

LATE SAXON AND EARLY MEDIEVAL OCCUPATION AT 26–27 STAPLE GARDENS, WINCHESTER

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ABSTRACT

A programme of limited excavation in advance of residential development examined a number of small areas within a site at Staple Gardens in the heart of Winchester. Occupation on the site began in the late 10th century (Roman and Early Saxon pottery was all residual in later features) and continued to the 13th, after which the area seems to have been a garden until the 19th century. The remains of one, possibly two late Saxon buildings with a long sequence of floor and occupation layers only partially survived later truncation. A possible road surface composed of large flint cobbles dates from the 11th–12th century: this phase saw intensive pit digging across most of the site. Metalworking evidence was found in all areas, including crucibles and off-cuts, although no positive evidence was recovered that metal was worked on this site itself.

The building on the southern half of the site seems to have been domestic, while the north half seems to have been a butcher's yard; there is also a suggestion of a horner at work here. The apparently early abandonment raises questions which could only be answered by further work in the area.

Reports are included on the significant finds assemblages: the medieval pottery and animal bone and evidence of metalworking (iron and copper-alloys).

FUL) had been given to Sunley Homes for the conversion of existing buildings on the site, demolition of other structures, and the erection of new dwellings, subject to a condition requiring a programme of archaeological work. The site was a rectangular plot of land covering approximately 175 sq m in the north-west of Winchester (SU4707 2977) (Fig. 1), at 50.84m above Ordnance Datum. The natural topography slopes down to the east. Archaeological levels were reached at approximately 48.80m. Geological maps (BGS 1975) indicate that the underlying geology is upper chalk, described as soft white chalk with many flint nodules.

A programme combining excavation and watching brief was undertaken. The watching brief monitored all ground disturbance including piling. Where groundworks encountered archaeological horizons before the required depth of the foundation, these were hand excavated and recorded. A further 200mm below the formation level of all the groundworks was excavated in order to lay inert material (sharp sand) above archaeological deposits to offer protection during construction, and to act as a marker. The archaeological monitoring and recording was integrated with the development schedule and funded by Sunley Homes.

INTRODUCTION

Archaeological investigation was undertaken by Thames Valley Archaeological Services between November 2001 and September 2002 on land to the rear of 26–27 Staple Gardens, Winchester. Planning consent (00/00311/

ARCHAEOLOGICAL BACKGROUND

Cartographic sources

The first map of Winchester was produced in the 17th century by John Speed and includes

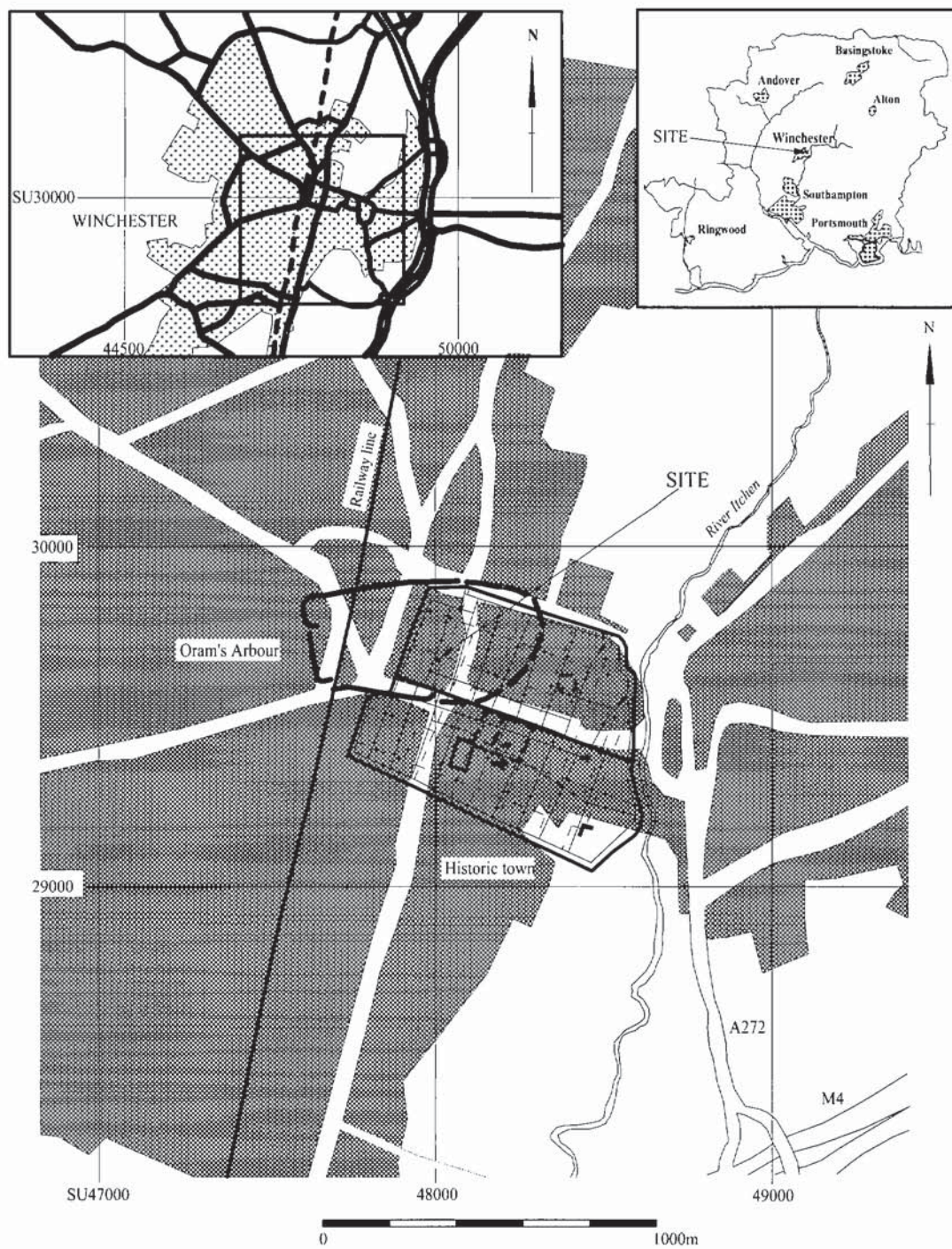


Fig. 1 Staple Gardens, Winchester, site location in relation to historic Winchester

Staple Gardens, marked as plot 19 on his map. The map is not particularly detailed, and shows the area with houses more widely spaced than streets further to the south, and what seem to be open areas and trees. William Godson's map of 1750 shows the area laid out to garden plots with very few buildings, and none on the plot in question. The Ordnance Survey map of 1872 shows 26–27 Staple Gardens in detail, with the New Inn (as today) on the street frontage at the south end of the area and a house (now number 26) joined to the Inn on the north side. North of this again is a large formal garden, about half of which is within the site. Dividing walls exist between these three properties and both the Inn and the house have small outbuildings.

Documentary sources

Documentary sources indicate that Staple Gardens was known as *Bredenstret* from as early as AD 1110, with several variant spellings, later more or less settling down as Brudene Street. The derivation could be from Old English *bryd* 'bride' or *breden*, *bryden*, 'made or covered with boards or planks', possibly indicating a wooden pavement (Biddle 1976).

There is no Domesday survey of Winchester surviving, however the Burghal Hidage provides insights into the defences and reorganization of the city in the 9th and 10th centuries (James 1997). Surveys from 1110 (The Winton Domesday) and 1148 include information from the period immediately preceding the conquest of 1066. During the reign of Edward the Confessor this street was densely built up and was part of a thriving western suburb with a broad range of activities being undertaken such as clothworking, tanning, and metalworking (Barlow *et al.* 1976). It is noted that Aethelstan the Moneyer occupied a property which may have been on the adjacent site of Faber's Yard (28–29 Staple Gardens), or possibly this one.

The documentary sources allow the present site to be (albeit loosely) located in 14th- and 15th-century land holdings (Keene 1985, 644–5). Three plots occupy the eastern side of the street in positions that might equate to the current site, Keene's plots 255, 256 and 265

(see conclusions). Precise extents and boundaries cannot be given from the sources but the site is likely to have been on plot 255 or 265 (or both). The south of Plot 265 and the north of 255 were subdivided into many small tenements by *c.* 1300, but 265 was united into one much larger plot by 1417, possibly some of it passing to plot 255. Plot 255 was a tenement of Lady Mary de Hoyville, opposite her larger property on the west of the street, in the early 14th century but by the middle of the century passed to the Cathedral Priory and was used as a garden.

The site of the Winchester Wool Staple was established on this street between 1326 and 1353 and gave it the street name we know today.

Archaeological excavations

Excavations carried out during the late 20th century in advance of development have deepened our knowledge of the city's past. It is thought that some five per cent of the city's archaeology has been uncovered, and a chronology from the prehistoric period through to the present day is securely established (James 1997). Staple Gardens has seen its share of this work. Some of these interventions have been published only in interim or summary form, so the discussion below will necessarily be subject to revision as definitive publications appear.

Excavations in 1949 and 1960 at the northern end of Staple Gardens revealed Iron Age activity in the form of shallow pits and postholes dating to the 1st century BC (Cunliffe 1964). These probable structures are located towards the eastern end of Oram's Arbour, a large defensive enclosure established between *c.* 300 and 100 BC, which was certainly occupied (Teague 2002; 2003), but whose character remains enigmatic (Biddle 1983; Scobie 1995). Two masonry buildings dating to the 12th century were also found on this site, apparently aligned almost due N–S and E–W, ignoring the prevailing street grid, along with numerous medieval pits. One of these buildings (the 'chapel') is unusually apsidal, although there is no real evidence of an ecclesiastical function. A sugges-

tion that the site might have some links with a royal household appears to be equally speculative (Norton 1964). By the 15th century this site can reasonably securely be identified as belonging to the 'Archdeacon of Winchester called Dorking' (Norton 1964, 174).

Excavations at the southern end of Staple Gardens in the 1980s revealed a previously unknown late Saxon cemetery. A total of 206 graves excavated in 1989 seem to be of Christian character with a high proportion of infant and child burials. The earliest deposits on that site were Roman, and a possible timber structure was recorded along with the remains of a late Roman masonry building with associated lane or path. Post-dating the cemetery was a series of masonry buildings dating from the 12th to 14th centuries (Kipling & Scobie 1990).

The area of Staple Gardens was certainly within the interior of the Roman town (*Venta Belgarum*). Excavations on the site of 28–29 Staple Gardens in 1989, revealed a Roman metalled street aligned north-south (which, as in all Winchester excavation reports, is shorthand for NNE–SSW) with shallow gullies on each side. A deep 'dark earth' deposit sealing the Roman features is of debatable significance; such deposits have been interpreted as occupation, abandonment or intensive cultivation, and these are not the only possibilities (MacPhail *et al.* 2003). Intensive occupation took place during the late Saxon period, with up to 0.90m of deposits recorded. Two timber structures with floors of compacted clay were found, separated by a gravel pathway leading eastwards to a yard. The buildings here were aligned at right-angles to Staple Gardens and may be contemporary with the earliest street, constructed in the late 9th century. Both buildings were destroyed by fire, and rebuilt closer together, but went out of use sometime during the 9th to 10th centuries. During the 10th century, two more buildings were constructed respecting the same property boundaries. By the end of the 10th century these buildings too were derelict and the site was levelled. A gravel surface was then constructed, from which many crucible fragments and late 10th- to 11th-century Winchester

ware were recovered. This surface was cut by a number of pits (11th/12th century) which in turn were sealed by a compacted chalk surface. The site was a garden or orchard by the late 16th century (Teague 1990).

Evaluations at 30–32 Staple Gardens confirmed the presence of medieval occupation there, fronting the street.

Most recently, extensive work on the site of the new Discovery Centre examined a large part of the north of Staple Gardens and Jewry Street, apparently comprising five separate properties in the early medieval period, with Roman evidence below including a road aligned NNE–SSW (information from Hampshire County Council website). Investigations on Hyde Street, to the north-east, have also revealed well-preserved Roman, Saxon and medieval occupation (Hopkins 2001, 45–6).

EXCAVATION METHODOLOGY

The investigation was divided into areas labelled A to L, P and S, relating to the developers' progress. The groundworks for each individual block of buildings were all monitored (Fig. 2). Foundation piling using a continuous flight auger was also monitored, producing just a handful of sherds of pottery, as were deep groundworks such as a lightwell and manhole inspection chambers, but no archaeology was observed here. Nearly 2m of garden soil had accumulated over the top of the archaeological sequence. The depth of the garden soil meant that archaeological horizons were not impacted by the drainage and service trenches, and the foundations in all the other areas were also too shallow to impact on archaeological levels. Excavation was required in three areas, the foundations for a cranebase (C), a trench for a petrol interceptor tank (P), and a soakaway adjacent to this (S).

The cranebase (Area C) was the largest trench at approximately 21 sq m; however only limited excavation was possible here as the top of the archaeology was at a similar height to the level required. Areas P and S allowed for more excavation, although these trenches were



Fig. 2 Staple Gardens, Winchester. Detailed location on Staple Gardens, with site subdivisions

much more restricted. The rear of the site (F and G) was considerably lower than the rest of the area, and as a consequence archaeological deposits here were located in the watching brief, at the level of the ground beams of the new buildings, so the archaeology was recorded in plan but again only limited excavation was required. Finds were retrieved where possible

from the surface of planned but unexcavated features.

The archaeological deposits include pits, postholes, dumped layers, floor surfaces and garden soils. All features were excavated by hand as fully as possible within the confines of the trenches to the levels required, and recorded using a single-context recording system.

The truncated remains of a late Saxon building with a long sequence of floor and occupation layers was recorded in Areas P and S. The keyhole nature of the trenches makes a realistic plan of the building very difficult to reconstruct, and the high degree of truncation by later pits also limits interpretation.

A probable late Saxon building was also recorded on the western side of Areas F/G. Fragmentary remains of surfaces also survived on the northern edge of Area F, where the area was very disturbed by intensive pit digging. A possible road surface composed of large flint cobbles was also found here, dating from the 11th–12th century. Metalworking evidence was found in all areas on the site, including two crucibles, and metal off-cuts. Early medieval activity (12th–13th centuries) took the form of pit digging, and the site then became a garden until probably the 19th century.

Bulk soil samples for environmental evidence were taken from 26 contexts across the site, mostly floor layers, but even allowing that most of the contexts sampled were of small volume, recovery of charred plant material was disappointing; only 14 samples contained any evidence (discussed below).

PHASE SUMMARY

Despite the fragmentation of the site, phasing can be applied uniformly to the whole as follows:

- Phase 1: Roman
- Phase 2: Late 10th to 11th century
- Phase 3: Late 11th to 12th century
- Phase 4: Late 12th to 13th century
- Phase 5: 18th century and later

Natural geology

The natural chalk with flints was observed only during piling operations, being reached at elevations of between 44m (east) and 46m (west) above Ordnance Datum; it was not reached in any of the trenches.

Phase 1: Roman

Confined to the southern end of Area S was a firm orange clayey silt layer 554, 1.40m long and 1.05m wide, with frequent flint gravel and pebbles. It may have been a levelling layer, possibly a surface, and was at least 0.25m thick, continuing below the required depth of investigation. No finds were recovered from this layer but truncating it was pit 237, whose three fills (499, 550, 553) contained Roman pottery allowing a late Roman date, a small amount of animal bone and fragments of copper alloy, including a tiny fragment of bracelet.

Layer 172 in Area C, with 13 sherds of late Roman pottery recovered, is also reliably attributed a Roman date. This was a dark brown-black compacted layer surviving to a width of 1.50m and length of 2.20m. Layer 194, a firm, mid-orange silty clay, underlay surfaces (151, 179) of late 10th–11th century date on the north-eastern side of the trench, and is only tentatively given a Roman date as just one sherd of Roman pottery was recovered from it.

Phase 2: Late 10th–11th century (Fig. 3)

Area C

This phase represents the majority of the archaeological features recorded from Area C. Archaeological features were observed at 48.85m above OD, below nearly 2m of garden soils. Some 33 intercutting pits and postholes were recorded, the majority in plan only. It was possible to excavate in the north-eastern side of the trench, which was less disturbed by the intercutting pits, and comprised a series of silty clay surfaces (151, 179). These surfaces were sampled and the sample from 151 contained industrial residues and hearth waste. Layer 179 produced numerous fragments of copper alloy which may represent offcuts from metalworking.

