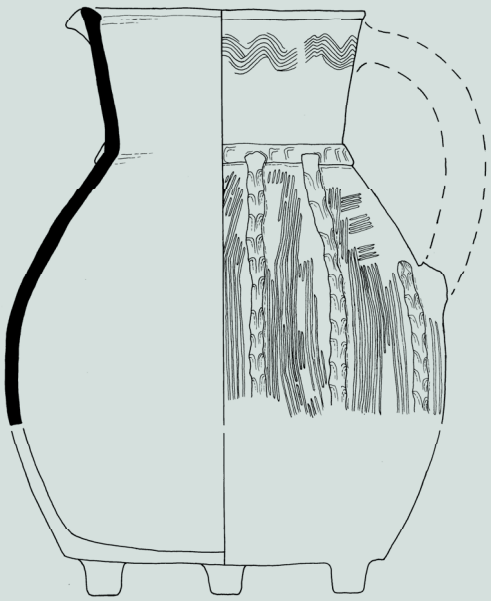
WINCHESTER
A CITY IN THE MAKING

Archaeological excavations between 2002 – 2007
on the sites of Northgate House, Staple Gardens and the former Winchester Library, Jewry St



Section 1.3

Medieval Pottery
by John Cotter

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Introduction and quantification

The Northgate House (NH) and Discovery Centre (CC) sites produced a combined total of 21,222 sherds of post-Roman pottery with an estimated weight of 362.047 kg. (based on an average sherd weight of 17.06 g). 14,516 sherds came from NH and 6,706 from CC. All of this material was briefly examined, spot-dated and recorded to assessment level. A sampling strategy of the most secure deposits was implicated (see methodology below) and this resulted in a detailed catalogue of 14,766 sherds weighing 251.891 kg with a total EVEs of 158.98. It is this detailed catalogue, or sample, which forms the statistical basis of this pottery report (an extra 26 sherds from the broadly phased Phase 4 on NH have usually been dropped from discussion and phase-related tables but are occasionally shown in fabric-related tables). An additional 138 sherds from 'non-sampled' or unphased contexts on the site were also catalogued in detail because of their intrinsic interest, usually because they had been selected for illustration or included rare fabrics not represented in the main sampled database. The data from these however were not used in any statistical calculations but are occasionally mentioned in the text.

Of the detailed catalogue total of 14,766 sherds, 10,766 came from the larger NH site and 4,000 from the CC site. The average sherd weight is 17.06 g. On NH however it is 16.34 g. and on CC it is 19 g. The difference is almost certainly explained by the preponderance of pits on CC, which tend to produce larger better-preserved sherds, whereas NH comprises both pits and a much higher survival of horizontal stratigraphy (layers) which tends to produced smaller sherds.

Pottery of the 9th to 14th centuries, and particularly the 9th to 12th centuries, dominates the excavated assemblage. A single sherd of early-mid Saxon organic-tempered pottery hints at earlier though superficial post-Roman activity in the area but it is unlikely, on the basis of pottery types present that significant occupation of the site commenced much before *c* 850. The marked tail-off of pottery during the later 13th and 14th centuries is almost certainly due to the conversion of most of the site to gardens, certainly by the 15th century, and its survival in this state almost untouched until the 19th and 20th centuries. Post-medieval pottery (16th-20th century), for example, comprises only a tiny fraction of the assemblage recovered from NH (along with only 12 pieces of clay tobacco pipe) and this must reflect a dearth of later activity. The adjacent CC site presents a similar picture apart from a small early 19th-

century pottery group sealed by the building of the new library in the 1830s. Details of the small post-medieval pottery collection remain in archive and are not treated in any significant way in this report.

Although figures for quantification in this report relate only to post-Roman pottery the site also produced significant quantities of Roman pottery, much of it residual in post-Roman contexts. On NH Roman residuality stands at 30% (sherds) of the total excavated ceramic assemblage from post-Roman contexts, while on CC it stands at 25%. Again it is probably the higher survival of layers on NH which explains the higher proportion of residual Roman sherds. In Saxon-Norman contexts (9th-12th century) Roman residuality stands at 32% on NH and 27% on CC and in medieval contexts (13th-15th century) stands at 22% on both sites. Because of the longevity or continued production of the main late Saxon wares into the early medieval period (11th-12th or even early 13th century) and their typological conservatism it is not possible to calculate the degree of late Saxon pottery residual in early medieval contexts (Phase 5 - *c* 1050-1225) although this figure could be fairly high in some cases (eg. occupation layers) but perhaps negligible in others (eg short-lived pits with contemporary fills). However, by Phase 6 (*c* - 1225-1550), when the late Saxon and Saxon-Norman wares had definitely ceased production these types still comprised two-thirds, or 68%, of all post-Roman pottery sherds in Phase 6 contexts (Phase total 2,371 sherds), meaning that only one third (32%) of all post-Roman pottery from these contexts was actually contemporary, and if Roman residual pottery is taken into account this figure is even lower. By Phase 6, however, human occupation, and presumably pottery disposal, on the site was significantly reduced and this factor must surely contribute to the exaggerated figures for pottery residuality during this phase. In complex urban excavations such as this, and where the main pottery types are not closely datable, residuality levels, though not always easy to establish, must be a factor taken into consideration as they will always blur to some degree our picture of what is contemporary and what is not. Given the nature of the site here, however, the levels of residuality - at least for the late Saxon and early medieval phases - are not too surprising compared to other urban assemblages.

Aside from average sherd weight (see above), the state of preservation is variable ranging from small worn sherds in many cases right up to several complete (reconstructable) vessel profiles and a few dozen almost complete profiles. Only a half a dozen or so small robust vessel forms, such as oil lamps and crucibles survived

as complete unbroken profiles. Large thin-walled forms such as glazed tripod pitchers and medieval fineware jugs were particularly susceptible to breakage whereas robust handmade late Saxon cooking pots often survived as large substantial pieces.

Summary of potential

In general, despite an inevitable degree of residuality, the assemblage is a substantial sample of well-stratified late Saxon and early medieval pottery and certainly the largest sample to have been excavated from the city in recent years. The dramatic drop-off in pottery types datable after the late 13th or 14th century, probably indicating the conversion of most of the site to agricultural or horticultural use, provides a useful chronological 'ceiling' to the assemblage, protecting the features from significant disturbance by later activity, thus rendering them remarkably free of later contamination. Although assemblages of similar date have been studied and recorded from other parts of the city, most are as yet unpublished and none is, apparently, as large or has been recorded in such a systematic way. In her survey of medieval ceramic studies in England for English Heritage, Maureen Mellor highlighted a gap in our knowledge of late Saxon to 12th-century pottery in Winchester and recommended that groups of pottery of this period should be studied and published (Mellor 1994a, 75). Mellor also recommended that late Saxon chalk-tempered wares from around Winchester should be investigated as part of a programme of science-based characterisation techniques and compared to similar chalk-tempered wares elsewhere in the county, eg Southampton (*ibid*., 74). Although it has not been possible to address the latter (but see Vince, *Appendix 3* for analysis of Winchester ware), it is hoped that the study of this assemblage will go some way to addressing the first of these priorities for post-Roman pottery in the region. The remarkable nature of the site, comprising fourteen late Saxon-early medieval properties arranged in three adjacent frontages, provides a unique opportunity to make chronological and spatial comparisons between assemblages from different properties and frontages.

Methodology

This pottery report has a fairly traditional structure considering, in turn, each of the pottery types by fabric and form before addressing the chronological, spatial and cultural considerations imposed by the site and its location within Winchester and any wider significance beyond this. The extent to which the analysis addresses the project research objectives will be addressed, particularly in the concluding section.

Data contained in the detailed catalogue forms the statistical basis for the discussion of the pottery including the range of fabrics and vessel forms present, and how these vary through time and from property to property. The detailed catalogue includes, per context and per fabric, quantification details including sherd count, weight and EVEs (measurement of surviving rim circumference), details of vessel form and component vessel parts (rims, bases etc.), rim diameter, decoration, glaze, evidence of use (sooting etc.) and any other comments. Pottery fabrics were recorded using the official codes of the Winchester Museums Service. Wherever possible vessels have been described following the nationally recommended nomenclature and minimum standards of the Medieval Pottery Research Group (MPRG 1998; 2001). The catalogue was recorded in Excel and statistical interrogation of the data was carried out using an Excel Pivot Table. The full computer catalogue, containing copious comments, and all tables generated from it, together with the earlier site assessments and spot-dates, all form part of the project archive. The main form of quantification employed in this text is the sherd count, although this will often be supported by EVEs or weight data. For reasons of economy some tables present only sherd count and EVEs data.

Detailed catalogue selection strategy

The original aim was to record a 50-60% sample of the post-Roman pottery from the site. Attention was initially focussed on recording contexts dated to the late Saxon and Norman periods (Phases 4 and 5) as this, the largest and best-preserved element of the assemblage, clearly had the greater archaeological value and the best potential to address the project research objectives.

Of the 14 late Saxon to medieval properties excavated it was initially decided to record all the Phase 4 and 5 pottery from the seven properties with the largest assemblages (all with 1000+ sherds) plus the considerably smaller quantities of Phase

6 (medieval) pottery from two adjacent properties (BW2 and 3) where it survived in greatest quantities. It was also decided to catalogue a block of five contiguous properties, BW1 to BW5 on Brudene Street West (most of the pottery from BW1 was, however, re-assigned to adjacent SE1 when the boundary of the latter was redefined). This block of properties included BW3, which had the largest pottery assemblage of all the properties (3,052 sherds), including the largest assemblage of medieval (Phase 6) pottery from the site. For the sake of completeness 100% of the post-Roman pottery from BW2 and BW3 was catalogued, including the little post-medieval. On the other side of Brudene Street (BE), Properties BE2 and BE4 were selected on the basis of quantity and quality. Although the seven properties comprised more than the target 50% sample, it was felt the group might not achieve the objective of allowing meaningful spatial comparisons across the site. This was confirmed when continuing analysis suggested that the western properties SE1 to SE3 constituted another street frontage in their own right (Snitheling Street East) rather than just extended 'backyards' and, therefore, two of these Snideling properties (SE1 and SE2 - particularly as the latter adjoined the 12th-century 'chapel' site) were included in the sample. Property BE5 (containing a medival stone-built cellar) was also included to improve the potential for intra-site comparisons and to include a greater sample of medieval (Phase 6) material.

Re-phasing of other contexts added additional sherds from other significant contexts, such as the Saxon road on BW and a previously unphased late Saxon pit assemblage on SE1 (Pit 6158 the 'madder' pit). These additions to the original 50% catalogue added *c* 2000 sherds, producing a final sample total of 14,766 sherds. The remaining 30% of uncatalogued pottery comprises all that from Properties SE3, BW6, BE1 and BE3 and all the medieval (Phase 6) pottery (*c* 1,525 sherds) from Properties SE 1, BW4, BW5, BE2 and BE4 and from other contexts not assignable to properties. The distribution of catalogued pottery by property and phase is shown in Table 1. Pottery not included in the statistics will be referred to in this report as derived from 'unsampled' contexts. The latter was scanned and summarily recorded during assessment and significant examples extracted.

Except in exceptional circumstances only hand-excavated pottery was catalogued. Sieved pottery was briefly scanned for dating purposes during assessment. The nature of the assemblage dictated the decision to publish the pottery as a typology of wares rather than as pit groups of assorted wares. Although the site was heavily

pitted in places, there were relatively few discrete 'pit groups' containing large numbers of relatively complete vessels suitable for key group presentation. Some individual contexts, mostly Norman or medieval well and pit backfills, produced up to 500 sherds, but their poor condition and residual status precluded their selection. Illustration by pit group would have resulted in repetitive illustration of residual vessels and the commonest contemporary types such as ubiquitous late Saxon chalk-tempered wares (MBX and MAV), with their limited form range. Typological illustration by ware types allowed the widest possible range of material to be illustrated. Nevertheless, the illustration process has been highly selective, focussing on vessels that extend a knowledge of the typology of these wares in Winchester, taking into account existing and forthcoming publications (eg Holmes and Matthews forthcoming), and also illustrating the best preserved examples of the range of vessels commonest to the site. No high medieval (13th-14th century) pottery is illustrated because these have been adequately published elsewhere in the region and also because of their relative fragility (hence poor survival). These types have been treated in a summary fashion in the catalogue descriptions below.

Ceramic Phasing

Traditional ceramic phasing

In the forthcoming Winchester pottery monograph (Holmes and Matthews forthcoming) a system of ceramic phasing was established for the city, based mainly on extramural sites excavated by the Winchester Museums Service. The western suburb produced the largest and best preserved late Saxon to early medieval assemblages and these were supplemented by high medieval assemblages from the northern and eastern suburbs and the city defences. A possible sequence was established by looking at associations of different types of wares in large and well-preserved pit groups and in trying to seriate these. The resulting ceramic phasing model was found to be compatible with data from better stratified contexts, such as successive floor or street surfaces. Independent dating evidence for these phases is, however, rare for this group of sites but may become available with the publication of the intramural sites, including the cathedral precincts, excavated by the Winchester Research Unit.

These late Saxon phases (sometimes referred to as groups) are referred to as the Late Saxon sandy ware phase, the Michelmersh ware phase and the Winchester ware phase. These are followed by the Tripod Pitcher phase (also known as the Saxo-Norman group). These phases, spanning the period *c* 850-1200, are well-represented on the current site. Pottery of later date, from the 13th century onwards is, however, much more sparsely represented. Three additional phases leading up to and including the post-medieval period are the 12th-13th century, the 13th-15th century and the post-medieval phases. However, as the distinction between the first two is not easily detectable in the present assemblage, and the post-medieval phase is barely represented, only the 13th-15th century phase is recognised in the slightly adapted version of the ceramic phasing presented in Table 2. This summarises the main characteristics that define each phase as well as providing a condensed overview of the ceramic sequence in Winchester between the late Saxon and late medieval periods. Although the sequence of wares and traditions in the city is by now fairly well understood in broad outline, the details are much less so. The precise dating of individual wares, their appearance and demise, is better known for some wares and only poorly for others, so the boundaries of the ceramic phases and their dating are only imperfectly understood. The precise calender dating suggested here for the phases shown in Table 2 is in some cases (eg for Michelmersh ware) only approximate but based on the latest current information. It is even possible that the Late Saxon sandy ware and Michelmersh ware phases might be one and the same thing (Helen Rees pers. comm.). The current ceramic phasing should, therefore, be regarded as a working model open to adjustment as more absolute dating becomes available.

This is the traditional ceramic phasing or dating framework against which the pottery assemblages from the city should ideally be compared. However, there are a number of inherent weaknesses in the practical application of this to every site in Winchester. For the late Saxon phases in particular, and to some extent the Saxo-Norman tripod pitcher phase, identification of these phases is defined by the presence of a small number of wheel-thrown finewares (Late Saxon sandy, Michelmersh, Winchester),which are not very common in the city and which are sometimes completely absent even from large pit groups that may be of these dates. Winchester ware, for example, comprises only 132 sherds or 0.89 % of the total catalogue from the site. Many contexts, therefore, cannot be assigned to these phases as they do not

contain the main signifying ware. This is a problem in Winchester where the overwhelmingly dominant late Saxon pottery tradition is represented by chalky wares (MBX, MAV), which are often the only type in the deposit and which exhibit little typological change over the three or four centuries of their use.

In the absence of finewares, it is necessary to rely on more subjective signifiers to date these contexts to any closer than the whole of the late Saxon and early medieval period. For the late Saxon period there are very few Portchester wares and continental imports, but these are even rarer than the main ceramic signifiers. For the Saxo-Norman phase there are rather more secondary signifiers even if Tripod Pitcher ware is absent from the context (eg scratch-marked pottery and several other local and regional coarsewares). In practice then the established traditional ceramic phasing is of limited use and on sites such as the current one, where the main signifiers are quite rare (and possibly sometimes residual), they can only be assigned to the contexts which contain them. Consequently, a simpler and more comprehensive phasing system was devised to deal with the site assemblages, as outlined below.

The site ceramic phasing

This was devised by the excavator in collaboration with the ceramics specialist and is also outlined in his introduction to the site (see elsewhere). This is closely based on the traditional ceramic phasing discussed above but is more flexible in that it can be applied to whole sequences rather than selective contexts that contain the rare signifying finewares. Although largely dependent on established pottery dating it also incorporates the relative dating provided by the site stratigraphy and is supported, in places, by dating from other object categories and by association with a sequence of independent scientific (archaeomagnetic and radiocarbon) dates. The latter, except in a few possibly anomalous cases, are in fairly broad agreement with the ceramic dates for these contexts.

At the assessment stage all contexts on the site containing pottery were spot-dated and quantified and the excavator used this data to provide a broad phasing for the site. This in turn highlighted context assemblages that would be suitable for detailed cataloguing at the analysis stage. The detailed catalogue (70% of the excavated total) then provided the data needed to revise or fine tune the initial site phasing. In broad terms the initial site phasing (and much of the final phasing) mirrored the time divisions established in the traditional ceramic phasing but was

somewhat broader, eg. Late Saxon (Phase 4, *c* 850-1066) covered the three late Saxon ceramic phases (Late Saxon sandy ware, Michelmersh and Winchester ware phases), but was somewhat closer as far as the post-Saxon phases were concerned (eg. Anglo-Norman, Phase 5, *c* 1050-1225 matching almost exactly the 'Tripod pitcher phase').

The main aim of fine tuning the initial phasing was to see if the two century block of the 'Late Saxon' phase (a significant 40% of the pottery sample) could be subdivided in any way without depending entirely on the presence or absence of the rare late Saxon finewares. The approach adopted was to include the dating provided by any late Saxon finewares present in these deposits but also to use the broader dating provided by the more abundant local chalk-tempered coarsewares (MBX and MAV). Although the typology of these wares is only of limited use for dating purposes their approximate start-dates and relative frequency to each other in any context or feature can be taken as a broad indicator of an earlier or later dating within the late Saxon period. Broadly speaking, chalk-tempered ware (MBX) is present from *c* 850, when it is often the only pottery type in the context, but this is joined at some later point by chalk and flint-tempered ware (MAV), perhaps by around 950 (when glazed Winchester ware is thought to have been intoduced), or within the period *c* 950-1000. MAV becomes frequent or dominant in 11th and 12th-century contexts. Chalky MBX on its own therefore and occurring in abundance is taken as an indicator of earlier date (Sub Phase 4.1, *c* 850-950) whereas MBX plus MAV is taken as an indicator of later date (Sub Phase 4.2, *c* 950-1050). Other ceramic indicators (eg. finewares) are taken into account when present but obviously there are situations where dating to earlier or later is subjective. The position of a context in the site matrix is also taken in to account and this sometimes provides a solution. In this way whole blocks of late Saxon stratigraphy can be phased largely using the abundant local coarsewares as the dating tool. The site ceramic phasing thus provides a simpler two-fold subdivision of the late Saxon period rather than the threefold subdivision provided by traditional ceramic phasing which is really only applicable to selective pits etc.

Subequent phases are a little more straightforward but these too rely on the presence of main or secondary ceramic indicators (see Table 2). The Anglo-Norman phase (Phase 5, c1050-1225), for example, is largely defined by the presence of glazed tripod pitchers (MAD, MNG) but also by the presence of local coarsewares (MOE, MBK) with 'scratch-marked' decoration - a decorative style widely accepted

to be post-Conquest in origin. The medieval phase (Phase 6, *c* 1225-1550) is largely defined by the presence of glazed wheel-thrown jugs, mainly those in South Hampshire redware (MMI). Although the excavator, out of convention, has Phase 6 ending *c* 1550, it should be borne in mind that the amount of pottery on the site datable after *c* 1400 is remarkably little as most of the site was under cultivation by this time.

Fabric codes: Checklist

Winchester medieval fabrics have (mainly) three-letter codes beginning with M (for medieval), except where the ascription to the medieval period is in doubt (Table 3). The list below is intended as a quick-reference checklist, in alphabetic order, for fabrics found on the present excavations and is adapted from the forthcoming Winchester pottery monograph (Holmes and Matthews forthcoming) where the full list of codes and fabric descriptions may be consulted. Fuller description and discussion of those from the site may also be found in the detailed typology or catalogue after this section (see below). In all, 36 fabric codes occurred in the stratified sample from the site, which was catalogued in detail, and 4 other fabrics occurred in unsampled contexts but are included here for completeness. Indications of frequency given below (eg. fairly common) are only general and relate to the site only and not to Winchester as a whole. Wares later than the 13th century, for example, are quite rare from the site but occur in abundance elsewhere in the city.

Fabric MAB. Flint-tempered ware. Possibly from c 850 but rare, mainly c 1000-1250. Probably local. Fairly rare.

Fabric MAD. Tripod Pitcher ware. Date c 1050-1225. Possibly local, but recent comparison shows the fabric is visually very similar to tripod pitchers in South-east Wiltshire coarseware (MADW, see below). More than one source may therefore be represented although both are almost certainly products of the same regional tradition. Fairly common.

Fabric MADW. South-east Wiltshire coarseware. Present as tripod pitchers. A few pieces in this fabric were originally identified but in the light of recent comparisons with fabric samples from Wiltshire it may be that this fabric is much commoner in Winchester than was originally thought and perhaps represents the coarser end of the MAD fabric range (see MAD, above). Date *c* 1075-1250. Rare.

Fabric MAF. Fine sandy ware with flint, chalk and ‘organic’ temper (actually selenite). Possibly from c 950, mainly c 1050-1150. See variant Fabric MBK. Probably local. Fairly common.

Fabric MAQ. Coarse grained sandy ware with flint. Possibly from c 850 but rare, mainly c 1000-1250. Probably local and regional. Common.

Fabric MAV. Chalk tempered ware with some flint. Date c 850-1200, mainly c 1000-1200? Probably local. Very common.

Fabric MBEAU. Beauvais-type ware. Date c 900-1100. North-west France. Very rare.

Fabric MBK. Fine sandy ware with flint and chalk. Possibly from c 950, mainly c 1050-1150. Probably fairly local. Very common.

Fabric MBN. Portchester ware. A wheel-thrown late Saxon coarseware. Date perhaps c 925(?)-1050. Source possibly the Portchester area, south Hampshire. Rare.

Fabric MBX. Chalk-tempered ware. The dominant fabric in late Saxon assemblages. Date c 850-1150, mainly perhaps c 850-1050? See also MAV, the flintier variant. Probably local. Very common.

Fabric MCK. Kingston-type whiteware. One of the medieval Surrey whitewares. Usually green glazed. Date c 1240-1400. Surrey and Surrey/Hampshire border. Rare.

Fabric MDF. Medium grained sandy ware. Common medieval sandy ware (mainly wheel-thrown jars/cooking pots). Date said to be from c 1000, mainly c 1050-1350. On the site mainly perhaps c 1150-1350. Local or regional. Common.

Fabric MDG. Late medieval red ware. Date c 1350-1500? Fabric MGR (see below) is a later development of this and is often white painted. Local or regional. Rare.

Fabric MDL. Medium grained sandy crucible fabric. Date c 850-1200. Local? Fairly rare.

Fabric MFGY. North French greyware. Date c 875-1000. Pas-de-Calais/Flanders. Very rare.

Fabric MFI. Normandy gritty white ware. Date c 1070-1250. Normandy. Very rare - a single piece only.

Fabric MFS. Saintonge polychrome ware. Date c 1280-1350. South-west France. Very rare - a single piece identified (unsampled context).

Fabric MGR. Late medieval red ware. Date c 1475-1550. Possibly West Sussex or east Hampshire. Includes 'black and white painted' wares. Very rare - a single piece identified (unsampled context).

Fabric MGV. Anglo-Saxon organic-tempered ware. Date early to mid Saxon c 400-800. Probably local. Very rare - a single piece identified (unsampled context).

Fabric MMG. Pink quartz-tempered ware. A high medieval glazed ware. Date c 1225-1400. Rare. Hampshire.

Fabric MMH. Common white ware. A high medieval glazed ware. Date c 1225-1400. Rare. Hampshire.

Fabric MMI. South Hampshire red ware. A high medieval glazed ware and the commonest of the several, quite similar, South Hampshire red ware fabrics. Probably from c 1175, mainly c 1225-1400. Fairly common. South Hampshire.

Fabric MMK. Glazed sandy ware with flint inclusions. A high medieval glazed ware. Date c 1225-1400. Hampshire or Sussex? Very rare - a single piece only.

Fabric MMQ. Pink quartz-tempered ware. A high medieval glazed ware and a finer variant of MMG. Date c 1225-1400. Rare. Hampshire.

Fabric MMR. Glazed buff sandy ware. A high medieval glazed ware. Date possibly from c 1175, mainly c 1225-1400. Hampshire. Rare.

Fabric MMU. Michelmersh-type ware. A late Saxon wheel-thown sandy ware. Date c 925(?)-1050. Only known production site Michelmersh, Hampshire. Fairly common.

Fabric MNG. Early South Hampshire red ware. Date c 1175-1250. Probably Hampshire. Fairly common.

Fabric MNV. Northern French green glazed white ware. Date c 1150-1300. North-west France. Very rare - three pieces only identified.

Fabric MNVY. Northern French yellow glazed white ware. Date c 1150-1300. North-west France. Very rare - a single piece only identified.

Fabric MNX. Laverstock-type ware. A high medieval glazed ware. c 1230-1350. Source Laverstock kilns, Wiltshire. Rare.

Fabric MOE. Coarse grained sandy ware. Coarse gritty texture. Date c 1070-1225. Probably local. Common.

Fabric MPAF. Paffrath-type ware. Date c 1075-1225. Rhineland. Very rare - a single piece identified (unsampled context).

Fabric MPIN. Pingsdorf-type ware. Date c 925-1250 but commonest c 1075-1225. Rhineland. Very rare - five sherds only identified.

Fabric MSH. Late Saxon Sandy ware. A late Saxon wheel-thrown sandy ware. Date c 850-950 (-1000?). Probably an earlier product of the Michelmersh kilns, Hampshire. Fairly common.

Fabric MTE. Newbury B-style ware. Mainly flint-tempered. Named after the type-site at Newbury in Berkshire. Kilns also known near Newbury. Recent research however suggests the fabric found in Winchester may be a local copy. Date c 1050-1200. Probably local. Common.

Fabric MWW. Winchester ware. A late Saxon high quality wheel-thrown glazed tableware. Date c 950-1100. Production site unknown but probably local. Fairly common.

Fabric MZM. Sandy grey ware. A late Saxon wheel-thrown sandy ware. Date c 950-1050? Either an import or possibly a reduced Michelmersh product? Fairly common.

Fabric PMED. Post-medieval wares. Umbrella code for post-medieval wares c 1550-1900. Rare from the site.

Fabric UNID. All unidentified wares. Late Saxon to medieval. Rare.

Fabric WWX. Winchester-style ware. A glazed late Saxon sandy ware. Possibly a variant of Winchester ware (MWW). Date c 950-1100. Possibly local. Fairly rare.

Catalogue of fabrics and forms (in alphabetical order)

In the forthcoming monograph on Winchester pottery (Holmes and Matthews forthcoming) around 80 post-Roman pottery fabric codes are listed. Only 40 codes have been used in the present report however. This reflects the fact that many of the high and late medieval fabrics are simply not represented on the site. Also, for simplicity, particularly in the case of the numerous high medieval glazed ware fabric codes (some of which are just minor variants) the author has tended to select only the

main fabric code as an umbrella code. Some minor late Saxon and early medieval codes have also not been used where it was felt they could be accommodated within a more major used code, eg. there are various similar late Saxon sand-and flint-tempered fabric codes in existence but in this report most of these have been grouped under the main code MAQ. Although this has been useful in some respects some details of minor variants or traditions may have been blurred or overlooked, at least from a statistical viewpoint (though they may have been noted in comments). There is however a fairly high degree of visual overlap - particularly between some of the late Saxon and early medieval coarseware fabrics - and even between some of the many high medieval glazed ware fabrics. It is hoped that by merging some of these codes the main trends within the assemblage will be somewhat clearer but without the loss of much important detail. While the main fabrics were available, a complete reference collection all post-Roman Winchester fabrics was not available for examination during the preparation of this report. However the codes employed here are based on fabric samples selected from the site and checked by Helen Rees of the Winchester Museums Service (general editor of the forthcoming Winchester pottery monograph).

Fabric codes are listed below in alphabetical order followed by their common name, a brief description, broad period date and suggested actual date (however approximate). Simplified spot-date codes are also provided for cross-referencing with spot-date and assessment archives although they are not generally used in this report. These group similar fabrics under a simple abbreviated code (eg. Fabric ug c for unglazed chalk-tempered wares, ug cq unglazed coarse quartz-tempered etc.). The few new codes created for the purposes of this report are indicated below by a bracketed comment. For the purposes of statistical analysis and interpretation fabrics have furthermore been put into groups based on similarity, some more arbitrary than others. These will be considered later on (see below and Table 3). The quantity of each fabric recovered, by sherd count, weight and EVEs, as well as the percentage of each in phased deposits is shown in Tables 4-6. High medieval glazed wares, mostly jugs, are not treated in detail in the catalogue below as these are mostly very fragmentary and add relatively little to our overall knowledge of these wares.

Fabric MAB

Flint-tempered ware. Predominantly tempered with coarse flint, with occasional chalk and quartz inclusions and some iron oxides. Spot-date code ug f. Late Saxon to

early medieval. Possibly from c 850 but rare, mainly c 1000-1250. See flinty/sandy variant Fabric MAQ. Probably local.

The fabric is quite rare here with only 36 sherds recorded. Four sherds occur in Phase 4.2 but the bulk, 24 sherds, occur in Phase 5. Identifiable forms include rims from at least seven jars/cooking pots including one example with a thumbed rim (Fig. 1, no. 1). Rim forms reflect the variety of simple plain everted forms common in the chalk-tempered wares (MBX and MAV). One example has a prominent external triangular beaded rim. Rim diameters for jars are in the 160-280 mm range. The fabric of the illustrated example is particularly coarse with angular and sub-angular flint inclusions up to 10 mm across set in a dense pasty matrix. Surprisingly, one jar rim (form as illustrated example) has a definite but accidental speck of brown glaze on top of the rim and two specks internally (NH3495, BW3, Phase 5; not illus.). The only other form identified is a single rim sherd probably from a small cresset oil lamp. This has a simple beaded rim and is sooted internally (rim diam. 110 mm, NH4024, BW2; not illus.). Apart from two sherds on Property SE1 all the others are from BW2-5 with a surprisingly high concentration (23 sherds) on Property BW3.

Fabric MAD

Tripod Pitcher ware. This is a specific fabric despite its association with the tripod pitcher form. Evenly sanded medium to coarse grained fabric. Abundant colourless and red transparent sands, usually 0.3-0.5 mm, but up to 2 mm. Common iron oxides. Usually reduced grey, sometimes brown, or oxidised red. Occasional flint or chalk inclusions. Greenish-brown glaze. Spot-date code tpw. Early medieval c 1050-1225. Probably local (related to Fabric MOE). See also Winchester ware (MWW, below) for dating of tripod pitchers (also MADW and MNG). Fairly common.

MAD is thought to be related to, if not the same as, fabric MOE - the common scratch-marked coarseware found in Winchester (Helen Rees pers. comm.). This might suggest a local origin but the exact source of both fabrics is still uncertain. A source on the London Clay to the east of Winchester, around Alton and Petersfield, has tentatively been suggested for fabric MOE and samples of glazed MAD from Alton are very similar to the fabric from Winchester, although slightly more micaceous (see fabric MOE). However MAD tripod pitchers at Winchester are clearly

very similar to tripod pitchers in South-east Wiltshire coarseware (MADW, see below). Recent comparison with samples of the latter from excavations at Wilton, Wilts. (donated by Lorraine Mepham) show the fabrics to be almost indistinguishable and it may be that the fabrics coded here as MAD and MADW are just slight variants of the same industry and almost certainly products of the same regional tradition. This situation is unlikely to be resolved until scientific analysis of the fabrics has been undertaken.

The 163 sherds of MAD from the excavations comprise 0.41% (by EVEs) of the entire assemblage (or 1.10% by sherds). There are four sherds of the ware in Phase 4.2 (*c* 950-1050) where they comprise 0.09% (by sherds, 0% EVEs) of the phase assemblage. In Phase 5 (*c* 1050-1225) there are 115 sherds comprising 1.75% (by sherds, or 0.61% by EVEs) and in Phase 6 there are 44 sherds comprising 1.91% (by sherds, or 1.12% by EVEs). The ware clearly was flourishing in Phase 5.

Tripod pitchers, the main form in which MAD occurs, were a distinctive Wessex tradition (like scratch-marked decoration on coarsewares) with only limited occurrences of the form documented east of Berkshire, though they also occur sporadically in the Midlands. The dating of the tripod pitcher form in Winchester is slightly problematical. Elsewhere in southern England the form is generally considered to be a mainly post-conquest innovation (Brown 2002, 8-9). In Winchester it has been suggested that tripod pitchers in Winchester ware may have been in circulation as early as the late 10th century but this suggestion appears to be based on one Cathedral context with questionable links to a documentary date of *c* 980 (see MWW elsewhere; Biddle and Barclay 1974). In this respect the four MAD sherds here in Phase 4.2 (*c* 950-1050) are of interest since these include a complete tripod foot, worn from use, and with a greenish glaze (NH4021, BW2). The other three sherds from this phase are small featureless glazed body sherds (BW2 NH4436, NH4223, BW4 NH2097). There is too little evidence to support the suggestion of a 10th-century date for the appearance of tripod pitchers but it is still plausible that MAD tripod pitchers may have been in circulation before the conquest, but even here more evidence would have been desirable.

MAD occurs exclusively here in the form of glazed tripod pitchers and large jugs (Fig. 1, nos 2-6). These are, for the most part, indistinguishable - particularly as the assemblage here is very fragmentary. Tripod pitchers in Winchester, and much of the region, are large - sometimes very large - handmade jugs with a rounded body, a

sagging base and three applied tripod feet. They normally have a strap handle and either a pulled lip or a tubular spout attached to the rim. Vessels are often highly decorated with applied strips, combing, rouletting and sometimes incised decoration in a wide variety of combinations. A greenish-brown or yellowish glaze, often patchy, usually covers the upper half of the vessel and sometimes extends inside the rim of the vessel even as far as the shoulder junction. The basal area is often unglazed (Holmes and Matthews in prep.). In practice it is not really feasible, in the case of the present assemblage, to separate tripod pitchers from large jugs with similar decoration as the defining features of tripod pitchers - the tripod feet - are often missing. In fact only six separate tripod feet, from just five vessels, were identified. Although it is likely that many, or perhaps most, of the vessels here are tripod pitchers both forms, for the purposes of this report will be treated as the same.

The most complete vessel from the excavation here is Fig. 1 no. 2. This has combed decoration on the neck and comb-stabbed decoration on top of the rim. There is a thumbed horizontal strip at the neck/shoulder junction and vertical 'pinched' strips on the body separated by discontinuous vertical combing. On the shoulder area above to one side of the handle the combing occurs as short intersecting combed strokes forming a rough herringbone pattern. A MAD pitcher sherd with similar herringbone decoration occurs in the Winchester pottery report (Holmes and Matthews in prep. fig. 3.7.5). The handle stub of Fig. 1 no. 2 is of narrow strap form and may have traces of an inlaid cabled strip. These were a characteristic of tripod pitchers in many fabrics and one or two fragmentary examples of these occur in the collection here (not illus.).

Rim diameters are in the 120-220 mm range, although around 150 mm is usual. These are mostly simple thickened flat-topped types or occasionally of slightly collared form. Fig. 1 no. 4 has the largest recorded rim diameter in the assemblage here. This is also the only example with stamped decoration on top of the rim. These are largely obscured by a decayed glaze but appear to be small circular gridiron stamps. Rouletting occurs on the bodies and rims of several vessels including Fig. 1 no. 3 and possibly on the solid applied vertical strip of Fig. 1 no. 5. The latter is included here as an example of MAD but is in a brown unglazed fabric and could just as easily be classified as unglazed MOE. Of the few surviving tripod feet (most very worn from use), all appear to be of the solid footed type but Fig. 1 no. 6, in a buffer fabric, is unusual in having a rounded pit or indent underneath. A similar feature, but

in this case a stabbed rather than an indented pit, has also been noted on tripod pitchers in Ashampstead-type ware from Berkshire (Mellor 1994b, 74, fig. 27.33) but Fig. 1 no. 6 appears to be a paler variant of the usual MAD fabric.

Fabric MADW

South-east Wiltshire coarseware (new code). Present as tripod pitchers. Similar to MAD. Mainly pale brown or buff with a reduced grey core, to very pale grey or cream. Quite gritty with coarse to very coarse rounded quartz. Sparse to moderate coarse flint/chert and coarse grey clay pellets. (Cotter 2006, 185-7; Gahan and McCutcheon 1997, 292-3). Yellowish glaze. Spot-date code tpw. Early medieval c 1075-1250. Fairly rare. A few pieces in this fabric were originally identified but in the light of recent comparisons with fabric samples from Wiltshire (see MAD above) it may be that this fabric is much commoner in Winchester than was originally thought and perhaps represents the coarser end of the MAD fabric range. Date c 1075-1250.

Only nine sherds, from three vessels were identified, all from property SE1 (not illus.). Four of these are from Phase 5 and five are from Phase 6. These include a tripod pitcher rim with a strap handle with applied strip down the back, scrolling applied thumbed strips and square rouletting on the body. Another sherd has oblique notch-like rouletting on the body under a thick yellow glaze.

Fabric MAF

Fine sandy ware with flint, chalk and 'organic' temper. As fabric MBK, with abundant fine sand, but with common 'organic' tempering. Microscopic examination (by the author and Alan Vince) has recently determined, however, that this is not true organic tempering but fine needle- or crystal-like voids caused by the naturally occurring mineral selenite (gypsum). In rare cases (and in the core of thicker sherds) decayed whitish crystals of selenite - which could be mistaken for shell - are sometimes visible. In nearly all cases however this unstable mineral has been dissolved-out leaving distinctive elongated rectangular or rhomboid voids mostly 1-3 mm in length. In a few cases voids up to 7 mm long and 2 mm wide have been noted and in one case up to 9 mm long (NH2225). Occasionally vessels have a corky texture. The term 'organic-tempered' has been retained however to maintain consistency with existing reports (Holmes and Matthews forthcoming). Rare instances

of genuine organic inclusions (plant matter) have also been observed. Also distinctive, but not in every vessel, is the presence of moderate-abundant rounded pellets of black or dark brown glauconite under 0.25 mm across. Occasional, sometimes prominent, red iron oxide. Spot-date code ug q. Late Saxon to early medieval. Possibly from c 950, mainly c 1050-1150. See variant Fabric MBK without 'organic' tempering. Probably fairly local. Selenite is commonly found in the London Clay which outcrops in an east-west band to the south of Winchester. Blackmore (2007) has suggested a source for MAF (and MBK) to the east of Winchester, probably in the area of Alton or Petersfield.

An almost identical late Saxon fabric occurs at Southampton where it is known as 'Organic-tempered sandy ware' (Fabric 907, Brown 1994, 131, 141). It occurs there at least as early as the 11th century and probably first appears in the 10th century (Duncan Brown, pers. comm.). Numerous examples from Southampton examined by the author show exactly the same construction technique as for MAF jars at Winchester (see below) and closer inspection of the fabric also shows the supposed 'organic' inclusions to be voids left by selenite crystals, just as at Winchester. A common source for the two may well be likely. MAF is fairly common from the excavations here but much less so than its closely related fabric MBK. The 321 sherds of the fabric comprise 2.17% of the entire assemblage (or 1.22% by EVEs). Ten sherds of MAF occur in Phase 4.2 contexts where they comprise 0.22% of that phase (or 0% by EVEs). Most of it however (260 sherds) occurs in Phase 5 where it comprises 3.96% of that phase (or 2.61 % EVEs). It still comprises 2.22% (sherds) of Phase 6 (1.03 % EVEs) but by then it was probably residual.

Jars

These are almost the only MAF vessel form in the assemblage here (57 sherds, 1.67 EVEs) with the exception of one possible lamp and one possible crucible (see below). They are handmade in exactly the same way as MBK jars, possibly by the 'paddle and anvil' technique which leaves a distinctive series of light fingertip impressions or dimpling on the inner surface of the vessel (see MBK). On the inner wall of one jar this dimpling is roughly arranged into vertical rows or flutes with horizontal wiping occurring below this in the basal area (NH4589, not illus.). Jar forms and rim forms are exactly as those in MBK (see elsewhere) and so have not been illustrated here.

The commonest rim type, again, but even more so, on MAF is a plain or thickened externally flattened rim with a slight projection at the apex (Type A2P; see Fig. 5 nos 59-60). Rim diameters on MAF jars are in the range 130-280 mm with *c* 210-250 mm being the most popular range. Ten sherds, from two vessels, have light scratch-marked decoration on the body. Perhaps significantly no jar rims with thumbed decoration were noted.

Oil lamp?

A single possible example of this vessel form was identified (Fig. 1, no. 7; 1 sherd, 0.18 EVEs). This is from the abraded rim of a possible cresset lamp of flaring conical form with abundant and prominent selenite inclusions up to 5 mm long. There are no traces of sooting present but there are traces of something like a slot/notch (or perforation?) cut into the rim probably during the lifetime of the vessel as the cut looks old.

Crucible

A single example, possibly in this fabric, identified (CC2033, not illus. 1 sherd, 0.10 EVEs) from the rim of a probable crucible with a pouring lip. Thin-walled fine grey sandy fabric with long organic-like voids filled with a rusty fibrous material. It is uncertain if these were voids left by selenite inclusions or organic inclusions (sometimes found in crucible fabrics), in which case this may not be MAF. The exterior is possibly scorched in places (See crucibles elsewhere).

Fabric MAQ

Coarse grained sandy ware with flint. Large sands in dense matrix, 0.5 mm-1 mm. Flint 2-3 mm. Iron oxides. Spot-date code ug f. Late Saxon to early medieval. Possibly from c 850 but rare, mainly c 1000-1250. See non-sandy variant Fabric MAB. Probably local.

The fabric code MAQ has been used as something of an umbrella code in this report to encompass a range of quite similar sand- and flint-tempered fabrics found in Winchester (including fabrics MAP, MAC, MFA and MBC as well as MAQ itself. Holmes and Matthews forthcoming). None of these is individually very common. In reality therefore this is a heterogeneous category and while petrologically, and in many cases visually similar, this category almost certainly includes pottery made at

several local and regional locations over a number of centuries. While some samples are as coarse as the official MAQ fabric description above, which is akin to the coarse sandy ware MOE, most have finer quartz sand and are mostly like a coarser, flintier, variant of fine sand- and flint-tempered fabrics MBK and MAF (see elsewhere). This relationship appears to be confirmed, in many instances, by the shared construction technique and form of many MAQ and MBK jars and by the presence in many samples of abundant fine black glauconite and, in one instance, selenite. If the majority of MAQ vessels here really are just a coarser variant of MBK then a similar source on the London Clay east of Winchester might be suggested, perhaps in the area of Alton and Petersfield (also for coarse sandy MOE; see MBK).

There is also a degree of overlap with other fabrics containing sand and coarse flint - particularly with local chalk- and flint-tempered MAV and Newbury-style MTE. A few examples from these excavations also occur in a visually similar to late Saxon and early medieval north-east Wiltshire ware, which was produced in the Savernake Forest. The latter has a wide distribution into Berkshire and south Oxfordshire (Oxford Fabric OXBF, Mellor 1994b, 52-4) and is probably related to Newbury B ware (MTE). The predominant firing colour is dark grey or brownish-grey but some oxidised and pinkish-brown hues also occur as well as rarer pale greys and very pale browns. Flint is mostly grey or brown, sometimes white and calcined, or red. It is generally angular or sub-angular, moderate to abundant, and often very coarse (mainly 1-3 mm, rarely to 7 mm). The angularity of the flint probably rules out a source in the Southampton Basin where flint inclusions are mainly rolled (Blackmore 2007). Some examples have abundant mica in the matrix (as MBX and MOE). Oil lamp fabrics occasionally show sparse coarse inclusions of pale grey Greensand (glauconitic sandstone, perhaps suggesting a non-London Clay source?), also rare possible limestone and very coarse iron-rich clay pellets (eg. in Fig. 2, no. 15). One unusual dish lamp in a hybrid MAQ/MBK fabric also contains sparse coarse inclusions of fossil shell. Coarse ironstone and a gastropod inclusion were noted in one sagging base sherd (CC1408, perhaps MAQ/MAV?). In sum, a wide variety of predominantly sand- and flint-tempered fabrics occur at Winchester but the distinctions between them do not appear as yet to have been adequately defined nor their significance adequately explored.

After the major local chalky coarsewares MBX and MAV and fine sand- and flint-tempered MBK, MAQ shares a collective fourth (technically *the* fourth) position

in the excavations here with a small group of other coarsewares (including MTE, MDF and MOE). The 590 sherds of MAQ excavated comprise 3.99% (by sherds) of the entire assemblage (or 6.71% EVEs; Tables 4-6). The 17 sherds in Phase 4.1 (*c* 850-950) comprise 1.32% of the phase assemblage (0% EVEs). It is relatively common in Phase 4.2 (*c* 950-1050) where the 170 sherds comprise 3.69% (or 7.89% by EVEs). This reaches a peak in Phase 5 (*c* 1050-1225) of 5.38% (sherds) or 8.39% (EVEs) of the phase assemblage. There is still a fair quantity in Phase 6 (*c* 1225-1550; 2.17% sherds, 3% EVEs) but by this time most of it is probably residual. The small Phase 4.1 assemblage mostly comprises body sherds with very coarse flint tempering but also an example of a hybrid MAQ/MBK fabric with abundant fine sand. Forms include a simple outcurved jar rim with a flattened/bevelled (A2) apex, a rounded base sherd and two sherds from sagging bases. The much larger Phase 4.2 assemblage is dominated by jars (including Fig. 1, nos 9, 12) but oil lamps are also present (Fig. 2, no. 16). The Phase 5 assemblage includes a few jar sherds with scratch-marked decoration and one or two rims with thumbed decoration.

Jars

Jars comprise 51% (by EVEs) of all vessel forms in this fabric (but 83% of all sherds identified to a form). This relatively low percentage for jars (by EVEs) is mainly due to the presence of an unusually high number of oil lamps in this fabric (whose robust small-diameter rims give high EVEs readings). Rim diameters for jars are in the 120-360 mm range They mostly seem to fall within the 120-260 mm range with a fairly clear peak around 180 mm (see Chart 1). The handmade globular bodies and rounded bases seen on MAQ jars as well as the occasional evidence for internal finger impressions or dimpling on the walls show strong typological and technological affinities with fine sand- and flint-tempered MBK suggesting the use of the 'bat and anvil' construction method for some jars (see MBK elsewhere; Fig. 1, nos 9-12). However, as with MBK, rounded base sherds are easily confused with body sherds and have almost certainly been undercounted. Only 15 rounded base sherds (25% of base sherds) have been identified compared to 46 sagging base sherds (75 %, not illus.). Although complete profiles are lacking, there is no doubt that some MAQ jars had rounded bases and other had sagging bases. The significance of this is not fully understood. It could mean that MAQ potters were influenced by the round-bottomed jar tradition represented by fabric MBK as well as the predominant sagging-based

tradition represented by Winchester's major local chalky ware fabric MBX and chalky-flinty fabric MAV, as well as many other regional industries. Alternatively the presence of rounded versus sagging bases might suggest different production centres for both types of jar (and the validity of the several fabric sub-divisions) - a suggestion that could eventually be clarified by scientific analysis. The presence of a MAQ rounded base sherd as early as Phase 4.1 (*c* 850-950) has already been noted (NH4660); the others occur in Phases 4.2 and 5. MAQ jars (like MBK) are notably globular in form with gently out-curved (or 'cavetto') necks and a limited range of plain or thickened rims. Jars were probably coil-built and some, at least, were internally finger pressed as MBK. The outer surface is usually smoother than the inner and was probably wiped. Rims were probably added as a separate coil and almost certainly, in many cases, finished-off on a turntable. In one instance a jar rim has completely detached from the shoulder along the horizontal line of weakness (NH6116). Attachment of the rim to the shoulder occasionally resulted in a slight external shoulder angle or carination similar to that commonly found on the chalky wares (Fig. 1, no. 11).

Rim forms on MAQ jars are predominantly plain everted types with a smaller number of thickened everted types. The commonest type is also the simplest - a plain everted rim (Type A1, 60.26% EVEs, 46.24% sherds, Fig. 1, nos 9-11). In this respect MAQ jars rims are considerably simpler, more archaic-looking, than the slightly more developed types commonest in the predominant chalky wares (MBX and MAV) and fine sandy-flinty MBK. Whether this was because of tradition or because of the greater coarseness of the fabric is unknown. The second commonest type is also one of the commonest on chalky-flinty MAV, a plain straight rim with a flattened top and an external incipient bead (Type A3C, not illus. 11% EVEs, 5.38% sherds), closely followed by another similar very common chalky ware rim, also plain and straight but with a rounded apex (Type A3A, 7.33% EVEs, 12.9% sherds, Fig. 1, no. 12). Other less common types include plain externally flattened and sometimes grooved/scored rims related to the commonest rim type in fine sandy-flinty MBK (Type A2P, 2.38% EVEs, 2.15% sherds, Fig. 1, no. 8, and similar A1 rim, Fig. 1, no. 10). Another MBK-type rim (Type B4, not illlus.) is also represented by a couple of examples plus a range of simple thickened everted rims and rare beaded rims (not illus.).

Thumbed decoration (not illus.) occurs on five jar rims (3.5% EVEs, 5.4% of jar rim sherds). This is mainly a continuous style of thumbing, lightly executed, but

there is one example with widely-spaced thumbed impressions around the rim. Scratch-marked decoration occurs on eleven body sherds from a minimum of four vessels, almost certainly jars (1.9% of all MAQ sherds). These include two separate examples with deeply scored lattice patterns. One of the latter has abundant angular white flint inclusions up to 6 mm across (NH1364). Fragments from two oval-section handles from two separate vessels may be from cauldron-like jars such as occur in Newbury-style fabric MTE (see elsewhere. Not illus. NH5128, Phase 5, CC2212, Phase 6).

All the illustrated jars are in fabrics with affinities to fine sandy-flinty MBK but with varying amounts of coarse/very coarse flint. Fig. 1, no. 12 (Phase 4.2) however has a denser, better-sorted, fabric with moderate angular flint mostly under 1 mm. The texture and appearance of pieces like this resembles the sand- and flint-tempered fabric of medieval Southampton Coarseware (*c* 1250-1350, Brown 2002, 12-13) but this is probably fortuitous. There is abundant evidence for the use of MAQ jars as cooking pots based on external sooting on most and internal limescale deposits on many. The sooting is sometimes very heavy. In addition to heavy external sooting Fig. 1, no. 12 also has sooty dribbles extending as far as the underside of its rounded base. Seven sherds from five vessels have internal purplish madder staining from their use as dyepots. These include sagging bases and a probable rounded base sherd (see madder report elsewhere).

Bowls

Three bowls have been identified in this fabric comprising just 2.2% (by EVEs) of the fabric assemblage. All of these are handmade and from Phase 5 contexts. Rim diameters are in the 230-270 mm range with one example possibly of *c* 340 mm (see Chart 1). The illustrated example (Fig. 2, no. 13), with an oxidised coarse MAQ/MAV fabric, has a fairly developed hammerhead-style rim and a steep, slightly curved wall below this. The exterior has faint oblique markings or scratches which might be a result of trimming or wiping during manufacture. A second bowl has a similar but slightly simpler rim to the latter. The third, and widest, example is in a coarse MAQ/MOE hybrid fabric and has a simple shallow curving wall with a simple thickened flat-topped rim. The latter is the only example displaying external sooting. MAQ bowls are quite similar in form (and fabric) to more developed examples in MAV and Newbury-style MTE and confusion between these is possible.

Oil lamps

Lamps are fairly common in MAQ with 17 sherds identified representing at least 10 cresset lamps and an additional lamp from unsampled context NH2577. With the exception of an unusual flat-based lamp (Fig. 2, no. 16) most occur as single sherds. Lamps are somewhat over-represented due to the good survival of their robust, small-diameter rims. They comprise 37% (by EVEs) of all MAQ vessel forms (but just 11% by sherds). In fabric and form MAQ lamps overlap both with chalky MBX lamps at one end of the range and particularly with chalky-flint MAV lamps at the other. Six examples are from Phase 4.2 contexts and five from Phase 5 contexts (including the unsampled context). Seven complete profiles survive. All but two examples are sooted internally, and sometimes externally from use, sometimes very heavily. One example is sooted all over internally except for a roughly circular area lower down in the dead centre of the lamp - presumably where the pool of lamp oil prevented sooting (CC2141, also noted on a MAV lamp). Another sooted example has radial internal scratch marks, possibly from cleaning (NH4177, also seen on a MAV example).

Two types of cresset lamp were identified but only the hollow pedestal-footed type is common (minimum 9 examples, Fig. 2, nos 14-15). These have very simple plain upright or flaring rims, occasionally flattened on top. The form is basically that of a small dish or bowl attached to a hollow pedestal foot. Sometimes they have a slight carination lower down but some examples are just conical. The illustrated examples have an unusually squat, almost chalice-shaped, profile but other taller examples exist like those in MAV (see Fig. 5, no. 49). Fig. 2, no. 15 is complete apart from small chips missing from the rim and base and shows no evidence of a pulled lip or spout nor does another complete example (NH4665). A damaged example may have had a slight pulled lip but this is uncertain and most MAQ lamps of this type may heve been spoutless (also perhaps MAV lamps of this type). The seven pedestal-footed types with measurable rims fall within the 80-87 mm diam. range with five examples between 80-82 mm. This is similar to the range of MAV lamps of this type (*c* 83-110 mm) Another rim, possibly from a lamp of this type has a diameter of 140 mm. No spike-footed cresset lamps were recognised in this fabric (although they do occur in MAV).

One unusual lamp (Fig. 2, no. 16, Phase 4.2) is of crude manufacture with a wide shallow dish-shaped form and apparently a plain flat base. The rim shows a lip

pulled from the thick simple rim – and possibly traces of a second pull not far from this (perhaps originally several). It is heavily sooted internally and partially externally. The fabric is an unusually coarse MAQ/MBK hybrid with sparse inclusions of coarse fossil shell, which might suggest a different source to the other MAQ lamps. Seven of the eleven MAQ lamps occur on the BE frontage with five examples from Property BE4 (all but one from Phase 4.2). The other four came from the BW frontage (one each from BW1, BW3, BW4 and BW5).

Curfew

A single rim sherd has been identified as a possible curfew (0.4% by EVEs of all forms). This has the form of an inverted bowl with a plain thickened rim (340 mm diam.). It is heavily sooted allover internally but not externally which is typical of curfews (Not illus. NH1024, SE2, Phase 5).

Chimney pots

Two examples (single sherds) of this fairly rare medieval form have been recognised, both from unsampled (Phase 5 and 6) contexts on adjacent Properties BE2 and BE3 (Fig. 2, nos 17-18). Both are in a very coarse MAQ fabric with moderate calcined flint up to 5 mm and with abundant quartz and sparse chalk. The fabric is oxidised orange-brown with dark grey surfaces. Both are in a fresh condition and neither shows traces of use. Fig. 2, no. 18, which is possibly over-fired, has a broader thickened flat-topped rim (similar to an example in MAV, see Fig. 5, no. 53) and possibly has an elliptical or deformed aperture. Fig. 2, no. 17 is of simpler thickened flat-topped form and might even be from the base of a chimney pot (it is slightly sanded on top) but is rather more likely to be from the rim.

Miscellaneous

A single sherd of unidentifiable form is either from the simple thickened rim of a small jar (diam. 100 mm, 0.04 EVEs), or possibly from the edge of a tightly curved handle (not illus. NH5128).

Fabric MAV

Chalk-tempered ware with some flint. Moderate to abundant rounded chalk temper usually under 1 mm across. Rare coarser chalk up to 4 mm and even 5 mm noted

(NH1145). Fairly common rounded quartz generally under 0.5 mm. A rarer hybrid MAV/MOE fabric exists with moderate rounded coarse quartz, clear and iron-stained (including spouted pitcher Fig. 4, no. 38). Moderate and occasionally abundant coarse angular and sub-angular flint inclusions up to 4 mm, and in rare cases to 7 mm. The flint is usually grey or dark brown but in many robust thicker-walled vessels is often coarse, angular and white - possibly calcined (a fairly common MAV/MAQ hybrid). Moderate red iron oxide. Sparse shell inclusions, as in MBX, including flattish gastropods - possibly pond snails - and rare bivalves to 2 mm (CC1387). Rare instances of fossil diatoms and an echinoid spine, probably derived from the chalk, have also been noted (NH2225, CC3107). One coarse specimen (MAV/MAQ?) contained rare inclusions of ?limestone, grey clay pellets and glauconite-rich Greensand up to 3 mm (CC2232). Spot-date code ug c Late Saxon to early medieval c 850-1200, mainly perhaps c 1000-1200? See also MBX fabric description.

After MBX, MAV is the commonest pottery fabric found in late Saxon and early medieval contexts in Winchester. With a total of 3,034 sherds it comprises around 21% of the assemblage from the site (also 21% by EVEs). MAV is basically the same as the mainly earlier fabric MBX (see below) but with the addition of flint and quartz. Separation of the two however is sometimes subjective. MAV, especially later on, includes a higher percentage of oxidised or weakly oxidised vessels but brownish-grey and reduced vessels are also common. The flint content also adds extra hardness and density. The gradual addition of flint to the fabric may have been deliberate and was perhaps more suited to the production of larger, thicker-walled or robust vessels such as large jars or storage jars and even large spouted pitchers. The source of this flintier fabric is assumed to the same as MBX and therefore local. They certainly share many typological and technical as well as fabric characteristics. There is also a fairly broad fabric overlap with flint-tempered MAQ but they have some significant typological and technical differences. Similarly, but less commonly, there is a fabric overlap with MOE.

Manufacture

Vessels in this fabric are handmade in exactly the same way as MBX (see below). Some jar/cooking pot rims may however have been finished on a turntable. Specific construction techniques, where noted, will be discussed with the relevant vessel forms

below. As with MBX, the assemblage includes two small enigmatic sherds that appear to be totally wheel-thrown. One of these has external horizontal rilling or cordons like wheel-thrown Portchester ware and might just be a misidentified example of the latter (NH3126, Phase 6). The other sherd is thin-walled and possibly wheel-thrown but does not appear to be in the Portchester fabric; the context is early (BW4, NH3405, Phase 4.2).

Ten sherds in this fabric bear tiny spots or splashes of clear brown and greenish-brown glaze (max.7 mm). Interestingly these all come from the Brudene Street East Properties BE2, BE4 and BE5. Six of these sherds, probably from large jars or spouted pitchers, come from BE2 and come from at least two vessels including a sagging base sherd. Two sherds are from a Phase 4.2 context (CC1381) and the others from Phase 5 (CC1368, CC1643). The two sherds from CC1643 might be from a large jar/spouted pitcher with combed decoration in a related context. The single small sherds from BE4 (CC2027) and BE5 (CC3036) are both from Phase 5 contexts. On some sherds the glaze spots can be seen to have formed around a central pinhole caused by small lead pellet. Although the glazing on these sherds is certainly accidental it does, however, suggest that other glazed wares may have been fired in the same kiln, probably higher in the kiln stack. At this early date (possibly discounting the Phase 4.2 sherds as erroneously phased) it is difficult to know what these other glazed wares could have been, since no examples of MAV with a deliberate glaze have ever been identified, therefore they must be in another fabric. Winchester ware (*c* 950-1100) seems unlikely, though not impossible; glazed tripod pitcher ware (MAD *c* 1050-1225) seems rather more likely. Glazed ridge tiles etc. (perhaps from *c* 1150) might also be a possibility although these heavy objects would probably have been stacked underneath pottery rather than above it - assuming they were even fired in the same kiln. At present one can only speculate on the significance of these accidentally glazed MAV sherds although they probably indicate that large, sometimes oxidised, MAV jars/spouted pitchers (probably including those with combed decoration, see below) were being produced at the same time when glazed wares became common in the city - probably during Phase 5 (*c* 1050-1225) when glazed tripod pitchers became common.

Dating

Small quantities of chalk- and flint-tempered ware seem to have been around from the start of the late Saxon pottery sequence in Winchester contemporary with the appearance of MBX. The gradual rise of flinty MAV at the expense of chalky MBX during the course of the 10th-11th centuries is demonstrated in numerous stratified sequences in the city but it is not so easy to pin-point the date by which MAV became common. This is of some significance since the start-date for MAV, in quantity, is taken as one of the main dating indicators for the start of Phase 4.2 (*c* 950-1050; see site ceramic phasing). MAV begins to occur in quantity in the city in contexts also containing the late Saxon finewares Michelmersh ware (MMU) and glazed Winchester ware (MWW) both of which are dated from *c* 950 onwards (Holmes and Matthews forthcoming, table 3.2.1). MAV is evidently very similar to a late Saxon 'Chalk-tempered ware' at Southampton which is described as "a thick, heavy, coarse fabric tempered with chalk, flint, sand and shell" and parallels with the Winchester fabric are drawn (Fabric 901; Brown 1994, 133). The same report goes on to say that the Winchester vessels in this tradition "occur at the earliest in mid-10th-century deposits (K. Barclay pers. comm.)" (ibid.).

The gradual rise of MAV is also seen in the quantified data from the site (Tables 4-6). Sherds count and EVEs data are in close agreement on this but weight gives slighter higher figures. The 22 sherds identified from Phase 4.1 (*c* 850-950) comprise 1.7% of that phase (4% EVES/Weight). In the following Phases, 4.2 and 5, MAV comprises around a quarter of both assemblages (around a third by weight). The surprising sudden drop in Phase 6 (*c* 1225-1550) to between 3 and 5% is likely to be anomalous - a distortion caused by high residuality levels and perhaps the relative smallness of the phase sample (as explained in the MBX dating section). MAV probably continued in production into the early 13th century, perhaps even as late as *c* 1250 but on a much diminished scale. However, the handmade fabric identified here as MAV shows little typological influence from high medieval coarseware industries in the region including the regional wheel-thrown coarseware MDF, or further afield from wheel-thrown Southampton coarseware (*c* 1250-1350; Brown 2002) which is almost as coarse as MAV. The end date of MAV is perhaps also confused by increasing similarity to other flint-tempered fabrics such as MAQ and MTE and the likelihood of confusing these. This is particularly likely in the case of local occurrences of the Newbury-style fabric MTE. The latter, although sometimes wheel-

thrown, is not easily distinguished from either late MAV or MAQ and recent scientific analysis suggests the Newbury-style fabric found in Winchester may be a local product rather than an import from Berkshire (Alan Vince pers. comm.). If the data for MTE is added to that for MAV, therefore, the local decline of the latter may not have been so sudden as the Phase 6 data would seem to indicate. Handmade coarsely flint-tempered fabrics such as MAV seem to have fallen out of popularity in Winchester by *c* 1200 by which time several other competing coarsewares were available including wheel-thown MDF which seems to have displaced all other coarsewares as the 13th century progressed.

