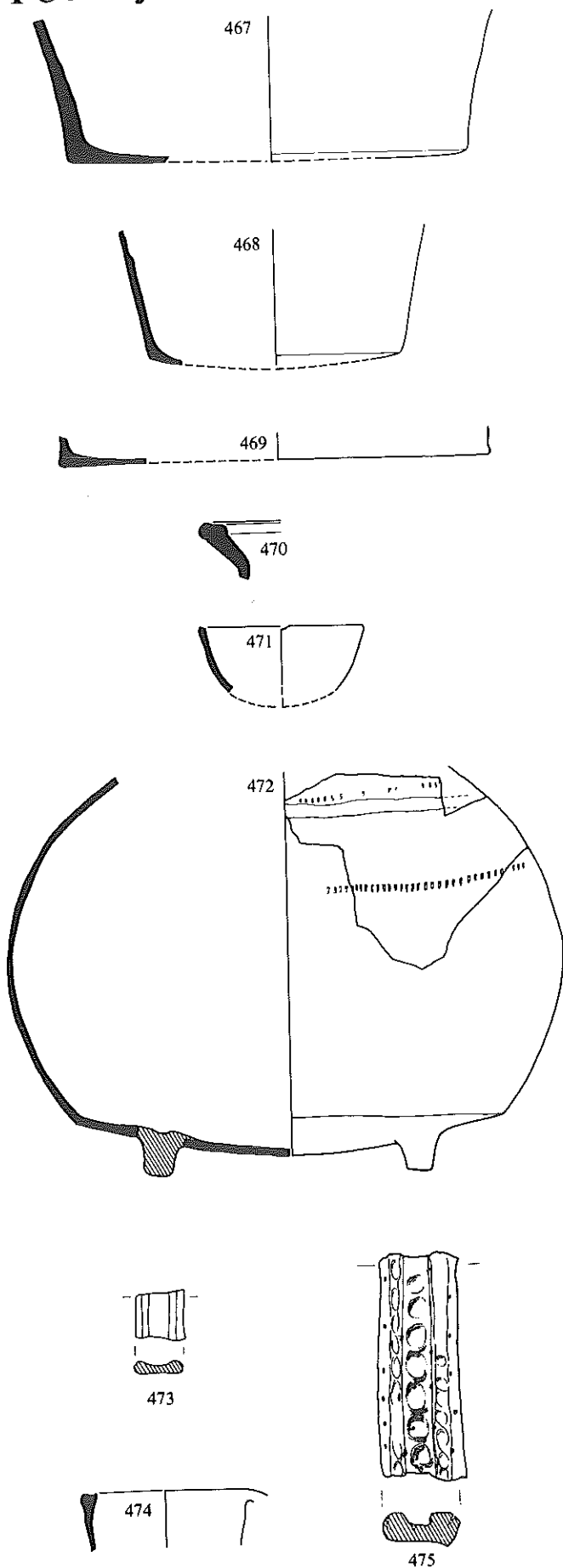
Scale 1:4

mm 0 50 100 200

[illegible]

Fig 95

Pottery 16



Scale 1:4

mm 0 50 100 200

Dwg. no.	Phase	Layer	Fabric	Colour	Comment	Dwg. no.	Phase	Layer	Fabric	Colour	Comment
462	5	121	T2	6:3:4/6		463	5	121	T2	7:3:6/7	
464	5	121	T2	7:3:7		465	5	121	T2	1:1:1	
466	5	121	T2	7:3:7		467	5	121	T2	6:3:6	
468	5	121	T2	1:1:1		469	5	121	T2	6:3:1	
470	5	121	V1	6:3:6		471	5	121	W4	7:7:7	
472	5	121	W7 ₁	6/9:6/9:6/9/11		473	5	121	X1	9:9:9/10	
474	5	121	X1	9:9:9		475	6i	3/6	T2	3:3:3	
476	7	42	W17	10/11:8/9:10/11		477	7	42	W18	8:1:8/9	
478	7	42	X2b	14:4:14		479	7	42	X2b	14:4:14	
480	7	42	X2b	14:4:14		481	7	42	X2b	14:4:14	
482	7	42	X2b	14:4:14		483	7	42	Y	6/7:2/3:6	rich, mottled brown

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 2							PHASE 4 or 5						
86	T	4	2	P	bangle 2/ U1	411-412	144	P	12	6	W34 X1	AB20 ABC7	
59	G	3	2	R	B1 Drag. 31. Cent. Gaulish		160	P	26	5	S3 S3? T1 W1 W32 X1-Y	AB1 AB4 A2/AB3 AB1 AC1	423-424 425
84	G	3	2	S1 W1 Z	U2 A1/AB1 plant pot 1		163	T	1	1	S3 W1 W32	B1 A1/AB3 B1 A5/AB12 AB3	426 427 428-429
PHASE 4							PHASE 5						
167	T	2	2	T1 W1	AB1 AB1		20	G	761	75	S1 T1 T1-2 T2 W1 W1? W32	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	430-435
161	F	1	1	T2	A1		111	P	6	3	S1 T1 T1-2 W1 W7 ₁ X1?	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	436-437
143	F	6	3	T1-2 W1 X1-Y	ABC3 A1/AB1 ABC1		115	P	6	4	S1 T1 T1-2 W1 W7 ₁ X1?	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	438-439
151	G	2	2	W1	A2		116	P	15	4	S1 T1 T1-2 W1 W7 ₁ X1?	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	440-441
B3270	21	5		T1 T1-2 T2 W1 W1?	AB9 ABC5 ABC1 A1/AF1/ AB3 A1	413-415	128	G	25	3	S1 T1 T1-2 W1 W7 ₁ X1?	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	442-443
123	P	115	16	T1 W1 W32	A1/B1/ CE ₁ /1/ ABC12 A20/F2/ ABF47 AB4	416 417-422	140	G	9	2	S1 T1 T1-2 W1 W7 ₁ X1?	U1 B2 A1/B3/ ABC3 A81/B5/ C13/AC2/ ABC388/ D1 A2 ABC6 ABC5 A3/AB11	444-445

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
121	P	651	35	T1-2	B1/E ₈ /11	448-449	PHASE 6i							PHASE 6i?						
				T2	A120/C3/	450-469	3/6	W	37	13	S1	U1		B329F	8	3		T2	ABC6	
					AC5/						T2	A4/C2/	475					W1	AB1	
					ABC437							ABC16						W4	ABCD1	
				T6	ABC1						V3	ABC1		PHASE 6ii						
				V1	A1/ABC4	470					W1	C1		23	X	10	3		T2	C1/ABC4
				T11	ABC1						W14	C2						W18	C1/ABC2	
				W1	A1						W18	C1/ABC4						X2a	F ₂ 2	
				W4	D6	471					X1	C1/ABC2		27	X	7	4		T2	ABC1
				W7 ₁	C ₁ 10	472					X2a	F ₂ 2						W16	ABC1	
				W7 ₁₂	C21/ABC4						W18	ABC1						W18	C ₂ 1/ABC3	
				W7 ₂	ABC4													Z	china 1	
				X1	C21	473-474	8	W	1	1										
125	P	7	3	T2	A2/ABC2		55	T	4	3	W18	ABC1		PHASE 7						
				W1	A1/ABC1						W29	ABC2		63	P	70	13		T2	A2/AC1/
				U	ABC1						X2a	F ₂ 1						W11	ABC10	
126	P	7	3	T2	ABC5		56	T	2	1	W18	ABC2						W17	C1	
				W4	D1		100	T	2	2	T2	ABC1						W29	F ₃ 6	476
				W18	C ₂ 1						U	ABC1						W29	ABC2	
147	P	13	6	T1	A1/AB1		48	F	2	2	X1	C1						X1	C2	
				T1-2	A1						Z	U1						X2a	F ₂ 1	
				T2	A2/													X2b	F ₃ 20	478-482
					ABC3/D2		17	F	18	4	T2	ABC5						Y	C8	483
				W1	ABC2						W18	ABC9/E ₂ 2							Bellarmino	
				W32	ABC1						W29	ABC1						U	ABC2	
											X1	ABC1								
150	P	4	3	T1-2	B1/ABC1		78	F	1	1	Z	U1								
				V1	ABC1															
				U	ABC1															

House 8

Pottery phase summary

Phase 1

All sherds are very small, the largest being less than 400mm² in area. The only rim is in a calcareous fabric and may be from an inturned rim bowl of St Neots (T1) type though it is too small to be certain. The other sherds are from vessels of indeterminate form in a friable laminated fabric which incorporates white quartz grains. One sherd has impressions on the outer surface that could be decorative. The fabrics bear a general resemblance to some prehistoric sherds but the small size and lack of recognisable features makes positive dating impossible.

Phase 2

Although all the sherds are small (less than 800mm² in area), their good condition contrasts with the pottery in Phase 1. Sherds attributed to S4 with limited quantities of grit and burnished surfaces are reminiscent of some local late pre-Roman Iron Age wares as well as some funerary vessels from Early Saxon cemeteries. A tiny rim in a calcareous fabric (S3) could be either Middle or Late Saxon in date, and the remainder are typical of pottery found in Early-Middle Saxon contexts on Briar Hill and Chalk Lane, Northampton, as well as at Brixworth, Kettering and elsewhere in the county. A general date range within the period from the 5th to 9th centuries can be suggested for most of the pottery in this phase.

Phase 3

Three sherds are too small (less than 100mm² in area) to identify and must be regarded as either prehistoric, Roman or Early-Middle Saxon. A fourth small sherd with a fairly soft, light coloured, laminated fabric incorporating grog is unlike the local Early-Middle Saxon wares and should be seen as potentially prehistoric or Roman. The other sherds are comparable to the Early-Middle Saxon wares in Phase 2, apart from a possible grass-tempered sherd.

Phase 4A

There is a single sherd of Late Saxon pottery in either Northampton (W1) or Thetford ware (W3).

Phase 4A?

The very restricted sample incorporates possible pre-Conquest sherds as well as one (T2) post-Conquest sherd.

Phase 4B (484-511)

All the pits have comparable contents and are considered together. The combined samples of 269 sherds include similar numbers of cooking pots (484-6) and inturned rim bowls (490-3), typical of St Neots type ware (T1), as well as cooking pots in Northampton ware (W1) (488, 502). Also associated is a sherd from a Stamford ware (X1) pitcher. The contexts, both individually and when combined, belong to the T1 horizon defined under House 1, Phase 4. The proportions are St Neots type ware (T1) 96.5%, Northampton ware (W1) 2%, Stamford ware (X1) 0.5% and others (W18, U) 1%. This is broadly comparable with House 1, Phase 4B, where traces of metal-working and two pennies of St Edmund were also associated. A date range of c. 900±50-1100 is consistent with the pottery, though on the basis of the evidence from House 1 a date in the early 10th century is probable.

Phase 4D (512-517)

Although the sample is much smaller than in the previous phase, the difference in the ratio of St Neots type ware (T1—28%) to Northampton ware (W1—65%) is striking and compares well with the W1 horizon in House 1, Phase 4C, dated there to some time in the 10th or 11th centuries. The continental import (Y) is a grey ware rim of French type (517).

Phase 5 (521-547)

Hearth 40 produced a bowl rim (522) in a form and fabric comparable to Middle Saxon sherds of Maxey Group III type from Lincolnshire (Addyman and Whitwell 1970: Fig. 2, nos. 5, 19) though a Maxey attribution for the ware cannot be regarded as certain. The sherd should be regarded as potentially Middle Saxon and residual in

Table 15: House 8 sample sizes and types

Phase	1	2	3	4	5	5-6	6	Totals
No. of sherds	11	19	27	325	183	153	58	776
Weight (kg)	0.010	0.050	0.030	4.235	3.685	1.490	0.730	10.230
Min. no. of vessels	2	3	3	32	29	23	11	c. 103
Types								
P-S	11							11
R			4			1		5
S1		8	19					27
S2			1					1
S3		1			1		2	4
S4		5	3					8
S5								
SU		5						5
T1				275		2	3	280
T1-2				3	4	99		106
T2				1	164	15	30	210
T6								
T11								
V1						1		1
V3					2	3	1	6
V7								
W1				38	6	1	3	48
W2								
W3					1			1
W4								
W5								
W6								
W7 ₁					3			3
W7 ₂								
W7 ₃								
W7 ₄								
W7 ₅								
W8								
W9					1	3	1	5
W11						3	1	4
W11 ₇								
W12								
W13								
W14						6		6
W15								
W16								
W17								
W18				1	1	16	16	34
W20								
W21								
W29								
W32								
W34								
W35								
W36								
W37								
W47								
X1				1			1	2
X2a								
X2b								
X1-Y				1		1		2
Y				1				1
Z								
U				4		2		6

this context. The pottery in layers 59, 76, 40, 108/130 is unremarkable and generally unhelpful. Pit 151 has a useful range of post-Conquest pottery. The local (T2) limestone gritted wares (528-45) including typical cooking pots, a bowl and a jug are in oxidised fabrics comparable to ceramic Groups 2 and 3 in House 1, Phase 5, attributed to c. 1200-1400. However, the presence of only one Potterspurty (W18) sherd and the absence of Brill (W14) wares, which could of course be fortuitous, may indicate a date range in the 13th rather than the 14th century. The two glazed jugs (W7₁, W9) would not be out of place in such a context.

Phase 5-6 transition (551-562)

There are few indications of date in the calcareous T2 wares which have a general range from the 12th-14th century. More useful are the Brill jugs (W14) (561) and Potterspurty wares (W18—10%) (562) which may indicate a terminal date in the 14th century. The wide date bracket and the range of wares both within the T2 range and the regional imports suggests comparison with layers 44 and 50 in House 9.

Phase 6 (563)

The individual layers contain too few sherds to be of any value. The main feature of the pottery compared with the previous phase is the presence of 16 sherds of Potterspurty ware (W18—27%) which is suggestive of a 14th century or later date for this phase. There are no specifically 14th century or Tudor types but this is not necessarily significant.

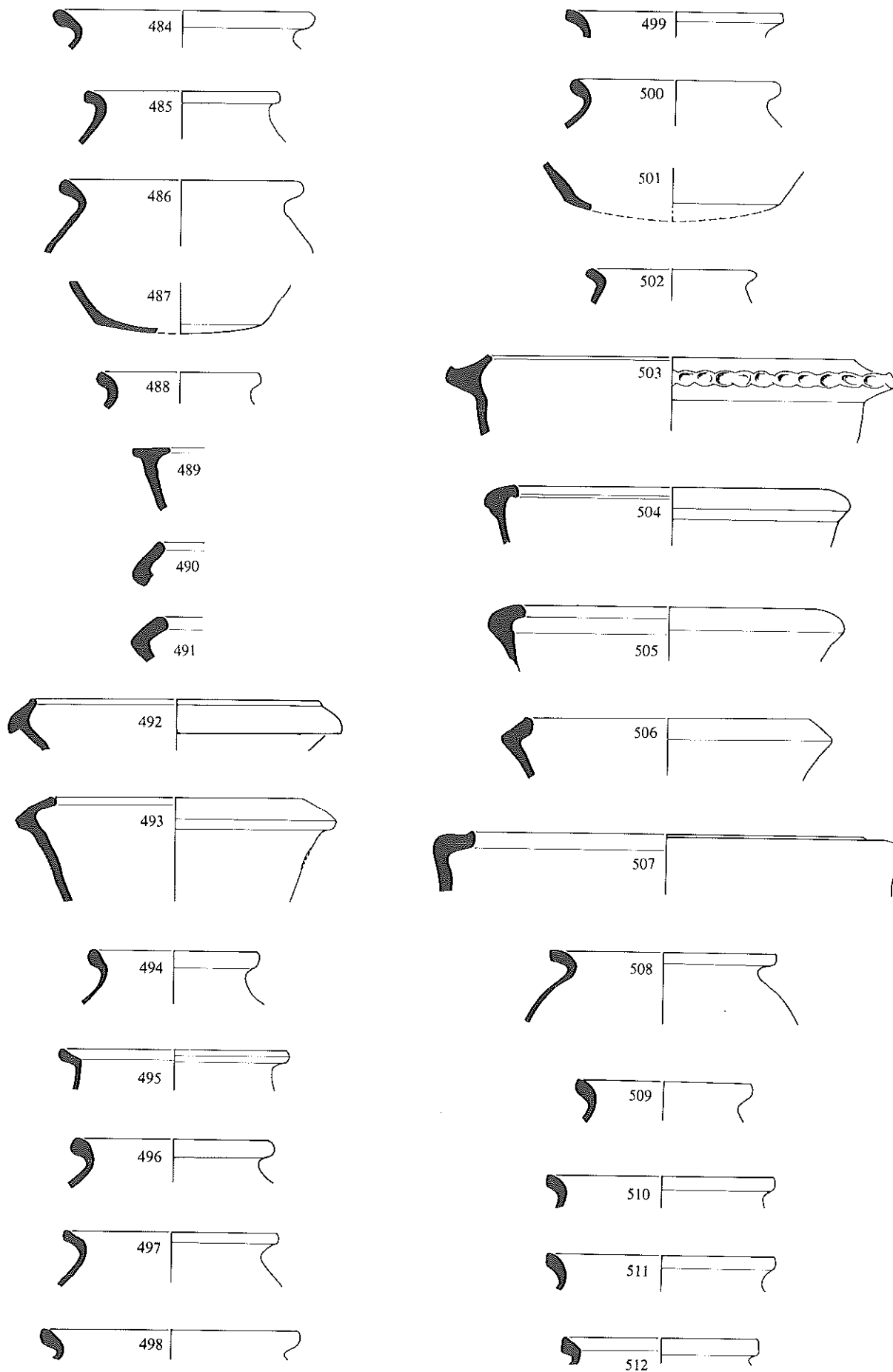
Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
484	4B	70	T1	1:1:1	
485	4B	70	T1	6:2:6	
486	4B	70	T1	1:1:1	
487	4B	70	T1	1:1:1	
488	4B	70	W1	8:8:8	
489	4B	79	T1	1:1:7	
490	4B	79	T1	7:1:7	
491	4B	79	T1	1:1:1	
492	4B	79	T1	6:1:1	
493	4B	79	T1	6:1:1	
494	4B	79	T1	6:1:1	
495	4B	79	T1	6:1:6	
496	4B	79	T1	1:1:1	
497	4B	79	T1	1:1:1	
498	4B	79	T1	1:1:1	
499	4B	79	T1	1:1:1	
500	4B	79	T1	3/7:3:3/7	
501	4B	79	T1	6:1:1	
502	4B	79	W1	2:1:1	
503	4B	207	T1	7:1:7	
504	4B	207	T1	1:1:1	
505	4B	207	T1	1:1:1	
506	4B	207	T1	7:1:7	
507	4B	207	T1	1/6:3:7	
508	4B	207	T1	1/7:6:1	
509	4B	207	T1	1:1:1	
510	4B	207	T1	1:1:1	
511	4B	207	T1	1:1:1	
512	4D	57	W1	1/8:8:1	
513	4D	57	W1	1:1:1	
514	4D	57	W1	3:9:3	
515	4D	57	W1	4/6:4/6:4/6	
516	4D	57	W1	1:1:1	
517	4D	57	Y	8/9:8/9:8/9	
518	4?	84	T1	8:3:8	

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
519	4?	112	T1	9:9:9	
520	4?	262	W1	1/9:1/9:1	
521	5	59	T1-2	1:1:1	
522	5	40	S3	6:3:6	
523	5	108	W1	3:3:3	
524	5	130	W1	3:3:3	
525	5	151	T2	7:3:7	
526	5	151	T2	7:3:7	
527	5	151	T2	6/7:2:6/7	
528	5	151	T2	7:3:7	
529	5	151	T2	7:3:7	
530	5	151	T2	7:3:7	
531	5	151	T2	7:3:7	
532	5	151	T2	8:3:6/7	
533	5	151	T2	6/7:3:6/7	
534	5	151	T2	1:1:1	
535	5	151	T2	7/8:7/8:7/8	
536	5	151	T2	7:7:7	
537	5	151	T2	7:3:6	
538	5	151	T2	2:2:6	
539	5	151	T2	7:2:7	
540	5	151	T2	3/6:3:3/6	
541	5	151	T2	9:3:1	
542	5	151	T2	8:3:6	
543	5	151	T2	7:2:7	
544	5	151	T2	7:3:7	
545	5	151	T2	7:3:1/7	
546	5	151	W1	9:9:1	
547	5	151	W1	3:3:1	
548	4 or 5	95	T1-2	1:1:1	
549	4 or 5	200	T2	7:3:7	
550	unstrat.		W1	9:9:9	
551	5-6	32	T1	2/6:1:1	
552	5-6	32	T1	1:1:1	
553	5-6	32	T2	7:3:7	
554	5-6	32	T2	7:3:7	
555	5-6	32	T2	5/7:3:7	
556	5-6	32	T2	7:3:7	
557	5-6	32	T2	7:3:6/7	
558	5-6	32	T2	7:3:7	
559	5-6	32	V3	6:2:6	
560	5-6	32	W1	8/9:8/9:8/9	
561	5-6	32	W14	8/9:3:10/11	
562	5-6	32	W18	5/7:2:5/7	
563	6i	122	W1	9:9:9	
564	unstrat.		T2	7:3:6/7	
565	unstrat.		W14	8/9:9:11/12	

Pottery 17

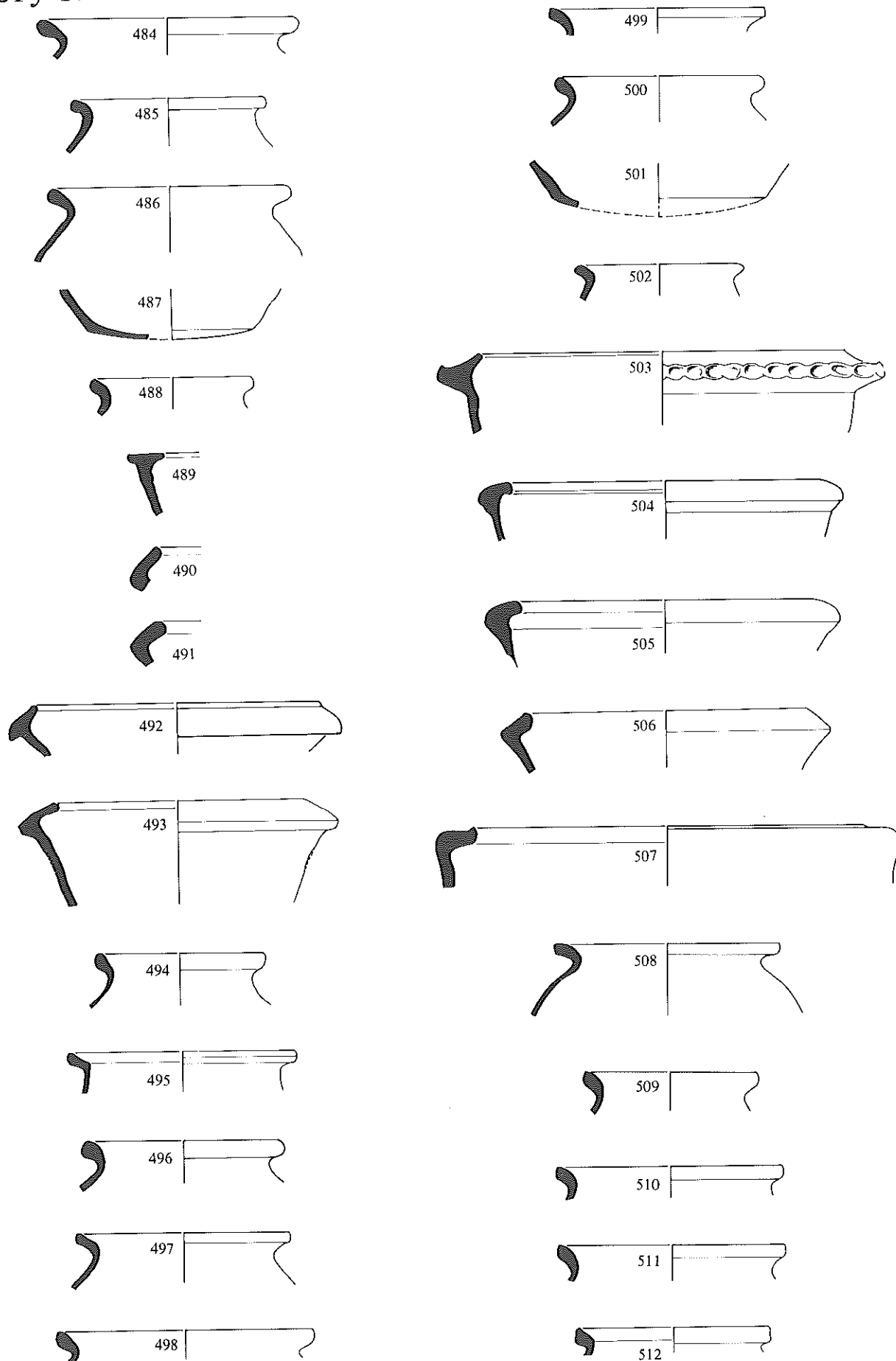
Fig 96



mm 0 50 100 200

Fig 96

Pottery 17



Scale 1:4

mm 0 50 100 200

this context. The pottery in layers 59, 76, 40, 108/130 is unremarkable and generally unhelpful. Pit 151 has a useful range of post-Conquest pottery. The local (T2) limestone gritted wares (528-45) including typical cooking pots, a bowl and a jug are in oxidised fabrics comparable to ceramic Groups 2 and 3 in House 1, Phase 5, attributed to c. 1200-1400. However, the presence of only one Potterspur (W18) sherd and the absence of Brill (W14) wares, which could of course be fortuitous, may indicate a date range in the 13th rather than the 14th century. The two glazed jugs (W7, W9) would not be out of place in such a context.

