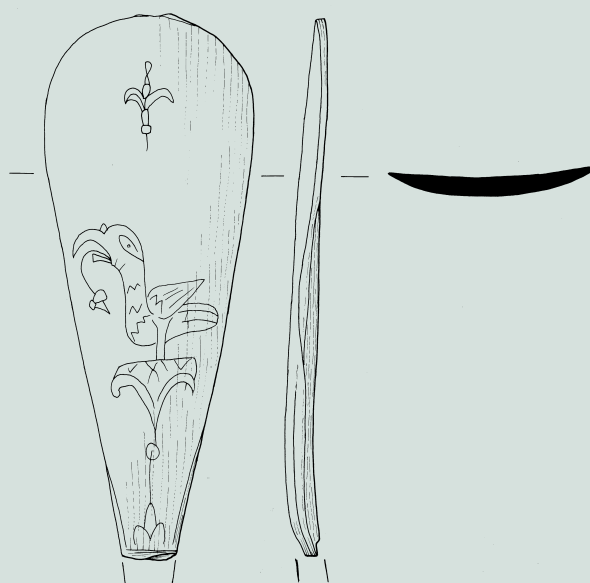


WINCHESTER

A CITY IN THE MAKING

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



Section 3

The Small Finds
by H.E.M. Cool

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Introduction

The excavations at Northgate House (NH) and the Discovery Centre (DC) produced over 1000 items of metalwork, worked bone and glass excluding the nails (see Table 1). This is a substantial body of material which can throw interesting light on both the occupation on the site and in Winchester more generally. Winchester has been well-served by small finds publication which allows this group to be put in context. In 1990 the late Saxon and later finds from the 1961 to 1971 excavations were published (Biddle 1990), and the small finds from all the excavations in the suburbs and defences between 1972 and 1986 were published whilst this material was being worked on (Rees *et al* 2008). The availability of these two major works has structured the approach that has been taken to the finds from these excavations and so it is appropriate to review the information available in them.

Both of the volumes provide sound typological discussions of much of the material found here, and provide details of the phases and dates of the contexts the items were found in. In neither case though, is the stratigraphic narrative for any of the excavations from which the material has come from available. So it is not possible to interrogate the contextual information in any significant way. The policy of publishing the excavations in what is, to all intents and purposes, a fascicule system where all the different elements of the excavations (stratigraphy, pottery, finds, animal bone etc) are produced separately, has also undoubtedly led to the under-representation of certain categories of finds. Skeletal material like bone and antler was heavily exploited to make items during the late Saxon and Anglo-Norman periods, and some of these items are easy to confuse with unworked animal bone. It is only after that category of material has been fully examined that one can be sure that all the items have been made available to the small finds specialist. There are grounds for thinking that that this did not happen for the earlier finds publications. Both volumes present the material by function rather than material, the 2008 volume more successfully than the 1990 one; but in neither case has any formal quantification been carried out. This could be done but as over 7000 catalogued items have been presented in the two volumes, it has not been possible within the constraints of this project to do this, though a small amount of quantification has been carried out with the aim of throwing light on the assemblages from these excavations.

The approach taken with this assemblage has been to follow the 2008 volume as far as structure is concerned. Part one considers the Roman finds and part two the late Saxon and later ones. Within each section the finds are considered by functional category, assigning items to function in the same way as was done in the 2008 volume. Thus for example bone skates are assigned here to the recreational category, though they could as easily be assigned to the transport one. Detailed typological discussion has been kept to a minimum and the reader is referred to the relevant sections of the other two volumes for that if required. For ease of reference to the 1990 report, references are cited in the form 'specialist in Biddle 1990' (e.g. Hinton in Biddle). Individual specialist reports have clearly been divided up into small segments to fit the functional approach presented there, and citing each separate section would overburden the bibliography. Where appropriate, reference is also made to more recent publications from other sites for more up-to-date typological consideration. For the late Saxon material the large assemblage from the Coppergate excavations at York (MacGregor *et al* 1999, Mainman and Rogers 2000) is particularly useful in this respect. It should be noted that though the suburb and defences volume was published in 2008, it had had a very long gestation and most of the typological work was completed at the end of the 1980s or early 1990s and so was unable to take much note of material that has been published subsequently. For the late Saxon and later material the two volumes have been used to establish the likely currency of different types of artefacts within the town and where appropriate the type of sites they are found on.

All of the items from these excavations were inspected and catalogued to the appropriate degree and this information is available in archive. The ID number quoted in the catalogue entries given here provides the cross reference to the entry in the full database. The items selected for presenting as full catalogue entries are all the diagnostic ones that can be assigned to function together with a selection of the miscellaneous items. Items such as fragments of metal plate, sheet, wire etc are included in the general summary (Table 1) but are not further considered.

The Roman Finds

The items that can be assigned to the Roman period on either typological grounds or according to context are summarised in Table 2 according to function. As can be seen the personal ornament section dominates the assemblage as it normally does on Roman sites. Here the numbers have been further inflated by the large numbers of hobnails that have been recovered. Allowing for that, this is not a very large Roman assemblage. This is probably the result of the mitigation strategies which meant that not all the Roman levels were excavated. The effect of that on the type of assemblage that was recovered will be discussed further in the overview of the Roman finds.

Personal ornaments

Brooches

Five brooches were recovered from the two sites. The earliest (no. 1), found residually, was fragmentary and highly corroded but the remaining features are consistent with it being a fragment from a 1st century strip bow brooch. These were a local type with a distribution centred on Dorset (Hattatt 1987, 86), so the recovery of one from Winchester would not be surprising. The other early brooch (no. 2; Fig. 1) belongs to the family of relatively plain trumpet brooches that are typical of the west and southern parts of Britain (Bayley and Butcher 2004, 161 Groups B and C). The details of the central mouldings with the lentoid mouldings above and below the petalloid button link it to the so-called Chester variant, though those generally have only one lug to hold the spring rather than the two seen here. Despite the name Chester trumpet brooches were being made in the Gloucestershire area as judged by the distribution, which shows high concentrations in the Cirencester area, and the recovery of moulds from Dymock (Cool 2007a, 173). The general date range is late 1st to mid 2nd century. The Dymock moulds were found in a quarry fill with 2nd century coarse pottery and samian of the first half of the 2nd century. The type has been found previously at Winchester in an undated context at Victoria Road (Rees *et al* 2008, 38 no. 41).

Two divided bow brooches were recovered, both from Phase 2.3 contexts (nos. 3 and 4). They are very similar and belong to Hull's type 189. A group of very

similar brooches have been recovered from Richborough and they often had ring and dot decoration on the head plate and foot (Bayley and Butcher 2004, 106 nos. 258-61, fig. 83). No. 3 (Fig. 1) clearly does not have the ring and dot decoration on the head but it might be suspected that the differential corrosion on the foot might be the remains of something similar there. The type was in use at the end of the 2nd century and into the 3rd century (*ibid* 181).

The presence of these two brooches is of great interest because by the time they were in use the majority of the population of southern Britain had stopped wearing bow brooches. This can easily be appreciated by considering sites where large groups of brooches have been recovered. Gloucestershire provides very useful assemblages of brooches for this purpose as it lies within an area where brooch wearing was very common from the late pre-Roman Iron Age onwards. At both urban sites such as Cirencester (Viner 1998, Table 14) and rural ones such as Somerford Keynes (Cool 2007b table 9.6) the late 2nd to 3rd century forms of knee brooches and divided bow brooches are conspicuous by their absence. A similar pattern can be seen at the Winchester suburb and defences sites which only produced a single later 2nd to 3rd century knee brooch compared to 41 1st to 2nd century forms (Rees *et al* 2008, 38 no. 42). The late 2nd to 3rd century bow brooches are much more commonly recovered from sites in the north with a known military presence. At Catterick by contrast they form 20% of the brooch assemblage (Cool 2002, table 91). Where they do occur in any number in the south it is generally on sites with military associations such as Richborough.

These two brooches are not the only divided bow brooches to have been recovered from Winchester. The Roman material from the 1961 to 1971 excavations that should have been published as Winchester Studies 3.1 (Biddle 1990, 1) remains, alas, unpublished. Webster, however, in publishing a divided bow brooch from Caerleon cites as *comparanda* an example from those excavations discussed in the brooch report prepared for that volume (Webster 1992, 112). The presence of three of these brooches at Winchester suggests there may well have been military presence somewhere in the town at the time, perhaps on policing duty. This is also hinted at by the strap mount no. 97.