On the north-western edge of the trench a series of orange gravel surfaces (160, 162, 183) suggests that prior to the pit digging, a yard or building existed in this area. Pottery from this phase is only broadly dated to the late 9th

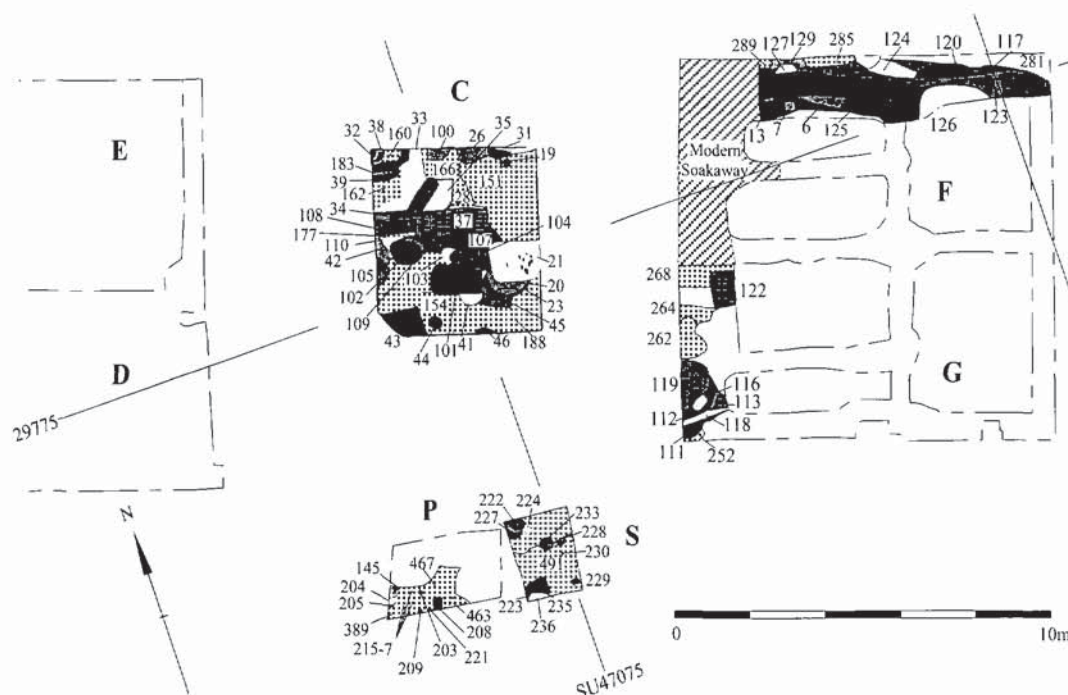


Fig. 3 Staple Gardens, Winchester. Phase 2, late 10th–11th century (shading indicates extent of feature)

century or later; comparison with the rest of the site would imply it may begin in the 10th century.

Areas F and G

The archaeology in this area was viewed at the base of the groundbeam trenches for the walls of the new buildings. Very little excavation was possible in most of this area as the required depth for the new foundations was generally at a similar level to the top of the archaeology. However, the north side of the area required slightly deeper foundations, and as a consequence some limited excavation was possible. The majority of the archaeology in this area again dated from the late 10th–11th century, and intensive activity seems to have taken place during this period. The western and northern edges of the area produced quite a long sequence of stratification and indicates the presence of a building. The sequences in different parts of the area cannot be matched

in precise details, but do correlate well in general terms.

Along the western side, the earliest layer 252 may be a floor surface, but it was highly truncated by a sequence of six intercutting pits (111–13, 116, 118, 119), of which only pit 119 produced pottery, dating from the late 10th century or later. Immediately above these pits was a series of floor layers and occupation horizons composed of silty clay and chalk (254, 262, 264, 268, 273, 274, 276) some of which produced late 10th- to 11th-century pottery and animal bone. A possible beam slot or pit (122) was also recorded in this area.

The archaeology at the north end of this area was difficult to interpret due to the narrowness of the trench, but again consisted of intensive activity: surfaces and postholes and a period of pit digging. The earliest activity was a series of layers that may be floors or surfaces (280, 285, 286, 289, 290). The lowest of these, 286, produced pottery that can only be broadly

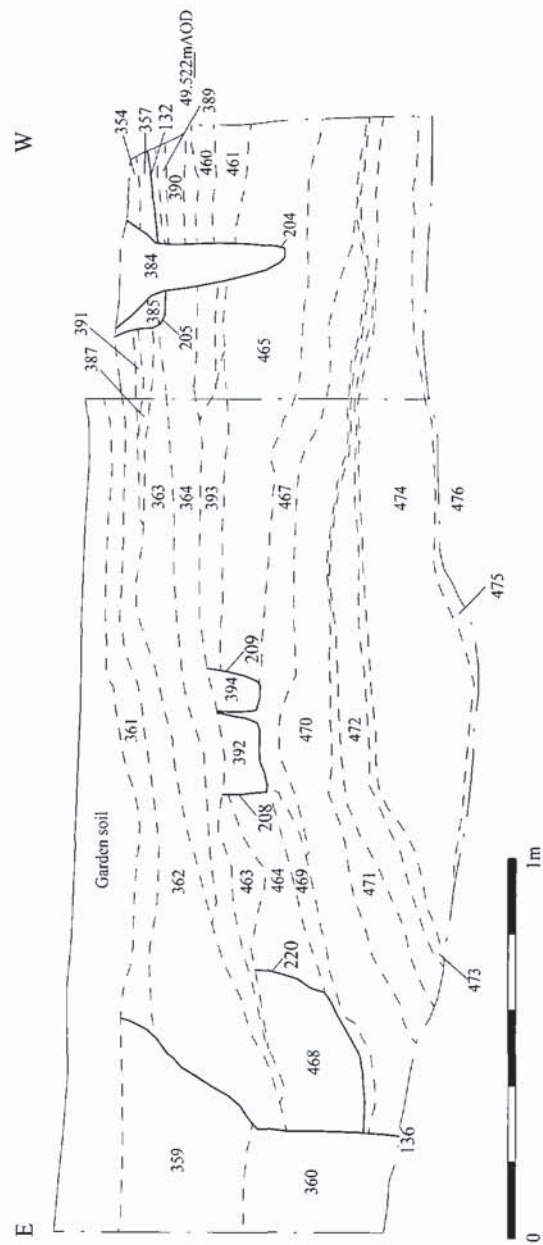


Fig. 4 Siaple Gardens, Winchester. Section through Area P

dated (late 9th century or later), with the other layers all dating from the 10th century or later. These surfaces probably correlate with the lowest layers at the west end, and were cut by a dense sequence of pits, some of which were very large and possibly rectangular in plan. A lot of animal bone was recovered from these pits (117, 120, 123-7, 129) and varying amounts of pottery from the 10th and 11th centuries. A make-up or dump layer (251) overlay the pits and produced 62 sherds of mainly late 10th- to 11th-century pottery with a single later sherd which may be derived from the layers above. This could relate to the same episode of use as the occupations horizons (254-76) to the west.

Five other pits or postholes (5, 6, 7, 13, 14) from this period were sealed by layers 59 and 81 which might correspond to dump layer 251.

Area P

This Area and phase produced some of the most significant archaeology from the site including evidence of an early building. The earliest activity excavated was a series of floor layers and occupation surfaces (467, 470-6), sloping down to the east (Fig. 4). They were severely truncated by a series of later pits, and survived in the south-western area of the trench to a length of 1.20m and a width of 0.90m. All the floor and occupation layers were sampled and produced evidence of domestic refuse and metalworking. Those interpreted as floors were composed generally of a clayey silt, and varied in colour: pale to dark orange, pale pink and grey-green. Some metal finds were retrieved from these layers, and fish, bird and wild mammal bones were also recovered. Immediately above these floor and occupation layers was a sequence of five further layers and surfaces (393, 463-5, 469) interspersed with two shallow pits. A brown-orange sandy gravel layer (463), 0.10m thick, was truncated by beam slot 218 and posthole 208. A series of five other shallow postholes truncated chalk floor 393, and the floor seems to have been repaired, as layers 460 and 461 in the western side of the trench. Posthole 145 truncated these repairs. The postholes were all fairly small and shallow and must represent internal features within the

building rather than postholes for large structural timbers.

Another occupation horizon (364), a clayey silt with charcoal bands, containing 26 sherds of late 10th- to 11th-century pottery, sealed the postholes; it also contained a piece of folded copper alloy sheet (for repairing a vessel). This layer was truncated by two pits, and overlain by a further six alternating chalk floor layers and occupation horizons (362, 363, 387, 389-91). Of these, occupation layer 389 produced just two sherds of pottery, and surface 363 three sherds of this phase. Three postholes truncated chalk floor 362. The long sequence of layers and postholes suggests that this building, which extended across to Area S, had a long existence, with repeated repairs and internal structural changes. It is very difficult to divine the layout of the building as so little survives.

Area S

In Area S, as in Area P, this phase produced the majority of the archaeological features, although there is no later archaeology present in this Area, as post-medieval garden soil lay directly above the 11th-century features. Roman layer 554 was cut by two pits (235-6) and posthole 234. Thirteen sherds of late 10th-11th century pottery were recovered from the latter.

Layer 497, orangey grey-brown sandy silt up to 0.25m thick, above these features, may be a make-up layer for floor 491 immediately above it. This floor was composed of a mid-orange-yellow silty clay which slumped towards the south-east and the north, possibly due to underlying pits. This surface was truncated by four postholes (228, 229, 230, 233). Postholes 228 and 229 were square and flat bottomed with a shallow depth of 0.06-0.08m. Posthole 233 was very different: circular at the top and tapering down to a square cut, with vertical sides and a horizontal base. It was very deep at 0.80m, and 0.30m wide at the top and 0.18m at the base. The fill contained four sherds of Roman pottery, but the posthole cut would have disturbed underlying Roman features. This posthole would have held a substantial structural timber, but as this was the only feature of

this type within the trench, it is difficult to say anything very conclusive about the building's construction. Presumably this is a continuation of the building in Area P, making it at least 7m long. However, the chalk floors of Area P were not seen in Area S, where the floors were mainly compacted yellowish clay. No detailed correlation can be made across these two areas, despite their close proximity.

Stratigraphically above the postholes was pit 231, which seems to be in an area of slumping caused by earlier pits. Layer 482 above this contained many burnt daub fragments and charcoal, and domestic debris. Several parts of a single iron key, four nails and some corroded iron lumps, 77 pieces of animal bone and 58 sherds of pottery were recovered. This may be a destruction layer.

A sequence of four small pits and postholes (224, 225, 227, 232) truncated this layer, and were in turn sealed by four layers of dumped material (479, 481, 483, 484). These layers all contained pottery, animal bone, and metal finds. Two postholes 222 and 226 cut 481, the latest of these layers, and may be further internal components of a building. Dump layer 477 sealed posthole 222, and contained fifteen sherds of pottery and crucible fragments. The final feature was a small posthole 223 which contained one sherd of late 10th–11th century pottery.

The pottery from Area S suggests this phase did not extend into the 12th century.

Phase 3: Late 11th–12th century (Fig. 5)

Very few features belong to this phase. In Area C, just three pits (22, 24, 27) have been phased to the late 11th–12th centuries. At the north-eastern corner the trench clipped the edge of a feature (29) which contained limestone rubble and mortar. This may be a robber cut for a wall, but so little was visible in the trench it is almost impossible to characterize. Stratigraphically it seems likely that it could be from this phase, but no dateable material was recovered.

The early building in Area P may have continued in use into the 12th century, as one sherd of late 11th- to 12th-century pottery was

recovered from one posthole, 202. This was sealed by clayey-silt layer 361. This final surface in the sequence of layers was truncated by a deep pit 214 which could not be bottomed. This pit contained seven fills, from which over 80 sherds of pottery dating to the 12th century were recovered, along with six nails and a large quantity of animal bone (including a high proportion of bird and fish bones). This pit seems to mark the end of use of this area for buildings.

Phase 4: Late 12th–13th century (Fig. 6)

Area C

In this area, only two pits (25, 36), a possible chalk wall (90) and a layer (91) belong to this phase. Forty-one sherds of pottery were recovered from this 0.46m deep layer, which seems to be a build up of material, containing domestic debris, including 44 pieces of animal bone. Chalk wall 90 overlay this layer, aligned east-west and was very fragmentary with only the lowest foundation course surviving. It was approximately 1.2m wide and 1.4m long, and survived to a depth of 0.46m. No foundation cut was visible. Immediately above these features were the mixed garden soils, indicating a very long period of use as a garden, from the 13th century to the 19th.

Areas D and E

Two pits (130, 131) cut into the lower garden soil deposits on the site produced pottery from the late 12th–13th century. It seems that occasional pit digging took place when the area was generally used as gardens.

Areas F and G

Again, the western and northern sides of these areas provide comparable, but not easily correlated, sequences. In Area G, probable beam slot (114) and a possible foundation cut (115) for a wall truncated floor layers 268 and 264, and seven sherds of late 12th- to 13th-century pottery were recovered from beam slot 114. Two further floor surfaces (259, 261) lay above the beam slot and must represent the continued use of the building. Silty clay layers 61, 74 and 75

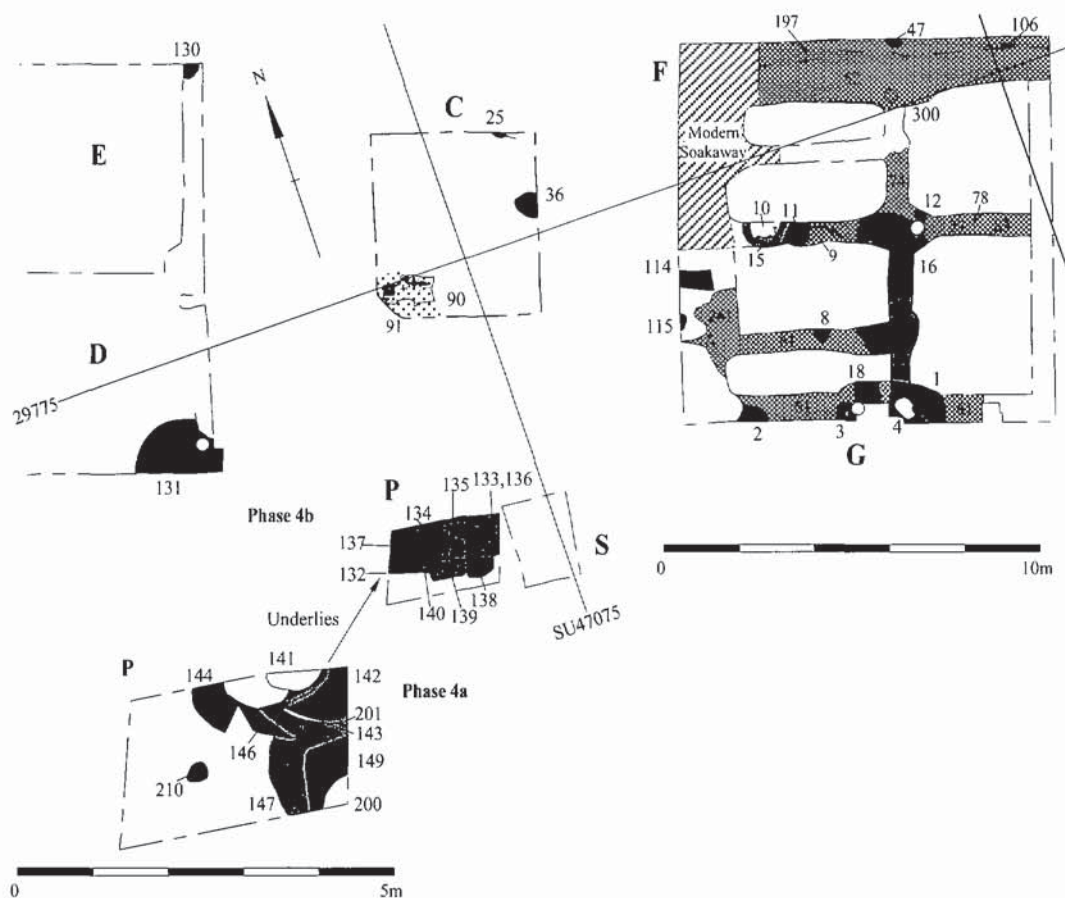


Fig. 5 Staple Gardens, Winchester. Phase 3: late 11th–12th century

also represent surfaces dating from this period, contemporary with 264/268 or 259/261. Truncating layers 61, 74 and 75 was another series of around a dozen pits and postholes, recorded in plan only at various intervals along the trenches. Layer 69 overlying layer 61, produced 10 sherds of late 11th- to 12th-century pottery.