Phase 5-6 transition (551-562)

There are few indications of date in the calcareous T2 wares which have a general range from the 12th-14th century. More useful are the Brill jugs (W14) (561) and Potterspur wares (W18—10%) (562) which may indicate a terminal date in the 14th century. The wide date bracket and the range of wares both within the T2 range and the regional imports suggests comparison with layers 44 and 50 in House 9.

Phase 6 (563)

The individual layers contain too few sherds to be of any value. The main feature of the pottery compared with the previous phase is the presence of 16 sherds of Potterspur ware (W18—27%) which is suggestive of a 14th century or later date for this phase. There are no specifically 14th century or Tudor types but this is not necessarily significant.

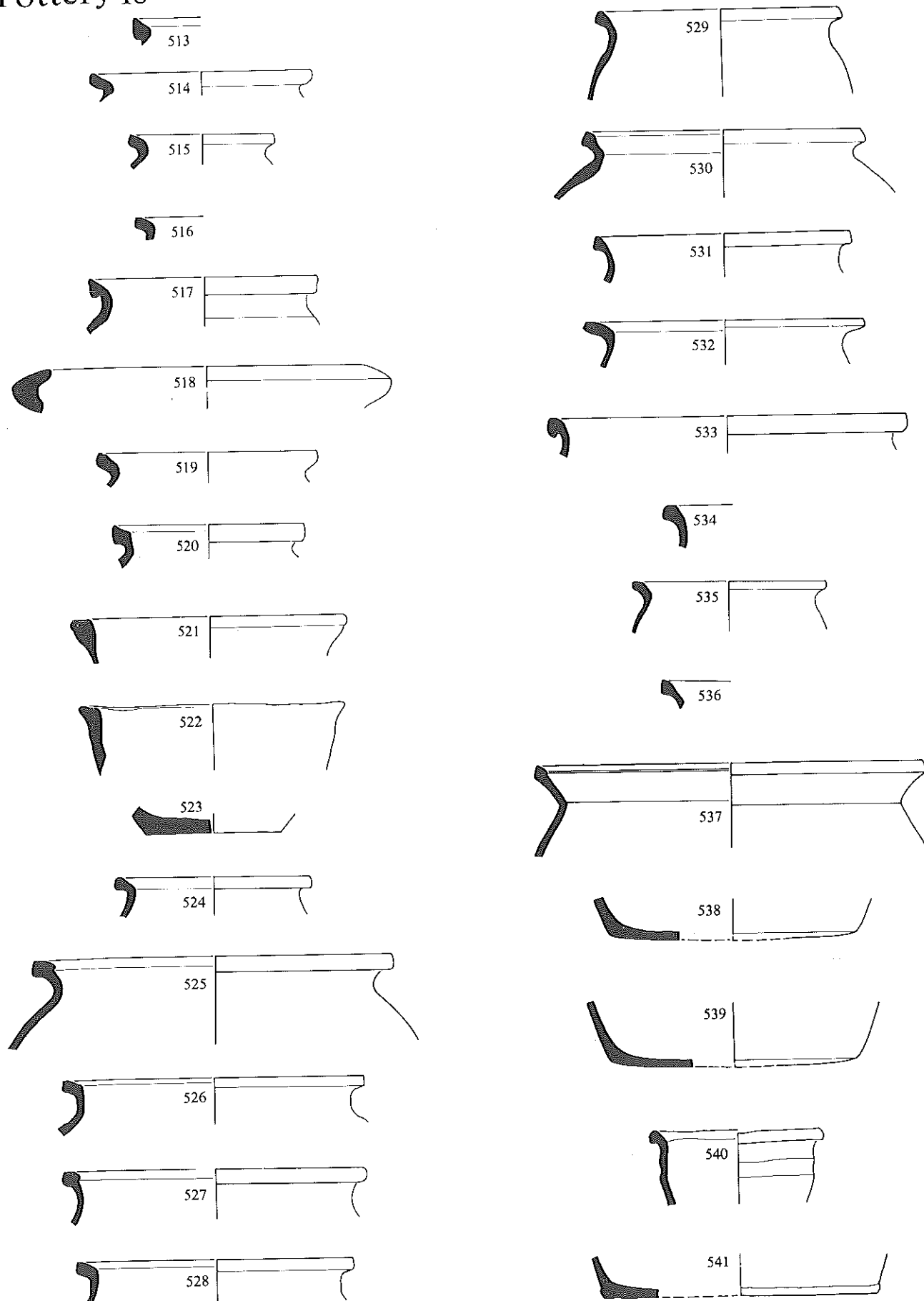
Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
484	4B	70	T1	1:1:1	
485	4B	70	T1	6:2:6	
486	4B	70	T1	1:1:1	
487	4B	70	T1	1:1:1	
488	4B	70	W1	8:8:8	
489	4B	79	T1	1:1:7	
490	4B	79	T1	7:1:7	
491	4B	79	T1	1:1:1	
492	4B	79	T1	6:1:1	
493	4B	79	T1	6:1:1	
494	4B	79	T1	6:1:1	
495	4B	79	T1	6:1:6	
496	4B	79	T1	1:1:1	
497	4B	79	T1	1:1:1	
498	4B	79	T1	1:1:1	
499	4B	79	T1	1:1:1	
500	4B	79	T1	3/7:3:3/7	
501	4B	79	T1	6:1:1	
502	4B	79	W1	2:1:1	
503	4B	207	T1	7:1:7	
504	4B	207	T1	1:1:1	
505	4B	207	T1	1:1:1	
506	4B	207	T1	7:1:7	
507	4B	207	T1	1/6:3:7	
508	4B	207	T1	1/7:6:1	
509	4B	207	T1	1:1:1	
510	4B	207	T1	1:1:1	
511	4B	207	T1	1:1:1	
512	4D	57	W1	1/8:8:1	
513	4D	57	W1	1:1:1	
514	4D	57	W1	3:9:3	
515	4D	57	W1	4/6:4/6:4/6	
516	4D	57	W1	1:1:1	
517	4D	57	Y	8/9:8/9:8/9	
518	4?	84	T1	8:3:8	

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
519	4?	112	T1	9:9:9	
520	4?	262	W1	1/9:1/9:1	
521	5	59	T1-2	1:1:1	
522	5	40	S3	6:3:6	
523	5	108	W1	3:3:3	
524	5	130	W1	3:3:3	
525	5	151	T2	7:3:7	
526	5	151	T2	7:3:7	
527	5	151	T2	6/7:2:6/7	
528	5	151	T2	7:3:7	
529	5	151	T2	7:3:7	
530	5	151	T2	7:3:7	
531	5	151	T2	7:3:7	
532	5	151	T2	8:3:6/7	
533	5	151	T2	6/7:3:6/7	
534	5	151	T2	1:1:1	
535	5	151	T2	7/8:7/8:7/8	
536	5	151	T2	7:7:7	
537	5	151	T2	7:3:6	
538	5	151	T2	2:2:6	
539	5	151	T2	7:2:7	
540	5	151	T2	3/6:3:3/6	
541	5	151	T2	9:3:1	
542	5	151	T2	8:3:6	
543	5	151	T2	7:2:7	
544	5	151	T2	7:3:7	
545	5	151	T2	7:3:1/7	
546	5	151	W1	9:9:1	
547	5	151	W1	3:3:1	
548	4 or 5	95	T1-2	1:1:1	
549	4 or 5	200	T2	7:3:7	
550	unstrat.		W1	9:9:9	
551	5-6	32	T1	2/6:1:1	
552	5-6	32	T1	1:1:1	
553	5-6	32	T2	7:3:7	
554	5-6	32	T2	7:3:7	
555	5-6	32	T2	5/7:3:7	
556	5-6	32	T2	7:3:7	
557	5-6	32	T2	7:3:6/7	
558	5-6	32	T2	7:3:7	
559	5-6	32	V3	6:2:6	
560	5-6	32	W1	8/9:8/9:8/9	
561	5-6	32	W14	8/9:3:10/11	
562	5-6	32	W18	5/7:2:5/7	
563	6i	122	W1	9:9:9	
564	unstrat.		T2	7:3:6/7	
565	unstrat.		W14	8/9:9:11/12	

Fig 97

Pottery 18

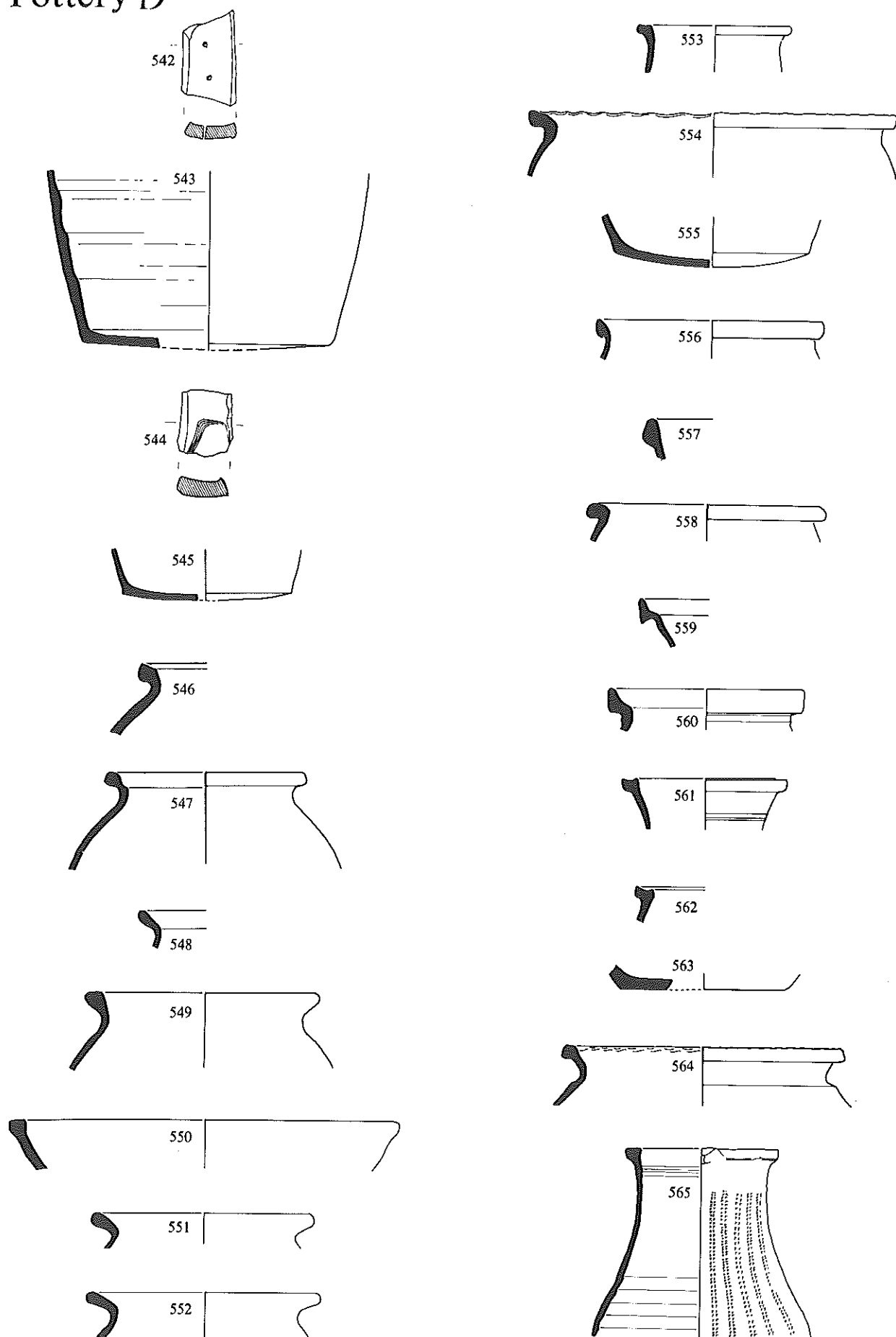


Scale 1:4

mm 0 50 100 200

Pottery 19

Fig 98



Scale 1:4

mm 0 50 100 200

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 1							PHASE 4D							PHASE 5						
316	M	11	1	P-S	U11		57	G	49	10	T1	A1/B1/ SpB1/ AB11		98	T	2	1	T1-2	AB2	
PHASE 2											W1	A8/AB24	512-516	100	T	1	1	T2	ABC1	
156	G	19	3	S1 S3 S4 SU	U8 U1 U5 U5						Y	A1	517	150	T	13	2	T1	A2/AB11	
PHASE 3											X1-Y	AB1		200	T	1	1	T2	A1	549
56	G	27	4	PRS S1 S2? S4	U4 U19 U1 U3						U	AB1		215	T	1	1	T2	ABC1	
PHASE 4A							PHASE 4?							238	T	1	1	T1-2	ABC1	
142	T	1	1	W1-3	A1		82	P	1	1	X1	C1		244	T	1	1	T1-2	ABC1	
PHASE 4A?							84	P	8	1	T1 T1-2	B1 ABC7	518	251	T	1	1	W1	AB1	
80	T	5	2	T1-2 T2 U	ABC3 A1 ABC1		112	P	7	2	S3 T1	AB2 A1/AB4	519	PHASE 5?						
175	T	1	1	T1-2	ABC1		147	P	12	1	T1-2	B23/ABC9		133	O	1	1	S1	U1	
PHASE 4B							162	P	1	1	W32	AB1		PHASE 5-6 TRANSITION						
70	P	65	5	T1 W1 U	A11/AB51 many burnt AB2 A1	484-487 488	262	P	5	2	T1-2 W1	ABC2 A2/AB1	520	32	G	153	23	R	U1 Oxfordshire, 3rd-4th C	
79	P	74	16	T1 W1 X1 V	A12/B5/ AB54 A1 C1 ABC1	489-501 502	PHASE 5											T1	A2	551-552
106	P	3	1	T1	A1/AB2		59	T	3	2	T1-2 T2	AB1 ABC2	521					T1-2	C2/ ABC97	
207	P	127	12	T1 W1 W18	A7/B11/ AB106 AB2 C1	503-511	76	T	1	1	T2	A1						T2	A5/B4/ C1/ABC5	553-558
PHASE 4B?							40	H	3	2	S3 T1-2	AB1 ABC2	522					V1	ABC1	
259	T	1	1	T1	A1		108/R	5	2		T1-2 W1	ABC1 A2/AB2	523-524					V3	A1/ABC2	559
PHASE 4 or 5							151	P	171	26	T2	A15/B1/ C1/ ABC144	525-545					W1	A1	560
67	T	1	1	T2	ABC1						V3	ABC2		PHASE 6i						
68	T	2	1	T1-2	A1/ABC1						W1	A2	546-547	78	W	8	2	T2 V3	ABC6/D1 ABC1	
95	T	1	1	T1-2	A1	548					W3	AB1		13	F	30	5	T2	B3/ ABC19/D1	
PHASE 4D											W7	C3						W1?	AB2	
											W9	C1		65	P	13	2	W9	C1	
											W18	C1						W18	ABC4	
																		W11?	ABC1	
																		W18	ABC12	
														34	R	6	3	S3 T1 X1	A2 B1/AB2 C1	
																		W1	A1	563

House 9

Pottery phase summary

Phase 4 (566-569)

The pottery from both pits consists exclusively of Late Saxon St Neots type ware (T1) cooking pots (569) and bowls (566-8).

Phase 4?

Although most of the sherds are characteristic of the post-Conquest

period, it is not possible to suggest a date for any of these layers because of the very limited quantities of pottery recovered.

Phase 5 (570-594)

Most of the pottery in pit 142 is of local T2 type and includes cooking pots (583-5, 588), bowls (590), a jug (586, 592) and lamps (587). The forms and fabric colour range, chiefly purple-browns, compare well with Group 1 in House 1, and pit 121 in House 7, both of which are attributed to the period c. 1100-1250. Pit 142 was cut by pit 92 in which the range of cooking pot rim forms (575, 577) and fabric colours, chiefly orange-browns, is close to ceramic Groups 2 and 3,

Table 16: House 9 sample sizes and types

<i>Phase</i>	3	4	5	5-6	6i	6ii	Totals
<i>No. of sherds</i>	2	44	566	589	179	20	1400
<i>Weight (kg)</i>	0.005	0.905	7.170	4.595	1.795	0.300	14.760
<i>Min. no. of vessels</i>	1	7	64	61	26	8	c. 167
Types							
P							
R			1				1
S1	2						2
S2							
S3			3	2			5
S4							
S5							
T1		44	14				58
T1-2			12		3		15
T2			456	434	136	6	1032
T6							
T11							
V1			12	3	1		16
V3			3	5	4		12
V7				5			5
W1			32		3		35
W2							
W3							
W4							
W5							
W6							
W7 ₁			1		1		2
W7 ₂			2		1		3
W7 ₃			1				1
W7 ₄				4			4
W7 ₅				2			2
W8							
W9				1			1
W11			4	8	3		15
W11 ₇							
W12							
W13							
W14			5	25	2		32
W15				2			2
W16				1		1	2
W17							
W18				74	12	7	93
W20					3		3
W21					2		2
W29						1	1
W32							
W34			4	1			5
W35			1				1
W36							
W37							
W47							
X1			1	10	4	1	16
X2a					1	2	3
X2b							
X1-Y			1				1
Y							
Z					1	1	2
U			13	12	2	1	28

House 1, dated c. 1200-1400. The sequence postulated partly on the basis of fabric colour in Phase 5, House 1 may, therefore, find some confirmation in House 9, pits 142 and 92. The regional imports, notably the Oxford type jug (W7₁) in pit 142 and the highly decorated wares (W11, W14), together with the absence of Potterspurw wares (W18) in pit 92 are consistent with these general dates.

The local wares from floor 85 have affinities with the calcareous Lyveden and Olney Hyde wares. The range of forms and also the presence of Brill (W14) jugs, probably of baluster type, suggest a broad contemporaneity with pit 92.

Phase 5-6 transition (595-606)

Layers 44 and 50 are thought to be either a dump or a gradual accumulation over some time (p. 88 cf. also House 7, layer 20 and House 8, layer 32) and the mixed pottery assemblage would support either hypothesis. Local T2 wares in a variety of forms (595-6, 598) and fabrics seem to indicate activity over a fairly wide time-span. The quantity of Potterspurw ware (W18—12%) (603) suggests occupation from the 14th century and the Midland Purple sherd (W16) could extend the date range into the 15th century. Highly decorated regional imports are well represented by at least four baluster and biconical Brill (W14) jugs (601-2, 606) and others (W11, W12) (600) of less certain origin, as well as unglazed vessels possibly from East Anglia (W15) and Bedfordshire (W7₁).

Phase 6i (607-611)

Amongst the large quantity of pottery in wall 11 are two sherds of fabric W20 which is believed to date from the early 15th century. Other late medieval sherds on floors 45 and 48 are represented by W21.

Phase 6ii (612)

The limited quantity of pottery from the destruction levels included Midland Purple (W16), Cistercian ware (X2a), fabric W29, and one sherd of Delft ware (Z).

Phase 7 (615-625)

Approximately 100 sherds of post-medieval wares and 21 clay pipe fragments were recovered from House 9, all unstratified. The pottery is discussed below and selected pieces illustrated in the general absence of stratified material of this period on the site. The fine wares include part of a Westerwald stoneware (?) tankard, a Nottingham stoneware container, a fine salt-glazed teapot with a faceted spout (624), blue and pink-tinged Delft ware chamber pots (621-2) and a small Albarello type container (623), and a brown glazed posset pot and tankard, possibly from Staffordshire. Other potential Staffordshire products include a Midland Yellow (W17) thrown dish, press-moulded, combed slipware dishes and other hollow wares (615-6). A porringer (617), black iron-glazed hollow wares and pancheons, perhaps the product of a local country potter, although they could have been imported from Staffordshire, were also recovered.

The Midland Yellow dish, Delft ware and coarse iron-glazed wares can be dated to the 17th century but the salt-glazed vessels, Nottingham stoneware and perhaps the press-moulded dishes are more characteristic of the 18th century. A general date range of c. 1650-1750 is appropriate to most of the post-medieval elements.

Comment

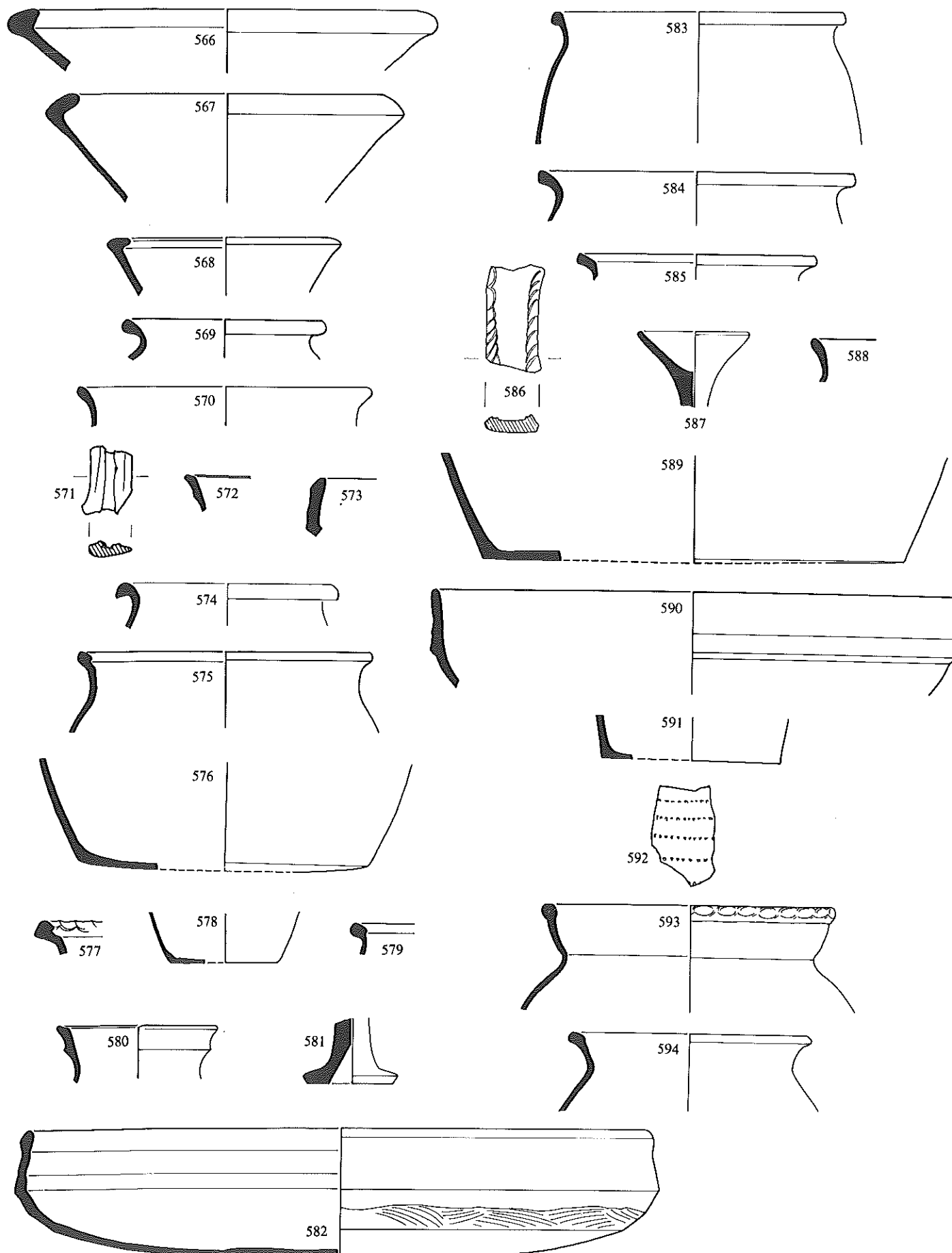
The pottery in House 9 has little to add to the discussion on pre-Conquest or late medieval wares. The most useful groups are pits 142 and 92, Phase 5, which can be usefully compared to others in Houses 1 and 7. The dating of Phase 6 is dependent on arguments advanced under House 4 for Midland Purple (W16), Potterspurw ware (W18) and Surrey white wares (W21).

Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
566	4	147	T1	6:3:1	
567	4	147	T1	6:1:1	
568	4	148	T1	3:1:1	
569	4	148	T1	1:1:1	
570	5	85	T2	7:3:7	
571	5	85	T2	7:3:7	
572	5	85	T2	7:3:7	
573	5	85	T2	6:3:6	
574	5	92	T2	1/3:1/3:1	
575	5	92	T2	7:3:6	
576	5	92	T2	6:3:6	
577	5	92	T2	7:3:7	
578	5	92	T2	6:3:1	
579	5	92	T2	7:3:7	
580	5	92	T2	7:3:7	
581	5	92	T2	7:3:7	
582	5	92	T2	6:1:1	
583	5	142	T2	7:3:7	
584	5	142	T2	7:3:7	
585	5	142	T2	7:3:7	
586	5	142	T2	7:3:6	
587	5	142	T2	1/6:2:1/6	
588	5	142	T2	7:3:7	
589	5	142	T2	7:3:7	
590	5	142	T2	6:3:6	
591	5	142	T2	3/6:3:1	
592	5	142	T2	7/8:3:7/8	
593	5	142	V1	7:3:3/7	
594	5	103	T2	7:3:3/7	
595	5-6	44	T2	7:3:7	
596	5-6	44	T2	7:3:7	
597	5-6	44	T2	7:3:7	
598	5-6	44	T2	7:3:2	
599	5-6	44	T2	6:3:6	
600	5-6	44	W11	9:1:9	
601	5-6	44	W14	8:8:8/10	
602	5-6	44	W14	8/9:8/9:11/12	
603	5-6	44	W18	1/3:1/3:1/3	
604	5-6	50	T2	7:3:1	
605	5-6	50	T2	7:1:1	
606	5-6	50	W14	8:8:8	
607	6i	11	T2	5/11:3:11	
608	6i	11	T2	3/7:3/7:3/7	
609	6i	11	T2	7/8:3:7/8	
610	6i	11	T2	6:3:6	
611	6i	11	W14	10/12:7:10/12	chafing dish
612	6ii	9	W18	5/7:9:3/4/6	
613	6iii	12	W16-Z	14:4:14	
614	6iii	12	W16-Z	4:4:4	
615	7	13	Z	14:4:14	
616	7	13	Z	14:4:14	coarse local
617	7	13	Z	14:4:14	coarse local
618	7	13	Z	14:4:14	coarse local
619	7	13	Z	14:9:14	Staffordshire
620	7	13	Z	9/14:9:14	Staffordshire
621	7	13	Z	white	Delft ware
622	7	13	Z	white	Delft ware
623	7	13	Z	white	Delft ware
624	7	13	Z	white	salt-glazed tea-pot
625	7	13	W17	10:9:9/10	

Fig 99

Pottery 20

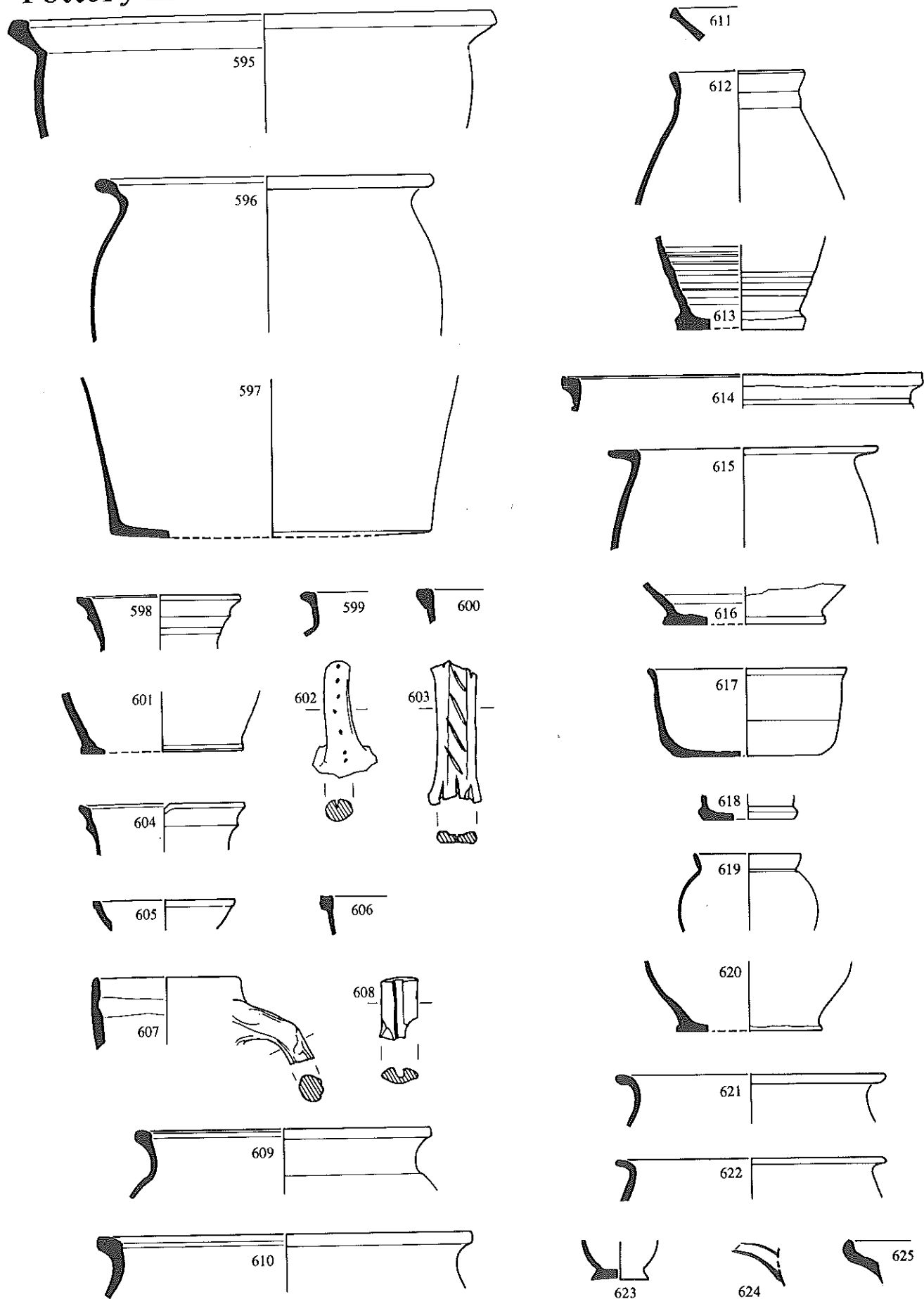


Scale 1:4

mm 0 50 100 200

Fig 100

Pottery 21



Scale 1:4

mm 0 50 100 200

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	
PHASE 3																					
149	O	2	1	S1	U2		144	P	19	6	S3	AB1						W34	AB1		
											T1	A2/B1//						X1	C3/ABC2		
											T2	ABC1						U	A1/C1//		
											W1	A1/AB1							ABC8		
PHASE 4											W34	AB1									
147	P	33	4	T1	A2/B6/AB25	566-567	145	P	10	4	T1	AB2						S3	A1		
											T1-2	ABC1						T2	A5/B1//	604-605	
148	P	11	4	T1	A4/B3/AB4	568-569					T2	ABC1							C3/		
											W1	ABC3							ABC63/		
											W34	SpB1//						V7	B1/AB1//		
											U	ABC1							ABC1		
PHASE 4?																		W7 ₄	AB1		
158	T	3	2	T1	AB1		146	P	16	3	T1	A1/AB6							W7 ₅	ABC2	
				T1-2	ABC1						T2	A1/ABC1							W9	ABC1	
				T2	ABC1						W1	A1/AB4							W11	C2/ABC5	
											U	ABC2							W12	C1	
164	T	6	2	T1-2	A1														W14	C11	606
				T2	A1/ABC4		65	R	35	3	T2	A5/AC1//							W18	ABC9	
											V1	A7							X1	C5	
172	T	6	1	T2	ABC6						U	ABC1							U	ABC1	
192	T	1	1	T2	ABC1		100	R	32	8	T1-2	AE ₈ 1//									
PHASE 5											T2	A3/ABC13									
115	T	1	1	T2	ABC1						V1	A1							T1-2	B1/ABC2	
118	T	1	1	T2	C1						W1	AB7							T2	A8/C7//	607-610
85	F?	71	8	T2	A3/B2//	570-573					W34	AB1							V1	ABC1	
				V1	ABC1						W35	AB1							W11	C3	
				W7 ₅	ABC2		103	R	24	7	X1-Y	ABC1							W14	E ₃ 1	611
				W14	C2						U	ABC2							W18	ABC6	
				U	ABC3														W20	ABC2	
119	G	6	2	T2	A1						T1	A1							X1	C4	
				W1	AB5						T1-2	ABC8							U	ABC2	
123	G	58	5	S3	AB2						T2	A2/C1//	594								
				T2	A6/C1//						ABC1										
				V3	ABC2						W1	A4/AB5									
				X1	ABC1						W14	ABC2									
				U	ABC1																
143	H	10	1	T2	ABC10																
92	P	141	14	T2	A5/B37//	574-582															
					C2/																
					ABC85/D2																
				V1	ABC1																
				V3	ABC1																
				W11	C1/ABC3																
				W14	C1																
				U	C1/ABC2																
142	P	142	5	R	B1/ Drag. 37. Early-Mid Ant., (?) CIN-NAMUS ovolo																
				T2	A16/B5//	583-592															
					ABC111//																
					D3																
				V1	A1/ABC1	593															
				W1	ABC1																
				W7 ₁	C1																
				W7 ₃	ABC1																
PHASE 5-6 TRANSITION																					
44	G	472	60	S3	A1																
				T2	A86/B4//	595-599															
					C3/																
					ABC267																
				V1	A1/ABC2																
				V3	ABC5																
				V7	AB2																
				W7 ₄	ABC3																
				W11	B1	600															
				W14	C12/ABC1	601-602															
				W15	ABC2																
				W16	ABC1																
				W18	A1/B2//	603															
					C1/ABC61																

House 10

Pottery phase summary

Phase 4 (626-656)

St Neots type ware (T1—31%) and Northampton ware (W1—47%) are present in Grubenhau 2 (layer 23) in proportions comparable to the W1 horizon in House 1. The St Neots type ware includes cooking pots, a bowl and possibly a rim from a bar-lip vessel (626), whilst Northampton ware includes cooking pots (628-30) and a (?)handle from a (?)storage jar. A few calcareous (S3) sherds, possibly Leicester ware (W36), Stamford ware (X1, X1-Y), the red-painted sherd being potentially of continental origin, and Thetford wares (W2, W3) (632) were also found.

Grubenhau 3 (layer K24) contained a very similar range of pottery to layer K23. St Neots type ware (T1—20%) and Northampton ware (W1—56%) predominated in the ratio of the W1 horizon. The range of regional imports is also similar to that of layer K23. The grey wares (X1-Y) regarded as potentially continental imports could also be English.

Grubenhau 4 (layer K184) contained too few sherds for useful comment, though a Late Saxon date is possible on the basis of the Northampton ware recovered from the fill.

St Neots type ware and Northampton ware in pit K158 respected the W1 horizon ratio (T1—43%; W1—42%). The Northampton ware lamp (647) is an unusual form. The sherds of Leicester type ware may belong to a single vessel.

Pit K160 unfortunately had too few sherds to be usefully compared with the T1 or W1 horizons, but the penny of Athelstan (Nu11) associated with St Neots type and Northampton wares is a useful addition to the dating evidence for these types.

Pits K188 and 189 are probably to be allied to the T1 horizon though the number of T1 sherds in K189 is slightly misleading as most come from a single very fine, almost complete, three-handled storage jar (655) decorated with vertically applied strips of thumbled clay.

Phase 5 (657-667)

Most of the local T2 and T1-2 sherds in 113 are very small, making positive identification difficult, but the basal sherds, probably from large flat-bottomed cooking pots, and a lamp base, as well as body sherds fired to an orange-brown colour, suggest a post-Conquest date. Nothing in the pottery, however, indicates a more precise date within the range c. 1100-1400.

The pottery in pit K72 is chiefly local in character and includes Lyveden cooking pots and calcareous cooking pots (661) as well as unglazed, rouletted jugs possibly from Olney Hyde. The colour of most of the sherds is comparable to that in ceramic Groups 2 and 3 in House 1, Phase 5, attributed to c. 1200-1400. Nothing else in the pottery refines the dating.

The local wares in pit K75 are comparable with those in pit K72 above. The one useful additional feature is a foot from an Oxford type tripod pitcher (666) which could have a general date range in the 12th-early 13th centuries. Most of the sherds in pit K188.1 are clearly post-Conquest.

Phase 6Ai (669-671)

Wall G14 is discussed under House 9 and there dated probably to the beginning of the 15th century. The pottery from the walls of drying oven 1 (G86) is rather mixed but the Potterspurry (W18) and Brill (W14) wares perhaps indicate a 14th century or later construction date.

Phase 6Aii

The proportion of local T2 wares has dropped from 83% in Phase 5 to 59% while Potterspurry ware has correspondingly increased to 30%. Caution is required because of the small number of Potterspurry vessels represented but the high proportion is paralleled in 15th century levels within House 4 (p. 189). The absence of other specifically 15th century material is probably not significant.

Phase 6Aiii or 6B (672-3)

The sherds attributed to W15 are comparable to the oxidised wares recovered from east Northamptonshire and Huntingdonshire where they are attributed a Tudor date. A single sherd of Cistercian ware and a large body sherd from a Raeren mug are associated.

Phase 6A? (674)

The presence of a possible Midland Purple sherd (W16?), Surrey white ware (W21), Cistercian ware (X2a) and fabric W20 clearly indicates a date not earlier than the late 15th century.

Phase 6B (675-679)

The local medieval T2 wares, representing 7% of the total, are probably best regarded as residual sherds and the same may apply to the other regional imports, notably fabrics W7₁, W7₂, W11, W14, and X1. The dominant elements are Potterspurry ware (W18—34%) and Cistercian ware cups (X2a—37%) (677). The quantity of Potterspurry ware indicates a *floruit* in the 15th century or later, whilst the Cistercian ware and especially the Raeren mugs (678) and the sherd from a south Netherlandish maiolica altar vase perhaps suggest a date in the first half of the 16th century, when these types were especially popular. Although the absence factor is probably not significant in a collection of only 186 sherds, the lack of Frechen stoneware, a type fossil of sites occupied between c. 1550-1650, and the lack of other 17th century forms may lend support to a date early in the Tudor period.

Phase 6B or 6C (680)

The probably residual medieval wares form a larger proportion of the total than in Phase 6B above, perhaps reflecting the general layer's gradual accumulation. There is a wide range of regional imports amongst which the possible Nottingham type vessels (W13) are noteworthy. A general date range within the 15th-16th centuries is indicated by fabric W15, Midland Purple (W16), Cistercian ware (X2a) and the Raeren mug (Y), which together account for 13% of the total.

Phase 7 (681-690)

The pottery from layer G87, the construction trench for the tanning pits, differs as might be expected from the subsequent infilling of the pits. Apart from the probably residual sherds the main elements are Potterspurry ware (W18—11%) (681), fabric W29 (9%) (682) and Cistercian ware (X2a—13%) which are consistent with a late 15th century date. There are five sherds from black iron-glazed mugs (X2b) of 17th century type and a rim from a Cologne stoneware jug, Group 2 (683) (c. 1525-75). If the small numbers of glazed wares and the lack of Frechen stonewares and other diagnostically Stuart types are significant a date within the period early 16th century-early 17th century is probable with a late Tudor date perhaps most likely.

Within the tan pits themselves Potterspurry ware (W18) comprises 8% and fabric W29 13% of the totals. The Cistercian ware (X2a—10%) (686) element is lower than in G87 but there are more black iron-glazed mugs (X2b—8%) (688-9).

Other vessels represented include a Raeren drinking mug (from G67), a plain Frechen jug of a type with a cordon at the junction of neck and body (G66, 71) and a Bellarmine probably also from the Frechen factories (G71). Midland Yellow wares (W17) are present mostly as body sherds but fragments of a thrown pancheon, a jar (690) and a porringer can be recognised. The vessels are probably from Staffordshire, as are two joining rim sherds from a mottled hollow ware and a fragment of a press-moulded dish with embossed decoration (G69).

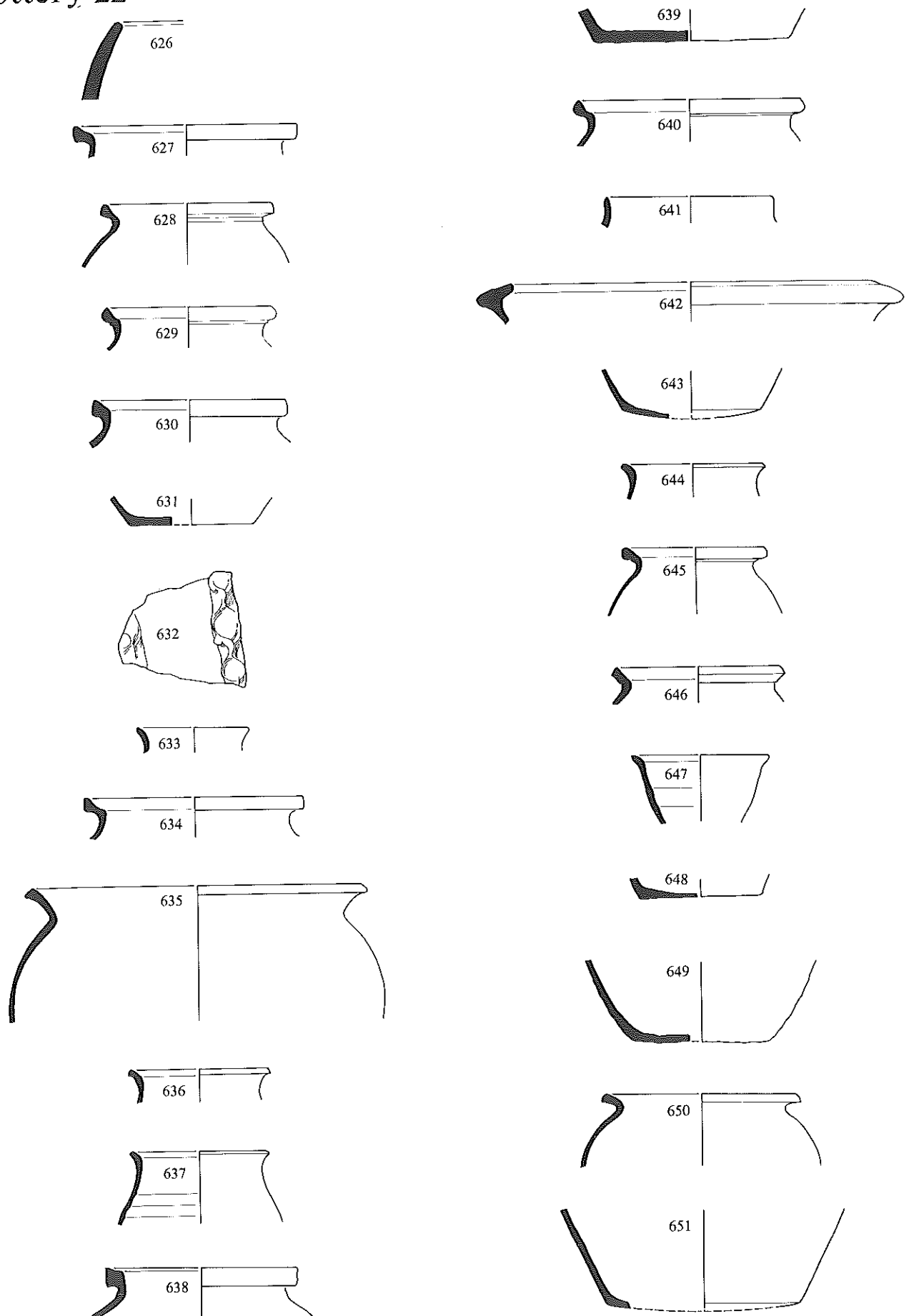
The Frechen jugs are a form known with hall-marked silver mounts dated 1550-1600, though the type continued in use until the 17th century. The imported Bellarmine is especially popular in the early Stuart period though precise dating is difficult at present. The iron-glazed mugs and the coarse wares are closely comparable to the products of the kilns excavated by Mayes at Potterspurry, Northamptonshire and dated to the working lifetimes of Leonard Benton c. 1646-1665 or John Stowe whose will is dated 1694 (Mayes 1968: 57-8). The two Staffordshire vessels are attributable to the

Table 17: House 10 sample sizes and types

Phase	4	5	6Ai	6Aii	6B	7	Totals
No. of sherds	572	278	73	230	186	363	1702
Weight (kg)	7.745	5.955	0.510	3.450	2.540	5.090	25.290
Min. no. of vessels	43	33	7	29	20	37	c. 169
Types							
P							
R							
S1	12	1					13
S2							
S3	21						21
S4							
S5							
T1	260	2					262
T1-2	9	8	14		1	7	39
T2	2	231	35	136	14	38	456
T6	1	7		2			10
Ti1							
V1		4					4
V3				3			3
V7					2	1	3
W1	217	10	14			1	242
W2	5						5
W3	3						3
W4							
W5							
W6							
W7 ₁		1		1	1	1	4
W7 ₂					1		1
W7 ₃			1				1
W7 ₄		6	1	1			8
W7 ₅			1				1
W8							
W9		1			1		2
W11				1	1	5	7
W11 ₁							
W12							
W13							
W14			2	1	5	12	20
W15						2	2
W16						13	13
W17						9	9
W18			4	69	64	78	215
W20						3	3
W21					1	5	6
W29					14	40	54
W32							
W34	6						6
W35	1						1
W36	10						10
W37							
W47						1	1
X1	13	5		10	1	2	31
X2a					69	89	158
X2b						29	29
X1-Y	5						5
Y					11		11
Z				3		14	17
U	7	2	1	3	6	7	26