The final brooch (no. 5; Fig. 1) is an example of a Fowler (1960) Type D penannular brooch. They are not chronologically sensitive within the Roman period and this example could be any date from the 1st to 4th centuries. This example was

found residually.

- 1 **Strip bow brooch**; bow and foot fragment. Copper alloy. Rectangular-sectioned gently arched bow tapering to foot; transverse groove by broken edge and groove parallel to each side. Present length 38mm, maximum section 6.5 x 1.5mm. Ctx DC1383. SF DC196. (ID 1342) Phase 5 BE3.
- 2 **Trumpet brooch (Fig. 1)**; complete apart from tip of pin. Copper alloy. Trumpet head with projecting headloop cast in one with brooch; two D-shaped cast perforated lugs on back of head with bar threaded through perforations and spring with cord running under pin. D-sectioned upper bow with two small lentoid mouldings above D-sectioned central button with curving, petaloid mouldings; similar lentoid mouldings below; lower bow has central vertical rib; small triple ribbed foot; trapezoidal catch plate with spine running up back of bow as far as central button. Length 62mm. Ctx NH6507. SF NH1650. (ID 591) Phase 1.3.
- 3 **Divided bow brooch (Fig. 1)**; in two fragments, parts missing. Copper alloy with white metal coating. Flat triangular crest with double moulding at top; flat bar with single lug at back holding spring of two turns on either side with cord below missing pin. Divided upper bow in three narrow rectangular-sectioned bars terminating in short cross bar with triangular-sectioned area and angular rib below; sheath foot expanding slightly before terminating in point. Front of foot shallowly bevelled to either side. Preservation of tinning on foot good with two symmetrically placed areas of copper corrosion near base and one above, possibly these were reserved dots where the original golden colour of the copper alloy showed through. Length 60mm. Ctx NH1353. SF NH924. (ID 807).
- 4 **Divided bow brooch (Fig. 1)**; in two pieces, missing pin. Copper alloy. Description precisely similar to no. 1046 other than no sign of tinning can be seen. However this piece, unlike that, has not been subject to investigative conservation and tinning could not be seen on that piece either prior to conservation. Length 65mm. Ctx DC3331. SF DC331. (ID 1344) Phase 2.3.
- 5 **Penannular brooch (Fig. 1)**; complete. Copper alloy. Circular-sectioned ring with terminals folded back along ring with three transverse ribs in each terminal. Rectangular-sectioned pin wrapped around ring one and a half times, pointed end with recess to fit against ring. Diameter 35mm, ring section 2.5mm. Ctx DC2325. SF DC281. (ID 1528) Phase 4.2 BE 4.

Hair pins

Three bone hair-pins can be identified with certainty, though only two have heads that allow them to be assigned to type. Both are common late Roman forms. No. 6 is an

example of a Crummy Type 3 and no.7 (Fig. 1) of her Type 4 (Crummy 1983, 21-2). The former were common in the suburb and defences sites, but there was only one example of the diamond and triangle faceted form (Rees *et al* 2008, 45). That form though has been recovered elsewhere in Winchester in bone at Frederick Place (Collis 1978, fig. 75.5), and in silver, bronze and jet at the Lankhills Cemetery (Clarke 1979, 316), so it may not have been as uncommon in Winchester as implied in the discussion of the one from Victoria Road. Other shank fragments that may have come from hair pins are discussed below under the miscellaneous section.

- 6 **Hair pin.** Bone. Circular-sectioned ovoid knob head with pointed top; circular-sectioned broken shank tapering to junction with head. Present length 44mm, head section 5mm, shank section 4mm. Ctx NH1428. NH SF156. (ID1560). Phase 2.3.
- 7 **Hair pin (Fig. 1).** Bone. Diamond and triangle faceted cubic head; slightly faceted oval-sectioned shank tapering to point. Present length 63mm, section of head 5.5 x 5mm, shank section 3 x 2.5mm. Ctx NH2619. SF NH998. (ID 183) Phase 2.3.
- 8 **Hair pin.** Bone. Shank only, tapering towards missing head, shank tapering to point that has asymmetrical point. Present length 67mm, section 3.5mm. Ctx NH1385. Sf NH133. (ID 1564) Phase 2.3

Beads

Small glass beads were commonest in the late Roman period when it was fashionable to wear strings of them, but sometimes do occur earlier in smaller numbers. Two of the examples recovered here (nos. 9 and 10) fall into the category of long-lived types as both were recovered from the late 2nd to mid 3rd century drain deposit at Caerleon (Brewer 1986, 149 nos. 35, 62-5). The context of no. 9 (Phase 2.1 trample in the yard working surface DC7002, dated 1st to early 2nd century) is surprisingly early for the type, which generally first start to be recovered in later 2nd century contexts. It might be suspected that it was intrusive. Certainly there were many of these beads in circulation in late Roman Winchester as it is one of the commonest types found in the bead strings from the Lankhills cemetery (Booth *et al* 2010). The other glass bead (no. 11) is a late Roman form. The shade of green/blue glass used to make it is less commonly encountered than the mid green shade but similar examples were present on a bead string from Grave 920 (no. 15) at Lankhills (Booth *et al* 2010).

A small fragment from a jet cylinder was found residually. Its Roman date is undoubted as beads such as this were found on several of the necklaces in the 4th century Butt Road cemetery at Colchester (Crummy 1983, 33 nos. 1042-84). Interestingly Roman jet beads do not appear to have been recorded from Winchester before as there were none from any of the Lankhills bead strings, both from the Clarke (1979) excavations and the more recent Oxford Archaeology (OA) ones.

- 9 **Bead.** Translucent deep blue glass. Short biconical. Diameter 3.5mm, length 1.5mm, perforation diameter 1.5mm. Ctx DC1762. (ID1581). Phase 2.1.
- 10 **Bead.** Translucent emerald green glass. Long cylindrical. Diameter 4mm, length 8mm, perforation diameter 2mm. Ctx NH4718, SF NH1358.(ID 570) Phase 2.4.
- 11 **Bead.** Green/blue cloudy glass. Segmented, two segments extant. Oval-sectioned. Diameter 3 x 2mm, length 5mm, perforation diameter 1mm. Ctx NH1270. (ID1578). Phase 2.4.
- 12 **Bead.** Jet. Long cylindrical, approximately one-third of circumference extant. Two grooves around circumference. Length 6mm. Ctx NH7589. (ID 1582). Phase 4 BW5

Bracelets

The commonest type of bracelet recovered was the cable twist (nos. 13-22). This is not surprise as they were the commonest type of bracelet in use during the Roman period frequently occurring in large numbers (Clarke 1979, 302 Bracelet Type A; Cool 1983, Bracelet Group I). They were in occasional use from the 2nd century but only became very common from the later 3rd century when it was fashionable to wear bracelets. They remained in use into the 5th century but appear to have been becoming less dominant in the second half of the 4th century (Booth *et al* 2010). At these excavations they appear first in later 3rd century contexts and many were residual.

Light bangles are found in considerable numbers on late Roman sites as the fashion from the end of the 3rd century was to wear several at once. Most are of 4th century date. Of the examples from these excavations only no. 24 can be identified to variant with certainty. It came from the very common simple zig-zag type (Clarke 1979 306 form D1h; Cool 1983, Bracelet Group XXII). No. 23 had alternating grooved and plain decorations and probably came from the form where the plain areas have faceted corners to turn them into a lozenge shape (Clarke 1979, fig. 96 no. 555;

Cool 1983, Group XXVI). No. 25 was so corroded that the precise variant cannot be identified. It may have been similar to no. 23 with a lozenge unit or the plain areas may have been rectangular. (Clarke 1979, fig. 77 no. 163; Cool 1983, Group XVI).

Given that so many of the Roman bracelets have been found residually at this site the unusual no. 26 recovered from a Phase 4.1 context has been tentatively included here as a light bangle. It is made from a white metal alloy which judged from the X-radiograph must have had a high lead content. It is not usual for light bangles to be made in a metal like this, but the general size and shape would be appropriate for such an identification, and it does not appear correspond to any late Saxon ornament forms.