Jars

Jars, plain or otherwise, are easily the commonest single vessel form in MAV (74% of identifiable forms by EVEs, 75% sherds; Table 7). The identifiable MAV vessel forms in Phase 4.1 (*c* 850-950) comprise six rim sherds from five jars and one from a large decorated spouted pitcher (Fig. 3, no. 34). The sample of identifiable MAV vessel forms in the earliest and latest phases (Phases 4.1 and 6) is probably too small to detect significant trends but the larger Phase 4.1 and 5 samples suggest that the ratio of jars to other forms remained fairly constant. As with MBX vessels are typically globular and with a rather wider range of simple everted plain, and particularly thickened and beaded rims, and invariably a plain sagging base (Fig. 2 nos 19-21 and 23; Fig. 3 nos 27-30). Wall thicknesses as thin as 3 mm and base thicknesses up to 16 mm have been recorded - exactly as MBX - although the number of thicker-walled base sherds noted is considerably higher than the latter. Manufacture was handmade as MBX with occasional turntable finishing of the rim (see below). The shoulder carination seen on MBX jars, a by-product of attaching the rim, is equally common in MAV (Fig. 3, no. 27).

Inevitably the broad ‘jar’ category here will include rims from spouted pitchers lacking diagnostic evidence of spouts or handles and may also include a few hybrid jar/bowl forms. The diameter range of jar (and bowl) rims is shown in Chart 2. This shows a diameter range between 100 mm and 400 mm for jars. The very largest instances above, say, 360 mm could feasibly be bowls or inaccurate readings but there are some very large diameter jars in this fabric (Fig. 3, no. 28 diam. 330 mm, no. 27 diam. 340 mm). The smallest-sized jars are fairly rare (Fig. 2, no. 19). There is a fairly even distribution of jar diameters, however, between around 100-300 mm but rising to

a clear peak around 190 mm and therefore not so different from chalky MBX (peak *c* 180 mm). The size-range of MAV jars, overall, is quite similar to MBX with the exception that MAV has a slightly higher frequency of larger jars (above *c* 300 mm) perhaps showing a slight interest in the production of larger cooking pots and storage jars as time went by. Whereas the peak range of MBX jar sizes (*c* 140-180 mm) follows the usual late Saxon pattern for fairly small jars, MAV, on the other hand has a much less easily definable peak range but diameters of around 150-210 mm are certainly common and hint perhaps at increasing vessel size and the early medieval preference for larger cooking pots, although this preference is not as marked in MAV as one might have expected given that the fabric may have outlasted MBX production.

The range of jar rim forms show rather more diversity than that of MBX rims with a gradual drift away from the ubiquitous plain straight rims of the latter to a variety of everted straight and, increasingly, curved necked rims nearly all showing external thickening or beading. At the same time vertical necks, straight or curved, also become commoner (Table 8). Attemps to chart the evolution of simpler MBX-type rims to slightly more developed MAV-type rims are considered in more detail elsewhere (see MBX section).

The commonest single rim type found on MBX jars, but still common on MAV, is the plain everted straight rim with an external bevel (Type A3B, Fig. 2, nos 23-4). This comprised 42.86% (by EVEs) of all MBX jar rims but only 18.94% of MAV rims. The commonest single rim type on MAV jars, comprising 22.42%, is very similar to the latter in being straight but it also has an external thickening or incipient bead (Type A3C, Fig. 2, nos 19 and 21; Fig. 3 no. 28). The other MAV rim types and sub-types, all fairly closely related, can be grouped in various ways but the main underlying trend is the increasing domination of rims that are externally thickened or beaded. Increased neck curvature is also apparent - moving the shape of jars away from the more angular-necked profile of MBX forms (still evident in Fig. 2, no. 23) towards the more curved or slack-necked forms found in MAV (Fig. 2, nos 20 and 22). After the two main rim types in MAV Type C3B, with a straight neck and external triangular bead, is also fairly common at 12.64% of all rim forms (Fig. 2, no. 22; Fig. 3 no. 34; Fig. 4, no. 35). The several other rims types and sub-types are individually so significant. Collectively the MBX-style plain straight rims (A3B, A3B.C, A3A, A3A.C) comprise nearly 26% of all jar rims. Adding the plain curved

externally bevelled types (A2, A2.C) to these increases this figure to around 32%. The externally thickened group of rims collectively comprise 54% (A1C, A3C, A3C.C, C2, C3B, C3B.C) with very minor rims types or variants making up the difference. As with MBX, therefore, individual MAV rims are only of fairly limited use for dating purposes although assemblages of rims (from pit groups etc) offer better prospects for this.

Thumbed decoration occurs on 10.5% (by EVEs) of all MAV jar rims (total 62 thumbed rim sherds), but it is uncertain, given that no complete vessels exist, whether these are from plain jars or spouted pitchers. The evidence indicates that most decoration on MAV vessels occurs on spouted pitchers, so this will be considered in a separate section on decoration below.

Bases, as in MBX, are invariably sagging (Fig. 2, no. 21; Fig. 3, no. 30). Base fragments with diameters up to 360-80 mm have been recorded (CC1380). Being the commoner form some of these bases are almost certainly from large jars but a few are probably from bowls. The predominant function of most plain jars, like those in MBX (see below) was cooking and storage. External sooting is very common. One very large jar (diam. 360 mm, similar to Fig. 3, no. 27) shows sooty trails externally dripping from the top of the rim - evidence that some very large jars were used for cooking as well as storage (not illus. NH6043). Like MBX a considerable number of MAV jars (and at least one bowl) show evidence of internal purple staining from the dye madder (see MBX and elsewhere). A single sherd in this fabric comes from a handle of narrow sub-rectangular cross-section (33 mm wide), possibly belonging to a cauldron-like jar such as occur in MTE (see elsewhere), and possibly an example of that fabric (not illus. NH1015, Phase 5).

Decoration (jars and spouted pitchers): General observations

As with MBX, what little decoration occurs on MAV seems to occur almost exclusively on jars and spouted pitchers, but mainly on the latter. There is also a single example of a bowl with a thumbed rim (see bowls) and a curfew handle with thumbed decoration (see curfews). It is clear though that decoration is commoner on MAV than on MBX, but again this mostly takes the form of rim thumbing. Including thumbed rims the number of decorated MAV sherds is 165 or 5.4% of the MAV sherd total (3,034 sherds) (compared to 78 sherds or 1.24% of the MBX sherd total). The figure for EVEs is considerably higher at 19.7% of the total EVEs (33.06 EVEs) but

this reflects the fact that this method of quantification is biased towards rim sherds and also reflects the fact that the rim area is the area most likely to be decorated. The same figure for MBX is 8.26% of the total EVES (65.74 EVEs). It is clear however that even though the quantity of MAV excavated is only half as much as MBX, yet MAV is more than twice as likely to be decorated. This might be a chronological phenomenon or it might reflect a preference by MAV potters for decorated vessels.

Thumbed rims on jars/spouted pitchers (88 sherds) comprise 62% (by EVES) of all decorated sherds (or 53% by sherd count). Other types of decoration are much less common and some occur in combination with other decoration types and are difficult to quantify separately (eg. on highly decorated spouted pitchers). As with MBX three main types or styles of thumbing can be recognised. Continuous thumbing (RTC) along the outer edge of the rim is easily the most popular style (89%, by EVEs, of all thumbed rims, eg. Fig. 3, no. 31; Fig. 4, no. 38). The other two styles are much rarer These comprise spaced thumbing or spaced individual thumbed impressions around the rim (RTS, 7%, Fig. 2, no. 24), and grouped thumbing (RTG) or spaced groups of two or possibly three thumbed impressions (RTG, 4%, not illus). A single thumbed MAV jar rim (RTC) is already present in Phase 4.1 deposits (NH4623). Most other types of decoration seem to be related to spouted pitchers and so will be discussed there.

Spouted pitchers

All of these have been identified by the presence of a tubular spout attached to the shoulder, or the scar of one. There is no definite evidence for handles (but see below). Spouted pitchers are relatively rare in MAV with only 47 sherds positively identified (mainly rims), though representing a minimum of 14 vessels. Nine of these are decorated in some way while five are plain. Spouted pitchers comprise 6.68% (by EVEs) of all MAV vessel forms (or 7.63% by sherds). A single vessel occurs in Phase 4.1 (Fig. 3, no. 34) but most of the other sherds occur in Phase 4.2. Manufacture is as that described for MBX spouted pitchers (see elsewhere).

The form is indistinguishable from plain jars apart from the addition of a tubular spout. One or two examples have a shoulder carination from attaching the rim (Fig. 3, no. 33; pronounced on CC3017, not illus.). Seven complete or nearly complete tubular spouts have survived. Spouts vary in length from 37-45 mm and from 25-33 mm diameter at the apex. The nine vessels with measurable rims have

diameters of 120-300 mm. There is a slight size clustering around 170-220 mm. The two vessels with the largest diameters are particularly robust forms (Fig. 3, no. 34; Fig. 4, no. 38; see also Fig. 2, no. 26). Thumbed decoration occurs on 70% (by EVEs) of all spouted pitcher rims (or 63% sherds), which is considerably higher than the 10.5% for 'ordinary' jars (see above). Nearly all the other types of decoration noted also occur on spouted pitchers and there can be little doubt that most decoration on MAV was reserved for this form. There probably are instances where non-thumbing types of decoration were occasionally carried out on ordinary jars and other forms but these are probably rare and without more complete examples their existence is difficult to prove.

Spouted pitcher rims tend to be more upright and likewise flat-topped providing a surface for thumbed decoration or a characteristic decoration of incised oblique strokes or notches along the top of the rim which is seen on several examples (Fig. 3, nos 33-4 and decorated jar Fig. 4, no. 35). This type of rim decoration, in combination with combed decoration on the body, is characteristic of a group of large spouted pitchers that might be termed 'Royal Oak-style' spouted pitchers after the almost complete type example found in 1956 at the back of the Royal Oak public house on the St George's Street, Winchester excavations (Dunning 1959, fig.10; Cunliffe 1964, fig. 34.1). The fabric of this vessel is described simply as a "grey flint-gritted ware fired red on the surface, but discoloured to brown and grey on the lower part of the body". It is, however, definitely an example of MAV (the coarsest flint gritting seems to have been reserved for the most robust forms). This remarkable and impressive vessel, on display in Winchester City Museum, stands to a height of around 572 mm, has a rim diameter of around 335 mm and a base diameter of around 332 mm. The rim is decorated with incised oblique stokes. On the shoulder is a (two-pronged) combed horizontal band of interlaced chevrons or wavy lines (forming a lattice) and contained by an upper and lower incised border line using the same tool. Uniquely this spouted pitcher has three stubby vertical loop- or ring-handles spaced equidistantly around the vessel within the decorated shoulder band. The rim is straight, flat-topped or bevelled and with an incipient external bead (Type A3C). Dunning considered this vessel to be early 12th century. This date, however, appears to be largely based on the presence of two sherds of green glazed Winchester ware in the same pit context. As the end-date for this ware is now thought to be *c* 1100, an earlier, probably 11th-century date, now seems more appropriate although an early

12th-century date is not impossible either. The only other three pieces (all MAV) published from the same pit as the pitcher do not contradict this. These include a jar/cooking pot with carinated shoulder (Cunliffe 1964, fig. 33.14) and two sherds from a thick-walled vessel decorated with circular gridiron stamps and applied thumbed strips (ibid., fig. 33.15-16). Technically there is no real objection to dating this pit to anywhere within the whole date-range of Winchester ware (*c* 950-1100) but, on balance, an 11th-century date is rather more likely.

There are several, more fragmentary, examples of this decorative scheme amongst the spouted pitchers and also amongst other similarly-decorated sherds which probably come from spouted pitchers. Another common characteristic of the more robust vessels with this decoration is that their external surfaces frequently have an oxidised orange-brown firing colour and the internal surfaces a pale grey colour - as noted on the Royal Oak pitcher above. Because of the fragmentary nature of the assemblage, these decorative features only occasionally occur together on the same vessel. These all occur on Fig. 4, no. 35, but this vessel lacks evidence of a spout. Body sherds Fig. 4 nos 36 and 37 should be included here – the combed shoulder decoration is almost exactly as on the Royal Oak pitcher but the interlaced chevrons here are rather more acute. In terms of size and firing colour Fig. 3, no. 34, with its rim decoration, should also be included in this group although no combing is present on the surviving sherd. In total combed decoration occurs on just 22 sherds in this fabric, 6 of these occur in Phase 4.2 deposits (*c* 950-1050) but the majority occur in Phase 5 (*c* 1050-1150) which fits with Dunning's suggested dating for the Royal Oak pitcher. The one exception is Fig. 3, no. 34, with its incised rim decoration, which is the only MAV spouted pitcher from Phase 4.1 (*c* 850-950). This seems surprisingly early, but not impossibly so, but it is probably best to treat this date with caution until other evidence turns up. A l0th to 11th-century date seems more likely for the majority of decorated spouted pitchers in this group, possibly with continuation into the early 12th century. Other elements of the Royal Oak style of decoration occur on smaller spouted pitchers, including combed interlaced wavy bands on the smallest example identified (Fig. 3, no. 32) and crude incised oblique stroke decoration on the rim of Fig. 3, no. 33, but these vessels are somewhat different from the main group, if only in size. It is worth noting that three sherds of MBX also have Royal Oak-style decoration - a stroke-incised jar rim and two small combed sherds (not illus. All from Phase 4.2).

Whereas the smaller vessels might have been used for dispensing liquids at the table, the very largest spouted pitchers, such as the Royal Oak pitcher, and perhaps Fig. 4, no. 38, were probably too cumbersome for this and probably sat on the floor and were gently rocked on their bases to pour their contents rather than lifted and poured. Numerous robust base fragments, possibly from large pitchers, have been noted with a film or layer of scorched clay on the underside possibly reflecting the fact that larger vessels such as these were sometimes stored on wet muddy ground. This clay layer may occasionally have been accidentally scorched by contact with domestic (or industrial) fires. One or two smaller spouted pitchers show evidence of external sooting (Fig. 3, no. 31).

Incised line decoration, as opposed to combing, also occurs on the bodies of a very small number of other spouted pitchers and also on a few body sherds probably derived from them. This sometimes occurs, but only very rarely, on highly decorated spouted pitchers that also have other types of body decoration including stabbed pits and stamped decoration (Fig. 4, no. 38). This vessel appears to be unique amongst the MAV assemblage from the excavations here; it is certainly the most highly decorated vessel in the assemblage, has some of the most unusual decoration and the largest diameter for this vessel type (300 mm). All fifteen sherds (0.40 EVES) with this style of stabbed pit and incised line decoration come from closely related contexts on BW4 (Phase 4.2) and appear to come from the single vessel illustrated here. The fabric too is slightly unusual and something like a MAV/MOE hybrid with abundant coarse rounded clear and iron-stained quartz inclusions as well as the usual chalk and flint. The firing colour is oxidised orange-brown outside and reduced inside (like the Royal Oak pitchers above). There is a complete tubular spout on the shoulder and further along the circumference of the shoulder is the scar of another applied feature – possibly another spout – at right angles to the other. This might, of course, be the scar of a stubby handle, as on the Royal Oak pitcher, but alternatively it might be another tubular spout. A parallel for this exists in a similarly highly decorated large spouted pitcher from Chichester which has no less than three equidistant tubular spouts, and occurs in a related flint- and chalk-tempered fabric (McCarthy and Brooks 1988, fig. 98.374). The Chichester pitcher, dated to the 11th or early 12th century, also has stamped circular decoration on the inner rim and shoulder as well as applied thumbed strips below each of its spouts (see below).

If anything, however, the Winchester pitcher is more highly decorated than the Chichester one. The rim is continuously thumbed but in an oblique style. The inner surface of the rim is covered with a row of cross-in-circle stamps (each 9 mm diam.). The body is decorated with unusual strap-like incised bands containing a row of stabbed dots or pits. There are three horizontal bands on the shoulder and one at the girth. These appear to have been linked at intervals by vertical bands. Three other bands radiate downwards and outwards from below the spout and link up with the girth band. One might speculate if this scheme of body decoration has any significance – it might, fancifully, recall the reinforcing straps and studs on leather or coopered wooden vessels, or even on sheet metal cauldrons? Other interpretations are possible but this interpretation has a parallel on a unique Winchester ware vessel in Winchester Museum which is in the shape of a gourd-like leather bottle or costrel similarly decorated with incised and studded straps as here (Biddle and Barclay 1974, fig. 6.26). The incised array of three bands below the spout of Fig. 4, no. 38, however, echoes the position of reinforcing applied thumbed strips occasionally seen on other spouted pitchers and jugs of this period and is particularly well exemplified by the Chichester pitcher described above. The potter who made the Winchester spouted pitcher had probably seen decorated vessels like the Winchester ware costrel and the Chichester spouted pitcher since his incised strap decoration seems to copy the general idea of reinforcing strips or straps from both but, like the Winchester ware costrel, this was purely a decorative rather than functional feature.

It is further interesting to note, therefore, that the very rare instances of a MAV vessel with applied thumbed strips include a spouted pitcher fragment with vestiges of a horizontal and a diagonal thumbed strip attached below the spout area in a similar arrangement to Fig. 4, no. 38 (NH4334, BW2, Phase 5). The ten MAV sherds with applied strip decoration represent perhaps three vessels, seven of these sherds are probably from a single vessel from Phase 4.2 contexts on BW2 and might just be the same as the strip-decorated vessel just mentioned. The other sherd is from a Phase 6 context (NH3252, BW3). The combination of incised lines and (deeply) stabbed dots or pits seen on Fig. 4, no. 38 occurs only on one other MAV sherd (Fig. 4, no. 40, presumably residual in an unsampled high medieval context NH5022). This is from the carinated shoulder of a jar form, presumably a spouted pitcher, with incised diagonal line and dot decoration – perhaps an allover external scheme. One unusual spouted pitcher rim has a row of shallow stabbed pits on the outer face of its

beaded rim (Fig. 4, no. 39, Phase 5, possibly MTE). Another small body sherd has closely-spaced rows of incised lines, probably vertical (Fig. 4, no. 41, Phase 4.2).

Stamped decoration occurs on only three MAV vessels but only one is definitely a spouted pitcher (Fig. 4, no. 38), but the other two jars are very likely spouted pitchers also (Fig. 2, nos 25-6). These are represented by nine rim sherds (0.57 EVEs) with continuously thumbed decoration. The spouted pitcher (Fig. 4, no. 38) has been described above. On the latter the stamped decoration is only one of the decorative elements on this highly decorated vessel. The stamps are neatly executed circular cross-in-circle stamps 9 mm across, positioned in a continuous row on the inner surface of the rim. The large circular gridiron stamps on the other two vessel are similar to each other. On Fig. 2, no. 26 (Phase 4.2), the surviving stamps also appear to be positioned in a row on the inner surface of the rim – a fairly common Saxo-Norman decorative scheme on jars and spouted pitchers. The stamps (17 mm diam) are crisp and detailed with a grid of four parallel bars clearly visible. With a rim diameter of *c* 310 mm this would make it slightly larger than the largest diameter recorded for spouted pitchers in this fabric (Fig. 4, no. 38, 300 mm diam.). The last vessel (Fig. 2, no. 25) is unique amongst the MAV jars/spouted pitchers in having evidence for stamped decoration on the body of the vessel rather than on the rim area. Traces of at least two poorly preserved circular gridiron stamps (*c* 15 mm diam.) are present on the shoulder. Stamped decoration on the body is more typical of (?earlier) MBX jars/spouted pitchers (see elsewhere) but is very rare on this closely related fabric too. It also occurs on the shoulder of the Chichester spouted pitcher discussed above. The bright orange firing colour of Fig. 2, no. 25 is unusual too but the abundant flint and chalk suggest a MAV rather than an MBX fabric identification. Nevertheless, this could be quite early in date, partly because of its unusual decoration and also its unusual context (NH1215, unsampled. Described as the 'Dark earth', but possibly intruded into it?).

Impressed decoration is represented by a single substantially complete vessel in this fabric (Fig. 3, no. 31, Phase 4.2; 0.89 EVEs). This has a continuously thumbed rim and three horizontal rows of deep finger-impressed decoration, or dimpling, on the shoulder. Body sherds from two other vessel with this distinctive style of decoration were identified in MBX, both from early contexts (see MBX section below). This vessel is heavily sooted externally from use on or by a fire (presumably for heating liquids) and there are traces of limescale on the lower inside walls. An

identical vessel, presumed to be of 11th-century date, is published from Hyde Street, Winchester (Collis 1978, fig. 50.6). Extensive dimple decoration, such as this, is not readily paralleled in other late Saxon pottery industries. It does however occasionally occur on glazed 12th-century tripod pitchers in Ashampstead-type ware (Berks.), including a pitcher from Oxford (Mellor 1994b, fig. 27.31; McCarthy and Brooks 1988, fig. 166.1001), and it occurs quite commonly on early rounded jugs of similar date in London-type ware (Pearce *et al*. 1985, fig. 18.31-2). Possibly the style was rediscovered independently by different potters at different times.

Bowls

Bowls are fairly common in this fabric - considerably more so than in MBX. A total of 79 sherds is assigned to this form. Overall they comprise 7.17% (EVEs) of all MAV forms (or 12.82% sherds). They are absent from Phase 4.1 contexts but are present in Phase 4.2 and especially Phase 5 contexts. Bowls form 9% (EVEs) of the MAV assemblage from Phase 5 (64 sherds, or 18.93% by sherds) when the form was clearly most popular. The MAV assemblage from Phase 6 is too small to be meaningful and probably residual by now.

Bowl diameters range from 150 mm to 400 mm, although the smallest example could be a lamp or something unusual (see Chart 2). Most fall within the 210-330 mm range. There is a distortion at 270 mm caused by a single bowl with 100% of its rim surviving (Fig. 4, no. 42). As with MBX they have a very limited variety of simple rim forms - predominantly upright thickened flat-topped types (Type B2U: Fig. 4, nos 45-6), often nearly hammerhead with a slight external and/or internal bead (Type B2A: Fig. 4, no. 44; see also MTE bowls), less commonly plain upright or plain upright and flat-topped (Types A1U and A2U: Fig. 4, no. 42). Most examples have steep outwardly flaring walls although a rarer type exists with near-vertical or even slightly inturned walls (Fig. 4, no. 43). Bases seem to have been invariably sagging. On at least three examples (including Fig. 4, nos 43 and 44) one can see fairly clearly where the rim was added as a separate coil to the handmade body and then finished off on a turntable although the internal join-line was not always fully erased.

At least four examples of bowls with applied tubular socket handles (similar to those in MBX) were identified including the unusually deep profile shown in Fig. 4, no. 42 (BW5, Phase 5). These have diameters in the 230-330 mm range. The unusual

and almost complete (though crushed) bowl shown in Fig. 4, no. 42 had 100% of its rim surviving. Attached to the rim is a tubular socket handle (55 mm diam.). The deep form of this vessel falls somewhere between a bowl and a bucket-like jar. The exterior is heavily sooted allover from use as a cooking vessel and the internal surface is partly dissolved through boiling. A tubular handle from a separate bowl (same handle diameter) was found in the same pit context which also contained an unusually high number of butchered animal bones. Fig. 4, no. 43, with its unusually inturned rim may also have been a deep socketed bowl like Fig. 4, no. 42. The tubular handles from the other two socketed bowls have handle diameters of 54 mm and 60 mm respectively.

External sooting confirms the cooking function of most bowls. One vertical sided bowl with a thickened flat-topped rim (diam. 280 mm) has traces of purple madder staining internally - the only bowl in any fabric from these excavations to show this (not illus. CC2256, BE4. See madder discussion elsewhere). The very largest bowls (eg. Fig. 4, no. 45) might also have served as curfews.

Oil lamps

Lamps are fairly common in MAV with 23 sherds identified representing at least 14 lamps. By EVEs (12.22% of all MAV forms) they are somewhat over-represented due to the good survival of their robust, small-diameter rims. The figures for sherd counts and weight are considerably lower (3.73% sherds, 2.67% weight). In fabric and form MAV lamps overlap both with chalky MBX at one end of the range and particularly with flinty MAQ at the other. MAV lamps are absent from Phase 4.1 but fairly common in Phases 4.2 and 5. The 2 sherds in Phase 6 are probably residual. Six complete profiles survive. All lamp sherds are sooted internally, and sometimes externally from use, sometimes very heavily.

Where enough of the profile survives two main types of lamp can be recognised, spike cresset lamps and pedestal-footed cresset lamps (as with MBX etc). These all have very simple types of plain or thickened upright or flaring rims, mostly flattened on top. The form is basically that of a small dish or bowl with a spike or pedestal foot attached. Five spike-footed cresset lamps have been identified (Fig. 5, nos 47-8). These have a carinated profile and a pulled lip. The interior of Fig. 5, no. 47 is heavily soot-encrusted and in this can be seen multiple scratch-marks probably made with a knife or similar tool while scraping this residue out. Spike cresset lamps appear to have generally smaller rim diameters than pedestal-footed cresset lamps.

The four measurable spiked examples fall within 60-82 mm. The two measurable pedestal-footed examples are within 83-110 mm. Excluding rarer lamp types the full diameter range of the two main types is 60-130 mm with a cluster (five examples) within 120-130 mm. The largest five examples are too incomplete to ascribe to one or the other type but are perhaps mostly pedestal types. At least three pedestal-footed cresset lamps can be recognised, the illustrated example shown here is the most complete although the rim and base are badly chipped in places (Fig. 5, no. 49. This has a broad horizontal zone of heavy sooting externally below the rim and is equally heavily sooted allover internally except for a circular area 25 mm across in the dead centre of the lamp - presumably where the pool of lamp oil prevented this from happening. The pedestal foot is hollowed or recessed to varying degrees creating a small footring. An almost complete profile, lacking its footring, has broken vertically allowing the construction technique to be inferred - the stem was probably hand-rolled while still plastic thus creating a narrow void all the way up the centre to the bowl, although this would have been invisible from the outside (not illus. CC2326). No pulled lip was noted on the surviving rims of this type of lamp. Two of the spike lamps occur in Phase 4.2. The earliest instance of a MAV pedestal lamp occurs in Phase 5 but these may just be fortuitious.

There are two single examples of lamps of more unusual form. Fig. 5, no. 50, which is heavily sooted, is notable for its unusually deep and wide conical flaring form. The lower form of this vessel cannot be determined. Fig. 5, no. 51 is actually a wide bowl or dish (diam. 240 mm) but appears to have been used as a lamp. The interior displays unusual oxidised orange-brown and pale brown narrow horizontal banding or ‘tide marks’ which may be the result of periodic scorching from burning oil fuel as it receded. There is also a narrow zone of sooting on top of the rim and traces of sooty dribbles externally. Other interpretations however may be possible (eg. industrial use?). MAV lamps seem fairly evenly and thinly distributed across seven of the properties although there are at least three from BE4 and the same number from adjacent BE5. All but one of the five spike lamps came from BW/SE properties and all three pedestal footed lamps came from BE properties.

Curfews

Two vessels only (3 sherds) have been identified as curfews (firecovers). Both are in a coarse flinty MAV/MAQ hybrid fabric. The form is that of a large inverted bowl. The

illustrated example (Fig. 5, no. 52, unsampled context) has a diameter of around 450 mm. The interior is dark grey and probably sooted. The other example (not illus. CC1160) is more definite and represented by two joining handle fragments probably from the dome of a curfew. The handle is of strap form with raised thumbed edges and there is a trace of a pre-firing circular perforation behind the surviving handle end - originally one of a pair of such perforations located at either end of the handle where it joined the dome-like lid of the curfew. There are traces of sooting internally. Both examples are from Phase 6 contexts on the BE2 and BE5. Single examples in MAQ and MTE have also been identified from SE2 and BW2 (see elsewhere). Curfews in southern England mainly date to the 12th and 13th centuries.

Chimney pot

There is a single example of this form, residual in a modern context (Fig. 5, no. 53, NH2251). This comes from the thick, crudely handmade, inturned rim of a chimney pot. There are slight traces of sooting on the inner edge of the rim. The surfaces are oxidised to an orange-brown colour. Two other coarse chimney pots from the excavations were also identified. These have a very similar but coarser fabric and have been identified as flint-tempered MAQ (Fig. 2, nos 17-18). Medieval chimney pots are a relatively rare ceramic form, though commonest in Sussex, Hampshire and Kent (Dunning 1961). They are usually dated to the 13th and 14th centuries although a late 12th century date for some may be possible. The examples from the site probably date to the first half of the 13th century and suggest the presence of buildings of middling to higher status.

Fabric MBEAU

Beauvais-type ware (new code). A wheel-thrown cream sandy fabric sometimes with red-painted decoration. Late Saxon import (Brown 1994, 138, Southampton fabric 918). No spot-date code. Late Saxon to early medieval c 900-1100. North-west France. Rare.

There are two sherds (36 g.) from sampled contexts and a further two sherds (47 g.) from unsampled contexts. These are all from the Brudene Street East frontage (CC1022, BE1, Phase 4, unsampled, Fig. 5, no. 54; CC1292, BE2, Phase 6, unsampled, Fig. 5, no. 55; CC1326, BE2, Phase 5; CC3096, BE5, Phase 5). These

represent a minimum of three vessels, possibly jars. The two sherds from BE2 have a red-brown painted lattice design and probably come from the shoulder area of same vessel, possibly a jar (Fig. 5, no. 55). These have a fairly coarse hard pale brown sandy fabric with a light grey core and with rounded clear and milky quartz in the 0.25-75 mm range, along with some sparse flint. The sagging base sherd (Fig. 5, no. 54) is in a coarse, darker, grey-brown, probably heat-altered fabric and is heavily sooted externally in a distinct line 15 mm above the basal angle and also sooted on the floor internally. It has red-painted decoration externally consisting of broad vertical or oblique lines which, unusually, also extend under the base. The fourth example is an undecorated body sherd 10.5 mm thick. Beauvais-type ware is rare in Winchester but a jar sherd with characteristic red-painted ladder motifs has been published from nearby Tower Street (Collis 1978, fig. 81.22). The lattice design on Fig. 5, no. 55 is paralleled on a sherd from Southampton (Brown 1994, fig. 4.39). Cunliffe has published a collared rim jar from Winchester with red-painted vertical line decoration very similar to Beauvais types, but this is believed to be a Normandy import dating to second half of the 11th century (Cunliffe 1964, 109, fig. 36.1). This is probably the same type identified from Southampton as North French red-painted ware (Brown 2002, 186).

Fabric MBK

Fine sandy ware with flint and chalk. Dense matrix of abundant colourless quartz sand inclusions ranging from 0.1 mm to 0.5 mm across, occasionally to 1 mm. Common fine black ironstone (or glauconite) inclusions. Sparse-moderate flint and chalk inclusions up to 1 mm. Sparse-moderate rounded pellets of black or dark brown glauconite up to 0.25 mm. Rare-sparse selenite inclusions (see below). Usually reduced grey, but external surfaces may be oxidised reddish-brown. Despite the inclusion of 'flint and chalk' as part of the common name of this fabric, it should be stressed that this is often, more or less, purely a fine sandy ware with only rare or sparse inclusions of flint and chalk. Spot-date code ug q. Late Saxon to early medieval. Possibly from c 950, mainly c 1050-1150. See 'organic-tempered' variant Fabric MAF. Probably fairly local.

Because of the presence of fine black ironstone, glauconite (and selenite in the closely-related fabric MAF), Blackmore has recently suggested a London Clay source

for this ware. This outcrops to the south of Winchester in an east-west band across the county. A source area to the east of Winchester, probably around Alton or Petersfield, has been suggested (Blackmore 2007). MBK is a handmade pottery tradition.

MBK is one of the commonest late Saxon/early medieval fabrics in Winchester. On the excavations here it is the third commonest fabric found after the major local chalky wares MBX and MAV. The 1,324 sherds of MBK excavated comprise 8.95% (by sherds) of the entire assemblage (or 8.28% EVEs; see Tables 4-6). The four sherds in Phase 4.1 might be regarded as intrusive or misidentified. In Phase 4.2 (*c* 950-1050) there are 69 sherds comprising 1.5% of the phase assemblage (or 1.72% by EVEs). This rises dramatically in Phase 5 (*c* 1050-1225) to 16.54% (sherds) or 16.33% (EVEs) of the phase assemblage. There is still a fair quantity in Phase 6 (*c* 1225-1550; 7.13% sherds, 6.48% EVEs) but by this time most of it should be residual. It is possible that fine sandy MBK is related to, and perhaps evolves into, the sandy medieval fabric MDF. Fabric MBK also has a significant visual overlap with the coarser flint-tempered fabric MAQ - or at least its later manifestation - and there is no doubt that the two are petrologically and technologically closely related. For dating purposes MBK is generally regarded as a post-Conquest ware and it is often associated in the ground with other wares considered to be of this date (eg. glazed tripod pitchers, Newbury-style MTE coarseware). Some MBK jars are also decorated with scratch-marked decoration - a regional style of decoration thought to be mainly or perhaps exclusively post-Conquest in origin (see below). Some MBK however was almost certainly in circulation by the 10th century. It seems likely that the very largest jars in this fabric, which are also the ones most likely to have scratch-marked decoration, are probably a late development but apart from this slight difference there is little to distinguish the pre-Conquest products from those of the post-Conquest. By implication, however, it is likely that likely pre-Conquest jars were smaller and plainer. In those fairly rare cases however where a 10th-century date is suspected for an MBK vessel, it will in the end be a combination of stratigraphic and associated dating evidence that tip the balance in favour of an earlier dating rather than the ceramic evidence alone.

Jars

This is almost exclusively the only form in which MBK occurs from these excavations (98.68% sherds. 98.64% EVEs). Other than this only three other sherds in

this fabric (one vessel) have been identified as a possible crucible (see below). Fine sandy MBK jars are markedly different in form and typology from the two major local chalky wares (MBX and MAV). The main typological difference between these two traditions is that MBX jars have rounded bases whereas the chalky wares invariably have sagging bases, usually with a clearly defined basal angle. Paradoxically the mainly earlier chalky ware tradition has the more advanced-looking base form as the sagging base became the dominant and characteristic base type of medieval pottery industries throughout England. The simpler-looking rounded base reminiscent of, and perhaps descended from, simple baggy-shaped Anglo-Saxon pottery, is however definitely a later development, or re-introduction, in the Winchester area although it was also common on post-Conquest scratch-marked ware at Southampton (Brown 2002, fig. 5).

MBK jars tend to be more fragile than chalky ware jars and no complete profiles could be reconstructed from the assemblage here (Fig. 5, nos 56-60). The rounded base sherds are often difficult to distinguish from body sherds and, while definitely present, no rounded base in this fabric was complete enough to include in the illustrations here. Identical rounded bases however occur on two near-complete flinty MAQ jar profiles (see Fig. 5, nos 59-60) and other profiles are illustrated by Cunliffe (1964, fig. 36.2-4) and in the forthcoming Winchester pottery monograph (Holmes and Matthews forthcoming). MBK jars are notably globular in form with gently out-curved (or 'cavetto') necks and a limited range of plain or thickened rims. The handmade construction technique of MBK jars is distinctive and completely different from the predominant chalky wares. Coiling was probably used to build up the wall but the inner surface is often covered with a series of light finger impressions or dimples where the clay has been worked and pushed-out by hand against a flattened surface, or another hand, in a manner similar to the 'bat and anvil' technique of pottery construction (Holmes and Matthews forthcoming). This internal 'dimpling' however is not seen on every vessel although it is fairly commonly observed (also on MAF and MAQ). The outer surface is usually much smoother than the inner and was probably wiped. Rims were probably added as a separate coil and almost certainly, in many cases, finished-off on a turntable. Attachment of the rim to the shoulder occasionally resulted in a slight external shoulder angle or carination similar to that commonly found on the chalky wares (Fig. 5, no. 58).

The diameter range of jar rims is 110-340 mm. The core size range appears to be around 190-230 mm with a slight peak around 200 mm. After around 230 mm there is quite a marked drop-off in quantity (Chart 3). Only very few jars are as small as Fig. 5, no. 56 or as large as Fig. 5, no. 60 (*c* 340 mm diam.). The commonest rim forms on MBK jars, though simple, are quite distinctive. The single commonest type is a plain or slightly thickened rim, flattened or bevelled-off externally and often with a slight apex or projection which is defined externally by a groove (Type A2P, 40.4% of jar rims by EVEs, 37.28% by sherds). At its most defined this resembles a small collared or sub-collared rim form (Fig. 5, no. 59) but is often slacker than this (Fig. 5, no. 60). Closely related to this is a slacker thickened rim type, roughly sickle-shaped, with an external lower projection and a pointed apex (Type B4 and sub-type B4.C, 17.6% EVEs, 18.35% sherds, Fig. 5, no. 57). These two related types sometimes occur on other sandy-flinty fabrics (eg. MAQ, MOE) and approximate in shape to the ubiquitous large beaded or clubbed rim types found on cooking pots throughout southern England by the 12th century. Less diagnostic, plain everted rims were also very common (Type A1, 27.42% EVEs, 24.26% sherds, Fig. 5, nos 56, 58) and simple everted flat-topped rims (Type A2, 11.52% EVEs, 14.20% sherds, not illus., similar to Fig. 5, no. 60 but simpler).

Fig. 5, no. 56 is notable for its small size (diam. 130 mm) and unusually plain rim form. The fabric of this vessel is also unusual owing to the silty, black, charcoal-like character of the matrix and higher than usual (moderate) content of coarse flint inclusions. The rim is more upright than most other examples and the vessel is also quite thickly potted. This fabric is characteristic of a small number of similarly small plain vessels, all heavily sooted, from Property SE1 and mostly from Phase 4.2 contexts. The character of these vessels is similar to handmade Anglo-Saxon vessels but it is assumed here that these are an early variant of MBK.

Around 15% (by EVES) of all jar rims have thumbed decoration. This is almost exclusively a continuous style of thumbing often lightly executed on the apex of the rim (Fig. 5, no. 59). Rarer instances of widely-spaced thumbed impressions and groups of two or three thumbed impressions were also noted (not illus.). A single example of a thumbed jar rim occurs in the Phase 4.2 assemblage but most occur in Phase 5. Scratch-marked decoration occurs on the bodies of 18% (by EVEs) of jars, or on 17.5% of all sherds. This is rarely as pronounced as scratch-marked decoration on other coarsewares (eg. MOE) and occurs as a series of roughly horizontal or oblique

wipe marks, often quite superficial and possibly done with a cloth or by hand (Fig. 5, nos 59-60). The presence of this type of decoration was taken as an indicator of post-Conquest contexts (Phase 5) during the phasing of the site so it is hardly surprising that none has been assigned to the earlier Phase 4.2. It may be significant though that the 18 jar rims with scratch-marked decoration all have Type A2P rims and have fairly large diameters (190-340 mm) reinforcing, perhaps, the suggestion that post-Conquest MBK jars have larger diameters (as do most jars in all fabrics with scratch-marked decoration). The much smaller assemblage of Phase 4.2 jars in this fabric have diameters in the range of 130-240 mm. Other than rim thumbing and scratch-marking, only one other type of decoration was noted in this fabric. This occurs on a single sherd from the shoulder of a jar with multiple incised vertical or slightly oblique lines (Fig. 5, no. 61, a flintier MBK/MAQ hybrid, with internal dimpling). This might be an attempt to copy the vertical line burnished decoration seen on imported North French greyware spouted pitchers, or perhaps English copies of the latter such as occur at Chichester.

There is abundant evidence for the use of MBK jars as cooking pots from the presence of external sooting on most and internal limescale deposits on many. No sherds in this fabric however were noted with internal purplish madder staining. One jar rim has a small post-firing perforation below the rim (NH4120, Phase 4.2, not illus.).

Crucible or lamp?

A single vessel (3 sherds, 0.18 EVEs), apparently in this fabric, was identified as a possible crucible, or perhaps a lamp? This has a near-complete profile of typical round-bottomed crucible shape and an upright thickened flat-topped rim (diam. 100 mm) - slightly hollowed on top with a trace of a pouring lip. There are traces of sooting internally and externally but the fabric is not scorched in the usual way crucibles are (not illus., NH3213, BW3, Phase 6. See also crucibles section where this vessel is also mentioned).

Fabric MBN

Portchester ware (Cunliffe 1975). A wheel-thrown late Saxon coarseware. Fairly common sands 0.2-1 mm in a smooth clayey matrix. Some flints, 0.5-1 mm. Elsewhere described as a hard sandy fabric tempered with finely crushed flint grit and fired to a

reddish or brown surface (Hurst 1976, 336-7). Some examples are quite micaceous. Mainly jars/cooking pots often with rilled and sometimes crude rouletted decoration. Spot-date code porm. Late Saxon to early medieval. Appears in Winchester around the same time as Michelmersh ware (see MMU below) and is broadly contemporary with it, perhaps c 925(?)-1050. The kiln source is not known but was probably in the Portchester area.

Portchester ware is uncommon in Winchester and very rare in the assemblage here. Only 19 sherds (0.18 EVEs) were identified. Fifteen of these occur in Phase 4.2 and four in Phase 5. These mainly occur on the Brudene Street West frontage (12 sherds from Properties BW2-5) but seven sherds occur on the East frontage (BE2, BE4 and BE5).

Eight sherds from five vessels are decorated with horizontal bands of square rouletting and one is rouletted on top of the rim (Fig. 5, nos 62-4). Only three rim sherds were identified, all from jars. The rouletted example (Fig. 5, no. 62, perhaps a spouted pitcher?) has the smallest diameter (120 mm) and a simple everted rim form. The other two rims are plain and have larger diameters (200 and 210 mm) and plain straight everted rims with a bevelled or flattened top (Type A3B - also the commonest rim type on late Saxon chalky ware fabric MBX). One sagging base sherd was also identified (diam. 200 mm). Several body sherds including some rouletted ones (Fig. 5, nos 63-4) have marked external rilling or ribbing which is a distinctive characteristic of this ware. Several sherds show external sooting from use as cooking vessels.

Fabric MBX

Chalk-tempered ware. The single most dominant fabric in late Saxon assemblages in Winchester. With a total of 6,253 sherds it comprises 42% of the pottery assemblage from the site (or 41% EVEs). Spot-date code ug c Late Saxon to early medieval c 850-1150, mainly perhaps c 850-1050? See also MAV, the flintier variant. Probably local.

Dating

The start date of MBX is generally taken as *c* 850, or around the date of the Alfredian urban renewel of Winchester. The end date is much harder to fix as the forms show very little typological development. A gradual decline from almost complete dominance of the assemblage at the start to much lower levels by the end of the

medieval sequence is clearly traceable in the quantified data (Tables 4-6). But this, however, still leaves the end date of MBX open to speculation. It is assumed, and seems almost certain, that MBX, the purely chalk-tempered fabric, gradually yielded ground to the flintier chalk-tempered variant MAV during the course of the 10th-11th century after which MBX gradually faded out during the course of the 12th century and was perhaps gone by *c* 1150. The smooth exponential fade-out of MBX is not so clearly documented by the quantified data. All three quantification methods show MBX dominating in Phase 4.1 where it formed about 90% of the assemblage. This dropped to around half the assemblage (50-60%) in Phase 4.2 and around a quarter of both the Phase 5 and 6 assemblages. The 'flattening-out' of this decline curve in the last two phases is puzzling, particularly in Phase 6 (*c* 1225-1550), the high medieval phase when MBX was certainly defunct and probably MAV too. The surprisingly small quantity of MAV present in Phase 6 compared to the relative high quantity of MBX is equally puzzling since by this date one would expect more of the later fabric than the earlier. These anomalies, probably exaggerated in Phase 6, are not considered to be a true reflection of the relative quantities of pottery types in circulation at this time. It has already been suggested in the introduction (see above) that up to two thirds of the pottery in Phase 6 contexts could be residual. Coupled with this is the fact that the Phase 6 assemblage is a much smaller sample than the two preceding phases and this could partly, but not wholly, explain the unusually low MAV presence. The unexpectedly large quantity of MBX in Phase 6 should therefore be regarded as evidence of high levels of residuality and not of the continuation of this fabric into the 13th century. The end date of MBX cannot therefore be reliably deduced from this assemblage.

Fabric and source

Heavily tempered with rounded chalk inclusions, mostly around 1 mm across, occasionally larger, up to a maximum of 5 mm (NH4021). Sparse to moderate red iron oxide. Rare to sparse flint inclusions of variable size. Rare to moderate rounded and sub-angular quartz inclusions. Rare rounded grey mudstone or clay pellets up to 10 mm (CC2169). Generally quite hard-fired and dense. Compact silty or earthy matrix which often exhibits common very fine mica, also on the surfaces which sometimes have a soapy feel. Firing colour is most commonly dark grey or brownish-grey but other rarer shades include weakly oxidised orange-brown, rare oxidised

orange and rare pale grey shades. Tonal variation on the same vessel is fairly common but not usually very pronounced. Under the thin darker surface a thin orange-red margin is very common and a broad grey core within this. Vessel surfaces are sometimes slurried or wiped with a self-coloured liquid clay wash which has the effect of obscuring inclusions beneath. Samples with a particularly abundant and relatively fine chalk tempering are generally considered fairly early. Chalk has very often been dissolved from the interior of vessels, particularly cooking vessels (jars mainly), by the acidic content of whatever was prepared in them, leaving the interior surface vesicular or corky. This often causes flaking of the internal surface which in extreme cases may completely disintegrate. Most of the chalk occurs as featureless rounded grey or off-white inclusions but microscopic examination of broken spheres shows that many have a rod-like central void around which concentric growth rings have formed. These are calcareous algae which are also common in Newbury B ware. These blue-green algae grow on reed stems in slow-moving uncontaminated calcareous streams and would be present in riverine clays throughout the Wessex chalk downland, including Winchester (Alan Vince pers. comm.). The chalk inclusions in MBX therefore evidently comprise a mixture of true amorphous chalk and fossil algae. Occasionally small fragments of thin-walled shell and even whole gastropods, up to 1 mm, and rare tiny bivalves up to 2 mm can also be seen (CC2151). These are sometimes hollow and not in-filled with calcite suggesting they are not fossil in origin. Their thin walls also suggest a slow-moving riverine or lacustrine origin. One sample of MBX contained a small 1.5 mm tooth-like inclusion, possibly a fossil fish tooth (NH3046).

MBX is fairly easy to distinguish from other late Saxon and early medieval fabrics, except MAV, which is just MBX with more flint and often more quartz. There is no sharp division between these two and in a sense they can be seen as variants within the same tradition with MAV being the dominant tradition later on. There are slight differences in firing colour, texture and vessel typology between the two but inevitably the identification of a sample as one or the other is sometimes subjective. This can be problematical if the sherd is critical for dating purposes but in a large assemblage, such as here, these occasional inaccuracies usually iron themselves out.

The abundance of MBX in late Saxon to early medieval Winchester clearly suggests a local origin as does the local chalk geology. Precisely how Winchester

MBX relates to other chalk-tempered wares in the region is unknown and would require a programme of scientific analysis to properly address. Chalk-tempered wares are also known from mid- and late Saxon Southampton but are unlikely to have been produced in the city itself due to the underlying drift geology of clay with flints. The mid Saxon chalk-tempered ware (Timby Group II) is thought to have been made 15 miles north of the city in an area where the Reading Beds outcrop immediately south of the chalk escarpment (Timby 1988, 80-82). Fabric descriptions of the two chalk-tempered fabrics there equate fairly closely with MBX and one of these (Fabric 40) contains shell inclusions identified as species of land and water snails. The chalk-tempered (Group II) wares at Southampton belong to the main middle period of occupation at Saxon Hamwic *c* 750-825/850 (ibid., 116) and therefore significantly predate the earliest occurrence of the Winchester fabric, estimated at around 850. It is just feasible however that the Group II ware potters moved to Winchester around this date and continued production there. Although there is no definite evidence for this there are some typological similarities between the two traditions (see below) and this suggestion could be worth investigation at some future date. The late Saxon chalk-tempered ware at Southampton is thick, heavy and coarse and tempered with flint sand and shell as well as chalk (Brown 1994, 133). It is evident from this description and the illustrations of large robust jars with stamped decoration that this fabric is different from MBX but is probably the local equivalent of Winchester fabric MAV, and in fact Brown draws parallels with a similar fabric in Winchester dated after *c* 950 and which can only be fabric MAV (ibid.). Other urban centres such as Chichester, West Sussex, probably had their own local sources of chalk-tempered ware. There is some visual similarity between Wessex chalk-tempered wares and the handmade oolitic limestone-tempered wares of the Cotswolds and north-west Oxfordshire (Fabric OXAC; Mellor 1994b, 44-52). Both are tempered with rounded calcareous inclusions, both are roughly contemporary (late Saxon) and the range of handmade forms and even some decorative traits are quite similar. Closer examination of the fabric however usually allows the harder rounded ooliths derived from Jurassic oolitic limestone sources to be distinguished from the softer chalk inclusions. There may however be some cultural connection between these parallel traditions, if only in style and decoration.

MBX is a handmade tradition with vessels probably built up in coils. There are however three sherds, including the base and lower wall of a jar, which appear to

come from fully wheel-thrown vessels (base CC2161, sherds NH4319, NH3331), some from Phase 4.2 and occasional jar rims that appear to have been at least finished off on a turntable. These wheel-thrown rarities are difficult to explain in an otherwise handmade industry or tradition. It might be that they represent isolated imports from a different regional industry which produced wheel-thrown vessels. In this respect it may be worth noting that there is some visual and petrological similarity between MBX (and especially MAV) and wheel-thrown Portchester ware (MBN). The latter, or at least the examples identified from Winchester, sometimes has a dense silty matrix as MBX with varying amounts of chalk as well as more characteristic flint inclusions. Future scientific fabric analysis might shed some light on this point.

Jars

Plain jars are overwhelmingly the commonest single vessel form in MBX (96% of identifiable forms by EVEs, 94% sherds; Table 9). The form was almost exclusive in earlier deposits (Phase 4.2) but seems to have yielded ground to other vessel forms by the end of the industry (Phase 5; 94% EVEs, 92% sherds), but only slightly. Vessels are typically thick-walled and globular with a fairly limited range of simple everted plain and thickened rims and invariably a plain sagging base **(**Fig. 6 nos 65-82**).** Wall thicknesses as thin as 3 mm, however, have been recorded and base thicknesses up to 16 mm. The body was probably built-up by hand with a separately made rim stuck onto the shoulder. In rare broken examples one can see where the rim has cleanly detached from the shoulder. The regularity of many rims suggests a degree of finishing, perhaps aided by a turntable. In other cases the variability of rim sections seen on individual vessels suggest bonding and smoothing by hand alone. The attachment and smoothing-in of the rim to the shoulder sometimes resulted in a carination or external angle below the rim giving the vessel a shouldered appearance **(**Fig. 6 nos 67-8, 71-3**).** This feature does not occur on all jars however and is not equally defined on every jar. On some the carination is quite pronounced, whereas on others it is only weakly defined or discontinuous. This feature occurs on other handmade late Saxon and early medieval wares throughout Hampshire and Sussex and may even have been deliberately exaggerated on some jars - as at Chichester (Dunning and Wilson 1953, fig. 5). Not surprisingly it also occurs on the closely-related chalky-flinty fabric (MAV) from Winchester and also, but more rarely, on other local fabrics (Fig. 1, no. 11). Some rims also show a series of slight irregular

dents or wiping externally, or occasionally internally, resulting from the attachment process. The shoulder area is often the thickest area of the jar. Simple, everted, fairly neckless rims together with a sharp internal angle at the rim/shoulder junction are a common feature not just of MBX jars but also of several other late Saxon pottery industries in the region including wheel-thrown Michelmersh ware (Mepham and Brown 2007, fig. 7-8) and in fact this is a widespread characteristic of many industries of this period throughout England (eg. Thetford-type ware).

Inevitably the broad 'jar' category here will include rims from spouted pitchers (basically a jar too) lacking diagnostic evidence of spouts or handles. It may also include a few hybrid forms that fall typologically between jars and bowls. The diameter range of jar (and bowl) rims is shown in Chart 4. This shows a diameter range between 70 mm and 380 mm for jars. Those few instances above 320 mm, however, could feasibly be bowls or inaccurate readings. The smallest jar diameter recorded is 70 mm and certainly a very small group of unusually small jars (under 120 mm) does exist in this ware **(**Fig. 6 nos 65-8**)**. The core diameter range for jars however is around 140-220 mm with around 140-180 mm comprising a peak range within this. The latter diameter range accords with many other late Saxon pottery industries, with typically fairly small diameters, whereas the core range of 140-220 mm would just about embrace the early/high medieval tradition for larger diameter jars (typically peaking around 200-240 mm). Size and function must be related somehow but this will be considered later (see below).

Jar rim forms show many very slight variations resulting from their handmade manufacture but overall the typology is dominated by a limited and closely related range of plain everted and thickened rims with a smaller number of externally beaded types (Table 10). Earlier work has shown that the typology of jar rims in chalk-tempered MBX and MAV is very conservative with very little chronological development apparent (Helen Rees pers. comm; Holmes and Matthews in prep.). What little chronological development there is however is barely detectable within the range of MBX itself but has to be seen in conjunction with the more developed and generally slightly later chalk- and flint-tempered fabric MAV (see below and Table 8). Rim forms in these fabrics were recorded in some detail to test whether these earlier statements were true. These very slight typo-chronological changes are difficult to track and quantify with accuracy as the boundaries between some specific rim 'types' are sometimes overlapping and subjective and were probably, for the most

part, unconscious on the part of the potter. Nevertheless comparison of the frequency of different rim types in MBX and MAV does seem to broadly confirm the picture of a high degree of typological conservatism as far as rim types are concerned with plainer straighter types (eg. A3B, A3A) common from the start and continuing throughout the production period of MBX and MAV but gradually yielding ground to slightly more developed rim types with external thickening and curved necks (see below, eg. A3C) or slight external beading and an increasingly upright neck (eg. C3B, C2). Individual MBX or MAV jar rims are therefore only of fairly limited use for dating purposes although assemblages of rims (from pit groups etc) and associated forms or fabrics can often be assigned to an earlier or later position within the overall date range.

The commonest single rim type on MBX jars is a plain everted straight rim with an external bevel (Type A3B, Fig. 6 nos 69-70, 72-3, 82) which comprises 42.86% (by EVEs) of all jar rims (Holmes and Matthews forthcoming, call this type 'flat topped'). The figure is higher if its sub-type with external shoulder carination is added (Type A3B.C, 4.92%). Type A3A (20.08%, Fig. 6 nos 67-8, 81) with a rounded rather than a bevelled top is basically the same as A3B and to this should be added its carinated sub-type A3A.C (1.83%). Collectively these four closely related types, which could be seen as variants of a main single type, comprise around 70% of all jar rims in MBX. In contrast this collective main type comprises only 26% in the later fabric MAV (see Table 8). Outside this collective plain rim type (A3B etc) the only other types that occur with any frequency are, again, those types most closely related to them including the plain flat topped/curved necked Type A2 (7.89%) and the simplest of all plain everted rims Type A1 (5.49%). The bevelled A3B rim form encompasses many slight variations itself. The length of the rim - from shoulder to apex - varies from short stubby examples 15 mm long to flaring examples up to 45 mm long (NH4164), although these extremes are rare. There may be a rough ratio between rim length and diameter with shorter rims tending to occur on smaller jars and *vice versa*. The simple, plain, straight, bevelled A3B rim type, often accompanied by a sharp internal angle, is characteristic of MBX jars and was almost certainly a deliberate product of MBX potters requiring a slightly higher degree of care and attention than that needed for simple rim types. The simple A3B rim type with sharp internal angle was also common on mid Saxon chalk-tempered ware at Southampton (Timby 1988, fig.3.14-23).

Eight percent (by EVEs) of all jar rims (59 sherds) have thumbed decoration, or, viewed another way thumbed rims comprise 97.41% of all decorated sherds in MBX - but very few sherds in this fabric are decorated in any case (see below). This type of decoration appears to be almost exclusively reserved for jars and spouted pitchers. Three main types or styles of thumbing can be recognised. Continuous thumbing (RTC) along the outer edge of the rim is easily the most popular style (63.89%, by EVEs, of all thumbed rims, Fig. 6 nos 67, 81). The other two styles are much rarer but occur with the same frequency as each other. These are spaced thumbing (RTS) or spaced individual thumbed impressions around the rim (16.87%), and grouped thumbing (RTG) or spaced groups of two or possibly three thumbed impressions (16.27%, Fig. 6, no. 70). Another 2.98% of thumbed rims (RT) are too fragmentary to be ascribed to any of these types. Thumbed rims are already present in Phase 4.1 deposits (RTC and one RTG rim) and they seem to have been at their commonest in Phase 4.2. The presence of five rims with spaced thumbing in Phase 5 (or 72% by EVEs of all RTS rims) just might indicate that that style became more popular later on. The origin of rim thumbing as a decorative style on late Saxon pottery in England seems to date from the 9th century onwards. Thumbing is already present on the rims of cooking pots in Torksey-type ware at Coppergate in York in levels dated to the mid 9th- to late 9th/early 10th century (Mainman 1990, 430, fig. 180-1) and groups of thumbed impressions already occur in Hampshire on 10th-11th century Portchester and Michelmersh ware (Hurst 1976, fig. 7.26.3 and 7.27.2). Neither of the latter two industries is likely to have started before *c* 925-50 and how much earlier than this rim thumbing might have been in existence locally is unknown but the presence of thumbed MBX rims in Phase 4.1 (*c* 850-950) is certainly one of the earliest noted occurrences of this decorative style in the region.

Bases are invariably sagging. The earlier bases sometimes have a deeper sag but sharply-angled medieval-style bases are probably common by the 10th century. Base fragments with diameters up to 250 mm and 330 mm have been recorded (NH5252) but it is uncertain whether these are from jars or bowls.

Other types of decoration

Apart from occasional thumbed decoration on the rims of jars and spouted pitchers (see above) decoration on MBX is very rare (Tables 11-12). What little decoration there is seems to occur exclusively on jars and spouted pitchers - hence its discussion

here. Including thumbed rims the number of decorated MBX sherds is 78 - just 1.24% of the MBX sherd total (6,253 sherds). The figure for EVEs is higher, 8.26% of the total EVEs (65.74 EVEs) reflecting the fact that this method of quantification is based on rim sherds and hence reflects the predominance of rim thumbing as a decorative technique but largely overlooks other types of decoration found on the body of vessels. Other than rim thumbing only 14 sherds in MBX, mostly body sherds, show evidence of decoration. These statistics have to be viewed with some caution however as the difference between MBX and MAV is sometimes subjective and although decoration is rare on both the re-assignment of even a few decorated sherds here would affect these figures. Of these 14 decorated MBX sherds stamped decoration is the commonest. Stamped decoration occurs on 5 body sherds representing as many vessels. At least four separate stamp dies can be recognised (Fig. 6, nos 76-9). The only stamped sherd from a vessel with a recognisable vessel form is a worn circular gridiron stamp which occurs on a small sherd from a jar shoulder with a slight external shoulder carination (NH1543, not illus. but as Fig. 6, no. 76, with estimated diam. *c* 16mm). Fig. 6, no. 76 and the sherd just mentioned possibly share the same die although the larger size of the stamps on the illustrated sherd, 19 mm, may be evidence for a separate die. The latter sherd, which is from a fairly large vessel, has evidence of six or possibly seven circular gridiron stamps possibly randomly distributed across the body. The third example of a circular gridiron stamp is Fig. 6, no. 77, with a minimum of five stamps 11 mm in diameter. The internal detailing of this stamp is noticeably finer than the others and the impression lighter or shallower (this is also the only stamped sherd from Phase 4.2, BW3, all the others being from Phases 5 and 6). The other stamp types are single examples. Fig. 6, no. 79 has a minimum of six cross-in-circle stamps 10 mm in diameter. The stamps here may be in a pattern, possibly a broad grid scheme defined by stamped rows? The final stamp type, Fig. 6, no. 78, is a radial sunburst-type stamp, 15 mm in diameter, not unlike a Union Jack with a main cross-in-circle and a finer diagonal cross joined to this. A minimum of 5 stamps occur on this sherd, apparently randomly distributed. Stamped decoration also occurs in fabric MAV (see below) and seem to be slightly commoner on that fabric. It is noteworthy that no vessels in MBX or MAV in this assemblage have reinforcing applied or applied and thumbed strips and presumably were robust enough to do without them.

Three fairly small sherds from separate vessels (not illustrated; all Phase 4.2) have incised decoration more typical of MAV. These include a plain flat-topped jar/spouted pitcher rim with a series of incised or finger-nailed slightly oblique notches on top of the rim (as Fig. 3, no. 34 and Fig. 4, no. 35). The other two sherds show fragments of incised lattice schemes such as occur on large MAV (Royal Oak-style) spouted pitchers. The only MBX sherd with combed decoration (not illus. Phase 5) is a closely related in style to the latter and shows traces of a combed wavy horizontal band below a combed horizontal band. Two sherds (not illus.) from two separate vessels, probably from the shoulders of spouted pitchers, have finger-impressed decoration in the form of rows of impressed dimpling. This is identical to the decoration on a spouted pitcher in MAV (Fig. 3, no. 31). Both these sherds are from early contexts (NH1272 Phase 4.1; NH4105 Phase 4.2). A single jar/spouted pitcher rim (Fig. 6, no. 75; Phase 4.2) is decorated on the inner/upper surface with a band of quite deeply stabbed pits, c 3mm in diameter. These were made with a hollow-ended tool - possibly a plant stem or small bone. This, and the incised or notched rim above, are the only decorated MBX jar rims other than the commoner thumbed rims. Lastly, two unusual body sherds probably from the same vessel have scratch-marked decoration which is typical of post-Conquest vessels in other fabrics such as MBK and MOE. These two oxidised sherds have fine sand and fine chalk and while they might be a variant MBX fabric they might also have been classified as a variant MBK fabric (not illus., NH3135, NH3184, both Phase 6).