Fig 101

Pottery 22

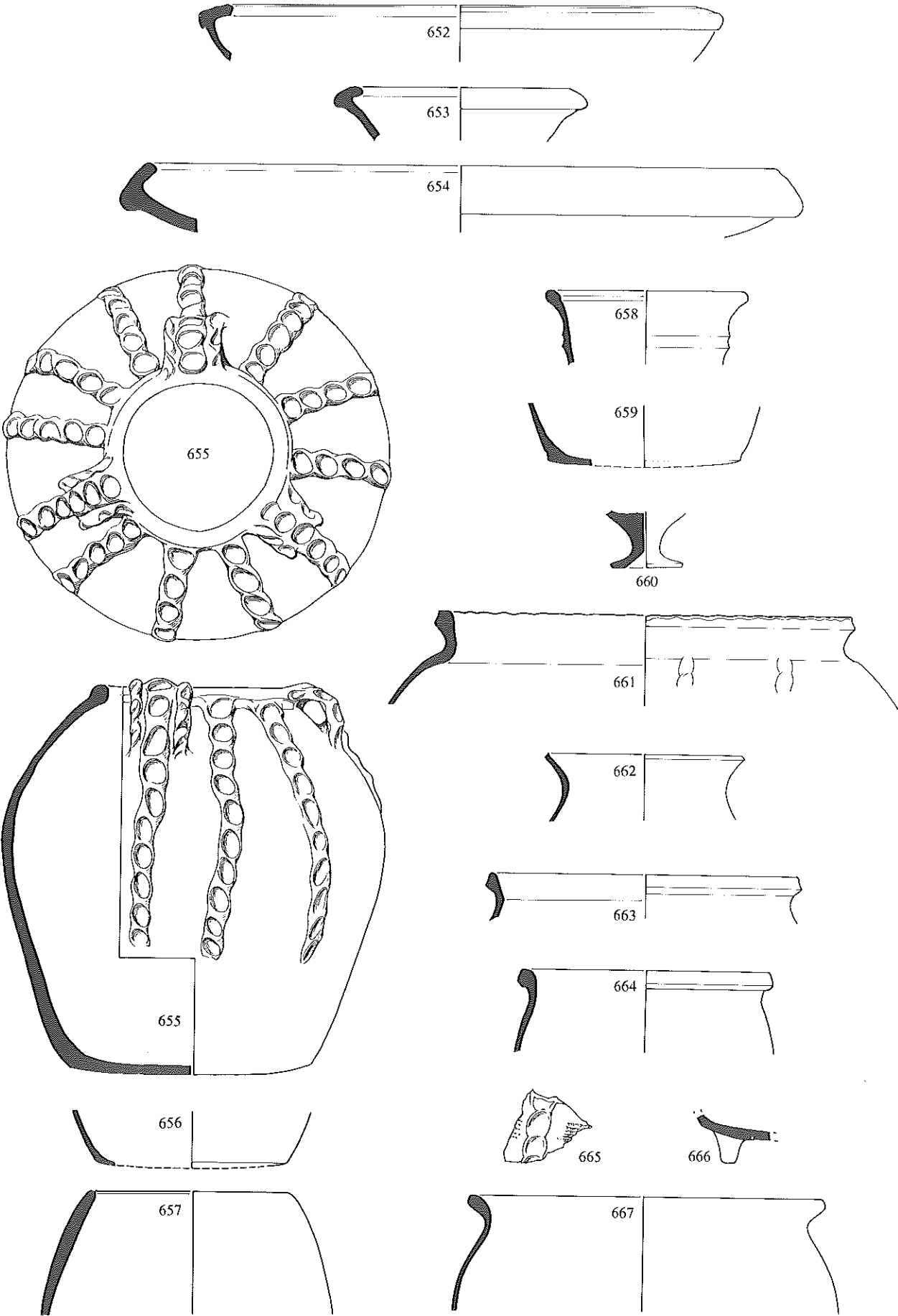


Scale 1:4

mm 0 50 100 200

Fig 102

Pottery 23

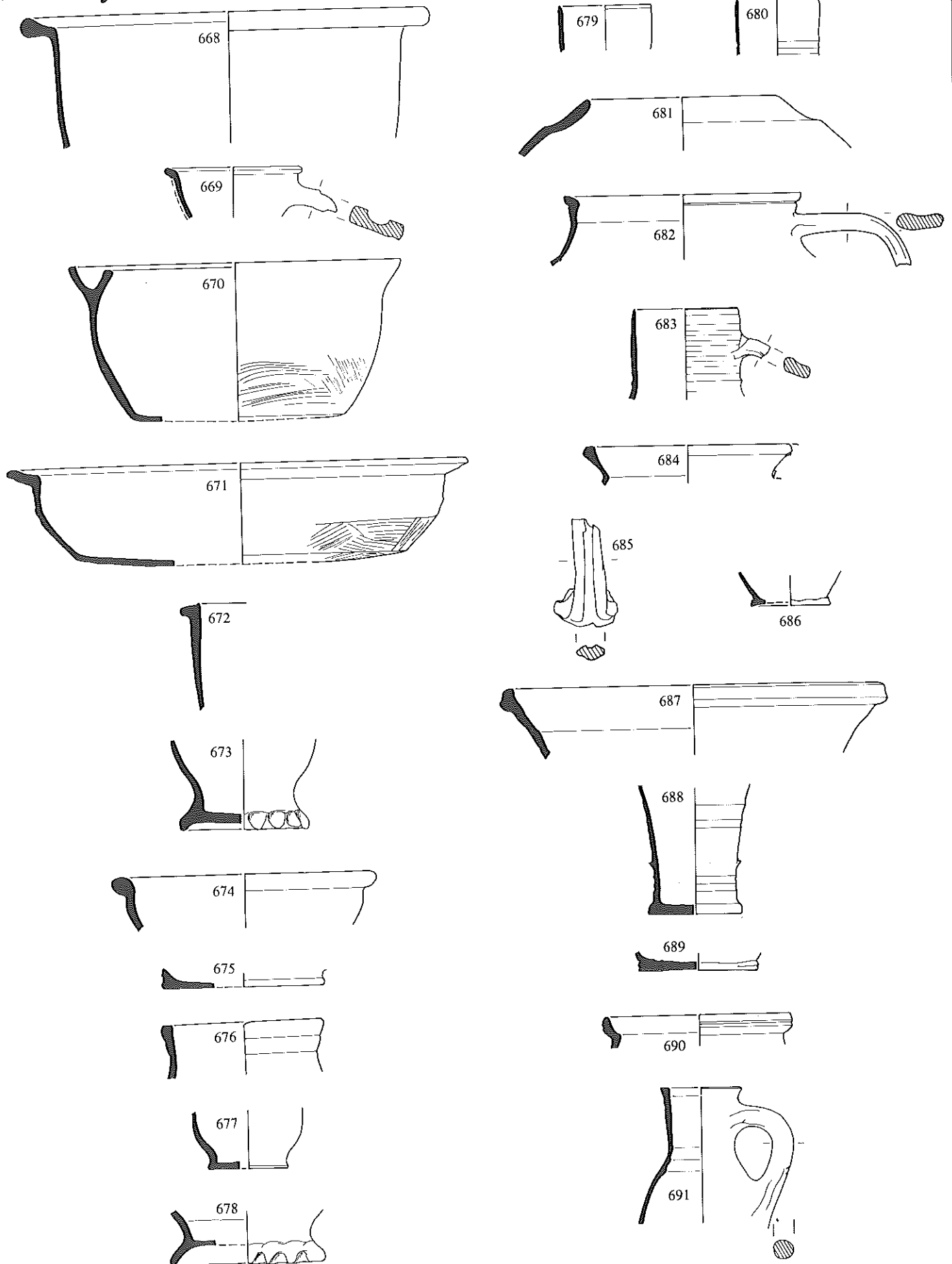


Scale 1:4

mm 0 50 100 200

Fig 103

Pottery 24



Scale 1:4

mm 0 50 100 200

period c. 1660-1720 though it should be added that the date at which slipped hollow wares and press-moulded dishes were first made in Staffordshire is not known. Associated with the pottery in G71 were two coins, a farthing of Charles I (Nu24) and a late Nuremburg jetton (Nu42) dated to c. 1620. Several fragments of clay pipe stems from pits G69-71 are also of 17th century type.

As a whole the pottery within the pits seems to belong to the 17th century and perhaps the early and middle parts of it.

Phase 7?

Cistercian ware (X2a), black iron-glazed wares (X2b) and a sherd from the frilled foot of a Raeren drinking mug indicate a general date range in the 16th or 17th century.

Comment

The Late Saxon groups, especially from Grubenhäuser 2 and 3, while containing little outstanding in themselves, represent major additions to the corpus from the town. The quantity of material and range of wares are of particular interest. The pottery of the medieval period is less well represented but this is compensated for by the very good sequence of late medieval and early post-medieval groups.

Catalogue of drawn pottery

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
626	4	K23	T1?	1:1:1	
627	4	K23	T1	1/6:3:1	
628	4	K23	W1	1:1:1	
629	4	K23	W1	3:3:1/3	
630	4	K23	W1	9:9:3	
631	4	K23	W1	9:9:1/9	
632	4	K23	W2	1:3:1	
633	4	K24	S1?	1:1:1	
634	4	K24	T1	1/6:3:1	
635	4	K24	T1	1:1:1	
636	4	K24	W1	3:3:3	
637	4	K24	W1	1:3:1	
638	4	K24	W1	9:9:1	
639	4	K184	W1	3/6:3/6:3/6	
640	4	K184	W1	3:3:3	
641	4	K158	S1	1:1:1	
642	4	K158	T1	1:1:1	
643	4	K158	T1	1:1:1	
644	4	K158	W1	1:1:1	
645	4	K158	W1	1/3:3:3	
646	4	K158	W1	9:9:2/9	
647	4	K158	W1	3:3:3	
648	4	K158	W1	3:3:3	

Dwg. no.	Phase	Layer	Fabric	Colour	Comment
649	4	K158	W1	6:3:3	
650	4	K160	T1	1:1:1	
651	4	K160	T1	6:3:6	
652	4	K188	T1	1:1:1	
653	4	K189	T1	1:1:1	
654	4	K189	T1	1:1:1	
655	4	K189	T1	1/6:1/6:1/6	
656	4	K189	T1-2	7:3:7	
657	5	K113	T1?	6:3:1	
658	5	K72	T2	8:3:8	
659	5	K72	T2	7:3:7	
660	5	K72	T2	7:3:7	
661	5	K72	T6	6:2:2/6	
662	5	K72	W7 ₁	1:1:6	
663	5	K75	T2	7:3:7	
664	5	K75	T2	7:3:7	
665	5	K75	T2	6:2:6	
666	5	K75	W7 ₁	3/7:3:11	
667	5	K188	T2	7:3:7	
668	4 or 5	K187	T1-2	1/7:7:1/6	
669	6Aii	G111	T2	7:3:7	
670	6Aii	K41	W18	5/11:3:1/5	
671	6Aii	K41	W18	6/11:6/7:6/7	
672	6Aiii/B	G134	T11	1:1:1/4	
673	6Aiii/B	G134	Y	6:3:6	Raeren
674	6A?	G104	W1	1/3:1/3:1	
675	6B	G132	W14	9:9:11/12	
676	6B	G132	W18	9:1:9	
677	6B	G132	X2a	14:4:14	
678	6B	G132	Y	7:3:6	Raeren
679	6B	G132	Y	6/8:3:6	Frechen
680	6B/C	G77	Y	6/9:3/9:3/9	Frechen
681	7	G87	W18	3/6:3:6/7	
682	7	G87	W29	6/7:3:6/7	
683	7	G87	Y	6:3:6	Cologne
684	7	G67	W29	5/7:3:5/7	
685	7	G67	W29	5/7:5/7:5/7	
686	7	G68	X2a	14:3/4:3/4	
687	7	G70	W17	10:9:9	
688	7	G71	X2b	14:4:14	
689	7	G72	X2b	14:4:14	
690	7	G73	W17	10:9:9/10	
691	unstrat.		W11	9:9:9	

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 4						
K23	Z	146	14	S1	U3	
				S3	AB12	
				T1	A3/B1/ BL1/AB41	626-627
				W1	A5/AB64/ AE ₁ 1	628-631
				W2	AE ₁ 5	632
				W3	AB2	
				W34	AB2	
				W36	AB1	
				X1	C2	
				X1-Y?	ABC2	
				U	ABC1	

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
K24	Z	148	17	S1	U6	633
				S3	A1/AB5	
				T1	A11/AB20	634-635
				T1-2	ABC1	
				T2	ABC2	
				T6	ABC1	
				W1	A5/AB77/ AF2	636-638
				W3	AB1	
				W34	AB2	
				W35	AB1	
				X1	A8	
				X1-Y	ABC3	
				U	AB2	

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
K184Z	12	3		S1	U1	
				S3	AB1	
				W1	A1/AB9	639-640
G259P	17	4		S3	AB1	
				T1	A1/B1/ AB8	
				W1	AB2	
				U	AB4	
K158P	94	9		S1	U2	641
				T1	A3/B5/ AB33	642-643
				W1	A4/AB34/ D1/AF1	644-649

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 6B or 6C																				
G77	G	129	22	T1-2 T2	B1 A6/B1/ C1/ ABC52/D1 A1/ABC2 ABC2 AB1 C1 C1/ABC1 ABC4 C1/ABC3 C5 ABC6 ABC3 A1/C1/ ABC19/F1 X1 X2a Y Z U	680	K57	P	9	3	T1-2 W1 W18	A1/ABC2 ABC1 ABC5	683	G70	P	7	5	T2 W17 W18 X2a Z	ABC1 B1 ABC3 F3/1 modern 1	687
				V1 V3 W1 W7 ₁ W9 W11 W13 W14 W15 W16 W18			G66	P	9	5	W17 W18 W29 X2b Y	B1 ABC3 ABC1 F3,3 C1		G71	P	40	9	T2 W16 W17 W18 W21 X2a X2b Y Z	ABC1 ABC4 ABC3 A1/ABC3 A1 F3,7 F3,13 C2 coarse wares 5	688
				X1 X2a Y Z U			G67	P	30	11	T2 W7 W16 W17 W18 W20 W21 W29	A1/ABC2 ABC1 ABC4 A1 ABC5 ABC1 F1 A1/C1/ ABC2	684-685	G72	P	7	5	W17 W18 X2a X2b Z	ABC1 ABC1 F3,1 F3,1 U3	689
PHASE 7														G73	P	9	6	T2 W16 W17 W18 X2a X2b	ABC2 ABC2 A1 ABC2 F3,1 F3,1	690
K9	W	8	5	T1-2 T2 W11 W47	A1/B1/ ABC2 ABC2 C1 ABC1		G68	P	52	10	T2 W11 W14 W15 W16 W17 W18 X2a X2b Y U	A1/ABC5 C2 C1/ABC1 ABC2 ABC1 ABC1 ABC12 F3,17 F3,3 C1 ABC5	686	G82	P	5	2	W16 X2b	ABC1 F3,4	
G87	G	179	17	T2	A2/B1/ C4/ABC16 ABC1 C1/ABC1 C6/ABC4 A2/C1/ ABC40 ABC2 F3 A1/AC2/ ABC32 ABC2	681								PHASE 7?						
				V7 W11 W14 W18 W20 W21 W29 X1			G69	P	8	5	W16 X2b Z	ABC1 F3,2 Staffs. hollow ware 1/press-moulded dish 1/U3		K28	P	11	4	W18 X2a X2b Y U	ABC2 F3,2 F3,5 F1 ABC1	
														K65	O	5	4	T1 T2 W18 X2a	A1 ABC1 ABC2 F3,1	

Trench E

Pottery phase summary

Phase pre-6

Local calcareous wares (T1-2, T2) account for 72% of the material. A small quantity of Northampton ware (W1) perhaps suggests activity from before the Conquest and the medieval jug fabrics (W11, ?W14) and also a very fine jug fabric W37, which is a minor regional import, suggest occupation at least to the second half of the 14th century and provide a *terminus post quem* of 1250 for Phase 6.

Phase 6i

This phase consists entirely of local calcareous wares (T1-2, T2). A single sherd of yellow Staffordshire pottery may be considered intrusive. A *terminus post quem* of 1380 for the phase is provided by the Edward III half groat Nu17 (Phase pre-6) and glass beaker fragments (GL57-8) from E11 (Phase pre-6) also favour a latish date for the construction of Phase 6.

Phase 6ii

A small quantity of calcareous pottery is present (T1-2) and a single sherd of Potterspur type (W18).

Phase 6

Among the T2 wares (90% of the total), cooking pots with both curved and upright rim forms are represented. The remaining material consists of minor regional imports (V1, W11) and two probably intrusive post-medieval sherds.

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE Pre-6							19	P	2	1	T2	ABC2		34	C	2	1	T2	A1/ABC1	
37	T	9	1	T1-2	A2/ABC7		20	P	1	1	T2	A1		6	H	1	1	T2	C1	
11	G	21	6	T2 V3 W14? W37 U	ABC13 ABC1 ABC2 C2 ABC3		40	P	4	1	T2	ABC4		PHASE 6ii						
12	G	4	1	T1-2	ABC4		42	P	2	1	T? W1?	ABC1 ABC1		25	W	2	2	T2 W18?	ABC1 ABC1	
13	G	2	2	T2	ABE ₆ 1		PHASE Pre-6 or 6							38	C	1	1	T1-2	ABC3	
21	G	15	2	T1-2 T2 W1	A1/ABC6 ABC5 A1/ABC2		15	P	1	1	W1	A1		PHASE 6						
39	G	7	2	T1-2 W1 U	ABC4 ABC1 ABC2		PHASE 6i							3	G	53	10	T2 V1 W11 Z	A6/B1/ C1/ABC40 ABC1 ABC2 U2	
17	P	2	2	T2 W11	A/ ABC1		4	W	1	1	T1-2	ABC2								
							23	W	3	1	T2	ABC3								
							26	W	2	1	T2 Z	AB1 U1								

Area N

Pottery phase summary

Phase 3

Phase 3 is represented by a very small quantity of sherds. Fabrics T2 and Z must be intrusive.

Phase 4/5

This mixed assemblage includes Early/Middle Saxon material. Small quantities of St Neots type ware (T1), Northampton ware (W1) and Stamford ware (X1) are also present. Among the post-Conquest material, T2 wares predominate (73% of phase total). The remainder consists of local or minor regional fabrics (T6, V1, V3, W7₁, W11). Layer 95 and pit 101 are perhaps post-Conquest and pit 26 probably post-dates 1200.

Phase 6/7i

The medieval jug fabrics, imported from Brill (W14) and ?Nuneaton (W11) suggest a *terminus post quem* of c. 1250 for this phase.

Phase 6/7ii

The later medieval period is represented by Potterspury ware (W18), Midland Purple (W16) and several sherds of oxidised sandy fabric W29. 68% of the material belongs to the late 14th century at the earliest and the presence of Cistercian ware (X2a) points conclusively to a post-c. 1470 date for this phase.

Phase 6/7iii

The sample is small but a sherd of Cistercian ware (X2a) suggests a late 15th/early 16th century date.

Phase 6/7iv

Little meaningful can be said about this small sample.

Phase 6/7v

A late medieval date for this phase is confirmed by the predominance of W29 and Cistercian ware (X2a) (71%). The absence of later wares indicates that the phase probably did not last beyond the second half of the 16th century.

Pottery description

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 2							PHASE 4/5													
170	T	1	1	R	U/ East Gaulish, late 2ndC.		8	G	11	4	S3 S4 T1 T2	AB2 AB1 AB1 ABC7						V1 V3 W1? W11 X1 U	C/ ABC4 ABC1 C/ C/ ABC1	
PHASE 3							95	G	3	2	T2 W7 ₁	ABC1 A2		101	P	7	3	T2 V1 W1	C1/ABC4 ABC1 E ₂ 1	
102	Y	5	3	R T1 T2 U	U/ AB1 ABC1 ABC3		26	P	111	20	S3 T1 T2 T6	AB1 AB1 A7/B4/ C2/ABC77 A1/ABC9		103	P	7	1	W1 W1?	A2/AB3 AB2	
14	G	1	1	Z	china1								104	P	2	1	S1 U	U/ U/		

Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.	Layer no.	Layer type	Sherd count	Minimum no. of vessels	Fabric group	Form and sherd count	Illustration no.
PHASE 6/7i											W18	ABC6/E ₁ /		PHASE 6/7iv						
7	P	10	4	T2	ABC3						W29	ABC2/		24	W	9	2	T2	ABC2	
				W11	C/						X2a	F ₂ 16/F ₃ ?/					U	ABC7		
				W14	C2						U	ABC6								
				W32	AB/		10	P	2	1	W18	ABC2		20	G	5	2	S3	AB3	
				U	ABC3												W18	ABC2		
9	P	5	3	S3	AB2		PHASE 6/7iii							23	P	3	2	W1?	AB/	
				W1	AB/												W18	ABC2		
				W14?	ABC/		28	F	1	1	X2a	F ₂ /								
				U	ABC/															
PHASE 6/7ii							49	G	11	5	T1-2	ABC5		PHASE 6/7v						
5	P	60	7	T1-2	ABC4						T2	ABC2/D/		36	P	28	6	W11	ABC2	
				W11	C/						V3	ABC/						W18	C ₃ /	
				W11,	C/						W11	C/						W29	AB/1	
				W16	ABC3		47	P	2	2	W18	ABC/						X2a	F ₂ 5/F ₃ 7	
											T2	ABC/						U	ABC2	
											W18	ABC/								

POTTERY SYNTHESIS

by M McCarthy

The quality of the evidence

The value of pottery as evidence for dating or for illuminating other aspects of a site, for example economic, social or religious, is apparent in most excavation reports. The excavation of a large part of a medieval street with a long sequence of occupation provides an unusual opportunity to examine the quality of the evidence.

The pottery has been quantified by phase in the phase summaries (Tables of sample sizes and types) in three ways—by sherd count, weight and by estimating the minimum number of vessels. Taking the overall totals there are approximately 87 sherds per kilogram. Again, when the total number of sherds is plotted against the sum of the minimum number of vessels for each house phase (the overall minimum number of vessels will be rather smaller) a ratio of approximately 9:1 is arrived at.

The figures presented in the phase summary tables can be taken further by dividing the minimum number of vessels or the number of sherds by the estimated time-span represented by each phase, thus giving an annual deposition rate. The calculations obviously are very approximate particularly the minimum number of vessels per year figure.

Table 18 Annual deposition rate for vessels/sherds
(for sample sizes see phase summaries)

House	Phase	Estimated phase length (years)	No. of vessels (<i>p.a.</i>)	No. of sherds (<i>p.a.</i>)
1	5	300	0.4	4.5
2	6Bi	100	0.25	1.9
4	6A	150	0.35	3.5
4	6Di	50	1.0	9.2
9	5	300	0.25	2.8
10	6Aii	50	0.6	4.6

There are twelve post-Conquest phases or sub-phases with samples in excess of 200 sherds and the table above includes five together with House 2, Phase 6Bi (190 sherds), covering five out of the ten properties investigated. It should be noted, however, that only the House 4 figures include a really large sample area of house and garden and that even here only a portion of the total property was excavated. The figures for the other houses are even more selective. For example the House 2, House 9 and House 10 groups only include pottery from the house area and not from the yard. On the other hand the minimum number of vessels for individual phases is increased by the presence of sherds residual from an earlier phase.

As there is no independent data on the ceramic contents of most medieval households there is no means of ascertaining to what extent the figures represent the actual deposition rate. Indeed it could be argued that such figures are meaningless as there is little evidence for the size or economic circumstances of the households, and the extent to which properties may have had phases of dereliction, acting, perhaps, as convenient rubbish tips for the occupants of adjacent properties, is not totally clear. Nonetheless, limited speculation does seem justified if only to focus attention on the fundamental question of the quality of the evidence. This can be done quite simply by assuming a theoretical minimum annual deposition rate, say one vessel per month or twelve per year and comparing it with the figures in the table. In this case the figures for the minimum numbers of vessels would need to be multiplied by factors varying from 12 to 48 to achieve the theoretical minimum and this is probably on the low side. The conclusion would suggest that the quantities of pottery recovered represent only a few casual floor sweepings over several centuries and that any attempt to date the individual phases, let alone draw other inferences, are almost doomed at the outset. The pottery itself may support such a suggestion

as the material from both firmly stratified contexts and from pits at the rear comprises very few profiles even half complete and many of the sherds are frequently less than 200mm² in area. In other words the neighbourhood of the dwellings may not have been the primary area for rubbish deposition.

What then happened to the rest of the pottery? Undoubtedly some lies in the unexcavated portion of the site but a great deal must have been disposed of elsewhere. Documentary references to keeping streets clean and the removal of refuse occur in many town muniments but specific references to an organised system are relatively late. Whilst it is possible that some towns employed official rubbish collectors from early in the Middle Ages it is likely that the onus lay with the individual householder for keeping his own property and street frontage clean and complaints that they did not do so were frequent. In c. 1293 in Oxford the University Chancellor was blamed for keeping animals in houses and throwing muck in the town and suburbs (*Abb. Plac.* 232, 21 Ed. 1) and in 1309 in London a proclamation threatened fines if dung and ordure were put in the streets instead of in the Thames or elsewhere outside the town (Riley 1868: 67). There were frequent references in late 14th and 15th century Cambridge to garbage, dung, entrails and dead animals flung into the ditches, streams and river (Cooper 1842: 134, 141, 196, 209, 257-8, 263). An early reference to official rubbish collection occurs in 1357 in London where, contrary to the proclamation of 1309, no man was 'to put rubbish, earth, gravel or dung from his stable or elsewhere to throw into the Thames, Flete or into fosses round the walls'. Dung was to be taken out of the city by carts or else put into dung boats by 'rakers' (Riley 1863: 299). Similarly named officers were appointed in Bristol in 1543 whereas previously each householder had responsibility for his own rubbish (Lobel and Carus-Wilson 1975: 18f). Specific sites were allocated for the town tip, such as six common dunghills outside Cambridge in 1575 (Cooper 1843: 334-5) or the 'bareland' near the quay at Gloucester (Lobel and Tann 1969: 8, n.10). The Assembly of Northampton in 1568 forbade rubbish disposal in the town and specified certain areas outside the gates as common dunghills and, in 1601, appointed a scavenger or raker (Cox 1898: 264f). Many references such as these can be cited and it is quite clear that the pottery recovered from St Peter's Street and possibly from many other urban excavations is likely to represent only a fraction of that which must have accumulated originally. The size of the fraction is indeterminate but by quantifying the pottery it is possible to make some, albeit crude, assessment of how good or inadequate the evidence may be.

The Early-Middle Saxon pottery

Few comments on the Saxon pottery can be made due to the very small sample size obtained from St Peter's Street and the general lack of features diagnostic of specific vessel types.

It is generally believed that plain, domestic pottery of S1, S2 and possibly S4 type was made locally and this is probably true to a large extent but Dr Williams' analysis of S1 sherds from Northampton (see above, p. 155) and Brixworth (McCarthy 1977a) together with Walker's work on sherds from elsewhere in the east Midlands (1976) does suggest that some may have been imported into the county, perhaps from Leicestershire. The implications are important but much more work is required before the possibility can be finally substantiated. There is certainly no reason why pottery should not have been moved around the country at this date though it is, perhaps, unlikely that such crude vessels were items of trade in their own right. If Leicestershire is the source of the granitic-tempered pottery it is clear that some form of contact between there and Northamptonshire existed during the 5th to 9th centuries. The nature of this contact is, of course, uncertain though it is relevant to note the importance of Leicester as the nearest *civitas* capital with a continuing significance in the post-Roman period as attested by cemeteries and the establishment of a bishop's see in 671.