The size of the cross section of no. 27 indicates that this either came from a multiple unit bracelet (Clarke 1979, Type E; Cool 1983, Group XXXI) or the double unit type where there are just three panels of decoration (Cool 1983, Bracelet Group XXXII). Given the repeated motif on no. 27 the latter is to be preferred. Both are 4th century insular forms.

The fastener no. 28 is all that remains of a bone or ivory bracelet. The terminals of these were often ribbed fastening transversely and then fastened by being enclosed by a copper alloy sheet sheath which was pressed into the grooves to produce the corrugations seen here - see for example those from graves at Lankhills (Clarke 1979, 313 Type A). In his discussion of those from Lankhills Clarke (1979, 301) tentatively suggested that bone bracelets may have been commoner in the first half of the century. Elsewhere, however, they appear to be typical of the later 4th century and into the 5th century (Cool 2000, 49), and a re-appraisal of all the bone and ivory bracelets at Lankhills from both the Clarke excavations and those of the OA has suggested that at Winchester too they are indicative of later 4th and 5th century activity (Booth *et al* 2010).

In addition to the bracelets discussed here, a shale example was also recovered.

- 13 **Bracelet**; fragment. Copper alloy. Cable twist two strand left-hand twist; both ends broken. Length 30mm, section 6x5mm. Ctx NH3236. (ID 534). Phase BW 3.
- 14 **Bracelet (Fig. 1)**; fragment. Copper alloy. Cable twist, two strand, right-hand twist; one end has one hooked strand with other wrapped around; other end broken. Current diameter 55 x

- 45mm, maximum section 5mm. Ctx DC1680. SF DC498 (ID 1355) unphased.
- 15 **Bracelet**; fragment. Copper alloy. Cable twist three strand right-hand twist; both ends broken. Section slightly squared towards one end. Differential corrosion suggests one strand may have been of a different alloy than the other two. Fragment now straightened. Length 95mm, section 2.5. Ctx DC1579. SF DC478. (ID 1374) Phase 2.4.
- 16 **Bracelet**; three fragments. Copper alloy. Cable twist three strand, left-hand twist. One fragment consists of terminal of two strand wrapped one around broken third strand; all other ends broken. Original diameter c. 45mm; half extant, section (maximum) 4mm. Ctx DC109. SF DC7. (ID 1521) Unphased.
- 17 **Bracelet**; three fragments. Copper alloy. Cable twist, three strands, right-hand twist; all ends broken. Total length c. 50mm, section 3mm. Ctx NH1260. SF NH104. (ID 801) Phase 2.3.
- 18 **Bracelet**; three fragments. Copper alloy. Cable-twist, three strands right-hand twist; all ends broken. Lengths 22mm, 20mm, 25mm, sections 3-4mm. Ctx NH5059. SF NH1438. (ID 126) Phase 2.4.
- 19 **Bracelet**; fragment. Copper alloy. Cable twist three strand left-hand twist; both ends broken. Length 35mm, section 4mm. Ctx NH2208, SF NH832. (ID 585) Phase 4.1 BW5.
- 20 **Bracelet**; fragment. Copper alloy. Cable-twist, originally three strand right-hand twist, part of one strand missing; both ends broken. Length 40mm, section c. 5. Ctx NH3539. (ID 116) Phase 5
- 21 **Bracelet**; fragment. Copper alloy. Cable twist, 4 strand right-hand twist; both ends broken. Length 15mm, section 2mm. Ctx U/S. SF NH1410 (ID 146).
- 22 **Bracelet**; fragment. Copper alloy. Cable twist three-strand left-hand twist; both ends broken. Length 68mm, section 7 x 6mm. Ctx NH u/s. SF NH1439. (ID 536)
- 23 **Bracelet**; fragment. Copper alloy. Light bangle, rectangular-section widest to wrist; surfaces corroded possibly a plain unit between transverse grooves with edges faceted to form a lozenge-shaped unit. Length 13mm, section 5 x 2mm. Ctx NH4694. SF NH1324. (ID 524) Phase 2.4.
- 24 **Bracelet**; fragment. Copper alloy. Light bangle; rectangular-sectioned, narrowest to wrist; alternating nicks along top edge forming a zig-zag; both ends broken. Length 53mm, section 3.5 x 2mm. Ctx NH1204, SF NH76. (ID 802) Phase 4.2 SE2.

- 25 **Bracelet**; two fragments. Copper alloy. Light bangle, rectangular-section widest to wrist. Highly corroded and decoration only visible in X-radiograph - upper face decorated with alternating plain and ribbed units, groups of 5 and 7 ribs visible. All ends broken. Length c. 50mm, thickness 2mm. Ctx DC1435. SF DC427. (ID 1373) Phase 5 BE2.
- 26 **Bracelet (Fig. 1)**; fragment. Lead or other white metal alloy. Light bangle widest to wrist, edges scalloped, tapering to narrow hooked junctions; outer ends broken. Present length 12.5mm, section 3.5 x 1mm. Ctx NH3587. Sample NH234. (ID 363) Phase 4.1 BW4.
- 27 **Bracelet (Fig. 1)**; fragment. Copper alloy. Central part multiple or double unit bracelet, rectangular-section widest to wrist; 5 units each with double ring and dot divided by transverse ribs. Length 43mm, section 6 x 2.5mm. Ctx NH4696. SF NH1330. (ID 148) Phase 2.4.
- 28 **Bracelet fastener (Fig. 1)**, chipped at one end. Copper alloy. Rectangular sheet wrapped into an oval-sectioned cylinder; five transverse corrugations. Length 13mm, section 5 x 3.5mm, thickness 0.5mm. Ctx DC1459. Sf DC441. (ID 1359) Phase 5 BE3.

Finger ring

The wear pattern seen on no. 29 is typical of rings used as finger rings. During the later Roman period there is a tradition of light trinket rings so the Phase 2.3 date of the context is appropriate (Cool 1983, 268 Groups XX-XXII). The 1961-71 excavations produced some simple decorated rings published as medieval finds but it is noticeable that they occur in contexts where they are likely to be residual (e.g. Biddle 1990, 649 no. 2063, fig. 175 from the fill of an Anglo-Saxon grave).

- 29 **Finger ring**, now broken in two joining fragments. Copper alloy. Square-sectioned hoop, worn thin at one point. Traces of transverse grooves on outer face. Diameter 17mm, maximum section 1.5mm. Ctx NH7517. SF NH1782.(ID 565) Phase 2.3.

Ear ring

Nos. 30 and 31 are ear rings of types that were in use throughout the Roman period. No. 30 is an example of an Allason-Jones (1989) Type 5 and no. 31 is a typical example of an Allason-Jones Type 1 earring. The latter's simple form is of course

often found whenever and wherever ear rings were worn and the context of this piece provides no clue to its date. As discussed in connection with no. 153 though, it is unlikely to be medieval because earrings were rarely worn at that period, and so a Roman date is to be preferred.

- 30 **Ear ring**; 2 fragments. Copper alloy. Two very wires in loose right-hand cable twist. Original diameter c. 20mm, section 2mm. Ctx NH4394, sample NH266. (ID 561) Phase 4.2 BW2
- 31 **Ear ring (Fig. 1)**. Copper alloy. Penannular with D-sectioned hoop tapering to pointed, slightly overlapping terminals. Diameter 22 x 21mm, maximum section 3x2mm. Ctx DC408, SF DC5. (ID 1520) Unphased

Hobnails

Hobnails were a common find as can be seen from Table 3 though unlike the situation at the suburb and defences sites (Rees *et al* 2008, 61-4), no convincing examples of boot plates were recovered. The peak for Phase 2.3 is slightly misleading as 115 of the number for that phase came from DC3331, a pit fill. As can be seen from the catalogue entries for nos. 32-3 many from this pit were found corroded together and preserved traces of mineralised leather so they could all have come from one or two shoe soles discarded in it. The others (catalogued in archive) tended to occur as singletons and could have been casual losses. As can be seen from Table 3, allowing for pit DC3330, use starts at a low level in Phase 2.1, grows slightly in Phase 2.2, and then peaks in the late Roman period. One hobnail with the typical pyramidal head has been identified from Phase 1.1 context (NH6201) in the fill of a post-hole belonging to structure NH8508. Nailed shoes are a Roman introduction and the fact that people were wearing nailed shoes in Winchester in the mid to late 1st century is shown by the presence of one in a context of that date at St. John's Street (Rees *et al* 2008, 62). Here two examples came from Phase 2.2 contexts (NH1740, DC1762) also indicating an early start to nailed shoe wearing. It would be very unlikely though that they were being worn in a pre-Roman milieu as suggested by the example from NH6201 and so it would probably be best to regard it as intrusive.