Jars and function

It is clear that the main function of jars in this fabric was as cooking vessels or cooking pots. The vast majority of sherds show evidence of external sooting from use on or next to a fire. Bases sherds show this more commonly but sooting sometimes extends the full height of the vessel including the rim and sometimes end in a rough horizontal line on the inner surface of the rim. This might just indicate the innermost point the fire could reach but on occasion it might indicate that some sort of lid was used. There are however no lids in this fabric so if any were used they must have been of wood, or perhaps a large potsherd may have been used. Occasionally sooting is seen on the inside of vessels too including thick black deposits which probably represent carbonised food. One large jar rim/body sherd is sooted externally and internally with the internal sooting forming a marked diagonal zone relative to the pot

and possibly indicating that the pot tipped over in the fire and its stew-like contents became carbonised in this position (NH4232). The inner surface of jars, below the neck line, has frequently had its chalk content dissolved away by the acidic contents of whatever vegetable or fruit stews were cooked within it. On the other hand the lower internal walls and bases of many jars frequently display a whiteish limescale-like deposit presumably derived from boiling the local hard water. This can be seen on some examples to form a thick deposit up to 0.75 mm thick composed of several distinct layers - each one probably representing a separate boiling episode (NH3236). This might on occasion be the result of cold water evaporation in jars used as water containers, but the presence of external sooting on many examples suggests boiling as the main cause. A considerable number of MBX sherds show purplish staining internally resulting from their use as dyepots used for boiling up the plant dye madder. This is discussed in more detail elsewhere (see below). Being the commonest single late Saxon/early medieval pottery fabric around, the majority of madder-stained sherds identified are, not surprisingly, in MBX (219 MBX sherds comprising 73% of all madder-stained sherds, or 69% by weight; alternatively comprising 3.5% of all MBX sherds, or 4.1% by weight). Examination of madder-stained sherds show that some have several layers of limescale overlain by madder staining, or occasionally an original layer or madder staining overlain by layers of limescale. This suggests that the function of the pot - as a dyepot or a cooking pot - was interchangeable and that any pot of suitable size could be used or re-used as a dyepot. Plain jars were probably general purpose vessels. Many were clearly used for cooking but many others, perhaps the largest, were probably used for storage which leaves little or no visible trace. The function of the very smallest jars (under 120 mm rim diam.) can only be guessed at but nearly all are sooted and must have been used as cooking pots (individual portions?) while others may have been containers for precious commodities such as honey or spices etc.

Other than the above, indications of use are rare. The internal shoulder angle of one jar is distinctly worn - possibly from the use of a stirring implement (NH2616). A few basal sherds, and body sherds, have a thick external coating of some rusty, earthy, material and one has this internally (NH2426). This could be hammerscale and possibly suggests the use of these vessels as general purpose containers in a smithy (also fairly commonly noted on fabric MAV bases). Another basal sherd has a 2 mm thick external coating of a fine scorched daub-like clay bearing fine organic

impressions (NH2314). This suggests storage or use on a muddy surface and subsequent use next to a hearth or oven. A jar rim (diam. 260 mm) from an early context has a small post-firing perforation through the neck - possibly allowing the vessel to be suspended over the fire (not illus. NH4689 Phase 4.1). Another jar rim (A3B rim, but only a small sherd) has clearly had at least two saw-like vertical slots sawn into its apex - one to a depth of 7 mm and the other to 2 mm causing a chunk of adjacent rim to detach (or be chipped out?). The reason for this can only be guessed at (not illus. NH2480 Phase 4.2). Finally a re-used body sherd (with internal limescale), roughly sub-circular and 52 mm in diameter, has a central bored hole suggesting possible re-use as a spindlewhorl or something similar (not illus. NH4464 Phase 4.1).

Lug handled jar or bowl

Although recorded as a jar the estimated diameter (*c* 240 mm) of the unique vessel shown in Fig. 6, no. 80 could equally identify it as a bowl of some sort. It has an upright flat-topped or externally bevelled rim and vestiges of a solid upright lug handle pieced by a circular perforation. The lug is possibly defined by an incised border line. Presumably the lug was one of a pair allowing the vessel to be suspended, perhaps for use as a cooking vessel. The sherd is very abraded and almost certainly residual in its context (Phase 5). The fabric is dark grey, dense and unusually fine or silty with only moderate fairly fine chalk and a few coarser quartz and flint inclusions. These characteristics arguably identify it as an early specimen of MBX and the upright lug may have been influenced by mid Saxon vessels with pierced lug handles such as a jar in mid Saxon grit-tempered ware from Southampton (Timby 1988, fig. 6.98), or further afield by 8th-9th century Maxey-type ware jars from Northamptonshire and Lincolnshire (Hurst 1976, 307-8).

Spouted pitchers

These are rare in MBX with only fifteen sherds, though representing a minimum of ten fairly positively identified vessels, ascribed to this form (0.64% EVES, 1.6% sherds). Five sherds, comprising a single vessel (Fig. 6, no. 81) occur in Phase 4.1 deposits and nine sherds from a minimum of eight vessels occur in Phase 4.2. One other occurs in Phase 5. All of these have been identified by the presence of a tubular spout attached to the shoulder. The only exception is the unique handled form (Fig. 6, no. 82), which though lacking evidence of a spout is almost certainly from a spouted

pitcher. A few decorated body sherds (see above) may well be from spouted pitchers but without evidence of spouts have not been counted as such. The form is indistinguishable from plain jars apart from the addition of a tubular spout which was pushed through a hole in the shoulder and smoothed to the inside of the vessel. A strip of clay was probably wrapped around the base of the spout to secure it to the vessel. Seven complete or nearly complete tubular spouts have survived. These have diameters (at the apex) of *c* 24-40 mm with *c* 30-35 mm being usual and a length of *c* 40-55 mm from the vessel wall. One spout was neatly flattened at the apex - possibly with a knife. Of the three surviving examples with rims (diameters 190-240 mm) only Fig. 6, no. 81 has thumbed decoration and also an unusually stubby spout. None of the other sherds is decorated. Fig. 6, no. 82 is unique in having a handle - the only vessel form in this fabric, in fact, with a true vertical loop handle. Although the upper part of the handle is missing the scar on the rim shows where it was attached to the rim apex and the lower part to the shoulder. Unusually, the rim - which appears to be knife-trimmed - slopes gently upwards to meet the handle on either side. The handle itself is slightly unusual being of narrow strap form with a trilobe cross-section - possibly copying contemporary wheel-thrown finewares such as Winchester ware or Michelmersh ware or even rare imported North French greyware spouted pitchers? Spouted pitchers, including decorated examples, are perhaps best represented in fabric MAV (see elsewhere).

Spouted pitchers were a fore-runner of the jug form and were used for dispensing liquids such as wine, ale, water etc. The internal surface of several examples has had its chalk content dissolved by acidic contents.

Bowls

Bowls are quite rare in this fabric with only 26 sherds assigned to this form and representing perhaps 19 vessels. Overall they comprise just 1.86% (EVEs) of all MBX forms (or 2.81% sherds). They have not been identified from Phase 4.1 contexts but are present in Phase 4.2 and 5 contexts. The highest concentration of bowl sherds is in Phase 5 and suggests that the form was most popular then (16 sherds representing 3.67% by EVEs of Phase 5 forms, or 5.84% sherds). Bowl diameters range from 150 mm to 360 mm, although the smallest example could be a lamp. Most fall within the 200-300 mm range (Chart 4). They have a very limited variety of upright plain flat-topped or thickened flat-topped rims (Fig. 6, nos 83-4), or rarely

with a slight external bead. Walls are outwardly flaring and bases evidently sagging. At least five examples had applied tubular socket handles (for the insertion of a stick handle) including Fig. 6, no. 84, the most complete profile recovered. The three most complete handles had diameters in the range *c* 52-58 mm. Most bowls are sooted externally, and one had limescale deposits internally, demonstrating their use as cooking vessels.

Oil lamps

Lamps are quite rare in MBX. Ten sherds, representing nine lamps, have been catalogued from the sampled contexts. These comprise 1.48% (EVEs) of all vessel forms in this fabric (or 1.08% sherds). An additional example from an unsampled context is also included and illustrated here (Fig. 6, no. 85). A single abraded example occurs in Phase 4.1 (BW5) where it comprises 0.85% (EVEs) of all MBX forms in that phase. The highest number of lamp sherds is from Phase 5 where the five sherds there (from four lamps) comprise 2.21% of forms. All but one of the pieces identified is a rim sherd. The form is basically that of a small thick-walled bowl with flaring or slightly curved walls and either a plain or flat-topped upright rim (Fig. 6, nos 85-6), in one case with a slight external bead. All but the latter example are heavily sooted internally from use with occasional sooty patches and oily dribbles externally. Nine examples have measurable diameters ranging from 110-160 mm though 120-150 mm is normal. These are relatively large diameters compared to lamps in mainly later fabrics (MAV and MAQ, see elsewhere). One example has a 'pouring' lip pulled from the rim, presumably to hold the wick (not illus.). As most examples are represented by rim sherds only it is difficult to be certain what the complete form looked like and whether they all had the same form or not. It is possible that some may have been simple bowl-shaped lamps but the only evidence for the lower part of an MBX lamp is a single sherd from a cresset-type lamp with a low carinated body form and the stub of a base spike attached to this. This piece is quite neatly made, possibly even on a turntable or wheel (not illus. NH3331, with joining rim in NH3332, BW4, Phase 5). This form of spiked cresset lamp, with carinated bowl, is fairly common in MAV lamps (see Fig. 5, nos 47-8). The conical spike may have allowed the lamp to sit in a bracket on the wall, or alternatively it could be inserted into a lump of clay and used on a flat surface. Single lamp sherds are distributed throughout the three late Saxon frontages although adjoining Properties BW4 and 5

have a combined total of five lamps with a further example from adjoining SE3 (Fig. 6, no. 85).

Fabric MCK

Kingston-type whiteware (new code). A high medieval glazed ware. One of the medieval Surrey whitewares. A hard sandy whiteware usually with some red or pink iron-stained quartz. Usually traded as green-glazed jugs. (Pearce and Vince, 1988, 9, 19-52). Spot-date code gl. High medieval c 1240-1400. Various production sites in Surrey and the Surrey/Hampshire border. Rare in Winchester where it could easily be confused with Laverstock-type ware. The six body sherds identified are all from green-glazed jugs (BW3 Phase 6). Details remain in archive.

Fabric MDF

Medium grained sandy ware. Common medieval sandy ware (mainly wheel-thrown jars/cooking pots), part of a broad Hampshire tradition. Usually grey, brownish grey or brown. Densely sanded fabric with medium-sized quartz grains, mostly 0.3-0.4 mm, some in the range of 0.1-1mm. Scatter of larger sands up to 1.5 mm. Some iron oxides. Fairly micaceous. Can be confused in sherd form with sandy/flinty fabric MBK - and may have developed out of it - but is mainly wheel-thrown and more micaceous. Often with thumbed strips (apparently absent on MBK). Spot-date code msu (medieval sandy unglazed). Late Saxon to medieval. Possibly from c 1000, mainly c 1050-1350. On the site, however, its occurrence is probably within c 1150-1350 and it is very frequently associated with high medieval glazed wares. It is the dominant cooking pot ware in Winchester by the 13th century (King in Holmes & Matthews in prep.). Some sandy 11th-12th century crucibles may be in this fabric (see fabric MDL) but this has yet to be demonstrated scientifically. Local or regional.

MDF is regarded as a high medieval fabric in this report and is not treated in detail. A detailed treatment of its typology is presented elsewhere (King in Holmes & Matthews in prep p228). After the major local chalky coarsewares MBX and MAV and fine sand- and flint-tempered MBK, MDF shares a collective fourth (technically the fifth) position in the excavations here with a small group of other coarsewares (including MAQ, MTE, MDF and MOE). The 581 sherds of MDF excavated comprise 3.93% (by sherds) of the entire assemblage (or 3.54% EVEs; see Tables 4-

6). The very small number of sherds in Phases 4.1 and Phase 4.2 are probably best regarded as intrusive or misidentified. It is relatively common in Phase 5 (*c* 1050-1225) where the 161 sherds comprise 2.45% (or 2.14% by EVEs). This reaches a peak in Phase 6 (*c* 1225-1550) where the 409 sherds comprise 17.78 (or 18.11% EVEs) but by this time some of it must presumably be residual.

Jars

Jars/cooking pots are easily the commonest vessel form present (94.3% by sherds of identifiable forms, or 96% EVEs). Fig. 7, no. 87 illustrates a typical example with bands of vertically 'brushed' decoration which is typical of this form and apparently a development of the cruder scratch-marked decoration on the bodies of 11th-12th-century jars in other local coarsewares, although the latter still occurs on a few jar sherds in this fabric. Jars have rim diameters in the 120-360 mm range with a peak around 200-220 mm. Thumbed decoration occurs on the rims of a few examples and the use of applied and thumbed strips on the bodies of a few others. One small diameter jar (or ?jug rim) is decorated with a row of stabbed pits along the top of the rim. One jar shoulder with brushed decoration has specks of accidental glaze (NH3498, Phase 5) as do a few miscellaneous body sherds. Bases were evidently always sagging. Evidence for use as cooking pots is testified by abundant sooted sherds. Two joining sherds show purplish internal madder staining from their use as dyepots (NH3282, Phase 6). High medieval jars rims have a variety of more complex flanged and lid-seated rims than the simple example shown here.

Bowls

Three vessels (3 sherds, all Phase 6) have been identified as bowls (not illus. Diams. 170 mm, 300 mm, and 360 mm respectively). These comprise 3.4% (by sherds) of the vessel assemblage (or 2.6% by EVEs). One of these has thumbed decoration on the top of its thickened flat-topped rim. One unusual example has a plain flattened upright rim and is similar in form to a cut-down cooking pot. It is heavily sooted externally and internally in broad band under the rim – this may be sooting from cooking use or, though less likely, from use as some kind of lamp (diam. 170 mm, CC3227).

Jugs

Two vessels (2 sherds) have been identified as jugs or pitchers (not illus.). These comprise 2.37% (by sherds) of the vessel assemblage (or 1.4% by EVEs). One sherd is from a plain upright rim with a handle scar and traces of horizontal combed decoration (diam. 140 mm, NH3286, Phase 6). The other is from a thickened flat-topped rim with an internal bevel and probably from a jug with a slack collared rim (diam. 130 mm, NH6035, Phase 5).

Dripping pan

Four joining sherds from a dripping pan have been identified (not illus. NH2080, BW5, Phase 6, unsampled context). This survives, in plan, to a length of 270 mm and is evidently semicircular in plan with one surviving corner and a very heavily sooted straight side which would have faced the fire. It has a thickened flat-topped rim and a flat base. The fabric is exactly as MDF but as the floor is covered with a patchy clear brown glaze it could be a related fabric. A similar semicircular dripping pan in Surrey/Hampshire Coarse Border ware is published elsewhere (Pearce and Vince 1988, fig. 117.498).

Fabric MDG

Late medieval red ware. Hard light grey micaceous silty to sandy fabric with orange-brown surfaces. Sparse to moderate temper of black and red sub-rounded ironstone up to 1 mm. Very rare burnt organic material. Fine to medium sands, generally up to 0.2 mm. Unglazed or partially glazed (spots of glaze). Possibly a refined version of MDF above. As used here the code MDG includes a very similar but slightly coarser Winchester fabric, MMS, which is always glazed (clear or copper-green glazed). Typical late medieval forms including bunghole cisterns and costrels. Spot-date code lpmr. Late medieval c 1350-1500? Fabric MGR (see below) is a later development of this and is often white painted. Local or regional.

The small assemblage here includes a cistern bunghole, a bifid jar (cistern?) rim with a horizontal band of white slip, and a small perforated glazed sherd, which may be from the handle of a cylindrical costrel (all probably 14th century, from NH3234, BW3, Phase 6). Full details remain in archive.

Fabric MDL

Medium grained sandy ware, lamp/crucible fabric. Dense medium sands, 0.3-0.5 mm. Occasional iron oxides, sparse flint. Often oxidised reddish brown (Holmes in Holmes and Matthews in prep p.239). Spot-date code ug q. Late Saxon to early medieval c 850-1200. Local? Fairly rare.

In this report this code was originally assigned to all apparent crucible fabrics except those that appeared to be in other fabrics of which a few possible examples exist (9 sherds, 100 g., 0.59 EVEs, in fabrics MAF, MBK, MMU, MOE, MZM and UNID). Contrary to the official description above nearly all examples here occur in a reduced dark grey fabric although a few occur in a buff or very pale brown fabric. Trying to determine the ceramic industry that these vessels come from is difficult if not impossible as crucible fabrics tend to be heat-altered and possibly discoloured. Crucible production may have been a sideline of several local or regional sandy ware industries of which Late Saxon sandy ware (MSH), Michelmersh ware (MMU), sandy-flinty ware (MBK) are perhaps the most likely candidates in terms of their fine-medium abundantly sandy texture. Sandy grey fabric MDF has also been suggested as the possible source of Winchester's crucibles (Helen Rees pers. comm.) but this is mainly a high medieval fabric and unlikely to be the source of crucibles in the late Saxon phases here although it may have been for some of the post-conquest examples. This problem will probably not be resolved until scientific analysis of the crucible fabrics has been carried out.

Fabric MDL as defined above comprises 94 sherds weighing 410 g and comprising 2.63 EVEs. There are 12 sherds present in Phase 4.1 (*c* 850-950) but the bulk occur in Phase 4.2 (40 sherds) and Phase 5 (33 sherds). Only 9 sherds occur in Phase 6 (see Tables 4-6). A few other sherds come from unphased or unsampled contexts including those on the uncatalogued properties (see below). Closer, microscopic, examination of the MDL assemblage shows that two fabrics occur. Just under half the sherds (42 sherds, 272 g, 0.88 EVEs) occur in a purely sand-tempered fabric matching the 'official' MDL fabric description above. Rather more than half the sherds (54 sherds, 143 g., 1.75 EVEs) occur in an almost identical sand-tempered fabric but with the addition of true organic tempering, moderate to abundant, with linear, mostly voided, organic inclusions (chaff or grass etc.) up to 8 mm long. The organic-tempered crucibles comprise 57.4% by sherds of the MDL assemblage, or

66.5% by EVEs (but only 35% by weight). Their presence in Winchester seems not to have been noted in the forthcoming Winchester pottery opus (Holmes and Matthews in prep.) and no code for them has yet been invented. They cannot be included under the late Saxon organic-tempered sandy ware code (Fabric MAF) since the 'organic' inclusions in that fabric have been shown to be voids caused by the inorganic mineral selenite (this report). Organic (vegetable) tempering was added to the fabrics used for some early and middle Saxon crucibles and is thought to have made the fabric more refractory or heat-resistant (Bayley 1992, 3). Perhaps significantly, of the twelve crucible sherds from Phase 4.1, nine were in the organic fabric (from Properties BW2 and BW4), the other three sherds (from a BW2 sieved sample) were not examined under the microscope. Similarly all but one small sherd of the forty crucible sherds from Phase 4.2 were also in the organic fabric (mostly from BW2, and BE4, 2 sherds) although most of the organic-tempered sherds are from a single almost complete but very crushed vessel recovered from sieving (Fig. 7, no. 88, 31 sherds, 1.00 EVEs). The ten remaining organic MDL sherds occur as single sherds in Phase 5 and one sherd in Phase 6. The association of organic-tempered crucibles with the late Saxon phases of the site (Phases 4.1 and 4.2) covering the period *c* 850-1050 appears to be convincing, while the purely sand-tempered crucibles are mostly associated with Phases 5 and 6.

The 54 organic-tempered crucible sherds are mostly from Property BW2 (42 sherds), also BW4 (6 sherds), BW5 (1 sherd), SE2 (3 sherds) and BE4 (2 sherds). This assemblage includes Fig. 7, nos 88 and 89, both with evidence of copper alloy deposits. It also includes body sherds from an over-fired coarse sandy crucible with an added internal coat of organic-rich clay showing dark grey and unglazed while the outer surface is vitrified and reddish from reduced copper residues (CC2004, BE4, Phase 4.2, not illus.) Another organic body sherd is the thickest in the MDL assemblage (14 mm thick, NH2044, BW5, Phase 5).

All the crucibles here are bag-shaped or hemispherical forms with rounded bases and usually with a single pouring lip (Fig. 7, nos 88-91). As such they fall within the broad typology of non-ferrous meltalworking crucibles of the later 9th to 12th centuries (Bayley 1992, 4). Some examples here, mainly those in the purely sandy fabric and with wider hemispherical forms, appear to be wheel-thrown (Fig. 7, nos 90-1) but most were probably handmade. A few thumb-pots, small, deep bag-shaped vessels are almost certainly present in the assemblage and Fig. 7, no. 88 (diam.

60 mm) and MDL2 (diam. 40 mm) are almost certainly examples of this type. A complete rounded base sherd, in the organic fabric, (diam. 30 mm) is from another example (NH4020, BW2, Phase 6). Thumb-pots are known from the mid Saxon period elsewhere but the type continued for several centuries after this (ibid., 4). Crucibles with measurable rim diameters are represented by a minimum of eleven vessels (although one, Fig. 7, no. 90, is from an unsampled context). The diameter range of these is 40-120 mm with 80-95 mm being the commonest range. Within the overall diameter range there is a correspondence between size and fabric - and apparently date - which is unlikely to be accidental. The four smaller crucibles in the 40-60 mm diameter range are all in the organic-tempered sandy fabric (Fig. 7, nos 88-9) and all but one is significantly heat altered and with evidence of copper-working residues. All but one of these comes from late Saxon deposits (Phases 4.1, 4.2 and one from Phase 5). The seven larger crucibles in the 80-120 mm range are all in the purely sand-tempered fabric and include three probably wheel-thrown examples (including Fig. 7, nos 90-1). None of the latter shows evidence of metalworking, four show no evidence of use whatsoever although one shows some evidence of external surface vitrification and one (Fig. 7, no. 91) is clean internally but reduced externally and sooted towards the base. Significantly all but one of these seven crucibles are from Phase 5 contexts (*c* 1050-1225) while the seventh (with a markedly inturned rim) is from Phase 6 (*c* 1225-1550). In this assemblage, at least, small appears to equate with organic-tempered which equates with copper-working and a comparatively early date whereas larger equates with sandy fabric which perhaps equates with unknown function and a later date. This is not a perfect equation however as some purely sand-tempered crucible rims of unknown diameter show definite traces of copper-working residues (eg NH1014, SE2, Phase 6)

All crucible rims identified are of the same plain upright or slightly inturned form as those illustrated here (Type A1U). Two however (not illus.) are of similar plain upright but flat-topped form (Type A2U) and one is of upright thickened flat-topped form (Type B2U).

The majority of sherds here show evidence of metalworking residues - apparently copper-working residues (70 sherds or 75% of the MDL assemblage, or 1.5 EVEs or 57%). This mostly occurs as a vitreous slaggy external coat often coloured dark purplish-red, or lighter red from reduced copper, or occasionally with greenish staining from oxidised copper. Sometimes this occurs as a greyish-green coat

with flecks of red or green. Most of this sort of evidence occurs on the external surface in the slaggy coating which was probably added as a separate layer of clay to improve the vessel's refractory properties. The interior is relatively clean although a few sherds also have a slaggy internal deposit and a few others also have small pellets of decomposed green copper embedded in either the internal or external surface. A few sherds have been heat-altered to a spongy glassy texture. Fig. 7, no. 89 has numerous copper pellets embedded on its inner surface and a thick vitreous green- and red-stained slaggy external coating with a large slag-like droplet adhering to this. A metallurgical analysis of some of these sherds has been undertaken by Catherine Mortimer (see report elsewhere).

The function of those crucibles without obvious evidence of use, mainly the larger ones, remains uncertain. Some show slight external sooting but none shows convincing evidence for possible use as an oil lamp - a suggestion which has occasionally been made for hemispherical vessels of this form. It is quite likely that some purpose-made crucibles were never used and that some spare crucibles were used for non-metallurgical purposes, perhaps even as lamps. However it seem unlikely in a place such as Winchester where there is abundant evidence for purpose-made cresset lamps, of spike-based and pedestal-based form (in chalky, and sandy-flinty fabrics), that it would be necessary to use purpose-made bowl lamps as well - particularly unstable round-based types - although this is not to say they were not occasionally used when nothing more suitable was available.

The distribution of crucible sherds across the ten catalogued properties, and also by phase, is shown in Table 13. This mainly comprises crucibles in fabric MDL but also a few possible crucible sherds in other fabrics (see above). Eight of the ten sampled properties produced crucibles in various quantities. The two sampled properties that produced no evidence were BW1 and BE2. On BWI the total sample of excavated sherds (268 sherds) was quite small and possibly explains their absence here. Their absence from BE2 (1,234 sherds) is more difficult to explain and may be a genuine absence. Of the four uncatalogued/unsampled properties (SE3, BW6, BE1 and BE3) the spot-date records show one possible crucible sherd from SE3, none from BW6 or BE1 and two sherds from BE3. Therefore ten of the fourteen excavated properties produced crucibles. Of the eight sampled properties BW2 produced the highest concentration of crucible sherds (51 sherds, or 51% by sherds of the sampled crucible assemblage, or 43.79% by EVEs), this is followed by BE5 (12 sherds) and

SE2 (11 sherds). Apart then from BW1 the four contiguous Brudene Street West properties BW2-5 all produced evidence of metalworking crucibles as did the adjoining Snidelingstreet East properties SE1 and SE2. However it is quite possible that small-scale metalworking may have taken place on all fourteen properties at various times although evidence for this has not always survived.

Fabric MFGY

North French grey ware (new code). Late Saxon import. Hard grey sandy fabric often with a light or silvery-grey core and dark grey surfaces. Equivalent to North French Black ware at Southampton (Brown 2002, 138 fabric 917) Spot-date code gr. Late Saxon c 875-1000. Pas-de-Calais/Flanders. Rare in Winchester.

This fabric is represented here by two body sherds (91 g) from two separate vessels in Phase 4.2 contexts on Brudene Street East. The larger sherd (CC2416, BE4), is thick-walled (14 mm) and from the lower wall of a jar or spouted pitcher with extensive knife-trimming of the wall internally, lower down. Above this there is some evidence of wheel or turntable finishing. The exterior is also vigorously knife-trimmed and possibly sooted. The smaller sherd (CC1404, BE2) is uneven and sooted externally and perhaps from the lower wall of a wheel-thrown jar/cooking pot (6 mm thick).

Fabric MFI

Normandy gritty white ware (Brown 2002, 22). Early medieval import. Wheel-thrown with abundant angular to sub-angular coarse quartz and occasional coarse quartz grits. No spot-date code. Early medieval c 1070-1250. Rare in Winchester.

This fabric is represented here by a single, unusually thick, jug/jar base (Fig. 7, no. 92, NH6101, SE1, Phase 5). This has prominent wheel-throwing marks internally and traces of wire-marks underneath where it was cut from the wheel. It is unglazed except for a small spot of clear pale yellow glaze externally near the very bottom. A pale greyish area suggests the vessel may have been heated at some point. Slightly abraded.

Fabric MFS

Saintonge polychrome ware. Fine whiteware jugs with polychrome decoration. Imported from south-west France. Rare in Winchester, common at Southampton (Platt and

Coleman-Smith, 1975, 23, 26; Brown 2002, 27). Spot-date code gl. High medieval c 1280-1350.

This fabric is represented by a single jug rim with traces of an applied spout from the Library site (not illus. CC1292, BE2, Phase 6).

Fabric MGR

Late medieval red ware. Hard grey micaceous sandy fabric with oxidised surfaces. Moderate temper of sub-rounded grey and white quartzite up to 0.5 mm, with rounded black ironstone and calcareous material of the same size. Unglazed or partially glazed (spots of glaze). Includes slip-decorated storage jars and bunghole cisterns. Also described as white painted ware (Holmes in Holmes and Matthews in prep p.279). Spot-date code lpmr. Late and post-medieval c 1475-1550. Related to the plain, earlier fabric MDG (see above). Sources may include the Graffham kilns in West Sussex and perhaps other unlocated sources in east Hampshire.

This fabric is very rare from the site – just a single sherd identified from an unsampled context. Possibly from a jar/cistern with traces of white slip decoration and clear glaze (NH2006, BW5, Phase 6).

Fabric MGV

Anglo-Saxon organic-tempered ware. Clayey matrix with scattered fine to medium water-worn sands. Abundant organic inclusions. Early to mid Saxon c 400-800. Probably local.

Very rare from the site. One sherd (4g) only represented by small body sherd with well-preserved organic inclusions (chaff?) and coarse rounded grog/clay pellets. Moderate fine-medium quartz in a very finely micaceous matrix. Reduced dark grey. From Dark Earth on the Brudene Street East fontage(unsampled context CC3160, Phase 2.4).

Fabric MMG

Pink quartz-tempered ware (the fabric is pink rather than the quartz). One of the high medieval glazed wares. Abundant medium sands, up to 0.4 mm. Iron oxides. Fabric often pink or orange in colour with a distinctive rich orange glaze with abundant

green mottling. The commonest of a group of sandy fabrics which are something like a pink variant of South Hampshire red wares (see MMI below). See also MMQ below - a finer variant of MMG. These are known in Southampton as Local Pink Sandy ware (Brown 2002, 15, code LOPS, fabric 1087 (=MMG); Denham in Holmes and Matthews in prep., p253). Spot-date code gl. High to late medieval c 1225-1400. Fairly rare from the site where it occurs only as jugs. Full details remain in archive.

Fabric MMH

Common white ware. One of the high medieval glazed wares. Fine to medium sands up to 0.4 mm. Sparse fine black iron oxide and white clay pellets. Fairly micaceous. Often with a copper-green glaze. Equivalent to Local Whiteware (fabric 1118) and Local Fine Whiteware (fabric 1215) at Southampton (Brown 2002, 16; Denham in Holmes and Matthews in prep. p256). It bears some similarity to Laverstock ware but could also be seen as a white or paler variant of the pink quartz-tempered wares Fabrics MMG and MMQ (this report). Spot-date code gl. High to late medieval c 1225-1400.

Fairly rare from the site where it mostly occurs as jugs. The assemblage includes an unusual very wide strap handle (62 mm wide), possibly from a jug. This has raised thumbed edges and a central strip bearing a band of oblique thumbnail strokes giving a cabled effect, all under a rich green glaze (not illus. CC3332, BE5, Phase 6). There is also a base sherd from a bowl or dish with internal combed decoration under a green glaze (NH1014, SE2, Phase 6) and several flat pale green-glazed sherds probably from the base of a dripping pan (CC2105, BE5, Phase 6). Full details remain in archive.

Fabric MMI

South Hampshire red ware. The commonest of the high medieval glazed wares. Fine and occasionally medium sands 0.1-2.0 mm but generally under 1 mm. Common iron oxides. Pinkish-buff to reddish-brown fabric, often with grey core and oxidised surfaces and margins. Generally oxidised with a clear orange or glossy green glaze, sometimes mottled. This is the commonest of the several, quite similar, South Hampshire red ware fabrics which are the commonest high medieval glazed wares found in Winchester. Mainly glazed jugs but also some tripod pitchers (see Fabric

MNG 'Early South Hampshire red ware' for these). Its frequency on sites in south Hampshire, eg Southampton, suggests production in that area (Brown 2002, 14-15, code SHR). A medieval kiln dump at Jack-O-Tooles Row, Boarhunt, on the London Clay near Portchester, is thought to be one possible production site for this ware whose products include face-on-front jugs (Whinney 1981), a common type at Winchester. Spot-date code gl (13th century-type glazed wares). High to late medieval. Probably from c 1175, mainly c 1225-1400 (Denham in Holmes and Matthews in prep., p252-3; Holmes ibid., p241).

The assemblage of 223 sherds (1.95 EVEs) here, is mostly very fragmentary and adds little to our knowledge of the ware. The single sherd in Phase 4.2 is probably misidentified (burnt) and the few sherds in Phase 5 are possibly? intrusive. The bulk of the ware (213 sherds) occurs in Phase 6 (*c* 1225-1550). Apart from two jar forms, the collection here consists entirely of typical high medieval jugs with thumbed bases. Many of these are highly decorated with white or red slip decoration, incised and combed decoration and applied strips. Sherds from at least two anthropomorphic (face-on-front) jugs are present. One jug base (NH3236, BW3, Phase 6) with oblique fluted thumbing occurs in a soft oxidised fabric with a grey core containing sparse organic inclusions - this is very similar to late medieval Southampton Organic-tempered Sandy ware (Brown 2002, 18-19 fabric 1136, c 1350-1450). Full details of the assemblage remain in archive.

Fabric MMK

Glazed sandy ware with flint inclusions. One of the high medieval glazed wares. Fine to medium sands. Scattered small flint, with some larger flint inclusions. Iron oxides. Occasional mica. Generally oxidised orange or pink. Partial glaze. Sherds are sometimes burnt over their external surfaces. Possibly related to South Hampshire red wares or possibly to High Medieval Sandy Ware with Flint at Southampton (Brown 2002, 17, HMSF, fabric 1209). Similar fabrics occur within the range of Rye ware from East Sussex. Spot-date code gl. High medieval c 1225-1400.

Only two sherds occur in the assemblage here of which only one is from a sampled context (not illus. CC2103, BE5, Phase 6). The latter is a jar rim, possibly a cauldron

or a pipkin with external sooting. The interior is clear glazed with copper green specks. The other sherd is a body sherd (CC2097).

Fabric MMQ

Pink quartz-tempered ware. One of the high medieval glazed wares. Similar to fabric MMG but with finer sands up to 0.2 mm. Usually oxidised, often with a grey core. Iron oxides. Generally green glazed. Equivalent to Local Pink Sandy ware at Southampton (Brown 2002, 15, code LOPS, fabric 1107 (=MMQ); Denham in Holmes and Matthews in prep., p253). High to late medieval c 1225-1400. Rare from the site where it occurs only as jugs. Full details remain in archive.

Fabric MMR

Glazed buff sandy ware. One of the high medieval glazed wares. Medium sands, 0.3-0.4 mm. Buff fabric, oxidised orange external surface. Green or amber glaze. Some iron oxides. Possibly related to South Hampshire red wares. Also similar to MMK but flint only sparse-rare. Spot-date code gl. Rare from the site.

The seven sherds here are mostly derived from a single early-looking jug, with a collared rim and rilled shoulder, which is possibly of late 12th- or early 13th-century date (not illus.,CC2109, BE5, Phase 6).

Fabric MMU

Michelmersh-type ware (Addyman et al. 1972; Mepham and Brown 2007; Hurst 1976, 337-8). A late Saxon wheel-thown sandy ware, typically oxidised, usually traded in the form of spouted pitchers often with characteristic applied curvilinear strips and stamped decoration. The predominant fabric at Winchester is finer than that from the excavated kilns and some doubts exist as to whether or not this is a true Michelmersh product (Holmes and Matthews in prep.). Textural variation has been noted between the products of the two excavated kilns with the more recently (2001) excavated kiln producing a slightly finer fabric than the previously known 'Four Seasons' kiln (Mepham and Brown 2007). Comparison with samples from the 2001 kiln shows that the Winchester samples here are somewhat finer still and so probably not from that particular kiln. It may be therefore that the finer Winchester Michelmersh fabric is from a kiln, or kilns, in the Michelmersh area as yet

undiscovered. It is assumed here therefore that the finer 'Michelmersh-type' fabric and the coarser 'true' Michelmersh fabric are both products of the same Michelmersh industry. Common to abundant sands, the majority 0.1-0.5 mm, but some up to 1 mm. Occasional flint up to 5 mm and chalk to 1 mm. Moderate to abundant iron oxides. Spot-date codes: Michelmersh-type lsms; true Michelmersh mmsh. Late Saxon to early medieval. Appears in the sequence before glazed Winchester ware, perhaps c 925(?)-1050.

The only archaeomagnetic date from the Michelmersh kilns is *c* 965-1030 (95% confidence), from the 2001 kiln (Mepham and Brown 2007), but this date could be from one of the later kilns operating in this tradition. In McCarthy and Brooks (1988, 189), it is stated that small amounts Michelmersh-type and Portchester ware were already occurring in Winchester between 850 and 950. While it might be the case that that they were around during the first half of the 10th century, there seems to be no firm evidence for currency in the 9th century and this statement is perhaps best disregarded.

There is a strong visual similarity between Michelmersh ware and the earlier fabric of Late Saxon sandy ware (MSH) and some recent scientific evidence that the two are closely related (see below Fabric MSH; Mepham and Brown 2007). It is likely that both fabrics were made from Tertiary Reading Beds clay but to a slightly different recipe and at different times although there must have been chronological overlap between them. Some of the plainest jars found in the 2001 kiln are also remarkably similar in form to jars in Late Saxon sandy ware (*ibid*., fig. 5.1-3). The latter however tends to have a grey reduced fabric whereas Michelmersh ware tends to have an oxidised orange-brown fabric. It has been suggested above (see MSH account) that Michelmersh ware may have developed out of Late Saxon sandy ware around the middle of the 10th century and was traded to Winchester largely in form of oxidised spouted pitchers (tablewares), perhaps as late as *c* 1050. Meanwhile the demand for reduced cooking pots in Late Saxon sandy ware gradually disappeared as oxidised Michelmersh cooking pots and more easily obtainable local cooking pots were able to satisfy this demand. Effectively then, the two fabrics may represent the earlier and later phases of the same ceramic tradition. A few grey reduced sandy ware sherds in this assemblage have been classified as Michelmersh ware but there is also a

visual fabric overlap with the poorly understood grey ware fabric MZM which may include a few misidentified reduced Michelmersh products (see MZM elsewhere).

Michelmersh ware is fairly common in Winchester but far from abundant. The 205 sherds of MMU from the excavations here comprise 2.65% (by EVEs) of the entire assemblage (or 1.39% by sherds). The 13 sherds in Phase 4.1 (*c* 850-950) comprise 1.02% (by EVEs) of the phase assemblage (or 1.01% by sherds) and may represent very early occurrences of the ware, although the possibility that some of these are intrusive cannot be ruled out. In Phase 4.2 (c 950-1050) the ware comprises 1.7% (by EVEs) of the assemblage (or 1.98% by sherds, remarkably the same as MSH) and is almost the same in Phase 5 (*c* 1050-1225) (1.85% EVEs, or 1.36% by sherds) but probably much of it was residual by then.

Jars and spouted pitchers

These are considered together here as some plain rims could be from spouted pitchers as well as jars, as will many or perhaps all of the decorated body sherds. Only a very small number of sherds with evidence of tubular spouts or handles have been identified as definite spouted pitchers. Jars (excluding definite spouted pitchers) comprise 88.7% (by EVEs) of all Michelmersh forms (or 92.7% by sherds). Jar/spouted pitcher rims are mostly of fairly simple form - not much more developed than those on late Saxon chalky wares (MBX, MAV). In terms of EVEs two simple rim types are equally the commonest: a simple everted thickened rim (Type B1, 17.44% by EVEs, 11.76% sherds, Fig. 7, no. 93) and a plain straight type with a rounded apex (Type A3A, 17.44% EVEs, 9.80% sherds, not illus.). In terms of sherd counts however the commonest rim type is a simple sub-collared type - also common on sandy-flinty fabric MBK (Type A2P, 31.37% by sherds, 13.19% EVEs, Fig. 7, no. 94) but all sixteen rim sherds of this type are from a single atypical handmade vessel and so their frequency here is over-exaggerated. The next commonest in terms of sherd (and vessel) count is a plain straight type with a bevelled apex (Type A3B, 29.41% by sherds, 11.06% EVEs, not illus.), which is also the commonest rim type on the chalky wares. After this is a distinctive inturned lid-seated rim type probably reserved for spouted pitchers (Type IN3, 15.74% EVEs, 5.88% sherds, Fig. 7, nos 97-8). No other rim type is represented by more than a couple of sherds. Plain jars have rim diameters in the 140-280 mm range with a peak around 210 mm and a smaller peak around 180 mm (Chart 5).

No complete profiles were recovered but as far as can be deduced jars and spouted pitchers are of globular form (Fig. 7, nos 93-8). Many have a sharp internal angle at the junction of the rim and the shoulder. Bases were mostly sagging, Fig. 7, no. 99 is illustrated on account of its unusually small diameter (54 mm). Base diameters up to 180 mm have been recorded. A few of these have a slight thickening or pad at the external basal angle and some have a pronounced central 'sag'. A single sherd appears to come from a base of rounded form. Sooting was noted on the outside of several jars and limescale on the interior of others. Thumbed decoration is fairly rare and was noted on the rims of just two vessels (Fig. 7, no. 96). One vessel has incised wavy line decoration on the outer face of its rim (Fig. 7, no. 95) and one body sherd has deeply incised, widely-spaced horizontal groove decoration. Fig. 7, no. 94 is unusual in being the only jar in the assemblage that appears to have been handmade. This has an oxidised fabric exactly like the coarser Michelmersh fabric but the rim form and manufacturing technique (causing internal dimpling) is exactly like that of late Saxon fine sand- and flint-tempered ware (fabric MBK, mainly *c* 1050-1150, see elsewhere). In view of this its identification here as Michelmersh ware should be regarded with some caution.

Definite or fairly definite spouted pitchers comprise only four sherds, probably from just two vessels (7.5% by EVEs of all MMU vessel forms). To this one can add one more vessel from an unsampled context (Fig. 7, no. 97). The two examples with measurable rims both have diameters of 160 mm. This is somewhat larger than the standardised diameter of 100 mm for all the spouted pitchers from the Michelmersh 'Four Seasons' kiln (Mepham and Brown 2007, 48; although the published drawings suggest diameters in the *c* 100-120 mm range). Neither of the illustrated examples here (Fig. 7, nos 97-8) retains evidence for a tubular spout but the presence of small vertical looped handles attached to the shoulder, the distinctive inturned rims and the presence of decoration is enough to identify them as fairly definite examples of the spouted pitcher form. One body sherd only has a short abraded tubular spout attached with traces of stamped strip decoration on the body. The latter is probably from the same vessel as two small (Type B1) rim sherds from the same context (CC1354, BE2, not illus.). Fig. 7, no. 98 is probably the most highly decorated piece in the assemblage. This has a complete looped handle with small cross-in-circle (or quatrefoil?) stamps down the back of the handle and also on the remains of applied strips on the shoulder - possibly arranged in an arcade scheme. There are also two

light grooves on the top of the rim. The original wheel-thrown flanged rim section appears to have been blocked-in by an additional piece of clay externally. Fig. 7, no. 97 is decorated with a notched or 'cabled' shoulder cordon and a lower undecorated cordon or carination. Single or multiple shoulder cordons are a feature of all spouted pitchers from the Michelmersh 'Four Seasons' kiln (Mepham and Brown 2007, fig. 10.13, fig. 12.36) Thirteen sherds are highly decorated in that they all have stamped decoration. Of these, ten sherds (0.20 EVEs) are decorated with applied, mostly curving, stamped strips which are often quite flat. All but one of these has small cross-in-circle stamps (each 6-7 mm across) on the strips, or on the strips and directly on the body, although sometime these can look like small quatrefoil stamps (as on Fig. 7, no. 98). One sherd has very flat stamped strips in a chevron pattern (NH6093, not illus.) and one has traces of a hooped scheme of stamped strips (NH4178, not illus) whereas on Fig. 7, no. 98 the strips are possibly in an arcaded or a hooped pattern. One sherd has rows of stabbed pits (or very crowded stamps) on the strips and on the body itself (NH4154, not illus.). Three body sherds (from two vessels) have the usual cross-in-circle stamps but no evidence of applied strips (although they may come from vessels that originally had strips). One of these is a shoulder sherd with part of a decorative scheme showing a horizontal row of small cross-in-circle stamps and part of a pendant vertical row of stamps joining this - all impressed directly into the body clay (NH5054, not illus.). The other smaller sherd just has traces of two stamps directly on the body. Small cross-in-circle or 'hot cross bun' stamps, as here, are the commonest type of stamp found on spouted pitchers from the 'Four Seasons' kiln (*ibid.*, 49-50). A wider range of decorative schemes is visible on the spouted pitchers published from this kiln where it would appear that no two vessels were decorated exactly alike (Mepham and Brown 2007, 49, figs. 10-11, fig. 12.32-6). The 2001 Michelmersh kiln produced no definite spouted pitchers or stamped decoration but only a few probable jar sherds decorated with simple combed and incised decoration more akin to that on Late Saxon sandy ware (MSH) (*ibid.*, fig. 5).

Bowls or dishes

These are rare in this assemblage with only two vessels (3 sherds) identified. These comprise 7.55% (by EVEs) of all identifiable Michelmersh forms (or 5.45% by sherds). The illustrated profile (Fig. 7, no. 100) is of shallow dish form, competently wheel-thrown with a thickened flat-topped rim (diam. 310 mm) and a slightly sagging

base. A lightly incised line spiralling gently up the outside wall may be decorative. The vessel shows no evidence of use. The other vessel is represented by a single rim sherd (diam. 330 mm) of similar form to the latter (NH1230, not illus.). Both vessels are from Phase 4.2 contexts on Property SE2. Similar shallow vessels identified as dishes or lids are known from the 'Four Seasons' kiln but are rare there (Mepham and Brown 2007, fig. 12.38-40).

Crucible?

A single example of a possible crucible in this fabric was identified (Fig. 7, no. 101). The single sherd represents 3.77% (by EVEs) of all MMU forms (or 1.82% by sherds). This is of usual late Saxon simple bag-shaped form. The interior is oxidised but shows no traces of residues. The exterior is sooted allover. It comes from a Phase 4.1 context (*c* 850-950) in the possible Saxon road alongside the Brudene Street West frontage (NH4623). No crucibles have been identified from the two published Michelmersh kilns.

Fabric MNG

(Early) South Hampshire red ware. Slightly soft, sandy brick red fabric sometimes with a grey core. Abundant fine to medium quartz sand mostly under 0.5 mm, clear and milky, rounded to sub-angular. Moderate temper of sub-rounded red and black ironstone to 1 mm with rare quartzite and calcareous material up to the same size. Greenish-brown glaze. Early to high medieval, c 1175-1250. Fairly common. Spot-date code tpw.

This code is used in this report to distinguish a 12th- to 13th century soft, sandy, mainly oxidised fabric like South Hampshire red ware (Fabric MM1) above. Vessels, mainly tripod pitchers and early forms of jug, are generally thicker walled and more uneven than high medieval South Hampshire red ware. Exact source or sources unknown but probably Hampshire mainly. This is very similar to Anglo-Norman glazed wares at Southampton (ANG), including fabric 1065 Anglo-Norman Wessex coarseware which also has no exact source (Brown 2002, 10-11). There are many sandy oxidised fabrics like this in the region including Newbury 'C' ware in Berkshire and Oxfordshire where it was formerly known as 'Abingdon-type' ware (Mellor 1994b, 71-80, OXAG). A production site for this type of ware was excavated

at Ashampstead between Reading and Newbury in Berkshire (Mepham and Heaton 1995). The Winchester material may well include Berkshire as well as more local products but these are probably not very numerous here as the Berkshire wares were often decorated with designs in white slip which are very rare in this assemblage. The distinction between MNG and finer variants of Tripod Pitcher ware (MAD) is not always clear especially as they share almost exactly the same range of form and decoration (see MAD).

There are 80 sherds of MNG which comprise 0.54% of the entire assemblage. One sherd occurs in Phase 4.2, 49 sherds occur in Phase 5 and 30 in Phase 6 (see Tables 4-6). As with MAD the only forms present in this assemblage are fairly large, apparently handmade, jugs and tripod pitchers but in the very fragmentary state in which they occur here the two forms cannot satisfactorily be distinguished. Only one sherd from a tripod footed base can positively be identified as a tripod pitcher. This is probably from the same vessel as a classic tripod pitcher handle which occurs in the same context (NH2558, BW4, Phase 5, not illus.). The handle is of narrow strap cross-section but infolded with an inlaid central braided or twisted strip and with two or three rows of notched rouletting on the sides of the handle. The whole thing is covered (except underneath) with a yellow-brown glaze. Jug/tripod pitcher rims are of simple thickened flat-topped form. Rim diameters are in the 80-190 mm range with 150-160 mm being the commonest. The only vessel illustrated here is a probable tripod pitcher (Fig. 7, no. 102, diam. 190 mm), one of the most highly decorated examples. This vessel is in a fine pink-pale brown fabric with moderate coarse iron oxide and covered with a thick, dull, yellowish glaze and could easily be mistaken for a variant of Winchester ware (MWW). The decoration here includes square rouletting on top of the rim, inside the glazed neck and on the raised edges of the strap handle. There is a probable gridded scheme of applied ‘pinched’ strips on the body and a thumbed strip under the rim. In the hollow of the crescent-section strap handle three further ‘pinched’ strips have been inlaid (NH303, 305, unphased evaluation context).

Another pitcher rim in the assemblage has diamond rouletting on top of the rim and also a narrow strap handle with diamond rouletting on its upturned edges and an applied thumbed strip down the centre of the handle. A body sherd from the same vessel has spaced horizontal bands of diamond rouletting on the body (NH2311, BW5, Phase 5). No evidence for rims with a jug-like pulled lip was observed but evidence for tubular spouts was noted on several vessels including a complete

detached tubular spout in a sandy oxidised glazed fabric (66 mm long, 24 mm diam. at apex). This was originally fixed in an almost vertical position against the neck of the pitcher and was secured by a wrap-around strip just below the apex and there are traces of another around its base. The fabric is not unlike Newbury 'C' ware (CC1345, BE3, Phase 5, unsampled context). Two pitcher body sherds from separate vessels (CC3159, CC1516) are decorated with crude pushed-out vertical fluting or elongated vertical dimples - a rare form of decoration possibly related to that on glazed 12th century tripod pitchers in Ashampstead-type ware (Berks.), including a tripod pitcher from Oxford (Mellor 1994b, fig. 27.31; McCarthy and Brooks 1988, fig. 166.1001). White slip decoration (as on Ashampstead-type ware) is rare in this assemblage occurring on only three sherds from two vessels. One of these has possible spots of white slip internally (NH4281), the other - a very small sherd - probably has an allover white slip (NH3096). A group of joining sherds from the shoulder/neck area of a probable tripod pitcher, with traces of a tubular spout, is covered allover externally with a decayed glaze and also internally inside the neck where it ends in a distinct line suggesting it was probably wiped or brushed on rather than dipped or dusted on (NH2136).

Fabric MNV

Northern French green glazed white ware (Brown 2002, 22-3, code NFG). Green-glazed jugs. Spot-date code gl. Early to high medieval c 1150-1300. A Seine Valley source centred on Rouen is most likely. Rare in Winchester.

This fabric is represented here by three very small joining sherds from a single jug in a fine very white sandy fabric similar to Saintonge ware (fabric MFS) but more open-textured. The sherd has closely-set applied vertical strips of triangular cross-section under a bright copper-rich green glaze. From a medieval cellar context (CC6025, BE5, Phase 6).

Fabric MNVY

Northern French yellow glazed white ware. As Fabric MNV above but yellow glazed. Includes jugs in the well-known Rouen-style of decoration (although none definitely present from these excavations) Spot-date code gl. Early to high medieval c 1150-1300. A Seine Valley source centred on Rouen is most likely. Rare in Winchester.

This fabric is represented here by a single smallish jug sherd in a fine smooth sandy white ware with sparse quartz grains up to 1.5 mm (mostly under 0.5 mm). Pitted clear yellow glaze externally with a 12 mm wide scar from a detached curving applied strip (possibly in red clay like Rouen-type ware?) (NH3286, BW3, Phase 6).

Fabric MNX

Laverstock-type ware. One of the high medieval glazed wares. Red quartz-tempered white ware. Hard, slightly gritty orange-buff fabric with a grey core. Fairly heavy temper of sub-rounded black, orange and grey quartzite up to 1 mm. Rare flecks of red and black ironstone. Green-glazed or clear-glazed. Normally as jugs, often highly decorated. (Musty et al. 1969; Denham in Holmes and Matthews in prep. p256; Brown 2002, 15, code LV, fabric 1034) Spot-date code gl. High to late medieval. Kilns dated c 1230-1275 (Brown dates this to c 1250-1350, ibid.,77). Source Laverstock kilns, Wiltshire.

'Twelfth-century glazed ware' (MDW, formerly 'Developed Winchester ware') is now thought to be an earlier Laverstock type but has not been recognised from the site. Laverstock-type ware is not particularly common in Winchester but is at Southampton. It is fairly rare from the site where it only occurs as jugs. The only notable vessel is represented by several sherds from an anthropomorphic jug. This has a highly stylized applied mask in red clay, applied red rosettes on the body and slashed red pads on the rod handle. It also has a complete very unusual flat pedestal base which, instead of a pad, ends in a dish-like upright 'rim' with a red-painted band on the outside of the 'rim'. A similar though less exaggerated jug base, described as 'drip-ring base' is illustrated from the kiln site where several examples were found (Musty *et al*. 1969, 132, fig. 21.170). These, apparently, were an innovation by the Laverstock Kiln 5 potter and seem to have no parallel elsewhere. The base is scorched on one side, probably from deliberate heating. A fairly high quality vessel like this might have been associated with the Archdeacon of Winchester's residence on this site (not illus., NH2099, BW5, Phase 6). Fuller details of the assemblage remain in archive.

Fabric MOE

Coarse grained sandy ware. Coarse gritty texture. Abundant rounded quartz sands, ranging in size from 0.2-1.8 mm. Iron oxides. Rare-sparse flint and chalk. Reduced grey throughout. Spot-date code ug cq. Early medieval. Some slight evidence of a late Saxon origin but jars/cooking pots in this fabric often have scratch-marked decoration which appears to be a post-conquest phenomenon, as at Southampton, c 1070-1250 (Brown 2002, 9, fig. 5, fig. 6.10-11). Locally the main dating of MOE is probably c 1070-1225. Probably fairly local. The exact source of MOE is unknown but the fine organic voids in the fabric matrix (see below) are often typical of the London Clay. There are also fabric and typological similarities with fine sandy MBK and MAF for which a London Clay source to the east of Winchester, perhaps in the Alton or Petersfield area, has been suggested (Blackmore 2007). The author has examined a small collection of scratch-marked MOE (and glazed MAD) from Alton and this was quite similar to the gritty fabric from Winchester but was, if anything, more micaceous. MOE is thought to be related to, if not the same as, the glazed tripod pitcher fabric MAD (Helen Rees pers. comm.) which might suggest a local origin. However the exact source of MAD is still uncertain.

There appear to be two grades of coarseness in the MOE assemblage here. Both have a visible similarity and fabric overlap with fine sandy MBK and with the grey sandy medieval fabric MDF. Both seem to be equally common. The coarser or grittier MOE fabric matches more closely with the standard fabric description above (Holmes and Matthews forthcoming). In more detail however samples have moderate-abundant rounded, sub-rounded and occasionally sub-angular quartz grits commonly 0.75-1.5 mm across, with rare grains as coarse as 2.5 mm. These are more evenly spaced or less densely packed than in the finer fabric, with the silty background matrix clearly visible. Quartz grains are highly polished, clear, translucent, occasionally milky, also fairly commonly iron-tinted brown to dark brown or with brown iron-stained veins, occasionally orange or pink in more oxidised areas.

The matrix contains abundant fine white and brown mica up to 0.20 mm which is quite prominent on the surfaces of some examples (as at Alton). It also contains abundant fine linear voids from the burning-out of fine organic matter - a common characteristic of pottery made from the London Clay. Sparse coarse dark brown iron-rich mudstone or clay pellets. Rare voids caused by dissolved selenite

crystals (as in MBK) have been noted on a couple of examples and possibly some fine black glauconite (but only rare compared to MBK and MAF). A rare oxidised variant of this fabric occurs with light brown, buff or orange-buff surfaces and a pale grey core and with pink and orange quartz. This latter variant corresponds with fabric code MEO (ibid.) but this code has not been used in the present report. The grittier fabric is perhaps more closely associated with scratch-marked decoration than the finer fabric.

The finer fabric is akin to a hybrid between MOE and the grey medieval coarseware MDF and in some cases the distinction between them is unclear. The finer MOE fabric, however, was definitely used for handmade early medieval-looking jar forms (eg. Fig. 8, no. 105, Phase 5) and is also most similar to the texture of the glazed tripod pitcher fabric MAD. This has abundant, densely-packed, better-sorted quartz grains mainly in the range 0.5-0.75 mm across, occasionally to 1 mm across. These are mainly clear, translucent and greyish, occasionally pinkish with the same rounding as before. Rare red iron oxide has also been noted. Fine mica present but much less obvious than in the coarser fabric.

MOE is fairly common from the excavations here. After the major local chalky coarsewares MBX and MAV and fine sand- and flint-tempered MOE shares a collective fourth (technically seventh) position in the excavations here with a small group of other coarsewares (including MAQ, MDF and MTE).

The 567 sherds of MOE comprise 3.83% of the entire assemblage (or 3.39% by EVEs; 4% weight; Tables 4-6). The five sherds present in Phase 4.1 are probably best regarded as intrusive as these include a small body sherd with scratch-marked decoration. The 19 sherds in Phase 4.2 (*c* 950-1050, 0.41% of the phase) are also a little early for this fabric but not impossibly so. These however include three sherds from a jar rim with scratch-marked decoration, also a possible crucible, but also a few possibly misidentified sherds of a similar Roman coarseware. MOE really seems to come into its own in Phase 5 where it comprises 3.49% (sherds) or 2.93% by EVES. The figure for Phase 6 is considerably higher (314 sherds or 13.65% sherds, 13.73% EVEs) but probably much of this is residual by now. Production into the first half of the 13th century however is quite likely. MOE vessels were primarily for cooking and storage. A few large sherds probably from the same jar in BW3 have an unusually thick (3 mm) white deposit internally which could be something like whitewash or plaster or an unusually thick build-up of limescale (NH3286). A few other sherds

however show internal purplish madder staining and must have been used as dyepots (see madder account elsewhere).

Jars

This is almost exclusively the only form in which MOE occurs from these excavations (97.2% EVEs). These are very similar in form to fine sandy MBK jars (see elsewhere) in that they are handmade, markedly globular and have a rounded rather than a sagging base - although, as with MBK - the base sherds are often difficult to distinguish from body sherds. No rounded bases have consequently been included with the vessels illustrated here (Fig. 8, nos 103-5) but sufficient fuller profiles have been illustrated elsewhere (Holmes and Matthews forthcoming). Sagging bases do however occur on eight sherds in this fabric although one of these is a sagging/rounded hybrid and one or two others are in hybrid flintier fabrics and therefore not all definitely MOE. Jars were probably coil-built with turntable-finished rims. Except in rare instances (in flintier possible MOE/MBK/MAQ hybrid fabrics) MOE jars do not show the characteristic internal finger impressions seen on MBK and MAF jars and are usually fairly smooth internally. Perhaps because of the coarser quartz tempering they also seem to be more robust and thicker-walled. On one very large jar (Fig. 8, no. 105), and even more so on another almost identical jar, also in the finer MOE fabric (NH4281, not illus.) enough of the profile survives to show the distinctive handmade construction technique. These were almost certainly coil-built but the outer surface of both exhibits a series of very light or shallow indentations spiralling upwards from the base to the shoulder of the vessel in roughly vertical/diagonal rows. Normally this sort of evidence is obliterated by subsequent wiping or scratch-marked decoration. Jar rim diameters are in the 130-360 mm range although there are very few examples at the extremes of this range (Chart 6). Jars between 190-310 mm seem fairly common with a peak at 260 mm and 310 mm although these peaks may be slightly exaggerated by the presence of just two or three well-preserved vessels in each size category. A range of simple everted plain and thickened rims exists. The commonest of these show fairly strong typological similarities to the types of rims seen on MBK and MAF jars. Outcurved (or cavetto) necks with plain everted or plain flat-topped rims appear to be more typical of jars with scratch-marked decoration (Fig. 8, no. 104). Very large, generally plain, jars (Fig. 8, no. 105) can have more upright necks with a more medieval-looking

thickened flat-topped rim. Fig. 8, no. 103 has a more unusual heavier type of thickened flat-topped rim with a fillet of clay added externally to thicken the neck area. The commonest single rim type is the plain everted flat-topped rim (Type A2, 35.81% EVEs, 39.19% sherds, Fig. 8, no. 104 - or an A2/B4A hybrid). This is similar to some of the commonest rim types on MBK jars (see Fig. 5, no. 60). On many examples with flaring rims of this kind a progressive internal hollowing and external flattening produces a slightly collared-looking rim which is particularly associated with this fabric (Type B4A, 21.14% by EVEs of rims, or 28.38% sherds). Thickened flat-topped rims (Fig. 8, nos 103, 105) are also very common (Type B2, 15.05% EVES, 12.69% sherds). Externally beaded rims are fairly common too (Type C1, 6.10% EVEs, 6.76% sherds.).

The robust neckless form of Fig. 8, no. 103 is unique in this assemblage and its pale brown-buff fabric also somewhat atypical. This has some resemblance to early medieval Laverstock coarseware, which can have scratch-marked decoration, and could possibly be an import from that area (Musty *et al*. 1969, fig. 8.2, fig. 9.17-23).

Thumbed decoration (not illus.) occurs on the rims of 10% (by EVEs) of the MOE jar assemblage. This is mostly in the form of continuous lightly thumbed impressions around the rim but at least two jars have widely-spaced thumbed impressions. One jar has light continuous thumbing on top of its bead rim and spaced impressions or notches along the lower side of the rim (NH5128, not illus.). Thumbed decoration occurs one smaller jar (150 mm diam.) but mostly on larger jars (210-320 mm diam.). Scratch-marked decoration on the body of jars is common (Fig. 8, no. 104). It occurs on 26% (by EVEs) of jars (about 9 vessels) - but as it normally ends well below the rim this figure is an underestimate. It occurs on 270 body sherds - which are almost certainly from jars - and thus by this method of quantification comprises 48% of all MOE sherds (excluding definite non-jar sherds). Apart from one smallish diameter jar (130 mm diam.) scratch-marked decoration mostly occurs on fairly large jars (*c* 200-310 mm diam.). Insufficient profiles or large enough sherds survive to determine the overall scheme of this type of decoration, but it does not always appear to be totally random. On Fig. 8, no. 104 there is a horizontal band of scratching or combing at the neck/shoulder junction and then vertical/oblique scratching below this. One sherd from the girth area of a jar shows a regular horizontal band of scratching with traces of vertical or acute zig-zag scratching above this (NH3286). Several other sherds show intersecting bands of scratching forming a

crude lattice. One other sherd shows spaced horizontal bands of scratching with oblique scratches between these (NH2243). A variety of scratch-marked decorative schemes is also seen on early medieval jars at Southampton, mostly in sand- and flint-tempered fabrics (Brown 2002, 9, fig. 5, fig. 6.10-11). This type of decoration has been noted on a small sherd in Phase 4.1 and on a jar rim in Phase 4.2. In the former case the sherd may be intrusive and in the latter perhaps this is also the case or possibly this context has been wrongly assigned to this phase. All other occurrences of scratch-marked decoration occur in Phases 5 and 6.

Bowls

Three bowls have been identified in this fabric comprising just 2.18% (by EVEs) of the fabric assemblage. All of these are from Phase 6 contexts (not illus.). These have thickened flat-topped rims with a slight internal and external beading, or hammerhead look (similar to Fig. 2, no 13). One example, a possible MOE/MAQ hybrid with flint, has near-vertical walls and a thumbed rim (CC3074, diam. 310 mm). Another has a shallower sub-carinated profile (NH3167). The third example, a bowl or a skillet form, has the scar of a strap-like handle attached to the rim (NH3083, diam. 290 mm).