This phase in Area F seems to have seen only limited activity. Layer 53 produced 78 sherds of pottery, and was truncated by a pit or beam slot 300, that produced 33 sherds of pottery. Immediately above this was a flint cobble surface 52 = 197 that may be a yard or road surface. Context 52 produced 49 sherds of late 11th- to 12th-century pottery, however 20 sherds of late 12th- to 13th-century pottery were retrieved from

context 197. This surface seems to have been over 1m wide and was 0.36m deep, along the length of the trench, approximately 6m on an alignment perpendicular to the street frontage. As pottery of two different periods was excavated from it, it was possibly repaired and may have had an extended period of use. Made ground 51 with pottery dating to the late 12th-13th century post-dated context 52, and a sequence of four pits (47, 49, 106, 121) truncated surface 197 with pits 47 and 49 producing pottery of late 12th- to 13th-century date.

On the eastern side of this were several dumped layers (55-7, 77, 78, 83) of which layers 56, 57 and 77 produced a few sherds of late 12th- to 13th-century pottery. Layer 83

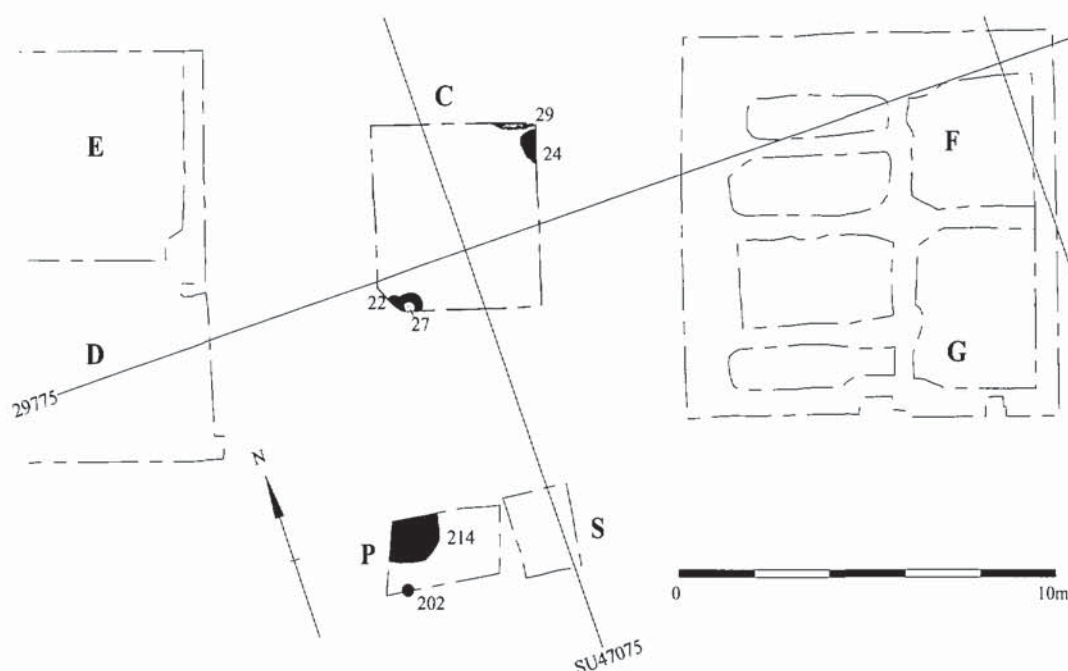


Fig. 6 Staple Gardens, Winchester. Phase 4: late 12th–13th century (shading indicates extent of feature)

(lowest of these) contained an intact ceramic crucible, and eight sherds from a mid 13th-century slip-decorated jug. All of these layers (above 83) may have been mixed and dumped at a later stage, and finds from here may not be chronologically reliable.

Area P Phase 4a

This phase is composed entirely of pits in this area, 11 in total (141–4, 146–9, 200, 201, 210), which contained a great deal of what is probably residual late 10th- to early 12th-century pottery. The earliest pit in this sequence (201) contained 15 sherds of late 12th- to 13th-century pottery, so it is likely that the earlier pottery recovered from overlying deposits was all disturbed from underlying contexts during the original pit digging. All the pits produced animal bone and metal finds; these finds too, could all be residual and redeposited. This sub-phase has been separated from 4b on the basis that the finds in 4b are less likely to include residual

material; in essence there is no difference in activity between these sub-phases.

Area P Phase 4b

The intensive period of pit digging continued into this period, producing another long sequence of intercutting pits. These removed nearly all traces of the earlier (late 10th–11th century) building on the north and eastern side of the trench. Nine pits (132–40) all contained large quantities of 13th century pottery and animal bone, some with tiny fragments of oyster shell; pit 135 also contained a 12th- to 13th-century type horse shoe and 139, part of an iron key. Mixed garden soils overlay all of these features.

Phase 5: 18th century

One pit (48) containing 18th-century pottery truncated a Phase 4 pit (121) in Areas F/G. The upper layers of garden soil in Areas D/E

(291, 296) contained pottery dating to the 18th century. Immediately above this, below the level of the modern street frontage, a gravel wall footing and the foundation level of a wall (351) was composed of re-used limestone ashlar blocks interspersed with rough red bricks. One of the blocks had a small square 'keyhole' cut into its face, possibly a former door jamb from an earlier building. There were roughly four courses of ashlar blocks, and on the northern side ten courses of red bricks laid in the pattern of one header and two stretchers. This must be the remnants of a demolished building, with the foundations built of re-used medieval or even Roman building material.

The foundations of the standing building on the street frontage were also recorded, and re-used ashlar blocks were again incorporated into the foundations here. A single course of blocks bonded with a pale yellow sandy mortar was used on the north-facing wall, aligned east-west. These foundations are likely to date from the late 18th to 19th centuries, and the re-use of earlier building material is interesting.

FINDS

Pottery by Alan Vince and Kate Steane

The excavations produced 1883 sherds of pottery, representing no more than 1711 different vessels and weighing in total 19.839Kg. The pottery ranges in date from the Roman period to the 19th century and within this range includes a group of late Roman pottery, most of which is residual, and a collection of 11th- to 13th-century date. The latter is mostly well-stratified and several phases of deposition can be recognized. From these it is possible to reconstruct the pottery supply to the site from the pre-conquest 11th century through to the middle of the 13th century. Later pottery comes mainly from garden soils: no material dating between the late 13th and the 15th centuries was recognized.

The pottery suggests that there was activity on the site in the Roman and in the early to mid Anglo-Saxon periods but the excavated occu-

pation sequence really starts in the late 10th or early 11th centuries. Most of the excavated strata, however, are probably of post-conquest date and show no sign of a break in activity from the later 11th to the early 13th century. At this point, occupation on the site ceases, with just a few deposits producing South Hampshire Whitewares and Laverstock ware.

Detailed study of the pottery indicates that much of it probably came from very local sources and the similarity in both thin section and chemical analysis of the majority of the sampled sherds suggests that only a handful of medieval sherds from the site were not made within a few miles of Winchester. These regional imports include Laverstock ware and glauconitic and silty micaceous redwares which require further study. This preliminary work certainly indicates that Winchester area pottery is identifiable and that it should be possible, for example, to compare local pottery supply to Winchester with that found in collections from Alton and Southampton. Details (including the petrological and chemical analyses, and methodology) can be found in the archive and at <http://www.avac.uklinux.net/potcat>.

Wares and fabrics

Roman

The majority of the 246 Romano-British sherds were residual in post-Roman deposits but a small quantity appears to be stratified in Roman levels. The average sherd weight is 8.9g.

The most common ware present is greyware, which probably includes a large proportion of Alice Holt greyware (118 sherds). This was followed by grog-tempered ware (46 sherds), and New Forest colour-coated wares (40 sherds, including overfired sherds). Oxfordshire Colour-coated wares were next most common (17 sherds), other wares present being limited to a handful of sherds of any one type. They include Portchester D ware (6 sherds), Dorset Black Burnished ware (5), South Gaulish samian (5), Miscellaneous oxidized wares (3), New Forest coarse whiteware (3), a sherd from a Gauloise *amphora*, a northern Gaulish *mortarium*, a sherd of Harrold-type shell-

tempered ware and a sherd of New Forest parchment ware.

Most of the sherds could be assigned to a form group. The majority came from jars, some of which had been used for boiling water and had sooted exteriors and kettle furred interiors. Beakers were the next most common form, 26 sherds in total, of which 3 came from folded forms. Bowls were the next most common form (23 sherds, of which 5 come from flanged vessels), followed by *mortaria* (8 sherds), dishes (5 sherds), jugs (2 sherds), an *amphora*, and three samian cup and bowl forms (including Fig. 8: 16).

Early to middle Anglo-Saxon

A small number of sherds of chaff-tempered ware (ECHAF) was present on the site (five sherds weighing 14g). All the sherds were extremely abraded and coated with off-white concretions. No example was large enough or well-enough preserved for fabric analysis. Nevertheless, it is clear that these sherds are not simply small fragments of the chaff-tempered bronze-casting moulds, which were also found in some quantities on the site (Salter, below). Chaff-tempering is a widespread tradition in the early to mid Anglo-Saxon period in south central England. However, it is not found in the 5th-century assemblage from the Lower Brook Street excavations (K Barclay *pers. comm.*) and had fallen out of use early in the life of the *wic* at Hamwic, perhaps early in the 8th century (Timby 1988). These sherds therefore probably date between the later 5th and the early 8th centuries.

Late Saxon

Three wares dating between the later 9th and the mid 11th centuries were present on the site.

Gravel-tempered ware. The most frequent late Saxon type consists of gravel-tempered ware jars with bag-shaped bodies, everted rims and a thickened neck. Samples of these vessels were examined in thin section and through chemical analysis but it was not possible to find any distinction in fabric between them

and the later, squat, sagging based jars. Thus, only a minimum figure for the presence of these vessels is possible, based on the identification of rim or neck sherds. The vessels have a distinct basal angle with thicker walls than the later vessels and a more pronounced sag to the base and therefore it is possible to identify the later vessels from their rims, necks and bases. However, small featureless sherds of gravel-tempered ware could come from vessels of either tradition.

Eight vessels had rims with measurable diameters and these range from 100 to 250mm (including Fig. 7: 12, 15; Fig. 8: 33; Fig. 9: 58, 64, 67). Most show signs of sooting, including on the inside of the rims, indicating that the vessels were used without lids.

Late Saxon Wheelthrown. Forty-one sherds of late Saxon Wheelthrown ware vessels (Biddle & Collis 1978) were identified. They came from no more than 36 vessels and weighed in total 391g. Six samples were examined in thin section and by chemical analysis and compared with six samples from Michelmersh. This study indicated that the two groups were clearly distinguishable and that it is unlikely that the Winchester vessels were made at Michelmersh. In contrast, it was not possible to distinguish the fabric of these vessels from that of the South Hampshire Redware jars. Therefore, featureless body sherds with no clear sign of throwing might well have been missed. However, this type is quite distinctive in form, the walls tend to be thicker than Roman greywares and later, handmade jars and have a corrugated interior as a result of the throwing. It is probably only sagging base sherds which could have been missed.

Five rim sherds were found, all from vessels with rounded, everted rims (Fig. 8: 34, 43, Fig. 9: 70). Four of these had measurable diameters, ranging from 100 to 140mm. Similarly, five base sherds were found, all from sagging bases, with diameters ranging from 100 to 150mm. One body sherd had external rilling whilst the remainder were smooth.

Biddle and Collis (1978) demonstrated that this type was of pre-conquest date but had to leave the precise date range fairly wide, later

9th to mid 11th centuries. Little subsequent work has changed this view, although it is now thought that most wheelthrown wares present in late Saxon Wessex have a later inception than those found in the Danelaw and that a late 10th to mid 11th-century date range is more likely. Archaeomagnetic dating of a kiln producing typologically similar pottery at Michelmersh to the late 10th century is consistent with this view (L. Mephram *pers. comm.*).

Winchester Ware. Nineteen sherds of Winchester Ware (Biddle & Barclay 1974) were present, representing no more than 17 vessels (probably considerably less) and weighing in total 159g. All have a glossy olive green external glaze (probably a lead glaze coloured by slight iron contamination and a reduced firing) with a few instances of iron-rich inclusions bleeding into the glaze. These indicate that the vessels were fired inverted.

The sherds all come from pitchers with a sagging base and wide, everted rim but cannot be assigned with certainty to either of Biddle and Barclay's (1974) pitcher types. Decoration consists of horizontal and wavy combed lines, sometimes combined with applied curvilinear strips (Fig. 8: 38) and individually-applied stamps (Fig. 8: 46).

Five samples were taken for thin section and chemical analysis. At least one of these is unlike other southern English whitewares but similar in chemical composition to early glazed wares from Rouen, which date to the 10th and 11th centuries. This suggests that some or all of these vessels may not be Winchester Ware (and none have the distinctive line-bounded applied and stamped strips of the classic examples). Nevertheless, they are probably similar in date, being likely to be of later 10th and 11th-century date and preceding the use of Wiltshire and locally-made glazed wares.

Medieval

The majority of the pottery recovered from the site dates to the later 11th to mid 13th centuries.

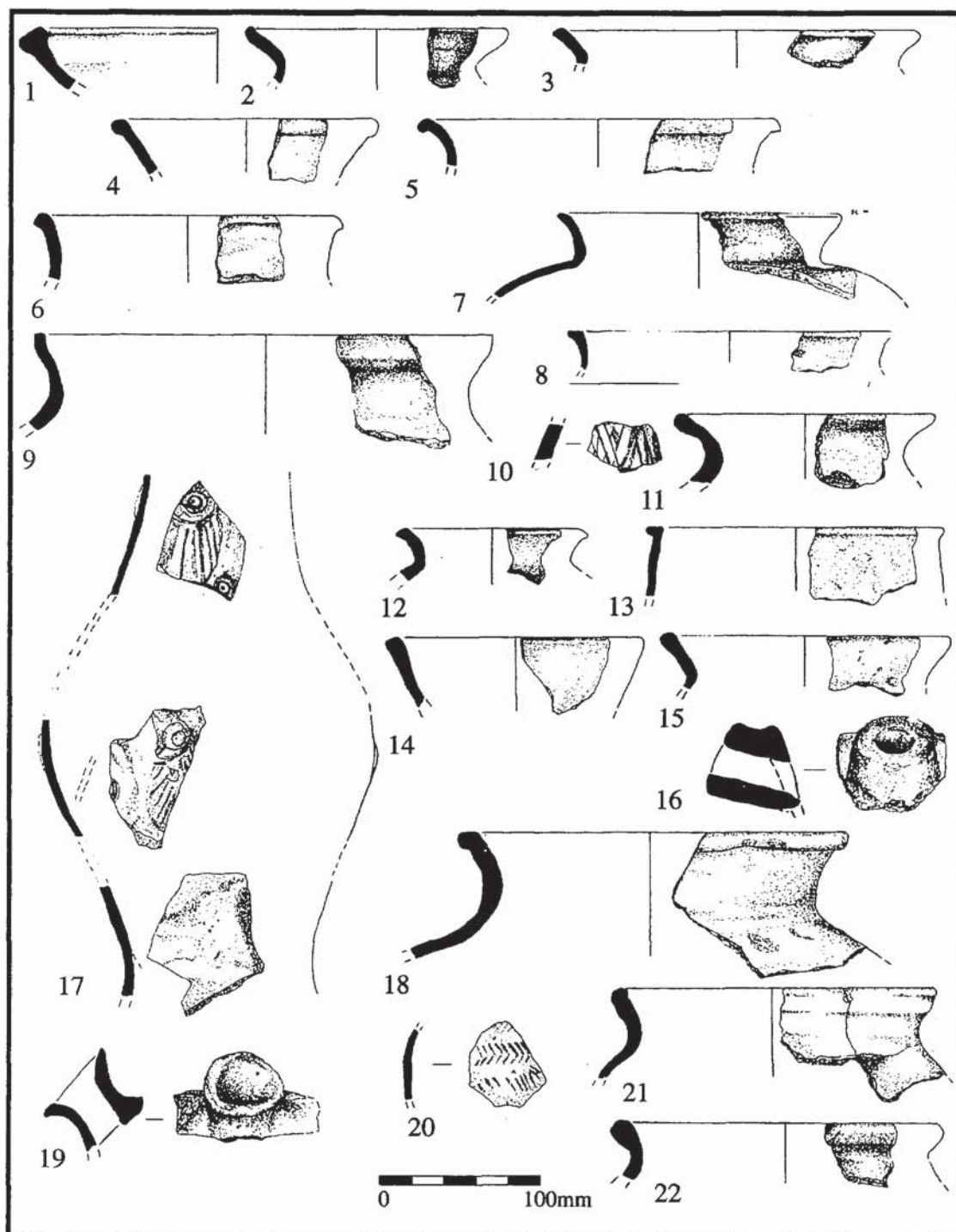
Gravel-tempered ware. Gravel-tempered ware jars form the main vessel type in use in the

earlier part of the period, being progressively replaced by South Hampshire Redware examples. Most have the same black core, oxidized margins and usually a deliberately blackened surface as the late Saxon vessels, although a few have a grey core and oxidized margins and surfaces which suggest a longer and more controlled firing, perhaps in a kiln as opposed to a bonfire or clamp. A sample of gravel-tempered ware vessels was examined in thin section and by chemical analysis and two of the five samples were found to be probably Northern Hampshire or Kennet valley products (Newbury A), leaving three examples of the local gravel-tempered ware. No difference could be found between these vessels and those of the late Saxon period, suggesting that the same centre was producing vessels of both traditions.