- 32 **Hobnails** (28). Iron. Five groups of three and five groups of two corroded together, also three singletons; the groups often retaining traces of mineralised leather. Head diameters c. 9mm. Ctx DC3331, SF DC395, Sample DC328. (ID 1533) Phase 2.3.

- 33 **Hobnails** (95). Iron. Two groups of three, ten groups of two and 70 singletons. Many retaining mineralised organic (leather). Lengths ranging from 10mm (head diameter 7mm) to 16mm (head diameter 13mm) (quantification based on recognisable heads). Ctx DC3331, SF DC1113, Sample DC328. (ID 1305) Phase 2.3.

Toilet Equipment

Two items found in late Saxon and Anglo Norman contexts are items of Roman toilet equipment. No. 34 (Fig. 1) is most likely to have come from a chatelaine though it is an unusual form and Eckardt and Crummy's (2008) survey illustrated no similar tool. The classic combination for Roman chatelaines or toilet sets is a pair of tweezers, a nail cleaner and a small ear scoop, but there are some groups which have additional tools. On an enamelled set from Castleford (Cool and Philo 1998, 86 no. 363 fig. 31) there is an implement with a curved pointed end similar to the lower end of this tool and another narrow implement transversely grooved that resembles a file. A similar combination of tools appears to be present on a similar, but not enamelled, chatelaine from the London Wall (Wheeler 1930, pl. XXXIX). No. 34 possibly combines the two functions into one tool though the notches would not have functioned very adequately as a file. A closer parallel to that feature can be seen on a strip tool with a slightly inbent end and notches on both edges from a drain deposit at the Caerleon fortress baths (Brewer 1986, 178 no. 68, fig. 58). That would have been lost between c. AD 160 and 230. The Castleford and London chatelaines are not dated by their contexts but are likely to have been of 1st or 2nd century date given the leaf-shaped form of the tools. Unfortunately the form of suspension loop and shank here give no clues to a narrower date within the Roman period.

Possibly by coincidence the only nail cleaner from the excavations (no. 35) has a similar suspension loop and shank. It would be tempting to suggest it came from the same chatelaine but this should probably be resisted as the loop and shank section are smaller than those of no. 34 and normally all the tools on a chatelaine were the same size. The nail cleaner is plain with a straight-sided blade (Eckardt and Crummy 2008, 130). This seems to have been a long-lived 1st to 3rd century with a largely southern distribution.

A fragment from the neck of a blue/green unguent bottle found in a Phase 2.1

context would also have been part of someone's toilet equipment as it would have held oil for a visit to the baths or perfume. The precise form cannot be identified simply from a neck fragment, but given the date of the context they are most likely to have come from either tubular unguent bottles such as that from a Flavian burial at Milland (Price 1978) or one with a conical body such as the pair with mid 2nd century cremation burial at Victoria Road (Cool 2008a, 83),

- 34 **Chatelaine tool (Fig. 1)**; complete. Copper alloy. Rectangular-sectioned shank with perforated diamond-shaped terminal. Tool end expands with one side notched on upper side, then contracting to point. Length 55mm; shank section 3.5 x 2mm, maximum section of tool end 8 x 1.5mm. Ctx NH3314. SF NH1026. (ID 579) Phase 5 BW3
- 35 **Nail cleaner**; complete but broken in two. Copper alloy. Rectangular-sectioned shank expanding slightly to notched end, groove running back up shank; diamond-shaped perforated terminal. Length 50mm, maximum shank section 3.5 x 1.5mm. Ctx NH2228. NH253. (ID 1527) Phase 4.2.
- 36 **Unguent bottle**; cylindrical neck fragment. Blue/green glass. Neck diameter 15mm, wall thickness 1.5mm. EVE 0.2. Ctx DC1762, SF DC869. (ID 1399) Phase 2.1.

Textile Equipment

A set of weaving tablets (no. 37; Fig. 2) was found in a floor level of structure NH8520. Weaving tablets were used to produce narrow bands of densely woven fabric which had a variety of uses. These bands formed the starting point for lengths of fabrics woven on a warp-weighted loom (Walton Rogers 2007, 27-8), and richly decorated examples could be used as decorative edging sewn onto garments whose cloth had been woven on a larger loom (see Walton Rogers 2007, 89-97 for examples). Weaving tablets were also used to form the selvages on lengths of fabric woven on larger looms where the weft threads were those used on the larger loom with the small tablets governing the warp threads (Wild 1970, 74)

In his survey of the evidence for weaving and textiles in the northern provinces, Wild noted that Roman tablets were square with four holes and that there was a triangular variant with three holes (Wild 1970, 73). The examples Walton Rogers notes from early Anglo-Saxon contexts are square and the commonest tablet

woven braid she has recorded would also need a four-holed (i.e. square) tablet (Walton Rogers 2007, 35, 89).

Wild was able to list 15 triangular and eight square tablets from Roman Britain (Wild 1970, 140, Appendix O). Since then the majority of new finds from Romano-British sites have been triangular and it seems reasonable to conclude that the commonest form in Roman Britain was triangular continuing the earlier Iron Age tradition. The earliest securely dated square plate appears to be one from Wroxeter in a 3rd century context (Mould 2000, 131 no. 172). The evidence is scanty but at present square plates may well be a late Roman introduction in Britain. The floor level this set was found in was part of structure NH8520 which was constructed after the late 3rd century and so adds support to the hypothesis that square tablets are a late form, as does the example from Victoria Road found in a mid to late 4th century well fill (Rees *et al* 2008, 76 no. 363)

Most tablets have been found as individual losses on sites and sets such as this are rare. Interestingly where groups have been found together in Britain, they generally consist of four pieces. A set of four triangular tablets dateable to the late 1st century was recovered from the vicus rampart at Malton (Greep 1997, 145 nos. 15-8) and in discussing them Greep notes a similar unpublished set from Lincoln; a set of four large square tablets was found unstratified at Cirencester (Wild 1986, 114 nos. 218-221). This set from Winchester continues this pattern. Tablet weaving can make use of use large deck of tablets, a Viking ship burial at Oseburg had a part-woven linen band threaded onto a set of 52 wooden tablets (Walton Rogers 2007, 35), and four seems a rather small number for a set. The regular recovery of groups of four suggests that this number was indeed sufficient for some purposes, and it may be significant that Wild has hypothesised that some tubular selvages that were tablet woven may have needed four tablets to create.

Weaving tablets develop very characteristic radial wear patterns around the holes and eventually the circular perforations become deformed to oval shapes (see, for example, Greep 1996, fig. 198 no. 62). On the square plates here there are slight traces of the typical wear around some of the small holes in the corners, but on several holes no wear can be seen. This would suggest that the set had not been in use for any length of time. The slightly larger pairs of holes in the longer sides do not show wear. What their purpose was is unclear but given the varying degrees of wear seen on the corner perforations, the fact that they were unworn cannot be taken to indicate they

were not designed to take threads. Some forms of weaving only required two holes to be used (for example, Walton Rogers 2007, 90 fig. 3.23) and it is possible that the centrally placed holes were intended to be used when that technique was in use. Square plates with six holes as here are unusual but a pair were recovered at Alchester and Wild noted that as here, two of the holes were unworn (Wild 1970, 140, table O).

The fifth element of this set is the triangular plate. This is clearly not a typical triangular weaving tablet giving the notching along the side and the numbers of perforations. A very similar piece was found at Verulamium in an unstratified context (Waugh and Godburn 1972, 150 no. 203). Another triangular plate was recovered from a 4th century context at Gatcombe (Branigan 1977, 131 no. 647), this had plain sides and five holes along the bottom edge set in two rows in quincunx, but was the same size and also had a perforation in the apex. A more elaborate triangular plate with a perforation in the apex and 12 circular holes in four rows at the base came from the drain deposit dated to c. AD 160-260 at the fortress baths at Caerleon (Greep 1986, 207 no. 9). In discussing that one Greep noted two unpublished examples - an identical example probably from Leicester, and 'an object of similar type' from the *vicus* at Caerleon. He suggested that they probably served as strap ends for braided belts.