Crucible

A single rim sherd in a hard, reduced, coarse sandy fabric very similar to MOE has been identified as a probable crucible (CC2261, Phase 4.2, not illus.). This has a plain upright, slightly inturned, rim with traces of a pouring lip. It is quite heavily sooted externally but not internally. It is uncertain if this really is fabric MOE or a just a similar-looking grey coarseware (see also crucibles section fabric MDL).

Miscellaneous

A rounded base sherd, possibly from a crucible or a lamp, has been identified in a finer brown MOE (or Michelmersh-related?) fabric. This is somewhat thicker-walled than usual for a crucible but, in any case, shows no evidence of use (CC3134, Phase 5, not. illus.).

Fabric MPAF

Paffrath-type ware. Date c 1075-1225. Paffrath-type ware has a hard grey sandy fabric, sometimes approaching stoneware hardness. It has a rough feel and often a

distinctive bluish-grey surface sheen. The example from the current excavations has an unusually white fabric with bluish-grey surfaces. The ware has been discussed in detail from London (Vince and Jenner 1991, 103-4). Paffrath-type ware was produced at several centres in the middle Rhine valley including Paffrath itself. At London the ware first occurs in early to mid eleventh-century contexts and was quite probably still in use in the early thirteenth century (ibid., 104). Fig. 8, no. 106 is an example of the classic Paffrath handled ladle or small globular cooking pot with a 'straight' hooked handle, resembling a claw. Very rare from the site and possibly the only example identified from Winchester to date.

A single example of this fabric was identified from the site, associated with 13th-14th century glazed wares (unsampled context CC1131, BE1, Phase 6).

Fabric MPIN

Pingsdorf-type ware (new code). A very hard sandy earthenware or stoneware depending on firing. Usually brown or purplish-brown but not infrequently cream-coloured (as here). Often with red-painted decoration. Can be difficult to separate from similar red-painted wares particularly those of the Brunssum-Schinveldt industry in Dutch Limburg (Vince and Jenner 1991, 100-102). The vessel illustrated here (Fig. 8, no. 107) has abundant quartz mostly under 0.3 mm, with rare grains to 0.75 mm, and so falls within the definition of Pingsdorf-type ware provided by Keller (1995, 21). The four body sherds are from a single wheel-thrown vessel in a cream-coloured fabric with characteristic red-painted 'comma' decoration (BW4, Phase 5). Two of these (NH2039, not illus.) are probably from the narrower shoulder/neck area of the vessel suggesting perhaps a jug or beaker form. A separate light brown body sherd from an unsampled context represents a second vessel in this ware (CC1345, BE3, Phase 5). Several production centres existed in the Vorgebirge area around Pingsdorf in the German Rhineland. No spot-date code. Late Saxon to early medieval import. Production dated c 925-1250 but commonest in England during the 11th and 12th centuries. The ware is evidently very rare in Winchester with no examples reported from the excavations covered by the forthcoming Winchester pottery opus (Holmes and Matthews, in prep.), although a couple of red-painted sherds, apparently Pingsdorf-type, are published from earlier excavations (Dunning 1959, fig. 29.11-12).

Fabric MSH

Late Saxon Sandy ware (Biddle and Collis 1978). A wheel-thrown sandy ware. Generally reduced light grey through to black. Occasionally an oxidised patch - red to dark brown. Dense, well-sorted, fine-medium, transparent quartz sands mostly about 0.3 mm across. Common iron oxides. The abundance of fine sand, often with very little clay binding, gives many samples a 'sugary' or charcoal-like texture. External surface often heavily burnt and sooted. Limescale on some internal surfaces. Spot-date code lssw. Late Saxon c 850-950(?). The fabric and technological similarities between Late Saxon sandy ware and (supposedly later) Michelmersh ware have often been commented on and some relationship between the two presumed. Recent scientific analysis suggests they were both made from the same Tertiary Reading Beds clay but not from exactly the same clay source and not necessarily at the same time (Mepham and Brown 2007).

The Michelmersh kiln excavated in 2001 also produced jars/cooking pots identical in appearance and manufacturing technique to those in Late Saxon sandy ware (*ibid*., fig. 5.1-3) and on this evidence alone the date of Late Saxon sandy ware could, arguably, be extended as late as the *c* 965-1030 archaeomagnetic date of the kiln. A slight problem with this argument however is the fact that scientific analysis indicates a slightly different clay source for both with samples of Late Saxon sandy ware from Winchester suggesting a clay-with-flints source consisting of reworked Tertiary clay (Vince in *ibid*., 59-61). While a close relationship between the two wares is undeniable there are problems associated with any suggestion that Late Saxon sandy ware is a Michelmersh product, not least in terms of their different dating. A chronological overlap between the two however appears likely. One suggestion, made here, is that the earliest products of the Michelmersh kilns mainly comprised the jars/cooking pots (in Late Saxon sandy ware) which were supplied to Winchester up until *c* 950, but after this date the kilns supplied only the classic Michelmersh-type spouted pitchers to the city, up until *c* 1050, while the need for jars/cooking pots was supplied by more local sources. In other words an earlier phase of kitchenware supply was supplanted by a later phase of tableware supply but both came from the same general source although the fabric recipe may have changed slightly in the intervening time period as older clay sources became exhausted.

MSH is fairly common for a late Saxon wheel-thrown 'fineware' in Winchester, or fairly rare, depending on one's viewpoint. It is the earliest of the wheel-thrown finewares found in the city, giving its name to the Late Saxon Sandy Ware Phase in the traditional ceramic phasing employed by some (Table 2). Production could date from as early as *c* 850. The industry seems to appear fully formed out of nowhere (as with Winchester ware). Its extremely plain forms and simple lid-seated rims seem to hark back to Roman prototypes and, despite the presence of medieval-style sagging bases, one might well suspect the presence of Continental potters – at least at the inception of the industry. What might have enticed them to the Michelmersh area of remote central Hampshire, however, can only be guessed at.

The 165 sherds of MSH from the excavations here comprise 1.68% (by EVEs) of the entire assemblage (or 1.12% by sherds). Already in Phase 4.1 (*c* 850-950) the 34 sherds of ware comprised 3.85% (by EVEs) of the phase assemblage (or 2.63% by sherds) at a time when the only other significant pottery types in circulation were the late Saxon chalky wares (MBX and MAV). In Phase 4.2 (*c* 950-1050) the ware still comprised 2.55% (by EVEs) of the assemblage (or 1.98% by sherds). Thereafter it dropped-off significantly to under 1% and was probably residual by then.

Jars

Virtually the only vessel form represented in the assemblage here is the jar/cooking pot (96% by EVEs of the MSH vessel assemblage, or 98% by sherds). These were competently wheel-thrown, thick-walled and of ovoid or globular form with a sagging base – although only one almost complete profile could be reconstructed (Fig. 8, no. 111). On two separate base sherds one can just discern, through breakage, where the potter has apparently made a conscious attempt to modify an original flat base into a sagging base while the clay was still pliable. On one of these it looks like the sagging base was achieved by pushing out the original wheel-thrown base (retaining its spiral throwing marks) and then reinforcing or covering the floor internally with an added layer of clay (NH4526, BW2). On the other base sherd it looks like an extra floor was added externally to the flat base of a jar which retains traces of wire-marks underneath from where it was cut from the wheel – traces exposed by the added clay layer subsequently detaching from the original base (NH4623, Saxon road). One unusually

simple and thick walled jar appears to be entirely handmade (Fig. 8, no. 108, in slightly coarser fabric).

Around 20 separate jars are represented in the collection of rim sherds here. The commonest rim form is a simple type of lid-seated or internally hollowed/flattened rim - basically an everted plain or thickened rim with varying degrees of internal flattening - sometimes very slight - creating a ledge which could, in theory, have been used to seat a lid. This and closely related types (Type F1 and F1C) collectively comprise 58% (by EVEs) of all jar rims (or 72% by sherds), although they may be slightly over-represented by the vessel shown in Fig. 8, no. 111 which was found substantially complete, although the type was nevertheless common (on 8-10 vessels). Fig. 8, no. 112 is a related but much rarer lid-seated type with an almost tooled or bevelled internal hollowing (Type A3BB, one rim. Also illustrated in Holmes and Matthews forthcoming). The only other commmon type (7 rim sherds) is the plain everted rim (Type A1) which accounts for 21% of all jar rims (by EVEs, or 15% by sherds). There are several minor variants of this last type (Fig. 8, nos 108-10). No other rim type accounts for more than 5.84% (EVEs) of the assemblage. Also present are a few plain straight everted rims with bevelled edges or flat tops (Types A3B and A2), such as are common on the contemporary chalky wares. Other variations of these rim types on MSH are published elsewhere (Holmes and Matthews forthcoming). Jar rim diameters are in the 115-260 mm size range with a clear peak around 150-160 mm (Chart 7). The largest example, at 260 mm, has a heavy lid-seated rim similar to that on Fig. 8, no. 111. Base diameters up to 200 mm and 250 mm wide have been noted and the former example had a maximum wall thickness of 25 mm across the basal angle (see below).

There is no evidence from the assemblage here, nor from other published examples, that Late Saxon sandy ware jar rims ever had thumbed decoration. Decoration is rare on MSH jars and very restrained when it does occur. Only one jar here has a wavy band of lightly combed decoration on the shoulder (Fig. 8, no. 109). Single incised wavy line decoration occurs on the shoulder of four vessels (six body sherds) and a grooved horizontal shoulder line occurs on the shoulder of another jar.

MSH jars are characteristically heavily sooted externally providing abundant evidence of their use as cooking pots. Several examples also exhibit internal limescale. At least three vessels show evidence of purplish internal madder staining testifying to their use as dyepots (see madder account elsewhere). These include

fourteen joining sherds from the sagging base of an unusually large, thick-walled, jar (base diam. 200 mm, NH Pit 6158, SE1). The base has a regular thin purplish staining allover internally and sooting externally. The underside of the base, which exhibits signs of scorching, also has a thick (1.5 mm) rusty deposit over it possibly containing hammerscale or iron slag. Several other robust vessel bases from the site, in various fabrics, also exhibit a similar deposit. Possibly the vessel had served more than one function in its lifetime - otherwise it is difficult to imagine how traces of industrial activities as incongruous as iron-working and textile dyeing could possibly be associated on the same vessel. Another thick MSH sagging base sherd (diam. *c* 250 mm) from an uncatalogued BE3 context also displayed internal madder staining (CC1477, Phase 4). Late Saxon sandy ware is one of the earliest pottery fabrics from the site to show evidence for internal madder staining - but not until Phase 4.2. These are predated by a small assemblage of madder-stained chalky fabric MBX in Phase 4.1. Another possible example of secondary use is in the form of a jar shoulder sherd (heavily sooted externally) on which the uppermost break appears to have been possibly filed-down to form a false rim - thus allowing the vessel to be re-used (NH2354, BW5).

Costrels?

Two sherds representing two vessels have tentatively been identified as costrels (bottles). The first example is certainly from an unusual narrow-necked form (Fig. 8, no. 113). This comprises nearly 4% (by EVEs) of the MSH vessel assemblage (or 2.13% of rim sherds). This has an inward-leaning shoulder and a thickened flat-topped rim (diam. 75 mm). The internal side of the rim is slightly smoothed or burnished but the surface is rougher below this. There are just possibly traces of sooting externally. It was found in the same pit context as the almost complete jar illustrated here (Fig. 8, no. 111). The other sherd (Fig. 8, no. 114, recorded as a miscellaneous or unidentified form), is certainly from another very unusual vessel form and quite likely from something like a costrel - as reconstructed here based on medieval barrel-shaped or cylindrical examples. This was wheel-thrown as a thick-walled cylinder with slightly splayed walls. One can clearly see the scar of something like a tubular spout attached to the exterior of the vessel with associated finger denting internally. It may originally have had a handle or a perforated lug allowing it to be carried on a cord. Costrels are known from several other late Saxon pottery

industries, including a gourd-shaped example in Winchester ware (Biddle and Barclay 1974, fig. 6.26) and barrel-shaped examples in Thetford-type ware, but they do not seem to have been identified so far in Late Saxon sandy ware. Costrels were a kind of flask for liquid refreshments carried by travellers or by labourers out in the field. Fig. 8, no. 113 was found in a late Saxon road context, possibly part of the original Brudene Street.

Fabric MTE

Newbury/Kennet Valley fabric B (Vince 1997, 51-2; Mepham 2000). Flint-tempered ware with calcareous (fossil algae) inclusions. Moderate flint usually around 2 mm. Abundant rounded and sub-rounded calcareous inclusions of all sizes from 0.1 to 1 mm and occasional quartz. Mainly hard-fired thin-walled jars/cooking pots. Spot-date code new. Early medieval c 1050-1200. Part of a widespread ware tradition in Wessex, elements of which continued as late as c 1350 (eg. in Oxfordshire, see Mellor 1994b, 100-106, fabric OXAQ).

Recent thin-section work suggests that the Newbury-type fabric found in Winchester is more likely to be a local product rather than an import from Newbury (Alan Vince pers. comm.; Vince and Steane forthcoming). This is not so surprising given that the fabric occurring in Winchester can be visually very difficult to distinguish from local chalk- and flint-tempered ware (MAV) and from local flint-tempered ware (MAQ). The main thing that distinguishes the fabric here is its hard-fired, almost 'ringing', quality together with its characteristic thinner-walled vessels, mostly jars/cooking pots - many apparently wheel-turned. The latter also exhibit rim forms more characteristic of the Newbury/Kennet Valley tradition and of early medieval pottery traditions in general, rather than the more conservative essentially late Saxon rim forms of the Winchester chalk-tempered wares (MBX, MAV). On this basis it is probably worth retaining the MTE distinction to cover what may in reality be a late variant of MAV but this is perhaps best described for the moment as 'Newbury B-style ware'. Less well-fired or less diagnostic examples, however, will more than likely have been identified as MAV or even MAQ. Further scientific analysis will eventually be needed to determine whether any genuine Newbury coarseware products are present amongst the Winchester MTE assemblage.

The production of a local copy of Newbury-type MTE makes more geographic sense than importing what is, in any case, quite a coarse utilitarian ware all the way from Newbury 27 miles to the north. Its production at Winchester, or nearby, also implies that fully or almost fully wheel-thrown coarsewares were being produced in the area perhaps for the first time - since coarsewares do not seem to have been produced by the earlier glazed Winchester ware industry (*c* 950-1100).

Newbury-style ware is fairly common in Winchester. After the major local chalky coarsewares MBX and MAV and the fine sand- and flint-tempered coarseware MBK, Newbury-style ware shares a collective fourth (technically sixth) position in the excavations here with a small group of other coarsewares (including MAQ, MDF and MOE). The 578 sherds of MTE comprise 3.91% of the entire assemblage (or 3% by EVEs; 3.48% weight; Tables 4-6). The single sherd present in Phase 4.1 is probably best regarded as misidentified or intrusive. The five sherds in Phase 4.2 (*c* 950-1050) are also a little early for this fabric - but not if they are simply hard-fired specimens of MAV. The fabric really seems to come into its own in Phase 5 where it comprises 5.8% (sherds) or 5.05% by EVES. The figure for Phase 6 is higher still (8.26% sherds, 6.04% EVEs) but probably much of this is residual by now, although local production into the early 13th century is not impossible given the continued production of this tradition elsewhere until *c* 1350 (see above). Newbury-style ware vessels were primarily for cooking and storage. A few sherds however show internal purplish madder staining and must have been used as dyepots (see madder account elsewhere).

Jars

Jars are overwhelmingly the commonest vessel form in this fabric (98% EVEs). Many of these appear to be wheel-thrown but some were definitely handmade too. Rim diameters vary from 140-360 mm with a core diameter range of perhaps c 180-240 mm and a peak around 180-200 mm (Chart 8). The typical form is a fairly wide, globular, thin-walled jar with a range of thickened everted or beaded rims and a sagging base (Fig. 8, nos 115-6, 118; Fig. 9, no. 119). The lower wall just above the base is often characteristically externally concave in profile (not illustrated). Jar rims are generally fairly simple but rather more developed than those found in local MAV and MBX with a noticeable increase in externally beaded rims which are often externally bevelled-off and triangular or sub-triangular. There is a good deal of

overlap however between the rim types classified here. Decorative thumbing of the rim can also alter the original rim profile. The commonest single rim type found on jars is a beaded or clubbed rim with a flattened outer face and an inturned apex (Type C5, 28.27% by EVEs and rim sherd count; Fig. 8, no. 118; Fig. 9, no. 122). Other, less common, but more triangular types are clearly related to this main type (all under 5% EVES; Type C3B Fig. 9, no. 120, Type C3A Fig. 8, no. 116, Type B4,with pointed apex, Fig. 8, nos 115-6). Similar types of beaded/triangular rims are common on local MAV jars but those on MTE are, if anything, rather more developed or defined. Related types of thickened, flat-topped or hammerhead rims are also very common (Type B2A, 24% EVEs, 25% sherds, Fig. 9, no. 119, also common on bowls). Simpler thickened flat-topped rims are also common - rather more so on larger diameter vessels above c 300 mm (Type B2, 13.49% EVEs, 15.48% sherds, not illus.). Plain straight rims with an incipient external bead are also fairly common (Type A3C, 8.35% EVES, 7.14% sherds, not illus. Also common on MAV). The jar shown in Fig. 8, no. 117 is unusual for its almost sickle-shaped or sub-collared rim form. It also has an unusually dense but smooth dark grey matrix with abundant very coarse flint (1.5-3 mm), sparse rounded quartz and limestone. Despite this coarseness the vessel appears to have been competently wheel-thrown.

Rim thumbing is common, occurring on around half of all jar rims. This is mostly the continuous style of rim thumbing found on MAV and MBX jars (not illus.) but there are a few instances of widely-spaced thumbed impressions, including the unusually elongated and fairly slight impressions seen on Fig. 8, no. 118, and another example with widely spaced ‘dimples’ or finger tip impressions on the rim (NH4349, not illus.). Combed, or incised, and stabbed decoration occurs on a few jars, both on the body and on the rim area (Fig. 9, nos 120, 122). Two jars (including Fig. 9, no. 120) have row of small stabbed pits along the outer face of the rim (also seen on MAV). One small rim sherd from a jar with a flaring neck and thickened flat-topped rim has a lightly combed wavy band on the outer face of the neck and on the inner face of the neck and also combing on top of the rim (NH6148, not illus., with unusually coarse flint up to 6 mm). This type of combed decoration, or effusive decoration of the rim area, is also sometimes seen on glazed tripod pitchers (see fabric MAD). A small shoulder sherd from the same context as the ‘cauldron’ below (Fig. 9, no. 122), but apparently not the same vessel, is decorated with traces of incised chevrons or acute wavy combing (not illus.).

Three examples of handled jars or 'cauldrons' included the two illustrated (Fig. 9, nos 121-2). Two examples, from the same late 12th- or early 13th-century context, are sooted from cooking and have the same clubbed rim and similar looped vertical strap handles (Fig. 9, no. 122 and a plain example, not illus. NH2356). Fig. 9, no. 122 has evidence of two handles attached to the rim, and the other vessels were probably double-handled also. Fig. 9, no. 122 is decorated with an incised wavy line down the back of the handle and thumbed impressions at the base of the handle. Vessel Fig. 9, no. 121 has a more angular profile and an angled 'elbow' handle typical of metal cauldrons of which it is undoubtedly a copy. The rim is plain and flaring like most metal cauldrons but also like one of the commonest rim forms in the chalk-tempered wares MBX and MAV (Type A3B, 3.64% by EVEs of MTE jar rims). The three cauldrons have rim diameters in the range of 190-290 mm.

Bowls

There are only two examples of this form (2 sherds, 0.11 EVEs) recorded from the sampled group (2.3% by EVEs of all MTE forms). At least two other examples were noted from unsampled contexts, including Fig. 9, no. 123, Phase 5. The two from the sample are from Phase 6. Bowls in this fabric tend to have thickened flat-topped or hammerhead rims - like many of the jars (Fig. 9, nos 123-4). They have fairly steep flaring walls and presumably sagging bases. One example with a thumbed rim has near-vertical walls (NH818, not illus.). Recorded rim diameters are 250 mm, 300 mm and 320 mm. Most examples are sooted from cooking. Fig. 9, no. 124 is sooted both internally (from food residues?) and externally. This is the only example of this form noted with combed decoration. A three-pronged comb or tool was used to create a bold decorative scheme, apparently consisting of a band of combed intersecting pendant arcs or wavy bands on the wall and a band of notches under the rim. The rim is decorated with notch-like thumbing. Similar bowl forms occur in flint-tempered MAQ (see elsewhere).

Curfews

A single very fragmentary example in a very coarsely flint-tempered fabric has been identified, although this could just as easily be fabric MAQ (NH4186, BW2, Phase 5, not illus.). This came from the same context as a small Newbury-style jar (Fig. 8, no. 115). The curfew is represented by 25, mostly very small, probably crushed sherds,

apparently from the dome of the vessel (probably of inverted bowl form). A few of the larger joining sherds from this show at least two pre-fired circular perforations (5 mm across), for ventilation, and one larger perforation (*c* 15 mm) and traces of a combed wavy band of decoration externally (upward facing). The internal surface of these sherds is heavily sooted from use over a fire. One sherd is evidently from a detached handle of oval section which was evidently plugged through the vessel wall and smoothed flush with the internal surface - causing its flattened end to be exposed to sooting too.

Fabric MWW

Winchester ware (Biddle and Barclay 1974; Hurst 1976 334-6). A high quality wheel-thrown glazed tableware with a fairly fine sandy fabric which can be oxidised buff or orange, off-white, cream, and usually with a corresponding yellowish or orange glaze, or with a reduced pale grey fabric and an olive or greenish glaze. Normally present as spouted pitchers, and some jars, which can be highly decorated, mainly rouletted. Spot-date code ww. Late Saxon to early medieval c 950-1100. The industry however may not long have outlived the Norman conquest and may have been over by c 1070 (Helen Rees pers. comm.). No kilns known but the white-firing clay used is presumably from the Reading Beds immediately to the south of the city. The suggestion that tripod pitchers were occasionally made in Winchester ware from c 980 is problematical, and now seems unlikely, as the tripod pitcher form is generally only dated from the mid 11th century onwards on other British sites. This suggestion appears to be based on a Winchester Cathedral context with questionable links to late 10th-century documentary evidence (Biddle and Barclay 1974, 153, footnote 32) although the context in question also produced sherds of scratch-marked wares - a distinctive Wessex style which is normally only dated from c 1070 onwards (Helen Rees pers. comm. See also fabric MOE). Another supposed late development of the industry - 'Developed Winchester ware' - comprising green-glazed jugs (from c 1110; ibid., 153-4), is now considered more likely to be an early type of Laverstock ware and has since been renamed 'Twelfth-century Glazed ware' (King in Holmes and Matthews in prep). This ware (Fabric MDW) is fairly rare even in Winchester itself and none has been identified from the site. Other glazed sherds of less certain Winchester ware identification have been grouped under the code WWX and are discussed elsewhere.

It cannot be over-emphasised how strikingly different Winchester ware must have appeared to its consumers in late Saxon and early Norman Winchester - a brightly glazed highly decorated tableware appearing at a time when vitually all other pottery in the city consisted of dull grey and brown handmade kitchenwares in chalky, flinty and sandy coarseware fabrics. It has perhaps deservedly been described as "an exotic cuckoo in a nest of mainly chalk-tempered wares" (Helen Rees, pers. comm.). Even in 1974, when the first and still most significant study of the ware was published, the origins of this newly arrived late Saxon glazed ware industry were thought to lie outside England and a tentative link to northern France was suggested (Biddle and Barclay 1974, 152). In the thirty years or so since this publication a great deal more has been learned about medieval pottery in Britain and on the Continent. It is know seems highly likely, for instance, that the late Saxon glazed Stamford ware industry (*c* 850-1150) was almost certainly established by emmigrant potters from near Huy in Belgium (Giertz 1996), although the origins of Stamford ware are probably not exactly the same as those for Winchester ware. Many of Winchester ware's typological, technological and decorative features are paralleled by North French yellow glazed ware, which occurs as an import in London and Southampton, although the production site is unknown (Vince and Jenner 1991, 106-8). It seems even more plausible, therefore, that a potter (or potters) from north-west France was responsible for setting up the first Winchester ware kiln somewhere in the vicinity of the city although concrete evidence for this remains to be discovered.

Two spouted pitchers of classic Winchester ware form and decoration (Fig. 9, nos 126, 130) have glazing defects and may be 'seconds' (although not wasters as originally thought). These may still have seen active service as usable vessels despite their defects. Both vessels were submitted for scientific analysis as a contribution towards determining the source of the clay used to produce Winchester ware. The results of this analysis, by Alan Vince, are presented elsewhere (see *Appendix 3*).

Winchester ware (MWW) is fairly common or fairly rare - even in Winchester itself - although this depends on one's point of view. The 133 sherds of MMW from the excavations here comprise 1.56% (by EVEs) of the entire assemblage (or 0.90% by sherds). The 77 sherds in Phase 4.2 (*c* 950-1050) comprise 3.62% (by EVEs) of the assemblage (or 1.67% by sherds) and this undoubtedly represents the ware's main period of currency. In Phase 5 (*c* 1050-1225) this figure drops to 0.64% (by EVEs), or

0.82% (by sherds) but presumably some of it was residual by then. Only two sherds occur in Phase 6 (*c* 1225-1550) which are clearly residual. The assemblage of Winchester ware from these excavations is mostly very fragmentary and this suggests much of it could be residual to varying degrees, although it is probably the most fragile of the local or regional late Saxon wheel-thrown wares. No complete profiles were recovered. Most of the vessels illustrated here are represented by just one or two sherds, although a half-profile of a probable three-handled spouted pitcher (Fig. 9, no. 131) was reconstructable from five fresh sherds (0.33 EVES), and some large fresh joining basal sherds are also probably contemporary in their contexts.

Jars and spouted pitchers

These are virtually the only vessel forms present in this assemblage apart from one or two possible lids (see below). For some purposes, mainly for quantification, these are considered together as they cannot easily be distinguished from rim sherds alone – unless there is definite evidence of a tubular spout. A variety of jar, spouted pitcher and other vessel types have been distinguished by Biddle and Barclay (1974) based upon a much larger sample of Winchester ware than that available here. No attempt was made at the cataloguing stage of this report to record Winchester ware forms according to the detailed subdivisions defined by Biddle and Barclay but reference to these can be made subsequently for obvious vessel parallels. Elsewhere in Winchester, pitchers (mostly spouted), with an ovoid or globular body, an opposed handle and a sagging base, form nearly 82% of all vessel forms in this ware (ibid., 143-4) whereas handled jars - usually with a neck cordon and apparently without spouts - are relatively rare (*ibid*., 147-8).

The 22 rim sherds here (2.38 EVEs), from sampled contexts, are too small a sample for very meaningful statistical analysis and satisfactory separation into plain jars or spouted pitchers. Rim types, particularly very simple ones, were evidently interchangeable between plain jars and spouted pitchers although the more developed inturned rim (Type IN3) was possibly reserved for spouted pitchers (as it was for Michelmersh ware). None of the rims recorded here, however, has a distinctive shoulder cordon like the handled jars illustrated from other sites (Biddle and Barclay 1974, fig. 7.43-6) and it therefore seems likely that most of the jars here are actually spouted pitchers and perhaps one or two other more unusual forms. The 22 rim sherds represent a minimum of 15 vessels of which 7 are identified in the catalogue as jars

and 8 as spouted pitchers. However only 5 tubular spouts were recovered and these represent the absolute minimum for spouted pitchers here. In addition to these there are at least two other vessels (including one spout) from unsampled contexts which have been selected for illustration (Fig. 9, nos 128, 130) although their data is not included in the analysis below. Many other vessels must be represented in the assemblage of body and base sherds but these are less easily quantifiable by minimum vessel counts than the rim sherds.

Jars/spouted pitchers here occur with nine rim types. These are mostly types of simple plain or thickened everted rims and a few thickened inturned rims. The three main rim types (B2, A1 and IN3) are the only numerically significant ones since all other rim types are represented by single vessels only. There is broad agreement for this from both minimum vessel counts and percentages based on EVEs (Table 14). Definite spouted pitchers (with tubular spouts) occur with rim types B2, A1, IN3, B1 and a damaged rim type (MISC). By minimum vessel counts, simple thickened flat-topped rims account for four vessels, or 22.27% by EVEs of all jars/spouted pitchers (Type B2, Fig. 9, nos 129-30). Plain everted rims account for three vessels, or 21.43% by EVEs (Type A1, Fig. 9, nos 125-6). Inturned thickened flat-topped rims account for two vessels, or 15.55% EVEs, both probably spouted pitchers (Type IN3, Figs 9-10, nos 132-3). All other rim types are represented by single vessels only. These include a curved everted rim with a flattened end or top (Type A2, Fig. 9, no. 131), a lid-seated rim (Type F1, Fig. 9, no. 128), a sub-collared jug-type rim (Type B2C, Fig. 10, no. 134), a thickened everted squared rim (Type B3, not illus.), a simple everted thickened rim (Type B1, not illus.) and a damaged unidentifiable rim type (Type MISC, not illus.). Jar/spouted pitcher rim diameters are in the 90-160 mm range with a peak around 150 mm (including three spouted pitchers; Chart 9). This accords fairly closely with pitchers rims from elsewhere in Winchester where the peak is around 140 mm, although the range of much wider pitcher rims - up to 350 mm - is not present in this assemblage (Biddle and Barclay 1974, fig. 1).

Nearly all jars/spouted pitchers are covered externally with a good quality glaze, usually yellow, and many vessels are also glazed inside too - although usually in a thinner reduced greenish glaze which is sometimes fairly patchy in coverage. A few rare cruder pieces seem hardly to have been glazed at all. These include a small jar rim (Fig. 9, no. 125) in a coarser orange-buff fabric with a band of clumsily executed squarish rouletting inside the rim. This vessel is unglazed apart from a

discontinuous band of greenish-yellow glaze along the top of the rim and over the rouletting with a thin glaze trail below this. Another (B2) jar rim with poorly executed rouletting on top also has only splashes of glaze on the rim and internally (NH2233, not illus.). Two joining sherds from the thick lower wall of a jar showing traces of basal knife-trimming or wiping, occur in a completely unglazed pale orange fabric variant with fine streaks of white pipeclay through the fabric. This vessel is heavily sooted externally from cooking and is the only Winchester ware vessel in the assemblage that may be an unglazed purpose-made jar/cooking pot rather than a glazed tableware vessel (NH4355, BW2, Phase 4.2). Other thick-walled sherds in this variant fabric have been noted, some with external glaze splashes (eg CC3094. BE5, Phase 4.2, and Fig. 9, no. 125 may also be an example). Spouted pitcher Fig. 9, no. 130, a possible kiln 'second' is covered externally with a pale greenish-yellow glaze with decayed splashes internally. A tubular spout, with a small upper over-fold, has been attached to the rim. The upper portion of the spout appears to have broken off before firing but has still been glazed over. The other possible 'second' is represented by a jar/spouted pitcher rim with rouletted decoration. This appears to have split along a vertical flaw and was partially glazed across the break. It is covered allover internally and externally with a good quality yellow glaze although this is reduced dark green along the edge of the break. These possible 'seconds' might be viewed as evidence that the undiscovered Winchester ware kilns are located in or near the city itself - since it hardly seems worthwhile importing defective vessels from much further afield (see scientific report by Alan Vince elsewhere). A few other possible Winchester ware wasters or 'seconds' are known from other sites in the city (Katherine Barclay, pers. comm.; Holmes and Matthews in prep.).

The sagging bases from around 14 vessels (17 sherds) have been identified (not illus.). Basal diameters are in the 110-210 mm range. These are glazed externally and sometimes internally too and on some the glaze coverage extends under the base. One jar/spouted pitcher base (diam. *c* 135 mm) has a patchy greenish glaze on the outside only and, unusually, is heavily sooted externally suggesting use as a cooking vessel (NH9654, BW4). Body sherds from at least two other glazed vessels (one with rouletting) also show evidence of heating (NH3510, BW4, NH2315, BW5). It is likely that spouted pitchers were reserved for serving liquids such as wine or ale but occasionally the contents could be heated by the fire to provide hot drinks.

Two main types of spouted pitcher occur in Winchester ware. Type 1a spouted pitchers have a simple rolled out rim type while in the commonest type, Type 1b, the rim is thickened internally and may have a slight internal flattening or lid seating. Both types are contemporary (Biddle and Barclay 1974, 143-4). Most of the jar/spouted pitchers rims here appear to be from Type 1b spouted pitchers (Fig. 9, nos 129-30 and probably nos 128 and 131), although plainer rimmed Type 1a pitchers also seem to be present (Fig. 9, nos 125-6). Fig. 9, no. 131, which has a warped rim, has a complete vertical looped handle and evidence of either a spout or another handle at 45 degrees to the existing one. This would suggest that the original vessel may have had a pair of handles diametrically opposed and possibly a third handle opposite the spout. Two- or three-handled vessels however are more a feature of late Saxon glazed Stamford ware pitchers rather than Winchester ware (*ibid*., 144). However the vessel here is in a fairly coarse pink-buff fabric with sparse flint and does not closely resemble the finer Stamford fabric. Pitcher spouts are tubular and attached to the rim. On one vessel the spout is oval in plan and a shallow pouring channel has been notched into the upper surface of the rim (NH3229, not illus., see parallel in Biddle and Barclay 1974, fig. 4.9, type 1a). More unusual is Fig. 9, no. 132 which is not exactly paralleled in the published typology. This has an inturned flat-topped or lid-seated rim with vestiges of a tubular spout (teardrop in plan) attached to the shoulder and joined to the rim by a short strut or bridge. The shoulder bear traces of a horizontal cordon which may be lightly thumbed or notched. Most of these elements however are loosely paralleled in the typology and the fairly rare Type 8 jars also have shoulder cordons - not unlike that here (*ibid*., fig. 7.43-4). The form of Fig. 9, no. 132, however, with its inturned rim and shoulder cordon, is reminiscent of spouted pitchers in unglazed Michelmersh ware (see fabric MMU elsewhere) although the latter do not have spouts attached to the rim. The form is also reminiscent of early North French glazed wares and an alternative identification cannot be ruled out.

One or two other sherds with shoulder cordons were also noted in the assemblage including the unusual vessel shown in Fig. 10, no. 133 which occurs in a coarser orange fabric with a poor quality thin glaze. This also has an inturned rim and, unusually, has three horizontal shoulder cordons. There are traces of possibly square rouletting on top of the rim and at least one horizontal band of square rouletting on the body. The shoulder shows a trace of an applied feature (not shown here), possibly a spout or a handle. This vessel has no close parallel among the vessels identified as jars

or spouted pitchers in the published typology but it does have some similarity with a group of small vessels identified as Type 4 'cups' (*ibid.*, fig. 7.31-6, particularly no.36 which has shoulder cordons or corrugation and rouletted decoration). There is also a looser similarity with Type 5 'bowls', some of which have rouletting on top of the rim as well as on the body (*ibid.*, fig. 7.37-9). Also unusual in the assemblage here, and catalogued (perhaps erroneously) as a jar, is the vessel shown in Fig. 10, no. 134. This has a slack jug-like sub-collared rim with complex external rouletting including horizontal rows of opposing triangular rouletting as well as the more usual bands of square rouletting. The rim is slightly warped - possibly from the proximity of a now-vanished applied feature. The outside is covered in a thin yellow glaze. There is no exact parallel for this combination of form and decoration in the published typology although the decoration and sub-collared rims occur on the three (incomplete) vessels identified as Type 5 bowls. One of these has traces of an applied feature and the authors suggested this might instead be a collared rim jug (*ibid.*, fig. 7.38). Rare jug body sherds are known in Winchester ware (*ibid.*, fig. 7.40). The only other vessel in the published typology loosely similar to Fig. 10, no. 134 is a tripod pitcher rim with attached tubular spout (*ibid.*, fig.7.47). However the vessel here is competently wheel-thrown and thin-walled like a true Winchester ware product whereas tripod pitchers are generally handmade. It now seems unlikely that tripod pitchers, essentially an 11th-early 13th century form, were made in Winchester ware despite their inclusion in the published typology (see introduction above). The complex rouletted decoration on Fig. 10, no. 134 is also exactly paralleled in the repertory of Winchester ware decoration - but on body sherds from uncertain forms (*ibid.*, fig. 8.60-63). Whether Fig. 10, no. 134 is a jug or a some kind of jar the presence of collared rims on Winchester ware vessels (including the rare Type 5 'bowls') has not really been commented on before. Collared rims seem to have been re-invented in north-west France in the 10th century and were copied by English potters during the 11th and 12th century, particularly for jugs and spouted pitchers (Kilmurry 1980, 194; Cotter 1997, 63-72, 82). Their presence here implies that Winchester ware potters were at least aware of contemporary innovations on the continent although the collared rim was only a very minor element of the industry - perhaps introduced as the industry was in decline?

Decoration occurs on 30 sherds of Winchester ware vessel forms in this assemblage (1.57 EVEs), although it is possible that one or two of these are

misidentified examples of similar glazed wares. Rouletting is by far the commonest type of decoration with horizontal bands of mainly square or rectangular impressions easily being the commonest type. These usually occur on the body and occasionally on the top or insides of rims. Diamond and possibly lozenge (or paired diamond) rouletting was noted on two vessels. Spaced combed horizontal bands were noted on one small sherd but this type of decoration seems otherwise unparalleled (CC3163, BE5, Phase 5). Stamped decoration occurs on only two fairly certain vessels in this ware including the lid discussed below (Fig. 10, no. 136) and on two sherds possibly from an unusual type of highly decorated jar (Fig. 10, no. 135). The latter is from a fairly large vessel decorated with an applied high relief strip - the surviving part of which is in the form of an arc. The areas above and below the arc are decorated with unique shallow circular stamps (diam. 21 mm) each containing a 'cinquefoil' or five small adjoining circles. In the top right corner of the illustrated sherd a small flattened lentoid area may represent the start of another applied feature. This has a dull yellow-brown external glaze, thin in places, with glaze specks also surviving on the abraded internal surface. The fabric appears to be Winchester ware but is slightly pastier than usual with a higher percentage of iron-stained orange-red quartz and sparse red flint (Phase 5, from contexts on adjoining BW3 and BW4). Although the exact stamp on Fig. 10, no. 135 is unparalleled it may come from one of the highly decorated Type 2 pitchers which have curving strips and stamped rosettes (Biddle and Barclay 1974, fig. 5.10-11)

Lids

Fig. 10, no. 136 is tentatively identified as Winchester ware and comes from an abraded locking lid (0.18 EVEs). It appears to have been made unglazed in a fine sandy pale buff-brown fabric and may have been handmade. The knob is missing. The upper part is covered with small circular stamped rings (5-6 mm diam). A locking lid is illustrated in the published typology (*ibid.*, fig. 7.41) but is a more finely-potted example than this. A better parallel is with a locking lid in North French yellow-glazed ware from London (Vince and Jenner 1991, fig. 2.115 no.290). Another miscellaneous object may also be from a lid or may be the pedestal base of some other uncertain form (Fig. 10, no. 137; 0.10 EVEs).

Fabric MZM

Sandy grey ware, possibly imported. Wheel-thrown. Common sands up to 1 mm. Iron oxides. Either an import or possibly a reduced Michelmersh product? Spot-date code gw. Late Saxon to early medieval c 950-1050? A fairly rare fabric first identified from the northern and eastern suburbs (Holmes in Holmes and Matthews in prep., p236).

The 138 sherds identified represent 1.61% (by EVEs) of the entire excavated assemblage here (or 0.93% by sherds). The bulk of this occurs in Phases 4.2 and 5. To some extent this code has been used as a catch-all for miscellaneous reduced sandy grey ware sherds that cannot confidently be assigned to other fabric categories. The author is of the opinion that this fabric code almost certainly includes some reduced Michelmersh products, or the products of a related regional industry, but it also possibly includes some imported, probably north-west French grey wares, that cannot be ascribed to existing French grey ware categories (see MFGY). It could also include a few misidentified fairly local early to high medieval grey ware jars/cooking pots (see MDF). Within this coding there is a slightly wider range of fabric texture and hardness than the simplified description above would lead one to suspect (details in archive), however without a more rigorous re-examination of this category involving scientific fabric analyses, which have not to date been attempted, only some fairly general comments on this possibly heterogeneous grey ware assemblage can be offered here, mainly articulated around the illustrated pieces.

Almost the only vessel form represented here is the jar, although an unusual shouldered jar or small pitcher with rouletted decoration and a possible crucible are also included here. All the illustrated pieces, and many others, were shown to Roman pottery specialists (Paul Booth, Dan Stansbie and Jane Timby) to minimise the inclusion of residual local Roman grey wares - some of which have very similar fabrics. Jars have rim diameters in the 120-230 mm range with a peak around 180-200 mm (Chart 10). The majority of jars are in a very hard grey fabric, sometimes with silvery-grey margins and/or surfaces, and are competently wheel-thrown. In the catalogued sample of 27 MZM jar rims the commonest two types of rim were also those which are the commonest on local handmade late Saxon chalky wares (MBX, MAV) and which are also seen on some plain jars from the Michelmersh kilns (Mepham and Brown 2007), although those seem to be from rather larger vessels with less well-formed (A1, B1) rims than those illustrated here. These are a plain everted

straight rim with a bevelled edge or flattened top (Type A3B, 36.51% EVEs, Fig. 10, no. 138-9) and an identical type with a rounded top (Type A3A, 12.30% EVEs, not illus.), although simple plain everted rims are also common (Type A1, 18.25% EVEs, Fig. 10, nos 140, 144). Other types are represented by just one or two rim sherds (Fig. 10, nos 140-43, 145). Bases sherds are mostly sagging but a couple of flat (?Roman) bases are also included in the catalogue. Many vessels show external sooting.

It is suggested, tentatively, that the majority of jars illustrated here are rather more likely to be a reduced variant of Michelmersh ware (*c* 925-1050), or the products of a similar Michelmersh-type industry probably based in Hampshire rather than continental imports (Fig. 10, nos 138-41, 143-4). Fig. 10, no. 143 with paired thumbed decoration is paralleled at the Michelmersh kilns (Mepham and Brown 2007, fig.7.1, 5) and this type of thumbed decoration is much more typical of English medieval pottery than French. Fig. 10, no. 144, has an unusually fine, fairly soft pale grey fabric but is not dissimilar in fineness to the finer Michelmersh fabric commonly found in Winchester (and the related late Saxon sandy ware MSH fabric). The allover horizontal grooved decoration (and exaggerated centrally sagging base) is fairly rare at Michelmersh but does occur (*ibid*., fig. 12.37), and also on contemporary Portchester ware cooking pots (Hurst 1976, fig. 7.26.1, a much closer form parallel). Two body sherds (probably the same vessel) in the silvery-grey fabric have rouletted decoration consisting of a shoulder band of three horizontal rows of square rouletting (NH4223, NH4225, not illus. Both BW2, Phase 4.2).

Outside of this loose group above, a few vessels might represent continental grey wares. These include a small squared rim jar (Fig. 10, no. 142), and a possible storage jar with a horizontal applied thumbed strip at the neck (Fig. 10, no. 145).

There is a single example of a unique shouldered small jar or perhaps some kind of pitcher (Fig. 10, no. 146). This is in a hard fabric with dull grey-brown surfaces but is fired in the core like the silvery-grey fabric mentioned above. This is more like a reduced Michelmersh (or MSH) fabric than anything else. The form and decoration, however, are unparalleled in those industries (Lorraine Mepham, pers. comm.). On the shoulder there is a trace of a possible applied feature such as a handle or a spout. The shoulder is decorated with a band of horizontal rouletting composed of central zig-zag lines enclose by rows of squares (CC2027, BE4, Phase 5). Curiously, and probably coincidentally, an unidentifed probably 11th-12th century glazed tripod

pitcher- type ware from these excavations also has very similar rouletted decoration (see fabric WWX, Fig. 10, nos 149-50).

The only other form noted in this fabric (or a fabric like this) is a possible crucible of unusually large and globular form with an inturned rim (Fig. 10, no. 147). There are possible traces of sooting inside on the lower walls. The form is reminiscent of so-called 'ginger jars' in late Saxon Thetford ware from East Anglia.

Fabric PMED

Post-medieval wares (new code). Umbrella code for post-medieval wares c 1550-1900. Various spot-date codes.

Rare from the site and mainly comprising 18th- and 19th-century wares. Sixteen post-medieval sherds are intrusive in some of the late Saxon to medieval contexts. Details remain in archive.

Fabric UNID

All unidentified wares. Late Saxon to medieval. Fairly rare. These include sherds too small or abraded to be safely identified as well as a few sherds of previously unrecognised wares. Details for most of these remain in archive.

The only item illustrated here is a jar in an unknown fine grey sandy ware Fig. 10, no. 148) which may be a late Saxon regional (or continental?) import. This is possibly wheel-thrown or wheel-finished with vertical knife facetting of the exterior and a plain straight everted rim identical to the commonest rim type in late Saxon chalky ware (fabric MBX). The illustrated piece (BW3, Phase 5) has a very fine grey sandy fabric with brown margins and grey surfaces. An almost identical rim, in a related context, has exactly the same fabric but with a red-brown core, moderate fine chalk and fine flint, and is fairly micaceous. The fabric is reminiscent of Portchester ware (fabric MBN), but is much finer (NH3753, BW3, not illus.).

Fabric WWX

Winchester-style ware. Identification uncertain. A glazed late Saxon wheel-thrown sandy ware. As used by the former Winchester Unit this described a fabric similar to classic Winchester ware (MWW) but with a whitish-grey fabric and a greenish-yellow

glaze. Here the code is used to describe uncertain examples of Winchester ware. Most are probably minor variants of the ware (or burnt examples) but some (at least those from post-conquest contexts) may be misidentified early medieval or later wares. Date c 950-1100. Fairly rare.

Among the 41 sherds of this identified a small number are worthy of comment. One body sherd (6 g) has a finer cream fabric than true Winchester ware with an allover external thin glossy yellowish-greenish glaze with fine iron speckling. This in the only sherd in the assemblage from the site tentatively identified as Stamford Ware, a late Saxon glazed ware (*c* 850-1150; Kilmurry 1980). The context is early (CC3235, BE4, Phase 4.2). Ten other WWX sherds (85 g) occur in a predominantly pale orange-buff sandy fabric similar to Winchester ware but somewhat more orange or pinker. Unusually these all have an external covering of white slip under a clear yellow glaze. All are from perhaps just two or three competently wheel-thrown vessels. Nine of these are from adjoining Properties BE2 and BE4, mostly from pit fills assigned to Phase 4.2 (*c* 950-1050) and 5 (*c* 1050-1225). One sherd is from SE2 (Phase 6). Initially these were thought to be a previously unknown variant of Winchester ware with a white slip. This would have been significant as - if phased correctly - they could have represented the earliest white-slipped English medieval ware identified to date. The assemblage mostly comprises body sherds including the two roulette-decorated pieces (Fig. 10, nos 149-50). There is also a thin-walled sagging base sherd in this fabric (but orange-brown) from a pitcher or jar with all over external white slip extending (apparently) over the underside of the vessel. The interior surface has a patchy covering of reduced greenish glaze - similar to that on true Winchester ware (CC1376, BE2, Phase 4.2). The illustrated pieces include a (reduced) body sherd, possibly from a pitcher or jug, with traces of a lower handle junction with a thumbed impression (Fig. 10, no. 150). This has a horizontal band of square rouletting with a (rouletted?) zig-zag line running underneath. The same decoration occurs on an oxidised body sherd from the same context but, unusually, the rouletted band is vertical (Fig. 10, no. 149). There is exact parallel for this rouletted scheme in the published typology of Winchester ware (Biddle and Barclay 1974). Perhaps coincidentally, the closest parallel - at least for the horizontal scheme - is with the shoulder decoration on an unidentified, possibly imported, greyware jar/pitcher from the site excavations (Fig. 10, no. 146, BE4, Phase 5). The illustrated

sherds were examined by Katherine Barclay, who concluded that they are too coarse to be true Winchester ware but that they have some fabric and textural affinities with local tripod pitcher fabrics (MNG - 'Early South Hampshire red ware', and MAD), and with Saxon Glazed Tile fabric 1, although at the coarser end of the range, but basically the identity of the ware remains a puzzle (KB pers. comm.). Alan Vince also examined a sherd of this ware and doubted that white slipped pottery like this could be pre-conquest. The earliest allover slipped vessels are in late 11th-century Coarse London-type ware. In terms of a tradition he suggested a late 11th/12th-century tripod pitcher ware, from an unknown source, but probably either south-east Wiltshire or south Hampshire (AV pers. comm.). The fact that these vessels are wheel-thrown, however, at a time when most regional tripod pitcher ware traditions were handmade is still a puzzle, although they could be wheel-thrown jugs rather than tripod pitchers. Clearly a larger sample of this unidentified slipware (temporarily re-coded WWX.SL) needs to be amassed before it can be properly identified. All the sherds are fairly small and may be intrusive in the upper fills of the pit from which they came.

Interpretation: The pottery in its site context

This section deals with aspects of pottery quantification and distribution in relation to the site and the ten catalogued late Saxon to medieval properties. Some aspects of the site pottery quantification and selection strategy have already been touched on in the Methodology section in the earlier part of this report (see elsewhere) but in order to compare the pottery assemblages from different properties and maximize their potential to inform us about the site and its inhabitants it is important to understand something of the strengths and limitations of the variable data that are being compared. Presenting the main data from the ten catalogued properties, through four post-Roman phases and by three methods of quantification has been achieved in Table 1, but for ease of consultation a reduced subset of tables based mainly on sherd counts is also presented here.

The site represents a complex patchwork of excavated areas, mitigation strategies and truncation. Furthermore, pottery analysis was based on a 70% sampling strategy for full recording. Because the size of the pottery sample from each property is unequal there are caveats in the data which render comparisons between some properties imprecise - at least within certain phases. This mainly affects properties

with the smallest quantities of catalogued pottery, and those where some phases are poorly represented or not at all (eg Property BW1, with only 268 sherds). The largest property assemblages (eg BW3, with 3,052 sherds) are less affected but cannot be safely compared to the smallest. There may originally, for instance, have been ceramic evidence for Phase 4.1 (*c* 850-950) across the whole site but this is absent from Properties BE2 and BE5, perhaps because it was removed in antiquity or not reached in excavation. The small amount of Phase 4.1 pottery from the SE and BE frontages furthermore (46 and 27 sherds respectively), is too small to be strictly compared with the much larger assemblage of 4.1 pottery from the BW frontage (963 sherds). On the other hand, the apparent absence of high medieval (Phase 6) pottery from Properties BW4, BW5, BE2 and BE4, is due simply to the fact that these assemblages were not catalogued. This limits comparison of Phase 6 pottery to the six properties where it was catalogued. These caveats should be borne in mind when comparing statistics across properties. The most reliable checks to the strengths and weakness of the catalogued assemblage is Table 1, which shows how much pottery from each property and phase was catalogued, as well as those few cases in which it was genuinely absent and (for Phase 6) when it was present but not catalogued. Nearly 15,000 stratified sherds of mainly late Saxon and early medieval pottery is, nonetheless, an impressive sample and its size and diversity is its main strength.

A simplified list of the pottery totals for each of the ten sampled properties (and street surfaces) is shown in Table 15 and a similar list for the three late Saxon street frontages is shown in Table 16. Pottery quantities by phase are presented in Table 17 (these include the extra 26 sherds from Phase 4 bringing the total to 14,972 sherds). With a total of 7,664 sherds the BW frontage (Properties BW1-5) clearly has the largest assemblage and, overall, Phase 5 (*c* 1050-1225) is largest phase assemblage on the site (6,567 sherds) with Phase 4.2 (*c* 950-1050) a close second with 4,607 sherds. The relative quantities of pottery on each street frontage and in each phase are also summarised in Chart 11. Many other tables and charts analysing the distribution of pottery on the site, from various viewpoints, remain in archive and only the most relevant are included here.

Interpretation: Pottery fabrics (and fabric groups) by property and phase

The quantity of each fabric recovered, by sherd count, weight and EVEs, as well as the percentage of each in phased deposits is shown in three tables (Tables 4-6). The 36 fabric codes present from sampled contexts are too numerous to lend themselves to easy graphic representation in the form of pie-charts etc. These, however, can be ordered into fabric groups based on a range of criteria including physical and/or technological similarity, presumed date or presumed source etc. All of these criteria overlap to varying extents but the following groupings - some more arbitrary than others - have been defined in order that the main trends within the assemblage can be seen more clearly, whether spatially or chronologically. Some groupings (eg chalk-tempered wares) are more obvious than others. The justification for other less obvious groupings is expanded upon below.

Group 1. Local chalk-tempered wares (c 850-1200). MBX, MAV. The latter fabric (MAV chalk and flint) overlaps with some Group 3 fabrics below (MAQ, MTE). Group 1 vessel forms almost exclusively have sagging bases as opposed to round ones. Not surprisingly this is the largest fabric group from the excavations here comprising 62.74% by sherds (or 61.9% by EVEs, see Table 18).

Group 2. Late Saxon wheel-thrown wares (c 850-1100). All probably Hampshire products, all basically sandy wares. Includes glazed Winchester ware (MWW) and Winchester-style ware (WWX). Also unglazed Late Saxon sandy ware (MSH), Michelmersh ware (MMU), Portchester ware (MBN, sand and flint), and the unsourced grey ware (MZM) which may be a reduced variant of Michelmersh ware. This small group comprises 4.75% (by sherds) of the site assemblage (or 6.64% by EVEs and 5.10% by weight).

Group 3. Local sand and flint-tempered coarsewares (c 850-1250, mostly c 1050-1225). MBK, MAF, MAQ, MTE. These all also have some chalk content but usually as a sparse to moderate component. The fine sandy wares MBK and MAF ('organic'-tempered) are clearly related by fabric and manufacturing technique (possibly 'paddle and anvil' technique, both with round-bottomed jars). MBK and occasionally MAF are sometimes decorated with scratch-marked decoration, which is apparently a post-conquest phenomenon. MAQ (flint-tempered sandy ware) is also related to these by fabric and can sometimes be seen to share the same distinctive manufacturing technique as well as the common round-bottomed jar form. It does

however overlap in character with MAV (chalk and flint-tempered) if the chalk content in both is high and the quartz sand content coarser than usual (usually in late examples). MTE, the local Newbury B style of pottery, is placed in Group 3 on the basis of its fabric character which contains coarse quartz, flint and chalk and appears quite late in the Winchester sequence. However MTE is thin-walled, certainly wheel-thrown in many cases, and normally occurs as jars with pronounced sagging bases. In this latter respect, and in terms of fabric similarity, it could be grouped with MAV in Group 1 but the pronounced flint content aligns it perhaps more properly with Group 3 fabrics. This group comprises 19.27% (by sherds) of the site assemblage (or 19.54% by EVEs).

Group 4. Local coarse quartz-tempered ware, MOE (c 1050-1225). Mainly coarse quartz-tempered but often with small amounts of flint and chalk. Usually occurs as large round-bottomed jars frequently with scratch-marked decoration. These features, including shared rim forms, align MOE most closely with MBK in Group 3 but MOE seems texturally distinct enough to form a separate group. This group comprises 3.84% (by sherds) of the site assemblage (or 3.40% by EVEs).

Group 5. Local glazed quartz-tempered tripod pitcher wares (c 1050-1225). MAD, MADW, MNG. Although MAD is technically a fabric and not a form it does seem to occur almost exclusively as tripod pitchers or large jugs. It may be a glazed version of MOE above. MNG, though finer and possibly later (from *c* 1175?), also frequently occurs in these forms and is included here for convenience. This group comprises 1.71% (by sherds) of the site assemblage (or 0.79% by EVEs).

Group 6. High medieval wares (c 1225-1450). This mainly comprises glazed and often decorated fine sandy ware jugs of local or presumed Hampshire origin - primarily South Hampshire red ware (MMI) and a range of rarer but apparently related pink, buff or white wares including MDG, MMG, MMH, MMK, MMQ, MMR. However it also includes the rare regional glazed imports Laverstock ware (MNX) and Kingston-type ware (MCK) as well as the predominant unglazed common medieval coarseware or greyware (MDF) which, chronologically and technologically, belongs in this group despite evidence of earlier origins. Apart from the commonest of these two (MMI and MDF) all other high medieval wares are rare from the site as this period is not very well represented here. It therefore seems convenient to lump all high medieval wares together. This group comprises 6.34% (by sherds) of the site assemblage (or 5.33% by EVEs).

Group 7. Miscellaneous, or other wares (Saxon to 19th century). Includes crucibles in the common local crucible fabric (MDL), but not the few other possible crucibles in rarer fabrics (see crucibles elsewhere). Also post-medieval wares (PMED) and unidentified wares (UNID). This group comprises 1.27% (by sherds) of the site assemblage (or 2.34% by EVEs).

Group 8. Continental imports (c 850-1350). All rare in Winchester. Includes Beauvais-type ware (MBEAU), Pingsdorf-type ware (MPIN), North French grey ware (MFGY), Normandy Gritty ware (MFI), Northern French green glazed white ware (MNV) and Northern French yellow glazed white ware (MNV). This group comprises only 13 sherds from sampled contexts (plus 3 more from unsampled contexts). The sampled group comprises 0.09% (by sherds) of the site assemblage (or 0% by EVEs and 0.13% by weight).

The distribution of some specific types of pottery used for industrial purposes, eg crucibles (see fabric MDL) and dyepots in various fabrics (see *Appendix 2*, dyepots) has been considered elsewhere, as to some extent have cresset oil lamps in various fabrics (see fabrics MBX, MAV, MAQ, MAF).

The quantity of each fabric group and the proportion it forms in each phase is presented in Table 18. This shows, among other things, the gradual decline of the major Group 1 local chalky wares from nearly 93% (by sherds) in Phase 4.1 (*c* 850-950) to a little under 54% in Phase 5 (*c* 1050-1225) to only 27% in Phase 6 (*c* 1225-1550), by which time they were almost certainly residual. The virtual monopoly which the chalky wares held in the late Saxon phases gradually yielded to the Group 3 'local' sand- and flint-tempered wares which, by Phase 5, comprised 32% of the phase assemblage, with Group 2 and 4 sandy wares and the Group 5 and 6 glazed sandy wares also encroaching on the declining chalky ware monopoly. Some very early but very low sherd count occurrences in Phase 4.1 such as Group 4 coarse quartz-tempered ware (MOE, 5 sherds) and the Group 6 high medieval wares (2 sherds) can almost certainly be discounted as intrusive or misidentified examples. The Group 5 glazed tripod pitcher wares are, appropriately, absent from Phase 4.1 but present in very low quantity (5 sherds) in Phase 4.2 (*c* 950-1050), but even here they may be intrusive, otherwise they are exceptionally early examples of this group. Continental imports, which are very rare anyhow, are not present until Phase 4.2

where they comprise only two sherds of North French grey ware (fabric MFGY), both from Brudene Street East properties (BE2 and BE4). Seven sherds occur in Phase 5 where they occur in a wider range of fabrics and on each of the three frontages - but again - mainly from the BE frontage. The four continental sherds from Phase 6 are North French glazed wares both of late 12th- or 13th-century date (MNV, MNVY from BE5 and BW3 respectively).

Inter-frontage and inter-property comparisons are rather harder to evaluate in terms of fabric groups because of the variables affecting the quantities of pottery recovered from each property/frontage/phase. The phased quantified data for the eight fabric groups from the three street frontages are presented in Tables 19-21 and similar tables have also been prepared for each of the ten catalogued properties (tables in archive). Without further manipulation of the data, which space does not permit here, there is a fairly high degree of uniformity and predictability in the fabrics groups data. To make a few broad comparisons between the frontages (by sherd count), there is, for example, a much higher chalky ware Group 1 reading for the BE frontage (71.25% of all pottery on that frontage) compared to the BW and SE frontages (around 62% and 54% respectively). This is due, in part, to the relatively low percentage of Group 3 sandy-flinty wares on BE (12%). These make up a much higher percentage on BW and SE (18% and 32% respectively), where they occupy their normal second place after the chalky wares, whereas on BE they are closely followed in third place by the (later)Group 6 high medieval glazed wares (10.5% of BE) which are not so common on the other two frontages. This is partly the result of the selection procedure to include the high medieval (Phase 6) BE5 assemblage in the detailed catalogue, although it is also, to some extent, a reflection of the fact that high medieval glazed pottery was genuinely common on the BE frontage. In the less common fabric groups however (excluding G1, G3 and G6), there is some evidence from the BW and SE frontages for a higher proportion of these wares than that found on BE and this fabric diversity may be a reflection of slightly greater prosperity (expressed through G5 glazed wares and late Saxon G2 wheel-thrown wares) and industrial activity (expressed through G7 crucibles, and dyepots). These slightly elevated percentages for BW and SE may in part be a reflection of the unequal size of the three frontage assemblages (mainly for the larger BW assemblage), but as the SE assemblage (c 3000 sherds) is smaller than the BE assemblage (4000 sherds) this cannot entirely be the case. The northern end of the BE frontage is reasonably represented in terms of

industrial wares (crucibles and dyepots on BE5 and BE4 respectively), except for the central property (BE2), but they all have a relatively low proportion of Phase 4.2 and 5 glazed wares (see below) suggesting, perhaps, that the BE frontage was somewhat less well-to-do than the other two frontages. The only contradiction here is that the BE frontage has most the imported G8 continental wares (7 sherds, compared to 5 on BW and 1 on SE) but these form only a very small proportion of the sherds on this frontage (0.18%) and one might question whether these few largely unglazed imports (including cooking wares) were really more of an expression of status than glazed Winchester ware vessels.

Glazed wares: Chronological development and distribution on the site

Glazed wares can also be viewed as a fabric group in their own right - although for chronological and cultural purposes they have been accommodated under more than one fabric group in the discussion above (mainly G2, G5 and G6). Just as crucibles and dyepots can occur in several fabrics but can still be viewed as indicators of industrial activity, so glazed pottery can occur in many fabrics but can be viewed collectively as an important technological development or cultural phenomenon within English medieval pottery. In the general late saxon to early medieval pottery assemblage here there are relatively few indicators of social stratification - the assemblage is clearly dominated by coarse local cooking wares which - being the functional objects that they are - provide precious few indications of anything but cooking and storage. Glazed wares, in medieval England, as in many cases elsewhere, tended to be used for table wares, mainly jugs for the serving of wine and other beverages. They were more attractive and showy than coarsewares and, in certain social contexts, can be taken as a minor indicator of moderate prosperity and perhaps higher social status. The connection between glazed wares, increased prosperity and social drinking is a reasonably well accepted phenomenon in medieval archaeology although the very richest in society probably expressed their wealth though glass or metalware drinking vessels. In the context of everyday late Saxon and early medieval Winchester it seems reasonable to assume that the presence of glazed tablewares (spouted pitchers, tripod pitchers and jugs) can be taken as an indicator of greater prosperity - though perhaps only slightly greater prosperity. In some cases, however, the presence or absence of glazed wares may be due to functional differences between areas (eg. kitchen and dining areas) but there seems to be little clear evidence for this

from this site - partly because no complete building plan was recovered. Winchester was one of those few places in late Saxon England where glazed pottery - in the form of glazed and decorated Winchester ware - was available as early as *c* 950. Many areas of England had no regular supply of glazed wares until the late 12th century. Glazed pottery was still comparatively rare during the 10th-12th centuries and it was probably more an indicator or higher social status then than it was later on from the 13th century onwards when glazed wares were more commonplace. For these reasons a detailed discusssion of the high medieval (Phase 6) glazed wares is largely excluded here as the inclusion of this obscures to some extent the picture of what was going on here in the 10-12th centuries.