The Ipswich ware (S5) sherds from St Peter's Street and Brixworth (McCarthy 1977a), if correctly attributed, are the westernmost

examples of Ipswich type yet recognised though there is a possible example from Silsworth, Watford, Northamptonshire. The calcareous S3 type is probably to be regarded as a regional import from either the Wash or Lincolnshire or else from Bedfordshire (see Gazetteer). There is no evidence at present for a local calcareous Early or Middle Saxon type in central Northamptonshire bridging the late Roman and Late Saxon traditions. Present indications are of a distinct ceramic break locally in the 5th and possibly the 9th centuries though the transitional phases in each case have yet to be demonstrated archaeologically.

The Late Saxon pottery

Introduction

The excavations on St Peter's Street produced the first stratified collection of Late Saxon pottery from Northampton and various aspects of it are discussed below. Reference has also been made to the important material from Chalk Lane although it should be added that comments on this pottery are provisional pending the detailed analysis of the site data.

The pottery associated with the Phase 4 structures comprises two main types, St Neots type ware (T1) and Northampton ware (W1), the latter almost certainly made in the town (see above p. 158 and below p. 226), as well as smaller quantities of sherds from other centres including continental ones.

Late Saxon technology

St Neots type ware St Neots type ware is visually characterised by the use of iron-bearing clays firing to brown, weak red or grey to black with a great deal of white calcareous material. It is not certain whether the latter was a deliberate additive or not, but the possibility should be considered that calcitic material occurs naturally in the clay (see Appendix, below p. 232).

Cooking pots and bowls are invariably wheel-thrown, of circular plan and regular vertical profile. Their small size, thin walls and regular internal throwing ridges may indicate manufacture on a rapidly rotating kick-wheel rather than the larger and more cumbersome cart-wheel which would have no particular advantage for the St Neots type ware craftsmen supplying Northampton. Some vessels, notably some small bowls (e.g. 191) with cheese wire marks on the underside of the bases and possibly some cooking pots with thick or sagging bases, were almost certainly thrown directly on to the wheel-head. Others, however, have flat bases so thin, at times less than 4mm, that bats may have been used on the wheel.

Cooking pot rims are always very simple but bowl rims are more complex and probably reflect the craftsmen's own preference for finishing the vessel.

The speckled appearance of the core and interior, resulting from the presence of white, calcareous inclusions, is frequently masked externally by a slip, although it is not certain whether this is due to a wet throwing technique or a desire to provide a decent finish. It may well be this, as much as, if not instead of, the calcareous material which is the cause of the 'soapy' texture. The difference in texture with post-Conquest calcareous pottery where there have been no attempts at masking the inclusions is noteworthy in this respect. Internal wipe marks and a slurry in the throwing ridges can be seen on some St Neots type ware sherds.

The storage vessel (655) is almost certainly coil built and is the only such example from Northampton definitely in St Neots type ware (see Gazetteer, S3). Fracture lines, especially near the base, suggest coils about 20mm in diameter and two opposed vertical fracture lines may indicate the point at which the coils were joined together. Coils can be felt on the inside of the vessel nearly up to the rim. The vessel is not quite circular in plan but the regular rim and quality of the finishing may suggest that the pot was completed on a slowly rotating turn-table. The handles are simple flat strap types bent into an arc and joined to the rim and body with the aid of additional pads stuck underneath the joints. The vertically applied and thumbled decoration may have had a functional aspect in helping to tie an essentially horizontally constructed vessel together.

There are very few signs of any surface treatment at the leather hard stage and the few indications of wiping or burnishing may represent little more than the removal of surplus lumps of dust. The pots were fired in a reducing atmosphere probably at or below 850 degrees C, the temperature at which calcareous material is combustible. No kiln sites have been identified and they would be very difficult to recognise if simple pits or bonfire 'clamp' kilns were used.

Northampton ware (W1) In 1971 features investigated in Horsemarket, Northampton were found to contain pottery displaying typical 'waster' characteristics in the form of cracks and marked variations of colour and hardness and were interpreted as belonging to a probable kiln site (Williams 1974b).

There are two possible clay sources, the Lower Estuarine and the Upper Lias, which both outcrop fairly close to though not actually on the site. It is possible that the varying colours, which include white to light grey, reddish brown and reddish yellow, reflect these two clays though equally likely is a failure to control firing temperature and kiln atmosphere.

In contrast with most of the kiln material which is extremely competently thrown, most of the sherds from St Peter's Street and Chalk Lane show two distinct stages in the construction process. The rims and upper half to upper three-quarters of the cooking pots are thin walled, circular in plan, regular in vertical profile, and obviously wheel-thrown by a very capable craftsman. On the other hand the lower parts and bases are very thick, crude, unfinished and almost certainly hand-built. The horizontal fracture may betray the use of coils but this cannot be substantiated in all cases. These two techniques can be clearly seen on the only complete vessel from St Peter's Street (417). Exactly how the vessel was made using these two methods of construction is uncertain but the simplest explanation is probably that of an entirely coil constructed vessel which was finished off on a rapidly rotating kick-wheel after it had dried out sufficiently to withstand the pressure required to remove the surplus clay. Why this was necessary is equally mysterious as a potter capable of throwing the upper half could have thrown the whole vessel as, indeed, is demonstrated by the kiln material. The answer may lie in the organisation of the workshop, perhaps a professional craftsman employing an apprentice.

As with St Neots type ware the small size of the Northampton ware vessels probably indicates the use of a kick-wheel rather than anything larger. Many of the vessels were thrown directly on to the wheel-head as is shown by the occasional cheese wire rings but more commonly by the very ragged bases and marks left by sticks and blades used to prise the plastic clay off the wheel. One vessel that had gone wrong at some stage had large pads of clay applied to the sides as a strengthening device above the basal angle.

The internal surfaces frequently show signs of wiping and slurry accumulating in the bottom. Externally the lack of attention given to the lower walls may indicate a general carelessness of attitude, an idea supported by the presence on some sherds of slip splattered over the surfaces, dried lumps of clay, occasional foreign materials and a leaf impression, all of which would have been removed by a conscientious craftsman.

The pottery, both from domestic contexts and the kiln, shows that reducing and oxidising atmospheres were achieved although, without experimental refirings, it would seem that a reduced grey colour was preferred. Firing temperatures can only be estimated by comparing the fabric with Thetford ware which has been the subject of such experimental work. In the Leeds kilns experiments (Selkirk 1967: 94-97) a Thetford ware kiln was successfully fired to a temperature of 950 degrees C and thermal expansion measurements of the pottery indicated a firing temperature of 920-960 degrees C (Tite 1972: 326). The structural characteristics of the Horsemarket kiln are unknown but in view of the similarity between its products and those, for example, from Thetford, Torksey or Stamford, a single-flued updraught kiln is possible (cf. Musty 1974: 44, Fig. 1).

The T1-W1 horizon

There is now sufficient evidence from Northampton to suggest tentatively that two Late Saxon ceramic horizons can be defined. They are labelled T1 and W1 or St Neots type ware and Northampton ware horizons (see phase summaries esp. for Houses 1, 7, 8, 10). The T1 horizon is broadly defined as containing a very high percentage of St Neots type ware—over 80% and commonly over 90%—with negligible quantities of other types. The W1 horizon comprises a much more variable Northampton ware to St Neots type ware ratio as well as a variety of regional imports. These two horizons were first noted during the processing of the St Peter's Street material and subsequent preliminary examinations of pottery from Chalk Lane, chiefly pit groups, has provided further examples.

Table 19 Regional imports

Site	House	Layer	Phase	Sample size	Horizon	T1 %	W1 %	Code	No. of sherds	Coins
St Peter's St	1		4B	65	T1	81	4	W3,36,X1-Y	3	St Edmund(2)
	8		4B	269	T1	96	1	X1	1	
Chalk Lane		B2		289	T1	91	7	W3,(?)	3	St Edmund
		B3		77	T1	90	6	T1(Linen?)	1	
		B6		291	T1	87	10	X1	6	
St Peter's St	1		4C	43	W1	32	55	W6	1	
	2		4B	201	W1	38	28	W3,35,X1, X1-Y	30	
	8		4D	49	W1	28	65	X1-Y, Y	2	
	7		4	185	W1	16	55	X1, X1-Y	9	
	10 (Grubs.)	4	294	W1	45	37		W2,3,35,36, X1,X1-Y	25	Athelstan
Chalk Lane (cellar)D70/E139			177	W1	17	58		W2,3,X1 & T1(Linen?)	22	St Edmund

The T1 horizon is associated with pennies of St Edmund in House 1, St Peter's Street, and pit B2 on Chalk Lane. The W1 horizon is stratigraphically later than T1 in Houses 1, 2 and 8 and may belong to the mid-10th century or later. If pit K160, House 10, containing a penny of Athelstan, is regarded as being contemporary with the Grubenhäuser which contain W1 material, these too may be seen as mid-10th century in date. On this basis the two horizons may have a chronological significance. Two other factors, however, must be taken into account. On Chalk Lane a penny of St Edmund in association with the W1 horizon was recovered from the very bottom of the fill of a cellared building (D70/E139) and a farthing of Ethelred II from layer A18 on the same site was associated with T1 pottery. The latter group has been excluded from the table as there is some doubt over the layer due to a small intrusive element of 13th-14th century pottery.

Future work may confirm that the T1 and W1 horizons have a chronological significance but the evidence currently available is inconclusive and alternative explanations must be considered. Firstly, the horizons might indicate different functional areas and the association of T1 with metal-working on St Peter's Street and possibly on Chalk Lane as well is interesting in this respect. Secondly the horizons might reflect differences in social classes and here the association of W1 with many more regional imports than T1 could be important.

Regional imports

St Neots type ware and Northampton ware belong in the now well known category of 'Saxo-Norman' wares in eastern England (Hurst 1976: 314ff.) many of which share a number of characteristics. The fabrics and rim forms of Northampton and unglazed Stamford ware, however, are unusually similar, to the extent that there are real difficulties of differentiation.

The regional imports are chiefly useful as an indicator of the areas with which the people of Northampton had some contact. Stamford wares, of which the glazed pitchers and the red-painted wares are the most notable element, as well as Thetford type wares, Leicester type wares and Fabric W6 (glazed but unlikely to be Stamford ware (pers. comm. Miss K Kilmurry)) are the main elements. St Peter's

Street has produced a single St Neots type sherd with rouletted decoration, matched by other examples from Chalk Lane, which may be considered as perhaps a Lincolnshire type. The present writer has also tentatively identified Northampton type wares from excavations in St Aldates and All Saints, Oxford.

Vessel forms and function

It can be inferred from Late Saxon and medieval documentary sources that a household's vessel requirements were much the same as those of the present day. Containers were needed for transporting and storing goods, food preparation, eating and drinking, industrial, religious and other sundry activities. Storage facilities, perhaps one of the most important requirements, provide an indication of the variety of container needed with chests, boxes and tubs being used for clothes or linen, tools and equipment, and eggs, bread, cheese, spices or other dry foodstuffs; sacks were needed for flour and grain; less impervious containers of metal, wood or earthenware held butter, honey, milk and ale. Food preparation could involve specialist forms such as colanders, dripping pans, mortars, and presses for cheese. Thus the variety of materials used for vessels, as well as the range of potential uses for containers, provide the context for a brief consideration of the functional aspects of pottery vessels from St Peter's Street.

The most important form occurring in pre-Conquest levels is the cooking pot which was made in the relatively porous, calcareous St Neots type ware and the harder, more impervious Northampton ware. The larger number of these vessels compared with other forms may suggest that cooking was only one of several uses to which they could be put. Indeed, if metal vessels were more widely used than present evidence suggests, the so-called cooking pots may have been used much more for storage purposes, the equivalent of modern jam jars and plastic containers. The marked internal hollowing of the rims of many Northampton ware cooking pots may suggest the use of a lid though none made in pottery have been recognised.

The other important vessel form is the bowl, common in St Neots type ware but extremely rare in Northampton ware. St Neots type ware bowls vary considerably in size and in the exact details of the rim form. The larger vessels with inturned rims (12, 14) would be suitable for containing liquids for short periods of time, the rim form lessening the risk of spillage. The smaller vessels (191) could have been used to eat out of and could be called small bowls or porringers. A rare specialist form is the spouted bowl (15).

The only pitchers or jugs in Late Saxon contexts are a few glazed wares imported from Stamford. Storage vessels are also very rare with only occasional examples in St Neots type ware (655 and 449) and Thetford ware. All the lamps found on St Peter's Street are from post-Conquest contexts but there are unstratified examples in Northampton ware from the Castle in Northampton Museum. Rare forms include part of a costrel from the kiln site (Williams 1974b: no. 44) and fragments of crucibles (see below, p. 263).

It is clear that although many of these pots must be seen as multi-purpose vessels considerable use must have been made of wooden boxes, barrels, vats, cups, small bowls and leather vessels. Stone cups or wooden candlesticks as well as pottery lamps may have been used for lighting purposes. Pottery vessels at this date, therefore, may represent only one element of household equipment, and perhaps a minor one.

The Late Saxon-early medieval transition

The groups of pottery attributed to the Late Saxon period (Phase 4) and early Middle Ages (early Phase 5) are quite discrete. Apart from occasional residual(?) sherds in later contexts there is no evidence of overlap. Although the Late Saxon pottery must strictly be dated to c. 850-1100 it has been argued (see above, p. 141) that occupation was perhaps confined to the 10th century and that there was a hiatus in the sequence during the 11th century. The suggestion (Hurst 1976: 342f.) that the transitional Saxo-Norman to early medieval period lasts for over a century with the two types co-existing for much of that period can at present be neither substantiated nor denied in

Northampton. House 2, layer 271, is apparently the only major deposit on the site that could belong to this period (see above, p. 28) and this includes only one certain post-Conquest type though there are 75 T1-2 featureless body sherds.

The local Late Saxon (T1) and early medieval (T2) calcareous wares appear to share a number of characteristics. The main difference is in vessel size, the post-Conquest cooking pots representing a three-fold increase and more in size on their predecessors. If vessel size can be related approximately to wheel velocity and momentum, it can be suggested that the St Neots type ware repertoire contains very little which could not be conveniently thrown on a kick-wheel. The slower cart-wheel, on the other hand, would be more suitable for throwing the larger lumps of clay required for post-Conquest cooking pots and jugs. There are other minor technological differences but it would probably be a mistake to see these and the possibility of a change in potters wheel simply in technological terms. More plausible is that there was a change in vessel function related, perhaps, to a change in the ratio of earthenware to non-ceramic vessels. It seems, as Hurst has suggested (1976: 342-3), that the Norman Conquest had no real effect upon the local calcareous pottery industry and that the products of the 12th century kilns belong to the same tradition as those of the 10th century. The biggest change is probably that of the late 12th or early 13th century with the inception of the Lyveden-Stanion industry which owes virtually nothing to those of earlier periods in technological terms.

The medieval pottery

Introduction

Although the character of the local post-Conquest pottery has been known for nearly a century, the St Peter's Street material is the first extensive collection from firm archaeological contexts to be published in detail. References to comparative material published from Northampton and the county have deliberately been kept to a minimum because the samples are very small and, in some cases, the contextual and quantitative data is limited. Two important types, calcareous (T2) wares and Potterspury type ware (W18), were made locally and these are found associated with varying quantities of regional imports.

Medieval technology

Olney Hyde and related types (T2) Detailed comment on the kiln site at Olney Hyde has not been attempted as the excavated data has not been fully processed. It is clear, however, that the discoveries included a large (?) clay pit and small stone-lined troughs, the latter possibly used for puddling clay (pers. comm., Mr D C Mynard; Wilson and Hurst 1968: 206-7; 1970: 203). The kiln products consist of reddish brown ware indicative of iron-bearing clays which were perhaps dug on the site.

All forms (see Gazetteer) are larger than pre-Conquest vessels and would have required larger lumps of clay and a cart-wheel rather than a kick-wheel. The flat and often extremely thin bases together with an absence of any signs of trimming are a strong indication of the use of bats fixed to the wheel-head. The straight and regular external profile may suggest a throwing rib held against the outside and supported by fingers placed internally, producing shallow grooves. Many of the cooking pots compare very closely with those excavated at Olney Hyde but others, especially the reduced sherds for example from House 1, ceramic Group 1, or House 7, pit C121, may have come from elsewhere.

The jugs from St Peter's Street resemble Olney products in many ways though some of the distinctive features of the kiln material, notably the rim-handle junction, have not yet been recognised. It is possible that the jugs were made at Harrold, north Bedfordshire or in other unlocated kilns.

Surface marks are unusual and often difficult to see. Wipe marks are occasionally visible where slip has been mopped up and the base interiors sometimes show signs of fingering.

Lyveden and related wares (T2, T6) Four clays—alluvial, boulder, Oxford and Great Oolite—were available to the potters at Lyveden but despite the fact that (?) clay pits and stone-lined troughs were excavated there is no information on the type used or of its mineral

composition. Sherds contain many calcareous fragments, probably limestone, in varying sizes and degrees of angularity, as well as ooliths, grog, quartz and iron ore. The presence of grog suggests that there was some attempt at tempering the clay but it is not clear at present whether the limestone was also a deliberate additive.

The potters at Lyveden and Stanion used hand-building techniques, chiefly coiling, although there are indications of wheel-throwing and the use of a turn-table. The quality of the coiling varies from the very competent to the exceedingly crude with little attempt at smoothing the coils together. The coils appear to have been either long sausages or long, flat strips. Bases are usually flat pads and rims fairly thin coils finished off on a wheel. Handles are joined to the body by a dowel or plug of clay at the rim and at the lower end by pressing the body through into the handle, leaving a depression internally.

Although some of the jugs show signs of having been properly finished a characteristic of Lyveden and Stanion wares generally is one of poor workmanship. Surfaces are often uneven and heavily fingered, cracks between coils can be seen, and lumps of limestone protrude from the surface which may also be pitted with small holes where the inclusions have been burnt out or have fallen out. Wipe marks and knife-trimming marks are frequently visible especially on the external surfaces of jugs near the base but these too give the impression of a careless attitude. Glazes are patchily applied to the outside of jugs and sometimes internally on bowls. At the other extreme, however, the quality of some cooking pots, bowls and jugs is high and compares very favourably with that of the products at Olney Hyde, a factor which makes kiln attribution difficult.

The predominantly reddish brown to reddish yellow surface colours and grey cores show that there was a failure to control the atmosphere in the kiln, although the impression is one of a preference for an oxidised surface. Experiments by Bryant in firing a kiln of Lyveden type (Bryant 1971: 77-84) showed the kiln to function successfully, achieving a temperature of 1000 degrees C at one thermocouple, but as the pottery is calcitic it is unlikely that kilns were fired over 850 degrees C. For structural details of the kiln and ancillary buildings the reader is referred to the Lyveden excavation reports (Steane 1967; Bryant and Steane 1969; 1971; Steane and Bryant 1975).

Potterspury type wares (W18) The geology underlying the adjacent villages of Potterspury and Yardley Gobion, Northamptonshire, is complex (*contra* Mayes 1968: 71). Four clays—Boulder, Blisworth, Great Oolite and Upper Estuarine—are available in both villages with a fifth—Upper Lias—in Yardley Gobion. They all outcrop fairly close to each other so the location of a kiln on one type does not necessarily mean that it was the one exploited. Preference for one or more types can only be shown by the discovery of clay pits and a scientific examination of the clays and kiln products.

Mayes has suggested that the 17th century potters used a 'yellow buff clay' firing to a 'light brick red' at 900-1000 degrees C as well as a 'buff firing clay' for slip-trailing and concluded with the unsupported statement that both 'are of glacial origin' (Mayes 1968: 69). The medieval potters certainly made use of light red and buff-firing clays (reddish brown but predominantly reddish yellow) and several cooking pot sherds from Northampton Castle show the two mixed together during the wedging or kneading process. It is not possible, however, to say whether the lighter clays had iron leached out with horse urine during the medieval period as suggested by Mayes for the 17th century.

A consistent feature of the pottery from both Potterspury and Yardley Gobion is the lack of any real additive, the slight sandy texture resulting from very fine quartz grains which were probably natural constituents of the clay.

The large size of many cooking pots and jugs, involving the use of large lumps of clay, perhaps up to 6kg wet weight, suggests that vessels were thrown on cart-wheels, a view supported by the absence of grit drag and the slightly uneven throwing ridges on some pots. Cooking pots especially appear to have been thrown without the aid of a rib, on the evidence of the prominent finger grooves on both surfaces. Kick-wheels may also have been used to produce the

smaller vessels, especially jugs, bottles, costrels and cups.

Wipe marks internally and knife-trimming marks externally are normal features of Potterspurty ware. Cooking pots, bowls and some jugs were thrown with fairly thick bases and trimmed off with a blade to produce a slightly convex base at the leather-hard stage. The base of a bottle from Northampton Castle has a (?)reed mat impression on the underside suggesting, perhaps, that the green ware was dried on mats.

Most of the vessels were fired under oxidising conditions producing a colour range from reddish brown, reddish yellow to white, pinkish white or very pale brown. External surfaces of jugs, internal surfaces of bowls, as well as costrels and cups were covered with an olive glaze probably intended as much for waterproofing as decoration.

No experiments have been undertaken on medieval sherds so it is impossible to say what the firing temperatures were but work at Leeds (Selkirk 1967: 94-7) in 1967 including a firing of a replica 17th century kiln indicated temperatures in the 900-1000 degrees C range and this was confirmed by thermal expansion measurements of the post-medieval kiln products which suggested a range of 910-950 degrees C (Tite 1972:326). This general temperature range is probably also acceptable for the earlier pottery in view of the similar visual characteristics of the medieval with the post-medieval wares.

Medieval kilns excavated at Potterspurty by Jope (1950) and Mynard (1972) and at Yardley Gobion by Moore (1974) produced evidence of single-flued kilns with a central pedestal and kiln bars and a square or rectangular stone lined stoke-hole. In no case was the excavation sufficiently extensive to recover details of clay pits or other adjacent structures.

Regional imports

A continual trickle of regional imports, as in Northampton, is to be expected in any shire town throughout the medieval period and contrasts with the much sparser representation on rural sites. The quantities of sherds of most types are all very small and are insufficient in themselves to suggest pottery travelling as an item of trade in its own right. More likely, perhaps, is the movement of pottery in travellers' impedimenta whether with a royal progress or, at the opposite end of the scale, with peasants performing carrying dues on behalf of a lord.

In the period c. 1100-1250 the only candidate for trade involving pottery is Stamford ware which in fact accounts for about 25% of the stratified regional imports in Phases 5 and 6 for which kilns or general source areas can be identified. Oxfordshire wares including tripod pitchers are present as well as cooking pots probably from Bedfordshire and much smaller amounts of splashed ware pottery or with general north Midlands affinities.

In the later 13th and 14th centuries the pottery from Brill may have arrived as an item of trade and, as with Stamford ware, accounts for a quarter of the stratified regional imports in Phases 5 and 6 attributable to a kiln or general area. White wares from either Warwickshire or Surrey as well as decorated jugs, perhaps from London and Nottingham, and red wares, comparable with some products of the Cambridgeshire-Essex area, also occur.

To what extent these movements mirror the wider economic trade axes is impossible to say but it is worth noting the importance of the north-south road from Woodstock and Oxford through Northampton to Leicester, Nottingham and the North as well as the importance of the east Midlands in the woollen cloth industry in the 12th to early 14th centuries.

Generalisation about the level of prosperity on the street and conclusions about functional aspects of the site or possible social differences between the householders are hindered by the small quantities of regional imports and exotic material as well as the lack of comparative data from elsewhere.

Vessel types

The commonest vessel type is the so-called cooking pot with a capacity often exceeding 1 gallon. Usage on a fire for cooking is indicated on some examples by sooting on the external surface of the base and a lime 'fur' accumulation internally. However, unless the local calcareous cooking pots were lined with grease or some other substance the porous nature of the fabric makes it unlikely that

they held liquid for prolonged periods. The frequency with which cooking pots occur and the absence of large storage vessels suggests that some may have been used for storing dry goods. Lids are very rare and must have been made out of wood or some other material. The only cooking pot rims with a shape suitable to accommodate a lid are early post-Conquest everted forms; all the other types would have had lids laid flat or cloth or leather covers tied around the neck as is indicated in a 15th century recipe (Austin 1888: 39).

In the 12th to 14th centuries bowls are a minor element and certainly less common than before the Conquest. Late Saxon inturned rims, which may well have had a practical purpose, appear to finish with the end of St Neots type ware production and are replaced by or evolve into larger vessels with simple and less obviously functional upright rims. By the early 15th century the superior Potterspurty ware has largely supplanted the earlier calcareous wares and bowls resembling pie dishes with external flanges and internal glazing feature as an important element. The chronological variation from the Late Saxon to the late medieval period in the ratio of bowls to other vessels can be best explained as either reflecting a local preference for wood or metal bowls at some periods or else local changes in culinary practice.

Apart from the very fine, glazed, Stamford ware pitchers which may always have been a luxury, the most obvious addition to kitchen equipment was the jug, usually partially glazed as a means of waterproofing and sometimes decorated with a variety of abstract motifs. Many of the jugs are small enough and certainly fine enough to be regarded as table wares but others, such as 12th century tripod pitchers or some later Potterspurty jugs with a capacity exceeding 2 gallons, would have been very large and unwieldy when full and could have served as storage jars rather than as decanters at the table. A similar function is possible for bung-hole cisterns which first appear in the 14th century.