The perforations on no. 37E show very slight wear and given that the plate was found with the square tablets, it seems reasonable to assume if formed part of the set. Tablet weaving requires the warp threads to be kept under tension which can be done by anchoring one set of ends to a post and the other to the weavers' belt. One way in which the triangular plate might have been used was to act as the junction at one end. The warp threads passing through the corner holes in the square tablets could have been fastened to the four perforations in the base of the triangular plate. The apex perforation could then have been used to tie the triangular plate firmly in place.

Two fragments from bone needles were also found. No. 38 definitely and no 39 probably belong to Crummy's Type 2 (Crummy 1983, 65). The type appears to have been in use throughout the Roman period. At Winchester there is some evidence they may have been being made at Victoria Road in the mid 1st to mid 2nd centuries (Rees *et al* 2008, 75 no. 355).

The bone needles have, as is traditional, been assigned to the textile category, it has to be admitted that they generally would have been rather thick to deal with

many types of material though they have been used successfully on coarser fabrics (Crummy 1983, 65). Recently an intriguing suggestion has been made as to another likely function. It has been pointed out that they would have been ideal if the elaborate hairstyles seen in the depictions of Roman women were sewn rather than pinned (Stephens 2008, 121). If this is correct then they may as easily have been at home in the toilet category.

As the mention in the *Notitia Dignitatum* of a state weaving works at *Venta* in Britain has led in the past to a link being made between any textile equipment found in Winchester and this establishment (see for example Clarke 1979, 369), it is perhaps worth drawing attention to the paucity of textile working equipment that has been recovered from both these excavations and the ones on the suburb and defences sites (Rees *et al* 2008, 75-6). The amount recovered is even smaller if Stephens is correct and bone needles are in fact hairdressing aids. It is also worth noting that the set of weaving tablets are an item that would have been as much at home in a domestic work basket as the industrial confines of a state weaving works. There is some evidence that attitudes towards the production of textiles may have been changing in the 4th century. Certainly implements associated with weaving start to be deposited in female graves in a way that had not been seen before, and the shale industries of Dorset started producing lathe-turned spindlewhorls (Booth *et al* 2010, 274). The late square weaving tablets should probably be seen against this domestic background, and the presence of this set need have no connection with any industrial establishment.

37 **Set of weaving tablets**, four square and one triangular. Bone. All surfaces polished. The four square tablets each have circular perforation in corner (2.5-3mm in diameter); a pair of slightly larger (3.5mm in diameter) circular perforations centrally on two sides with groove across on either side.

A. Square. Two opposing corners broken off. Slight radial star-shaped wear around smaller perforations. Dimensions 32.5 x 32.5mm, thickness 2mm.

B Square. Complete. One corner stained green on one corner. Very slight wear on small perforations. Dimensions 33 x 32mm., thickness 2mm.

C. Square. Complete. One small perforation has radial star-shaped wear on both sides, two have similar wear on one side. Dimensions 33 x 32mm., thickness 2.5mm.

D. Square. Complete. One side has traces of polished cancellous tissue. One small perforation has slight radial star-shaped wear on both sides. Dimensions 33 x 31.5mm., thickness 2.5mm.

E Triangular, two notches on lower edge of sides, notches around apex to form

decorative edge; four circular perforations along the base (diameter 2.5-3mm) and one at apex (diameter 2mm). Very slight wear on perforations. Length 33mm, width 32mm. Ctx NH5208. SF NH1493. (ID 178) Phase 2.3.

- 38 **Needle**; shank fragment. Bone. Oval-sectioned tapering; one end broken across a rectangular eye, other end broken. Present length 42mm, section 4.5 x 3.5mm. Ctx NH3371. (ID 1503) Phase 6
- 39 **Needle**. Bone. Oval-sectioned shank broken across angled base of a rectangular eye; shank becoming circular-sectioned; other end broken. Present length 49mm., section 3.5 x 3mm. Ctx NH1398. SF NH154. (ID 1565) Phase 2.4.

Household equipment

Household equipment is represented by stone items considered elsewhere (a shale table leg, querns and a mortar fragment) and glass vessel fragments. The assemblage of the latter is a small one as can be seen from Table 4 and quantified by EVEs only produces a value of 2.0 because many of the pieces are relatively featureless body fragments. In what follows only the diagnostic fragments are discussed. The body fragments are catalogued in archive.

There are fragments from three vessels that would have been in use in the 1st century. Nos. 40 and 41 come from two pillar moulded bowls (Price and Cottam 1998, 44-46). No. 40, though from a late Saxon context, is one of the earliest finds from the site as deep blue bowls were in use in the middle of the century and become much rarer in the Flavian period. The blue/green examples such as no. 41 continued in use into the later part of the century. Blue/green pillar moulded bowls have been found before in Winchester at Victoria Road (Cool 2008a, 84 nos. 380-81). A mid 1st century polychrome example with a deep blue ground and blue/green bowls were also found at the Brooks (unpublished). No. 42 clearly comes from the range of mould blown vessels that were popular in the mid 1st century up to the c. 80s (Cool and Price 1995, 42-55). The details preserved would be consistent with it being an example of a small ribbed cup (see Price and Cottam 1998, 60-1, though one of the ribs has small beads up either side and this would not be normal, so it is possible it

came from some other type. Contemporary mould blown vessels were also found at The Brooks but again the precise forms were not identifiable.

Tablewares of the later 1st to 3rd centuries are rare. The body fragment no. 46 is most likely to be part of a conical jug, a common mid first to mid 2nd century form (Price and Cottam 1998, 152-4). The form is not uncommon at Winchester having been identified at three of the suburb and defences sites (Cool 2008, 86) and at The Brooks (unpublished). The only colourless vessel form that can be identified is the bowl no 43. This is an unusual vessel. Given the quality of the glass and the context the most likely date would be of the 2nd or 3rd century but wide curved bowls such as this at that period are not common. When they do occur they tend to be of somewhat better quality and thinner glass, and are decorated with linear, and sometimes facet, cutting (Price and Cottam 1998, fig. 36c). There is one example of late 2nd to early 3rd century cylindrical cup (no. 44) but in blue/green glass rather than the normal colourless glass (Price and Cottam 1998, 99-101). Examples in colourless glass were common at Victoria Road (Cool 2008a, 87 nos. 414 etc) and were found at The Brooks (unpublished) but this appears to be the first blue/green example to have been noted from Winchester. The blue/green rim fragment no. 45 and the base fragments nos. 47 and 48 belong to tablewares of this broad period but are not sufficiently diagnostic to assign to type. Blue/green bottles are represented by 10 fragments in total (see nos. 49-52 for the diagnostic pieces). Where the shape of the bottle can be identified they are all from prismatic, most probably square bottles. Bottles like these were in use from the later 1st into the 3rd century (Price and Cottam 1998, 194-200), and, as here, normally make up a large part of assemblages of that date (for Winchester figures see Cool 2008a, table 7). The one base fragment (no. 52) is small but the fragments of mouldings would be consistent with a pattern of six arcs within the circular moulding forming a six-pointed star. Normally the pattern is of four arcs such as on one from Catterick (Cool and Price 2002, 229 no. 97).

4th century vessels are more prolific. The common forms include a hemispherical cup (no. 53 - Price and Cottam 1998, 117-9) and a truncated conical beaker (nos. 54-5 - Price and Cottam 1998, 121-3). Both of these occur in large quantities on 4th century sites and have been noted previously at Winchester at Victoria Road (Cool 2008, 93), the Brooks (unpublished) and as grave goods at the Lankhills cemetery (Harden 1979, 211-3 classes I and II).

Two of the other 4th century fragments come from less common vessels. No. 57 is most probably from a straight-sided beaker. A large beaker with a pushed-in base ring and cracked-off rim and eight vertical trails similarly indented was recovered from the cemetery of Épiais-Rhus (Val-d'Oise) in a 4th century grave (Vanpeene 1993, 51 no. 84, pl. XIX). This vessel has terminals to the trails that correspond closely to the one on this vessel and also appears to have a similar weathering pattern.