The growth of glazed wares and their relative quantities on each of the phased properties is shown in Table 22. The 795 sherds of glazed pottery from the catalogued properties (Phases 4.1 to 6) comprise 5.38% (by sherds) of the entire assemblage (or 5.35% by weight). Discounting the single (unidentified) sherd in Phase 4.1 as intrusive, the 99 sherds in Phase 4.2 (*c* 950-1050) comprise 2.15% of all pottery in that phase. This proportionately more than doubles in Phase 5 (*c* 1050-1225) where the 277 glazed sherds comprise 4.22% of that phase, and in Phase 6 (*c* 1225-1550) the 418 glazed sherds comprise an impressive 18.17% of the phase assemblage.

To bring out any trends in the late Saxon to early medieval phased assemblage each of the ten catalogued properties was considered in turn and the combined sherd total of its Phase 4.2 and 5 glazed pottery was calculated as a proportion of all its pottery in those combined phases. The proportion varies from Property BW3 in lowest (10th) position with 15 sherds comprising just 1%, to adjacent BW4 in first place with 86 sherds comprising 5.73% of the total from that property (though nearly all from Phase 5). The Brudene Street West (BW) frontage holds the three highest consumers of glazed wares in this time period with BW4, as mentioned, in first place, adjacent BW5 in second place with 5.40% and BW2 in third place with 4.24% (but in first place in Phase 4.2 with 3.6% of that phase). In forth place is SE1 with 3.77% of the combined phase (but in this case all from Phase 5) and BE5 occupies fifth place, with a total of 26 glazed sherds comprising 3.21% (the others in descending order are: BW1, 6th with 3.14%; BE2, 7th with 3%; BE4, 8th with 2.55%; SE2, 9th with 1.19% and BW3, 10th, already mentioned). It should be noted that these figures are percentages of the combined phase total for each site and, for the lower counts, do not always reflect the actual number of sherds of glazed pottery. The lowest number of

sherds (6 sherds) was actually from BW1 although proportionately this occupies 6th position whereas BW3 with 15 sherds is only in 10th. Of these BW1 is the least excavated property and the validity of its glazed ware rating may well be diminished by this. The contiguous block of BW1-6 properties all rate highly as glazed ware consumers in the combined phase except, surprisingly, BW3 which is right in the middle - why this should be is unclear as the phase sample is reasonably large and in the following high medieval phase (Phase 6) BW3 was one of the highest consumers of glazed wares on the site (9.7% of its Phase 6 assemblage - mostly from the backfill of a large well). BW4 was among the lowest consumers of glazed wares in Phase 4.2 (5 sherds or 1.08% of its phase assemblage) but rose to be the largest consumer in Phase 5. Why it produced so few glazed wares in the earlier phase is puzzling but these few pieces are quite large and possibly represent five separate Winchester ware spouted pitchers. The Phase 4.2 assemblage on this property also produced the most highly decorated (coarseware) spouted pitcher from the whole site (fabric MAV, Fig. 4, no. 38), so perhaps it was not so impoverished as first appears. Property SE1, with its abundant evidence for textile dyeing in Phase 4.2 (see dyepots account) curiously produced not a single sherd of glazed pottery in this phase and SE2 produced only four sherds in this phase (1% of all its phase assemblage). In the following Phase 5 (*c* 1050-1225) SE2 remained glaze impoverished but SE1 became the fouth largest consumer of glazed pottery on the site (73 sherds), mostly large tripod pitchers/jugs (fabric MAD and MNG), a few Winchester ware vessels (in lower grade fabric) and a ?jug base in Normandy Gritty ware - the only one from this site. This coincides with the animal bone evidence for this phase which suggests the property was occupied by a furrier and therfore probably by a person of some wealth.

For Phase 4.2 alone, although the total of glazed sherds is smaller (99 sherds) BW5 is proportionately the highest consumer of glazed wares which comprise 4.5% of its total assemblage for this phase. In second place is BW2 with 3.6% and in third place BE2 with 2.93%. Glazed Winchester ware occurs as 133 sherds in the sampled contexts. The highest sherd counts (Phases 4.2 to 6) were from BW2 with 25 sherds, BW5 had 20 sherds and BW4 had 17 sherds. Other properties with high Winchester ware counts were BE2 and BE4 with 20 sherds each and BE5 with 13 sherds.

From a broader perpective, considering the frontages rather than individual properties, in the combined Phase 4.2 and 5 assemblages from each frontage the differences between each frontage in terms of glazed ware 'enrichment' is not

strikingly different. Brudene Street West (BW) is in first place with glazed wares (195 sherds) forming 3.87% of its combined phase assemblage, Snitheling Street East (SE) is in second place with 82 glazed sherds forming 3.05% of its assemblage and Brudene Street East (BE) is in third place with 99 sherds though forming only 2.87% of its assemblage. If the presence of glazed wares can be taken as an indicator of relative wealth (though not necessarily great wealth) then the properties on BW seem always to have been somewhat more prosperous during the 10th-12th centuries than the other two frontages with BE, perhaps, being perhaps the least prosperous - a suggestion also hinted at in the fabric groups data above. The glazed ware data for Phase 6 (*c* 1225-1550) is of somewhat less value and reliability as the Phase 6 deposits were only catalogued from six properties (BE5, BW1, BW2, BW3, SE1 and SE2, see Table 22). These show quite low glazed ware sherd counts for most of the properties but very high counts for BW3 and especially BE5. Those from BW3, as mentioned above, are mostly from the backfill of a high status stone well house possibly belonging to the residence of the Archdeacon of Winchester. This appears to have been rapidly back-filled in the early 13th century. The highest glazed ware sherd count for this phase (and any phase) is from BE5 with 241 glazed sherds which comprise an impressive 46% of all Phase 6 pottery from that property. These came from a truncated chalk-built medieval cellar and a flint-lined well which suggests the owners of this property were people of some wealth. The pottery included small sherds from the only North French green-glazed ware jug from the entire site. Elsewhere on the same frontage, on Property BE2, a high quality Saintonge polychrome ware jug rim was recovered (from unsampled contexts), the only example from the excavations. Apart from these very rare instances of imported high quality pottery, most of the glazed wares during this period were regionally sourced jugs in South Hampshire red wares.

Interpretation: Vessel forms by property and phase

The quantity of each type of vessel form recovered from sampled contexts on the site is shown in Table 23. This encompasses the whole 9th to 14th-century timespan (Phases 4.1 to 6), and so is clearly only of general interest as the relative proportions of each form will obviously have changed somewhat in each phase. Positive identification of the the different vessel forms was nearly always based on the

presence of diagnostic rim sherds and hence the EVEs method of quantification (based on surviving rim circumference) is the most reliable indicator here. Plain body or base sherds from undiagnostic jar/spouted pitcher/bowl forms, for example, were not assigned to a form category in the catalogue. On the other hand, highly diagnostic pieces like decorated jug body sherds and spouted pitcher spouts were assigned to a form even though they had no EVEs value. These inequalities between the three methods of quantification here are unavoidable but EVEs is generally the most reliable method of comparison here. Vessel categories have been kept as few and as simple as possible to maximize on the data available and to bring out the main typological trends as clearly as possible. One modern form, the flowerpot (FPOT) has crept into the data in Table 23 and related tables - this respresents a few post-medieval sherds intrusive in much earlier contexts. On the other hand very rare vessel forms such as the chimney pot, dripping pan and the lid do not appear in these tables at all because the rare examples found were from the 30% of the excavated assemblage that was not sampled/catalogued. The distinction between some closely-related forms such as the jug and the tripod pitcher (TPTCH) is also rather subjective here as it is mainly based on decorative differences (see fabric MAD), and a spouted pitcher (SPP) lacking its defining tubular spout will always, by default, be called a jar - as they share this basic form - unless some type of characteristic decoration suggests otherwise. These are the unavoidable limitations of fragmented pottery such as this.

Table 23, shows pretty much what might have been predicted for the vessel composition of a site dominated by late Saxon and early medieval pottery. The assemblage is dominated by the jar form (83.34% by EVEs). The presence of sooting on a great many of these confirms their use as cooking pots although some unsooted examples were probably multi-purpose jars for storage, etc. Lack of vessel form diversity is a characteristic of Saxon and early medieval pottery assemblages - the jar always usually dominates - sometimes exclusively. A few bowls and spouted pitchers or jugs complete the picture along with rare forms such as lamps or crucibles. Vessel form diversity, reflecting the wider range of uses to which pottery was put, is more a feature of high medieval and post-medieval pottery. In a mainly domestic and mainly early pottery assemblage such as this where cooking is almost exclusively the main activity reflected in the pottery, this rather limits the extent to which pottery can inform us of any other functions to which it might have been put. Other functions can of course be inferred from the non-cooking pot forms (eg jugs for serving liquids,

etc.) but unless these other forms occur in unusually high quantities suggesting more of one type of activity than another in a certain area then it is difficult to know if slight variations in the pottery data from different areas (or properties as here) carry much significance. Ultimately the main reason for comparing the vessel form assemblages from the three different street frontages here and the ten catalogued properties is to see if these reflect any differences in the activities going on within each frontage and property. Except perhaps for the industrial pottery forms such as metallurgical crucibles and dyepots, which are relatively rare, and a few function-specific vessel forms such as lamps and curfews - which are equally rare, the pottery assemblages from these properties and frontages exhibit a high degree of similarity with little marked evidence for specific activities other than food preparation, the serving of beverages and storage.

Some variations within the quantified form data can of course be observed - just as the data for glazed ware occurrence across the site has already been analysed as a possible indicator of the relative prosperity of contemporary properties (see above), and with some degree of success. The distribution of glazed tableware forms - spouted pitchers, tripod pitchers and jugs also bears-out these findings to a large degree so there is little point in revisiting the distribution of these forms in great detail. These would, most likely, only tell us where and when beverages were served and consumed in higher than usual quantities - thus, so the reasoning goes, showing us which areas were relatively wealthier than others. There is certainly a predictable degree of chronological variation from phase to phase as certain vessels forms (and fabrics) became more popular or fell out of use but the variations between individual properties are not very marked (even for glazed wares) and thus difficult to interpret in terms of function or area specialisation except that, for the most part, it would seem the same sorts of activity were taking place in each of the ten catalogued properties but here and there to a slightly differing degree.

Some of these typological and hence functional differences can be highlighted and summarised here without the degree of data manipulation employed for the analysis of the glazed wares (see above). Doubtless further manipulation of the data would probably reveal further minor variations across the site but, for the present, do not permit every possible variation to be explored. The relative proportions of different vessel forms in each phase for the whole site are presented in Table 24. Notable trends here include the almost total domination of the jar form in the earliest

phase, Phase 4.1, where it comprises 92.24% (by EVEs) of all identifiable forms in the phase assemblage whereas in the latest phase, Phase 6, this figure had dropped to 79.20% as a result of gradual form diversification. Other than jars the range of vessel forms available in Phase 4.1 was limited to a few spouted pitchers, a single lamp, a miscellaneous form (?costrel) and a few crucibles.

Bowls do not appear in the Phase 4.1 data - they probably existed but were very rare. Bowls were never very common on this site. They appear in Phase 4.2 and reached their peak in the following Phase 5 where they comprised only 3.70% of the phase assemblage. Many of these seem to have been of the socket-handled kind with a wide diameter and the evidence from sooting suggests these were mainly used for cooking - like an early form of saucepan. Elsewhere the presence of bowls in large quantities on medieval sites (mainly rural ones) has sometimes been taken as evidence for their use in dairying practices (Brown 1997, 92-3), so their relative scarcity in this corner of urban Winchester may be an indication that dairying activities were of low priority here. Spouted pitchers, for serving beverages, were never very common either. They reached their peak in Phase 4.2 where they comprised 5.25% of the vessel assemblage (although the weight percentage is higher - at 13.15%). Tripod pitchers were also relatively scarce. They were apparently present in Phase 4.2 (*c* 950-1050, but probably at the very end of this phase), relatively common in Phase 5, and reached their peak in Phase 6 (presumably early in the phase - unless they were residual?) where they comprised 1.30% of the vessel assemblage. Jugs (or undiagnostic tripod pitchers) were present but fairly rare in Phases 4.2 and 5 but the high medieval form of glazed jug is well-represented in Phase 6 where it comprised 12.39% of the assemblage. Cresset oil lamps were present but rare in Phase 4.1 but fairly common in the following Phase 4.2 where they comprised 9.26% of the assemblage and in Phase 5 where they comprised 7.16%, but these robust little forms usually survive in the ground quite well which gives them a slightly higher EVEs reading - the figure for weight in Phase 4.2, for instance, is only 2.92%. Crucibles, being smallish too, are also subject to slight EVEs over-representation. They are present, but fairly rare in all phases (perhaps mainly residual in Phase 6 at 2.24% by EVEs); their true peak was in Phases 4.2 and 5 where they comprised 1.76% and 1.70% respectively. The rarest vessel forms in these tables are nearly always present by just one or two vessels including a few curfew sherds in Phases 5 and 6 and a single cup in Phase 6 from BW3 (probably in Tudor Green ware, *c* 1375-1500, but

catalogued as fabric PMED). The latter is the latest type of medieval pottery identified from the site apart from a handful of much later intrusive post-medieval sherds.

The quantity and distribution of vessel forms across each of the three street frontages and through each phase is presented in Tables 25-7. Separate tables for each of the ten properties (vessel breakdowns only) have also been prepared (Tables in archive) but the value of the latter varies according to the size of each property assemblage. The three frontage tables show, among other things, slighter higher values for bowls on the BW frontage for Phase 5 particularly (discounting the high Phase 6 EVEs value for SE as only 2 sherds were present). This probably just represents a slighter wider range of kitchenware forms on this possibly wealthier frontage and possibly a wider range of foodstuffs being prepared. It is less likely to represent an increased concern with dairying practices as most of the bowls had clearly been used for cooking. These figures are slightly biased towards Property BW5 which produced an almost complete socket-handled bowl (Fig. 4, no. 42). BW5, however, also holds the second highest glazed ware count for Phase 4.2 to 5 indicating moderate wealth.

Oil lamps: Their possible significance

The distribution data for oil lamps is a little ambiguous and capable of a number of possible interpretations depending on whether they are viewed as an indicator of slightly higher or lower status dwellings, or neither. The lamps here are mainly in local 10th-12th century coarsewares at a time when most domestic lighting was probably in the form of rush lamps. Tallow or wax candles were not widely used in domestic contexts in Winchester (and elsewhere) until after *c* 1200 (Barclay and Biddle 1990, fig. 307). The possession of ceramic lamps then might be seen as either as an indication of slightly greater wealth, or as an accessory to certain activities or trades (textile working, writing etc.), or both. A very high number of ceramic lamps (105) were recovered from two medieval houses in Lower Brook Street, Winchester, and their distribution here has been interpreted as perhaps a reflection of the use of these buildings for light industry (requiring long hours of indoor work) as well as density of occupation along the street (*ibid*., 986). Abundant evidence for tanning pits from the site might imply that leather-working and similar activities took place there. Elsewhere in the city the lack of ceramic lamps from the the Castle, the Bishop's palace and the domestic buildings of the cathedral imply that only the wealthiest tier

of society could afford candles at this time and thus had little need for ceramic lamps (*ibid*., 986). The wealthiest occupants of the site might have used stone cressets or even glass hanging lamps - in which case ceramic lamps would be fairly low in this hierarchy - but still probably well above rush lamps. Lamps are present on all the catalogued properties except SE2. In terms of the three street frontages, the BE frontage has the highest percentage of lamps at 10.61% (EVEs) of the identified forms from the whole frontage (or 3.44% weight), and most of these were from Phase 5 (15.53% of that phase). Of these Property BE4 has the highest percentage of lamps on the site (19 sherds, 14.76% EVEs, 5.84% weight). Adjacent BE5 also has a moderate amount (3.88% EVEs). This is at slight odds though with the relatively low glazed ware count for this frontage (see above) which suggested that the occupants of BE (in Phases 4.2 and 5) might be somewhat poorer than those of the other two frontages (see also fabric groups data above). However BE4 did have quite a high Winchester ware sherd count (20 sherds) so perhaps it was slightly better-off than its BE neighbours at this time?

The BW frontage is also quite well-endowed with oil lamps at this time too - particularly the two northernmost properties BW4 and BW5. Property BW4 has the highest percentage of lamps on this frontage (7 sherds, 12.02% EVEs, 2.18% weight) and this property also has the the highest number of glazed sherds (in Phases 4.2 and 5) than any property on the site (see above). Adjacent BW5 also has quite a high percentage of lamps (10 sherds, 5.32% EVEs, 3.34% weight) and the second highest number of glazed sherds on the site. In the case of BW4 and BW5 the high percentage of lamps and glazed wares (mainly tripod pitchers) may be a genuine reflection of somewhat greater wealth but this correlation does not seem to hold true for BE4 across the road which has many lamps but not much glazed ware. The Snitheling Street frontage (SE) has the lowest percentage of lamps (0.61% EVEs, 0.17% weight) and these come from SE1 alone (2 sherds, 0.80% EVEs. 0.22% weight) yet SE1 has a high glazed ware count for these phases (fourth highest on the site) - again mostly tripod pitchers - which suggests comparative wealth. In Phase 5 this property was a possible furrier's residence (see above and bone report) and in Phase 4.2 this property produced the highest number of dyepots from the whole site (see dyepots) both facts suggesting a connection with the textile industry and the origin of the late Saxon 'Street of the Tailors' (Snitheling Street). The very low presence of oil lamps from the SE frontage might appear to rule out any significant connection between oil lamp

usage and the textile industry and also perhaps between oil lamps and high glazed ware counts? There may however be other factors at play here which are not reflected in the ceramic evidence and which we do not fully understand. It may be that the excavated Snitheling Street properties provide too small a sample of pottery compared to the other two frontages and perhaps there are dumps of ceramic lamps that have not yet been discovered? Or it may be that the tailors and furriers on SE were content to use rush lamps or some other type of non-ceramic lighting accessory (a furrier potentially could produce his own tallow - animal fat - candles)? In the case of the BE frontage there may be a special explanation for the high concentration of oil lamps and the low presence of early glazed wares. Rather than simply signifying that its occupants were somewhat poorer than those of the wealthier BW frontages (which still might be the case), the concentration of lamps here might suggest that the function of this area was different from BW and SE. Like SE, with its tailors and furriers, it may have had an artisanal function but perhaps a more heavy duty one - such as tanning and leather-working (as at the Lower Brooks Street sites above)? And perhaps these related industries required increased illumination (lamps) but being perhaps primarily workshops they had little need for glazed wares or ceramic fripperies? Whatever its exact nature there seems to have been some sort of craft activity going on on the BE frontage that required a high number of oil lamps and perhaps these were primarily workshops rather than private residences (as on the BW frontage?) or combined residence/workshops (as on SE1?). Ceramic lamps, in this case, may not therfore be a reliable indicator of greater wealth but rather of craft specialisation - at least when found in quantity. On the possibly wealthier BW properties (BW4 and 5) the relatively high number of lamps there may just be reflection of the fact that they could easily afford them anyhow and perhaps social entertaining and/or more lightweight trades did not require quite so much illumination.

Other vessel forms

The jug/tripod pitcher form has a fairly low presence in Phases 4.2 and 5 but the increased incidences of the glazed tripod pitcher (mainly Phase 5) have been noted above (eg. SE1, BW4). The jug form does not become really common until the high medieval period and is best represented on the BE frontage (mainly BE5) where very high glazed ware sherd counts (see above) have already revealed its presence. In

Phase 6, on BE frontage, the form reached its peak where it comprised 31.76% by EVEs (or 59% by weight) challenging the long-established monopoly of the jar/cooking pot. The spouted pitcher form, glazed or unglazed, also has a fairly low presence across the site (mostly under 5% EVEs) but there are two instances where two almost complete highly decorated chalky-flinty ware examples of this form result in an unusually high percentage of the property assemblages, namely SE2 (11.38% EVEs, 20.05% weight caused by Fig. 3, no. 31) and BW4 (3.97% EVEs, 14.67% weight caused by Fig. 4, no. 38). The distribution of crucibles across the site has been considered at length elsewhere (see fabric MDL). This identified Property BW2 as having the highest quantity of crucibles on the site, followed by BE5 and SE2. They were never very common however and clearly the copper-working industry they represent was widely dispersed across the site. The distribution of dyepots likewise has identified Property SE1 as having the highest quantity of these, followed by BW4 and BW3 (see dyepots).

The rarest vessel forms here are usually represented by just a few examples and these are not always from sampled contexts. High medieval (Phase 6) vessel forms, other than jugs and jars, are rare from this site but common on other sites in Winchester where this period is better represented. One or two possible costrels (flasks) in late Saxon sandy ware have been identified including an example from SE1 (see fabric MSH), and a possible high medieval example was identified from BW3 (see fabric MDG). Dripping pans - a mainly high medieval ceramic form for collecting fat from spit roasts - occur as one definite example from an unsampled context on BW5, Phase 6 (see fabric MDF). This example is of semicircular form which might imply the presence of a proper fireplace on BW5 by this date. There is one definite example of a high medieval cistern or bunghole jar, most likely for brewing or storing ale (see fabric MDG). This occurs on BW3 (Phase 6) the possible residence of the Archdeacon. Ceramic curfews (firecovers) reflecting a concern with fire prevention are rare but represented by at least four separate examples from BE2 and BE5 (both Phase 6) and from BW2 and SE2 (both Phase 5). Chimney pots, also perhaps reflecting a concern with fire prevention and ventilation are not represented in the quantified tables here as the three examples recovered come from unsampled contexts. These are probably of 13th century date and also perhaps reflect buildings of a fairly substantial nature. One example comes from BE3 (Phase 5), another from

adjacent BE2 (Phase 6), the third example is from a modern context on the Northgate House site.

Vessel forms analysis: General conclusions

The data on fabric groups, glazed ware distribution and vessel form distribution have been examined in a number of ways to bring out any trends that might exist. For the overwhelming bulk of the assemblage - mainly represented by the ubiquitous jar/cooking pot - there is undoubtedly a high degree of similarity between the assemblages from the ten catalogued properties and three street frontages. This is taken to mean that the overall differences in social status between these properties and their occupants was not particularly marked and the general utilitarian nature of most of the pottery suggests a fairly low to middling class of occupant with occasional hints, here and there and from time to time, of moderate wealth reflected by the increased concentrations of glazed tablewares or decorated spouted pitchers - implying social dining and entertaining. The distribution of industrial vessels, mainly metallurgical crucibles and dyepots, also highlights a few properties where the high concentration of these suggests craft specialisation. This is more likely to be so in the case of crucibles - as copper metallurgy (clearly their main use) is likely to have been a specialist trade. This highlights Property BW2 (in Phase 4.2) as a likely coppersmith's workshop at some point in time, and also perhaps BE4 and SE2 but perhaps not to the same degree. As a few crucible sherds occur on almost every property it is difficult to know if these represent sporadic and short-lived metallurgy workshops on almost every property, or just rubbish present as a background scatter across the whole site, or even perhaps, in some cases, unused crucibles used as oil lamps. The same is true, to some extent, for the many jar sherds showing evidence of purplish internal madder-staining implying use as dyepots and thus related to the textile industry. These occur on almost every property in varying numbers and probably imply small-scale domestic textile dyeing on almost every property between the 10th and 12th centuries. The marked concentration of these on Property SE1, however, (mainly in Phase 4.2), is suggestive of craft specialisation and quite possibly linked to the origin of the name Snitheling Street - the 'Street of the Tailors'. The higher than usual concentration of ceramic oil lamps on the Brudene Street East (BE) frontage (BE4 particularly) is also possibly an indication of craft specialisation rather than an indication of wealth. These properties were relative poor in glazed tablewares

and this fact, plus the high number of lamps could imply they were primarily workshops of some kind (tanning/leather-working?) rather than private residences or social areas.

The ceramic evidence suggests that the central area of the excavations - the Brudene Street West frontage - was perhaps a few degrees more prosperous than the other two street frontages. To some extent, however, the data are biased here because of the better level of layer preservation and deeper stratigraphy yielding a larger and more varied assemblage of pottery. Nevertheless, a proportionate analysis of early (ie 10th early 13th century) glazed wares from the site indicates that the Brudene Street West frontage had a higher concentration of these (including glazed Winchester ware) than the other two properties and this is interpreted here as evidence of somewhat greater prosperity at this time. The adjacent Properties BW4 and BW5 had the highest concentrations of early glazed wares from the whole site (mainly Phase 5). BW4 also had the largest and most highly decorated local coarseware spouted pitcher from the whole site. This may originally have had three spouts (like a similar example from Chichester) and might have had a special ceremonial significance. Coincidentally, or perhaps not, BW4 also had the second highest concentration of madder-stained sherds from the site (after SE1). BW4 and BW5 also had a high concentration of ceramic oil lamps - but unlike those across the road in BE4 - these were possibly intended to illuminate private residences and social gathering rather than a common workshop. Like other types of evidence from this site the pottery assemblage, for a variety of reasons, is patchy and incomplete. It is highly possible over the centuries of occupation that the function and status of any given property could have changed even within a single lifetime but evidence for this will not always survive.

Brown has published a useful summary of pottery types from The Brooks site in Winchester comparing this quantified assemblage with three other properties of similar date in both urban and rural Hampshire and Wiltshire (Brown 1997). However, all of these sites are of high medieval date (late 13th-14th century) and thus slightly too late to allow direct comparison with the site here. The Brooks site, furthermore, was a wealthy town house by this date - which does not seem to have been the case for most of the earlier properties here. The greater variety of vessel forms and imported wares at The Brooks is a reflection both of the wealth of its merchant owners and of the increasing diversity of ceramic forms available by the 14th century. There are one or two points of overlap, however, between The Brooks

and the two properties here where high medieval pottery is best represented - BE5 and BW3. Brudene Street East Property BE5 is the only property on the site with evidence of a high medieval (Phase 6) chalk-built cellar and a flint-lined well - both features suggesting occupation by someone of some wealth. The property produced a much larger assemblage of high medieval glazed jug sherds than any other on the site (16.44% by EVEs of all identifiable forms from the property, or 37.83% by weight, or 48.37% by sherd count) including one or two imported North French jugs - which are very rarely found in Winchester. In this sense BE5 compares reasonably well with data from The Brooks where jugs were very abundant (ibid., table 6). The Brooks data, however has to be adjusted to make direct comparisons with the data here as 'unidentified' body sherds have been treated as as a vessel form in their own right whereas they are completely excluded from this sort of data in the present report (eg. the 50% jug EVEs, or rim percent, from The Brooks adjusts to 53% here). The 13th-14th century occupant/s of BE5 therefore may have been a reasonably prosperous merchant with a wine cellar and perhaps a direct connection with markets in Winchester or Southampton from which imported pottery could be aquired - perhaps as an accessory of the wine trade. However most of his glazed jugs were in relatively local but still decorative South Hampshire red wares and pink wares and these would easily have been available in local Winchester markets. Similarly Property BW3, with its high status stone well house backfilled with the second highest assemblage of high medieval glazed wares from the site, has tentatively been identified as the likely residence of the Archdeacon/s of Winchester. The large assemblage of (highly fragmentary) glazed jugs from here also hint at increased wine consumption and social entertainment as befits a person of this status. A possible glazed costrel (flask) from this site and a ceramic cistern for ale-brewing also point to wine or ale consumption and a degree of self-sufficiency as do a couple of small sherds from a Tudor Green ware cup (*c* 1375-1500) - the latest type of medieval pottery recovered from the site (PMED).

General conclusions

It is difficult to assess to what extent the study of the pottery assemblage from these excavations has advanced our knowledge of late Saxon and medieval pottery from Winchester. The quantified data and computerised records certainly constitute a

significant resource in their own right whose full potential has by no means been fully exploited. Each of the separate accounts of the forty or so pottery fabrics from the site has in its own way widened or deepened our knowledge of these types and this perhaps is the report's strongest contribution. This is truer for the late Saxon and early medieval (Saxo-Norman) wares than for the high medieval wares - the latter, poorly preserved in any case, have been adequately dealt with in other reports.

A broad chronological sweep of the site's (and the city's) ceramic sequence from its beginnings *c* 850 to its demise and return to cultivation by *c* 1400 has already been given in the introductory sections of this report (see Ceramic Phasing and Table 2) and need not be repeated at length here. The lack of scientific fabric characterisation means, unfortunately, that our knowledge of exactly where most of this pottery was produced remains one of the biggest outstanding obstacles in the study of Winchester's medieval pottery. To date the only definite late Saxon production site identified in the region is at Michelmersh, about 8 miles west of Winchester, where wheel-thrown Michelmersh ware was produced *c* 925/50-1050.

However recent scientific analysis now suggests that Late Saxon sandy ware, an even earlier wheel-thrown ware, may have been produced in the same Michelmersh area from as early as *c* 850 (Mepham and Brown 2007). Chalk-tempered wares - the dominant pottery tradition in Winchester *c* 850-1150 remain unsourced but must have been fairly locally produced. These were also common in mid Saxon Southampton (Timby 1988, 80-82) and comparisons with the typology and fabric descriptions of the Southampton examples - which are not local to Southampton - suggests that the same source or sources supplying Winchester from *c* 850 may have been the same as those supplying Southampton *c* 750-850. This source, thought to have been located around 15 miles north of Southampton where the Reading Beds outcrop immediately south of the chalk escarpment, is therefore more likely to have been closer to Winchester than Southampton, perhaps to the south of the city. If such an industry (perhaps dispersed along the chalk valleys) was that much closer to Winchester then perhaps the dating of chalk-tempered ware (MBX) in the city could be even earlier than the local *c* 850 start-date traditionally accepted? The simplicity of this ware type however and the inability to date it very closely could mean that its earliest occurrences in the city might have been overlooked?

The exact source of the remarkable late Saxon glazed Winchester ware industry (*c* 950-1100) is still unknown but presumed to be fairly local. A few

defectively glazed and flawed 'seconds' vessels from the site here would seem to support this notion. These have been scientifically examined by Alan Vince (see *Appendix 3*) and the results of this support the suggestion of a fairly local origin. Some late Saxon or Saxo-Norman sandy and flinty coarsewares in the city (MBK, MOE) have recently been suggested to be from the London Clay area east of the city in the area of Alton and Peterfield perhaps (Blackmore 2007, and this report). These round-bottomed more archaic-looking jar forms are completely different in style to the more robust sagging based jars of the dominant local chalky ware tradition (MBX, MAV) and it is difficult to see why they should have become popular in the city and why chalky wares should simultaneously have been in decline. They may perhaps represent potters or pottery merchants from east of the city travelling to markets in Winchester to peddle their wares, or possibly Winchester folk travelling to markets in those areas during the 11th and 12th centuries. Whatever the case, chalky wares were fell out of fashion and were effectively gone by *c* 1200 when the region was swamped by sandy ware cooking pots (also perhaps from the east) and increasingly by glazed jugs from sources in south Hampshire. Microscopic analysis of late Saxon 'organic-tempered' sandy ware sherds, in this report (MAF *c* 950-1150), has also demonstrated that this is not true organic tempering (chaff etc), in the early Anglo-Saxon sense, but that these are actually voids caused by the dissolution of needle-like crystals of the mineral selenite (gypsum) - another mineral commonly found in the London Clay to the south and east of the city. Examination of identical sherd samples from Southampton also suggests this to be the case. It always seemed rather incongrous that a basically early-mid Anglo-Saxon pottery tempering tradition could have persisted in the region as late as *c* 1150 and it now seems this notion can be dispelled.

The number of imported continental wares recovered from the site - fifteen or so sherds covering the period *c* 900-1250 - is remarkably low, but consistent with the established view that imported wares were very rare in inland Winchester and somehow never made it up the twelve miles of river connecting the city with the port of Southampton where imported pottery was relatively abundant. One rare imported type known from earlier excavations in the Staple Gardens area is Badorf-type ware, a 9th-10th century Rhenish ware often imported as large relief-band amphoras (Helen Rees pers. comm; Hodges 1981, 37). This type has not been identified from the present excavations. A sherd of early 15th-century Valencian lustreware from Staple Gardens has also been published (Hurst 1964, fig. 63.12). The only new type of

imported pottery identified from the present excavations that does not seem to have been previously noted in Winchester is a Rhenish Paffrath-type ware 'ladle', probably of 11th-12th century date. By and large, Winchester citizens did not express their wealth and status through imported continental pottery. Why should they need to when they had attractive yellow-glazed Winchester ware in the late Saxon period and regionally-sourced glazed tripod pitchers and highly decorated South Hampshire red ware jugs in the early and high medieval periods?

Overall the pottery from the site suggests occupantion of low to middling status with occasional hints of relative wealth. The distribution of certain classes of pottery across the site, particularly the industrial wares and the glazed wares, has identified areas of more intense industrial activity or relative wealth against a general background of fairly monotonous local coarsewares - primarily cooking pots. Study of the crucible fabrics confirms earlier studies suggesting that (true) organic-tempered crucibles are primarily late Saxon, and smaller, and that post-conquest examples are mainly in sandy wares and generally larger. The distribution of crucible sherds has also highlighted one or two properties (mainly BW2) where copper-working metallurgy was relatively intense - suggesting the presence of workshops here. The identification of over 300 purplish-red madder-stained sherds from pots used as dyepots - the largest collection from an English excavation - would appear to support earlier suggestions that Winchester was heavily involved with the textile industry in the late Saxon and early medieval periods. The distribution of dyepot sherds across the site has also highlighted a few properties where this activity was most intense - in particular Property SE1 during the period *c* 950-1050 - and it seems hardly a coincidence that the location of this property was on Snitheling Street - the 'Street of the Tailors'. These sherds are also the only hard archaeological evidence for the likely importation of the commodity dyestuff madder, probably from France, during this period. The distibution of glazed wares may have highlighted areas of relative wealth - mainly the Brudene Street West properties, whereas an unusual concentration of ceramic oil lamps in the northern properties of the Brudene Street East frontage (BE4 and BE5), coupled with a general poverty in glazed wares, has suggested this area may have been an area of workshops for some craft specialisation requiring a fair degree of illumination - possibly leather-working or textile production etc.

There are no really appropriate published parallels elsewhere in Winchester - or even from other urban centres in the immediate region (eg Southampton) - for a

pottery assemblage of this size from a group of neighbouring late Saxon to early medieval properties such as those here on the site. One can probably find a few local or regional instances where two of three neighbouring properties of broadly similar date have been published (eg Cunliffe 1964, Collis 1978), but the presentation of the pottery evidence from these quite early excavations and the lack of comparable quantified data does not really allow more than the paralleling of individual illustrated vessels and a sense that something fairly similar, or not, may have been going on there.

There is certainly some useful comparable data (quantified and typological) from the forthcoming pottery monograph dealing with the western, northern and eastern suburbs of Winchester (Holmes and Matthews in prep.) but these are not from excavations as extensive as this, or from sites of this nature; nor, apparently, is the pottery discussed in much detail in relation to the sites that produced it - although the different suburb assemblages are compared to some extent. As a catalogue and typology of pottery types occurring in the city, however, the forthcoming suburbs pottery report is in its own league and in this sense remains unchallenged by the report here. Although most of the pottery types and forms from the fourteen adjacent medieval properties on the site can be paralleled elsewhere in Winchester, their remarkable context ensures that they remain a highly significant assemblage.

Bibliography

Addyman, PV, Hopkins, BG and Norton, GT, 1972 'A Saxo-Norman pottery kiln producing stamped wares at Michelmersh, Hants.', *Medieval Archaeology* **16**, 127-30.

Barclay K. and Biddle, M. 1990 'Stone and pottery lamps' in Biddle, M., *Object and Economy in Medieval Winchester*, Winchester Studies **7. ii**, (Oxford), 983-1000.

Bayley, J. 1992, 'Metalworking ceramics' *Medieval Ceramics* **16**, 3-10.

Blackmore, L. 2007, Publication report on the post-Roman pottery from Granville House, St Peter Street, Winchester (WINCM AY256; Museum of London ref: AOC/WINCM-AY256).

Biddle, M. and Barclay, K. 1974 'Winchester ware' in Evison, V I, Hodges, H, and Hurst, J G, (eds), 1974 *Medieval pottery from excavations: studies presented to Gerald Clough Dunning.* London, 137-65.

Biddle, M. and Collis, J. 1978 'A new type of 9th- and 10th-century pottery from Winchester', *Medieval Archaeology* **22**, 133-5.

Brown, D.H. 1994, 'Pottery and Late Saxon Southampton', *Proceedings of the Hampshire Field Club and Archaeological Society* **50**, 127-52.

Brown, D.H. 2002 *Pottery in Medieval Southampton, 1066-1510*.

Collis, J. 1978 *Winchester Excavations 1949-1960, Vol. II: Excavations in the suburbs and western parts of the town*, Winchester.

Cotter, J.P. 1997 *A twelfth-century pottery kiln at Pound Lane, Canterbury. Evidence for an immigrant potter in the Late Norman period*, Canterbury Archaeological Trust Occasional Paper No. 1 (Canterbury).

Cotter, J.P. 2006, 'The Pottery' in K. Parfitt, B. Corke and J. Cotter, *Townwall Street Dover Excavations 1996.* The Archaeology of Canterbury New Series III, 121-254 and 407-416.

Cunliffe, B. 1964 *Winchester Excavations 1949-1960*. Vol **I**.

Cunliffe, B. 1976, *Excavations at Portchester Castle Vol 2 : Saxon*, Society of Antiquaries Research Report **33** (London).

Dunning, G. C. and Wilson, A.E. 1953 'Late Saxon and early medieval pottery from selected sites in Chichester' *Sussex Archaeological Collections*, **91**, 140-150.

Dunning, G.C., Hurst, J.G., Myres, J.N.L., & Tischler, F. 1959, `Anglo-Saxon pottery: a symposium' *Medieval Archaeol*, **3**, 1-78.

Dunning, G.C, 1959 `Pottery of the Late Anglo-Saxon Period in England' in Dunning *et al* 1959, 31-78.

Dunning, G. C. 1961 `Medieval chimney-pots' in E. M. Jope, *Studies in Building History*, 78-93.

Evison, V I, Hodges, H, and Hurst, J G, (eds), 1974 *Medieval pottery from excavations: studies presented to Gerald Clough Dunning.* London.

Gahan, A. & McCutcheon, C. 1997, `Medieval Pottery` in Hurley, M.F. and Scully, O.M.B. with McCutcheon, S.W.J., *Late Viking Age and Medieval Waterford Excavations 1986-1992*, 285-355 (Waterford).

Giertz, W. 1996, 'Middle Meuse valley ceramics of Huy-type: a preliminary analysis', *Medieval Ceramics* 20, 33-64.

Holmes, K. and Matthews C., in prep. *All this of pot and potter?: 1500 years of Winchester pottery, excavations 1971-86* (ed. Rees, H.).

Hodges, R.A. 1981, '*The Hamwih pottery: the local and imported wares from 30 years' excavations at Middle Saxon Southampton and their European context*, CBA Research Report, **37**.

Keller, C. 1995, 'Pingsdorf-type ware - An Introduction', *Medieval Ceramics* 19, 19-28.

Kilmurry, K. 1980, *The Pottery Industry of Stamford Lincs. c.A.D. 850-1250*. British Archaeological Report 84.

Hurst J, G., 1964 'Hispano-Moresque pottery' in Cunliffe, B. *Winchester Excavations 1949-1960*. Vol **I**., 144.

Hurst J, G., 1976 `The pottery' in Wilson, D. M., (ed) *The Archaeology of Anglo-Saxon England*, 283-348.

Brown, D H, 1997 'Pots from Houses' *Medieval Ceramics* 21, 83-94.

Mainmann, A J, 1990 *Anglo-Scandinavian pottery from 16-22 Coppergate*, The Archaeology of York, **16.5**.

MPRG 1998, *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper 1.

MPRG 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*, Medieval Pottery Research Group Occasional Paper 2.

Mellor, M. 1994a *Medieval Ceramic Studies in England: A Review for English Heritage*. English Heritage and MPRG.

Mellor, M, 1994b 'Oxfordshire Pottery: A Synthesis of middle and late Saxon, medieval and early post-medieval pottery in the Oxford Region' *Oxoniensia* **59**, 17-217.

McCarthy, M. R. and Brooks, C. M., 1988 *Medieval Pottery in Britain AD 900-1600*, (Leicester University Press).

Mepham, L. and Heaton, M.J. 1995, 'A Medieval Pottery Kiln at Ashampstead, Berkshire', *Medieval Ceramics* 19, 29-43.

Mepham L, 1997, 'Pottery' in Vince AG, Lobb, SJ, Richards JC and Mepham, L *Excavations in Newbury, Berkshire, 1979 – 1990* Wessex Archaeology Report **13**, 45-67.

Mepham, L. and Brown L. 2007, 'The Broughton to Timsbury pipline, Part 1: A Late Saxon pottery kiln and the production centre at Michelmersh, Hampshire' *Proceedings of the Hampshire Field Club and Archaeological Society* **62**, 25-68 (*Hampshire Studies* 2007).

Musty, J., Algar, D.J. & Ewence, P.F. 1969, 'The Medieval Pottery Kilns at Laverstock, near Salisbury, Wiltshire', *Archaeologia* CII, 83-150.

Pearce, J. E., Vince, A. G. and Jenner, M. A. 1985, *A dated type-series of London medieval pottery, Part 2: London-type Ware*, London Middlesex Archaeol Soc, Special Paper **6**.

Pearce, J.E. and Vince, A.G. 1988, *A dated type-series of London medieval pottery, Part 4: Surrey Whitewares*, London Middlesex Archaeol Soc, Special Paper **10**.

Platt, C. & Coleman-Smith, R. 1975, *Excavations in Medieval Southampton 1953-1969, **2**, The Finds*.

Pritchard F. 1991 'Dyepots' in Vince A. G. (ed.), 168-9.

Timby, J. 1988 'The Middle Saxon pottery' in Andrews, P. (ed) *Southampton Finds,Volume I: the coins and pottery from Hamwic*, 73-125, Southampton Archaeology Monographs **4**.

Vince, A.G., Lobb, S.J., Richards, J.C. & Mepham, L. 1997, *Excavations in Newbury, Berkshire, 1979 - 1990*. Wessex Archaeology Report 13.

Vince, A.G. & Jenner, A. 1991, `The Saxon and Early Medieval Pottery of London' in Vince, A.G, (ed) *Aspects of Saxon and Norman London 2: Finds and Environmental Evidence*, LAMAS Special Paper, **12**, 19-119.

Vince, A. and Steane, K. 2008 'Pottery' in H. Moore and S. Preston, 'Late Saxon and early medieval occupation at 26-27 Staple Gardens, Winchester.' *Proceedings of the Hampshire Field Club and Archaeological Society* **63** *(Hampshire Studies* 2008), 147-161.

Walton P., 1989, Textiles, cordage and raw fibre from 16-22 Coppergate. (The Archaeology of York 17/5).

Walton Rogers, P. 1999 'Identification of dye on Middle Saxon pottery from Christ Church College' *Canterbury's Archaeology 1996-1997*, **21**, 36.

Walton Rogers, P. 1996, unpublished. 'Tests for dye on potsherds from The Brooks, Winchester'. TRA Report on behalf of Winchester Museums Service, 15 February 1996.

Whinney, R., 1981 'Jack-O-Tooles Row, Boarhunt - a medieval kiln dump' *Proceedings of the Hampshire Field Club and Archaeological Society*,

Appendix 1

Key to codes used in the post-Roman pottery catalogue

Fabric: See report for list of fabric codes

Vessel Form:

BOWL
CHIM: Chimney
CIST: Cistern
COST: Costrel
CRUC: Crucible
CUP
CURF: Curfew
DRIP: Dripping pan
FPOT: Flower pot
JAR
JUG
LAMP
LID
MISC
SPP: Spouted pitcher
TPTCH: Tripod pitcher

Vessel Part:

BA: Base
BO: Body sherd
HA: Handle
P: Profile
R: Rim
SP: Spout

Rim Form:

See report text. The first letter of the alphanumeric code denotes the main form:

***.C**: Any rim form below (eg. A1.C) but, additionally, with an external shoulder carination (C), or ledge (fairly common on handmade Saxo-Norman pottery)

A1: Plain everted, with rounded or tapering edge/apex
A1C: Plain, with incipient bead, curved neck (closely related to A3C & C2)
A1U: Plain, upright (eg. bowls, crucibles)
A2: Plain, flat-topped (or externally bevelled. Neck usually curved)
A2P: Plain, flattish top or ext bevelled with a small projection defined by a groove (a distinctive type on Fabric MBK, MAF. For simpler types use A1 or A2)
A2U: Plain, flat-topped, upright (eg. bowls, crucibles)
A3A: Plain, straight, everted, round-topped (or tapered)
A3B: Plain, straight, everted, flat-topped (or externally bevelled. V common)
A3BB: Plain, straight, internally bevelled
A3C: Plain, straight, with incipient bead or ext projection (closely related to C2 & C3B)

B1: Simple thickened, everted
B2: Thickened, flat-topped
B2A: Thickened, flat-topped with internal projection
B2C: Thickened, flat-topped, collared (jug-type collared rims)
B2U: Thickened, flat-topped, upright (eg. bowls, also simple jug rims)
B3: Thickened, flat-topped, squared-off profile (eg. squared medieval cooking pot rims)
B4: Thickened, 'sickle-shaped' with ext angle and a pointed apex (common type on Fabric MBK, MAF – see A2P)
B4A: Everted, sub-collared with defined upright projection or apex (common type on Fabric MOE – related to B4)

C1: Simple everted bead (neck usually curved)
C2: Simple everted bead (neck straight)
C3A: Triangular bead on curved neck
C3B: Triangular bead on straight neck (common on later chalky-flinty ware Fabric MAV)
C4: Big beaded or clubbed rim
C5: Beaded clubbed rims with flattened or sub-collared outer face (mainly 11-12C Newbury wares. Related to B4 and B2A rims)

F1: Flanged/lid-seated rims
F1C: Flanged/lid-seated rims with ext bead (eg Fabric MSH)
F1X: Flanged/lid-seated, more complex (eg. late medieval & post-med types)

H1: Flanged with upright neck (similar to B3, less squared profile)

IN1: Inturned, plain (eg. crucibles)
IN2: Inturned, thickened
IN3: Inturned, thickened, flat-topped or internally bevelled (eg. on late Saxon Michelmersh and Winchester wares – an inturned relative of B2)

J1: Bifid or hammerhead (eg. bowls. Related to B2A)

MISC: Miscellaneous/unclassifiable/damaged rims

Base Form:
FLAT: Flat
FRING: Foot ring
HPED: Hollow pedestal-type foot ring
ROUND: Rounded
SAG: Sagging
SPIKE: Spiked (eg. cresset lamp)
THUMB: Thumbed
TRI: Tripod

Handle Form:
BRAID: Narrow strap handle with inlaid braids or twisted strips
LUG: Lug
NSTR: Narrow strap
OVAL: Oval section
ROD: Rod section
SC: Scar
SOCK: Socketed
STRAP: Strap

Spout Form:
POUR: Pouring lip
SC: Scar of
TUB: Tubular

Decoration:
AS: Applied strip
ASH: Applied strip, horizontal
ASV: Applied strip, vertical
COMB: Combed dec
CORD: Cordon (usually horizontal)
GR: Groove (usually horizontal)
HD: Highly decorated (complex, including strips and other dec techniques)
IMP: Finger impressed (eg. dimples, but not thumbing)
IN: Incised

IW: Incised wavy line (usually horizontal)
REDP: Red painted
ROUL: Rouletted
RT: Rim thumbed
RTC: Rim thumbed, continuous impressions
RTG: Rim thumbed, groups of impressions
RTS: Rim thumbed, spaced impressions
SLD: Slip decoration (lines etc)
SMK: Scratch marked dec
STAB: Stabbed pits
STAM: Stamps
T: Thumbed (other than rim, eg. handle edges)
WSL: Allover white slip

Glaze:

G: Glaze present (describe in comments)

Use:

BT: Burnt
MA: Madder stained
P: Perforated

Abbreviations used in comments field:

ABRAD: Abraded (or 'A')
AO: Allover
AS: Abraded, sooted
BO: Body
FA: Fairly abraded
FR: Fresh
FRS: Fresh, sooted
FFR: Fairly fresh
FFRS: Fairly fresh, sooted
GLZ: Glaze
HA: Handle
HM: Handmade
INCLS: Inclusions
NFR: North French
OXID: Oxidised
REDUC: Reduced
SH: Sherd
SLA: Slightly abraded
SLAS: Slightly abraded, sooted
SOOT: Sooted
T: Thumbed
TFT: Thickened, flat-topped (rims)
VAR: Variant
VERT: Vertical
WT: Wheel-turned

Appendix 2
Dyepots or madder-stained pottery

One of the most remarkable features of the late Saxon and early medieval pottery assemblage from the site is the quantity of evidence for the use, or re-use, of ordinary domestic pots as dyepots. These have been stained purplish-red or reddish-brown internally from contact with boiling solutions containing the purple-red plant dye madder (*Rubia tinctorum*). The sampled contexts here (ten properties) produced no less than 300 sherds of madder-stained pottery (5296 g., or 0.89 EVEs) plus at least another 43 sherds from the four uncatalogued properties (see below). Put another way, the 300 sherds comprise 2.03% of the entire catalogued pottery assemblage (or 2.35% by weight). Every property produced at least a few madder-stained sherds and some produced large enough quantities to suggest that textile dyeing, on some scale, must have taken place there. Interestingly, these observations would appear to bear out earlier suggestions that this north-western corner of the walled city was something of an industrial quarter, including suggestions that the area may have been the focus of a textile industry on some scale during the late Saxon and early medieval periods. The late Saxon street name 'Snideling Street', for instance, means 'Street of the Tailors'. Small finds, in the form of textile-working combs and spindle-whorls, also give some support to this view. This summary of the ceramic evidence for textile working on the site is not really the place for a city-wide overview of the late Saxon textile industry in Winchester but can merely touch on this larger subject in relation to the evidence here. The quantity of madder-stained sherds on each of the ten catalogued properties, and in each phase, is usefully summarised in Table A2.1. As far as can be ascertained, the 300-odd sherds here represents the largest quantity of madder-stained pottery recovered from a single archaeological site in England. This fact alone is fairly convincing evidence that there is some special link between this site and the textile industry.

The madder-stained sherds here have not been chemically analysed because they are exactly like madder-stained sherds elsewhere that have been analysed and almost invariably shown to be madder. Similar sherds from The Brooks site in Winchester have been chemically tested and proven, as expected, to be the purple dye (Walton Rogers 1996, unpublished). Madder has been found on 7th-century pottery from Northern Ireland and Scotland and on 8th-century pottery from Canterbury. It

also occurs on late Saxon pottery from Thetford and London and on medieval pottery from Norwich (Walton Rogers 1999). A few sherds of madder-stained late Saxon pottery have also been identified by the author from recent excavations at the French Quarter in Southampton - but only about half a dozen from a medieval assemblage of around 20,000 sherds. Madder-staining is also fairly common on early medieval pottery from London but its absence on later medieval pottery there has been interpreted as evidence that domestic-scale dyeing was replaced by professional dyeing establishments as time went by (Pritchard 1991). The latest piece from the site here is a single vessel (2 sherds) in common medieval sandy ware (fabric MDF) which is probably of 13th-century date (NH3282, BW3, Phase 6), so perhaps domestic-scale textile dyeing in Winchester also died-out about this time?

Dyers Madder, to give it its proper name, was derived from the root of the plant. Madder is not a native English plant but there is some evidence for its cultivation as a dye source here by the 10th century (Walton Rogers 1999). Before this date it is thought that the dye was probably imported and certainly the merchants of Saint Denis, Paris, had established a trade in the dye by the 9th century (*ibid.*, Walton 1989, 400-401). Walton Rogers suggests that domestic-scale dyeing in pots probably allowed a hank of yarn or a little bit of fleece to be dyed at a time. Other recorded medieval uses of the plant included use as a colorant for ivory and antler, as a paint and as a medicament (Walton Rogers 1999).

On the sherds from the excavations here the visual evidence for madder staining is very variable. At best - on lighter grey pottery fabrics - it shows up as an allover internal staining of very obvious purple-red colour or deep reddish-brown (sometimes blotchy). Sometimes it is light pink and not very obvious. On many sherds all obvious evidence of staining has disappeared but small inclusions of white calcined flint and occasionally chalk in the pottery fabric have been stained bright red or pink. There is evidence from several separate sherds (mostly from Pit 6158, SE1, Phase 4.2) that some vessels used for boiling madder had already been used for ordinary cooking purposes as some have one or two thin layers of limescale internally overlain by madder staining, but in the same pit there are also sherds from a vessel where madder boiling may have been the primary use of the vessel which was subsequently used for ordinary cooking purposes as the purplish staining is overlain by a film of limescale. Sooting occurs on the outside of many sherds. Evidently

almost any cooking pot could be used or re-used for dye production and then returned to more mundane cooking purposes.

Although there is a lot of it, the evidence for madder-stained pottery here is highly fragmentary and mostly very dispersed. Nothing like a complete profile of a dyepot exists here. It would appear that the main type of vessel used was the everyday jar or cooking pot and, not surprisingly, the commonest vessel form, the jar, in the commonest ware-type, late Saxon chalk-tempered ware (fabric MBX), is the main type of pottery which shows evidence for madder staining. Chalk-tempered ware accounts for 73% by sherds of all dyepots (219 sherds, or 69% by weight, or 53% by EVEs). Including chalky ware, eight types of late Saxon to early medieval coarsewares were employed. These include the second commonest pottery type, chalky-flinty ware (MAV, 38 sherds), and, in descending order, late Saxon sandy ware (MSH, 15 sherds), coarse grained sandy ware (MOE, 14 sherds), coarse grained sandy ware with flint (MAQ, 7 sherds), Newbury B-style ware (MTE, 4 sherds), common medieval sandy ware (MDF, 2 sherds) and sandy-flinty ware (MBK, 1 sherd). These mostly survive as body sherds, a smaller number of base sherds, and only ten rim sherds from perhaps just eight vessels. With the rim sherds this sort of evidence only seems to have survived in those rare instances where the pot was full enough for the dye solution to reach the internal rim/shoulder junction, hence their infrequency. Rim diameters reflect the preference for medium to large-sized pots in the 200-310 mm range. Most of the chalky ware jars are in the 200-220 mm range although there is a single jar of 160 mm diameter. The largest diameter, 310 mm, is that of a single coarse sandy ware jar (MOE) and this type of ware tends to have large jars anyhow. The only apparent exception to the jar rule is that of a single wide bowl rim in chalky-flinty ware (MAV). This vessel has a simple upright and thickened flat-topped rim (280 mm) with faint traces of purplish madder surviving on just one or two white flint inclusions on its inner surface (not illus. CC2256, BE4, Phase 4.2 *c* 950-1050). Robust sagging-based jars seem, quite logically, to have been preferred over thinner-walled forms - such as the thin-walled round-based jars in sandy-flinty ware (MBK). Apart from late Saxon sandy ware (MSH), which seems almost exclusively to have been a cooking pot ware in any case, none of the wheel-thrown late Saxon finewares (Winchester ware, Michelmersh ware, Portchester ware) appear to have been employed for this purpose, nor any of the glazed wares (eg. tripod pitchers). No examples of madder-stained jar rims have been illustrated here as these

are no different from the majority of medium-sized jars illustrated in the typology (eg see MBX, MAV etc.).

Madder-stained sherds occur in all late Saxon to medieval phases on the site (Table A2.1) and on every one of the fourteen excavated properties. The 48 sherds from Phase 4.1 (*c* 850-950), all in chalk-tempered MBX, come mainly from the contiguous catalogued Brudenstreet West properties (BW1-5), and mainly from BW4 (17 sherds). There are also a few sherds from the Saxon street in front of these. Property SE1 on the Snideling Street frontage also produced five sherds. None of the Brudenstreet East properties produced madder-stained sherds from this phase. More than half the entire madder-stained sherd assemblage (160 sherds) comes from Phase 4.2 (*c* 950-1050) and this must reflect the peak period of domestic textile dyeing on the site. Textile dyeing had by now spread to the Brudenstreet East frontage as well. Property SE1 accounted for most of these sherds (88 sherds, or 55% of madder sherds in this phase) with BE4 in second place with 22 sherds. A wider variety of pottery fabric types were now employed as dyepots. The 71 sherds in Phase 5 (*c* 1050-1225) mark the gradual decline of the domestic dyeing industry. The highest number of sherds here were recorded from BW4 (27 sherds). Only 21 sherds occur in Phase 6 (*c* 1225-1550), some of which may well be residual. These came from just two adjacent Brudenstreet West properties (BW3, 19 sherds, BW2, 2 sherds). Details extracted from the spot-date records for the four uncatalogued properties (SE3, BW6, BE1 and BE3) show at least an extra 43 madder-stained sherds from these. Most of the latter are from BW6 (32 sherds) but all of these are possibly from a single fragmented Newbury B-style jar profile from a Phase 5 pit (NH7501). SE3 produced a single sherd, BE1 produced seven and BE3 produced three sherds including a thick late Saxon sandy ware (MSH) sagging base sherd (diam. *c* 250 mm, CC1477, Phase 4).

Overall Property SE1 on Snideling Street (see below) produced the greatest quantity of madder-stained sherds (107 sherds, or 36% of all madder sherds). This is followed by BW4 with 56 sherds, BW3 with 40 sherds and BE4 with 28 sherds. It is quite likely that domestic textile dyeing employing madder took place on all the properties except perhaps those with the lowest madder sherd counts (BE2, 2 sherds, and SE3, 1 sherd). Property SE1, which produced the greatest quantity of madder-stained sherds has been identified from the animal bone evidence as a probable furrier's residence (Phase 5) and it can hardly be a coincidence that that SE1 (and SE2 with 20 sherds) are also located on Snideling Street - the late Saxon 'Street of the

Tailors'. The evidence that SE1 may have been a late Saxon tailor's as well as a furrier's residence, where dyeing was also carried out appears compelling. Most of the madder-stained sherds on SE1 came from the three fills of a large rectangular timber-lined pit, (NH Pit 6158, Phase 4.2. Possibly a tanning pit?). A total of 80 madder-stained sherds, representing at least a dozen vessels, came from this pit alone (49 from the lowest fill NH6161). This had evidently been reused as a rubbish pit and was rich in organic material, but not bone. Other finds included a worked antler tine from the lowest fill. Also within these fills was the base and lower walls of a large wheel-thrown late Saxon sandy ware (MSH) jar which had a regular thin purplish staining allover internally and sooting externally. The underside of the base, which exhibits signs of scorching, also has a thick (1.5 mm) rusty deposit over it possibly containing hammerscale or iron slag. A chalky MBX madder-stained base from the property also exhibits a similar rusty deposit (NH8065, Phase 4.1). Possibly these vessels had served more than one function in their lifetime - otherwise it is difficult to imagine how traces of industrial activities as incongruous as iron-working and textile dyeing could possibly be associated on the same vessel. Pit 6158 was one of a row of six rectangular rubbish pits in a roughly north-south alignment (Group NH8619), probably in the back yard of the SE1 building fronting Snideling Street and defining the building's eastern boundary. All but one of these five other pits (NH6047) also produced 1-3 sherds of madder-stained pottery with a group total of 88 sherds.

On other properties groups of more than three madder-stained sherds from the same contexts, and probably representing primary or secondary evidence of 'in situ' dyeing, appear to come mostly from pit fills, post-hole fills, a few floor layers and hearths. The largest number of sherds from a single context are the 30 sherds from a single fragmented Newbury B-style jar profile from a Phase 5 pit fill (NH7501) on BW6, an uncatalogued property. This shallow rounded pit also produced an enigmatic collection of environmental evidence including an unusually high number of fish bones of several species, winkles, and duck and goose bones - all suggestive of relatively high status diet. Possibly the madder-stained pot had been returned to ordinary domestic use after an earlier spell as a dyepot? After this there are 11 sherds from a single MAV jar on BE4, also from a pit (CC2354, Phase 4.2) and another 11 sherds from a single MBX base embedded in a floor surface truncated by the foundations of the medieval chapel on SE2 (NH1172, Phase 4.2). Three small sieved

sherds from BW2 are from a silty patch over a hearth and possibly related to the use of the hearth (NH4592).

The lack of any botanic evidence for madder on this site is puzzling but could just mean that the dyestuff was brought onto site already in ground powdered form which has left no trace. At Coppergate, York, a heap of partly processed madder roots were recovered from Anglo-Scandinavian levels revealing that processing did take place in urban centres (Pritchard 1991, 168). If the madder used in Winchester was imported, which is quite likely, then the pottery is the only tangible evidence for the importation of this foreign, probably French, commodity which must have been a fairly significant trade. In contrast the trade in French pottery imported into Winchester during the 9th-12th centuries seems to have been only minimal.

Appendix 3

Characterisation Studies of Winchester Ware from Winchester

by Alan Vince

Two sherds of Winchester Ware from Winchester have glaze over broken edges, suggesting that they are either wasters or seconds. In either case, they are likely to have been produced locally (as opposed to being imports from northern France).

Thin sections of each vessel were prepared, alongside chemical analyses. These were compared with:

a) Medieval Whitewares produced in southern Hampshire (from the TVAS excavations at Staple Gardens)

b) Various wares made in South-East Wiltshire (from various sites, including Dursley, Gloucestershire, and Staple Gardens, Winchester)

c) Tudor Green ware (from the production site at Farnborough Hill, Farnborough on the Surrey/Hampshire border)

d) Winchester ware (from the TVAS excavations at Staple Gardens)

e) 10th-century unglazed wheelthrown vessels from a production site at Michelmersh, Hampshire (Vince 2004)

f) 10th-century unglazed wheelthrown vessels from Staple Gardens, Winchester

g) Samples of glazed ware of 10th or 11th-century date from various sites in Rouen, probably locally made.

The comparanda are all from outcrops of light-firing clay of Tertiary date from Hampshire, neighbouring counties or from the Seine valley.