Bottles were also made in Potterspurty ware but they are not very common on St Peter's Street and there was certainly no large scale production of drinking bottles as occurs in other parts of the country.

The earliest ceramic cups in Northampton, which are present from the early 15th century, are very rare Surrey white ware vessels, some lobed and others of possible plain carinated forms. Cistercian wares appear towards the end of the century and continue until they are gradually replaced by larger Black ware tankards in the later 16th or early 17th century. This difference could mark a change in drinking habits as much as a change in ceramic fashion. The Cistercian wares are very small, often having a capacity of 4-6 fluid ounces, perhaps an indicator of fairly strong liquor, compared with the 1 pint capacity of the Black ware tankards which would be suitable for ale.

The only evidence for lighting is provided by lamps which had simple, shallow bowls usually with a zone of sooting around the lip indicating the level of the oil in which the wick floated. There are two basal forms, the rarest being a simple spike which could be pushed into an earthen floor and the other a hollowed or solid flat-based pedestal. No double-shelled lamps or candlesticks were recovered.

All other types of vessel are extremely rare and are represented by only one or two sherds; they include chafing dishes, costrels, a fish dish or dripping pan and a curfew.

The minimum number of vessels and range of forms available on St Peter's Street for the 12th to 16th centuries appears to be small. This probably reflects rubbish disposal elsewhere as well as the dry soil conditions unfavourable for the preservation of organic objects. It can be assumed, however, that containers made from materials other than pottery were widely used and, although the ratio is indeterminate, late medieval and Tudor documentary sources available for other parts of the country hint that wood was at least as common as earthenware and that metal vessels, whilst being numerically less important, had considerable prestige value.

The post-medieval pottery

The very limited quantities of post-medieval pottery from the site included plain Delft ware, local marbled slip-ware and occasional coarse ware sherds, and a certain amount of cheap white ware and willow patterned wares dating to the 19th and 20th century.

APPENDIX: ST NEOTS TYPE WARE

by R Hunter

with a report on petrological analysis by D Williams

Acknowledgements

For the loan of sherds used in this research, thanks are due to Mr J H Williams (Northampton Development Corporation Archaeology Unit), Mr T Hassall (Oxfordshire Archaeological Excavation Committee), Mr D Baker (Conservation Officer, Bedfordshire County Council), Mr P V Addyman (York Archaeological Trust), Mr J S Wachter and Mr P V Webster. Northampton Development Corporation, the Oxfordshire Archaeological Excavation Committee and Bedfordshire County Council gave valuable financial support to this research, while the provision of irradiation facilities at the Herald Reactor was obtained through the financial support of the Science Research Council.

The facilities of the Post-graduate school of Physics and the Departments of Metallurgy and Chemistry at the University of Bradford are gratefully acknowledged as are Mr S E Warren, Mr A Aspinall, Mr J G Crummett, Mr J Price and Mr P Fawcett who supervised and advised on many aspects of the work within those departments. Mr A Aspinall, Mr F Hawkin and Miss K Kilmurry kindly gave access to results of their work in similar fields of research. The results of the research of Miss R Coleman in 1975 which have been drawn on throughout this report have been of invaluable assistance. Thanks are also due to Dr D F Williams of the Department of Archaeology, University of Southampton, for carrying out a thin section examination of selected sherds.

Finally, particular thanks are due to Mr S Warren, Mr J H Williams, Mr M McCarthy and Mr A Aspinall who have over the past three years continuously given the benefit of their experience and much encouragement to the furtherance of this work.

Introduction

St Neots type ware invariably forms a major component in ceramic assemblages from Late Saxon and medieval sites in the south and east Midlands. With the exception of a recently updated summary of this material (Hurst 1976: 320-323), no major synthetic review has appeared since Hurst's definitive papers on the Saxo-Norman wares of East Anglia published 20 years ago (Hurst 1956; 1957; 1958). As a result of the increasing excavation activity of recent years, and particularly in the relatively new field of urban archaeology, St Neots type ware is now clearly more complex in terms of its fabric, method of manufacture and distribution than was originally realised although the basic forms and dating remain as originally proposed. This report therefore gives a brief resumé of the archaeological aspects of this ware and outlines the problems and results of some recent scientific research carried out on the fabric. This latter research, for the most part conducted within the Post-graduate School of Physics at the University of Bradford, was formulated in an attempt to test and refine the existing definitions of St Neots type ware in the wider context of medieval so-called shell-gritted wares, and also to investigate the possibility of geographical, chronological and typological 'fabric' patterns existing within the vast mass of St Neots type material itself.

St Neots type ware: archaeological aspects

Calcite-gritted pottery: terminology and tradition

St Neots type ware is one of many English wares that are best described as 'calcite-gritted'. There exists a certain amount of confusion in the terminology surrounding such a description. The term 'calcite-gritted'

or alternatively 'calcareous' is deliberately retained here and taken to include shell or limestone inclusions that may or may not have been deliberately added to the clay body. 'Calcite' or 'calcareous' safely encompasses the three major options of fired 'modern' shell, fossilised shell and limestone, all of which can look deceptively similar. The term 'gritted' in this instance is not regarded as synonymous with 'tempered', as in the majority of calcite-gritted fabrics it has not been shown that tempering or filler material has been independently prepared.

The recurrence of calcite-gritted fabrics in the archaeological record from the neolithic to medieval periods is best regarded as a persistent usage of locally available ceramic materials. The term 'tradition' is therefore used loosely and should not be taken to imply cultural continuity. Examples of this calcite-gritted tradition include pottery from neolithic causewayed camps such as Abingdon (Case 1956: 19-20), Robin Hood's Ball (Thomas 1964: 13-19) and Windmill Hill (Smith 1965: 43-84), the Iron Age Glastonbury wares Types 3 and 4 (Peacock 1969) and Roman products from Yorkshire such as Dales ware (Gillam 1951), Knapton ware (Collingwood and Richmond 1969: 282) and Crambeck ware (Corder 1937: 405). There was also a flourishing Roman calcite-gritted pottery industry in the east Midlands as shown by kiln sites in the Ouse and Nene valleys, e.g. Harrold (Brown 1970), Hardingstone (Woods 1969) and Ecton (Johnston 1969). In the post-Roman period the Maxey Group III pottery (Addyman 1964) and some Lincolnshire material (Addyman and Whitwell 1970) have been shown to be of Middle Saxon date while in the Late Saxon and early medieval periods the tradition mushroomed into St Neots type ware and related fabrics such as the Lincolnshire shelly wares (e.g. Coppack 1973: 88, 92). From the later 12th and 13th centuries, kiln sites like Lyveden, Northamptonshire (Steane and Bryant 1975), and Olney Hyde, Buckinghamshire, continued the same basic calcite-gritted tradition which in certain areas of the country, e.g. Nottinghamshire and Lincolnshire (Moorhouse 1974b: 7-8, for relevant references), persisted through to the 14th and 15th centuries.

Throughout its long life, the calcite-gritted tradition can probably be regarded as regional and/or local. In most cases, the products involved are unlikely to have been traded far. The distribution of such wares and the known kilns is predominantly in the lowland zone, particularly in south and east England, and closely resembles the outcropping of the Jurassic and Cretaceous Systems. It is likely, therefore, that the regional and local nature of the tradition echoes to a great extent the geographic occurrence of the raw materials necessary for the production of a calcite-gritted fabric.

St Neots type ware: history, forms and date

St Neots type ware was first recognised as a distinctive pottery type in the late 19th century at Northampton and Cambridge but it was not until the 1930s, after a series of excavations in the St Neots area (Hurst 1956, for relevant references), that the term 'St Neots' was applied and a broad Saxo-Norman date suggested. From the 1930s to the 1950s, St Neots ware, as it was then called, was not always satisfactorily distinguished from the other nascent Saxo-Norman wares but Hurst's work in the early 1950s finally brought the situation under control (Hurst 1956; 1957; 1958). Basic forms, fabrics, distributions and chronologies were proposed for St Neots, Stamford, Ipswich and Thetford wares which to a large extent remain valid today. The enormously increased quantity of pottery that has been unearthed subsequently, however, has in many respects altered the emphasis of Hurst's original characterisations. In the case of St Neots type ware, a number of St Neots prototypes and derivatives have been recognised. Proto-St Neots ware, for instance, describes the possible 9th century hand-made sherds found at Eaton Socon (Addyman 1965) and St Neots, Cambridge Street (Addyman 1973a) while developed or late St Neots ware, often with a harsher, sandier fabric, has been noted at sites such as Northolt Manor (Hurst 1961: 258) and Wythemall (Mynard 1969: 182). More recently, the tendency has been to use the blanket term St Neots type ware (Baker 1970; Hurst 1976) which is perhaps to be recommended where more clearcut sub-divisions do not present themselves.

Distribution of St Neots-type ware

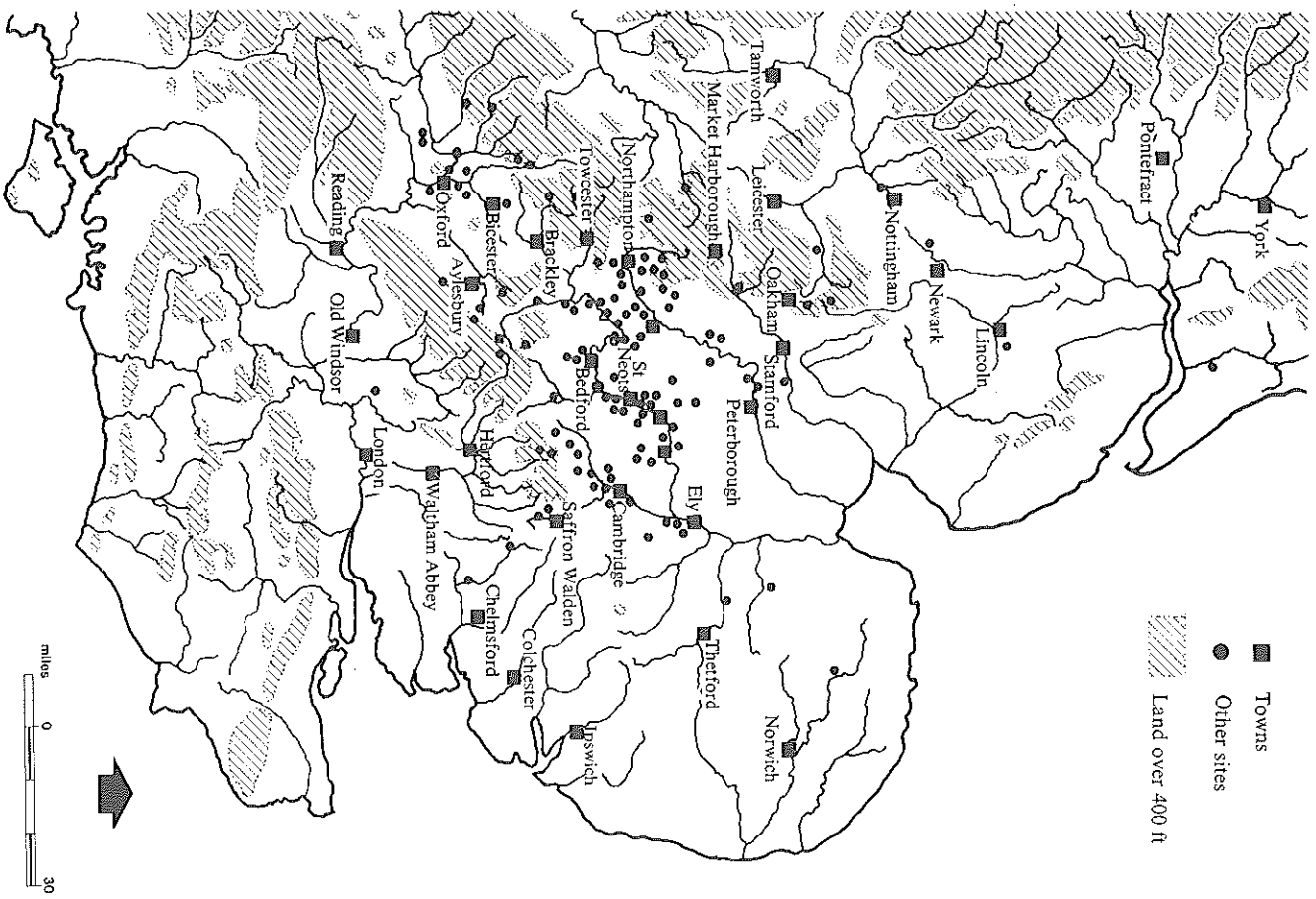
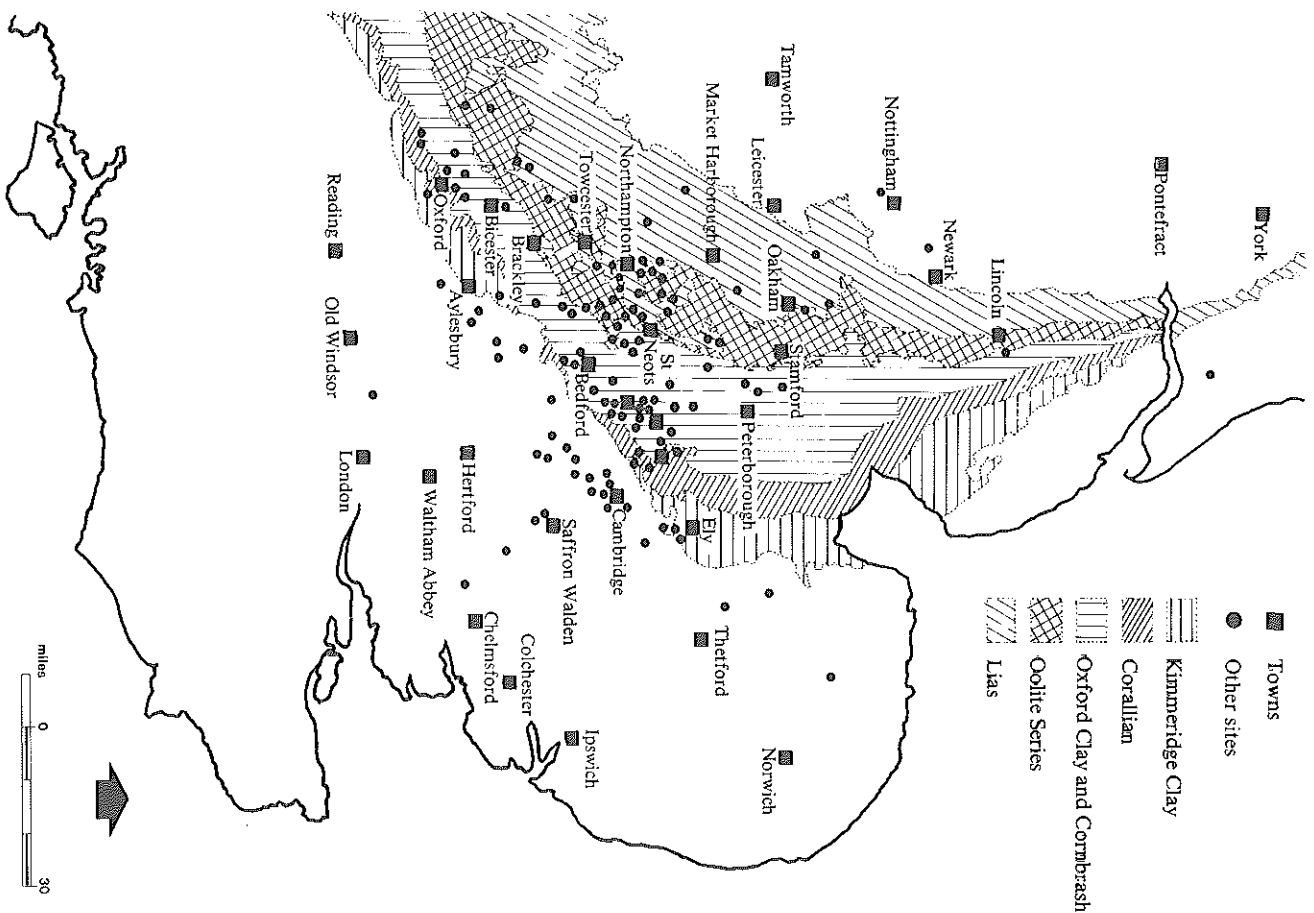


Fig 104



The predominant St Neots type forms are cooking pots, bowls, dishes and jugs. Previous publications (Hurst 1956; Addyman 1965; Baker 1970; Addyman 1973a) and the examples from Northampton, St Peter's Street illustrate the range of forms adequately.

In terms of chronology, St Neots type ware in its broadest sense is normally regarded as being attributable to the period between c. 850-1400. Certainly, there is a proliferation of material from the 10th century onwards as was noted by Hurst (1956) and this is clearly evident at sites like Northampton, St Peter's Street. However, despite recent localised attempts (Hall 1975) it is difficult to isolate characteristic forms or fabrics of chronological significance within the period beyond a few broad generalisations, e.g. the size of cooking pots appears to increase throughout the period; the manufacture of jugs is chiefly in the 12th, 13th and 14th centuries; and the late or developed St Neots ware is 12th century or later.

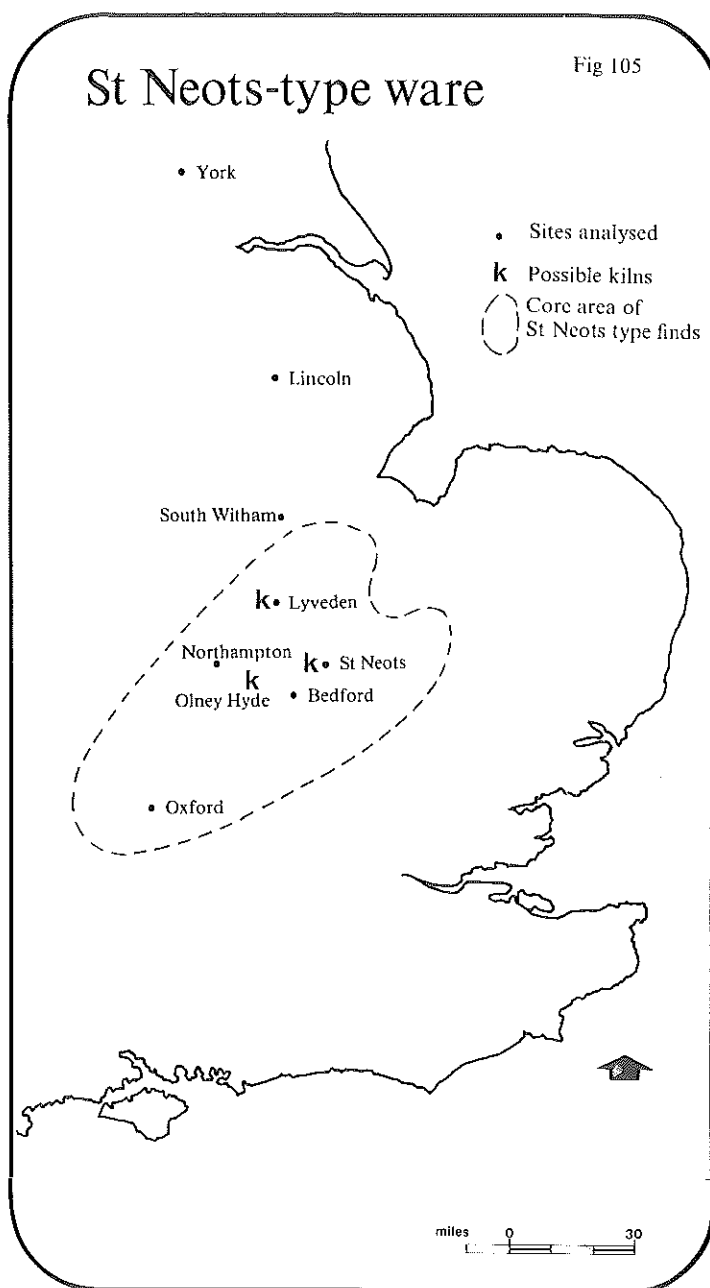
Both the origins and terminal dates of St Neots type ware are somewhat obscure. It has been provisionally suggested that the origins of St Neots type ware lie in the Middle Saxon, hand-made, shell-gritted pottery of the types recognised at Maxey (Addyman 1964: 49-50) and in Lincolnshire (Addyman and Whitwell 1970: 96). The earliest material actually styled St Neots type ware is probably of the late 9th century—wheel-thrown sherds, possibly of this date, have been found in association with coins in Northampton (above, p. 227), and sherds of similar date appear to occur at Thetford (Hurst 1976: 323). Early 10th century St Neots type ware has also been found in small quantities in Oxford (Durham forthcoming) and Cambridge (Hurst 1976: 323) while the hand-made proto-St Neots ware (Addyman 1973a) presumably figures early in the series. There is no clearcut end-date for St Neots type ware as it merges almost imperceptibly into the post-Conquest calcareous tradition exemplified by the products of kilns such as Lyveden, Olney Hyde, Harrold and Stanion.

St Neots type ware: distribution

The distribution of St Neots type ware finds is extremely difficult to assess accurately, partly due to the diverse and accumulating mass of material involved, but also because of the terminological inconsistencies that abound. Figs. 104 and 105 show a distribution of finds up to 1974 based on a comprehensive gazetteer drawn up from published material described as St Neots ware, St Neots type ware, developed or late St Neots ware and proto-St Neots ware (Hunter 1975: 169-204). The general characteristics of that distribution remain valid (cf. Hurst 1956) and can be summarised as follows: a core area of finds exists in the south and east Midlands centring around the towns of Cambridge, St Neots, Bedford, Northampton and Oxford. This particular urban concentration is without doubt accentuated by the bias of excavation in these towns as compared with towns such as Buckingham and also by the urban v. rural bias in terms of quantities of finds. Non-urban sites within the core distribution area generally yield at least some St Neots type ware in the Saxo-Norman period but outside this area finds are in smaller quantities and generally confined to major centres like York, Gloucester, Southampton and London. This is perhaps the pattern of distribution one would expect to find for a utilitarian ware of little trade value such as St Neots type ware and it is a reasonable surmise that the production centre or centres lie within the core area of finds.

It is instructive to consider the distribution pattern in conjunction with relief and geology as strong correlations are noticeably apparent. Finds occur chiefly in the valleys of the Upper Thames, the Nene, the Ouse and the Cam in the belt of low-lying land between the Cotswolds/Northampton Uplands and the Chilterns. This may well reflect short journey movement of local ceramic products in a multiple production centre situation where suitable clay beds outcrop in abundance. The geological correlation is interesting also in that the core area distribution bears a striking resemblance to the distribution of outcropping Jurassic strata, so much so that this alone strongly suggests that Jurassic raw materials are involved in the manufacture of St Neots type ware. It is relevant in this context, while not ruling out the possibility that Boulder Clays may have

been used, that the spread of Recent glacial deposits extends far beyond the core distribution area into East Anglia.



St Neots type ware: raw materials and manufacture

The precise clay strata employed in the manufacture of St Neots type ware are uncertain while it is also unclear whether the calcareous inclusions in the pottery are native to the clay beds used or are deliberately added as part of the clay preparation process. The strong correlation between the distribution of findspots and the Jurassic System has already been noted. The clays of the Upper Lias, the Inferior and Great Oolite Series and the Oxford Clay are all possible sources of raw material and, if crushed limestone tempering was being added, then there are many suitable outcrops of the Blisworth (Great Oolite) Limestone and the Cornbrash in addition to the bands of limestone and shelly material in the Upper and Lower Estuarine Series and the Upper Lias. Also, the Boulder and alluvial clays should not yet be ruled out as source materials.

In some respects it may seem reasonable to reject any suggestion that calcareous matter was deliberately added. Certainly, accepting that production was centred in the south and east Midlands and that distribution was localised, use of modern marine shell is unlikely at this distance from the coast (? *contra* Addyman 1964: 51). Moreover, the 'pounded' appearance of the calcareous matter could be natural or could be obtained through preparation of a clay with a high calcareous content and need not necessarily be the result of an independent shell or limestone-crushing operation. It has also

been pointed out that, to today's potters, the addition of calcareous tempering provides no obvious benefit in the manufacture of vessels of St Neots type forms. On the other hand, however, the firing technology employed in antiquity may have been such that calcareous tempering was used as a fluxing agent thereby helping to reduce the firing temperature required (Shepard 1974: 22). A further advantage of such temper is that shrinkage of large vessels before firing may be offset but against this is the danger of expansion and spalling during firing caused by calcium oxide taking up moisture to form calcium hydroxide (Shepard 1974: 22).