This is not a common decorative technique on 4th century glass recovered from Britain, but it is one that has been noted as being characteristic of contemporary glass in the north of Gaul (Arveiller-Dulong *et al* 2003, 156). This is not the only possible import from that area in the glassware of 4th century Winchester. The Brooks produced one certain example of an indented truncated conical beaker and the body fragment no. 58 might possibly be from another. This is another late 4th to 5th century form, uncommon in Britain but present in the cemetery at Épiais-Rhus (Vanpeene 1993, 50 no. 81, pl XVIII). A late 4th century grave at the Lankhills School cemetery also produced an indented beaker, this time additionally decorated with spiral trails (Harden 1979, 215 no. 51, fig. 27). This is a rare form everywhere, but might be another candidate to be an import. The most recent excavations at Lankhills produced a glass tette (Booth *et al* 2010, 269-71), another form that is regularly found in 4th century cemeteries in north Gaul but which otherwise is unknown from Britain. A pattern is thus starting to emerge from the Winchester sites that suggests in the late 4th century part of Winchester's glass was being supplied from the glass-houses in northern Gaul.

- 40 **Pillar moulded bowl**; lower body and base edge fragment. Deep blue; interior ground, exterior fire-polished. Retaining parts of two narrow ribs; internal abraded band on interior. Dimensions 28 x 20mm. EVE 0.4. Ctx DC469, SF DC203. (ID 1419) Phase 4.2 BE4.
- 41 **Pillar moulded bowl**; upper body fragment. Blue/green; interior ground, exterior fire-polished. Retaining part of one narrow rib, upper edge of which retains tooling mark; broken at junction with ground rim zone. Dimensions 28 x 20mm. EVE 0.2. Ctx DC1740, SF DC862. (ID 1389) Phase 2.1
- 42 **Body fragment**. Blue/green. Mould blown. Slightly convex-curved; parts of two horizontal ribs, one of which has small depressions either side to make it appear like a leaf garland.

- Dimensions 21 x 14mm, wall thickness 2mm. Ctx DC3160, SF DC389. (ID 1393) Phase 2.4.
- 43 **Bowl**; rim fragment. Colourless with green-tinge, fire-rounded rim. Shallow with outbent side. Rim diameter 160 - 180mm, height 18mm, wall thickness 3mm. Ctx NH2444, SF NH1508. (ID 172) Phase 2.4.
- 44 **Cylindrical cup**; rim fragment. Blue/green. Vertical rim with fire rounded edge, thickened externally; straight side. Present height 11mm, wall thickness 1.5mm, EVE 0.2. Ctx NH6061, SF NH1645. (ID 168) Phase 1.3.
- 45 **Bowl or jar**; rim fragment. Blue/green. Outbent rim with fire-rounded rim edge. Dimensions 25 x 11mm, wall thickness 2mm. Ctx DC1580, SF DC460. (ID 1403) Phase 2.4.
- 46 **Jug (?)**; body fragments. Blue/green. Straight side; with terminals of three pronounced ribs. Dimensions 46 x 46mm, wall thickness 2mm. Ctx DC2193, SF DC682. (ID 1391) Phase 2.1.
- 47 **Base fragment**. Blue/green. Tubular pushed-in base ring; concave base. Base diameter 90mm. Ctx DC1611, SF DC466. (ID 1394) Phase 2.3.
- 48 **Base fragment**. Blue/green. Solid pushed-in base ring retaining small part of base. Base diameter 50mm. Ctx DC1459, SF DC1459. (ID 1413) Phase 5 BE3.
- 49 **Bottle**; handle fragment. Blue/green glass. Edge of reeded handle. Ctx NH2384, SF NH909. (ID 161) Phase 4.2 BW5
- 50 **Bottle**; handle fragment. Blue/green. Edge of reeded handle. Ctx NH6151, SF NH1677. (ID 159) Phase 5 SE1.
- 51 **Prismatic bottle**: shoulder fragment. Blue/green glass. Ctx NH6059. SF NH1666. (ID 164) Phase 2.4.
- 52 **Prismatic bottle**; base fragment. Blue/green. Part of concave case, base design - circular moulding retaining a small part of a curved moulding internally. Dimensions 40 x 36mm. EVE 0.14. Ctx DC1689, SF DC476. (ID 1390) Phase 2.2.
- 53 **Hemispherical cup**; rim fragment. Light greenish colourless; many small bubbles. Curved rim, curved edge cracked off smoothly but not ground; straight side. Abraded band on upper body. Rim diameter 75mm, present height 22mm, wall thickness 1.5mm. Ctx DC1579, SF DC457. (ID 1398) Phase 2.4.

- 54 **Truncated conical beaker**, rim fragment. Yellowish tinged, pale green; small bubbles. Curved rim, edge cracked off but not ground; straight side sloping in. Rim diameter 75mm, present height 20mm, wall thickness 0.2mm, EVE 0.4. Ctx NH2216, SF NH916. (ID 169) Phase 4.2
- 55 **Beaker**; base fragment. Pale green; small bubbles. Side sloping into edge of concave base. Present height 11mm, wall thickness 2mm. EVE 0.2. Ctx NH4282, SF NH1254. (ID 163) Phase 2.4.
- 56 **Base fragment**. Green-tinged colourless; surfaces much weathered. Flat base broken at inner edge of base ring. Dimensions 40 x 27mm, base thickness 3mm. Ctx NH5108, SF NH1456. (ID 171) Phase 5 SE1
- 57 **Body fragment**. Green-tinged colourless with small bubbles; weathering has produced pronounced slightly diagonal ridges. Straight side. Terminal of thick flattened trail with transverse indentations. Dimension 34 x 30mm, wall thickness 1.5mm. Ctx NH2398, SF NH913. (ID 155)
- 58 **Body fragment**. Green-tinged colourless with small bubbles. Small fragment possibly from deep narrow indentations. Dimensions 15 x 8mm., wall thickness 2mm. Ctx NH5094, SF NH1435. (ID 167) Phase 6.

Recreation items

Two counters were recovered. No. 59 is a small example of a very common type of bone counter (Greep 1986b, 202 type 2) that becomes popular in the mid 2nd century (Cool *et al* 1995, 1555 table 125). A set of 29 were recovered from a cremation burial at Victoria Road dated to the first half of the 3rd century Rees *et al* 2008, 113 no. 603).

No. 60, by contrast, is a less common type (Fig. 2). It belongs to a type of glass counter in use during the 4th century. Normally they have a ground colour that is either white or 'black' and are decorated by a varying number of coloured spots, normally red around blue or visa versa. A set with this colour combination was recovered from Grave 51 at the Lankhills cemetery (Clarke 1979, 252, pl. Ib). The white ground colour can appear green-tinged as was noted in the set found accompanying the burials in the temple-mausoleum at Lullingstone (Cool and Price

1987, 139). That set was unusual in having red-brown glass as the other ground colour rather than black, and in having spots of turquoise and yellow in addition to the normal red and blue. The spots on the Lullingstone set were more randomly scattered across the upper faces than was the case with the Lankhills set and many of the individual site finds. No. 60 seems to be closer to the Lullingstone set both in the quality of the 'white' ground, the arrangement of the spots and the use of the non-standard green to form one element of the pattern.

This is the second counter with red and green spots on a white ground to have come from Winchester as an unpublished example came from Wolvesey Palace (cited in Cool and Price 1987, 124). The colour combination, though with opaque green rather than translucent as here, has also been seen on examples from Kingscote, Glos. (Redknap 1998, 105 no. 8) and Beadlam, Yorks (Price and Cottam 1996 102).

The growing number with combinations of colours and arrangements of dots other than the neat red and blue circular arrangements might suggest that there were two different sources for these types of counters. These could well have been in Britain as, though sets have been recovered from a grave at Krefeld Gellep and from Amiens (Dilly and Mahéo 1997, 30), and occasional single examples have been found in the Low Countries (Cool and Price 1987, 124), they appear to be commonest in Britain.

When discussing the type in relation to the Lullingstone set (Cool and Price 1987, 124), only one site find from a dated context was known (Shakenoak, late 4th century), and dating had to depend on the evidence of the sets from graves. That suggested that they were in use during the first two-thirds of the 4th century. The grave at Kefeld Gellep was dated to the first half of the century based on pottery and a coin of Constantine I. The Lankhills grave was dated to between 310 and 370/90 based on horizontal stratigraphy. The temple mausoleum was stated to have been built c. 300 (Meates 1979, 124) but no evidence was presented explain why this date was chosen other than it was believed that the pottery jug accompanying the burials was closely dated to c. 275-325. Subsequently the jug was merely dated to the 4th century (Pollard 1987, 216 no. IB4) and the glass bottles are forms that continued in use into the third quarter of the 4th century (Price and Cottam 1998, 206-7).