Thin Section Analysis

V5151

The following inclusion types were noted in thin section:

- Quartz. Abundant illsorted subangular and rounded grains ranging from 0.1mm to up to 0.4mm across.
- Chert. Sparse grains up to 0.4mm across.
- Opaques. Sparse rounded grains up to 0.3mm across.
- Muscovite. Sparse laths up to 0.3mm long.
- The groundmass consists of optically anisotropic baked clay, and abundant angular quartz up to 0.1mm across.

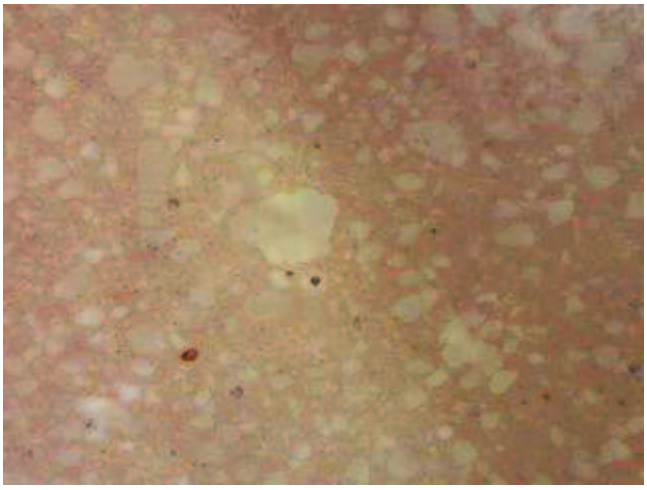


Figure 1

V5152

The following inclusion types were noted in thin section:

- Quartz. Abundant illsorted grains ranging from c.0.1mm to 0.4mm across and varying from angular to rounded in outline.
- Chert. Sparse subangular to rounded grains up to 0.4mm across.

- The groundmass consists of optically anisotropic light brown baked clay minerals and abundant angular quartz up to 0.1mm across.

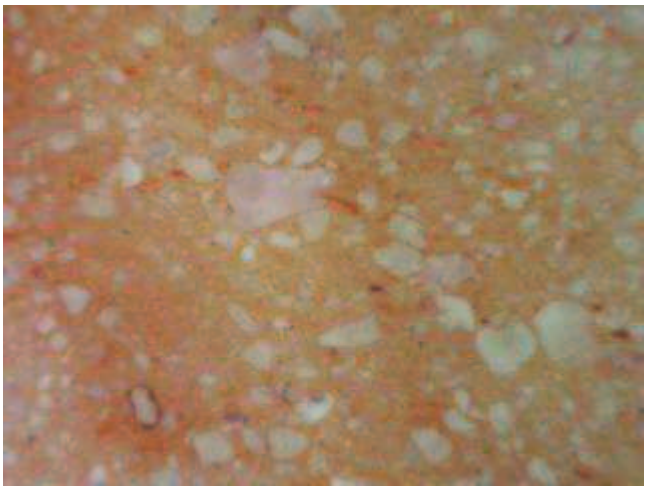


Figure 2

The two samples were tempered with a similar sand (the main difference being the lack of large muscovite flakes in one of the samples).

Chemical Analysis

The outer surfaces of the two samples were mechanically removed and the resulting lump ground to a fine powder and analysed at Royal Holloway College, under the supervision of Dr N Walsh (App 3.1 – major elements measured as percent oxides - and App 3.2 – minor elements measured in parts per million). The data were normalised to aluminium.

Silica was not measured but an estimate was obtained by subtracting the total measured percents (App 3.1) from 100%. There is very little difference in estimated quartz context between all of the samples (Fig 3).

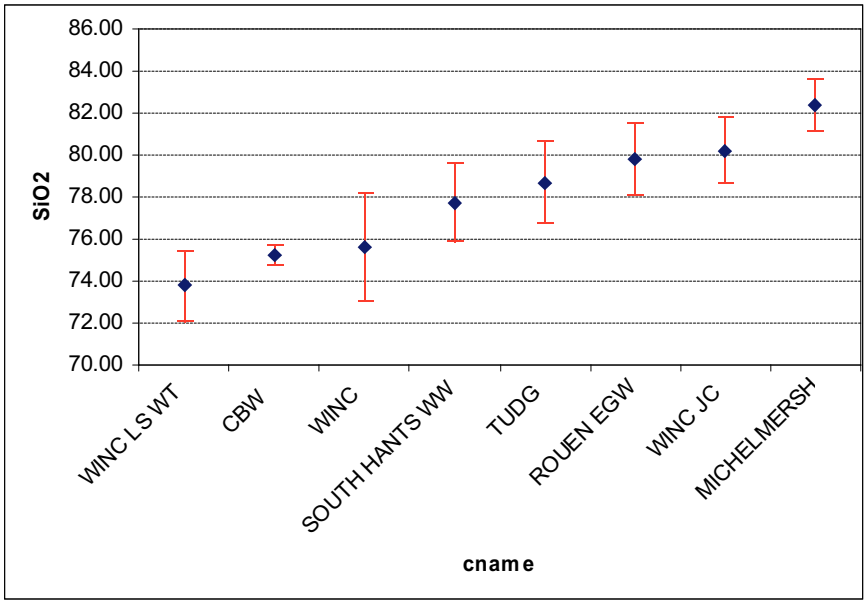


Figure 3

Factor analysis shows that there are five factors, F1 being the most important and F5 the least.

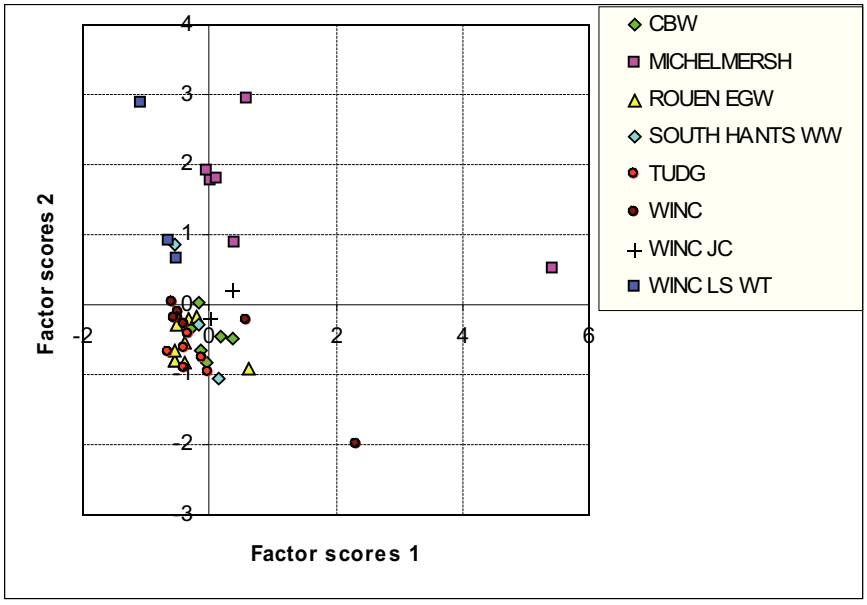


Figure 4

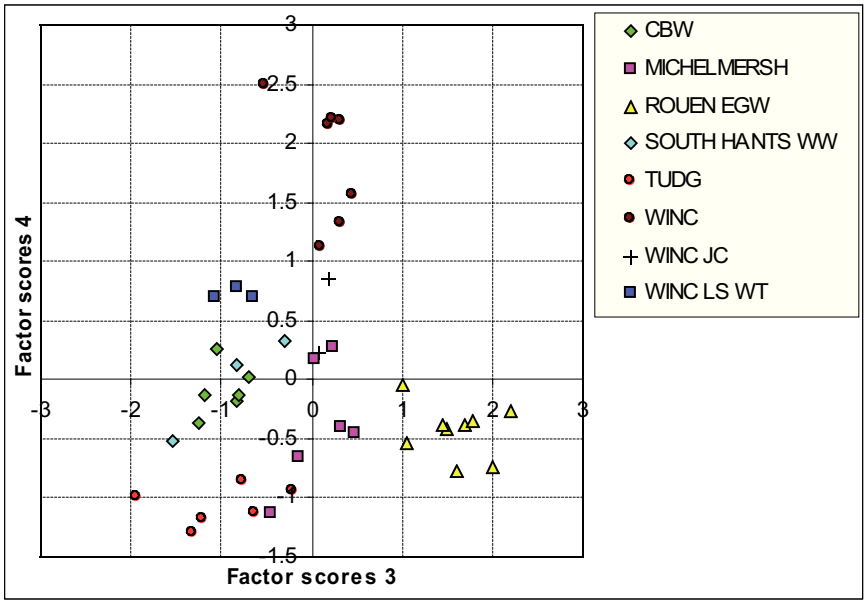


Figure 5

The samples are all similar, unsurprising considering that all were made from similar clays, in all but two cases having been leached as they were formed (the exceptions are the Winchester Late Saxon wheelthrown ware and the Michelmersh unglazed ware which are slightly darker in colour).

The basins in which the deposits are now found were formed after the deposition of the clays and therefore did not affect the composition of the clay which was deposited in the same deltaic conditions. Only the Seine valley clay differs in that it was re-deposited in the quaternary period although this clay too was formed in similar conditions.

Conclusions

The two current finds differ slightly in texture and colour from the previously sampled Staple Gardens samples. The current pieces are more typical of 10th to 12th century Winchester ware fabrics and as John Cotter argues they are very likely to have been made "locally" (i.e. within 10-15 miles of Winchester).

Bibliography

Vince, Alan (2004) *Characterisation Studies of Michelmersh Ware*. AVAC Reports 2004/132 Lincoln, AVAC

Appendix 3.1

Sitecode	cname	TSNO	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO
AY65 01/108	WINC	V2303	18.24	2.41	0.40	0.60	0.16	0.96	1.51	0.20	0.022
AY65 01/108	WINC	V2358	22.40	1.76	0.25	1.31	0.10	0.21	1.31	0.38	0.016
AY65 01/108	WINC	V2359	17.88	2.48	0.41	0.77	0.13	0.89	1.50	0.25	0.031
AY65 01/108	WINC	V2360	18.43	2.42	0.41	0.73	0.14	0.95	1.52	0.18	0.036
AY65 01/108	WINC	V2361	17.82	2.49	0.41	0.84	0.13	0.91	1.49	0.34	0.038
AY65 01/108	WINC	V2362	19.03	2.38	0.42	0.72	0.15	0.95	1.59	0.28	0.027
WINCM AY256	WINC	V4615	12.77	2.34	0.63	0.29	0.19	1.97	0.81	0.16	0.013
ay220	WINC	V5151	12.55	2.16	0.56	0.33	0.20	1.85	0.72	0.28	0.012
ay93	WINC	V5152	14.03	2.63	0.67	0.26	0.22	2.13	0.85	0.08	0.010

Appendix 3.2

Sitecode	TSNO	Ba	Cr	Cu	Li	Ni	Sc	Sr	V	Y	Zr*	La	Ce	Nd	Sm	Eu	Dy	Yb	Pb	Zn	Co
AY65 01/108	V2303	275	104	22	196	38	14	109	123	17	106	50	89	37	6	1	3	2	620	46	17
AY65 01/108	V2358	164	178	50	214	47	23	80	130	68	109	144	356	251	44	6	16	5	722	66	14
AY65 01/108	V2359	267	121	29	197	45	14	112	123	19	112	40	82	40	5	1	4	2	598	48	14
AY65 01/108	V2360	274	120	33	223	44	15	111	119	19	111	40	83	37	4	1	4	2	2,360	48	16
AY65 01/108	V2361	282	119	46	205	44	14	117	119	19	106	40	80	43	4	1	4	2	711	56	19
AY65 01/108	V2362	264	120	24	216	45	15	111	108	21	117	41	89	37	4	1	4	2	754	52	19
WINCM AY256	V4615	351	80	26	47	22	14	78	94	30	81	41	74	43	9	2	5	2	168	41	9
ay220	V5151	353	77	18	59	22	13	86	79	14	82	35	61	35	6	1	2	2	277	47	8
ay93	V5152	376	74	31	49	24	15	93	98	26	84	42	79	44	11	2	5	3	1,243	68	12

Street Front_Prop_Ph_ Quant

Sampled?	Yes																													
			Phase	Data																										
			4.1						**4.2**						**5**						**6**						**Total Weight**	**Total %**	**Total Sherds**	**Total %**	**Total EVEs**	**Total %**
Property2	Street Frontage	Property	Weight	%	Sherds	%	EVEs	%	Weight	%	Sherds	%	EVEs	%	Weight	%	Sherds	%	EVEs	%	Weight	%	Sherds	%	EVEs	%						
SE	SE	SE 1	620	2.96%	35	2.71%	0.25	1.81%	10,248	12.21%	499	10.83%	7.96	13.99%	23,007	20.82%	1,436	21.87%	16.77	25.43%	207	0.57%	8	0.35%	0.16	0.72%	34,082	13.53%	1,978	13.40%	25.14	15.81%
		SE 2	109	0.52%	11	0.85%		0.00%	6,018	7.17%	385	8.36%	4.11	7.22%	4,879	4.42%	370	5.63%	3.14	4.76%	1,352	3.71%	128	5.57%	0.57	2.55%	12,358	4.91%	894	6.05%	7.82	4.92%
	SE Total		**729**	**3.48%**	**46**	**3.56%**	**0.25**	**1.81%**	**16,266**	**19.38%**	**884**	**19.19%**	**12.07**	**21.21%**	**27,886**	**25.24%**	**1,806**	**27.50%**	**19.91**	**30.19%**	**1,559**	**4.27%**	**136**	**5.91%**	**0.73**	**3.26%**	**46,440**	**18.44%**	**2,872**	**19.45%**	**32.96**	**20.73%**
BW	Others*		5,036	24.01%	256	19.81%	3.75	27.21%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	5,036	2.00%	256	1.73%	3.75	2.36%
	Others* Total		**5,036**	**24.01%**	**256**	**19.81%**	**3.75**	**27.21%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**		**0.00%**	**5,036**	**2.00%**	**256**	**1.73%**	**3.75**	**2.36%**
	BW	BW 1	328	1.56%	18	1.39%		0.00%	563	0.67%	26	0.56%	0.16	0.28%	2,566	2.32%	165	2.51%	1.49	2.26%	657	1.80%	59	2.57%	0.47	2.10%	4,114	1.63%	268	1.81%	2.12	1.33%
		BW 2	8,857	42.23%	577	44.66%	6.4	46.44%	12,087	14.40%	806	17.50%	10.84	19.05%	2,966	2.68%	208	3.17%	1.68	2.55%	2,687	7.37%	125	5.43%	1.74	7.78%	26,597	10.56%	1,716	11.62%	20.66	13.00%
		BW 3	1,621	7.73%	99	7.66%	0.71	5.15%	5,063	6.03%	288	6.25%	5.31	9.33%	16,999	15.38%	1,208	18.40%	10.17	15.42%	23,145	63.44%	1,457	63.35%	13.69	61.23%	46,828	18.59%	3,052	20.67%	29.88	18.79%
		BW 4	3,212	15.31%	213	16.49%	2.36	17.13%	8,499	10.13%	461	10.01%	4.49	7.89%	16,142	14.61%	1,040	15.84%	10.78	16.35%		0.00%		0.00%		0.00%	27,853	11.06%	1,714	11.61%	17.63	11.09%
		BW 5	905	4.32%	56	4.33%	0.15	1.09%	7,003	8.34%	356	7.73%	4.83	8.49%	11,101	10.05%	476	7.25%	5.36	8.13%		0.00%		0.00%		0.00%	19,009	7.55%	888	6.01%	10.34	6.50%
	BW Total		**14,923**	**71.15%**	**963**	**74.54%**	**9.62**	**69.81%**	**33,215**	**39.57%**	**1,937**	**42.04%**	**25.63**	**45.04%**	**49,774**	**45.04%**	**3,097**	**47.16%**	**29.48**	**44.71%**	**26,489**	**72.61%**	**1,641**	**71.35%**	**15.9**	**71.11%**	**124,401**	**49.39%**	**7,638**	**51.73%**	**80.63**	**50.72%**
BE	BE	BE 2		0.00%		0.00%		0.00%	15,622	18.61%	784	17.02%	5.19	9.12%	8,572	7.76%	446	6.79%	2.08	3.15%		0.00%		0.00%		0.00%	24,194	9.60%	1,230	8.33%	7.27	4.57%
		BE 4	285	1.36%	27	2.09%	0.16	1.16%	14,695	17.51%	743	16.13%	12.3	21.62%	14,628	13.24%	668	10.17%	10.64	16.14%	133	0.36%	1	0.04%	0.2	0.89%	29,741	11.81%	1,439	9.75%	23.3	14.66%
		BE 5		0.00%		0.00%		0.00%	4,133	4.92%	259	5.62%	1.71	3.01%	9,644	8.73%	550	8.38%	3.83	5.81%	8,302	22.76%	522	22.70%	5.53	24.73%	22,079	8.77%	1,331	9.01%	11.07	6.96%
	BE Total		**285**	**1.36%**	**27**	**2.09%**	**0.16**	**1.16%**	**34,450**	**41.05%**	**1,786**	**38.77%**	**19.2**	**33.74%**	**32,844**	**29.72%**	**1,664**	**25.34%**	**16.55**	**25.10%**	**8,435**	**23.12%**	**523**	**22.74%**	**5.73**	**25.63%**	**76,014**	**30.18%**	**4,000**	**27.09%**	**41.64**	**26.19%**
Grand Total			20,973	100.00%	1,292	100.00%	13.78	100.00%	83,931	100.00%	4,607	100.00%	56.9	100.00%	110,504	100.00%	6,567	100.00%	65.94	100.00%	36,483	100.00%	2,300	100.00%	22.36	100.00%	251,891	100.00%	14,766	100.00%	158.98	100.00%

1. Overall quantification of pottery by phase

Phase	Characterised by	Date	Comments
Late Saxon Sandy Ware Phase	Late Saxon Sandy Ware (MSH/LSSW). Chalk-tempered wares	**c. 850-950 (-1000?)**	Wheel-thrown reduced Late Saxon Sandy ware (MSH) as globular jars. Fairly common. Abundant chalk-tempered wares (to c. 1200), at first mainly non-sandy with abund chalk (MBX), later (after c. 950?) sandier with more flint (MAV). Simple rims at first, slightly more complex later - more upright with ext bead/thickening
Michelmersh Ware Phase	Michelmersh-Type Ware (MMU)	**c. 925(?)-1050**	Wheel-thrown sandy Michelmersh or Michelmersh-type ware (MMU), but fairly rare in Winchester. Also some Portchester ware (MBN) c. 925(?)-1050, but even rarer. Chalky wares still dominant. This phase and the preceding one just might be the same thing?
Winchester Ware Phase	Winchester Ware (MWW)	**c. 950-1100**	Wheel-thrown yellow-glazed fineware (MWW). Fairly rare to fairly common. Chalky wares still dominant though chalky-flinty-sandy variant (MAV) now commoner
Tripod Pitcher Phase	Tripod pitchers. Mainly 'Tripod Pitcher Ware' (MAD)	**c. 1050-1200 (-1225)**	Glazed tripod pitchers. Mainly 'Tripod Pitcher ware' (MAD). Fairly common. Also some less common tripod pitcher fabrics. Equally characteristic the appearance of the flint-tempered finer sandy wares as small handmade round-bottomed jars (mainly MBK, also MAF, with 'organics'). These possibly from 10th century but only common 11-12th century. Other new coarse ware is Coarse Sandy ware (MOE) often with Scratch-Marked decoration - typically post-conquest. Wheel-turned 'medieval' grey sandy ware (MDF) present also but commoner in next phase. Also, rare 'Twelfth-century glazed ware' (MDW 'Developed Winchester ware'). General increase in percentage of flint-tempered wares including local copy of Newbury/Kennet Valley 'B' flint-tempered jars/cooking pots (MTE), fairly common, plus various local sand & flint-tempered wares (MAQ). Chalky wares still present but flintier (MAV) and in decline
13th-15th Century Phase	Glazed sandy ware jugs. Unglazed grey sandy ware (MDF)	**c. 1200-1450**	Earlier part of phase (sometimes assigned to separate phase) difficult to define but includes Pink Quartz-Tempered ware (MMG) early rounded jugs & tripod pitchers like Orchard St Chichester kiln products. Main phase defined by glazed fine sandy jugs mainly in South Hampshire Red wares (MMI), Pink Quartz-Tempered wares (MMG) & sandy grey unglazed (MDF) jars/cooking pots (part of broad Hants tradition 11th-14th century). Some pale-coloured 13th-century Laverstock ware. Later part of phase (not detectable on these particular sites) defined by late South Hampshire Red ware fabrics and increasing regional and some continental imports

Winchester fabric groups

1. Fabrics in alphabetic order				**2. Fabrics in group order**	
Fabric	Group			Fabric	Group
MAB	3			MAV	1
MAD	5			MBX	1
MADW	5			MBN	2
MAF	3			MMU	2
MAQ	3			MSH	2
MAV	1			MWW	2
MBEAU	8			MZM	2
MBK	3			WWX	2
MBN	2			MAB	3
MBX	1			MAF	3
MCK	6			MAQ	3
MDF	6			MBK	3
MDG	6			MTE	3
MDL	7			MOE	4
MFGY	8			MAD	5
MFI	8			MADW	5
MMG	6			MNG	5
MMH	6			MCK	6
MMI	6			MDF	6
MMK	6			MDG	6
MMQ	6			MMG	6
MMR	6			MMH	6
MMU	2			MMI	6
MNG	5			MMK	6
MNV	8			MMQ	6
MNVY	8			MMR	6
MNX	6			MNX	6
MOE	4			MDL	7
MPIN	8			PMED	7
MSH	2			UNID	7
MTE	3			MBEAU	8
MWW	2			MFGY	8
MZM	2			MFI	8
PMED	7			MNV	8
UNID	7			MNVY	8
WWX	2			MPIN	8

Fabrics count by Phase

Sampled?	Yes											
Property	(All)											
	Phase	Data										
	4		4.1		4.2		5		6		Total Sherds	Total %
Fabric	Sherds	%	Sherds	%	Sherds	%	Sherds	%	Sherds	%		
MAB	1	3.85%	0	0.00%	4	0.09%	24	0.37%	7	0.30%	**36**	**0.24%**
MAD	0	0.00%	0	0.00%	4	0.09%	115	1.75%	44	1.91%	**163**	**1.10%**
MADW	0	0.00%	0	0.00%	0	0.00%	4	0.06%	5	0.22%	**9**	**0.06%**
MAF	0	0.00%	0	0.00%	10	0.22%	260	3.96%	51	2.22%	**321**	**2.17%**
MAQ	0	0.00%	17	1.32%	170	3.69%	353	5.38%	50	2.17%	**590**	**3.99%**
MAV	11	42.31%	22	1.70%	1,150	24.96%	1,736	26.44%	115	5.00%	**3,034**	**20.51%**
MBEAU	0	0.00%	0	0.00%	0	0.00%	2	0.03%	0	0.00%	**2**	**0.01%**
MBK	1	3.85%	4	0.31%	69	1.50%	1,086	16.54%	164	7.13%	**1,324**	**8.95%**
MBN	0	0.00%	0	0.00%	15	0.33%	4	0.06%	0	0.00%	**19**	**0.13%**
MBX	12	46.15%	1,179	91.25%	2,754	59.78%	1,792	27.29%	516	22.43%	**6,253**	**42.27%**
MCK	0	0.00%	0	0.00%	0	0.00%	0	0.00%	6	0.26%	**6**	**0.04%**
MDF	0	0.00%	2	0.15%	9	0.20%	161	2.45%	409	17.78%	**581**	**3.93%**
MDG	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	0.39%	**9**	**0.06%**
MDL	0	0.00%	12	0.93%	40	0.87%	33	0.50%	9	0.39%	**94**	**0.64%**
MFGY	0	0.00%	0	0.00%	2	0.04%	0	0.00%	0	0.00%	**2**	**0.01%**
MFI	0	0.00%	0	0.00%	0	0.00%	1	0.02%	0	0.00%	**1**	**0.01%**
MMG	0	0.00%	0	0.00%	1	0.02%	0	0.00%	15	0.65%	**16**	**0.11%**
MMH	0	0.00%	0	0.00%	0	0.00%	2	0.03%	60	2.61%	**62**	**0.42%**
MMI	0	0.00%	0	0.00%	1	0.02%	9	0.14%	213	9.26%	**223**	**1.51%**
MMK	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.04%	**1**	**0.01%**
MMQ	0	0.00%	0	0.00%	1	0.02%	0	0.00%	11	0.48%	**12**	**0.08%**
MMR	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	0.30%	**7**	**0.05%**
MMU	0	0.00%	13	1.01%	91	1.98%	89	1.36%	12	0.52%	**205**	**1.39%**
MNG	0	0.00%	0	0.00%	1	0.02%	49	0.75%	30	1.30%	**80**	**0.54%**
MNV	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.13%	**3**	**0.02%**
MNVY	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.04%	**1**	**0.01%**
MNX	0	0.00%	0	0.00%	0	0.00%	4	0.06%	15	0.65%	**19**	**0.13%**
MOE	0	0.00%	5	0.39%	19	0.41%	229	3.49%	314	13.65%	**567**	**3.83%**
MPIN	0	0.00%	0	0.00%	0	0.00%	4	0.06%	0	0.00%	**4**	**0.03%**
MSH	0	0.00%	34	2.63%	91	1.98%	35	0.53%	5	0.22%	**165**	**1.12%**
MTE	1	3.85%	1	0.08%	5	0.11%	381	5.80%	190	8.26%	**578**	**3.91%**
MWW	0	0.00%	0	0.00%	77	1.67%	54	0.82%	2	0.09%	**133**	**0.90%**
MZM	0	0.00%	1	0.08%	60	1.30%	63	0.96%	14	0.61%	**138**	**0.93%**
PMED	0	0.00%	0	0.00%	3	0.07%	8	0.12%	5	0.22%	**16**	**0.11%**
UNID	0	0.00%	2	0.15%	17	0.37%	44	0.67%	14	0.61%	**77**	**0.52%**
WWX	0	0.00%	0	0.00%	13	0.28%	25	0.38%	3	0.13%	**41**	**0.28%**
Grand Total	**26**	**100.00%**	**1,292**	**100.00%**	**4,607**	**100.00%**	**6,567**	**100.00%**	**2,300**	**100.00%**	**14,792**	**100.00%**

Fabrics weight by Phase

Sampled?	Yes											
Property	(All)											
	Phase	Data										
	4		4.1		4.2		5		6		Total Wght	Total %
Fabric	Wght	%	Wght	%	Wght	%	Wght	%	Wght	%		
MAB	56	12.04%		0.00%	38	0.05%	481	0.44%	99	0.27%	674	0.27%
MAD		0.00%		0.00%	68	0.08%	2,098	1.90%	1,131	3.10%	3,297	1.31%
MADW		0.00%		0.00%		0.00%	110	0.10%	138	0.38%	248	0.10%
MAF		0.00%		0.00%	140	0.17%	2,837	2.57%	564	1.55%	3,541	1.40%
MAQ		0.00%	316	1.51%	2,973	3.54%	6,253	5.66%	1,024	2.81%	10,566	4.19%
MAV	179	38.49%	802	3.82%	26,837	31.98%	38,093	34.47%	2,203	6.04%	68,114	26.99%
MBEAU		0.00%		0.00%		0.00%	36	0.03%		0.00%	36	0.01%
MBK	2	0.43%	15	0.07%	780	0.93%	14,810	13.40%	1,913	5.24%	17,520	6.94%
MBN		0.00%		0.00%	184	0.22%	84	0.08%		0.00%	268	0.11%
MBX	223	47.96%	18,705	89.19%	45,258	53.92%	26,973	24.41%	8,786	24.08%	99,945	39.60%
MCK		0.00%		0.00%		0.00%		0.00%	26	0.07%	26	0.01%
MDF		0.00%	16	0.08%	165	0.20%	2,178	1.97%	5,029	13.78%	7,388	2.93%
MDG		0.00%		0.00%		0.00%		0.00%	166	0.46%	166	0.07%
MDL		0.00%	44	0.21%	90	0.11%	198	0.18%	78	0.21%	410	0.16%
MFGY		0.00%		0.00%	91	0.11%		0.00%		0.00%	91	0.04%
MFI		0.00%		0.00%		0.00%	130	0.12%		0.00%	130	0.05%
MMG		0.00%		0.00%	4	0.00%		0.00%	269	0.74%	273	0.11%
MMH		0.00%		0.00%		0.00%	17	0.02%	565	1.55%	582	0.23%
MMI		0.00%		0.00%	1	0.00%	103	0.09%	3,426	9.39%	3,530	1.40%
MMK		0.00%		0.00%		0.00%		0.00%	18	0.05%	18	0.01%
MMQ		0.00%		0.00%	11	0.01%		0.00%	105	0.29%	116	0.05%
MMR		0.00%		0.00%		0.00%		0.00%	131	0.36%	131	0.05%
MMU		0.00%	134	0.64%	1,794	2.14%	1,381	1.25%	247	0.68%	3,556	1.41%
MNG		0.00%		0.00%	6	0.01%	897	0.81%	379	1.04%	1,282	0.51%
MNV		0.00%		0.00%		0.00%		0.00%	2	0.01%	2	0.00%
MNVY		0.00%		0.00%		0.00%		0.00%	8	0.02%	8	0.00%
MNX		0.00%		0.00%		0.00%	47	0.04%	270	0.74%	317	0.13%
MOE		0.00%	193	0.92%	327	0.39%	4,424	4.00%	5,973	16.37%	10,917	4.33%
MPIN		0.00%		0.00%		0.00%	59	0.05%		0.00%	59	0.02%
MSH		0.00%	689	3.29%	2,147	2.56%	522	0.47%	114	0.31%	3,472	1.38%
MTE	5	1.08%	16	0.08%	98	0.12%	5,488	4.97%	3,181	8.72%	8,788	3.48%
MWW		0.00%		0.00%	1,255	1.50%	742	0.67%	6	0.02%	2,003	0.79%
MZM		0.00%	8	0.04%	1,225	1.46%	915	0.83%	310	0.85%	2,458	0.97%
PMED		0.00%		0.00%	98	0.12%	170	0.15%	34	0.09%	302	0.12%
UNID		0.00%	35	0.17%	192	0.23%	538	0.49%	263	0.72%	1,028	0.41%
WWX		0.00%		0.00%	149	0.18%	920	0.83%	25	0.07%	1,094	0.43%
Grand Total	465	100.00%	20,973	100.00%	83,931	100.00%	110,504	100.00%	36,483	100.00%	252,356	100.00%

Fabrics EVEs by Phase

Sampled?	Yes											
Property	(All)											
	Phase	Data										
	4		**4.1**		**4.2**		**5**		**6**		**Total EVEs**	**Total %**
Fabric	EVEs	%	EVEs	%	EVEs	%	EVEs	%	EVEs	%		
MAB	0.09	24.32%	0	0.00%	0	0.00%	0.34	0.52%	0.1	0.45%	0.53	0.33%
MAD	0	0.00%	0	0.00%	0	0.00%	0.4	0.61%	0.25	1.12%	0.65	0.41%
MADW	0	0.00%	0	0.00%	0	0.00%	0.11	0.17%	0	0.00%	0.11	0.07%
MAF	0	0.00%	0	0.00%	0	0.00%	1.72	2.61%	0.23	1.03%	1.95	1.22%
MAQ	0	0.00%	0	0.00%	4.49	7.89%	5.53	8.39%	0.67	3.00%	10.69	6.71%
MAV	0	0.00%	0.53	3.85%	13.7	24.08%	18.11	27.46%	0.72	3.22%	33.06	20.75%
MBEAU	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MBK	0	0.00%	0	0.00%	0.98	1.72%	10.77	16.33%	1.45	6.48%	13.2	8.28%
MBN	0	0.00%	0	0.00%	0.12	0.21%	0.06	0.09%	0	0.00%	0.18	0.11%
MBX	0.28	75.68%	11.75	85.27%	30.22	53.11%	17.18	26.05%	6.31	28.22%	65.74	41.26%
MCK	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MDF	0	0.00%	0	0.00%	0.18	0.32%	1.41	2.14%	4.05	18.11%	5.64	3.54%
MDG	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.04	0.18%	0.04	0.03%
MDL	0	0.00%	0.5	3.63%	1	1.76%	0.97	1.47%	0.16	0.72%	2.63	1.65%
MFGY	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MFI	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MMG	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.45	2.01%	0.45	0.28%
MMH	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.2	0.89%	0.2	0.13%
MMI	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1.95	8.72%	1.95	1.22%
MMK	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.06	0.27%	0.06	0.04%
MMQ	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MMR	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.05	0.22%	0.05	0.03%
MMU	0	0.00%	0.14	1.02%	0.97	1.70%	1.22	1.85%	0.32	1.43%	2.65	1.66%
MNG	0	0.00%	0	0.00%	0	0.00%	0.46	0.70%	0.04	0.18%	0.5	0.31%
MNV	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MNVY	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MNX	0	0.00%	0	0.00%	0	0.00%	0.08	0.12%	0	0.00%	0.08	0.05%
MOE	0	0.00%	0.33	2.39%	0.07	0.12%	1.93	2.93%	3.07	13.73%	5.4	3.39%
MPIN	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
MSH	0	0.00%	0.53	3.85%	1.45	2.55%	0.58	0.88%	0.11	0.49%	2.67	1.68%
MTE	0	0.00%	0	0.00%	0.1	0.18%	3.33	5.05%	1.35	6.04%	4.78	3.00%
MWW	0	0.00%	0	0.00%	2.06	3.62%	0.42	0.64%	0	0.00%	2.48	1.56%
MZM	0	0.00%	0	0.00%	1.41	2.48%	0.86	1.30%	0.3	1.34%	2.57	1.61%
PMED	0	0.00%	0	0.00%	0.05	0.09%	0.09	0.14%	0.04	0.18%	0.18	0.11%
UNID	0	0.00%	0	0.00%	0.1	0.18%	0.37	0.56%	0.44	1.97%	0.91	0.57%
WWX	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Grand Total	**0.37**	**100.00%**	**13.78**	**100.00%**	**56.9**	**100.00%**	**65.94**	**100.00%**	**22.36**	**100.00%**	**159.35**	**100.00%**

Vessel Forms (MAV)

Sampled?	Yes																																			
Property	(All)					NB: %'s are of phase total																															
Fabric	MAV																																		
Rim Fo	(All)																																		
	Vess Fo	Data																																	
	BOWL						CURF						JAR						LAMP						SPP						Total Sherds	Total sherds%	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Phase	Sherds	sherds%	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds%	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds%	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds%	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds%	Wgt	%Wgt	EVEs	%EVEs						
4.1		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	6	85.71%	188	51.51%	0.41	77.36%		0.00%		0.00%		0.00%	1	14.29%	177	48.49%	0.12	22.64%	7	100.00%	365	100.00%	0.53	100.00%
4.2	12	4.84%	498	4.70%	0.64	4.67%		0.00%		0.00%		0.00%	199	80.24%	7336	69.30%	9.59	70.00%	5	2.02%	247	2.33%	1.88	13.72%	32	12.90%	2505	23.66%	1.59	11.61%	248	100.00%	10586	100.00%	13.7	100.00%
5	64	18.93%	3045	23.88%	1.63	9.00%		0.00%		0.00%		0.00%	245	72.49%	8862	69.51%	13.82	76.31%	16	4.73%	361	2.83%	2.16	11.93%	13	3.85%	482	3.78%	0.5	2.76%	338	100.00%	12750	100.00%	18.11	100.00%
6	3	13.04%	161	20.56%	0.1	13.89%	2	8.70%	101	12.90%		0.00%	15	65.22%	444	56.70%	0.62	86.11%	2	8.70%	46	5.87%		0.00%	1	4.35%	31	3.96%		0.00%	23	100.00%	783	100.00%	0.72	100.00%
Grand Total	79	12.82%	3704	15.13%	2.37	7.17%	2	0.32%	101	0.41%		0.00%	465	75.49%	16830	68.74%	24.44	73.93%	23	3.73%	654	2.67%	4.04	12.22%	47	7.63%	3195	13.05%	2.21	6.68%	616	100.00%	24484	100.00%	33.06	100.00%

MAV Rim Form Quants

Sampled?	Yes					
Property	(All)					
Phase	(All)					
Fabric	MAV					
	Data					
Rim Fo	Sherds	% of Rims	Sum of Weight	%Weight	EVEs	% of Rims
A1	15	3.14%	287	1.42%	1.2	3.64%
A1.C	1	0.21%	19	0.09%	0.03	0.09%
A1C	13	2.72%	279	1.38%	0.83	2.52%
A1U	8	1.67%	440	2.18%	2.07	6.28%
A2	22	4.60%	721	3.57%	1.35	4.09%
A2.C	2	0.42%	49	0.24%	0.14	0.42%
A2U	29	6.07%	2018	9.99%	2.16	6.55%
A3A	15	3.14%	484	2.40%	1.17	3.55%
A3A.C	1	0.21%	34	0.17%	0.04	0.12%
A3B	96	20.08%	2890	14.31%	5.66	17.16%
A3B.C	5	1.05%	299	1.48%	0.51	1.55%
A3C	105	21.97%	5072	25.11%	5.88	17.83%
A3C.C	47	9.83%	2020	10.00%	2.14	6.49%
B1	3	0.63%	44	0.22%	0.18	0.55%
B2	17	3.56%	465	2.30%	0.87	2.64%
B2.C	4	0.84%	676	3.35%	0.26	0.79%
B2A	8	1.67%	398	1.97%	0.46	1.39%
B2U	14	2.93%	671	3.32%	1.82	5.52%
B3.C	5	1.05%	99	0.49%	0.34	1.03%
C1	6	1.26%	203	1.00%	0.44	1.33%
C2	14	2.93%	555	2.75%	1.23	3.73%
C2.C	1	0.21%	48	0.24%	0.17	0.52%
C3B	42	8.79%	2088	10.34%	3.21	9.73%
C3B.C	3	0.63%	286	1.42%	0.63	1.91%
C4	1	0.21%	21	0.10%	0.11	0.33%
C5	1	0.21%	36	0.18%	0.08	0.24%
Grand Total	478	100.00%	20202	100.00%	32.98	100.00%

Vessel Forms (MBX)

Sampled?	Yes							NB: %'s are of phase total																					
Property	(All)																												
Fabric	MBX																												
Rim Fo	(All)																												
	Vess Fo	Data																											
	BOWL						JAR						LAMP						SPP						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Phase	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
4.1		0.00%		0.00%		0.00%	141	95.92%	5209	90.92%	11.4	97.02%	1	0.68%	28	0.49%	0.1	0.85%	5	3.40%	492	8.59%	0.25	2.13%	147	100.00%	5729	100.00%	11.75	100.00%
4.2	6	1.44%	459	3.28%	0.42	1.39%	399	95.45%	12489	89.17%	29.14	96.43%	4	0.96%	91	0.65%	0.49	1.62%	9	2.15%	967	6.90%	0.17	0.56%	418	100.00%	14006	100.00%	30.22	100.00%
5	16	5.84%	434	5.54%	0.63	3.67%	252	91.97%	7235	92.38%	16.17	94.12%	5	1.82%	71	0.91%	0.38	2.21%	1	0.36%	92	1.17%		0.00%	274	100.00%	7832	100.00%	17.18	100.00%
6	4	4.65%	163	5.60%	0.17	2.69%	82	95.35%	2750	94.40%	6.14	97.31%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	86	100.00%	2913	100.00%	6.31	100.00%
Grand Total	26	2.81%	1056	3.46%	1.22	1.86%	874	94.49%	27683	90.82%	62.85	96.01%	10	1.08%	190	0.62%	0.97	1.48%	15	1.62%	1551	5.09%	0.42	0.64%	925	100.00%	30480	100.00%	65.46	100.00%

MBX Rim Form Quants

Sampled?	Yes					
Property	(All)					
Phase	(All)					
Fabric	MBX					
	Data					
Rim Fo	Sherds	% of Rims	Sum of Weight	%Weight	EVEs	% of Rims
A1	45	5.44%	1336	4.91%	3.71	5.65%
A1C	2	0.24%	29	0.11%	0.2	0.30%
A1C.C	5	0.60%	269	0.99%	0.74	1.13%
A1U	10	1.21%	271	1.00%	0.84	1.28%
A2	57	6.89%	1541	5.66%	4.97	7.58%
A2.C	3	0.36%	216	0.79%	0.49	0.75%
A2U	8	0.97%	266	0.98%	0.7	1.07%
A3A	155	18.74%	4854	17.83%	12.65	19.28%
A3A.C	8	0.97%	544	2.00%	1.15	1.75%
A3B	391	47.28%	11356	41.71%	27.1	41.30%
A3B.C	28	3.39%	1941	7.13%	3.17	4.83%
A3C	55	6.65%	1830	6.72%	4.81	7.33%
A3C.C	11	1.33%	712	2.62%	1.29	1.97%
B1	3	0.36%	57	0.21%	0.32	0.49%
B1.C	2	0.24%	210	0.77%	0.31	0.47%
B2	1	0.12%	23	0.08%	0.04	0.06%
B2A	1	0.12%	14	0.05%	0.04	0.06%
B2U	14	1.69%	498	1.83%	0.55	0.84%
C1	1	0.12%	43	0.16%	0.14	0.21%
C2	9	1.09%	439	1.61%	0.68	1.04%
C2.C	1	0.12%	77	0.28%	0.18	0.27%
C3A.C	1	0.12%	101	0.37%	0.21	0.32%
C3B	13	1.57%	435	1.60%	1	1.52%
C3B.C	3	0.36%	162	0.60%	0.32	0.49%
Grand Total	827	100.00%	27224	100.00%	65.61	100.00%

DECORATION (MBX)

Sampled?	Yes						
Property	(All)						
Fabric	MBX						
Rim Fo	(All)						
Vess Fo	(All)						
	Data						
Dec	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	
COMB	1	0.02%	9	0.01%		0.00%	
IMP	2	0.03%	33	0.03%		0.00%	
IN	3	0.05%	36	0.04%	0.06	0.09%	
RT	5	0.08%	113	0.11%	0.15	0.23%	
RTC	45	0.72%	2077	2.08%	3.47	5.28%	
RTG	7	0.11%	426	0.43%	0.82	1.25%	
RTS	7	0.11%	288	0.29%	0.85	1.29%	
SMK	2	0.03%	34	0.03%		0.00%	
STAB	1	0.02%	10	0.01%	0.08	0.12%	
STAM	5	0.08%	106	0.11%		0.00%	
UNDEC	6175	98.75%	96813	96.87%	60.31	91.74%	
Grand Total	6253	100.00%	99945	100.00%	65.74	100.00%	

Sampled?	Yes					
Property	(All)					
Fabric	MBX					
Rim Fo	(All)					
Vess Fo	(All)					
	Data					
Dec	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs
COMB	1	1.28%	9	0.29%		0.00%
IMP	2	2.56%	33	1.05%		0.00%
IN	3	3.85%	36	1.15%	0.06	1.10%
RT	5	6.41%	113	3.61%	0.15	2.76%
RTC	45	57.69%	2077	66.32%	3.47	63.90%
RTG	7	8.97%	426	13.60%	0.82	15.10%
RTS	7	8.97%	288	9.20%	0.85	15.65%
SMK	2	2.56%	34	1.09%		0.00%
STAB	1	1.28%	10	0.32%	0.08	1.47%
STAM	5	6.41%	106	3.38%		0.00%
Grand Total	78	100.00%	3132	100.00%	5.43	100.00%
Excluding undecorated pot						

11. Tables showing relative proportions of decorated sherds in MBX. A: as a proportion of all MBX sherds; B: As a proportion of all decorated MBX sherds

DECOR EXCL RIM THUMBING (MBX)

Sampled?	Yes						
Property	(All)						
Fabric	MBX						
Rim Fo	(All)						
Vess Fo	(All)						
	Data						
Dec	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	
COMB	1	0.02%	9	0.01%		0.00%	
IMP	2	0.03%	33	0.03%		0.00%	
IN	3	0.05%	36	0.04%	0.06	0.10%	
SMK	2	0.03%	34	0.04%		0.00%	
STAB	1	0.02%	10	0.01%	0.08	0.13%	
STAM	5	0.08%	106	0.11%		0.00%	
UNDEC	6175	99.77%	96,813	99.77%	60.31	99.77%	
Grand Total	6189	100.00%	97,041	100.00%	60.45	100.00%	

Sampled?	Yes					
Property	(All)					
Fabric	MBX					
Rim Fo	(All)					
Vess Fo	(All)					
	Data					
Dec	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs
COMB	1	7.14%	9	3.95%		0.00%
IMP	2	14.29%	33	14.47%		0.00%
IN	3	21.43%	36	15.79%	0.06	42.86%
SMK	2	14.29%	34	14.91%		0.00%
STAB	1	7.14%	10	4.39%	0.08	57.14%
STAM	5	35.71%	106	46.49%		0.00%
Grand Total	14	100.00%	228	100.00%	0.14	100.00%
Excluding undecorated pot						

12. Tables showing relative proportions of decorated MBX sherds (excluding rim thumbing). A: as a proportion of all MBX sherds; B: As a proportion of all decorated MBX sherds

All CRUCIBLES

Sampled?	Yes																													
Fabric	(All)																													
Rim Fo	(All)																													
Use	(All)																													
Vess Fo	CRUC																													
	Phase	Data																												
	4.1						4.2						5						6						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Property	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
Street	1	7.69%	17	27.87%	0.1	16.67%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	1.00%	17	3.54%	0.1	3.11%
BE 4		0.00%		0.00%		0.00%	3	7.32%	14	14.14%		0.00%	3	9.09%	19	9.64%	0.15	13.39%		0.00%		0.00%		0.00%	6	6.00%	33	6.88%	0.15	4.66%
BE 5		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	7	21.21%	26	13.20%	0.14	12.50%	5	38.46%	50	40.65%		0.00%	12	12.00%	76	15.83%	0.14	4.35%
BW 2	11	84.62%	35	57.38%	0.25	41.67%	38	92.68%	85	85.86%	1	100.00%		0.00%		0.00%		0.00%	2	15.38%	15	12.20%	0.16	32.00%	51	51.00%	135	28.13%	1.41	43.79%
BW 3		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	3.03%	5	2.54%	0.08	7.14%	4	30.77%	45	36.59%	0.34	68.00%	5	5.00%	50	10.42%	0.42	13.04%
BW 4	1	7.69%	9	14.75%	0.25	41.67%		0.00%		0.00%		0.00%	6	18.18%	29	14.72%		0.00%		0.00%		0.00%		0.00%	7	7.00%	38	7.92%	0.25	7.76%
BW 5		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	4	12.12%	49	24.87%	0.35	31.25%		0.00%		0.00%		0.00%	4	4.00%	49	10.21%	0.35	10.87%
SE 1		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	3	9.09%	23	11.68%		0.00%		0.00%		0.00%		0.00%	3	3.00%	23	4.79%		0.00%
SE 2		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	9	27.27%	46	23.35%	0.4	35.71%	2	15.38%	13	10.57%		0.00%	11	11.00%	59	12.29%	0.4	12.42%
Grand Total	13	100.00%	61	100.00%	0.6	100.00%	41	100.00%	99	100.00%	1	100.00%	33	100.00%	197	100.00%	1.12	100.00%	13	100.00%	123	100.00%	0.5	100.00%	100	100.00%	480	100.00%	3.22	100.00%

13. Quantity and distribution of crucible fragments across properties and phases

MWW Rim Form (Jars & SPP)

Sampled?	Yes						
Property	(All)						
Phase	(All)						
Fabric	MWW						
		Data					
Rim Fo	Vess Fo	Sherds	% of Rims	Sum of Weight	%Weight	EVEs	% of Rims
A1		3	13.64%	118	19.87%	0.51	21.43%
A2		5	22.73%	151	25.42%	0.33	13.87%
B1		1	4.55%	18	3.03%	0.04	1.68%
B2		4	18.18%	122	20.54%	0.53	22.27%
B2C		1	4.55%	26	4.38%	0.15	6.30%
B3		1	4.55%	20	3.37%	0.12	5.04%
F1		1	4.55%	28	4.71%	0.33	13.87%
IN3		4	18.18%	79	13.30%	0.37	15.55%
MISC		2	9.09%	32	5.39%		0.00%
Grand Total		22	100.00%	594	100.00%	2.38	100.00%

14. Quantification of rims on jars and spouted pitchers in Winchester Ware (MWW)

Properties

Sampled?	Yes					Sampled?	Yes	
Phase	(All)					Phase	(All)	
Property	**Weight**	**%**				Property	**Sherds**	**% of Site Total**
Other*	**5,036**	**2.00%**				Other*	**256**	**1.73%**
BE 2	**24,194**	**9.59%**				BE 2	**1,230**	**8.32%**
BE 4	**29,741**	**11.79%**				BE 4	**1,439**	**9.73%**
BE 5	**22,079**	**8.75%**				BE 5	**1,331**	**9.00%**
BW 1	**4,114**	**1.63%**				BW 1	**268**	**1.81%**
BW 2	**26,597**	**10.54%**				BW 2	**1,716**	**11.60%**
BW 3	**46,828**	**18.56%**				BW 3	**3,052**	**20.63%**
BW 4	**27,853**	**11.04%**				BW 4	**1,714**	**11.59%**
BW 5	**19,474**	**7.72%**				BW 5	**914**	**6.18%**
SE 1	**34,082**	**13.51%**				SE 1	**1,978**	**13.37%**
SE 2	**12,358**	**4.90%**				SE 2	**894**	**6.04%**
Grand Total	**252,356**	**100.00%**				**Grand Total**	**14,792**	**100.00%**

Weight

Sherds

Sampled?	Yes					* Street surfaces		
Phase	(All)							
	Data							
Property	**EVEs**	**%**						
Other*	**3.75**	**2.35%**						
BE 2	**7.27**	**4.56%**						
BE 4	**23.3**	**14.62%**						
BE 5	**11.07**	**6.95%**						
BW 1	**2.12**	**1.33%**						
BW 2	**20.66**	**12.97%**						
BW 3	**29.88**	**18.75%**						
BW 4	**17.63**	**11.06%**						
BW 5	**10.71**	**6.72%**						
SE 1	**25.14**	**15.78%**						
SE 2	**7.82**	**4.91%**						
Grand Total	**159.35**	**100.00%**						

EVS

15. Simplified list of pottery for 10 sampled properties (and street surfaces = *other) by A: Sherds; B: EVES and C: Weight

Combined Street Frontage

Sampled?	Yes					
Phase	(All)					
	Data					
Street Frontage	**Weight**	**%**	**Sherds**	**%**	**EVEs**	**%**
BE	76,014	30.12%	4000	27.04%	41.64	26.13%
BW	124,866	49.48%	7664	51.81%	81	50.83%
Others*	5,036	2.00%	256	1.73%	3.75	2.35%
SE	46,440	18.40%	2872	19.42%	32.96	20.68%
Grand Total	**252,356**	**100.00%**	**14792**	**100.00%**	**159.35**	**100.00%**
* Street surfaces						

Quants by Phase

Sampled?	Yes					
Property	(All)					
Phase	**Sherds**	**% of Site Total**	**Weight**	**% Weight**	**EVEs**	**% EVEs**
4	**26**	**0.18%**	**465**	**0.18%**	**0.37**	**0.23%**
4.1	**1,292**	**8.73%**	**20973**	**8.31%**	**13.78**	**8.65%**
4.2	**4,607**	**31.15%**	**83931**	**33.26%**	**56.9**	**35.71%**
5	**6,567**	**44.40%**	**110504**	**43.79%**	**65.94**	**41.38%**
6	**2,300**	**15.55%**	**36483**	**14.46%**	**22.36**	**14.03%**
Grand Total	**14,792**	**100.00%**	**252356**	**100.00%**	**159.35**	**100.00%**

17. Simplified list of pottery quantities by phase

Fabric group by Phase (All)

Sampled?	Yes																													
Property	(All)																													
Fabric	(All)																													
Rim Fo	(All)																													
Vess Fo	(All)																													
Dec	(All)																													
	Phase	Data																												
	4.1						4.2						5						6						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Fab group	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
1	1,201	92.96%	19,507	93.01%	12.28	89.11%	3,904	84.74%	72,095	85.90%	43.92	77.19%	3,528	53.72%	65,066	58.88%	35.29	53.52%	631	27.43%	10,989	30.12%	7.03	31.44%	9,264	62.74%	167,657	66.56%	98.52	61.97%
2	48	3.72%	831	3.96%	0.67	4.86%	347	7.53%	6,754	8.05%	6.01	10.56%	270	4.11%	4,564	4.13%	3.14	4.76%	36	1.57%	702	1.92%	0.73	3.26%	701	4.75%	12,851	5.10%	10.55	6.64%
3	22	1.70%	347	1.65%		0.00%	258	5.60%	4,029	4.80%	5.57	9.79%	2,104	32.04%	29,869	27.03%	21.69	32.89%	462	20.09%	6,781	18.59%	3.80	16.99%	2,846	19.27%	41,026	16.29%	31.06	19.54%
4	5	0.39%	193	0.92%	0.33	2.39%	19	0.41%	327	0.39%	0.07	0.12%	229	3.49%	4,424	4.00%	1.93	2.93%	314	13.65%	5,973	16.37%	3.07	13.73%	567	3.84%	10,917	4.33%	5.40	3.40%
5		0.00%		0.00%		0.00%	5	0.11%	74	0.09%		0.00%	168	2.56%	3,105	2.81%	0.97	1.47%	79	3.43%	1,648	4.52%	0.29	1.30%	252	1.71%	4,827	1.92%	1.26	0.79%
6	2	0.15%	16	0.08%		0.00%	12	0.26%	181	0.22%	0.18	0.32%	176	2.68%	2,345	2.12%	1.49	2.26%	746	32.43%	10,005	27.42%	6.80	30.41%	936	6.34%	12,547	4.98%	8.47	5.33%
7	14	1.08%	79	0.38%	0.50	3.63%	60	1.30%	380	0.45%	1.15	2.02%	85	1.29%	906	0.82%	1.43	2.17%	28	1.22%	375	1.03%	0.64	2.86%	187	1.27%	1,740	0.69%	3.72	2.34%
8		0.00%		0.00%		0.00%	2	0.04%	91	0.11%		0.00%	7	0.11%	225	0.20%		0.00%	4	0.17%	10	0.03%		0.00%	13	0.09%	326	0.13%		0.00%
Grand Total	**1,292**	**100.00%**	**20,973**	**100.00%**	**13.78**	**100.00%**	**4,607**	**100.00%**	**83,931**	**100.00%**	**56.90**	**100.00%**	**6,567**	**100.00%**	**110,504**	**100.00%**	**65.94**	**100.00%**	**2,300**	**100.00%**	**36,483**	**100.00%**	**22.36**	**100.00%**	**14,766**	**100.00%**	**251,891**	**100.00%**	**158.98**	**100.00%**

18. Quantities of each fabric group in each phase for the entire site (sampled assemblage)

Fabric group by phase BE

Sampled?	Yes																												
Fabric	(All)																												
Rim Fo	(All)																												
Vess Fo	(All)																												
Dec	(All)																												
		Phase	Data																										
		4.1						4.2						5						6						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Fab group	Property	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
1		23	85.19%	228	80.00%	0.09	56.25%	1,598	89.47%	31,404	91.16%	15.81	82.34%	1,170	70.31%	24,692	75.18%	10.90	65.86%	59	11.28%	1,096	12.99%	0.46	8.03%	2,850	71.25%	57,420	75.54%	27.26	65.47%
2		4	14.81%	57	20.00%	0.07	43.75%	95	5.32%	1,590	4.62%	1.30	6.77%	48	2.88%	737	2.24%	0.53	3.20%	4	0.76%	214	2.54%	0.26	4.54%	151	3.78%	2,598	3.42%	2.16	5.19%
3			0.00%		0.00%		0.00%	81	4.54%	1,311	3.81%	2.06	10.73%	367	22.06%	6,214	18.92%	4.77	28.82%	37	7.07%	921	10.92%	0.60	10.47%	485	12.13%	8,446	11.11%	7.43	17.84%
4			0.00%		0.00%		0.00%	4	0.22%	34	0.10%		0.00%	30	1.80%	508	1.55%	0.10	0.60%	6	1.15%	184	2.18%	0.20	3.49%	40	1.00%	726	0.96%	0.30	0.72%
5			0.00%		0.00%		0.00%	1	0.06%	6	0.02%		0.00%	18	1.08%	311	0.95%	0.11	0.66%	1	0.19%	21	0.25%	0.08	1.40%	20	0.50%	338	0.44%	0.19	0.46%
6			0.00%		0.00%		0.00%	1	0.06%	1	0.00%		0.00%	18	1.08%	230	0.70%		0.00%	401	76.67%	5,765	68.35%	4.00	69.81%	420	10.50%	5,996	7.89%	4.00	9.61%
7			0.00%		0.00%		0.00%	4	0.22%	13	0.04%	0.03	0.16%	11	0.66%	116	0.35%	0.14	0.85%	12	2.29%	232	2.75%	0.13	2.27%	27	0.68%	361	0.47%	0.30	0.72%
8			0.00%		0.00%		0.00%	2	0.11%	91	0.26%		0.00%	2	0.12%	36	0.11%		0.00%	3	0.57%	2	0.02%		0.00%	7	0.18%	129	0.17%		0.00%
Grand Total		**27**	**100.00%**	**285**	**100.00%**	**0.16**	**100.00%**	**1,786**	**100.00%**	**34,450**	**100.00%**	**19.20**	**100.00%**	**1,664**	**100.00%**	**32,844**	**100.00%**	**16.55**	**100.00%**	**523**	**100.00%**	**8,435**	**100.00%**	**5.73**	**100.00%**	**4,000**	**100.00%**	**76,014**	**100.00%**	**41.64**	**100.00%**

19. Quantifications of each fabric group in each phase for frontage BE (Brudene Street East) in the Discovery Centre

Fabric group by phase BW

Sampled?	Yes																													
Fabric	(All)																													
Rim Fo	(All)																													
Vess Fo	(All)																													
Dec	(All)																													
Property	(All)																													
	Phase	Data																												
	4.1						**4.2**						**5**						**6**						**Total Sherds**	**Total sherds %**	**Total Wgt**	**Total %Wgt**	**Total EVEs**	**Total %EVEs**
Fab group	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
1	1,134	93.03%	18,592	93.15%	11.94	89.30%	1,555	80.28%	27,584	83.05%	18.50	72.18%	1,639	52.92%	28,983	58.23%	16.66	56.51%	547	33.33%	9,627	36.34%	6.50	40.88%	4,875	61.76%	84,786	65.50%	53.60	63.52%
2	42	3.45%	732	3.67%	0.60	4.49%	165	8.52%	2,850	8.58%	3.21	12.52%	139	4.49%	2,511	5.04%	1.41	4.78%	24	1.46%	402	1.52%	0.35	2.20%	370	4.69%	6,495	5.02%	5.57	6.60%
3	22	1.80%	347	1.74%		0.00%	135	6.97%	1,929	5.81%	2.55	9.95%	951	30.71%	12,663	25.44%	8.88	30.12%	339	20.66%	4,882	18.43%	2.73	17.17%	1,447	18.33%	19,821	15.31%	14.16	16.78%
4	5	0.41%	193	0.97%	0.33	2.47%	15	0.77%	293	0.88%	0.07	0.27%	114	3.68%	1,981	3.98%	0.57	1.93%	308	18.77%	5,789	21.85%	2.87	18.05%	442	5.60%	8,256	6.38%	3.84	4.55%
5		0.00%		0.00%		0.00%	4	0.21%	68	0.20%		0.00%	83	2.68%	1,378	2.77%	0.28	0.95%	68	4.14%	1,441	5.44%	0.21	1.32%	155	1.96%	2,887	2.23%	0.49	0.58%
6	2	0.16%	16	0.08%		0.00%	10	0.52%	169	0.51%	0.18	0.70%	114	3.68%	1,552	3.12%	0.88	2.99%	340	20.72%	4,210	15.89%	2.73	17.17%	466	5.90%	5,947	4.59%	3.79	4.49%
7	14	1.15%	79	0.40%	0.50	3.74%	53	2.74%	322	0.97%	1.12	4.37%	53	1.71%	647	1.30%	0.80	2.71%	14	0.85%	130	0.49%	0.51	3.21%	134	1.70%	1,178	0.91%	2.93	3.47%
8		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	4	0.13%	59	0.12%		0.00%	1	0.06%	8	0.03%		0.00%	5	0.06%	67	0.05%		0.00%
Grand Total	**1,219**	**100.00%**	**19,959**	**100.00%**	**13.37**	**100.00%**	**1,937**	**100.00%**	**33,215**	**100.00%**	**25.63**	**100.00%**	**3,097**	**100.00%**	**49,774**	**100.00%**	**29.48**	**100.00%**	**1,641**	**100.00%**	**26,489**	**100.00%**	**15.90**	**100.00%**	**7,894**	**100.00%**	**129,437**	**100.00%**	**84.38**	**100.00%**

20. Quantifications of each fabric group in each phase for frontage BW (Brudene Street West) in Northgate House

Fabric group by phase SE

Sampled?	Yes																													
Fabric	(All)																													
Rim Fo	(All)																													
Vess Fo	(All)																													
Dec	(All)																													
Property	(All)																													
	Phase	Data																												
	4.1						**4.2**						**5**						**6**						**Total Sherds**	**Total sherds %**	**Total Wgt**	**Total %Wgt**	**Total EVEs**	**Total %EVEs**
Fab group	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
1	44	95.65%	687	94.24%	0.25	100.00%	751	84.95%	13,107	80.58%	9.61	79.62%	719	39.81%	11,391	40.85%	7.73	38.82%	25	18.38%	266	17.06%	0.07	9.59%	1,539	53.59%	25,451	54.80%	17.66	53.58%
2	2	4.35%	42	5.76%		0.00%	87	9.84%	2,314	14.23%	1.50	12.43%	83	4.60%	1,316	4.72%	1.20	6.03%	8	5.88%	86	5.52%	0.12	16.44%	180	6.27%	3,758	8.09%	2.82	8.56%
3		0.00%		0.00%		0.00%	42	4.75%	789	4.85%	0.96	7.95%	786	43.52%	10,992	39.42%	8.04	40.38%	86	63.24%	978	62.73%	0.47	64.38%	914	31.82%	12,759	27.47%	9.47	28.73%
4		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	85	4.71%	1,935	6.94%	1.26	6.33%		0.00%		0.00%		0.00%	85	2.96%	1,935	4.17%	1.26	3.82%
5		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	67	3.71%	1,416	5.08%	0.58	2.91%	10	7.35%	186	11.93%		0.00%	77	2.68%	1,602	3.45%	0.58	1.76%
6		0.00%		0.00%		0.00%	1	0.11%	11	0.07%		0.00%	44	2.44%	563	2.02%	0.61	3.06%	5	3.68%	30	1.92%	0.07	9.59%	50	1.74%	604	1.30%	0.68	2.06%
7		0.00%		0.00%		0.00%	3	0.34%	45	0.28%		0.00%	21	1.16%	143	0.51%	0.49	2.46%	2	1.47%	13	0.83%		0.00%	26	0.91%	201	0.43%	0.49	1.49%
8		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.06%	130	0.47%		0.00%		0.00%		0.00%		0.00%	1	0.03%	130	0.28%		0.00%
Grand Total	**46**	**100.00%**	**729**	**100.00%**	**0.25**	**100.00%**	**884**	**100.00%**	**16,266**	**100.00%**	**12.07**	**100.00%**	**1,806**	**100.00%**	**27,886**	**100.00%**	**19.91**	**100.00%**	**136**	**100.00%**	**1,559**	**100.00%**	**0.73**	**100.00%**	**2,872**	**100.00%**	**46,440**	**100.00%**	**32.96**	**100.00%**