In view of these problems, it is interesting to note the evidence from two Roman kiln sites in the area, Harrold and Hardingstone, which both produced calcite-gritted pottery. At Harrold (pers. comm., Mr A E Brown), 'clay' pits were excavated that had been dug down through and undercut the Great Oolite Limestone to get at a thin layer in the Upper Estuarine Series that consisted of a clayey silt with a high calcareous content. Clearly, this latter material played a major part in the potting process although it remains unproven as yet whether this deposit (? after puddling and re-mixing to a given recipe) formed the prime constituent of the Harrold products. At Hardingstone (Woods 1969: 35-36), again on the Upper Estuarine Series, bands of clay interspersed with thin (c. 25mm thick) bands of calcareous material were noted in a trial trench and some correlation established between the composition of these raw materials and the ceramic products. Mention should also be made of the early medieval Silver Street kiln in Lincoln (Wacher 1974) where 'shelly' ware products have been examined petrologically and a local Lias raw materials source suggested (Williams 1976). Finally, at Ascot Doilly, Oxfordshire (Jope and Threlfall 1959: 244-246), it has been suggested that local alluvial clays were used 'as dug' in the manufacture of the 12th to 13th century 'standard' ware, a fabric closely related to St Neots type ware. In all four of these cases, therefore, whether a deliberate tempering operation was involved or not, all the potting raw materials appear to be available at or near the kiln site.

Procedures adopted in preparation of the clay for a St Neots type fabric are, therefore, largely unknown. Vessels are chiefly wheel-thrown, perhaps on a kick-wheel and maybe occasionally on bats (p. 226) although presumed early hand-made forms have been noted at Eaton Socon (Addyman 1965) and St Neots (Addyman 1973a). The larger thin-walled, wheel-thrown pots suggest a reasonably high level of potting competence but the firing technology appears relatively simple with a temperature of less than c. 900 degrees C, the temperature at which calcite becomes combustible under normal atmospheric conditions (Deer *et al.* 1966: 478), being obligatory. Unevenly fired and reduced surfaces are fairly common; this and the absence of kiln locations may possibly suggest that bonfires or pit kilns were used (i.e. features of arguable archaeological interpretation). Indeed, a pit kiln interpretation has been tentatively put forward for features excavated at St Neots (Addyman 1973a).

It is generally accepted, on account of the utilitarian, technological and geological/distributional characteristics of St Neots type ware, that several kiln sources are involved in its manufacture. The diverse siting of kilns evident in the later medieval calcite-gritted pottery industry may also be a point in favour of this interpretation and it is even possible, with the merging of the St Neots tradition with the later medieval 'shelly' traditions, that St Neots type ware may in fact have been made at kiln sites like Olney Hyde (Millard 1967: 118-122; Mynard 1969: 182) although this has yet to be conclusively proved. It is interesting that a hypothesis of widespread rural production for St Neots type ware is in marked contrast to the predominantly urban-based manufacture of other 10th and 11th century wares such as Thetford ware (Hurst 1976: 314). On the other hand, the Silver Street kiln at Lincoln suggests that more extensive urban production of St Neots type fabrics may be shown in the future. The only major point that can be brought against a multiple production centre situation is the overwhelming uniformity of vessel forms but this trait can also be seen with other Saxo-Norman wares, for instance Thetford ware, for which a number of kiln sites are known to exist (Hurst 1976: 314).

St Neots type ware: scientific examination of the fabric

Problems and aims

Past descriptions of the St Neots type fabric have been inadequate and imprecise. As described by Hurst in 1956, the classic St Neots ware was 'soft, contains much pounded shell and has a black core with bright red, purple or dark purple surfaces which are soapy to the touch'. Subsequently, description of the fabric has progressed no further and great stress has been laid on supposedly diagnostic features such as 'soapiness' and 'pounded shell'. Current definitions include 'fairly soft with copious crushed shell inclusions' (Addyman 1973a: 80) and a 'fairly rough fabric tempered with crushed shell' (Hurst 1976: 320). The full technological and geological implications of the use of such terms as 'pounded shell', 'soapiness' and 'temper' have perhaps not been fully appreciated in the past and an initial step in any scientific research of the St Neots type fabric has therefore been, where possible, to regularise and add precision to the descriptive terminology.

Accordingly, as some measure of basic fabric identification was clearly necessary, the research began with a preliminary visual and microscopic examination. This approach was later extended to include the X-ray diffraction technique and petrological analysis which were both aimed primarily at the mineralogical characterisation of St Neots type ware. Simultaneously, a major project of chemical analysis using the neutron activation technique was set into motion (Hunter 1975; Coleman 1976). This relatively quick means of providing a quantitative assessment of elemental composition has been used with some success in characterising pottery in recent years (e.g. Harbottle 1970; Sayre *et al.* 1971; Olin and Sayre 1971; Banterla *et al.* 1973; Abascal *et al.* 1974; Brooks *et al.* 1974; Tobia and Sayre 1974) and, in this instance, the chief aims were to test independently the definitions of St Neots type ware and its archaeologically derived sub-groups, and to examine the elemental data for any numerical patterns which might indicate subdivisions within the ware relating to such factors as geographical location, chronology or typological variations.

However, St Neots type ware presents many analytical problems. With mineralogical examination of calcite-gritted fabrics it is difficult to characterise such pottery through the calcitic inclusions as they vary considerably in size and shape within a single sherd (cf. quartz sand) and any firm attribution of calcite-gritted pottery to clay sources is more likely to occur through the non-calcitic inclusions unless distinctive fossiliferous material is present. Again, because of the diversity of the calcareous material, it is well-nigh impossible to distinguish between tempered and untempered pottery, and finally, unless identifiable fossils are present, modern marine shell cannot always be distinguished from shelly limestone as, after firing and burial, both will exhibit a calcite crystal structure.

In terms of chemical analysis of minor and trace element composition of pottery fabrics, this approach has been most successful when applied to fine wares like Samian (Banterla *et al.* 1973) and Mycenaean and Minoan pottery (Catling *et al.* 1963; Catling and Millett 1965; Harbottle 1970) or to material of known kiln provenance for which compositional patterns have been readily discernible (Hartley and Richards 1965; Aspinall *et al.* 1968; Hawkin 1977). St Neots type ware is particularly coarse and heavily gritted, thereby presenting a number of analytical problems, while no sherds of known kiln provenance are available for initial characterisation. Factors such as trade, the various clay preparation options and the effect of firing and burial can all therefore complicate analyses of elemental (and indeed mineralogical) composition. Finally, it is important to stress a major problem in analysing clays that is inherent in the nature of the material, namely that individual clay strata may often be exposed over a wide geographical area and will not always exhibit homogeneous or distinctive elemental compositions (compare, for instance, a material like obsidian).

Sherds selected for analysis

Sherds were selected with chiefly the neutron activation analysis in mind. A dual policy was adopted: firstly, to examine in detail stratified and, where possible, dated sherd sequences from a limited number of sites well-spaced within the core distribution area (a wide date and typological range was also aimed for); and secondly to sample a small number of sherds from peripheral sites—peripheral to St Neots type ware in both distributional and chronological terms—to examine the position of St Neots type ware in the wider context of medieval 'shell-gritted' wares. Details of the sites and sherds selected are given in Tables 20-4 and Fig. 105. A total of 234 sherds were analysed initially covering the whole range of sites (Hunter 1975). This was followed by examination of a further 100 sherds from Northampton, St Peter's Street (sherd nos. N66-165, including

re-analysis of eight of the original 234 sherds) and a major programme of statistical analysis covering all the data (Coleman 1976). It will be noted from Tables 20-4 that each individual sherd has been coded according to its site; this reference system is retained throughout this report.

Preliminary visual examination (see also McCarthy, above, p. 156)

Initially, as part of the 1974 analyses (Hunter 1975: 78-101), each sherd was inspected in the hand and under a $\times 20$ binocular microscope. The range of colour, oxidation, hardness, feel and fracture in the St Neots type fabric is discussed elsewhere (p. 156) and in general, in the sherds selected, these traits were found to be extremely variable even within individual sherds. Such traits are unlikely to be of assistance in characterising or subdividing St Neots type ware.

Table 20 Sites selected for sampling and numbers of sherds selected from each site

Site	Site code	When excavated	References	Rims and handles	Bases	Body sherds	Totals
Northampton, St Peter's St	N	1973/4		105	13	39	157
Oxford, St Aldates	OSA	1970	Durham forthcoming	6	2	12	20
Oxford Castle	OC	1972	Hassall 1973; 1976	2	1	7	10
Oxford, All Saints	OAS	1973	Hassall <i>et al.</i> 1975; publication forthcoming	4	1	15	20
Bedford Castle	BC	1970	Publication forthcoming	8	5	17	30
Bedford, St John's St	BSJ	1967	Baker 1970	13	7	12	32
St Neots, Cambridge St	SN	1961/62	Addyman 1973a	21	1	3	25
Lincoln, Silver St Kiln	L	1973	Wacher 1974; publication forthcoming	—	21	7	7
Lyveden kilns	LY	1965/73	Steane 1967; Bryant and Steane 1969; 1971; Steane and Bryant 1975	5	—	5	10
South Witham, Kts Templars	SW	1965/68	Publication forthcoming	—	—	5	5
York, Lower Bishophill	Y	1974	Publication forthcoming	—	—	10	10
Totals				164	30	132	326

Table 21 Contextual data for sherds selected from Northampton

Sherd numbers	Layer numbers	Approx date	Sherd numbers	Layer numbers	Approx date
N1-3	A714	9th/10th C	N98-99	K23	10th/(?)11th C
N4-13	A576	10th/(?)11th C	N100-101	K24	10th/(?)11th C
N14	K189	10th/(?)11th C	N102	K169	10th/(?)11th C
N15-19	K160	10th/(?)11th C	N103	K170	10th/(?)11th C
N20-25	K24	10th/(?)11th C	N104	K173	10th/(?)11th C
N26-29	K177	10th/(?)11th C	N105	K177	10th/(?)11th C
N30-32	K175	10th/(?)11th C	N106-114	F207	10th/(?)11th C
N33-35	K173	10th/(?)11th C	N115-121	A567	10th/(?)11th C
N36-53	A567	10th/(?)11th C	N122-123	F(128) = 19	11th/12th C
N54-65	C121	12th C	N124-153	C121	12th C
N66	A759	9th C	N154-155	C123	12th C
N67	A796	9th C	N156	(B443)	?
N68	A797	9th C	N157	B448	10th/12th C
N69-70	A714	9th/10th C	N158-165	B(407) = 217	12th C
N71-74	F70	10th/(?)11th C			
N75-87	F79	10th/(?)11th C			
N88-96	A576	10th/(?)11th C			
N97	K160	10th/(?)11th C			

NB: Sherds N1-65 analysed in 1974 (Hunter 1975). Sherds N66-165 analysed in 1975 (Coleman 1976).

Table 22 Contextual data for sherds selected from Oxford: Oxford St Aldates (OSA); Oxford Castle (OC); Oxford All Saints (OAS)

Sherd numbers	Layer number	Layer type	Associated layer finds	Approximate date
OSA 1-5	225/4	General layer	Oxford Fabric D: ? imported wares; local sandy wares	early 10th C
OSA 6-8	213	General layer	Local sandy wares	mid-10th C
OSA 9-14	209	General layer	Local sandy wares	late 10th/early 11th C
OSA 15-20	159/2	General layer	Stamford and Stamford type ware; local sandy wares	mid/late 11th C
OC 1-10	23	Pit	Coin of Eadred, AD 946-955; local sandy wares	mid-10th C
OAS 1-20	75	Cellar pit	Coin of Edward the Confessor AD 1044-1066; Oxford Fabric Q; Thetford type ware; rouletted ware; local sandy wares	mid-11th C

Table 23 Contextual data for sherds selected from Bedford: Bedford Castle (BC); Bedford St Johns Street (BSJ)

Sherd numbers	Layer number	Layer type	Associated layer finds	Approximate date
BC 1-10	70/5/41	General layer	Shelly wares (B1,4,5,6,7,11); * local sandy wares (C3,5,22,27,28)	12th C/early 13th C
BC 11-16	70/5/26	General layer	Shelly wares (B1,4,5,8); local sandy wares (C1,3,5,22,29,35)	12th C/early 13th C
BC 17-22	70/5/25	General layer	Shelly wares (B1,2); sandy wares (C3,4,5)	12th C/early 13th C
BC 23-30	70/4/22	General layer	Shelly wares (B1,4)	12th C/early 13th C
BSJ 1-14	67/3/13	Pit	Shelly wares (B1,2,4,5,7,8); Stamford ware fabric G	mid 11th C/mid 12th C
BSJ 15-22	67/2/14	Pit	Shelly wares (B1,2,4,8); Thetford type ware; French import	mid-11th C/mid-12th C
BSJ 23-32	67/7/10	Pit	Shelly wares (B1,5); Lyveden; Olney Hyde; local sandy wares (C3,4,34); Pottersbury	mid-11th C/mid-12th C

*Bedford codes.

Table 24 Contextual data for sherds selected from St Neots

Sherd numbers	Layer number	Layer type	Associated layer finds	Approximate date
SN 1-5	74	Ditch fill	Romano-British and Thetford type wares	9th/12th C
SN 6	64	?Timber slot	Romano-British; sandy; Late Saxon and hand-made wares	9th/12th C
SN 7-12	63	Ditch fill	Thetford type wares	9th/12th C
SN 13-15	62	Ditch fill	Romano-British to post-medieval wares	9th/12th C
SN 16-17	53	?Timber slot	Romano-British wares	9th/12th C
SN 18	49	? Fire pit or pit kiln	Romano-British wares	9th/12th C
SN 19	43A	Pit	13th C pottery	13th C
SN 20	31A	Shallow trench	Romano-British and Late Saxon wares	9th/12th C
SN 21-23	+	Topsoil		

In addition, sherds of 13th and 14th century date were selected from Lincoln, Silver Street (L 1-7), Lyveden (LY 1-10), the Knights Templars site at South Witham, Lincolnshire (SW 1-5) and from the Lower Bishophill site in York (Y 1-10).

The major benefit of this examination concerned the inclusions which varied considerably in size and density (Pl. 43). Individual grits ranged from 1-4mm in length, some being plate-like and others angular, the colour usually white or light grey. Their calcareous nature was readily suggested through their 'fizzing' reaction with dilute hydrochloric acid. A fossiliferous limestone assignation (crushed temper or native to the clay) was probable even at this early stage, as a noticeable feature in many, but not all of the sherds, was the presence of fossil bryozoan fragments (Pl. 44). The presence or absence of this material, a free-floating, colonial, predominantly marine animal (Gregory 1896; British Museum 1972), may ultimately prove to be significant. Of the material from the peripheral sites, all the sherds from Lincoln, South Witham and York, but only three of the Lyveden sherds, were without recognisable fossil shell or bryozoa. In addition, within the presumed St Neots type material there were further sherds without recognisable fossil shell; interestingly these were from the late 9th to early 11th century contexts in Oxford and Northampton, St Peter's Street (Phase 4), but in the same contexts sherds with fossil shell were also found. However, it is dangerous to attach too much importance to this presence/absence of Bryozoa criterion as certain sherds exhibiting a 'corky' fabric (due either to overfiring or leaching out in acid burial conditions) may complicate the issue. Furthermore, even with those sherds where the gritting component has not been depleted and fossil shell is not evident, it does not necessarily mean that the same basic calcareous source is not represented.

On the evidence of the bryozoan content of Jurassic strata (Vine 1887; Gregory 1896; Martin and Osborn 1976: 45), the Middle Lias, the Cornbrash or an Oolitic limestone are possible sources of raw material if a crushed temper was being added while the Upper Lias, Blisworth, Upper Estuarine and Oxford Clays are all capable of exhibiting a high fossiliferous limestone content (Arkell 1933: 176-177, 305-311, 347-351) if a temper was not being used. Again, the possibility of Boulder or alluvial clays being used cannot be entirely discounted (cf. Ascot Doilly (Joep and Threlfall 1959: 244-246)).

Petrological analysis

Petrological examination was undertaken by Dr D F Williams, Department of Archaeology, University of Southampton. Nine

sherds of St Neots type ware from Northampton, St Peter's Street, Bedford Castle and St Neots, Cambridge Street, and two sherds from the Lyveden kiln site were examined in thin section. The results are as follows:

Sherd N20/N100. 10th/(?)11th century cooking pot

Shell inclusions predominate, together with frequent grains of sub-angular quartz, average size 0.20-0.30mm. Some chert and a few fragments of small sandstone are also present.

Sherds N12/N94. 10th/(?)11th century bowl.

N33/N104. 10th/(?)11th century ? bar-lip vessel.

N54. 12th century cooking pot.

N59. 12th century cooking pot.

Shell inclusions predominate. Fragments of bryozoa and limestone are also present together with a scatter of sub-angular quartz grains, average size 0.10mm.

Sherd SN13. 12th century jug.

Shell predominates together with a few fragments of bryozoa and limestone. Very little quartz present.

Sherd SN14. 12th century bowl.

Shell predominates together with a few fragments of bryozoa and limestone. There are frequent grains of sub-angular quartz, average size 0.10-0.15mm, and several large grains of quartzite.

Sherd BC3. Late 12th/early 13th century cooking pot.

Shell predominates with a few fragments of bryozoa and limestone and a scatter of sub-angular quartz grains up to 0.40mm across.

Sherds BC5. Late 12th/early 13th century cooking pot.

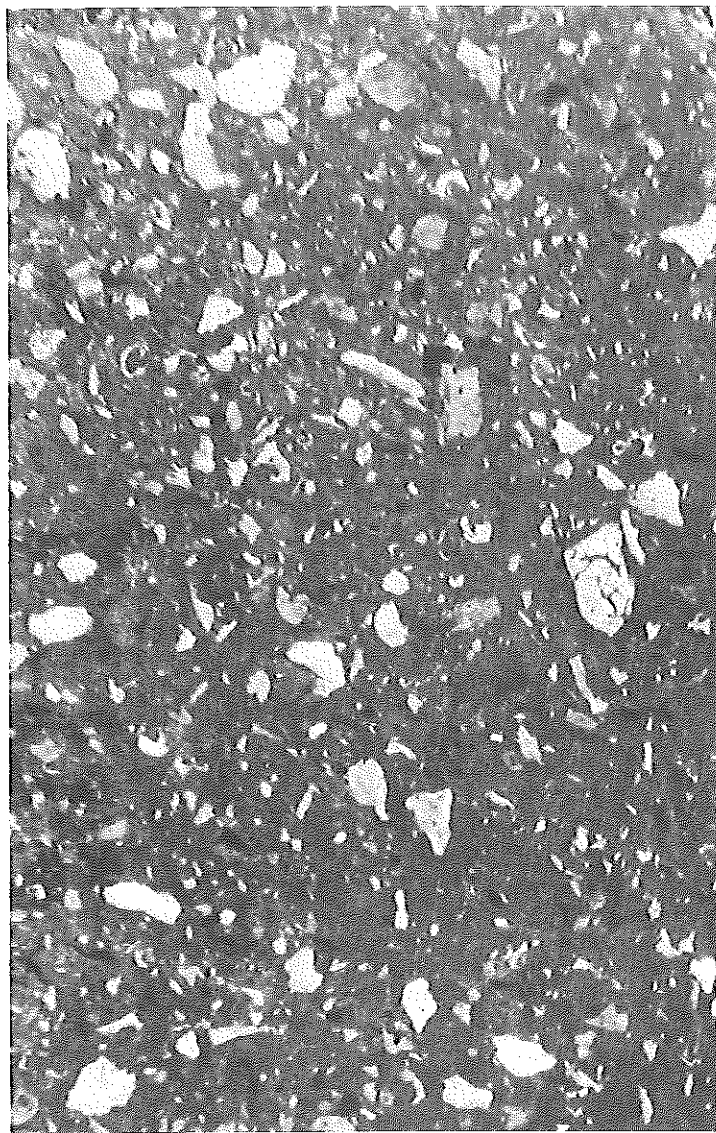
LY10. 13th/14th century bowl.

Shell predominates together with a few fragments of bryozoa and limestone. A moderate quantity of sub-angular quartz grains are also present, average size 0.10-0.20mm.

Sherd LY9. 14th century cooking pot.

The major inclusion in this sample is oolites (clearly visible in the fabric of the sherd), and it is possible to see their concentric structure within the limestone body. Also present are a number of large silt grains, a small amount of shell and quartz.

Discussion In ten of the eleven samples examined, the predominant inclusion is shell. Much of this is clearly fossiliferous, and all samples, with the exception of sherd N20/N100, also contained

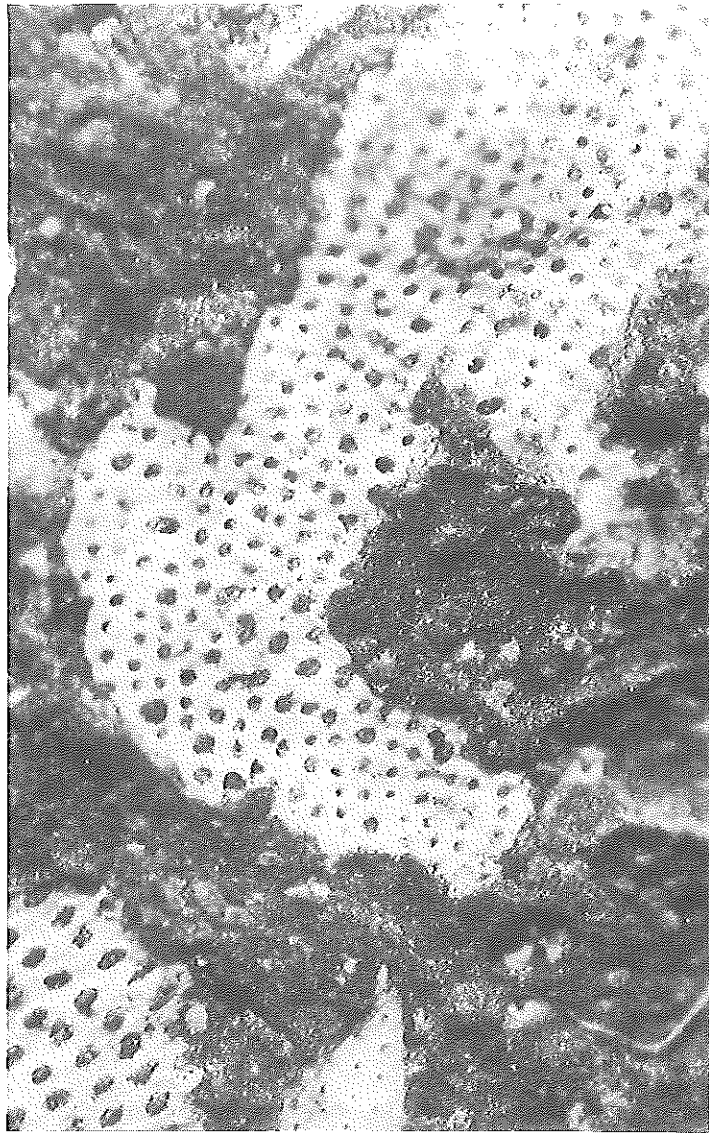
PLATE 43 *Surface of St. Neots type ware sherd.*

scattered fragments of bryozoa (? cheilostomata, which is known to occur in the Jurassic (Majewske 1969: 35)) and limestone. It is interesting to note that bryozoa have been recognised amongst other fossils occurring in Iron Age calcite-gritted pottery from Chinnor, Oxfordshire, and Davis has suggested in this instance that a suitable source for the raw materials could be the local Kimmeridge or Oxford Clay (in Richardson and Young 1951: 148). A similar source may have been utilised for some St Neots type ware and indeed Bedford and St Neots are both situated on Oxford Clays.

Chronologically a distinction is said to exist between 'classic' St Neots type ware of the 10th and 11th centuries and the later 'developed' types of the 12th century (e.g. Tebbutt 1966).

The evidence from two of the earlier dated vessels from Northampton, N12/N94 and N33/N104, suggests a degree of continuity of fabric between the two phases, for petrologically there seems to be very little difference between these two samples and those from later contexts, N54 and N59. This contrasts with the results of the neutron activation analysis (p. 238) which suggest that such a distinction is perhaps valid. However, the 10th century cooking pot, N20/N100, from the same site, although again containing predominantly shell inclusions, lacks the bryozoa and limestone common in the rest of the St Neots type ware samples, which may suggest a different source of raw materials. The activation analysis results for this sherd would appear to support the petrological analysis in this instance.

Unfortunately, the major inclusions found in this type of pottery —shell, bryozoa and limestone—are too common within the supposed

PLATE 44 *Photomicrograph of fossil bryozoan fragments in St. Neots type ware.*

area of production to allow any very specific suggestions to be made as to likely origins. With the exception of the early cooking pot from Northampton which lacked bryozoa and limestone, it is difficult to differentiate between the samples from Northampton, Bedford Castle and St Neots on an examination of these types of inclusions alone. However, there do seem to be significant differences in the size and quantity of quartz grains in the pottery of the three sites which may suggest a way of indicating different centres of production, though too few samples were examined for any firm conclusions to be drawn. In this context it is worth pointing out that trace element groupings of possible geographical significance were in evidence in the larger project of neutron activation analysis (p. 238).