The majority of the sherds come from squat jars with sagging bases and everted rims. Most of the rims are simple, rounded everted examples (including Fig. 7: 2, 14, 22; Fig. 8: 35, 44, 48, 50; Fig. 9: 61, 65). A few of these are thumbled (Fig. 8: 23, 40, 73). A smaller number have external beading or thickening (Fig. 7: 4, 6; Fig. 8: 27, 31, 32, Fig. 9: 53, 62). Several vessels have an everted rim with a flattened top (Fig. 7: 8; Fig. 8: 24; Fig. 9: 66). These jars have slightly sagging bases with a sharp basal angle. Most have traces of sooting.

Other forms are present but uncommon. They consist of four sherds from spouted bowls (including Fig. 7: 1, 19; Fig. 9: 55) and two from spouted pitchers (including Fig. 7: 29). In addition, a number of body sherds (24 in total) come from one or more extremely large, thick-walled vessels. One (Fig. 9: 75) is possibly the rim from one of these vessels, which are likely to be either storage jars or large spouted pitchers.

These medieval-style vessels are known to occur before the conquest (for example, a spouted bowl from Wedmore in Somerset contained a coin hoard of Edward the Confessor) but seem to have been introduced in the early to middle 11th century. This is certainly the pattern found in the City of London, where the transition from 'late



Saxon' to early medieval forms was underway by 1039/40 and complete by *c.* 1055 (based on the dendrochronological dating of the Thames waterfront at Billingsgate Lorry Park: Vince & Jenner 1991). The end date for the industry is uncertain. In some parts of the country such handmade coarsewares, especially those which might have been bonfire-fired, seem to have ceased production by the middle of the 12th century, whilst in others they continued to be made into the 13th century (as in the Vale of Gloucester, at Haresfield) whilst in the Kennet Valley they continued to be made well into the 14th, if not the 15th, century. The spouted pitcher and spouted bowl forms, however, are likely to be of later 11th- to mid 12th-century date, since this seems to be their period of currency throughout southern England.

South Hampshire Redware. The second most common ware found in the medieval period on the site is South Hampshire Redware. This is a fine sandy fabric, although occasional calcareous inclusions and flint fragments occur and typically has muscovite flakes visible at $\times 20$ magnification. A sample of eight sherds (from four unglazed jars, three glazed jugs and a glazed dripping dish) was thin sectioned and analysed chemically. No distinction could be found between the glazed and unglazed vessels, nor between the South Hampshire Redwares and the late Saxon Wheelthrown ware and it is concluded that a single source supplied the city with redware in the medieval period and that probably the same source supplied the city in the late Saxon period.

Typically, the vessels have a grey core and either grey or light brown oxidized surfaces. The jugs and dripping dish have a plain splashed lead glaze covering the exterior with

splashes on the interior and on the inside of jug rims.

Four hundred and fifty-one sherds of jars were recorded, coming from no more than 390 vessels and weighing in total 3955g. The jars have a globular body, sagging base and everted rim (including Fig. 7: 3, 5, 21; Fig. 8: 42, 51; Fig. 9: 60, 69). The rim itself is usually rounded, and sometimes thickened on both sides. In rare cases the rim is rolled out from the body without a sharp neck angle (Fig. 7: 9). The body of the vessel is sometimes, on later vessels, scratch-marked but in the main is smooth.

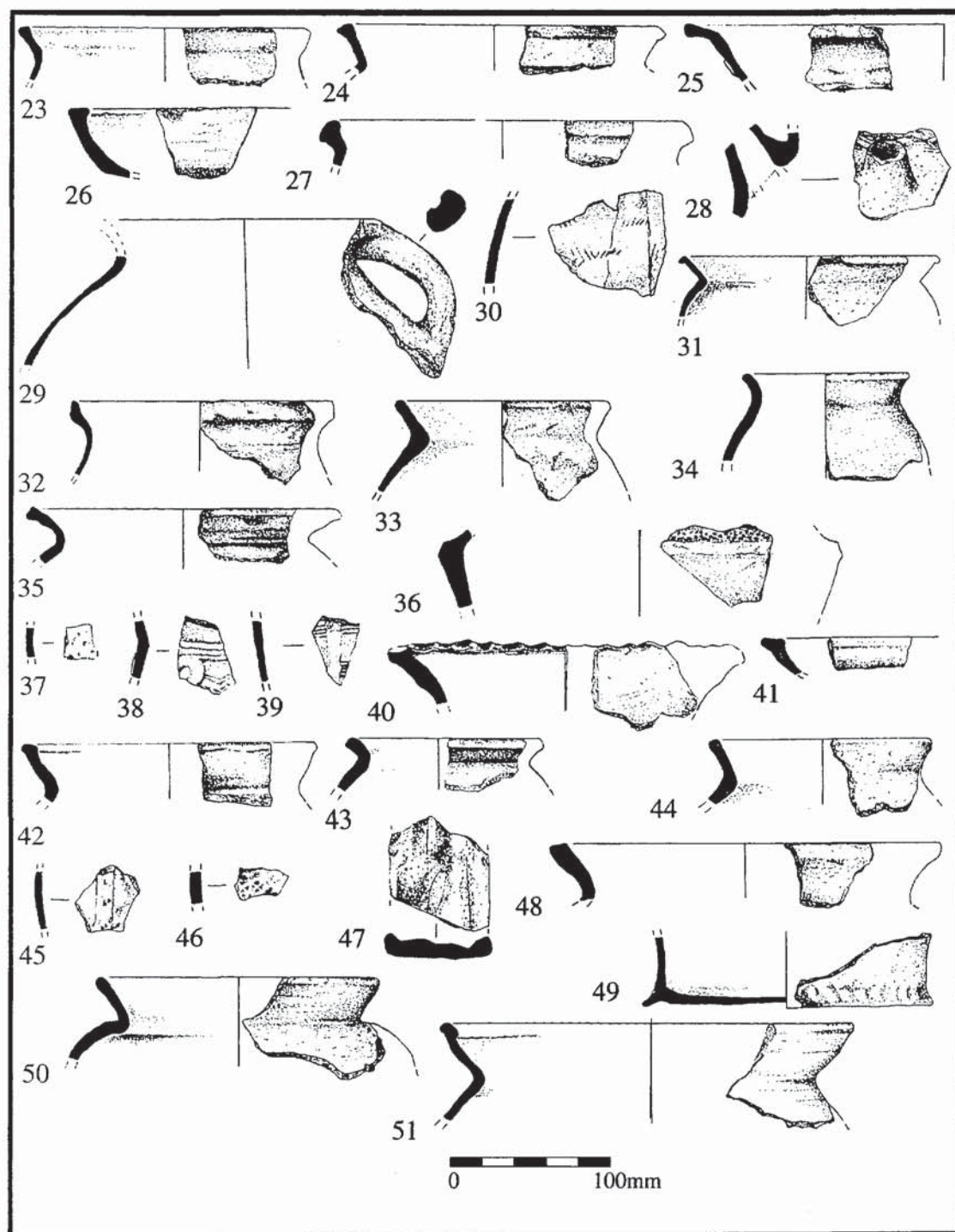
Glazed jugs are the next most common form. Fifty sherds of these vessels were recorded, coming from no more than 44 vessels and weighing in total 503g. The vessels are probably all handmade but with the top half of the body finished on a turntable. Only one rim sherd was present, a flat-topped rim with a devolved collar (Fig. 9: 59). Several sherds come from decorated vessels, including several sherds, possibly from one vessel, with diagonal brown painted lines, about 10mm wide. The shoulder of this pot is corrugated in the manner of late 12th-century London-type ware vessels. A single sherd, decorated with a horizontal groove, comes from a wheelthrown jug.

These handmade, splash glazed jugs are reminiscent of those made in the London area, London-type ware, from the middle of the 12th century. By the end of the century the same forms were made entirely on the wheel (Pearce *et al.* 1985). Whether this chronology holds true for southern Hampshire is debatable, but these Winchester vessels are certainly in the main typologically less advanced than those found in Southampton in association with mid 13th-century imports.

Bowls or pancheons were also found. The pancheons have flaring, rounded rims and are

Fig. 7 (*opposite*) Staple Gardens, Winchester. Pottery (1)

Key: 1, Bowl, Newbury A, pit 214 (456); 2, Jar, Winc GT, layer 53; 3, Jar, SHR, layer 91; 4, Jar, Winc GT, floor 474; 5, Jar, SHR, pit 139 (367); 6, Jar, Winc GT, pit 123 (271); 7, Jar, Winc GT, pit 123 (271); 8, Jar, Winc GT, road 197; 9, Jar, SHR G, pit 136 (360); 10, Body sherd, Winc GT, pit 135 (358); 11, Jar, Winc GT, layer 471; 12, Jar, Winc GT, layer 471; 13, Jar, Winc GT, layer 53; 14, Jar, Winc GT, layer 53; 15, Jar, Winc GT, pit 148 (377); 16, Spouted bowl, Winc GT, unstratified; 17, Jug, Laverstock, layer 83; 18, Jar, SHR F, unstratified; 19, Spouted bowl, Newbury A, slot 300 (58); 20, Tripod pitcher, SEW, slot 300 (58); 21, Jar, SHR, layer 53; 22, Jar, Winc GT, layer 251



large diameter vessels (Fig. 9: 78). One sherd might be a residual late Roman 'dog dish' but is identical in fabric to the South Hampshire Redware (Fig. 9: 76) and one sherd comes from a vessel of lamp or crucible form but which has certainly been used for cooking food, since it is sooted on the exterior (Fig. 9: 77).

Two sherds of dripping dishes were found. These are shallow, slab-built vessels with internal glaze (Fig. 8: 26, 41). The sherds are not large enough to establish the shape in plan, but they are likely to be from oval vessels. Dripping dishes, used to catch the fat from a spit roast, first appear in English assemblages in the early 13th century.

South Hampshire Whiteware. Thirty-two sherds of South Hampshire Whiteware were all from glazed vessels. The fabric of the majority of the sherds is not white but a light brown or pink and they contain a fine sand similar to that of the South Hampshire Redware. Samples of four vessels were selected for thin section and chemical analysis and these studies suggest that the South Hampshire Whiteware fabric is probably made from a Tertiary white-firing clay of which the pipeclay facies of the Reading Beds outcrops to the south of Winchester, between Otterbourne and Hursley (Hodson 1964).

In contrast to the redware, no definite examples of jars or other unglazed forms were found and all the vessels appear to have been thrown on the wheel. The glaze is applied either as splashes or as a glossy coating and in both cases the glaze is mainly coloured with copper.

No rim sherds were found but there are two

bases, both of which have thumb decoration (Fig. 8: 49). Two handles were found. One is a very wide strap handle, with broad knife-cut slashes down the back and the other is an oval handle decorated with two vertical incised lines. Decoration consists of rectangular-toothed roller-stamping (not illustrated), and cross-hatched combing on the globular body of a jug with a cylindrical neck, separated from the body by a cordon (Fig. 8: 52).

The typological features on these sherds suggest at the earliest a late 12th-century date whilst some of the vessels are clearly of early 13th-century or later date.

South-East Wiltshire ware. Thirty-five sherds of South-East Wiltshire ware were recorded. They represent no more than 33 vessels and weigh 384g in total. The fabric had abundant subangular and rounded quartz sand, up to 1.0mm across, in an inclusionless, light-firing ground-mass. As a result of clay shrinkage, the quartz sand usually stands proud of the surface, giving a distinctive texture.

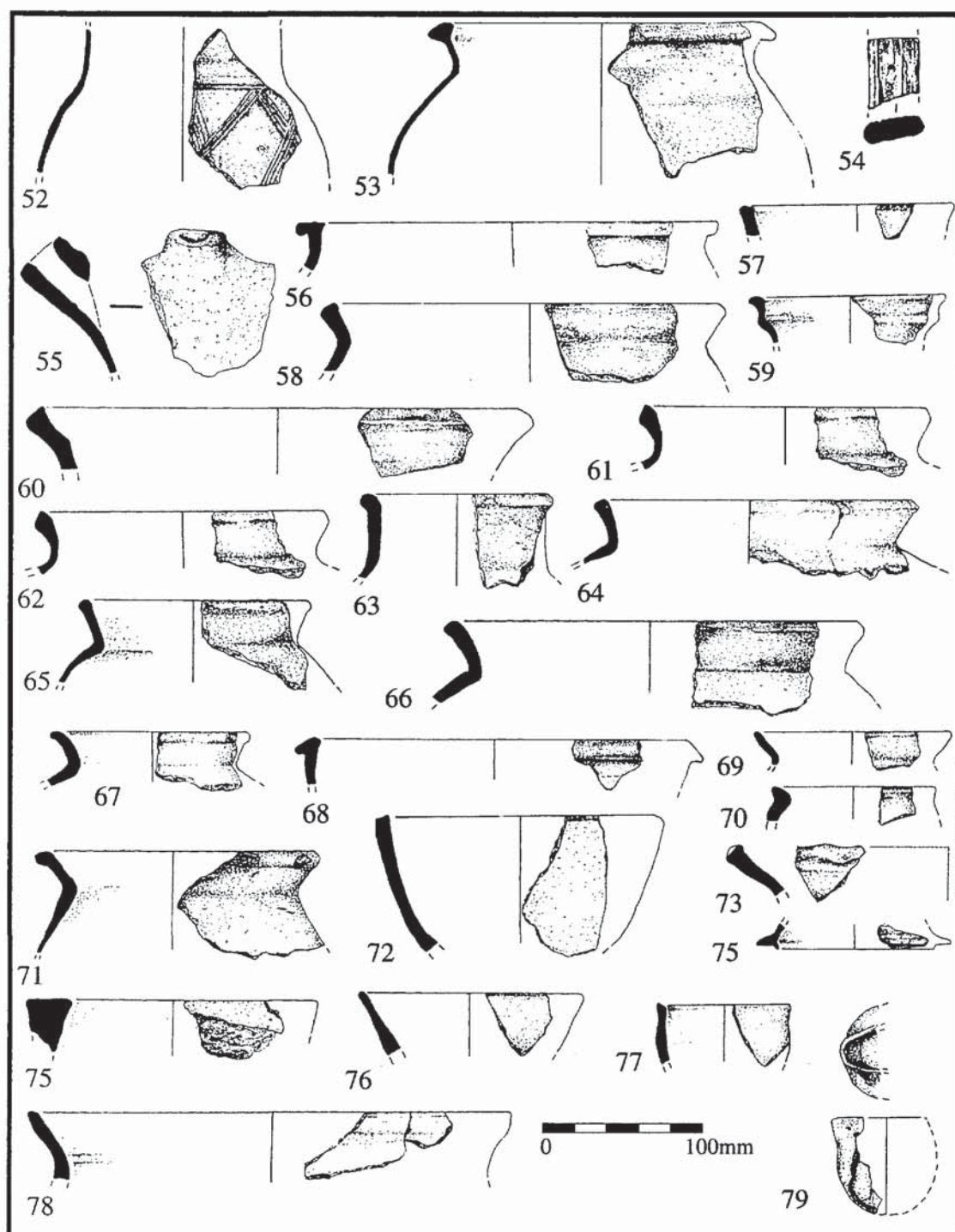
Two vessel forms were recognized, both of which were handmade. Fifteen sherds came from globular jars, five of which have sooted exteriors. These vessels have a thick everted rim and scratch-marked treatment on the body (noted on three sherds). The fabric is usually black as a result of incomplete burning of the organic matter present in the clay.

Twenty sherds come from glazed vessels, probably tripod pitchers. Four of the sherds were decorated, with combing, applied strips and roller stamping (Fig. 7: 20).