21. Quantifications of each fabric group in each phase for frontage SE (Snitheling Street East) in Northgate House

Glazed POT (By Ten_phase)

Sampled?	Yes																												
Fabric	(All)																												
Rim Fo	(All)																												
Vess Fo	(All)																												
Dec	(All)																												
Glz	G																												
	Phase	Data																											
	4.1						4.2						5						6						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Property	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
BE 2		0.00%		0.00%			23	23.23%	221	14.86%	0.17	8.25%	14	5.05%	425	7.92%	0.08	5.16%		0.00%		0.00%		0.00%	37	4.65%	646	4.79%	0.25	3.67%
BE 4		0.00%		0.00%			12	12.12%	72	4.84%		0.00%	24	8.66%	424	7.90%	0.11	7.10%		0.00%		0.00%		0.00%	36	4.53%	496	3.68%	0.11	1.61%
BE 5		0.00%		0.00%			8	8.08%	113	7.60%		0.00%	18	6.50%	166	3.09%		0.00%	241	57.66%	3,725	56.37%	1.96	61.06%	267	33.58%	4,004	29.70%	1.96	28.74%
BW 1		0.00%		0.00%				0.00%		0.00%		0.00%	6	2.17%	53	0.99%	0.08	5.16%	5	1.20%	30	0.45%		0.00%	11	1.38%	83	0.62%	0.08	1.17%
BW 2	1	100.00%	21	100.00%			29	29.29%	583	39.21%	0.78	37.86%	14	5.05%	223	4.16%		0.00%	18	4.31%	559	8.46%		0.00%	62	7.80%	1,386	10.28%	0.78	11.44%
BW 3		0.00%		0.00%			2	2.02%	35	2.35%	0.33	16.02%	13	4.69%	140	2.61%	0.08	5.16%	142	33.97%	2,095	31.70%	1.25	38.94%	157	19.75%	2,270	16.84%	1.66	24.34%
BW 4		0.00%		0.00%			5	5.05%	120	8.07%	0.3	14.56%	81	29.24%	1,323	24.66%	0.3	19.35%		0.00%		0.00%		0.00%	86	10.82%	1,443	10.70%	0.6	8.80%
BW 5		0.00%		0.00%			16	16.16%	294	19.77%	0.48	23.30%	29	10.47%	953	17.76%	0.17	10.97%		0.00%		0.00%		0.00%	45	5.66%	1,247	9.25%	0.65	9.53%
SE 1		0.00%		0.00%				0.00%		0.00%		0.00%	73	26.35%	1,597	29.77%	0.73	47.10%	5	1.20%	138	2.09%		0.00%	78	9.81%	1,735	12.87%	0.73	10.70%
SE 2		0.00%		0.00%			4	4.04%	49	3.30%		0.00%	5	1.81%	61	1.14%		0.00%	7	1.67%	61	0.92%		0.00%	16	2.01%	171	1.27%		0.00%
Grand Total	1	100.00%	21	100.00%			99	100.00%	1,487	100.00%	2.06	100.00%	277	100.00%	5,365	100.00%	1.55	100.00%	418	100.00%	6,608	100.00%	3.21	100.00%	795	100.00%	13,481	100.00%	6.82	100.00%

22. Relative quantities of glazed wares on each of the phased properties

Overall Vessel Quants

Sampled?	Yes					
Phase	(All)					
Property	(All)					
	Data					
Vess Fo	Sherds	%	Weight	%	Sum of EVEs	%
BOWL	123	4.06%	5391	5.90%	4.45	2.79%
CIST	1	0.03%	38	0.04%		0.00%
COST	1	0.03%	17	0.02%	0.1	0.06%
CRUC	100	3.30%	480	0.53%	3.22	2.02%
CUP	2	0.07%	7	0.01%	0.04	0.03%
CURF	28	0.92%	418	0.46%	0.04	0.03%
FPOT	10	0.33%	256	0.28%	0.14	0.09%
JAR	2236	73.72%	69998	76.59%	132.8	83.34%
JUG	297	9.79%	5276	5.77%	3.27	2.05%
LAMP	53	1.75%	1871	2.05%	10.19	6.39%
MISC	6	0.20%	109	0.12%	0.17	0.11%
SPP	86	2.84%	5421	5.93%	4.06	2.55%
TPTCH	90	2.97%	2114	2.31%	0.87	0.55%
Grand Total	3033	100.00%	91396	100.00%	159.35	100.00%

23. Summary of vessel types present (NB. EVEs is the most relaibale indicator here)

Vessel Quants by phase

Sampled?	Yes																													
Property	(All)																													
	Phase	Data																												
	4.1						**4.2**						**5**						**6**						**Total Sherds**	**Total %**	**Total Weight**	**Total %**	**Total EVEs**	**Total %**
Vess Fo	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%						
BOWL		0.00%		0.00%		0.00%	21	2.29%	1,122	3.68%	1.26	2.21%	83	6.47%	3,628	9.40%	2.44	3.70%	19	2.94%	641	4.12%	0.75	3.35%	123	4.06%	5,391	5.91%	4.45	2.80%
CIST		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.15%	38	0.24%		0.00%	1	0.03%	38	0.04%		0.00%
COST		0.00%		0.00%		0.00%	1	0.11%	17	0.06%	0.1	0.18%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.03%	17	0.02%	0.1	0.06%
CRUC	13	6.99%	61	0.92%	0.6	4.35%	41	4.48%	99	0.32%	1	1.76%	33	2.57%	197	0.51%	1.12	1.70%	13	2.01%	123	0.79%	0.5	2.24%	100	3.30%	480	0.53%	3.22	2.03%
CUP		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	2	0.31%	7	0.05%	0.04	0.18%	2	0.07%	7	0.01%	0.04	0.03%
CURF		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	26	2.03%	317	0.82%	0.04	0.06%	2	0.31%	101	0.65%		0.00%	28	0.92%	418	0.46%	0.04	0.03%
FPOT		0.00%		0.00%		0.00%	2	0.22%	86	0.28%	0.05	0.09%	8	0.62%	170	0.44%	0.09	0.14%		0.00%		0.00%		0.00%	10	0.33%	256	0.28%	0.14	0.09%
JAR	165	88.71%	5,846	87.91%	12.71	92.24%	762	83.19%	24,193	79.37%	46.2	81.20%	1,006	78.41%	30,794	79.79%	55.81	84.64%	301	46.59%	9,049	58.18%	17.71	79.20%	2,234	73.71%	69,882	76.56%	132.43	83.30%
JUG		0.00%		0.00%		0.00%	2	0.22%	14	0.05%		0.00%	31	2.42%	719	1.86%	0.5	0.76%	264	40.87%	4,543	29.21%	2.77	12.39%	297	9.80%	5,276	5.78%	3.27	2.06%
LAMP	1	0.54%	28	0.42%	0.1	0.73%	22	2.40%	889	2.92%	5.27	9.26%	27	2.10%	895	2.32%	4.72	7.16%	3	0.46%	59	0.38%	0.1	0.45%	53	1.75%	1,871	2.05%	10.19	6.41%
MISC	1	0.54%	46	0.69%		0.00%	1	0.11%	3	0.01%	0.03	0.05%	3	0.23%	55	0.14%	0.14	0.21%	1	0.15%	5	0.03%		0.00%	6	0.20%	109	0.12%	0.17	0.11%
SPP	6	3.23%	669	10.06%	0.37	2.69%	63	6.88%	4,009	13.15%	2.99	5.25%	14	1.09%	574	1.49%	0.5	0.76%	3	0.46%	169	1.09%	0.2	0.89%	86	2.84%	5,421	5.94%	4.06	2.55%
TPTCH		0.00%		0.00%		0.00%	1	0.11%	49	0.16%		0.00%	52	4.05%	1,247	3.23%	0.58	0.88%	37	5.73%	818	5.26%	0.29	1.30%	90	2.97%	2,114	2.32%	0.87	0.55%
Grand Total	**186**	**100.00%**	**6,650**	**100.00%**	**13.78**	**100.00%**	**916**	**100.00%**	**30,481**	**100.00%**	**56.9**	**100.00%**	**1,283**	**100.00%**	**38,596**	**100.00%**	**65.94**	**100.00%**	**646**	**100.00%**	**15,553**	**100.00%**	**22.36**	**100.00%**	**3,031**	**100.00%**	**91,280**	**100.00%**	**158.98**	**100.00%**

24. Overall quantifications of vessel form by phase

Vessel Quants by street (BE)

Sampled?	Yes																												
Property	(All)																												
	Phase	Data																											
	4.1						**4.2**						**5**						**6**						**Total Sherds**	**Total %**	**Total Weight**	**Total %**	**Total EVEs**	**Total %**
Vess Fo	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%						
BOWL		0.00%		0.00%		0.00%	5	1.52%	136	1.18%	0.23	1.20%	4	1.38%	167	1.71%	0.24	1.45%	4	1.65%	111	2.05%	0.17	2.97%	13	1.51%	414	1.55%	0.64	1.54%
CRUC		0.00%		0.00%		0.00%	3	0.91%	14	0.12%		0.00%	10	3.46%	45	0.46%	0.29	1.75%	5	2.07%	50	0.92%		0.00%	18	2.09%	109	0.41%	0.29	0.70%
CURF		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	2	0.83%	101	1.86%		0.00%	2	0.23%	101	0.38%		0.00%
JAR	2	100.00%	27	100.00%	0.16	100.00%	299	90.88%	10,352	89.80%	16.79	87.45%	243	84.08%	8,529	87.29%	13	78.55%	51	21.07%	1,792	33.07%	3.46	60.38%	595	69.03%	20,700	77.40%	33.41	80.24%
JUG		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.35%	8	0.08%		0.00%	177	73.14%	3,189	58.85%	1.82	31.76%	178	20.65%	3,197	11.95%	1.82	4.37%
LAMP		0.00%		0.00%		0.00%	7	2.13%	293	2.54%	1.85	9.64%	19	6.57%	606	6.20%	2.57	15.53%	1	0.41%	22	0.41%		0.00%	27	3.13%	921	3.44%	4.42	10.61%
MISC		0.00%		0.00%		0.00%	1	0.30%	3	0.03%	0.03	0.16%	1	0.35%	32	0.33%		0.00%		0.00%		0.00%		0.00%	2	0.23%	35	0.13%	0.03	0.07%
SPP		0.00%		0.00%		0.00%	14	4.26%	730	6.33%	0.3	1.56%	7	2.42%	229	2.34%	0.34	2.05%	1	0.41%	133	2.45%	0.2	3.49%	22	2.55%	1,092	4.08%	0.84	2.02%
TPTCH		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	4	1.38%	155	1.59%	0.11	0.66%	1	0.41%	21	0.39%	0.08	1.40%	5	0.58%	176	0.66%	0.19	0.46%
Grand Total	**2**	**100.00%**	**27**	**100.00%**	**0.16**	**100.00%**	**329**	**100.00%**	**11,528**	**100.00%**	**19.2**	**100.00%**	**289**	**100.00%**	**9,771**	**100.00%**	**16.55**	**100.00%**	**242**	**100.00%**	**5,419**	**100.00%**	**5.73**	**100.00%**	**862**	**100.00%**	**26,745**	**100.00%**	**41.64**	**100.00%**

25. Quantifications of vessel form in each phase for frontage BE (Brudene Street East) in the Discovery Centre

Vessel Quants by street (BW)

Sampled?	Yes																												
Property	(All)																												
	Phase	Data																											
	4.1						4.2						5						6						Total Sherds	Total %	Total Weight	Total %	Total EVEs	Total %
Vess Fo	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%						
BOWL		0.00%		0.00%		0.00%	11	2.81%	741	6.01%	0.69	2.69%	69	10.78%	2,920	15.86%	1.6	5.43%	13	3.44%	499	5.15%	0.52	3.27%	93	5.86%	4,160	8.87%	2.81	3.33%
CIST		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.26%	38	0.39%		0.00%	1	0.06%	38	0.08%		0.00%
CRUC	13	7.30%	61	0.94%	0.6	4.49%	38	9.72%	85	0.69%	1	3.90%	11	1.72%	83	0.45%	0.43	1.46%	6	1.59%	60	0.62%	0.5	3.14%	68	4.28%	289	0.62%	2.53	3.00%
CUP		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	2	0.53%	7	0.07%	0.04	0.25%	2	0.13%	7	0.01%	0.04	0.05%
CURF		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	25	3.91%	300	1.63%		0.00%		0.00%		0.00%		0.00%	25	1.58%	300	0.64%		0.00%
FPOT		0.00%		0.00%		0.00%	2	0.51%	86	0.70%	0.05	0.20%	7	1.09%	164	0.89%		0.00%		0.00%		0.00%		0.00%	9	0.57%	250	0.53%	0.05	0.06%
JAR	157	88.20%	5,682	87.60%	12.3	92.00%	289	73.91%	8,736	70.85%	18.84	73.51%	457	71.41%	13,353	72.53%	24.96	84.67%	233	61.64%	6,985	72.16%	13.58	85.41%	1,136	71.58%	34,756	74.10%	69.68	82.58%
JUG		0.00%		0.00%		0.00%	2	0.51%	14	0.11%		0.00%	21	3.28%	440	2.39%	0.29	0.98%	87	23.02%	1,354	13.99%	0.95	5.97%	110	6.93%	1,808	3.85%	1.24	1.47%
LAMP	1	0.56%	28	0.43%	0.1	0.75%	15	3.84%	596	4.83%	3.42	13.34%	6	0.94%	259	1.41%	1.95	6.61%	2	0.53%	37	0.38%	0.1	0.63%	24	1.51%	920	1.96%	5.57	6.60%
MISC	1	0.56%	46	0.71%		0.00%		0.00%		0.00%		0.00%	1	0.16%	15	0.08%	0.1	0.34%	1	0.26%	5	0.05%		0.00%	3	0.19%	66	0.14%	0.1	0.12%
SPP	6	3.37%	669	10.31%	0.37	2.77%	33	8.44%	2,023	16.41%	1.63	6.36%	5	0.78%	233	1.27%	0.08	0.27%	2	0.53%	36	0.37%		0.00%	46	2.90%	2,961	6.31%	2.08	2.47%
TPTCH		0.00%		0.00%		0.00%	1	0.26%	49	0.40%		0.00%	38	5.94%	644	3.50%	0.07	0.24%	31	8.20%	659	6.81%	0.21	1.32%	70	4.41%	1,352	2.88%	0.28	0.33%
Grand Total	**178**	**100.00%**	**6,486**	**100.00%**	**13.37**	**100.00%**	**391**	**100.00%**	**12,330**	**100.00%**	**25.63**	**100.00%**	**640**	**100.00%**	**18,411**	**100.00%**	**29.48**	**100.00%**	**378**	**100.00%**	**9,680**	**100.00%**	**15.9**	**100.00%**	**1,587**	**100.00%**	**46,907**	**100.00%**	**84.38**	**100.00%**

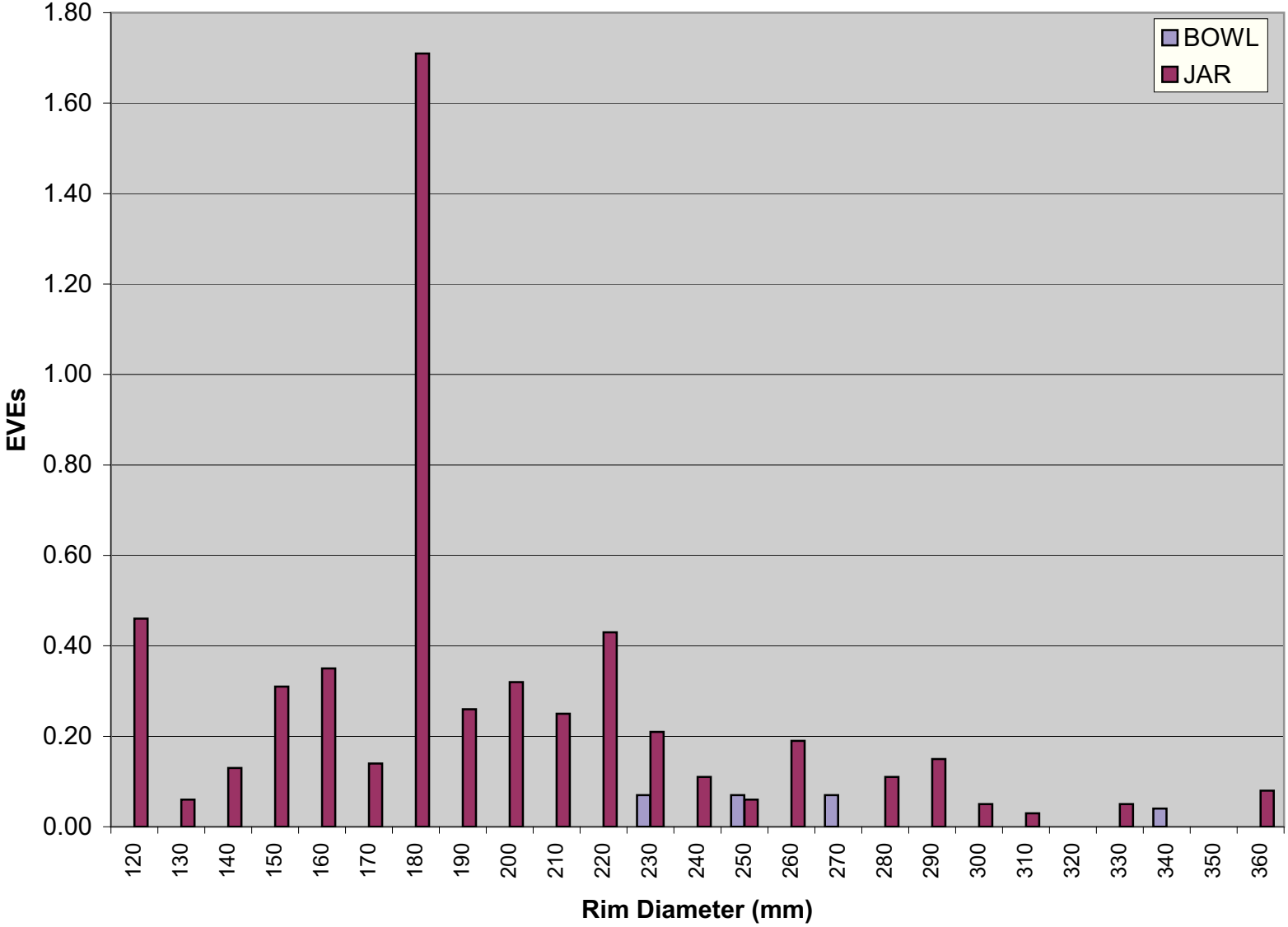
26. Quantifications of vessel form in each phase for frontage BW (Brudene Street West) in Northgate House

Vessel Quants by street (SE)

Sampled?	Yes																												
Property	(All)																												
	Phase	Data																											
	4.1						**4.2**						**5**						**6**						**Total Sherds**	**Total %**	**Total Weight**	**Total %**	**Total EVEs**	**Total %**
Vess Fo	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%	Sherds	%	Weight	%	EVEs	%						
BOWL		0.00%		0.00%		0.00%	5	2.55%	245	3.70%	0.34	2.82%	10	2.82%	541	5.19%	0.6	3.01%	2	7.69%	31	6.83%	0.06	8.22%	17	2.92%	817	4.63%	1	3.03%
COST		0.00%		0.00%		0.00%	1	0.51%	17	0.26%	0.1	0.83%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.17%	17	0.10%	0.1	0.30%
CRUC		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	12	3.39%	69	0.66%	0.4	2.01%	2	7.69%	13	2.86%		0.00%	14	2.41%	82	0.47%	0.4	1.21%
CURF		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.28%	17	0.16%	0.04	0.20%		0.00%		0.00%		0.00%	1	0.17%	17	0.10%	0.04	0.12%
FPOT		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.28%	6	0.06%	0.09	0.45%		0.00%		0.00%		0.00%	1	0.17%	6	0.03%	0.09	0.27%
JAR	6	100.00%	137	100.00%	0.25	100.00%	174	88.78%	5,105	77.08%	10.57	87.57%	306	86.44%	8,912	85.58%	17.85	89.65%	17	65.38%	272	59.91%	0.67	91.78%	503	86.43%	14,426	81.84%	29.34	89.02%
JUG		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	9	2.54%	271	2.60%	0.21	1.05%		0.00%		0.00%		0.00%	9	1.55%	271	1.54%	0.21	0.64%
LAMP		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	2	0.56%	30	0.29%	0.2	1.00%		0.00%		0.00%		0.00%	2	0.34%	30	0.17%	0.2	0.61%
MISC		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	1	0.28%	8	0.08%	0.04	0.20%		0.00%		0.00%		0.00%	1	0.17%	8	0.05%	0.04	0.12%
SPP		0.00%		0.00%		0.00%	16	8.16%	1,256	18.96%	1.06	8.78%	2	0.56%	112	1.08%	0.08	0.40%		0.00%		0.00%		0.00%	18	3.09%	1,368	7.76%	1.14	3.46%
TPTCH		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	10	2.82%	448	4.30%	0.4	2.01%	5	19.23%	138	30.40%		0.00%	15	2.58%	586	3.32%	0.4	1.21%
Grand Total	**6**	**100.00%**	**137**	**100.00%**	**0.25**	**100.00%**	**196**	**100.00%**	**6,623**	**100.00%**	**12.07**	**100.00%**	**354**	**100.00%**	**10,414**	**100.00%**	**19.91**	**100.00%**	**26**	**100.00%**	**454**	**100.00%**	**0.73**	**100.00%**	**582**	**100.00%**	**17,628**	**100.00%**	**32.96**	**100.00%**

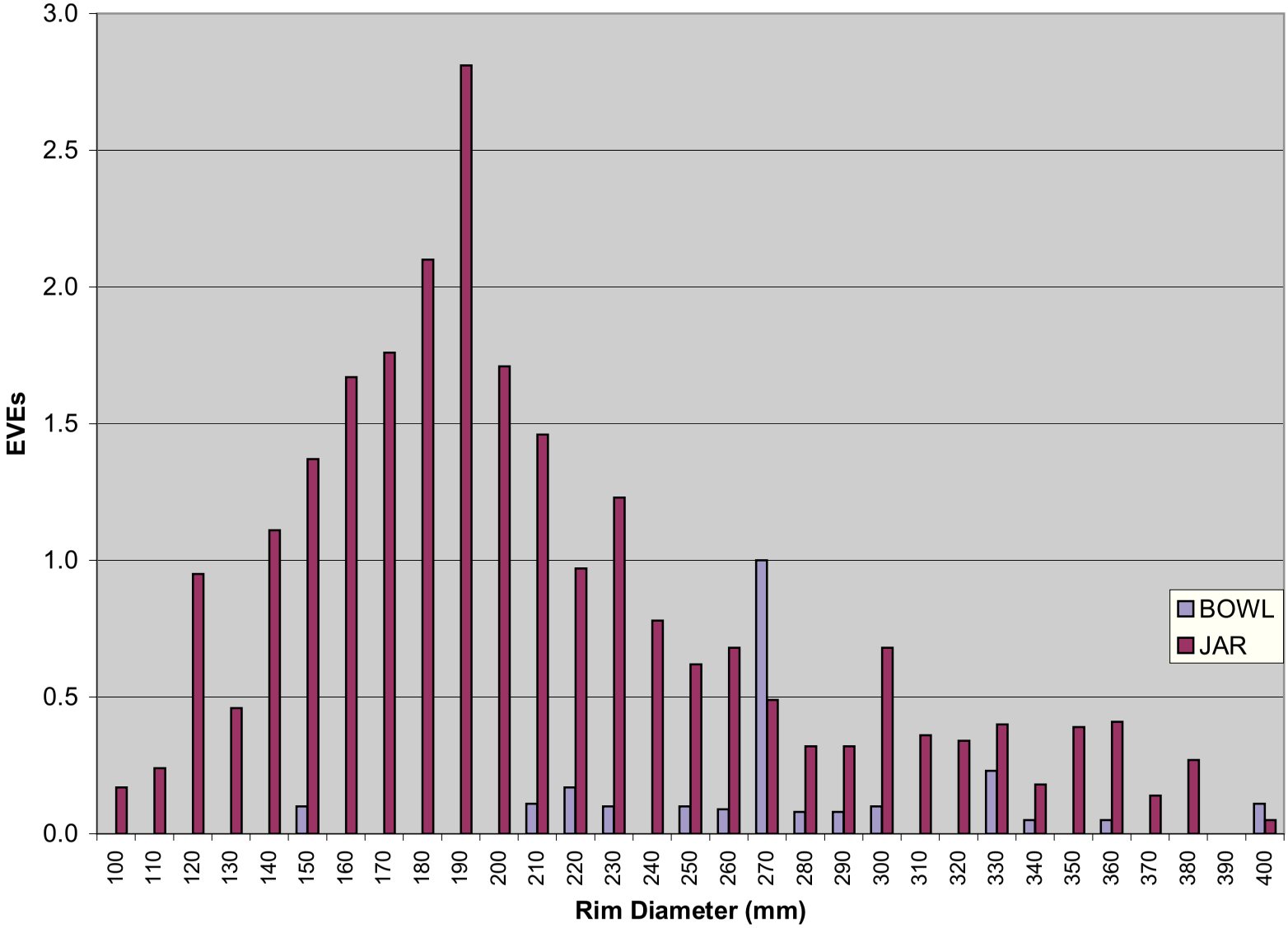
27. Quantifications of vessel form in each phase for frontage SE (Snitheling Street East) in Northgate House

MAQ Chart

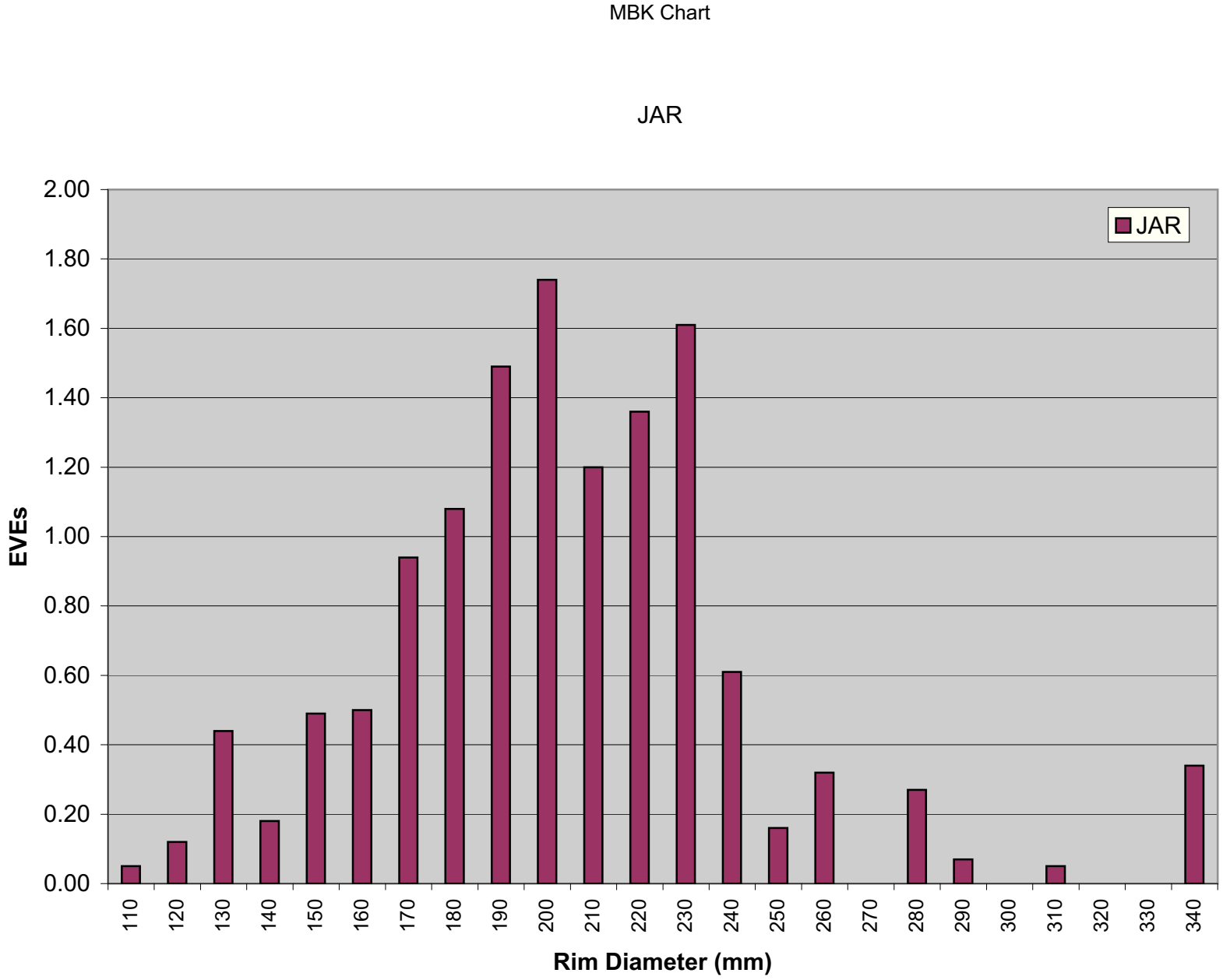


1. Fabric MAQ: Rim Diameters

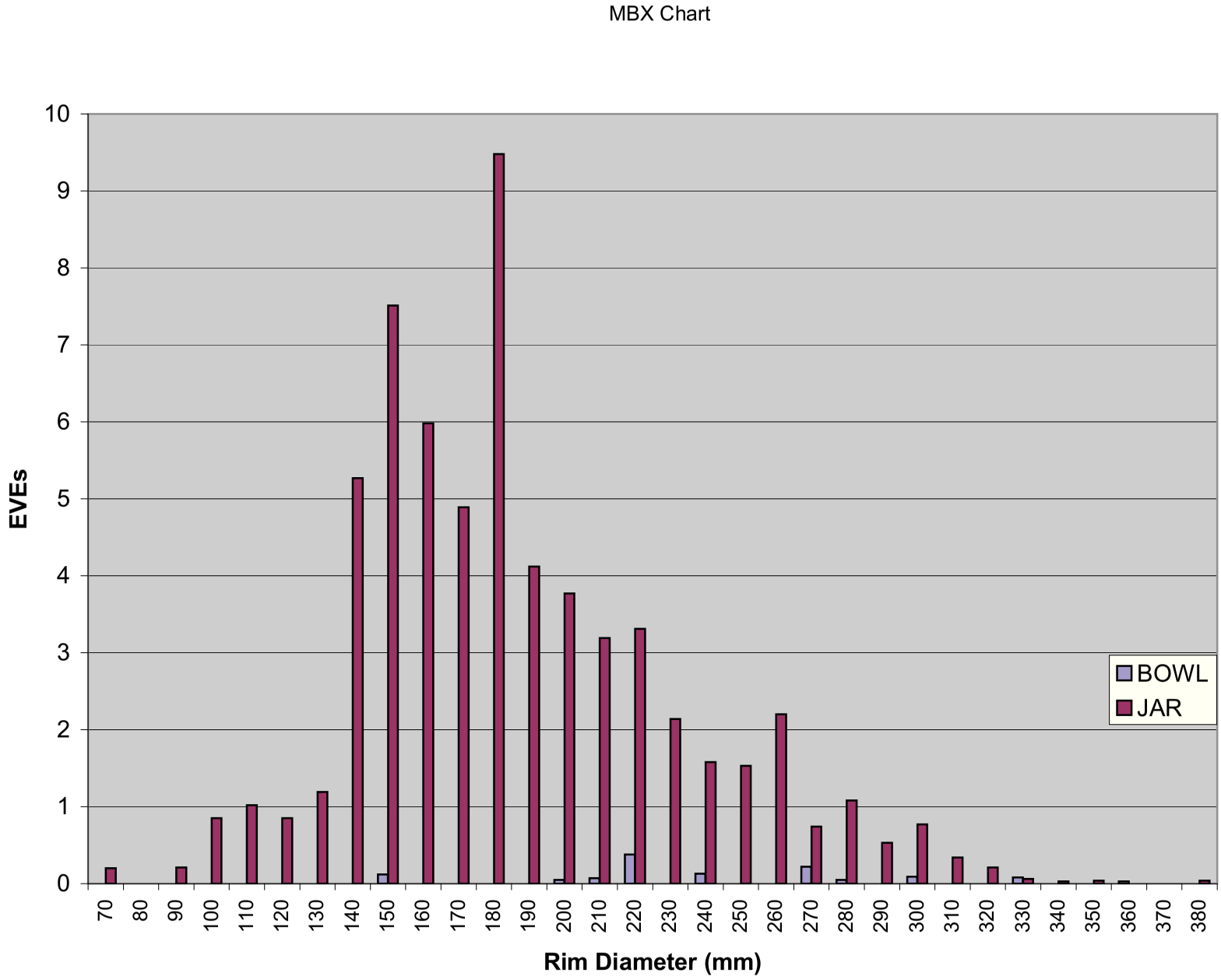
MAV Chart



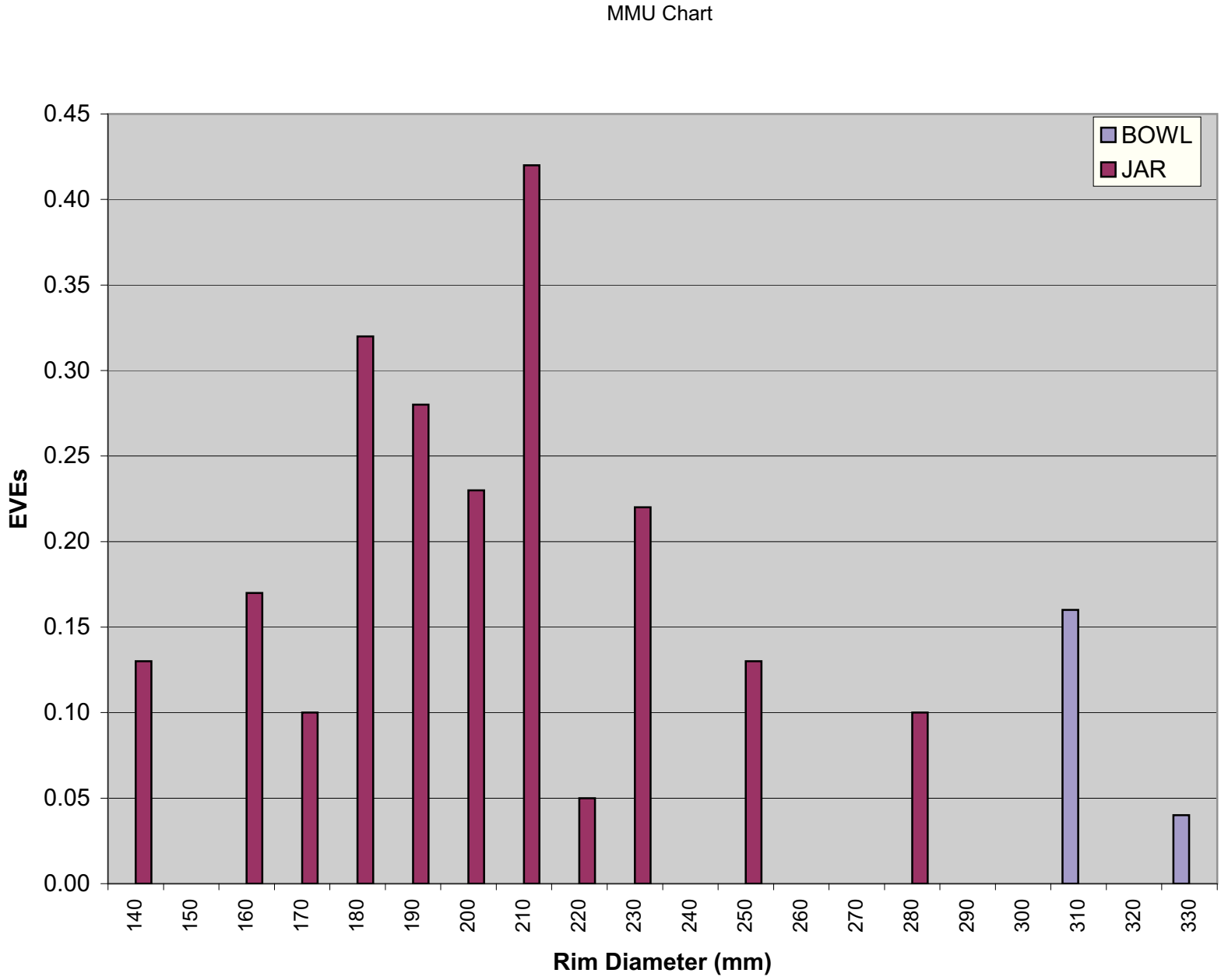
2. Fabric MAV: Rim Diameters



3. Fabric MBK: Rim Diameters

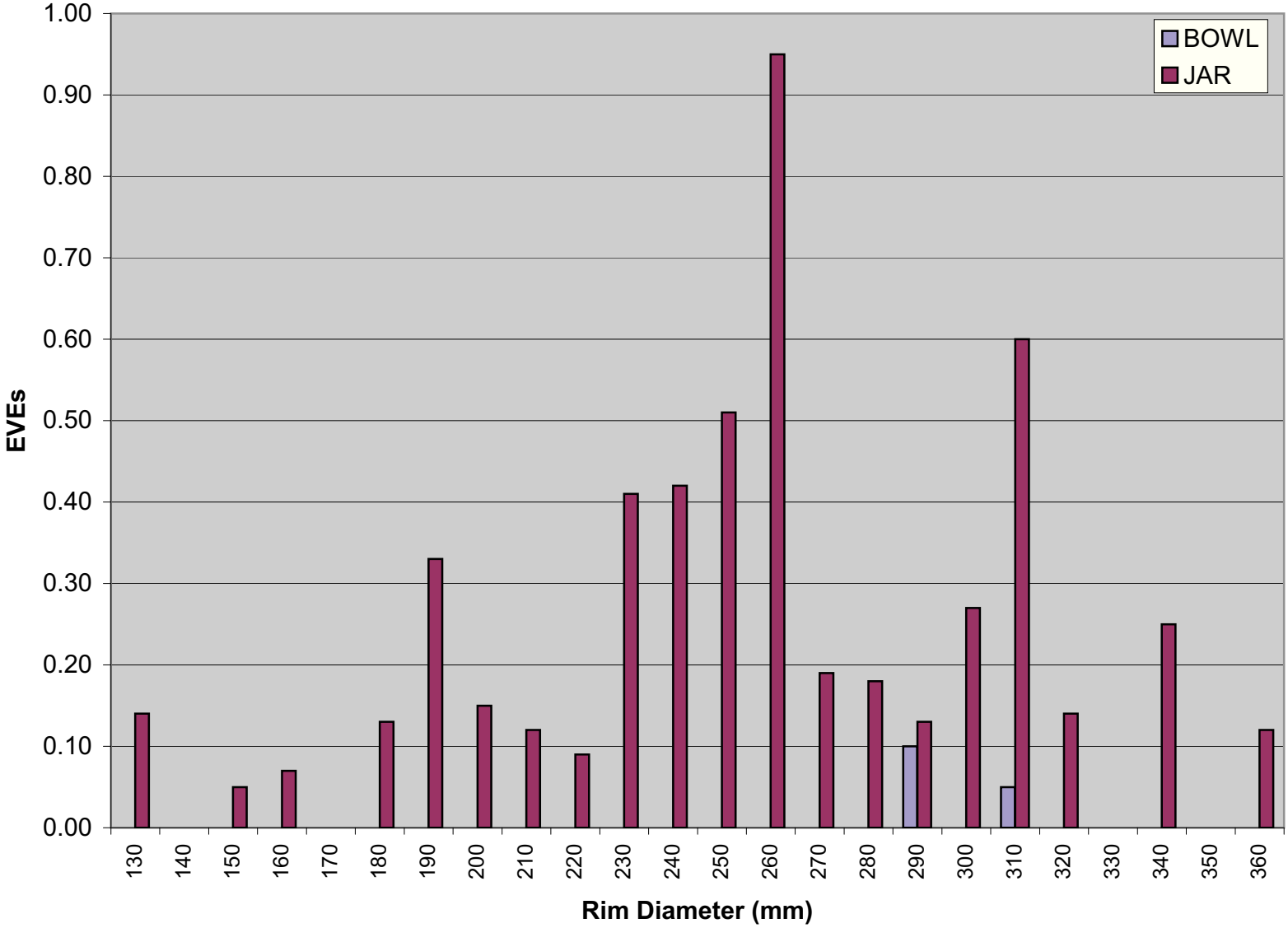


4. Fabric MBX: Rim Diameters

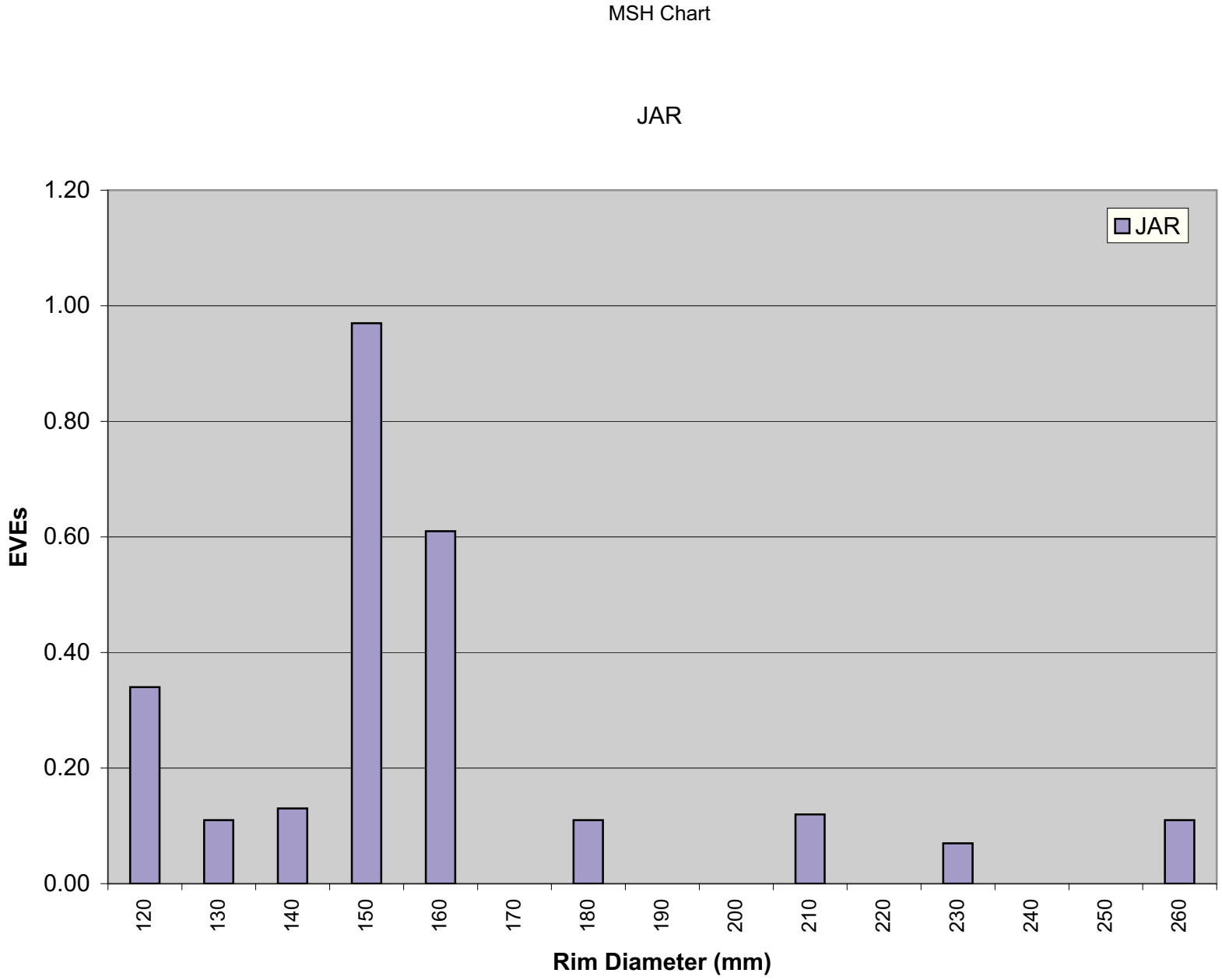


5. Fabric MMU: Rim Diameters

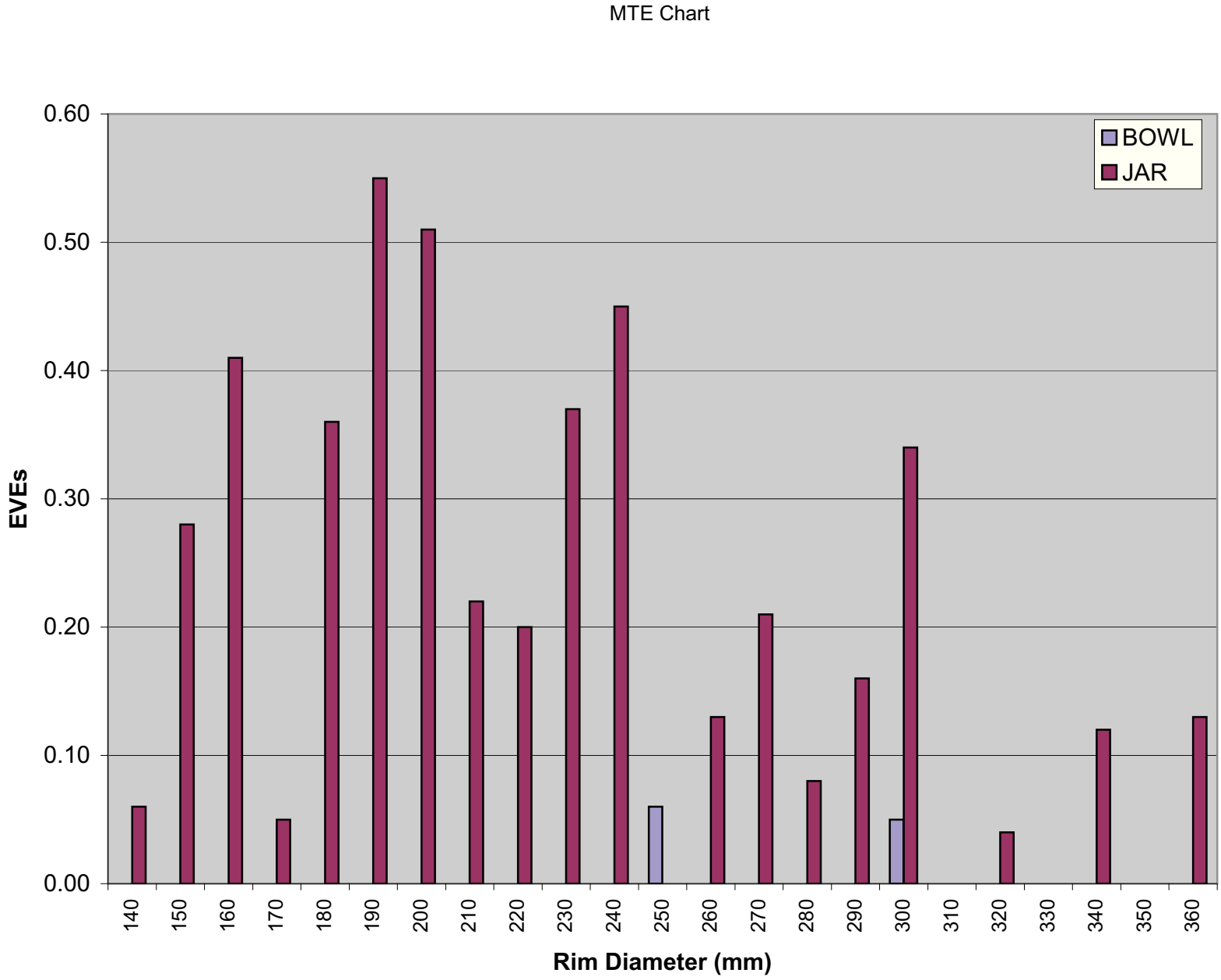
MOE Chart



6. Fabric MOE: Rim Diameters

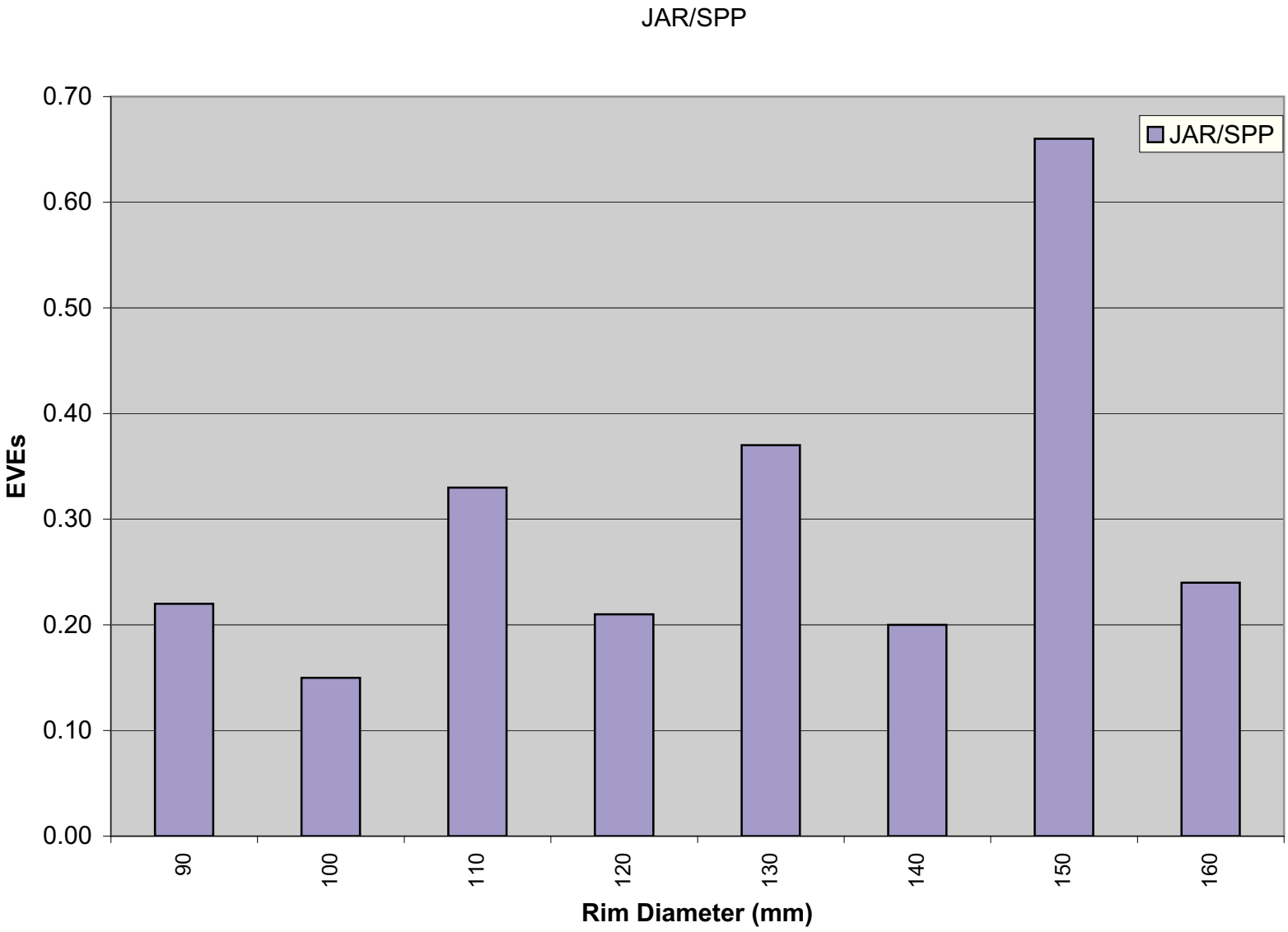


7. Fabric MSH: Rim Diameters

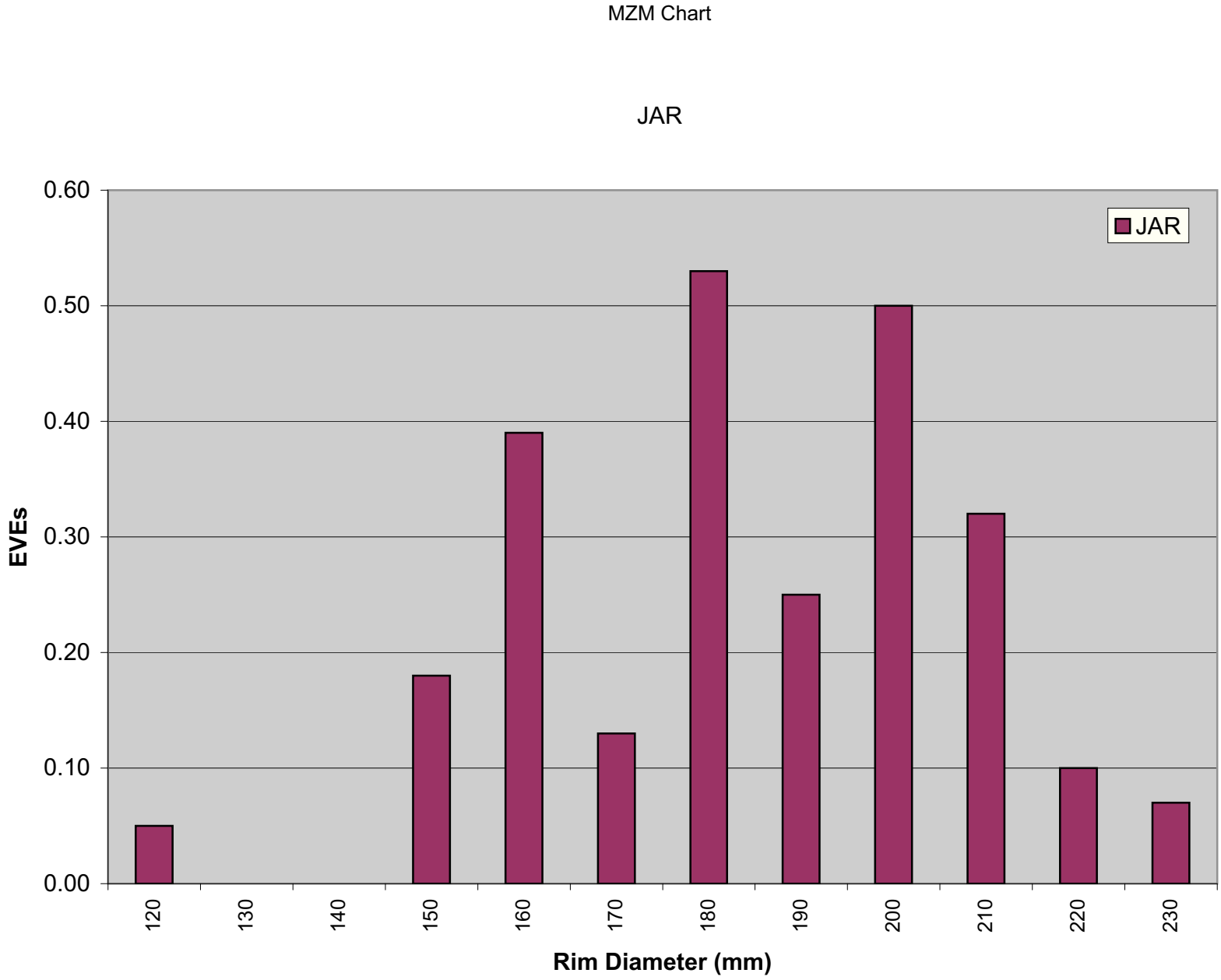


8. Fabric MTE: Rim Diameters

MWW Chart

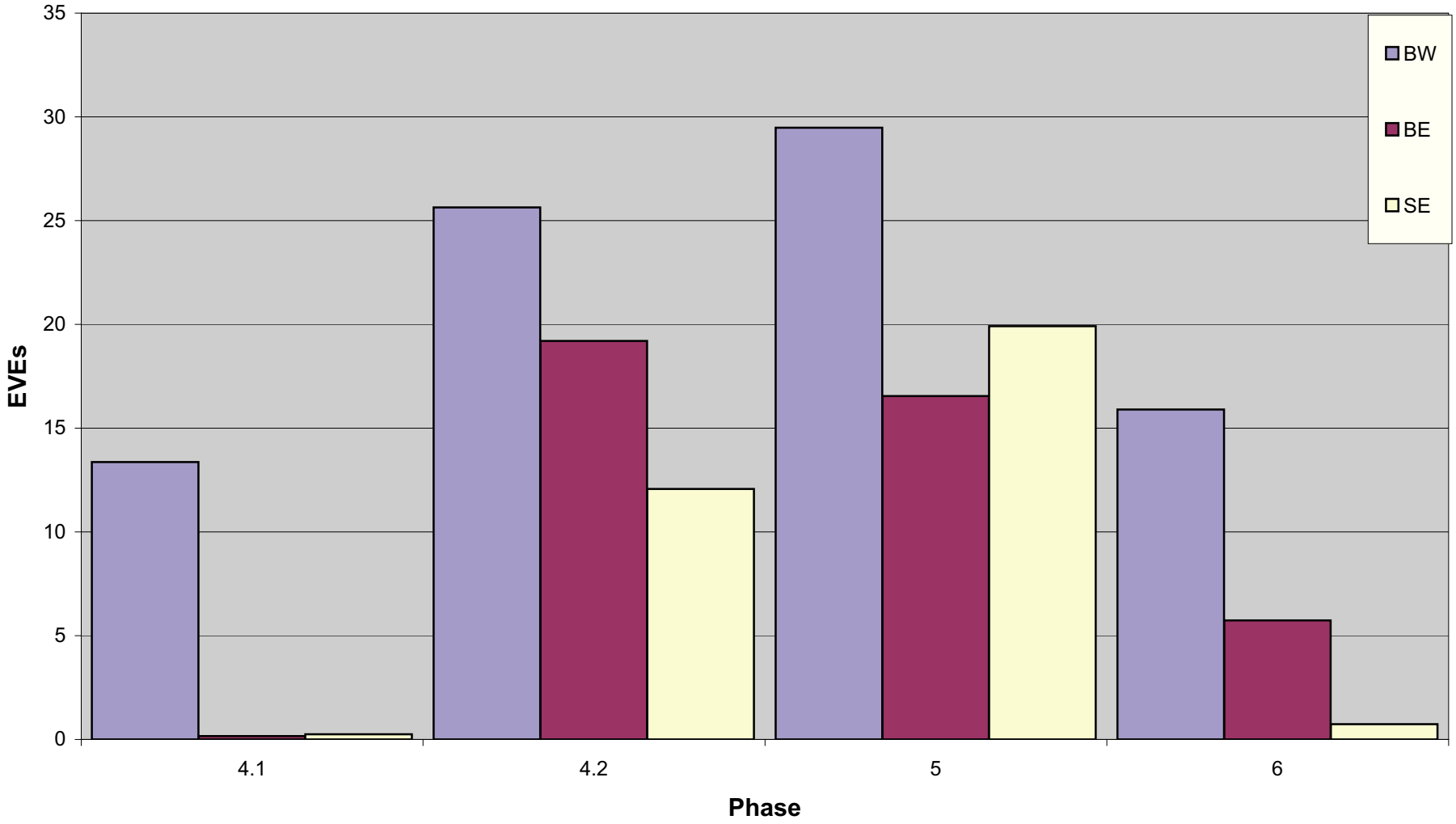


9. Fabric MWW: Rim Diameters



10. Fabric MZM: Rim Diameters

Chart 11: Combined EVEs

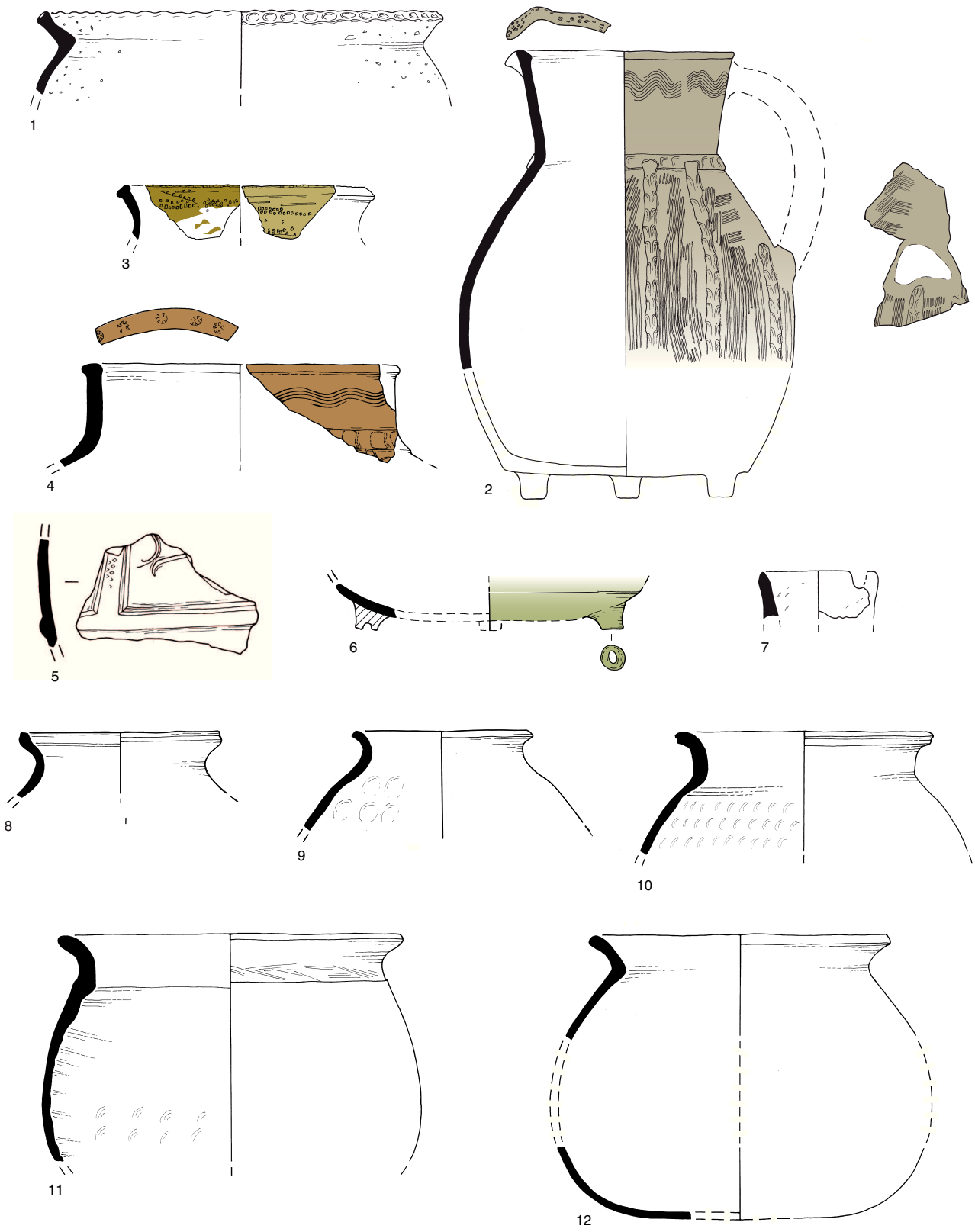


11. Relative quantities of pottery on each street frontage and in each phase (EVEs only)

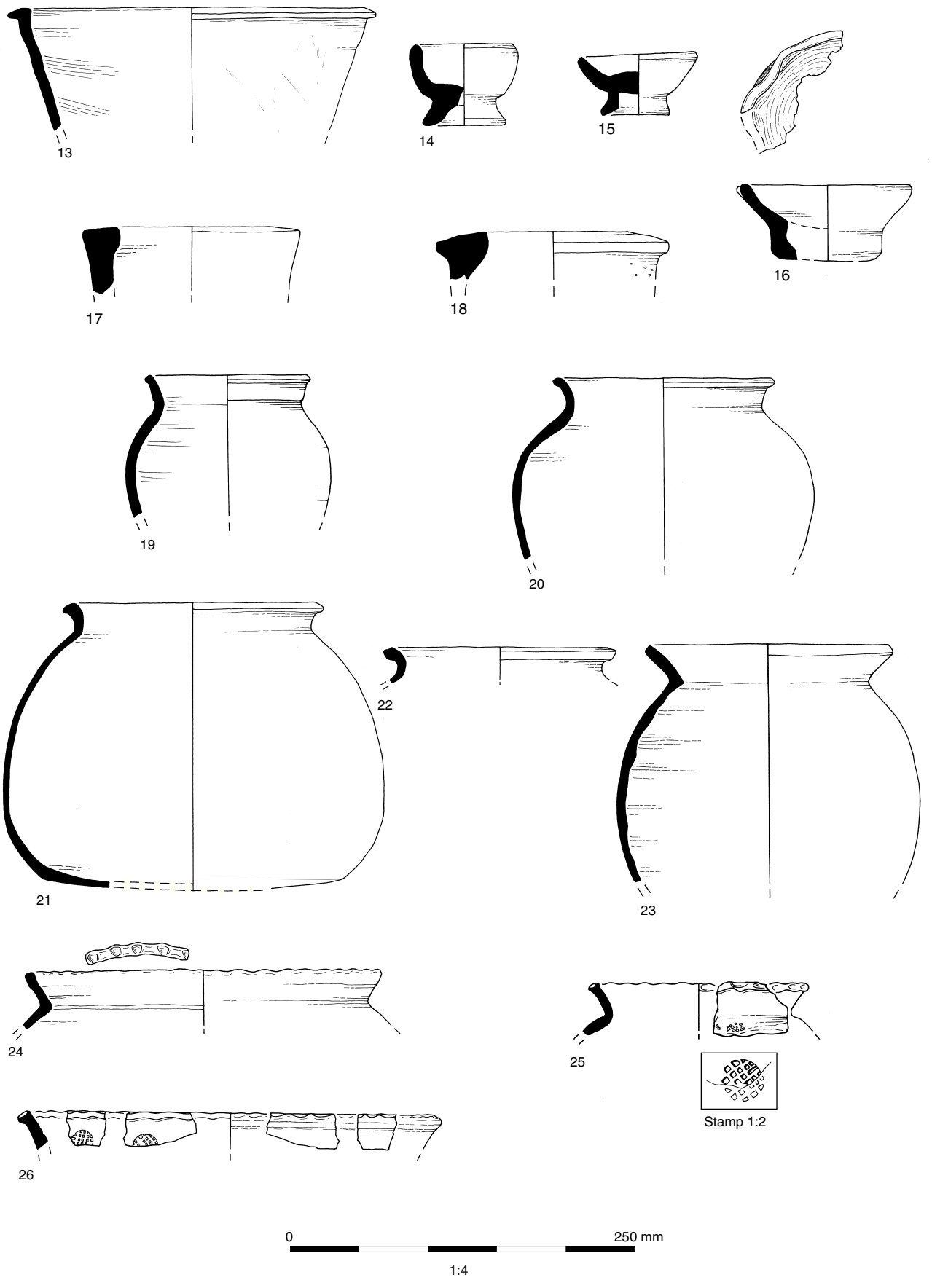
Post-Roman pottery illustration catalogue