In addition there are now two other examples from later 4th century contexts. One from Alcester came from one dating to after c. 350 (Allen 2001, 259 no. 321) and that from Uley came from a mid to late 4th century context (Woodward and Leach

1993, 177 no. 17). Price and Cottam in discussing the example from Beadlam note an unpublished example from Winterton in a 3rd century context. As the site too is unpublished, the security of this date cannot be assessed. Given the consistency of all the other dated contexts, it seems most likely that these polychrome counters were a mid to late 4th century type.

59 **Counter.** Bone. Circular with flat reverse and dished obverse with central dot; slight lipping on reverse. Diameter 14.5mm, thickness 4mm. Ctx NH1566. SF NH237. (ID 1566) Phase 2.3.

60 **Counter (Fig. 2).** Glass. Flattened plano-convex. Very pale green with three translucent green spots of varying sizes around opaque red central spot. Chipped on one edge. Diameter 18mm, thickness 5mm. Ctx DC2315. DC NH294. (ID 1433) Phase 6

Weighing equipment

No. 61 has the typical construction of a Roman steelyard weight, i.e. a lead weight with an iron rod iron wire centrally for suspension as can be seen on the set from Victoria Road (Rees *et al* 2008, 118 no. 617). This, however, would be very small for such a weight even allowing for the fact that steelyards function by having light weights. The identification has to be tentative and it may not be Roman as the subsoil in which it was found has produced finds from a wide range of dates.

61 **Weight?** Lead alloy. Sphere, with iron centrally. Diameter 11.5mm. Weight 6g. Ctx NH4390. (ID 961) Phase 1.3.

Structural finds

As ever the commonest structural find is the iron nail (catalogue in archive). Table 5 shows the number of nails stratified in contexts belonging to phases 1-6 quantified by heads. As can be seen, nails are found throughout the sequence but there are some grounds for thinking that some of those in Phase 5 and later contexts are residual Roman ones as the proportion of complete nails declines from Phase 4 onwards. Table 6 summarises the length by phase and the distribution of sizes is similar

throughout. The Roman complete nails have a median value of 60mm with those from later phases being similar (Phases 4 and 5 – 55mm, Phase 6 -57mm). These are the typical lengths used for all purpose work including timber cladding of buildings. The question of the use of nails in Phase 5 is further discussed below. Two other items of structural ironwork from Roman contexts are a possible hinge pivot (no. 62) and a strap hinge (no. 63).

Four fragments of Roman window glass were found residually in medieval context (nos. 64-5, also one from a modern context – SF DC679). All were of the typical cast variety common in the 1st to 3rd centuries, similar to the material found sporadically at the suburb and defences sites (Rees *et al* 2008, 143).

Of particular interest is the bright blue granular lump no. 66 which is most likely to be the Egyptian blue, a calcium-copper silicate deliberately manufactured to be a blue pigment. Its use in Britain has been discussed at some length in connection with the finds from Usk (Manning *et al* 1995, 308) and Stonea (Jackson and Potter 1996, 501). Though occasionally known from prehistoric contexts with the earliest find belonging to the middle Bronze Age, it becomes much more common during the Roman period. Following the discussion by Vitruvius (cited in Manning *et al* 1995, 308), it is normally thought to have been used as a pigment for wall plaster, but at both Usk and Stonea it was doubted that the distribution of the pieces fully supported such an identification. Instead the authors suggested the ground powder might have been used as a cosmetic. Interestingly at Usk the small spheres it was found as showed ‘small flat areas of wear, as though they have been scraped or rubbed’. This would fit with a cosmetic function as only small amounts would be required at any one time. By contrast for wall painting much more powder was likely to be required and it would be more practical to grind it in a mortar as was clearly being done at Pompeii when Vesuvius erupted in AD 79. In the house of the Casti Amanti (IX.12.9) all the paraphernalia of a wall painter was still in place at the foot of a wall in the course of being decorated, and this included pigments and mortars to grind them (Tuffreau-Libre 1999, 67-8). In another building (II.1.9) a group of pigment pots also thought to be associated with wall painting were recovered, one of which still retained pieces of Egyptian blue awaiting grinding (Barbet *et al* 1999, fig. 6). These were irregularly shaped lumps like no. 66 rather than the neat small spheres found at Usk and Stonea. So while the piece found here might have been for cosmetic

purposes, on balance it seems most likely that it indicates wall painting activity. Some evidence of painted walls was found during the excavations.

- 62 **Hinge pivot?**. Iron. L-shaped. Short arm narrow, long arm wide. Length long arm 85mm. Length short arm 35mm, width long arm 18mm. Ctx NH2000, SF NH801. (ID 223) Phase 2.3.
- 63 **Strap hinge**; fragment. Iron. Slightly tapering strap with broken ends, one broken across a perforation. Present length 55mm, section 21 x 6mm. Ctx NH7521, SF NH1822. (ID 417) Phase 2.3.
- 64 **Window glass**. Blue/green cast matt/glossy. Ctx DC1405. SF DC859. (ID 1410) Phase 4.2 BE2..
- 65 **Window glass**, 2 fragments. Blue/green cast matt/glossy. Area 3cm². Ctx DC1277. SF DC163. (ID 1425) Phase 6 BE3.
- 66 **Egyptian blue**. Bright blue; granular. Irregular lump. Dimensions 38 x 25 x 18mm, weight 14.8g. Ctx DC1579. SF DC504. (ID 1432) Phase 2.4.

Tools

The only tool that can be identified with certainty is a mason's or plaster's trowel (no. 67) associated with Structure NH8523. The shoulders of the piece are splayed but insufficient of the blade is preserved to assign it to one of the types in use in Roman Britain (see Manning 1976, 27 no. 71). The general outline and shape of no. 68 is consistent with it being a carpenter's spoon bit (see Manning 1985, 26 fig. 5 no. 3), but the tang appears to be too thin even allowing for the loss of thickness caused by corrosion. The identification has therefore to remain a tentative one. No. 69 (Fig. 2) is a curious bladed implement for which I have found no parallel. It was found in a secondary fill context associated with structure NH8523 and so a late Roman date is indicated.

The final tool is a utilised antler tine (no. 70). It comes from the fill of the possible culvert DC1642. Antler tends not to be very common on Roman sites and

antler utilised as a tool is rare so it is most likely that this represents sub-Roman activity.

No knife blades were identified from the Roman contexts though there are fragments from two bone handles. No. 71 is a simple one-piece handle of a sort often found on Roman sites. No. 72 probably came from another one-piece handle with faceted faces. It has ring and dot decoration down each face and this is not particularly common on Roman knife handles. An example found at Victoria Road had a square section with a facet at each angle producing an irregular octagonal section. On that example though, only the four main faces had ring and dot decoration (Rees *et al* 2008, 146 no. 658). That was found in a demolition layer of the late 4th century or later. No. 72 also came from a backfill layer associated with the disuse of structure NH8516 and so a very late date is presumably appropriate.

Hones and whetstones were also found (see Shaffrey *Digital Section 8*).

- 67 **Trowel**; fragment. Iron. Part of tang and back part of blade with sloping shoulders. Dimensions 65 x 50mm. Ctx NH7018, SF NH1702. (ID 415) Phase 2.3.
- 68 **Spoon bit (?)**. Iron. Rectangular-sectioned tang; elongate tapering head with sides turned up. Length 66mm, tang section 13 x 4mm. Ctx NH1383, SF NH177. (ID 940) Phase 2.3.
- 69 **Tool ? (Fig. 2)** Square-sectioned bar with oval rectangular-sectioned plate at one end, other end has implement at 90 degrees to plate; this has knife-like blade with two edges. Present length 150mm, section of central bar 9mm, depth bladed implement 32mm. Ctx NH2622, SF NH1505. (ID 301) Phase 2.3.
- 70 **Utilised tine**. Antler. Base sawn, much of cancellous tissue hollowed out. Wear facet on end and upper part polished from use. Length 110mm. Ctx DC1611. SF DC554. (ID 1436) Phase 2.3.
- 71 **Handle**. Bone. Fragment of a one piece undecorated handle with flat terminal; retaining traces of iron tang. Present length 66mm, maximum width c. 25mm. Ctx DC1579. SF DC564. (ID 1438) Phase 2.4.
- 72 **Handle**. Bone. Fragment from handle with faceted, possibly octagonal section, lower part becomes rounded; faceted section has row of small ring and dots down each face; smooth-side channel for tang internally. Dimensions 50 x 10mm. Ctx NH1395; SF NH208. (ID 1576) Phase 2.3.