These vessels were made in the Salisbury area of south-east Wiltshire from the late 11th

Fig. 8 (*opposite*) Staple Gardens, Winchester. Pottery (2)

Key: 23, Jar, Winc GT, slot 300 (58); 24, Jar, Winc GT, slot 300 (58); 25, Jar, SHR M, unstratified; 26, Dripping dish, SHR M, layer 57; 29, Spouted pitcher, Winc GT, layer 57; 28, Jar, Winc GT, hearth 100 (167); 29, Spouted pitcher, Winc GT, layer 57; 30, Body sherd, SHR, layer 57; 31, Jar, Winc GT, layer 57; 32, Jar, Winc GT, layer 57; 33, Jar, Winc GT, pit 128 (284); 34, Jar, Winc LSWT, pit 120 (267); 35, Jar, Winc GT, layer 354 or pit 133 (355); 36, Jar?, Winc LSWT, unstratified; 37, Jar, Winc GT, garden soil 291; 38, Pitcher, Winc, pit 122 (270); 39, Jug?, SHWW, pit 133 (355); 40, Jar, Newbury A, floor 154; 41, Dripping dish, SHR, layer 560; 42, Jar, SHR M, garden soil 291; 43, Jar, Winc LSWT, pit 101 (171); 44, Jar, Winc GT, layer 283; 45, Jug, SHWW, unstratified; 46, Pitcher, Winc, hearth 98; 47, Jug, SHWW, garden soil 51; 48, Jar, Winc GT, pit 117 (265); 49, Jug, SHWW, unstratified; 50, Jar, Winc GT, unstratified; 51, Jar, SHR M, layer 354



century through to the early 13th century. Their presence in Winchester in the late 11th century is indicated by the discovery of a tripod pitcher at the Old Minster site dated earlier than the 1090s (Biddle & Quirk 1962) whilst in the west of England they seem to have been exported through Bristol and occur alongside other 12th-century glazed wares in the period immediately preceding the setting-up of more local glazed ware industries, in the later 12th century (Vince 1984).

Laverstock ware. Four sherds of Laverstock ware were recorded, representing only two vessels, both wheelthrown jugs. Two samples were taken for thin section and chemical analysis and these indicate that the fabric is distinguishable from the South Hampshire Whiteware by the relative paucity of iron-rich inclusions and by the chemical composition.

The three sherds from layer 83 (Area F) come from a baluster jug decorated with areas of applied fine red slip, self-coloured pellets and ring and dot stamps (in which the stamp is a circular impression with a freehand dot added afterwards). The original decorative scheme is lost but was probably figurative. The sherd from context 291 appears to come from a waisted jug decorated with triangular-sectioned fine red slip pellets.

It is likely that the Laverstock fineware production was stimulated by the presence of Clarendon Palace, which received a large amount of royal patronage in the 1240s to 1260s although similar developments were taking place throughout southern England at this time (for example, Kingston-type ware, produced at Kingston-upon-Thames, Pearce

and Vince 1988) and in the preceding 40 years in the London-type ware industry.

Newbury A ware. A few gravel-tempered sherds contain a high proportion of angular flint and a low proportion of calcareous algae fragments. In addition, the range of forms and rim forms present is different from that of the majority of gravel-tempered wares.

Samples of five vessels were taken for thin section and chemical analysis, which confirmed the differences in fabric between these sherds and the local gravel-tempered vessels but did suggest they were made from similar clay to the latter, and thus may have been manufactured locally.

Vessels recognized at Staple Gardens include jars, everted rimmed vessels with a triangular rim (Fig. 8: 40; Fig. 9: 53, 56, 68) and spouted bowls with inturned rims (Fig. 7: 1, 19).

It is likely that these vessels originated in northern Hampshire or the Kennet valley since similar vessels are found in quantity at Faccombe Netherton and Newbury. At Newbury, a distinction was drawn between Group A fabrics and Group B. Group A formed the majority of the vessels used in the later 11th to mid-12th centuries whereas Group B first appeared in the mid-12th century and rapidly replaced Group A. Most of the Staple Gardens sherds, however, were recovered from later 12th-century or later deposits and are either residual or perhaps from a different source from the northern Hampshire or Kennet valley examples.

Newbury C / Oxford AG ware. Twenty-six sherds of Newbury Group C vessels were recovered. They represent no more than 18 vessels and weigh 192g in total. This ware (also known as Oxford Fabric AG, Mellor 1994) was

Fig. 9 (*opposite*) Staple Gardens, Winchester. Pottery (3)

Key: 52, Jug, SHR F, pit 131 (298); 53, Jar, Newbury A, layer 354; 55, Spouted bowl, Winc GT, layer 354; 54, Jug, SHWW, layer 56; 56, Jar, Newbury A, layer 354; 57, Tripod pitcher, OXAG, layer 354; 58, Jar, Winc GT, layer 251; 59, Jug, SHR F, layer 354; 60, Jar, SHR, layer 354; 61, Jar, Winc GT, layer 53; 62, Jar, Winc GT, layer 53; 63, Jug, OXAG, layer 53; 64, Jar, Winc GT, layer 280; 65, Jar, Winc GT, layer 280; 66, Jar, Winc GT, layer 280; 67, Jar, Winc GT, posthole 208 (392); 68, Jar, Newbury A, layer 354; 69, Jar, SHR, surface 52; 70, Jar, Winc LSWT, pit 14 (80); 71, Jar, Winc GT, unstratified; 72, Jar/bowl, Winc GT, layer 354; 73, Jar, Winc GT, layer 288; 74, Lid, SHR Wt, layer 481; 75, Jar, Winc GT, pit 214 (453); 76, Bowl, SHR, pit 133 (355) or layer 354; 77, Bowl, SHR, pit 132 (357); 78, Bowl, SHR, pit 135 (358); 79, Crucible spout base, pit 120 (267)

produced at sites in eastern Berkshire (amongst them, Ashampstead; Mephram & Heaton 1994) from the later 12th century onwards. Excavations at Newbury indicate that the earliest glazed wares were decorated with roller stamping and applied strips whilst highly decorated vessels, with plastic decoration, occurred in the early to mid 13th centuries. A vessel of this ware from Alton was recently identified in thin section (Fabric 12/AL 20). Later in the 13th century, wheelthrown vessels, often with white external slip and decorated with combing or stamping, replaced the earlier types. At Staple Gardens, all the identified sherds were of the earliest type, dating to the later 12th or early 13th centuries. They include a tripod pitcher or jug rim with roller-stamped decoration around the rim (Fig. 9: 57) and sherds decorated with applied thumbbed strips. Again the analyses suggested these could have been manufactured from local clay.

Post-medieval and early modern

Just 23 sherds of later 16th century and later wares were recovered, from the upper garden soil. These are all typical products for the area and date and are not further discussed; details are in archive.

The stratigraphic sequence

No single stratigraphic sequence covered the entire site. Instead, seven separate sequences (defined on a combination of stratigraphic and ceramic grounds) were excavated and it is mainly through the analysis of the pottery finds that tentative correlations between these areas can be made. Table 1 provides a summary of the occurrence of stratified pottery by fabrics (sherd count) by area/phase.

Area C

The lowest levels excavated produced only Roman potsherds and are probably of Roman date (Phase C1). The sherds include Portchester D and grog-tempered wares and are probably of 4th-century date.

Above were layers and surfaces 188, 179, 250, 162 and 183, which produced sherds of late Saxon date (C2A). Subsequent activity in this

area consisting of pit digging, which has been divided into horizons C2B, C3, C4.

The pottery from Phase C2A consists of a small assemblage of gravel-tempered jar sherds with no datable typological features. It can only be broadly dated later than the later 9th century.

Phase C2B produced 92 sherds of pottery, of which 9 sherds are of fabrics which were probably introduced in the later 11th century and a further 5 sherds are of gravel-tempered jars of medieval style, probably also introduced in the 11th century, but possibly before the conquest. These sherds come from the following pits: 20, 21, 26, 37, 40, 100 and 107, hearth 98, and layer 154. In some cases it is suggested that these late sherds are intrusive, for example pit 20 and hearth 98 whilst the remainder might actually date the phase to the later 11th century. In the case of a number of sherds of South Hampshire Redware jars there is also the possibility that the sherds include parts of late Saxon wheelthrown vessels not showing evidence for wheelthrowing but even there, two sherds have scratch marked decoration, which is most likely to post-date the conquest.

Phase C3 produced 21 sherds of medieval pottery from three pits (22, 24 and 36). All three of these assemblages contain sherds which are of post-conquest date, and in the case of Pit 36 one of these is a putative Newbury C tripod pitcher, of mid 12th- to early 13th-century date.

Phase C4 produced 33 sherds of medieval pottery, from layer 91 and pit 25. Both produced sherds of glazed South Hampshire Redware vessels, probably jugs, whilst context 91 also produced a sherd of South Hampshire Whiteware. A late 12th or early 13th-century date is likely.

Area P

Six hundred and fifty-eight sherds of medieval pottery were recovered from stratified contexts in Area P. The stratigraphic sequence was divided into five horizons (Table 1).

The earliest excavated phase, P2, consisted mainly of superimposed floors and occupation deposits. The earliest of these, 475, produced

Table 1 Summary of stratified pottery by fabric by area/phase (sherd count)

Area	Phase	ECHAF	WINC LS WT	WINC	WINC GT	SHR	SHW	SEW	LST	LPMLOC	GRE	MISC	total
C	2A				3								3
C	2B		3	1	79	8		1					92
C	3				13	5		3					21
C	4				10	21	1	1					33
P	2	1	15	5	95	8							124
P	3		2		48	30		3					83
P	4A				38	39	6	3					86
P	4B	3	2	2	143	198	7	9		1			365
S	2A	1	1	1	7								10
S	2B				8	1							9
S	2C		5		104	9							118
D/E	4		3		2	17	5	2			1		30
F	2		1	5	4								10
F	4A			3	7	15	2						27
F	4B				4	18	1		3				26
G	2		7		174	34	1	1				3	220
G	4A			1	88	55	1	9					154
G	4B		1	1	66	33	2	2			1		106
total		5	40	19	893	491	26	34	3	1	2	3	

Key:

ECHAF: Early/mid Saxon chaff tempered ware

WINC: Winchester ware

WINC GT: Winchester gravel tempered ware

WINC LS WT: Late Saxon wheel-thrown Winchester ware

SHR: South Hants redware

SHW: South Hants whiteware

SEW: South-east Wiltshire ware

LST: Laverstock ware

LPMLOC: Post-medieval local ware

GRE: Glazed red earthenware

MISC: Unidentified

featureless sherds of gravel-tempered jars, which might be of any date from the late 9th century onwards. However, the immediately succeeding layer, 474, produced sherds of late Saxon wheelthrown jars and a sherd of a medieval-style, everted rim jar (Fig. 7: 4) as well as a small sherd from a South Hampshire Redware jar. These characteristics indicate an 11th-century or later deposition date. One of these redware jar sherds, from floor layer 465, has a crossfit with a vessel in layer 354, but this is more likely to indicate that the latter contained residual pottery than that context 465 contains intrusive pottery.

Phase P3 produced 82 sherds of medieval pottery all but one of which came from pit 214. Each context produced sherds of glazed South Hampshire Redware tripod pitchers or jugs and a 12th-century or later date is likely. A sherd of possible Newbury A ware, dating to the later 11th or early 12th century, was present (Fig. 7: 1) together with a large gravel-tempered vessel (Fig. 9: 75). The exception not from pit 214 was again from a South Hampshire Redware tripod pitcher or jug from post hole 202, in this case decorated with a diagonal applied strip and a plain glaze and is likely to be of 12th-century or later date (not illustrated).

Phase P4a produced 86 sherds of medieval pottery. These came from the backfills of 10 pits. In general, the pottery assemblages are similar in character to those from the earlier horizons with the addition of sherds of South Hampshire Whiteware from four of the pits. One of these sherds comes from a jug with a thumbled base, probably of 13th-century or later date and one comes from a vessel with rectangular-toothed roller stamping. Some of the pottery is demonstrably residual, such as the rim of a late Saxon gravel-tempered jar (Fig. 7: 15).

Three hundred and sixty-five sherds were recovered from phase P4b, from fills of 9 separate pits. South Hampshire Redware was recovered from all but one, and all but two of the pits produced sherds of glazed tripod pitchers or jugs. Three of the pits produced sherds of possible Newbury C ware (counted as South Hampshire Redware in Table 1). Residual pottery is clearly present in the assemblages

(for example, a spouted gravel-tempered bowl from pit 137; Fig. 9: 55) but it is likely that at least some of the gravel-tempered ware sherds are contemporary.

Area S

One hundred and thirty-seven sherds of medieval pottery were recovered from stratified contexts in Area S. The stratigraphic sequence was divided into two main horizons, of which the lower, Phase S1, produced only Roman pottery and is probably of Roman date. The sherds include Oxfordshire colour-coated bowls and mortaria and grog-tempered vessels. They are probably of 4th-century date.

The upper horizon can be subdivided into three (Table 1). The earliest of these subdivisions consists of pits and a post hole sealed by the makeup for a building, context 497 (S2A). Posthole 234 produced 9 medieval sherds, and a *terminus post quem* is provided by a sherd of late Saxon Wheelthrown ware and a sherd of a Winchester ware vessel with stamped decoration. These probably date the fill to the later 10th century or later. Pit 236 is dated by a single sherd of gravel-tempered ware to the later 9th century or later.

Deposits associated with the timber building above S2A (S2B) produced 9 sherds of medieval pottery of which two sherds can probably be dated to the 11th century or later: a sherd of South Hampshire Redware jar and the everted, thumbled rim of a medieval-style gravel-tempered ware jar. Both came from floor 491.

The subsequent deposits (S2C) produced 118 sherds, most of which are from gravel-tempered jars. Two of these are of late Saxon type but examples from medieval-style jars are also present in layers 477, 481–3 and 486. In addition, 10 sherds of South Hampshire Redware jars were recovered, from contexts 477–82, 486 and 490. Layer 481 also produced a possible South Hampshire Redware lid (Fig. 9: 74). The lack of glazed wares or of South East Wiltshire jars and scratch marked decoration might indicate that these deposits are earlier than the 12th century, by which time one might expect an assemblage of 118 sherds

to include sherds from vessels with these characteristics.

Areas D and E

Ninety-four sherds of medieval and post-medieval pottery were recovered from stratified deposits in Areas D and E. They were grouped into two horizons; medieval pit fills cutting through the lower garden soil (DE4) and the upper garden soil and features later than that soil (DE5).

Thirty sherds came from DE4 (Table 1). The lower garden soil produced 22 sherds including South Hampshire Redware and Whiteware jugs, a putative Newbury C tripod pitcher or jug, as well as an intrusive post-medieval glazed red earthenware. The pits cutting this soil contained similar glazed jug sherds. Both the garden soil and the pits are likely to date to the late 12th or early 13th centuries.

Sixty-four medieval and post-medieval sherds were recovered from the upper garden soil (DE5; not included on Table 1). Most are of exactly the same types that are present in the underlying strata but there are also six sherds of post-medieval glazed red earthenware bowls and a sherd from a stoneware drainpipe of later 19th-century or later date.

Areas F and G

Areas F and G produced two separate stratigraphic sequences; not precisely matching the site subdivisions, but distinguished here as F and G.

Sixty-three sherds of medieval pottery were recovered from F. These were divided into three horizons. A sequence of pits cutting a floor surface produced no medieval pottery and the earliest feature to produce pottery, pit 119, produced three medieval sherds, one of which was of late Saxon wheelthrown ware. This pit was sealed by building levels which included sherds of Winchester ware. The later part of this horizon, F2, therefore dates to the later 10th century or later.

Subsequent occupation and pitting, F4a, produced 26 medieval sherds from six contexts. Most of these contained a mixture of gravel-tempered and South Hampshire Redware jar

sherds whilst beamslot 114 produced sherds of South Hampshire Whiteware jugs. The ratio of redware to gravel-tempered ware jars and the presence of the whiteware jugs suggest that this horizon dates to the later 12th to early 13th centuries.

The latest horizon, F4b, produced 63 medieval sherds from four contexts. The lowest of these are layers 77 and 83 which produced three sherds from a highly decorated Laverstock jug (Fig. 7: 17). Later layers produced large fragments of gravel-tempered ware vessels, including spouted pitchers (Fig. 8: 28). These sherds are similar in size and condition to the South Hampshire Redwares from the same contexts and may be contemporary, although conventional dating would suggest that these unglazed coarseware spouted pitchers are of later 11th- to early 12th-century date. In any case, the date of the horizon is given by the Laverstock vessel to the mid 13th century or later.