It may be worth noting that one of the samples from St Neots contained a number of large grains of quartzite; this agrees well with the composition of the local gravels overlying the Oxford Clay (Edmonds and Dinham 1965: 71).

Finally, it is interesting that the two samples from Lyveden contained quite different inclusions to each other (LY9 and LY10). The 13th/14th century bowl, LY10, contains shell, bryozoa and limestone fragments similar to the St Neots type wares above, which suggests a continuing tradition of calcite-gritted pottery in the area into the 14th century. In contrast, the slightly later cooking pot, LY9, was heavily charged with oolites, probably derived from the Great Oolite Clay deposits situated close by the Lyveden site. This fundamental distinction between LY9 and LY10 was not reflected in the neutron activation results although Lyveden sherds as a whole are separated out from the dominant St Neots type

groupings (p. 238 and Table 26): this point should perhaps be used to emphasise the benefit of employing these two essentially complementary analytical techniques.

X-ray diffraction

To confirm the calcitic nature of the inclusions in St Neots type ware, typical bryozoan and limestone grits were picked out from a single sherd, N37, and examined by the X-ray powder diffraction technique. An orthorhombic calcite crystal structure was obtained and indeed this is to be expected for a carbonate limestone, for fossilised shell and for modern shell fired above c. 400 degrees C, the temperature at which any original aragonite crystals will convert to calcite (Deer *et al.* 1966: 497-500; Greensmith *et al.* 1971: 191). However, an extended project is called for using the X-ray diffraction technique as the effects of firing and burial on the carbonate mineralogy of pottery fabrics are not yet fully understood.

Chemical analysis by the neutron activation technique

The major research technique used was neutron activation analysis. With this method, elemental composition is determined by bombarding a sample with thermal neutrons and examining the characteristic gamma ray emission of the constituent atoms. Generally speaking, major elements usually affect the overall character of pottery and compositional data of this sort can reflect technological changes. Minor and trace element concentrations can be used for characterisation of clay sources and kiln products, and—as required in the case of St Neots type ware—may assist in categorising pottery fabrics.

For specific detail of the theory of neutron activation analysis and the experimental method employed readers are referred to the unpublished MA dissertations lodged at the University of Bradford (Hunter 1975: 102-112; Coleman 1976: 22-34) where the research was carried out. An up-to-date summary of applications and relevant bibliographic references for neutron activation analysis and other scientific means of examining pottery fabrics is given in *Medieval Pottery, Processing and Publication* (Hunter in Blake forthcoming).

In brief, samples of up to 200mg were drilled from each sherd. In the 1974 analyses (Hunter 1975: 108-109; 205) samples were pelleted before being packed in polythene tubes and sent off for irradiation at Aldermaston but in 1975 (Coleman 1976: 26-32) an improved method of sample preparation was adopted involving uncompacted desalinated samples. Batches of up to 21 samples were irradiated for a 48 hour period at a thermal neutron flux density of 1.8×10^{12} neutrons per sq cm per second. On return from the reactor the gamma ray activity of each sample was examined twice using automated multi-channel analyser systems. An initial counting took place approximately one week after removal from the reactor in order to measure the activity of the short-lived isotopes (Na24, K42, Sc46, As76, La140, Sm153 and Np239 (from U238)) and then, approximately one month later, the longer-lived isotopes (Sc46, Cr51, Fe59, Co60, Cs134, Ce141, Eu152, Tb160, Hf181, Ta182 and Pa233 (from Th232)) were examined when they ceased to be obscured by the short-lived activity. Elemental values were established by computerised comparison with standard samples of known composition that had been put through the same experimental procedure. The average error in these experiments is approximately 1.5E where E is the error determined from Poisson statistics, here appropriate in dealing with the phenomenon of radioactive decay.

Preliminary tests Initially, tests were carried out to examine the feasibility of total fabric analysis (i.e. samples consisting of clay

plus inclusions) and to assess the effect of the calcite-gritting component on the elemental data. Clearly, if total fabric analysis on samples from different parts of the same sherd gave unduly variable results, then the validity of applying neutron activation analysis to St Neots type ware would be extremely suspect. Fortunately, however, four small samples of a single, typical sherd, N19, were found to give satisfactorily homogeneous results and the project continued. The deviations on these results were generally poorer by a factor ≤ 2 than those determined in routine neutron activation analysis of homogeneous 'standard' pottery samples. Determinations for scandium, iron, cobalt, lanthanum, samarium and thorium displayed reasonably constant absolute values and these elements were therefore regarded as potential discriminators. Sodium and potassium, although relatively constant in this homogeneity test, were likely to be affected by differential burial and firing conditions and were not regarded as of importance on their own. Arsenic, cesium, cerium, europium, terbium and hafnium, although more variable, were deemed suitable for measurement while chromium, tantalum and uranium were either too variable to be of much use or intermittently detected because of their small quantity.

In first assessing the effect of the calcite-gritting component on elemental composition, (see Table 25 (Hunter 1975: 150-155)), eight samples from sherd N26 were prepared in different fashion: one was left untreated, four were treated in non-complexing organic acid solutions, a sixth in de-ionised water and two others consisted of grits picked out with a needle. The five samples treated with acid and de-ionised water showed between 20 and 50% mass loss depending on the severity of the treatment but the de-ionised water treatment produced little or no de-salting. It was evident also that the grits themselves were contributing significantly less than the clay to the overall trace element pattern of the sherd. This contribution was smaller by a factor of 4 for the rare earth elements and down in approximately the same ratio throughout: in other words, the gritting was not drastically affecting the overall trace element pattern of the sherd and acted as a straightforward dilutant. Thus, if one assumes an average 25% calcium carbonate content in the sherd analysed, the ratio of an element (such as iron) in the sherd as a whole to that in the gritting would be of the order of 8 to 1. It is interesting in this context to note that similar dilution effects were recognised in analyses of the sand-tempered Central American utilitarian ware contemporary with Fine Orange and Fine Grey ware (Sayre *et al.* 1971: 174) and the gravel-tempered, post-medieval North Devon pottery (Olin and Sayre 1971: 200).

Further examination of the calcite-gritting and the effect of desalination took place in 1975 (Coleman 1976: 100-106). In comparing desalinated with untreated samples (from sherds N81, N126 and N146) it was found that appreciable quantities of sodium and potassium were leached out, and indeed these two elements are not usually regarded as significant discriminators in pottery as their content is easily modified by burial conditions. An analysis of the leached-out salts from N95, N117, N146 and N149 showed that other elements (excluding samarium, hafnium and thorium) were also present in the salts in small amounts, and in the case of cobalt and lanthanum these quantities were relatively large. Clearly, therefore, deposition of soluble salts in the sherds does affect element concentrations although this is not highly significant if element ratios are considered. This problem will obviously be variable from site to site and from layer to layer so pre-treatment in the form

Table 25 Sherd N26: Neutron activation analysis of chemically treated samples

Sample no.	Treatment	Resolute parts per million															
		Na	K	La	Sm	U	Sc	Cr	Fe	Co	Cs	Ce	Eu	Tb	Hf	Ta	Th
1	Untreated	2000	11700	44	9.3	3.3	13.4	90	46100	28	5.4	119	3.2	1.5	5.1	1.0	14
2	Normal acetic acid	2880	23300	58	14.3	13.0	23.7	180	83300	45	9.8	172	3.9	2.4	10.9	2.6	28
3	Deci normal acetic acid	2540	21800	63	16.1	7.8	23.2	190	79100	49	11.4	189	4.4	2.7	11.6	2.1	28
4	Normal hydrochloric acid	1910	16100	17	2.9	3.1	15.9	200	66300	40	9.2	38	1.3	0.8	10.0	2.6	12
5	Deci normal hydrochloric acid	2160	18400	35	7.8	3.0	21.2	170	79800	61	11.5	100	2.4	1.9	10.8	2.2	26
6	De-ionised water	1910	14700	49	11.6	3.0	15.3	110	53000	36	6.4	136	3.2	1.9	5.5	1.5	16
7	Grits only	960	6730	17	3.2	2.0	7.2	55	26500	8	2.0	42	0.9	0.7	2.4	0.7	8
8	Grits only	870	6190	21	4.3	1.1	5.0	40	17900	7	1.7	55	1.3	0.5	2.1	0.2	4

of desalination is recommended on coarse, porous pottery of this nature. Finally, contamination of the gritting by the fabric should also be considered a possibility as this would enhance the element concentrations in the gritting and cause underestimation of the dilution effect.

Results Total fabric analysis was accordingly carried out and absolute parts per million values (ppm) established for all the 1974 selected sherds (Hunter 1975). An improved method of sample preparation involving desalination preceded the analysis of the 100 sherds selected in 1975 (Coleman 1976). Extreme sherd to sherd variation—up to 300%—was found in these results and meaningful patterns were not readily discernible in the data.

However, as the dilution effect of the gritting was seen to be in approximately the same ratio for each element in a single sample and the effect of soluble salt deposition was not regarded as prohibitive, it appeared justifiable both to consider the relative proportions of selected elements and to normalise the absolute parts per million values for each sherd to the value for a single element (in this instance, to scandium). Treatment of the data in this way therefore overcame the fact that different sherds have different proportions of gritting and soluble salts and are diluted or enriched to differing degrees, and it has the added advantage of removing any inter-irradiation anomalies caused by variations in reactor conditions. The major disadvantage of normalisation procedures is that, if in the absolute data sample A only varied from sample B in its scandium concentration, after normalisation the two samples will differ in all ratios.

In addition, the data was subjected to extensive analytical treatment (Coleman 1976: 68-100) using cluster methods and statistical techniques as available in the Clustan 1A package (Wishart 1972). Analyses were carried out on both the raw data and the normalised data for between 11 and 13 isotopes. All clustering techniques used were non-iterative, and dendrograms and groupings were established in the following ways using:

- 1 Ward's method with the squared Euclidean distance coefficient
- 2 Mode analysis with the similarity ratio coefficient
- 3 Mode analysis with the squared Euclidean distance coefficient
- 4 Principal components analysis and mode analysis
- 5 Principal components analysis and single linkage

It was found that these methods of analysis, although suitable for the smaller data sets to which they were initially applied, were less revealing when applied to the data set as a whole and the prevailing impression given by the results of the activation analysis and subsequent data treatment is that all the pottery is of fairly similar composition. However, sub-groupings can be suggested in some cases. For example, one-dimensional plots of the samarium/scandium and iron/scandium ratios for the 1974 data show that the bulk of St Neots type ware has Sm/Sc values between 0.5 and 1.2, and Fe/Sc values between 2500 and 6500. Interestingly, almost all the sherds without recognisable fossil bryozoa give values of less than 0.5 for Sm/Sc as do many of the 12th century sherds from Northampton, Bedford Castle and St Neots. This latter group stands out even more clearly as having Fe/Sc values less than 2500 and indeed a distinction between the 12th century Northampton material with values of 2500 to 2000 and the Bedford Castle and St Neots sherds with values less than 2000 may be seen.

These groupings of the 1974 data were confirmed by use of mode analysis with the similarity ratio coefficient (Table 26) where 37 out of the 43 sherds without recognisable fossil bryozoa fall into three groups (C, J and K) composed predominantly of this type while the bulk of the 10th and 11th century St Neots type ware with bryozoa falls into groups A and B. The majority of the later Northampton and Bedford Castle material falls into groups E and G respectively. The other clustering techniques used produced similar but less distinct groupings.

Analyses of the 100 sherds selected from Northampton, St Peter's Street in 1975 (N66-165) to some extent supported the groupings established for the 1974 data. Using both mode analysis with the similarity ratio coefficient and Ward's method with the squared Euclidean distance coefficient, the 1975 data divided at the three

cluster level into two groups that covered the main St Neots tradition and a third that contained sherds predominantly from 12th century contexts.

The sherds analysed from the peripheral sites—Lincoln, York, Lyveden and South Witham—were for the most part distinguishable on the basis of element ratios from the sherds from Northampton, Oxford, Bedford and St Neots but they still showed a general similarity to the St Neots type results. More extensive sampling is perhaps necessary although one suspects that additional analyses would simply emphasise the links between such sherds and the overall St Neots type scatter. The Lincoln sherds, however, L1-7, were clearly distinguished as a sub-group by low values for iron, cobalt, lanthanum, europium, samarium, terbium and thorium, all normalised to scandium.

Discussion of the results of the neutron activation analysis Any discussion of the neutron activation results must first take into account the fact that all the samples analysed appear to belong to a single population and that patterns within the data must be regarded as sub-groupings within that population rather than independent populations themselves. It should also be stressed that these analyses deal with exceedingly coarse-gritted and variable material for which few, if any, kiln sites are known. As a result there is no effective data base of kiln site sherds and the only way in which independent groupings can be established is through archaeological/geographical means using distributional, chronological, technological and typological characteristics.

Without extensive analyses of the geological materials available in the field it is not possible to say whether a single geological stratum was being exploited in the manufacture of those sherds analysed or whether a number of different strata of broadly similar composition were being worked. On the siting of the Lincoln and Lyveden kilns the latter interpretation seems at this stage to be the more feasible and the results of the petrological examination would seem to support this. The Activation analysis, as one would expect, is incapable of shedding light on whether the inclusions are native to the clay or independently added.

The sub-groupings, however, do appear to be valid on at least three counts. Firstly, the presence/absence of bryozoa criterion is borne out to some extent by elemental composition and also by the petrological examination although the significance of this is unclear. It could possibly be a function of the geographical distribution of a particular fossil assemblage within a single geological stratum or it may relate to a real compositional distinction between different strata. Secondly, there is evidence, both elemental and petrological, to suggest that the geographical location of the sites analysed is significant in the differentiation of sub-groups as can be seen through the separation of the 12th century material from Bedford and Northampton in the trace element analyses, and in the quartz grain size differences of the Northampton, Bedford and St Neots sherds that were examined in thin section. Thirdly, there are strong indications in the activation analysis results (although not in the thin sections) to suggest that the 12th century material forms a valid sub-group distinct from the 10th and 11th century material. However, in these last two instances, caution must be stressed as it is not clear to what extent clay composition, additives, preparation methods and trade may be contributing to these patterns.

Finally, it is important to put the results of this research in the wider context of other neutron activation analyses of other English medieval pottery from the same area. Recently completed analyses of Thetford type ware and Stamford ware (Hawkin 1977), and Ipswich ware (Hawkin 1977; Hunter forthcoming) afford useful comparative material and it should be stressed that St Neots type ware is realistically distinguishable from these other pottery types on the basis of trace element composition. Hawkin (1977: 92-95) demonstrates clearly the compositional differences between the major urban Thetford type ware production centres (Ipswich, Norwich and Thetford itself) although experiencing rather greater difficulty in separating Ipswich ware from the Ipswich-manufactured

Table 26 Results of mode analysis of 1974 data

Mode analysis with similarity ratio coefficient

Content of Groups

Group A	Group B	Group C	Group D	Group E	Group F
N2,3,11,12,13,15,22,23, 24,25,26,27,28,29,30, 31,32,33,34,35,36,42, 44,45,49,50,51,53,58, 61,65 OSA17,20 OC7 OAS14 BC26 BSJ28 SN11,17	N4,5,6,7,8,9,10,16,17, 18,19,37,39,40,41,43 OSA10,13,15,18 OAS2,3,5,6,7,10,11,12, 13,20 BC12,13,14,16,17,19, 23,25,27,28 BSJ3,4,6,8,9,12,13,18, 23,24,29 SN1,3,5,7,8,9,10,16,22	N14,20,21 BC24,29 BSJ7,22,32 SN2,23,25 SW4,5 U1,3,4,5,6,7,8,9,10	N46,48 OSA7,16 OC1 OAS4,9,15,16,18 BC9,10,30 SN6,24	N54,57,59,60,62,63,64 BC8,11 BSJ26 SN14,18	N1,47,56 OSA6,8,14 OC5,10 OAS1,8,17,19 BSJ5,19,20 SN12
Group G	Group H	Group I	Group J	Group K	
N55 BC1,3,4,5,6,7,18,21,22 BSJ1 SN13,15,20	BC15 SN19 L5	N38 OSA19 BC20 BSJ2,10,11,14,15,16, 17,25,27,30,31 LY1,2,3,5	N52 OSA9,12 L1,2,3,4,6,7 LY4 SW1,2,3	OSA11 BSJ21 SN4,21 LY6,7,8,9,10 Y2	

Means, standard deviations and coefficients of variation (Fe %; other elements in ppm)

Group A	Group B	Group C	Group D	Group E	Group F
(39 members)	(60 members)	(22 members)	(15 members)	(12 members)	(16 members)
Element	Element	Element	Element	Element	Element
Mean SD CV	Mean SD CV	Mean SD CV	Mean SD CV	Mean SD CV	Mean SD CV
La 39.04 5.38 14	La 57.03 8.31 15	La 34.42 8.24 24	La 43.77 5.08 12	La 37.85 3.74 10	La 41.34 4.43 11
Sm 8.28 1.35 16	Sm 11.99 1.96 16	Sm 6.31 2.12 34	Sm 9.21 1.08 12	Sm 8.49 0.85 10	Sm 8.79 1.15 15
As 17.50 2.49 14	As 18.39 5.85 32	As 11.37 3.30 29	As 20.13 4.36 22	As 12.84 2.55 20	As 28.64 7.51 27
Sc 13.11 1.38 11	Sc 13.16 1.48 11	Sc 12.07 2.70 22	Sc 11.64 1.29 11	Sc 16.00 1.39 8	Sc 12.53 1.10 9
Fe 3.89 0.42 11	Fe 4.38 0.73 17	Fe 4.39 0.74 17	Fe 3.74 0.64 17	Fe 3.29 0.40 12	Fe 4.10 0.91 22
Co 13.72 3.28 24	Co 24.73 5.17 21	Co 19.42 6.46 33	Co 15.90 5.69 36	Co 12.84 2.78 22	Co 14.31 3.95 25
Cs 6.54 9.98 15	Cs 5.66 0.94 17	Cs 5.55 1.30 23	Cs 5.00 0.79 16	Cs 6.07 0.63 10	Cs 5.54 0.83 15
Eu 2.22 0.37 16	Eu 3.19 0.42 13	Eu 1.68 0.57 34	Eu 2.30 0.35 15	Eu 2.28 0.21 9	Eu 2.20 0.32 15
Hf 4.42 1.19 26	Hf 4.13 0.70 17	Hf 3.55 0.98 28	Hf 3.17 0.41 13	Hf 3.81 0.32 8	Hf 3.56 0.39 11
Th 19.49 2.80 14	Th 13.19 3.39 26	Th 7.81 3.05 39	Th 10.88 2.15 20	Th 14.21 1.43 10	Th 14.68 2.78 19
Tb 1.38 0.19 14	Tb 1.57 0.20 13	Tb 0.93 0.25 27	Tb 1.20 0.11 9	Tb 1.34 0.14 10	Tb 1.20 0.17 14
Group G	Group H	Group I	Group J	Group K	
(14 members)	(5 members)	(18 members)	(13 members)	(10 members)	
Element	Element	Element	Element	Element	
Mean SD CV	Mean SD CV	Mean SD CV	Mean SD CV	Mean SD CV	
La 38.46 9.01 23	La 35.11 3.56 10	La 67.19 17.77 25	La 37.96 4.65 12	La 43.31 4.70 11	
Sm 7.33 1.48 20	Sm 6.25 0.85 15	Sm 13.46 4.19 31	Sm 5.75 1.18 21	Sm 7.32 1.02 14	
As 11.79 3.15 27	As 12.39 2.84 24	As 23.72 6.77 29	As 13.68 5.04 37	As 16.38 8.38 54	
Sc 18.79 1.62 9	Sc 13.46 1.39 11	Sc 15.14 2.61 17	Sc 17.14 1.68 10	Sc 17.63 2.62 15	
Fe 3.14 0.53 17	Fe 2.60 0.71 28	Fe 6.29 1.87 30	Fe 4.81 0.96 20	Fe 5.10 0.98 20	
Co 12.32 3.54 29	Co 8.98 1.92 22	Co 32.72 10.43 32	Co 18.86 6.18 33	Co 19.47 8.48 44	
Cs 7.29 1.27 17	Cs 5.12 1.04 21	Cs 6.45 1.41 22	Cs 8.14 1.43 18	Cs 10.01 2.62 25	
Eu 2.06 0.41 20	Eu 1.39 0.19 15	Eu 3.80 0.96 25	Eu 1.58 0.32 20	Eu 2.02 0.23 11	
Hf 4.67 1.03 22	Hf 3.20 0.15 5	Hf 4.90 0.93 19	Hf 4.36 0.62 14	Hf 5.90 2.41 42	
Th 12.10 2.69 22	Th 8.82 1.56 19	Th 13.30 2.49 19	Th 14.92 3.06 21	Th 8.41 2.35 28	
Tb 1.11 0.20 18	Tb 0.77 0.02 3	Tb 1.70 0.38 22	Tb 0.99 0.17 17	Tb 1.04 0.19 18	

Thetford type ware and also in attributing non-kiln site material from North Elmham and Norwich to the known kiln sites. St Neots type ware is distinguishable from all Thetford type wares and Ipswich ware by giving higher absolute values for hafnium and lower absolute values for thorium and samarium. Again, St Neots type ware is distinguishable from Stamford ware from the School Lane kiln in Stamford (Hawkin 1977: 83) as the latter has a noticeably low iron content and relatively high concentrations of lanthanum, hafnium and thorium. Of course it is unlikely that St Neots type ware would be confused with Ipswich, Stamford or Thetford type wares when examined in the hand but such results give out some hope that meaningful compositional differences may be forthcoming were potential clay sources and further St Neots type material to be examined.

Future work in the analysis of medieval calcite-gritted pottery fabrics

This research project while raising more questions than can be answered at present does at least suggest lines of enquiry which may throw further light on the nature of St Neots type ware and other related fabrics. In general terms, more extensive use of other analytical techniques could be of assistance. Judicious application of techniques like X-ray diffraction, heavy mineral analysis and thin sectioning to both archaeological and geological material may give some clearer indication of the clay sources and manufacturing methods employed while investigation of other medieval calcite-gritted and so-called shell-gritted wares, particularly from kiln sites, would provide useful comparative data. Further examination of the quartz inclusions in St Neots type ware may prove worthwhile in attempts at characterisation, and palaeontological studies could also conceivably help to correlate specific geological strata with inclusions in the pottery.

With specific reference to the neutron activation technique, while further analyses of St Neots type sherds may be superfluous at this stage, it is clear that work remains to be done both on possible geological sources and on the data already collated. In the latter case, determination of the calcium content of each sample could be used to correct for the gritting in each sherd. Calcium, unfortunately only weakly excited even in samples with high calcium contents, may ultimately provide the key to this problem if the peaks in the gamma ray spectra can be satisfactorily resolved. Once this is achieved the calcium carbonate content can then be subtracted from the sample mass and the raw or normalised data can be re-analysed by mode analysis or by iterative clustering techniques. Alternatively a cosine method could be used to take account of the diluting effect of calcite and quartz gritting but with either approach more extensive analysis of the gritting itself would be necessary.

Conclusions

The fundamental typological and chronological characteristics of St Neots type ware as put forward by Hurst (1956; 1976) are not seriously questioned although the distribution of the ware can now be seen to be more widespread. The conclusions that can be drawn from this research relate chiefly to aspects of the St Neots type fabric. Firstly, caution is called for in the basic descriptive terminology adopted for fabrics like St Neots type ware; 'calcite-gritted' is here preferred when precise identification of inclusions is uncertain and manufacturing methods are unknown. Secondly, the inclusions found in the St Neots type fabric can be described as predominantly calcareous and consisting chiefly of shell (much of it clearly fossiliferous and identifiable as bryozoa) and limestone with smaller, but possibly significant, quantities of quartz. Modern marine shell is unlikely to have been utilised although this has not been conclusively shown analytically. Thirdly, a strong correlation exists between outcropping Jurassic geology and the distribution of St Neots type ware. Jurassic raw materials are probably used in the manufacture of at least some (and probably most) St Neots type ware although it is uncertain whether the calcite-gritting is native to the clays used or independently prepared as a tempering material.

In turning to those conclusions resulting from the neutron activation analysis it is evident that problems were encountered

caused by the dilution and enrichment effects of the gritting component and soluble salts. However, total fabric analysis appeared justified after preliminary tests were carried out and the wide range of results subsequently obtained in both the elemental and mineralogical analyses may lend support to the hypothesis that St Neots type ware was produced at many points within the distribution area. Statistical examination of the neutron activation results shows that all samples belong to a single population in which sub-groups are present. In defining these sub-groups, valid compositional distinctions can be seen between 12th century St Neots type ware and earlier 'classic' St Neots type ware, and between 12th century sherds from different site locations, but in the absence of known kiln sites the technological, geological and economic significance of these results is difficult to appreciate fully. Again statistical examination appears to support the distinction between sherds with and without fossil bryozoa. In terms of the clustering techniques used it can be stated that non-iterative hierarchical methods are unsuitable for data sets as large as this although mode analysis was found to be reasonably satisfactory.