Figure	Pot no.	Site	Prop	New Prop	Group No	Context	Phase	Fabric	Description
1	1	AY93	F	BW 3	NH8550	NH3580	5	MAB	Jar with thumbed rim. Very coarse flint temper. Di 280 mm.
1	2	AY93	F	BW 3	NH8543	NH3286	6	MAD	Tripod pitcher with combed dec and applied thumbed strips. Dark greenish-brown glaze (reconstruction drawing). Di 150 mm.
1	3	AY220	B	BE 4	CC7021	CC3126	5	MAD	Tripod pitcher rim with complex rouletted dec on top, inside and outside. Greenish-brown glaze. Di 190 mm.
1	4	AY220	B	BE 4	CC7024	CC2114	6	MAD	Wide tripod pitcher rim with circular gridiron stamps on top. Combed dec and traces of applied thumbed strips on the outside.Decayed greenish-brown glaze. Di 220 mm.
1	5	AY220	B	BE 4	CC7021	CC3126	5	MAD	Unglazed MAD (or fine brown MOE). Probable tripod pitcher sherd with applied strips or cordons and traces of combed and possible rouletted dec
1	6	AY93	D	SE 1	NH8612	NH5128	5	MAD	Tripod pitcher base with applied foot with deep circular indent. Grey-green glaze
1	7	AY220	A	BE 5	CC7031	CC3021	5	MAF	?Cresset lamp rim. Possibly with notch or perforation cut through rim. Unsooted. Di 80 mm.
1	8	AY220	A	BE 5	CC7039	CC6043	5	MAQ	Jar with simple A2P-type rim. MAQ/MBK hybrid. 12-13C ctx. Di 140 mm.
1	9	AY93	E	BW 2	NH8530	NH4130	4.2	MAQ	Small jar rim. Di 120 mm.
1	10	AY220	B	BE 4	CC7019	CC2077	5	MAQ	Jar rim. Cavetto neck. Grooved rim. MAQ/MBK. Di 180 mm.
1	11	AY93	C	SE 3	NH8636	NH1391	5	MAQ	Jar profile. Bag-shaped with rounded base. Weak shoulder carination. Di 240 mm.
1	12	AY220	D	BE 2	CC7007	CC1381	4.2	MAQ	Jar profile with rounded base. Finer MAQ/MBK fabric. Di 210 mm.
2	13	AY220	A	BE 5	CC7031/CC7043	CC3013, 2212	5/6	MAQ	Hammerhead bowl rim. Oxid. Di. 270 mm.
2	14	AY220	B	BE 4	CC7023	CC2027	5	MAQ	Profile small chalice-shaped cresset lamp with pedestal base. Heavily sooted internally.Di 80 mm.
2	15	AY220	B	BE 4	CC7019	CC2077	5	MAQ	Complete small chalice-shaped cresset lamp with pedestal base. Only slight traces sooting. Very coarse fabric. SF220. Di 87 mm.
2	16	AY93	H	BW 5	NH8594	NH2462, 2461	4.2	MAQ	Cresset lamp profile. Possibly with plain flat base or damaged short pedestal-type base? Heavily sooted internally. Di 125 mm.
2	17	AY220	D	BE 2	CC7051	CC1160	6	MAQ	Chimney pot rim. Unsooted. Di 160 mm.
2	18	AY220	C	BE 3	CC7051	CC1109	5	MAQ	Chimney pot rim. Unsooted. Very coarse fabric. Di 160 mm.
2	19	AY220	A	BE 5	CC7031	CC3018	5	MAV	Near-profile smallish globular jar. Upright rim. Di 120 mm.
2	20	AY220	B	BE 4	CC7019	CC2036	5	MAV	Jar profile. A1C-type rim form. Di 160 mm.
2	21	AY93	D	SE 1	NH8612	NH5202	5	MAV	Profile globular jar. Short near-upright rim. Di 190 mm.
2	22	AY93	Mod			NH1070	8	MAV	Jar. Unusually squared rim. Di 170 mm.
2	23	AY220	D	BE 2	CC7017	CC1618	5	MAV	Near-profile jar. A3B-type flaring rim form. Di 180 mm.
2	24	AY93	D	BW 1	NH8542	NH4177	5	MAV	Jar rim with spaced thumbing. Oxid. Di 260 mm.
2	25	AY93	Dark earth		NH8500	NH1215	2.4	MAV	Jar with thumbed rim and circular gridiron stamps on shoulder. Oxid. Di 160 mm.
2	26	AY220	D	BE 2	CC7014	CC1360, 1361	4.2	MAV	Jar with thumbed rim and circular gridiron stamps inside rim. Di 310 mm.
3	27	AY220	D	BE 2	CC7008	CC1398	5	MAV	Large jar rim with shoulder carination. B2-type rim form. Di 340 mm.
3	28	AY220	D	BE 2	CC7007	CC1381	4.2	MAV	Near-profile large jar. Di 330 mm
3	29	AY220	C	BE 3	CC7051	CC1517	5	MAV	Jar with horizontal rim. Late? Di 280 mm.
3	30	AY93	F	BW 3	NH8554	NH3546	5	MAV	Jar base/body profile. Oxid. Base Di 160 mm.
3	31	AY93	B	SE 2	NH8621	NH1589	4.2	MAV	Spouted pitcher with thumbed rim and impressed dimple dec on body. Di 180 mm.
3	32	AY220	B	BE 4	CC7019	CC2078, 2094	5	MAV	Spouted pitcher with combed dec on shoulder. Oxid. Di 120 mm.
3	33	AY220	D	BE 2	CC7015	CC1663	5	MAV	Spouted pitcher with incised oblique stroke dec on rim. Di 170 mm.
3	34	AY93	E	BW 2	NH8531	NH4562	4.1	MAV	Large spouted pitcher with incised oblique stroke dec on rim. Oxid. Di 280 mm.
4	35	AY220	B	BE 4		CC3176	4.2	MAV	Large jar rim with incised oblique stroke dec on rim and incised/combed dec on shoulder. Oxid. Di 280 mm.
4	36	AY93	B	SE 2	NH8633	NH1022	5	MAV	Jar shoulder with incised/combed dec. Oxid
4	37	AY93	C	SE 3	NH8636	NH1362	5	MAV	Jar shoulder with incised/combed dec (interlaced chevrons). Oxid
4	38	AY93	G	BW 4	NH8567	NH3389	4.2	MAV	Large, highly dec spouted pitcher with thumbed rim and incised and stabbed dec on body. Oxid. Di 300 mm.
4	39	AY93	H	BW 5	NH8593	NH9767	5	MAV	Spouted pitcher rim (evidence of spout) with stabbed pit dec. Di 240 mm.
4	40	AY93	X	SE 1		NH5022	6	MAV	Jar shoulder with carination and unusual incised diagonal line and dot dec. Di at girth c. 210 mm.
4	41	AY220	B	BE 4	CC7021	CC3235	6	MAV	?Jar body sherd with incised ?vertical line dec. Oxid
4	42	AY93	H	BW 5	NH8593	NH9666	5	MAV	Unusual deep bowl profile with tubular socket handle. Di 270 mm.
4	43	AY93	J	BW 6	NH8603	NH7600	4	MAV	Bowl, or jar, with slightly inturned rim. Di 280 mm.
4	44	AY93	H	BW 5	NH8596	NH2411	4.2	MAV	Bowl with near-vertical rim (rim added on as separate coil). Di 290 mm.
4	45	AY93	A	SE 1	NH8620	NH6051	5	MAV	Bowl (or curfew?). Flaring walls. Di 400 mm.
4	46	AY220	E	BE 1	CC7056	CC1254	4	MAV	Shallow bowl with curved sides. Di 250 mm.
5	47	AY220	C	BE 3	CC7050	CC1315	5	MAV	Profile small spiked cresset lamp. Heavily sooted internally. Di 64 mm.
5	48	AY93	E	BW 2	NH8530	NH4130	4.2	MAV	Profile spiked cresset lamp. Heavily sooted internally. Di 84 mm. SF1255
5	49	AY220	B	BE 4		CC2277	6	MAV	Profile cresset lamp with pedestal base. Heavily sooted internally. Di 83 mm. SF268
5	50	AY220	A	BE 5	CC7039	CC3029	5	MAV	Cresset lamp rim. Unusual deep form. Sooted internally. Di 120 mm.
5	51	AY220	B	BE 4	CC7023	CC2027	5	MAV	Bowl, probably used as lamp. Has oxidised 'tide marks' internally and some sooting on rim. Di 240 mm
5	52	AY220	D	BE 2	CC7051	CC1160	6	MAV	Curfew rim. Di 450 mm.
5	53	AY93	Mod			NH2251	8	MAV	Chimney pot rim. Slight sooting internally. MAV/MAQ fabric. Di 150 mm.
5	54	AY220	B	BE 1	CC7058	CC1022	4	MBEAU	Beauvais-type ware. Jar base with red painted vertical lines externally and continuing under base. Base Di c. 180 mm.
5	55	AY220	D	BE 2	CC7015	CC1292	6	MBEAU	Beauvais-type ware.?Jar sherd with red painted lattice decoration
5	56	AY93	A	SE 1	NH8619	NH6116	4.2	MBK	Jar rim. Silty, early-looking MBK/MAQ fabric. 10C ctx? Di 130 mm
5	57	AY93	D	BW 1	NH8514	NH8020	6	MBK	Jar rim. MBK/MDF hybrid? 13C? Di. 200 mm.
5	58	AY93	H	BW 5	NH8593	NH9666	5	MBK	Jar rim with cavetto neck and slight shoulder carination. Di 220 mm.
5	59	AY93	D	SE 1	NH8612	NH5128	5	MBK	Jar with thumbed rim and scratch-marked dec. Di 220 mm.
5	60	AY93	D	SE 1	NH8612	NH5128	5	MBK	Large jar rim with scratch-marked dec. Di 340 mm.
5	61	AY93	B	SE 2	NH8623	NH1029	5	MBK	Jar shoulder. Unusual incised vertical line dec.
5	62	AY93	H	BW 5	NH8596	NH2422	4.2	MBN	Jar with rouletted rim. Di. 120 mm.
5	63	AY93	F	BW 3	NH8554	NH3491	5	MBN	Jar body with rouletted dec
5	64	AY220	D	BE 2	CC7009	CC1408	4.2	MBN	Jar body with rouletted dec and prominent rilling or ribbing
6	65	AY93	B	SE 2	NH8622	NH1180	4.2	MBX	Small jar. Di 70 mm.
6	66	AY93	E	BW 2	NH8531	NH4232	4.1	MBX	Small jar. Near profile. Di 85 mm. 10C pit group
6	67	AY93	G	BW 4	NH8578	NH3400	4.1	MBX	Small jar with thumbed rim. Di 100 mm.
6	68	AY93	F	BW 3	NH8550	NH3699	5	MBX	Small jar with prominent shoulder carination. Di 110 mm.
6	69	AY93	A	SE 1	NH8619	NH6116	4.2	MBX	Jar with cavetto neck. Bevelled A2 rim form. 10C ctx. Di 160 mm.
6	70	AY93	E	BW 2	NH8538	NH4223	4.2	MBX	Jar with spaced groups of thumbing on rim. L11-12C ctx? Di 180 mm.
6	71	AY93	A	SE 1	NH8619	NH6116	4.2	MBX	Jar with cavetto neck. Incipient bead rim form A1C. Shoulder carination. 10C ctx. Di 160 mm.
6	72	AY93	Saxon road		NH8609	NH4623, 4624	4.1	MBX	Jar rim with prominent shoulder carination. Late? Di 210 mm.
6	73	AY93	F	BW 3	NH8556	NH3669	4.2	MBX	Jar rim with prominent shoulder carination. Di 270 mm.
6	74	AY93	H	BW 5	NH8592	NH2044	5	MBX	Slack-sided jar or bowl. Di 210 mm.
6	75	AY220	B	BE 4	CC7018	CC2288	4.2	MBX	Jar rim. Dec int with band of stabbed pits. Di 140 mm.
6	76	AY220	A	BE 5	CC7042	CC2107	6	MBX	Sherd with multiple circular gridiron stamps. Residual in 13-14C ctx.
6	77	AY93	Saxon road	BW 3	NH8558	NH3416	4.2	MBX	Sherd with small circular gridiron stamps (stamps Di 11 mm.)
6	78	AY93	F	BW 3	NH8543	NH3282	6	MBX	Sherd with all over sunburst stamps

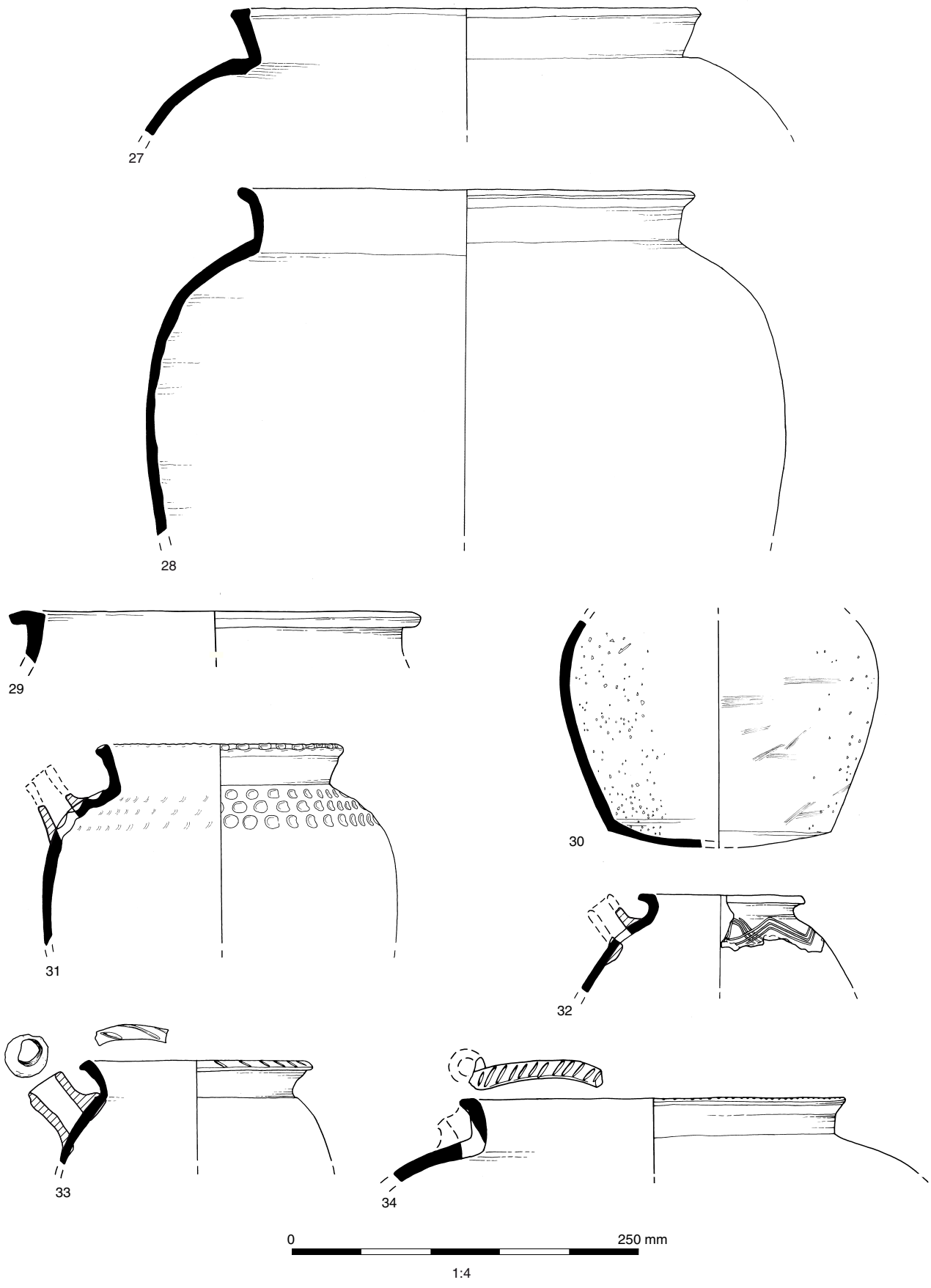
6	79	AY93	A	SE 1	NH8620	NH6148	5	MBX	Sherd with cross-in-circle stamps
6	80	AY93	G	BW 4	NH8576	NH3496	5	MBX	Jar or deep bowl rim with upright pierced lug handle. 8-9C? Residual. Di c. 240 mm?
6	81	AY93	E	BW 2	NH8528	NH4592	4.1	MBX	Spouted pitcher with thumbed rim and complete stubby tubular spout. Di 240 mm.
6	82	AY93	A	SE 1	NH8619	NH6116	4.2	MBX	Spouted pitcher with handle. 10C ctx. Di. 190 mm.
6	83	AY93	A	SE 1	NH8619	NH6161	4.2	MBX	Bowl. Di 220 mm. 9-10C context. Assoc with madder-stained vessels
6	84	AY93	E	BW 2	NH8530	NH4277	4.2	MBX	Bowl profile with socket handle. 10-11C ctx? Di 220 mm.
6	85	AY93	C	SE 3	NH8632	NH1145	4	MBX	Cresset lamp. Possibly pedestal-type? Di 140 mm.
6	86	AY93	G	BW 4		NH2097	4.2	MBX	Cresset lamp. Possibly pedestal-type? Di 150 mm.
7	87	AY93	Eval			NH805	EVAL	MDF	Jar with brushed decoration. Di 260 mm.
7	88	AY93	E	BW 2	NH8529	NH4394	4.2	MDL	Crucible rim with pouring lip. Vitreous external coating with reddish copper staining plus a few specks of greenish copper internally. Some organic inclusions in fabric. Di c. 60 mm.
7	89	AY93	B	SE 2	NH8633	NH1022	5	MDL	Crucible rim with thick external vitreous coating, extending partly internally, with reddish copper staining and slag-like debris plus a few specks of greenish copper embedded internally. Organic inclusions in fabric. Di c. 40 mm.
7	90	AY93	J	BW 5	NH8602	NH7616	5	MDL	Crucible profile with pouring lip. Fine cream sandy fabric. Probably unused. Di 80 mm.
7	91	AY93	B	SE 2	NH8633	NH1027	5	MDL	Crucible rim. Trace of spout. Fine brown sandy fabric like MMU. Sooted externally. Di 120 mm.
7	92	AY93	A	SE 1	NH8620	NH6101	5	MFI	Normandy gritty white ware. Jar/jug base with single speck of clear yellow glaze externally. Base Di 81 mm.
7	93	AY93	B	SE 2	NH8622	NH1155	4.2	MMU	Jar rim. Di 200 mm.
7	94	AY93	B	SE 2	NH8633	NH1022, 1030	5	MMU	Jar in oxid Michelmersh fabric but handmade rather than wheel-thrown. Di 210 mm.
7	95	AY93	B	SE 2	NH8628	NH1085	5	MMU	Jar rim with incised wavy line dec on rim. Di 140 mm.
7	96	AY93	G	BW 4	NH8576	NH2229	5	MMU	Jar with thumbed rim (or possibly MSH?). Probably residual in 10-12C ctx. Di 180 mm.
7	97	AY93	D	SE 1	NH8615	NH5046	6	MMU	Spouted pitcher with inturned rim and notched shoulder cordon. Di 160 mm.
7	98	AY220	B	BE 4	CC7027	CC2312	6	MMU	Spouted pitcher with inturned rim and stamped strip decoration. Di 160 mm.
7	99	AY93	G	BW 4	NH8567	NH3466	5	MMU	Small jar base. Base Di 54 mm.
7	100	AY93	B	SE 2	NH8622	NH1155	4.2	MMU	Shallow dish profile. Di 310 mm.
7	101	AY93	Saxon road		NH8609	NH4623	4.1	MMU	Crucible rim. Sooted externally. Di 100 mm.
7	102	AY93	Eval			NH303, 305	EVAL	MNG	Tripod pitcher rim and handle. Highly dec with applied strip and roulette dec. Yellow-brown glaze (fabric related to Winchester ware?). Di 190 mm.
8	103	AY220	A	BE 5	CC7042	CC2203	6	MOE	Unusual jar rim form. Pale br-buff. Di. 310 mm.
8	104	AY220	B	BE 4	CC7024	CC2113	6	MOE	Jar rim with scratch-marked dec. Di 195 mm.
8	105	AY93	C	SE 3	NH8632	NH1293	5	MOE	Large jar rim. B2-related rim form. Di 320 mm.
8	106	AY220	E	BE 1	CC7059	CC1131	6	MPAF	Paffrath-type ware. 'Ladle' rim with attached handle fragment. Di 90 mm.
8	107	AY93	G	BW 4	NH8575	NH2038	5	MPIN	Pingsdorf-type ware. Jar/beaker body with red painted dec. probably 'commas'
8	108	AY220	A	BE 5		CC3276	6	MSH	Unusually simple handmade jar rim (?or MMU/MZM). Di 140 mm.
8	109	AY93	C	SE 3	NH8632	NH1146	4	MSH	Simple jar rim with lightly combed wavy band on shoulder. Di 130 mm.
8	110	AY93	Saxon road		NH8607	NH4695	4.1	MSH	Jar rim. Di 120 mm.
8	111	AY93	A	SE 1	NH8619	NH6116	4.2	MSH	Jar profile. 10C ctx. Di 150 mm.
8	112	AY93	F	BW 3	NH8559	NH3069	5	MSH	Jar rim. Internally hollowed. Di 160 mm.
8	113	AY93	A	SE 1	NH8619	NH6116	4.2	MSH	Rim from narrow-necked ?costrel. Di 75 mm.
8	114	AY93	Saxon road		NH8607	NH4689	4.1	MSH	Sherd from odd vessel form with scar of applied spout or tubular handle. Possibly a costrel?
8	115	AY93	E	BW 2	NH8539	NH4186	5	MTE	Small delicate jar rim. Di 150 mm.
8	116	AY93	C	SE 3	NH8632	NH1364	5	MTE	Jar with triangular rim. Di 220 mm.
8	117	AY93	D	BW 1	NH8537	NH4170	6	MTE	Sub-collared jar rim. Wheel-turned? V coarse flint. Di 230 mm.
8	118	AY93	D	BW 1	NH8542	NH4294	5	MTE	Jar with thumbed rim. Elongated thumbing style. Di 200 mm.
9	119	AY93	C	SE 3	NH8632	NH1364	5	MTE	Jar profile with beaded/clubbed rim. Di 290 mm.
9	120	AY93	G	BW 4	NH8576	NH2174	5	MTE	Jar with stabbed dec on rim and combed dec on body. (Or possibly MAQ?). Di 230 mm.
9	121	AY93	A	SE 1	NH8620	NH6036	5	MTE	Cauldron (jar) rim with elbow handle. Di 220 mm.
9	122	AY93	G	BW 4	NH8575	NH2356	5	MTE	Cauldron (jar) with incised dec on handle and body. Di 190 mm.
9	123	AY220	C	BE 3	CC7050	CC1095	5	MTE	Bowl rim. Di 320 mm.
9	124	AY93	B	SE 2	NH8633	NH1007	6	MTE	Bowl with thumbed rim and combed dec on body. Di 250 mm.
9	125	AY93	A	SE 1	NH8620	NH6051	5	MWW	?Spouted pitcher with crude rouletted dec on rim.Coarser orange-buff fabric. Unusually unglazed save for band of patchy greenish glaze along top of rim. Di 100 mm.
9	126	AY93	E	BW 2	NH8530	NH4328	4.2	MWW	?Spouted pitcher with rouletted dec on rim and on body. Partially glazed over break - possibly a waster? Di 130 mm.
9	127	AY93	F	BW 3	NH8556	NH3669	4.2	MWW	Jar rim. Gr-yell glz. (just possibly N. French?). Di 114 mm.
9	128	AY220	D	BE 3	CC7050	CC1448	5	MWW	Spouted pitcher with flanged rim. Di 140 mm.
9	129	AY93	E	BW 2	NH8538	NH4223	4.2	MWW	Spouted pitcher. Simple everted rim. Complete spout. Di 130 mm.
9	130	AY220	C	BE 3	CC7050	CC1274	5	MWW	Spouted pitcher. Possible second or ?waster with glaze over broken spout. Di 130 mm.
9	131	AY93	H	BW 5	NH8596	NH2411	4.2	MWW	Spouted pitcher with rouletted dec and probably 3 handles. Di 150 mm.
9	132	AY93	E	BW 2	NH8530	NH4270, 4271	4.2	MWW	Spouted pitcher with inturned rim and external cordon (notched?) on shoulder. Thick yell-brown glaze all over. Di 150 mm.
10	133	AY93	E	BW 2	NH8530	NH4163	4.2	MWW	Spouted pitcher with inturned rim. Multiple shoulder cordons and crude rouletted dec on top of rim. Trace of applied spout/handle. Coarser orange-brown fabric with marl streaks. Di 90 mm.
10	134	AY93	H	BW 5	NH8596	NH2426	4.2	MWW	Unusual sub-collared jar rim with complex rouletted decoration. Di 160 mm.
10	135	AY93	F	BW 3/BW 4	NH8560/NH8583	NH3090, 3532	5	MWW	Sherd with curved applied strip and cinquefoil stamps
10	136	AY220	E	BE 1		CC1051	6	MWW	Locking lid with stamped circles dec. Unglazed. Max Di 100 mm.
10	137	AY93	H	BW 5	NH8596	NH2390	5	MWW	?Lid or ?pedestal base fragment. Glazed on upper surface only. Di 110 mm.
10	138	AY220	B	BE 4	CC7019	CC2004	4.2	MZM	Jar rim. A3B rim form. Di 200 mm.
10	139	AY220	C	BE 3	CC7050	CC1274	5	MZM	Jar rim. A3B rim form. Di 150 mm.
10	140	AY93	F	BW 3	NH8543	NH3286	6	MZM	Jar. Simple everted rim. Di 150 mm.
10	141	AY93	A	SE 1	NH8619	NH6155	5	MZM	Jar rim. Thin-walled. Di 160 mm.
10	142	AY93	E	BW 2	NH8530	NH4381	4.2	MZM	Small jar with squared rim. Di 120 mm.
10	143	AY93	E	BW 2	NH8530	NH4130	4.2	MZM	Jar rim with grouped thumbing. Or reduced MMU? Di 210 mm.
10	144	AY93	D	BW 1	NH8542	NH4177	5	MZM	Jar profile with horizontal grooved dec. Fine-medium sandy pale grey fabric.Or MMU/import? Di 180 mm.
10	145	AY220	B	BE 4	CC7023	CC2027	5	MZM	Jar rim with applied thumbed strip on neck. Fine-medium sandy pale grey fabric.Or MMU/import? Di 190 mm.
10	146	AY220	B	BE 4	CC7023	CC2027	5	MZM	?Jar or pitcher body with complex rouletted dec. Trace of applied feature. Or MMU?
10	147	AY220	B	BE 4		CC2171	5	MZM	?Crucible or 'ginger jar' rim. Sooted internally. Di 140 mm.
10	148	AY93	F	BW 3	NH8554	NH3491	5	UNID	Unidentified jar. Probably a late Saxon regional or Continental greyware import. Vertical knife-trimming externally. Di 160 mm.
10	149	AY220		BE 2	CC7007	CC1376	4.2	WWX	Winchester-style ware. White-slipped sherd with rouletted dec.
10	150	AY220		BE 2	CC7007	CC1376	4.2	WWX	Winchester-style ware. White-slipped sherd with rouletted dec.and handle stub



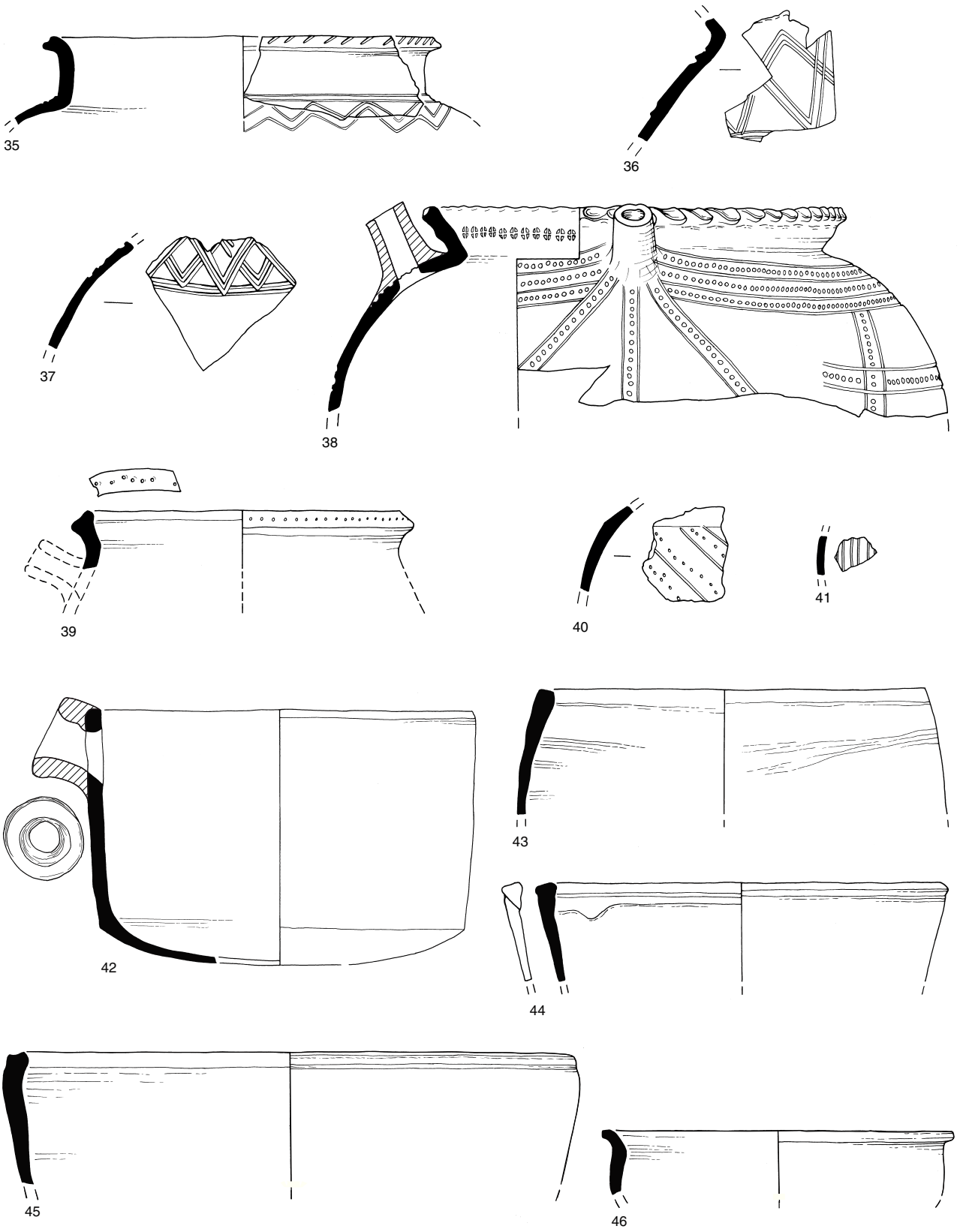
Section 1.3 Figure 1: MAB (1), MAD (2–6), MAF (7), and MAQ (8–12)



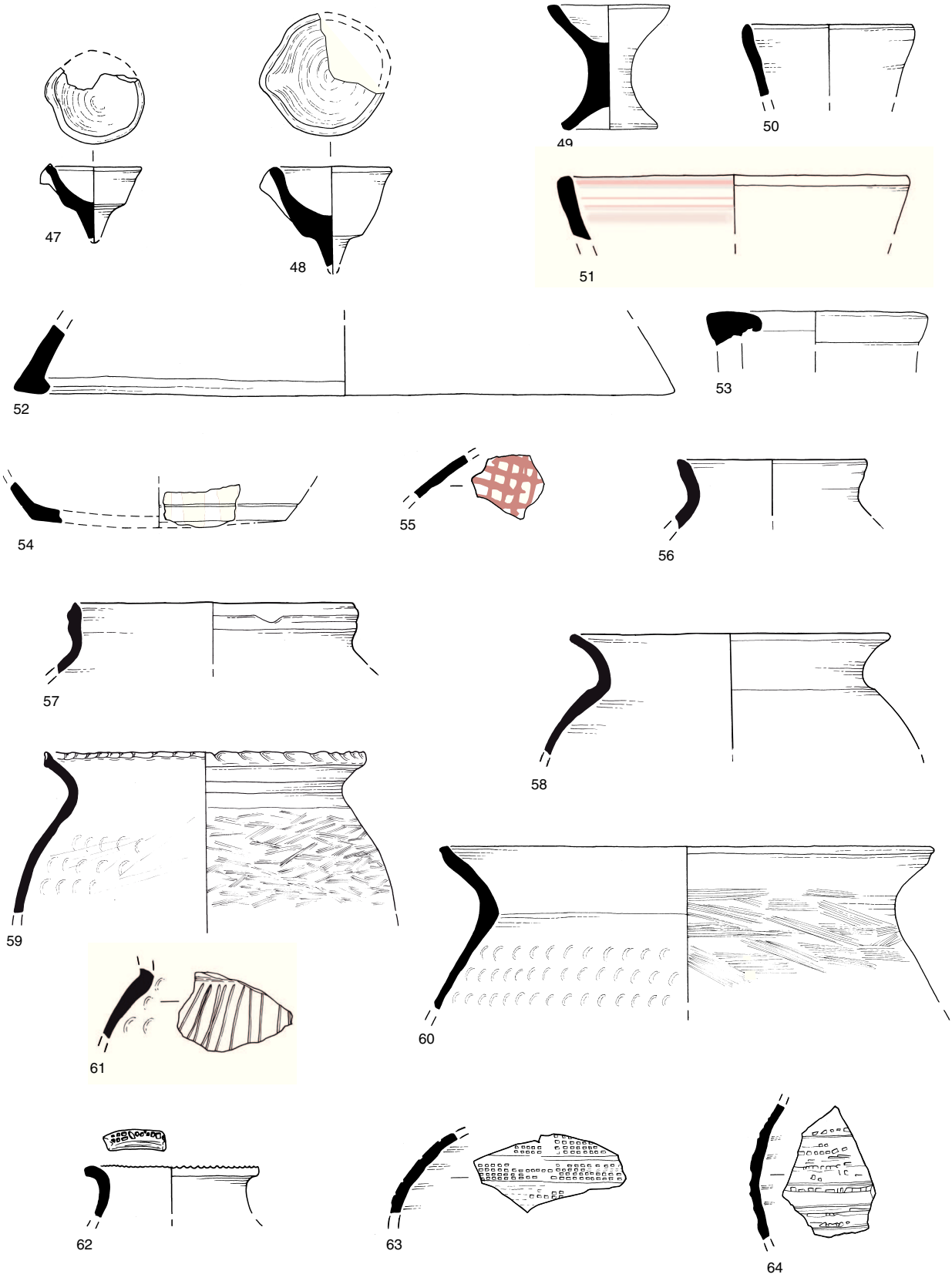
Section 1.3 Figure 2: MAQ (13–19) and MAV (20–26)



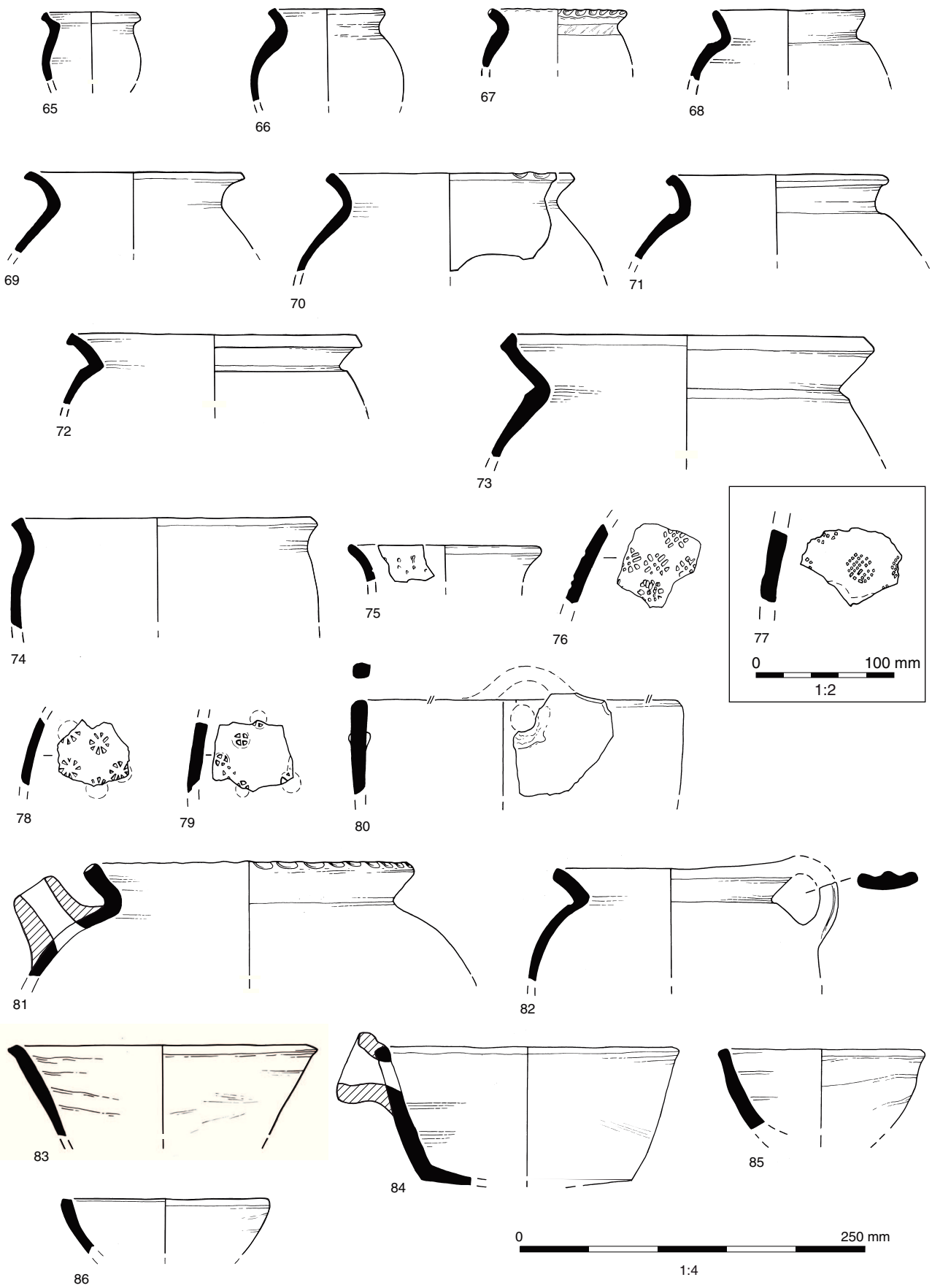
Section 1.3 Figure 3: MAV (27–34)



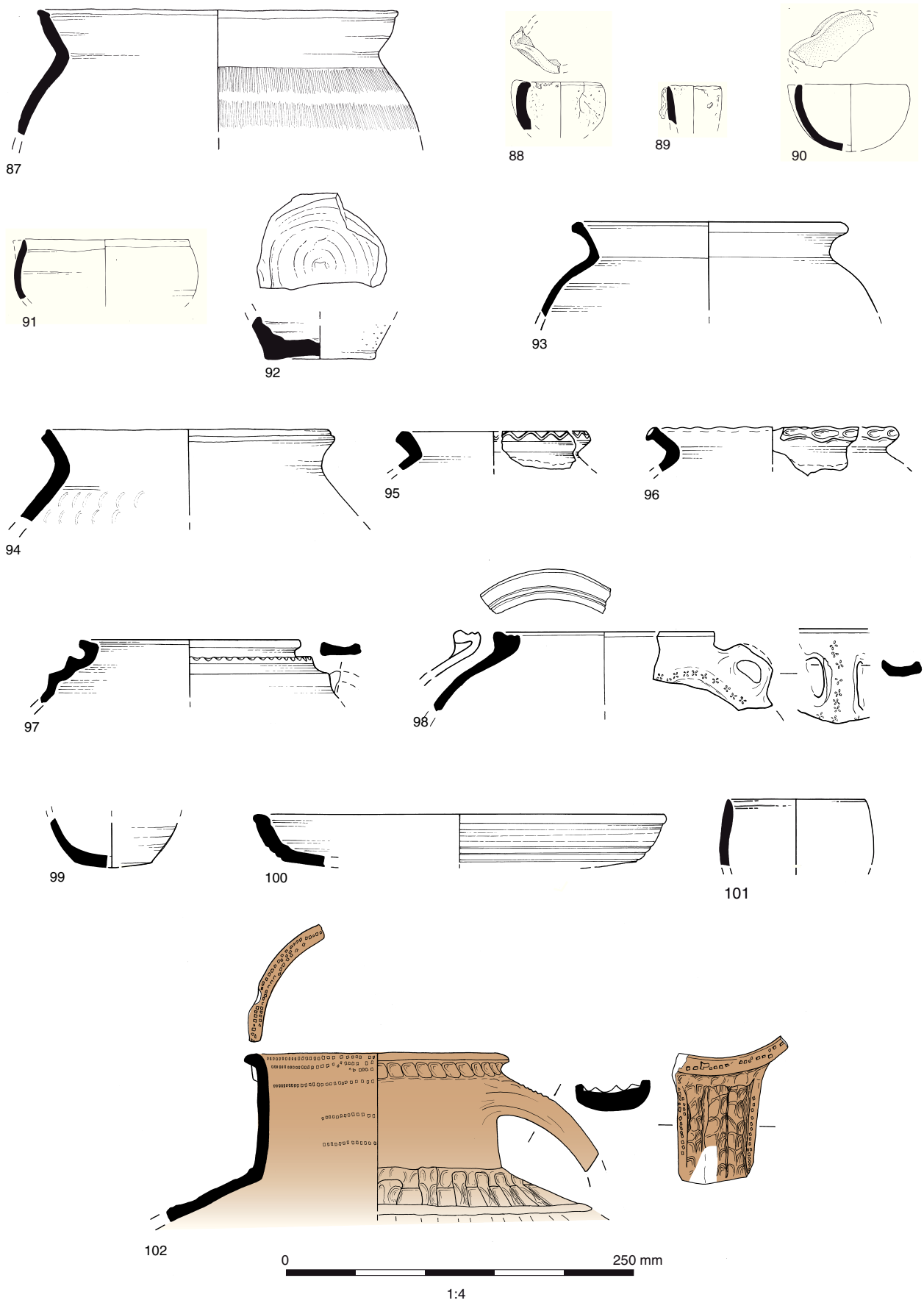
Section 1.3 Figure 4: MAV (35–46)



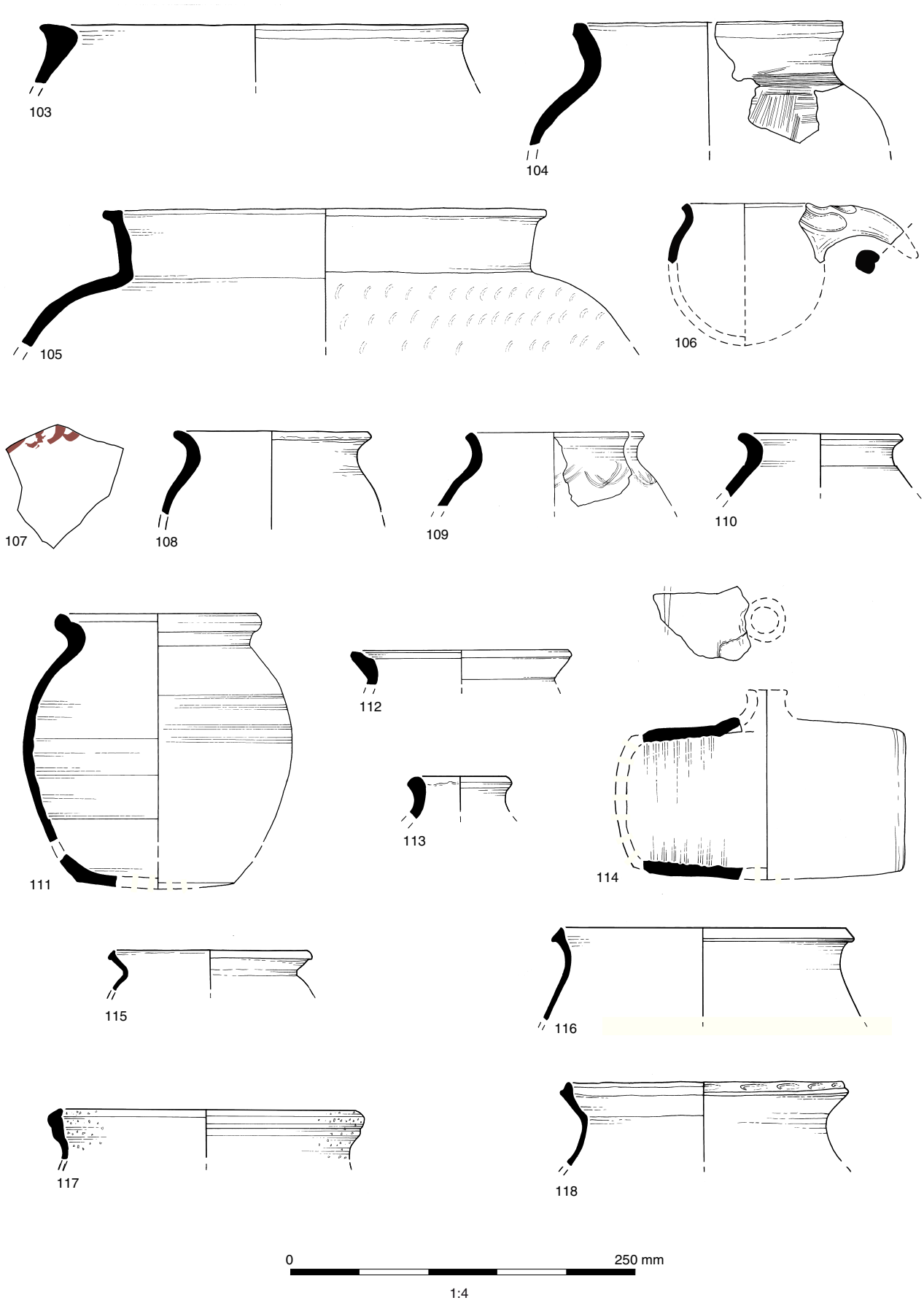
Section 1.3 Figure 5: MAV (47–53), MBEAU (54–5), MBK (56–61) and MBN (62–4)



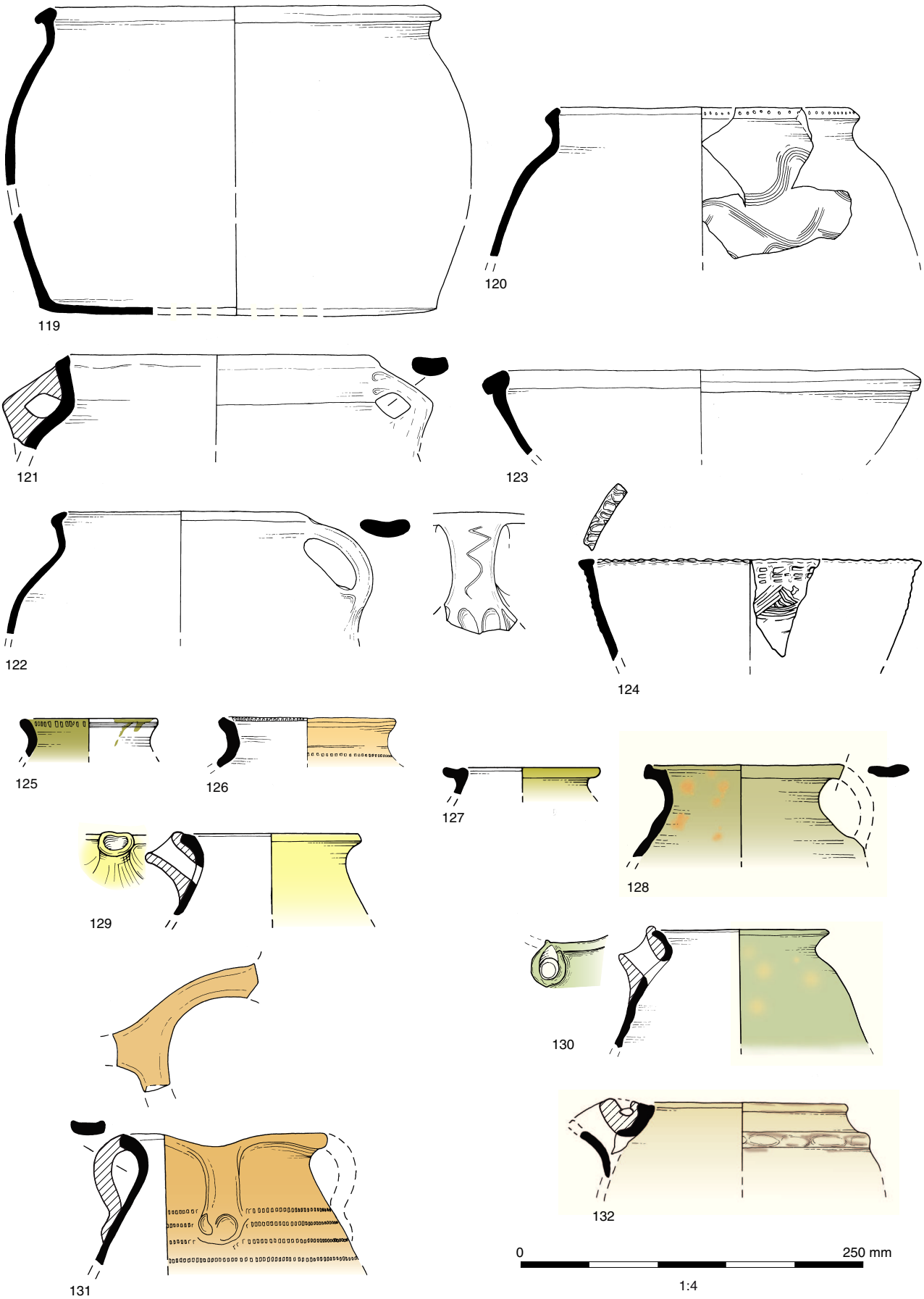
Section 1.3 Figure 6: MBX (65–86)



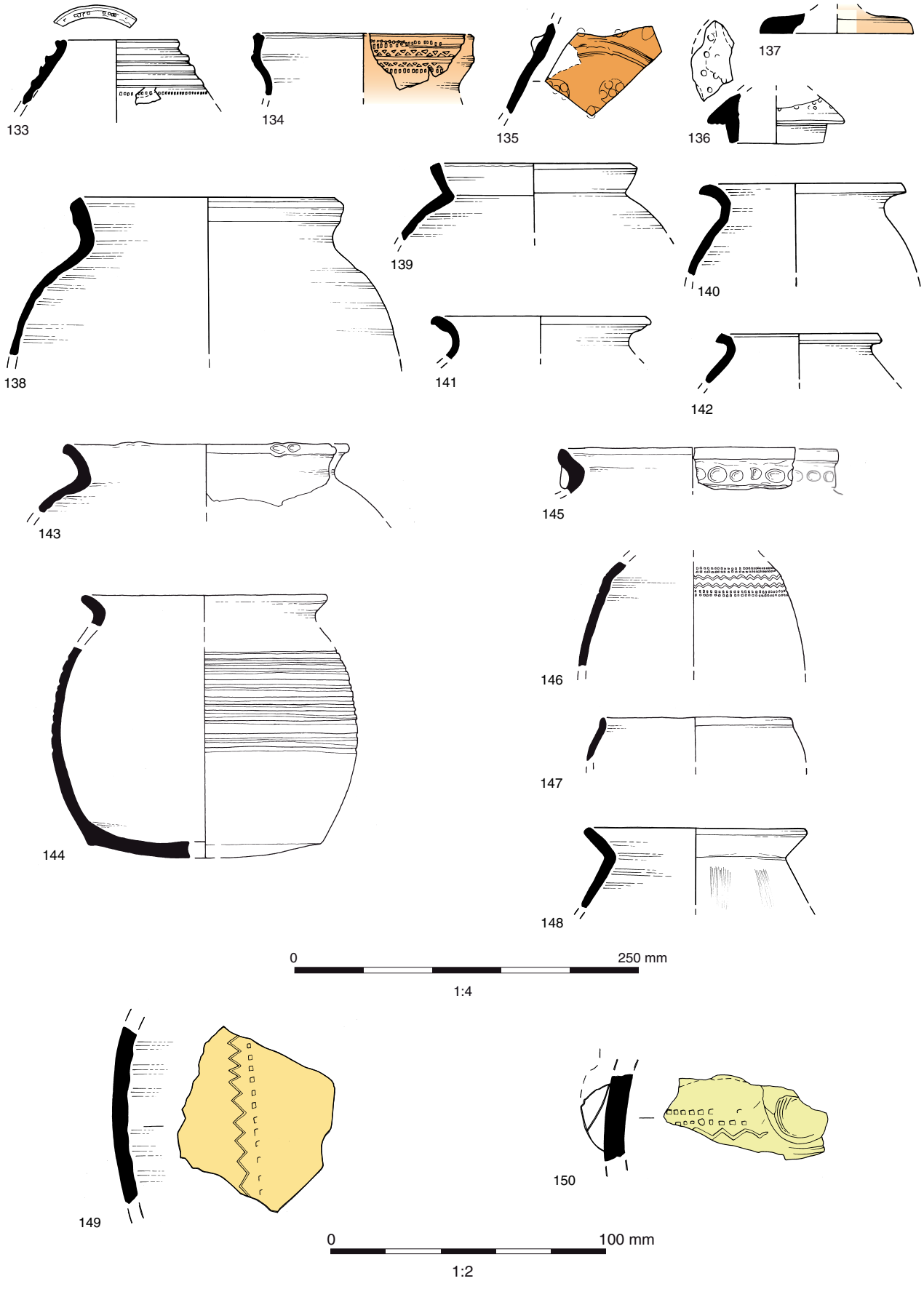
Section 1.3 Figure 7: MDF (87), MDL (88–91), MFI (92), MMU (93–101) and MNG (102)



Section 1.3 Figure 8: MOE (103–5), MPAF (106), MPIN (107), MSH (108–114) and MTE (115–8)



Section 1.3 Figure 9: MTE (119–124) and MWW (125–132)



Section 1.3 Figure 10: MWW (133–7), MZM (138–147), UNID (148) and WWX (149–150)

MADDER stained sherds

Sampled?	Yes																												
Fabric	(All)																												
Rim Fo	(All)																												
Use	MA																												
Vess Fo	(All)																												
	Phase	Data																											
	4.1						4.2						5						6						Total Sherds	Total sherds %	Total Wgt	Total %Wgt	Total EVEs	Total %EVEs
Property	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs	Sherds	sherds %	Wgt	%Wgt	EVEs	%EVEs						
Street	12	25.00%	282	34.69%				0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%		0.00%	12	4.00%	282	4.76%		0.00%
BE 2		0.00%		0.00%			1	0.63%	5	0.14%		0.00%	1	1.41%	10	0.82%		0.00%		0.00%		0.00%		0.00%	2	0.67%	15	0.25%		0.00%
BE 4		0.00%		0.00%			22	13.75%	456	12.78%	0.36	45.57%	6	8.45%	119	9.71%		0.00%		0.00%		0.00%		0.00%	28	9.33%	575	9.70%	0.36	40.45%
BW 1	2	4.17%	29	3.57%			1	0.63%	20	0.56%		0.00%	2	2.82%	29	2.37%		0.00%		0.00%		0.00%		0.00%	5	1.67%	78	1.32%		0.00%
BW 2	10	20.83%	126	15.50%			7	4.38%	192	5.38%		0.00%		0.00%		0.00%		0.00%	2	9.52%	22	6.90%		0.00%	19	6.33%	340	5.74%		0.00%
BW 3	1	2.08%	25	3.08%			5	3.13%	174	4.88%	0.2	25.32%	15	21.13%	227	18.53%	0.03	100.00%	19	90.48%	297	93.10%	0.07	100.00%	40	13.33%	723	12.20%	0.3	33.71%
BW 4	17	35.42%	176	21.65%			12	7.50%	175	4.90%		0.00%	27	38.03%	472	38.53%		0.00%		0.00%		0.00%		0.00%	56	18.67%	823	13.89%		0.00%
BW 5	1	2.08%	5	0.62%			8	5.00%	212	5.94%		0.00%	2	2.82%	64	5.22%		0.00%		0.00%		0.00%		0.00%	11	3.67%	281	4.74%		0.00%
SE 1	5	10.42%	170	20.91%			88	55.00%	2,182	61.14%	0.23	29.11%	14	19.72%	262	21.39%		0.00%		0.00%		0.00%		0.00%	107	35.67%	2,614	44.11%	0.23	25.84%
SE 2		0.00%		0.00%			16	10.00%	153	4.29%		0.00%	4	5.63%	42	3.43%		0.00%		0.00%		0.00%		0.00%	20	6.67%	195	3.29%		0.00%
Grand Total	48	100.00%	813	100.00%			160	100.00%	3,569	100.00%	0.79	100.00%	71	100.00%	1,225	100.00%	0.03	100.00%	21	100.00%	319	100.00%	0.07	100.00%	300	100.00%	5,926	100.00%	0.89	100.00%

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