The second block of stratigraphy (Area G in Table 1) could also be divided into four horizons. A total of 483 medieval and post-medieval sherds were recovered from stratified deposits (Table 1). The earliest horizon, G2, produced 220 sherds. The lowest excavated layer, 286, produced six gravel-tempered sherds, all from one vessel. In the absence of typological features this pot could date to any time after the later 9th century. Two contexts can be given *termini post quem* of the later 10th century on the basis of sherds of late Saxon wheelthrown ware (pit 14 and floor 285). All other contexts produced sherds of 11th-century or later date although one of these, layer 251, the latest context in the horizon, produced a sherd of South Hampshire Whiteware of later 12th to 13th-century date. No sherds of glazed South Hampshire Redware were present in this horizon and only one sherd of South East Wiltshire tripod pitcher, from pit 124, fill 272, whose stratigraphic position is suspect.

The succeeding horizon (G4a) is associated with a timber building and produced 154 sherds, from three contexts. All three have similar characteristics to the assemblage from layer 251 and probably date to the later 12th or early 13th centuries.

The building was succeeded by made ground and a cobbled surface or roadway which was itself cut by pits (G4b). With the exception of a single, intrusive sherd of glazed red earthenware, the 106 sherds from this horizon are of similar types to those in the preceding horizon and occur in similar relative frequencies.

Stratigraphic summary

The pottery suggests that there is stratigraphy of Roman date in Areas C and S, containing a total of 32 sherds. There is no evidence for surviving early to mid Anglo-Saxon stratigraphy on the site, despite the presence of residual sherds of this date in Areas P and S. The evidence for stratigraphy of later 9th- to mid 10th-century date is extremely thin, consisting of four sherds from Area C. Given that the immediately overlying strata date to the later 11th century, it is likely that horizon C2A actually dates to the later 10th- to 11th century. Other evidence for later 10th- to early 11th-century stratigraphy on the site comes from Areas F/G and S but only 28 sherds were present in these deposits.

There is a sudden intensification of activity on the site in the late 11th century. Deposits of this date were found in Areas C, F/G, P and S. The total quantity of pottery found leaps to 563 sherds. Similar quantities of pottery were recovered from later 12th- to 13th-century deposits, 421 sherds in total. Deposits of this date are present in every area except S.

Activity starts to decline on the site in the early 13th century, although 451 sherds were recovered from deposits of this date in Area P. The only other area where deposits of this date were present was C. Finally, only one area (F/G) produced pottery of mid 13th-century or later date, a total of 26 sherds of this date.

Clearly, there is a high quantity of residual pottery in these deposits. This is illustrated by the incidence of almost 200 sherds of residual Roman pottery but can also be seen in the incidence of gravel-tempered vessels with thickened necks and of late Saxon Wheelthrown vessels, both of which occur throughout the sequence but in decreasing quantities. Because of this inevitable, but generally unrecognizable,

residuality, it is only possible to recognize trends in the pattern of pottery use, rather than state with any certainty when particular types ceased to be used. Nevertheless, using the pottery and stratigraphy from the Staple Gardens site we can reconstruct in outline the major patterns in the pottery sequence from the later 10th to the early 13th centuries.

Discussion of the pottery

The pottery can not only be used to provide a rough chronology for the sequence of activity found at Staple Gardens but can also say something about the supply of pottery to Winchester.

Roman pottery

Almost all of the Roman pottery from the site was residual but there is no reason to believe that it did not all originate on the site and has merely been disturbed from earlier levels. Much of the material cannot be closely dated but it is clear that the majority is of late Roman date, including examples of Harrold-type shelly ware and Portchester D ware, both of which were only traded on a wide scale in the later 4th century. Examples of everted rim jars, in grey ware and grog-tempered ware, in which the rim is probably a similar diameter to the shoulder were noted. These too point to a later 4th-century date. There are, however, definitely earlier wares present, and in particular there is a small group of samian ware cups and bowls, all of which appear to be in South Gaulish fabrics and therefore of later 1st to early 2nd-century date.

Early to middle Saxon pottery

There is too little pottery of early to mid Anglo-Saxon date present at the site for comment.

Late Saxon pottery

The pottery sequence starts in the later 10th or 11th century and both Gravel Tempered and late Saxon Wheelthrown wares appear to be present from the start of occupation, with the gravel-tempered ware outnumbering the wheelthrown ware. Thin section and chemical analysis suggests that both these wares were

'local', which probably means that they were made within 10km of the city. Winchester ware, also probably present in pre-conquest levels, comes from a different source from either of these two wares.

Saxo-Norman and medieval pottery

In the later 11th to early/mid 13th centuries the site was supplied with coarseware from the same source(s) as were used in the pre-conquest period. Gravel-tempered wares continued to be used and cannot be distinguished from their pre-conquest predecessors in fabric whilst the same is true of some of the South Hampshire Redwares, which have a similar fabric to that of the late Saxon Wheelthrown ware. However, new sources are represented in the sampled South Hampshire Redwares (together with South Hampshire Whiteware and Laverstock ware) and these indicate a wider and more varied source of pottery. The overall quantity of redwares to gravel tempered wares undoubtedly increased during the period covered by the Staple Gardens occupation but the fabric analysis suggests that this is a technological change rather than a change in supply.

Similarly, there are a number of vessels found at Staple Gardens which were made in a northern tradition, whose centre lies to the north of the chalk, in the Kennet and Thames valleys. However, fabric analysis of these wares (Newbury A and Newbury C ware) suggests that they too may be locally-made, and therefore more likely to indicate the movement of one or more potters from Berkshire to the Winchester area than a trade in pottery.

Definite regional imports are, however, found in the collection. All of them come from south-east Wiltshire, in the area around Salisbury, and all are probably post-conquest in date. These form only a small fraction of the total collection. There are no continental imports present, which contrasts strongly with the situation at Southampton (Platt & Coleman-Smith 1975; Brown 2002).

Post-medieval pottery

By contrast, there is little sign of a local pottery industry in the small collection of late/post-

medieval pottery from the site and a reliance on the Surrey/Hampshire border region for finewares.

Metallurgical debris by Chris Salter

The site produced evidence for both a small amount of iron working and the working of copper alloys. The ironworking evidence was in the form of smithing slag debris and a more limited amount of hammer-scale. Similarly, the amount of copper-working debris recovered was relatively small. However, it did show that a range of copper alloys were being used, with evidence for both bronze and brass (or at least latten). There is possible evidence for the working of precious metals in the form of a small crucible with an internal thin deposit of lead-rich material. Given the location of the material, and the nature of the deposits, it is likely that both the copper and iron working material has been dumped in secondary deposits. These finds are consistent with the historical record indicating that there was metallurgical activity in the near vicinity, but they do not seem to represent workshop areas themselves.

The iron working debris

The amount of iron-working debris was rather limited (Table 2) with less than one kilogram of slag recovered. Table 2 only includes slag types that were definitely generated by iron working (a further 31 pieces, 380g, could have been from iron or copper working). Smithing hearth bottom (SHB) type slag or fragments of SHB type made up over 75% of the material by weight. This type of material forms in the smith's hearth during forging or welding operations when iron oxide shed from the metal as it is being heated reacts with silica from the charcoal fuel, the hearth lining, and any fragments of soil and any rock fragments that came in with the charcoal. The temperatures in the hearth are sufficiently high, particularly during welding, so that iron oxides react with the silica-rich fuel ash, hearth lining and rock fragments to produce a liquid or semi-liquid. The melting temperature of the combination may be reduced further by the alkali elements

Table 2 Summary of iron working waste by major type

<i>Slag Type</i>	<i>Number</i>	<i>Weight (g)</i>	<i>% wt</i>
Low-density slag	6	110.8	11.7
Smithing Hearth Bottom	4	461.7	48.9
Smithing Hearth Bottom Frag.	5	270.7	28.7
Unclassified	7	96.9	10.3
Metallic iron	1	4.3	0.5

present in the charcoal ash. This type of slag usually has a variety of plano-convex bun-shapes. The other bulk slag types that are generated by smithing are the result of similar reactions but with smaller amounts of iron oxide. The unclassified slag is iron-rich slag of similar composition to smithing hearth bottom slag but in the form of small fragments or prills of slag that have not coalesced to form a SHB. Low-density slag has a much smaller iron contribution and is often rather vesicular and grades into highly vesicular fuel ash slag.

Another major type of slag that is generated during smithing is hammer scale which comes in two forms – flake and spherical. Flake hammer scale is the layer of iron oxide that has built up while the metal is being heated and is shed from the metal as the object cools rapidly during forging. Spherical hammer scale is more commonly generated during welding as it requires the iron oxide to be liquid when the work-piece is struck by the hammer – resulting in an air-born spray of small drops of molten slag that freezes before it hit the ground. Both ‘scale’ slags accumulate in the immediate vicinity of the anvil and thus are important for the identification of anvil sites. In this case, only a very few flakes of hammer-scale were found attached to the bulk slag, although a few more examples of flake and spherical hammer-scale were recovered from sieved soil samples.

Overall, this low density of both bulk and microscopic ironworking slags would suggest that none of these deposits were close to the smithies, but all were in secondary deposits derived from nearby ironworking activity.

The distribution of the iron-working slag by phase does not indicate that the iron-working activity was concentrated in a particular phase. Although there is more slag from the late Saxon period than from the rest of the contexts put together, the sample size is not sufficient to distinguish slag deposited in contexts contemporary with its production from residual deposits.

This is the sort of small collection of iron-working debris found on many urban sites and the lack of any significant quantities of hammer-scale is indicative of smithing activity in the vicinity but not necessarily within the area of the excavation. However, some of the iron is off-cut fragments produced during smithing. One of these was examined in more detail (results in archive). This showed that the iron had a very high density of slag inclusions which consisted of a matrix of a silicate phase with high phosphorus content, with rounded internal inclusions of iron oxide. The morphology of these inclusions suggests that they were originally of wustite (FeO) but some may show faint signs of internal structure. These structures were due to the subsequent oxidation of the inclusions during smithing – which would seem to confirm the hypothesis that these were discarded off-cut fragments from smithing. The high phosphorus composition of the matrix is typical of iron produced from an iron ore with high phosphorus content, such as those found in the Jurassic ore fields of the Midlands. Unfortunately, the metal had cooled relatively rapidly so that the other phases in the slag inclusions were very small, making it difficult to compare with material of

a similar period from the Midlands. However the compositions suggest that spinel and sulphur phases were present.

Two fragments of low density slag (from Phase 2 layers 474 and 475) showed an unusual granular sugary morphology. This material could be the result of the slagging of fine quartz sand as the result of welding activity, although it is possible to fire weld bloomery iron without the use of a flux as iron oxide will melt at a lower temperature than iron. However, the addition of silica can reduce the melting point of the oxide surface layer produced during heating by several hundred degrees. To be successful the silica needs to be added in a finely dispersed form so that it can react rapidly with the iron oxide. Thus very fine clean quartz sand is required, or the coarser quartz or chert/flint-derived sand has to be crushed to a suitably fine grade. In a section of these sugary-looking slags, small remnant silica grains can be seen. These are all less than 100 microns across, probably on average nearer 50 microns average diameter. These silica grains are noticeably more angular than is normal for sand grains in vitrified hearth linings and crucible (even when partially dissolved by the fluxing action of the other elements present).

Non-ferrous metal working debris

The crucibles

Two crucibles were found. A small, nearly complete, thin-walled crucible came from Phase 4 layer 83 (Area F). The other crucible from Phase 2 layer 474 in Area P was only present as fragments of a coarse, more porous clay fabric, possibly of local manufacture.

The coarser crucible had obvious corroded prills of copper alloy attached to its surface. This together with its larger volume immediately suggests that it was likely to have been used to melt copper alloys (bronze, brass or latten). Qualitative X-ray fluorescence analysis (XRF) showed the presence of copper and zinc with a trace of lead but not tin. Thus it is likely that it was being used to manufacture brass objects.

The small clean crucible is of a type and

condition that might be expected if it had been used to melt precious metals. However, there were no signs of vitrification of the outer surface, and only a little grey deposit was noted at the bottom of inside of the crucible, there were no signs of any gold prills which could have confirmed its use for precious metal-working. Qualitative X-ray fluorescence analysis of the exterior of this crucible showed the presence of copper, zinc and lead. However, a small sample from the interior only showed a small amount of lead and trace of copper, but also higher levels of potassium and phosphorus than might normally be expected. The combined presence of lead and phosphorous and higher levels of potassium and calcium do suggest that this crucible could have been used as cupel to test the composition of metal for its precious metal content. As noted above, it is reported that a moneyer had property in this area. Therefore it is likely that there might be precious metal-working activity in this area as well as working base copper alloys and iron.

The hearth-lining and other slag-like material

In addition to the crucibles, some of the hearth lining material had an unusual glossy surface glaze. This is thought to indicate the use of lead on the site. Some of the copper-containing materials, as identified by traces of copper corrosion products, were sampled and polished for metallurgical examination by optical microscopy as well as in the Scanning Electron Microscope. The optical examination showed the presence of corroded prills of what were originally metallic copper alloy, and a few uncorroded prills. Analysis (details in archive) showed that the prills in two samples seem to be composed of fairly pure copper with minor traces of lead, tin with a little zinc in a few cases, whereas the metal in two other samples was essentially bronze (copper and tin with a little lead). This would suggest at first sight that two different alloys were being used. However, the composition of such prills will change depending on how much oxidization they have undergone. Elements such as zinc will either volatilize or burn out with time and temperature. An examination of one sample of

vitrified hearth lining matrix shows a complex structure with tin oxide, partially oxidized copper and zinc stannate in a lead silicate matrix. Therefore, the hearth that this lining came from had been used to melt tin- and zinc-containing alloys, even though these elements were not present in the metal prills trapped in the lining.

Clearly there is the evidence of working of a variety of copper alloys in the late 10th to 12th centuries in the Staples Garden area. These alloys would seem to include both bronze and brass (or at least latten – a ternary alloy of copper, tin and zinc). There is circumstantial evidence for working of precious metal in the form of the small crucible and its contents. No direct evidence of the presence of gold or silver was found in the analytical samples, however, given the very small size of the sample taken this is not surprising.

Animal bone by Sheila M and Clare M Hamilton-Dyer

A total of almost 45kg of animal bone was recovered, including some from bulk soil samples. Detailed analysis concentrated on well-dated (late 10th to 13th century) material from Areas F/G and P. Smaller groups from the other areas are summarized in the overview (Table 3) but have not been analysed in detail.

Species identifications were made using the authors' modern comparative collections. All fragments were identified to species and element with the following exceptions. Ribs and vertebrae of the ungulates (other than axis, atlas, and sacrum) were identified only to the level of cattle/horse-sized or sheep/pig-sized. Unidentified shaft and other fragments were similarly divided. Any fragments that could not be assigned even to this level have been recorded as mammalian only. Where possible, sheep and goat were separated using the methods of Boessneck (1969) and Payne (1985). Recently broken bones were joined where possible and have been counted as single fragments. Tooth eruption and wear stages of cattle, sheep and pig mandibles were recorded following Grant (1982). Measurements mainly follow von den

Driesch (1976) for mammals and birds and Morales and Rosenlund (1979) for fish. Withers height calculations of the domestic ungulates are based on factors recommended by von den Driesch and Boessneck (1974). The archive includes substantial metrical and other data not presented in the text, including numerous photographs.

In total 2006 specimens from P and 1362 from F/G were recorded in detail. The bone material varies in colour and condition but preservation is generally good. In some contexts a mixture is present ranging from dark and mineralized, through brown and badly eroded to pale and almost intact. This implies that these contexts contain bone from a mixture of sources. Other contexts have more consistent condition. Most of the diagnostic specimens can be identified to taxon; an overview of the main taxa listed by area and phase is given in Table 3. Cattle, sheep/goat and pig are dominant. Other taxa include, horse, deer, dog, cat, hare, birds and fish. Butchery marks, gnawing, and pathologies can be observed on several bones. Aging and metrical information is limited.

Area P contributes nearly 11kg of the bone, just over 2000 individual pieces from 48 contexts ranging in date from the late 10th to 13th century AD. At least 13 taxa are present, including fish, birds and wild mammals in addition to the domesticates. Approximately 37% can be identified to taxon; much of the remainder is undiagnostic fragments of the domestic ungulates.

Areas F/G produced 20.5kg of bone (1362 specimens from 31 contexts). The taxa list is more restricted, with fewer fish, bird and wild mammal bones than from P. The identifiable proportion is, however, higher at 53% and measurable bones are also more frequent, partly because the individual fragments are generally larger.

Taphonomic considerations

The proportions of taphonomic traces on the bones are quite different between the two groups. The amount of these marks is similar between the three phases from F/G but there is more phase variation in Area P (Table 4). Many

Table 3 Animal bone summary by area and phase

Area / Phase	horse	cattle	sheep/ goat	pig	deer	c-size	s-size	mam	dog	cat	other	bird	fish	Total
P 10th-11th														
% overall	1	24	54	29	-	80	210	23	2	3	-	42	19	487
% identified	0.2	4.9	11.1	6.0		16.4	43.1	4.7	0.4	0.6		8.6	3.9	
% c/s/p	0.6	13.8	31.0	16.7					1.1	1.7		24.1	10.9	174
P 11th-12th														
% overall	-	20	23	25	-	104	132	37	-	-	1	34	15	391
% identified		5.1	5.9	6.4		26.6	33.8	9.5			0.3	8.7	3.8	
% c/s/p		16.9	19.5	21.2							0.8	28.8	12.7	118
P 12th-13th														
% overall	1	99	148	64	9	222	406	42	2	5	12	82	36	68
% identified	0.1	8.8	13.1	5.7	0.8	19.7	36.0	3.7	0.2	0.4	1.1	7.3	3.2	1128
% c/s/p	0.2	21.6	32.3	14.0	2.0				0.4	1.1	2.6	17.9	7.9	458
F+G 10th-11th														
% overall	-	98	219	51	3	180	163	8	-	1	-	9	1	311
% identified		13.4	29.9	7.0	0.4	24.6	22.2	1.1		0.1		1.2	0.1	733
% c/s/p		25.7	57.3	13.4	0.8					0.3		2.4	0.3	382
F+G 12th-13th														
% overall	-	71	113	31	-	90	68	12	-	-	-	6	0	368
% identified		18.2	28.9	7.9		23.0	17.4	3.1				1.5	0	391
% c/s/p		32.1	51.1	14.0								2.7	0	221
C														
% overall	2	39	66	24	-	129	146	-	-	1	3	7	1	215
% identified	0.5	9.3	15.8	5.7		30.9	34.9			0.2	0.7	1.7	0.2	418
% c/s/p	1.4	27.3	46.2	16.8						0.7	2.1	4.9	0.7	143
S														
% overall	1	51	67	27	1	152	215	-	1	-	-	45	0	560
% identified	0.2	9.1	12.0	4.8	0.2	27.1	38.4		0.2			8.0	0	
% c/s/p	0.5	26.4	34.7	14.0	0.5				0.5			23.3	0	193
Others														
% overall	1	5	12	8	-	25	27	-	-	-	2	6	0	86
% identified	1.2	5.8	14.0	9.3		29.1	31.4				2.3	7.0	0	
% c/s/p	2.9	14.7	35.3	23.5							5.9	17.6	0	34
		20.0	48.0	32.0										25

Key: C-size: cattle/horse sized; S-Size: sheep/goat/pig sized; Mam: mammal; % c/s/p = % amongst cattle, sheep/goat and pig only

Table 4 Animal Bone Taphonomy (%)

<i>Area P</i>	<i>Phase</i>			<i>total</i>
	<i>10th-11th</i>	<i>11th-12th</i>	<i>12th-13th</i>	
unaffected	18	40.7	43.2	36.6
butchered	22.4	8.9	25.7	21.6
gnawed	7.5	1	11.1	8.3
eroded	3.8	3.1	6.5	5.2
burnt	1.7	32.6	2.3	8
ivoried	59.4	18	16.4	27.2
total	478	383	1109	1970
loose teeth	9	8	19	36

<i>Areas F/G</i>	<i>10th-11th</i>	<i>11th-12th</i>	<i>12th-13th</i>	<i>total</i>
unaffected	6.9	14.6	18.2	11.5
butchered	44.3	26.2	34	38.2
gnawed	32.2	36.9	44.2	36.5
eroded	11	14.6	17.4	13.5
burnt	0.6	0.4	0.5	0.5
ivoried	30.4	20.6	11.9	23.4
total	720	233	385	1338
loose teeth	13	5	6	24

Totals and %s exclude loose teeth

of the bones from F/G have been gnawed and almost similar proportions show butchery marks. Several bones are well preserved with an ivoried appearance and some have eroded surfaces. Burnt bones are very rare. In contrast few of the Area P bones are eroded or gnawed. Most of the bones from Phase 2 are in very good, ivoried, condition. Phase 3 shows a high proportion of charred bones. The condition states in Phase 4 are more evenly distributed, but noticeably less gnawed than those in F/G. In both groups there are bones with some matrix still adhering to the surface. In F/G the number of these is high and the matrix is of

an iron rich appearance. Those from P have a greenish, cassy appearance. Occasionally there are bright blue/green stains from proximity to copper alloy objects. The condition of the bones has an effect on the level of identifiability, in this assemblage the condition is relatively good and the diagnostic specimens are readily identified. Even with good preservation gnawing and attrition will inevitably have destroyed some evidence, and the smallest specimens may be missed in hand collection. The smaller elements of sheep and pig are typically under-represented. Even for cattle these smaller bones are not common; for the first phalanx

there are only enough for two animals with less for the other toes. For sheep and pig there are insufficient to account for even one complete set. Taphonomic factors affect the bones of very young animals to a greater degree and these are almost certainly under-represented. The preservation is, however, as good as or better than other assemblages in the Winchester area, providing a good basis for comparison.

Representation of the main domestic ungulates

The bones of sheep/goat are more frequent than those of cattle, throughout the phases and in all areas. Around 20% of the ovicaprid material could be distinguished, with the majority of these positively identified as sheep. In Area P 16% of the 225 sheep/goat bones are of sheep, 2% goat. From F/G the 381 sheep/goat are composed of 19% sheep and 5% goat. Cattle may still have contributed more meat than the sheep, as these are larger animals. Pig representation is more variable; the lowest amount of 13.9% of the cattle/sheep/pig total is in the F/G in Phase 2. The highest level is 36.8% in Area P's 11th- to 12th-century phase, where pig bones are slightly more common than those of sheep (Table 3).

The anatomical distribution of the cattle bones is variable between phases and areas. With relatively small groups such as these a single deposit of a particular bone or body area can markedly influence the distribution. It is clear, however, that there is no consistent pattern of disposal, for example a long-standing disposal of tanning waste. All parts of the body are represented including several of the lower value, or waste, head and feet as well as the main meat bones (details in archive). Foot bones appear to be better represented than main limb bones but there are more of these in each animal. Similarly the head and neck group includes many separate pieces.

Sheep/goat anatomical distribution is more distinct, and again quite variable. There are more skull, horn cores and jaws in F/G and within that more foot bones in Phase 2. Horn cores of sheep and goats are more frequent in phase 2 in both areas and those of goat almost entirely restricted to phase 2. For P there is a

slightly higher representation of the best meat areas in the later phase. Other variations are not readily discernible as the individual numbers are too small. In phase 3 in F/G, for example, it appears that tibia is frequent at over a quarter of bones – but this is just 6 specimens out of 23 and of one of the most resilient elements. Small and fragile elements are typically poorly represented.

The pig remains again include all parts of the carcass. Although the foot bones appear to be frequent they are under-represented as pigs have more foot elements than cattle and sheep.

Butchery

Much of the bone is in good condition, aiding observation of butchery marks. Axial division of the carcass is evidenced by the paramedian chopping of many vertebrae. This, and further jointing into manageable pieces, would have been carried out by cleavers and similar heavy blades. Finer, knife, marks are more common on the smaller mammals and birds. This is mainly for jointing but is also sometimes found on the shafts of large bones; for meat removal. A few marks can be interpreted as from skinning and removal of feet; these could have been made by a variety of instruments. There is frequent evidence for the removal of horn cores from the skull (see industrial deposits below). The frequent reduction of limb bones into small pieces could have been for soup, stews and marrow. This last is perhaps the explanation for a split sheep metatarsus, both parts of which were found in the same deposit. Pig, and sometimes sheep, heads were also split open, in this case for access to the brains, tongues and other meats.

Size, type and age of the domestic stock

The sheep bones mainly represent adult stock, probably culls from the wool flocks. Horn cores are mainly of ewes or wethers but at least two rams are also represented. One of these ram horn cores is abnormally flattened. No hornless skulls were recorded. A few young lambs were found in the later Area P pits. The bones include 22 complete and fused

limb bones from which withers height estimations can be made (details in archive). The values are within the range reported from other medieval sites in southern England. The animals are small and slim in comparison with modern sheep but also have a restricted range in comparison with those reported from Saxon sites in Hampshire, notably Hamwic in Southampton where several animals were bigger. The decreasing size of sheep during the medieval period in this area has been described before (Bourdillon 1980).

The cattle bones represent both adult and subadult animals but not calves. Fewer measurements are available for cattle, partly because more are unfused and partly because they tend to have more butchery and breakage. The withers height estimates from the five complete metapodia are 1.011, 1.084, 1.090, 1.145, 1.127m. This last, probably a bull or castrate, and several others have minor pathological changes indicating possible draught usage (Bartosiewicz *et al.* 1997).

The pig remains are typically biased in favour of young stock as, unlike cattle and sheep, pigs are kept almost entirely for meat production. There are, however, some bones of adults, presumably culls of surplus breeding stock. Sex where evident is mainly male, again typical of exploitation of a meat animal. The youth of many specimens precludes measurements of most bones; the few measurements taken match similar material in Wessex.

Minor domesticates

Horse bones are rare; just two from Area P and four from the other areas. Disposal of such large, and usually uneaten, carcasses is a problem in urban areas. When carcasses are found in medieval towns it is usually in the outer ditches or associated with tanning and fell-mongers' waste away from the centre. Dog and cat bones are not common but they do occur sporadically. Dog gnawing, and sometimes marks consistent with cat, is relatively common. Over a third of the bones from Areas F/G have gnaw marks, a much smaller proportion from P have gnaw marks. In pit 135 (Area P) a cat right mandible has a small knife mark on the outer

side towards the anterior. A matching right maxilla, probably of the same animal, has two fine vertical knife marks just above the canine. These marks are good evidence of skinning.

Wild mammals

Wild mammals, including those of the chase, are uncommon but present in small numbers throughout. Area P has more such bones and of a greater variety. All three species of deer are present, including the introduced fallow. The nine deer bones from P are all from 12th–13th century contexts. Red deer is represented by a radius (meat bone) and a phalanx (waste bone). Fallow is represented by two calcanea (ankle bones) of different animals. The five roe bones are all of good meat areas. In contrast none of the five deer bones from F/G are from the later phase. The early 10th–11th century phase offers a whittled roe antler and two fallow bones. These are meat bones and the tibia is both chopped and dog gnawed. A cut red deer ulna and a gnawed roe metacarpus represent the deer bones in the 11th–12th century. Hare, but not rabbit, occurs in Area P; 6 of the 7 bones are from Phase 4. Badger and hedgehog, again both from the late phase deposits of P, might be incidentals but were also utilized for food and in the case of badger for brush bristles. Two rat bones, probably black rat, were also recovered from Phase 4 pit fills in P.

Birds

The bird remains are, as expected, mainly of domestic fowl. These are the small type typical of medieval assemblages. Some are definitely female; containing the medullary bone associated with egg laying (Driver 1982). One fowl tarsometatarsus has a pathological growth on the shaft above the area of the spur scar. Domestic goose/greylag and domestic duck/mallard are also present. In addition both areas (F/G and P) offer a few bones of Brent goose. Area P has bones of wigeon-size and an upper bill that can be identified as merganser, though not which species. Other species include common birds such as pigeon, corvids and heron. Swan is also present; one humerus fragment is rather large and may be of a different taxon. Only one

species from F/G is not in P – a cormorant ulna from pit 124.

Fish

Fish remains are uncommon, in part this is due to taphonomic factors; their small size and fragility counts against their survival and smaller bones will only be recovered by sieving. There is a notable difference between the two areas; just 9 fish bones were recovered from Areas F/G whereas 70 were recovered from P. Typically there are many undiagnostic remains, of those identified to species conger eel, cod and flatfish (probably plaice) occur in both groups with cod the most consistent presence. The deposits in Area P also offer haddock and bass. All of these are marine species and would have been traded through Southampton (Coy 1996). Unusually even the soil samples did not offer the eel and herring usually encountered. Specimens of note are a haddock cleithrum from pit 135 (Area P) that, despite its small size, is already hyperostosed. In F/G surface 52 was found the partial dentary and articular of very large conger eel – larger than a recent specimen of 1.76m length.

Industrial deposits

Although most of the bone appears to be from mixed sources, largely household and butchery waste, there is material that indicates some industrial waste. Sheep and cattle head and foot bones are relatively common in F/G, indicating slaughter waste. There is also a concentration of horn cores in Areas F/G Phase 2. The 18 goat bones from F/G include 15 horn cores from Phase 2, chopped from the skull at the base. One is also sliced down the anterior face. Sheep horn cores occur in small numbers throughout the phases but mainly from phase 2. Most of these have also been chopped off at the base. There are just four incomplete goat horn cores from Area P phase 2 and none from the later phases. In at least two cases the goat horn cores are sawn, which is likely to indicate the activities of a horn worker, as saws were not generally used in slaughter and butchery. These groups of horn cores are almost certain to represent waste from tanning skins and

horn working. Cattle and sheep were mainly traded into towns on the hoof. After slaughter the hides and skins would be passed on to the tanner, still with the horns and sometimes the feet attached. The horner would then get material from the tanners (Serjeantson 1989; MacGregor 1998). It is thought that goat skins were traded (complete with horns) from outside towns and hence the invariable rarity of goat bones (Albarella 2003). Some of the horn cores have pathological changes; one goat has an unusual deep groove on the anterior while another has a meandering depression. As already mentioned above the ram horn core is also unusual. It would seem that the horner was not particularly fussy about the size or shape of the raw material (or had little choice).

Conclusions

The overall assemblage is typical of medieval material from Wessex but the two areas (P and F/G) are quite different in character. More than 30 different taxa are present with P contributing significantly greater variety, only one species from F/G is not recorded for P.

Both areas show a slight increase in the proportion of cattle over time. Area P has a higher proportion of pig, slightly less sheep, and more deer (all in the late phase). There are more bird and fish bones from P and of a greater number of taxa. Dog and cat are present in both, again slightly more from P. Horse is very rare in both.

The variety seen in Area P is mainly in the deposits of the 12th – 13th century AD. The 12th – 13th century pit 135 has the most variety of all the features; 16 taxa in total. Included in this feature are the skinned cat head, hare, rat, conger, bass, haddock and several birds. The main domestic animal remains are a mixture of elements. Few head and foot bones are included, apart from those of young pigs. Most of the remains are of meat bones and include many pieces of chopped up sheep and pig ribs. Several of the sheep/goat bones are of young animals. This assemblage is likely to represent disposal from a nearby household. Smaller amounts of similar material are present in the neighbouring pits, for example pit 132 offered

ten taxa including the hedgehog, roe, conger and several bones of lamb.

These excavation areas are in close proximity to each other and mainly cover the same date span. The bone assemblages might be expected to be very similar but in fact are not. The bone from Areas F/G is from fewer contexts, is on average of larger pieces, offers fewer species and contains a high number of horn cores. The small groups divide in a similar manner; Area S appears to resemble Area P, while C is more like F/G. The disposal practices were clearly different between the areas; F/G probably contains the bulk disposal of butcher's waste whereas P contains a higher proportion of household waste. The sheep and goat horn cores indicate disposal of tanning waste. The distinctions may indicate a long-standing property boundary between the two areas or perhaps a difference between commercial and household disposal within one property.

Charred plant macrofossils by Valerie Fryer

Samples for plant macrofossils were taken from areas C, P and S. Fourteen samples were analysed from well-dated contexts of late 10th to 12th century dates. The samples were bulk floated over a 500 micron mesh sieve. The dried floats were scanned under a binocular microscope at magnifications up to $\times 16$, and the plant macrofossils and other remains noted are listed on Table 5. Nomenclature follows Stace (1997). Charcoal fragments were common or abundant in all assemblages. Other plant macrofossils were extremely rare, but an indeterminate culm node was noted in sample 14. Most samples also contained industrial debris (hammer scale and ferrous globules). All plant remains were charred. As the assemblages contained insufficient material for quantification, the density of material within each sample is expressed qualitatively.

Cereal grains/chaff, weed seeds and tree/shrub macrofossils were recovered at varying densities from all samples. Preservation was moderately good, although a proportion of the cereal grains were puffed and distorted,

probably due to high temperatures during combustion.

Oat, barley, rye and wheat grains were recorded from all but samples 12, 17 and 21. Cereal chaff was extremely rare, but rachis nodes of both barley and bread wheat were noted in sample 14. Other possible food plant remains were also scarce, but cotyledon fragments of large pulses were found in samples 20 and 21.

Seeds of common weed plants were generally rare. Of the few specimens found, segetal taxa were predominant and included corn cockle, stinking mayweed, brome, grasses, and vetch/vetchling. A single poorly preserved spike-rush nutlet was the sole wetland plant macrofossil recorded. Hazel nutshell fragments were noted in six assemblages and a fragmentary elderberry seed was found in sample 24.

In summary, with few exceptions, the assemblages are all very small (i.e. <50 specimens) and, at best, can only be used to provide a very broad overview of activities in this area of Winchester during the 10th to 12th centuries. The recovered material would appear to be principally derived from low-density deposits of refuse including domestic detritus (dietary and fuel residues) alongside industrial waste. Although some categories of plant macrofossils may have survived combustion better than others, the high grain to chaff ratios probably indicate that imported batches of semi-cleaned or prime grain were an important dietary element for the occupants of the site. There is little or no evidence for the local processing of cereals, and as the few weed contaminants recorded are largely of a similar size to the grains, this again suggests an advanced stage of processing, where such seeds would have been removed by hand prior to consumption. Unfortunately, little can be inferred about the agricultural regime which produced the cereals used on site. However, the presence of stinking mayweed seeds may indicate some production based on heavy clay soils, and the pulses and leguminous weeds may possibly be relicts of an attempt at soil improvement by the deliberate rotational cultivation of plants with nitrogen fixing properties. Evidence for the latter is certainly

Table 5 Charred plant remains

	Area	C	S	S	S	P	P
	Phase	2	2	2	2	2	2
	Cut			225			
	Deposit	151	482	484	486	364	467
	Context type	Layer	Layer	Pit	Layer	Layer	Floor
	Sample	3	23	24	25	9	17
Cereals / food plants	Common name						
<i>Avena</i> sp.(grains)	Oats		x	x	x	x	
Cereal indet. (grains)		x	x				
Large Fabaceae indet.	Pulses						
<i>Hordeum</i> sp. (grains)	Barley		x	x	x		
<i>Secale cereale</i> L. (grains)	Rye	x		x			
<i>Triticum</i> sp. (grains)	Wheat	x		x		x	
<i>T. aestivum/ compactum</i> type	Bread wheat						
Herbs							
<i>Agrostemma githago</i> L.	Corn cockle						
<i>Anthemis cotula</i> L.	Stinking mayweed						
Asteraceae indet.							
<i>Bromus</i> sp.	Brome	x	x				
Caryophyllaceae indet.							
Small Poaceae indet.	Grasses					x	
Large Poaceae indet.						x	
Polygonaceae indet.						x	
cf. <i>Raphanus raphanistrum</i> L. (siliqua frags.)	Wild radish						
<i>Valerianella dentata</i> (L.) Pollich	Cornsalad						x
<i>Veronica hederifolia</i> L.	Ivy-leaved speedwell						
<i>Vicia/Lathyrus</i> sp.	Vetch/ vetchling	x					
Wetland plants							
<i>Eleocharis</i> sp.	Spike-rush						
Tree/shrub macrofossils							
<i>Corylus avellana</i> L.	Hazel	x	x	x	x		
<i>Sambucus nigra</i> L.	Elderberry			x			
Other plant macrofossils							
Charcoal <2mm		xxx	xxx	xxx	xxx	xx	x
Charcoal >2mm		x	xxx	x	xx	x	x
Charred root/ rhizome/stem							
Indet.culm nodes							
Indet.seeds		x	x			x	
Volume of flot (litres)		0.1	0.4	0.1	<0.1	<0.1	<0.1
% flot sorted		100%	25%	100%	100%	100%	100%

Table 5 Charred plant remains (cont.)

	Area	P	P	P	P	P	P	P	P
Phase		2	2	2	2	2	3	3	4
Cut							214	214	141
Deposit		471	472	473	474	475	450	452	371
Context type		Layer	Floor	Layer	Floor	Layer	Pit	Pit	Pit
Sample		18	19	20	21	22	12	14	8
Cereals / food plants	Common name								
<i>Avena</i> sp.(grains)	Oats	s	x	x		x		a	x
Cereal indet. (grains)		x	x	xx		x	x	x	
Large Fabaceae indet.	Pulses			c	c				
<i>Hordeum</i> sp. (grains)	Barley	x		x		x		r	
<i>Secale cereale</i> L. (grains)	Rye			x					
<i>Triticum</i> sp. (grains)	Wheat	xx		xx		x		x	x
<i>T. aestivum/ compactum</i> type	Bread wheat							r	
Herbs									
<i>Agrostemma githago</i> L.	Corn cockle	x						x	
<i>Anthemis cotula</i> L.	Stinking mayweed					x		x	
Asteraceae indet.						x			
<i>Bromus</i> sp.	Brome			x					
Caryophyllaceae indet.									x
Small Poaceae indet.	Grasses								
Large Poaceae indet.									x
Polygonaceae indet.									
cf. <i>Raphanus raphanistrum</i> L. (siliqua frags.)	Wild radish				x				
<i>Valerianella dentata</i> (L.) Pollich	Cornsalad								
<i>Veronica hederifolia</i> L.	Ivy-leaved speedwell							x	
<i>Vicia/Lathyrus</i> sp.	Vetch/ vetchling			x				x	
Wetland plants									
<i>Eleocharis</i> sp.	Spike-rush							x	
Tree/shrub macrofossils									
<i>Corylus avellana</i> L.	Hazel			x	x				
<i>Sambucus nigra</i> L.	Elderberry								
Other plant macrofossils									
Charcoal <2mm		xx	x	xxx	xxx	xxx	xx	xxx	x
Charcoal >2mm		xx	x	xx	xx	xx	x	xx	x
Charred root/ rhizome/stem		x			x			x	
Indet.culm nodes								x	
Indet.seeds				x					
Volume of flot (litres)		<0.1	<0.1	0.1	0.1	0.1	<0.1	0.2	<0.1
% flot sorted		100%	100%	100%	100%	100%	100%	100%	100%

x = 1–10 specimens, xx = 10–100 specimens and xxx = 100+

c includes cotyledon fragment

s includes sprouted grains

a includes awn fragments

r includes rachis nodes

seen in other early medieval contexts, and is possibly a result of a shortage of animal manure during this period.

Brick and tile by David Fellows

Approximately 1052 pieces of brick and tile were retrieved from the excavation areas, with the majority being of Roman date and residual in later contexts. The majority of the material is very abraded and only a small number of larger tiles and bricks were observed, including *imbrex*. The bricks and tiles are hand made, and some have been heavily fired. A few pieces stand out: Layer 490 in Area S contained a decorated scored Roman tile; a Roman brick with a possible tally mark scratched on it was unstratified in Area S. Garden soil 51 contained a possible curfew. Layer 91 (Area C) contained a possible 12th–13th century brick; pit 133 in Area P contained a glazed roof tile of possible 12th–13th century date. Pit 120 in Area F contained fragments of grooved tiles.

Other finds

The majority of catalogued finds are metalworking waste and off-cuts (29 examples) of both iron and copper alloy. There are four fragments of iron key: three (probably all one key) from layer 482 in Area S and one from pit 139 in Area P. Part of a Roman copper alloy bracelet came from Phase 1 pit 237 (S). Two small fragments of window glass came from pits in Area P. Other items were few: a ring fragment, two knife blades, a 12th-century type horse shoe (Clark 1995: type 2B) and a possible buckle fragment. Oyster shell, mainly tiny fragments, was present in many deposits; no complete or substantially complete examples were recovered. Eleven struck flints (all flakes) were probably all accidental by-products of activity in Roman or later times, none is necessarily of prehistoric origin.

CONCLUSIONS

The limitations on the amount of archaeology excavated restrict the level of meaningful inter-

pretation for this site. Nevertheless, a sequence of occupation and activity can be reconstructed.

We can only speculate on the character of the Roman occupation, but it is clear that the area was occupied in the late Roman period, and probably also earlier. Previous interpretations of the Roman town have seen this north-western area densely occupied in the early period, with much less dense or less intensive, possibly less urban (Biddle 1983, 110–14), occupation in the later Roman period. The evidence here is insufficient to add to this picture. It was not even possible to confirm the continuation of the road noted to the north, which should have intersected this site.

No features date to the early to middle Anglo-Saxon period, as across much of Winchester. The few residual pottery sherds of this date shed little light on the period, but even these few sherds occupy what has usually been a blank period, all too often represented, if at all, only by 'dark earth' layers in many excavations.

It is apparent from the data that here, as elsewhere, intensive activity began during the late Saxon period and continued into the post-conquest period. The picture very closely mirrors that at the southern end of the street, with timber buildings repeatedly replaced in more or less the same position, pits, and a mix of domestic and industrial waste. On this site, detailed analysis of the distribution of all the finds assemblages shows that the animal bone, in particular, shows a distinction between domestic refuse in the centre of the site and primary butchery waste in the north-east. It is unclear if this necessarily indicates that a plot boundary should be projected across the centre of the site, but this would accord well with documentary sources. Certainly in the late 19th century, the north part of the site was a separate property, and this division could be a long-lived one, as 14th-century sources suggest a number of small tenements in this area, later combined into one larger garden plot (as discussed above). The metalworking debris from the earliest phase on site, however, divides roughly evenly, with 59% by weight coming from the southern half (Areas P and S) where fuller excavation took place, and there is no dif-

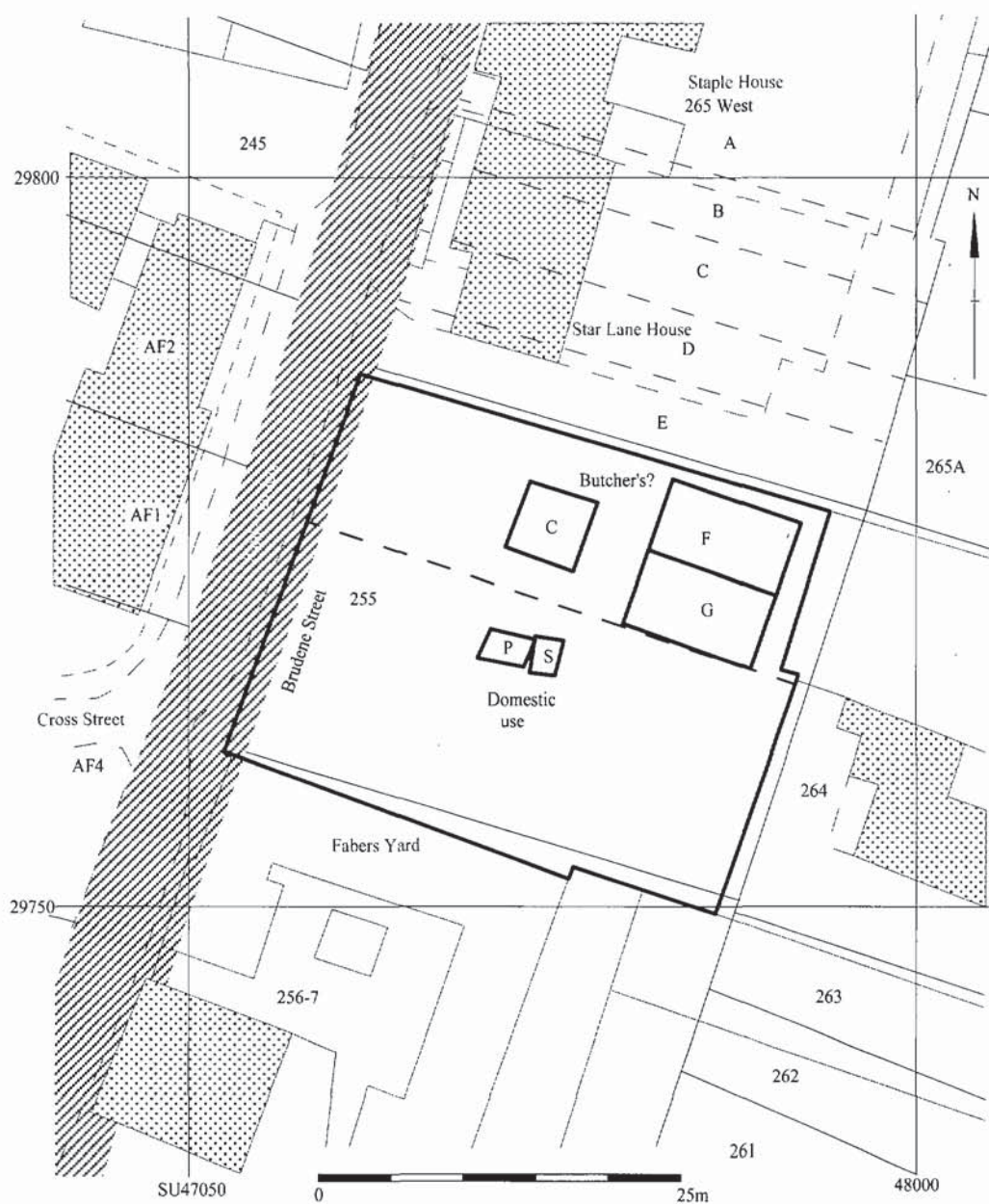


Fig. 10 Staple Gardens, Winchester. Hypothesized tenements on Brudene Street, after Keene 1985

ference apparent amongst the pottery. It is just as likely that the southern half was a building and the northern half of the site its work area or yard in the late 10th to 11th centuries. Trun-

cation by later pits meant that only small areas of intact clay surfaces had survived belonging to the early buildings, and as a consequence finds and environmental assemblages are small.

The finds other than bone and pottery include very few identified items other than smithing and casting waste. All excavated areas of the site have produced some form of evidence of metalworking encompassing iron smithing and the casting of items in bronze and brass, and, perhaps, precious metals. Added to the quite similar results from Faber's Yard (Teague 1990), where it was possible to examine a larger area, there is a clear demonstration of metalworking activity, albeit not directly in the areas examined here, perhaps on an adjacent plot or in an unexplored part of this plot. There is also a distinct break in the sequence here, as at Faber's Yard, as early as the 13th century. Although the actual workplace has not been located, it will not have been far away, and this tallies with the documentary evidence for metalworking on Staple Gardens. However, the excavation results here provide no direct corroboration for evidence showing a moneyer's being active on this site or very close by, as the documentary sources for this are earlier than the contexts yielding metalworking evidence here.

The intensive pit digging also recorded at the north side of Area F suggests that this was a more peripheral area, and the large amounts of animal bone include primary butchery waste, and also a hint of horn-working in this area. Limited though the evidence for this is, it is all in pit fills and it is difficult to imagine this waste having travelled far from source, so another activity on the site has to be considered. The documentary sources make no mention of butchers or horners in this part of the city, but any such reference would be to shops or homes, not necessarily to butchery sites, which could have been in side streets or peripheral areas. Two skinners are portrayed as occupying houses on Staple Gardens, and a third as holding property, in the early 14th century (Keene 1985, fig. 38).

The small sample of environmental material appears entirely typical of other urban assemblages of this date, food crops arriving on site already processed, as might be expected.

The site seems to have changed its use from the 13th century onwards, and become gardens or other open space until the 19th century.

Detailed documentary research into properties on Staple Gardens had already demonstrated that almost the whole street was gardens as early as 1416, and a petition of 1439 notes that at that time on 'Bredenstreet wherein were 60 households ... now is never one' (Norton 1964, 175, quoting *Cal. Pat. Henry VI (iii)*, 400). It has been demonstrated that the number of properties on Bredenstreet fell from 35 in 1148 to 26 by 1300 and just 15 in 1417 (Keene 1985, 148) and even within that number, in 1417, there were just three cottages, a croft, one tenement and the rest were gardens or vacant plots. If we are right to see this site as falling within Keene's plot 255 (Fig. 10), then it is known to have been a garden belonging to the priory, but the equation of documented land plots with archaeological sites is fraught with pitfalls, we should perhaps be content with more general conclusions. Even within this general background, the date of what looks archaeologically like 'abandonment' here appears very early, and a ready explanation as a change of use to a garden is very appealing, especially coupled with the indication that two separate plots had fallen to one large landowner, like the priory. But other explanations also deserve consideration. It is possible that plots in this part of the town would have been used, for example, as stabling for inns along High Street (Keene 1985, 277).

The site's somewhat peripheral location in relation to the medieval core of Winchester offers the hope that this early decline might provide insights into broader economic or demographic questions, peripheries being presumably the places to look for expansion and contraction, but more work would be needed to establish if this was part of a broader trend or a purely localized phenomenon. It is suggested that the immediately adjacent site, for example, was occupied into the early 15th century and may not have been put out to orchard until the 16th (Teague 1990), and similarly the 14th-century buildings at 1-3 Staple Gardens may have remained in use into the 16th century (Kipling & Scobie 1990). If the site was indeed engaged directly in moneying specifically, then a decline in this period is consistent with docu-

mentary evidence, as royal and administrative functions were increasingly removed from Winchester and moneying was no longer a local option (Keene 1985, 335).

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