- 73 **Handle (?)**. Bone. Chip from edge of turned item retaining three ribs and concavities between; cancellous tissue on inside. Diameter c. 25mm, dimensions 13 x 11mm. Ctx DC1630. (ID1568), Phase 2.4.

Fasteners and fittings

No. 74 (Fig. 2) is an example of a Manning (1985) Type 2 slide key. These are a very common Roman form and have been found at two of the northern suburb sites (Rees *et al* 2008, 164 nos. 807-8). The bit has been investigated and the wards are very shallowly marked and would not have been very practical. There is the distinct possibility that this piece was unfinished. Smithing activity is known to have taken place on this site but unfortunately as this key was found residually its relationship to that activity is unknown.

As ever on Roman sites, this functional category is dominated by small copper alloy studs (nos. 75-87). There are also one definite and one possible lead pottery repair (nos. 88-9 see also Biddulph *Section 1.2*). Iron loop-headed spikes (no. 91) can have structural uses and the size of this one would place it on the boundary of whether it should be considered a structural or a domestic fitting. The other two iron fasteners (nos. 92-3) of a size more appropriate for use in furniture.

Of the three mounts from Roman contexts, two (nos. 95-6) are too fragmented for their form or precise function to be identified. The third (no. 94; Fig. 2) is a very puzzling find. Its Roman date is undoubted as it came from the large pit that also contained one of the divided bow brooches (no. 4), hobnailed shoe soles (nos. 32-3) and the shale table leg (see Shaffrey *Digital Section 8*) and which was cut by the post pad of structure DC7003. It consists of a copper alloy frame with repoussé decorated sheet riveted onto iron plate. The decoration in the centre retains the lower part of a bird. I am not aware of any Roman parallels for it. The iron backing plate now ends at the margins of the frame but originally could well have gone beyond it. One possibility is that the piece could have come from a wooden chest covered with iron sheets which were in turn decorated. Such items have very occasionally been found in exceptional circumstances, such as the one from Villa B at Oplontis where the exceptional circumstance was the eruption of Vesuvius (Ambrosio *et al* 2003, 158-

60). It has to be admitted though that no. 94 is so exceptional that this has to remain speculation.

- 74 **Slide key.** Iron. Ring terminal, block handle; offset bit with shallow markings on three faces. Length 80mm, section of bit c. 13mm. Ctx NH1265, SF NH110 (ID 800) Phase 4 SE3.
- 75 **Conical-headed studs (2).** Copper alloy. Square-sectioned shanks, one possibly and one definitely broken. (a). Length 14mm, diameter of head 7mm. (b) present length 8mm. Head diameter 6mm. Ctx NH2589. SF NH1510. (ID 562). Phase 2.2.
- 76 **Conical-headed stud.** Copper alloy. Square-sectioned broken shank. Present length 9mm, diameter of head 5mm. Ctx NH2589. SF NH989. (ID 129) Phase 2.2.
- 77 **Conical-headed stud.** Copper alloy. Square-sectioned pointed shank bent to one side at tip. Length 13mm, head diameter 7mm. Ctx NH2589. SF NH1511 Ctx NH2589 SF NH1511 (ID 551). Phase 2.2.
- 78 **Conical-headed stud.** Copper alloy. Square-sectioned pointed shank. Length 12mm, head diameter 6mm. Ctx DC1410. SF DC428. (ID 1372) Phase 2.3.
- 79 **Dome-headed stud.** Copper alloy. Tapering shank. Much corroded and obscured. Length 13mm, head diameter 9mm. Ctx NH2562. SF NH983. (ID 543) Phase 2.3.
- 80 **Dome-headed (?) stud.** Copper alloy. Very heavily corroded and shank broken. Present length 7mm, head diameter 8mm. Ctx NH2589. SF NH1523. (ID 560) Phase 2.2.
- 81 **Dome-headed stud.** Copper alloy. Square-sectioned pointed shank, bent at end. Length 13mm, head diameter 8mm. Ctx NH1410. SF NH430. (ID 1375) Phase 2.3.
- 82 **Flat-headed stud.** Copper alloy. Broken, originally circular head; square-sectioned shank tapering to point. Length 14mm, original head diameter c. 10mm. Ctx NH4767. SF NH1371. (ID 569) Phase 2.3.
- 83 **Flat-headed stud.** Circular broken head. Square-sectioned shank tapering to blunt end. Length 6.5mm, head diameter 9mm. Ctx NH7418. SF NH1773. (ID 564) Phase 2.3.
- 84 **Hollow-headed stud;** head fragment. Copper alloy. Part of central dome with flange. Dimensions 15 x 14mm. Ctx NH u/s. SF NH68 (ID 815).
- 85 **Stud.** Copper alloy. Much corroded and obscured. Length 5mm. Ctx NH2589. SF NH1513.

- (ID 124) Phase 2.2.
- 86 **Stud.** Copper alloy. Broken head. Square-sectioned shank tapering to point. Length 10mm. Ctx NH2034. SF NH954. (ID 133) Phase 2.4.
- 87 **Stud;** shank fragment. Copper alloy. Present length 15mm. Ctx NH2034. SF NH960. (ID 130) Phase 2.4.
- 88 **Pottery repair.** Lead alloy. Oval, H-sectioned. Length 31mm, weight 40g. Ctx NH6059, SF NH1662. (ID 960) Phase 2.4.
- 89 **Pottery repair?** Lead alloy. Oval with rivet at end. Dimensions 16 x 10mm, thickness 5.5mm, weight 5g. Ctx NH6059, SF NH1664. (ID 959) Phase 2.4.
- 90 **Ferrule.** Iron. Square bar tapering to point; upper end hammered out and bent over to form a socket. Length 80mm, socket diameter 20 x 18mm. Ctx NH5186, SF NH1479. (ID 311) Phase 2.3.
- 91 **Loop-headed spike.** Iron. Rod with one end folded to form loop, other broken. Present length 105mm, width head 30mm. Ctx NH1413 SF NH136. (ID 797) Phase 2.3.
- 92 **Split pin.** Iron. Complete. Length 85mm, diameter of ring at head 17mm. Ctx NH3745. (ID 449) Phase 2.4.
- 93 **Staple.** Iron. U-shaped. Length 30mm, width 20mm. Ctx NH1313, SF NH115. (ID 770) Phase 2.3.
- 94 **Mount (Fig. 2).** Copper alloy and iron. Hollow D-sectioned oval ring riveted in four places to backing of copper alloy sheet and iron plate; iron backing now stops at the outer edge of the frame but may originally extended beyond it. Much of interior now missing. Copper alloy sheet had repoussé decoration consisting of beaded ring inside the frame with a figured design internally, the legs of a bird standing on a branch with a diagonal moulding to the left which may be the tail of the bird. Dimensions 62 x 55mm, section of frame 6.5 x 3mm. Ctx DC3331, SF DC323. (ID 1522) Phase 2.3.
- 95 **Openwork mount;** nine fragments. Copper alloy. Straight edge with 90 degree angle bent over; pattern includes a circular frame with other elements of openwork. One flat element has circular perforation. Circular headed stud with thick shank. Internal diameter of circular frame c. 20mm. Stud head diameter 8mm. Ctx DC3331 SF DC332. (ID 1350) Phase 2.3.

- 96 **Mount.** Copper alloy. Perforated fragmented sheet, possibly strap fitting. Largest fragment. 15 x 9mm. Ctx NH1486 SF NH155. (ID 812) Phase 2.3.

Military equipment

As with many Roman towns Winchester has produced small quantities of late 2nd to 3rd century military equipment, plausibly interpreted as providing some evidence of the presence of detachments of the army on policing duties. At Victoria Road, for example, a strap-end was found in an early to mid 3rd century context and a brass inlaid iron scabbard slide of 3rd century form was found in a late 4th century context (Rees *et al* 2008, 173 nos. 934, 939). In discussing the latter a very similar slide was noted as having come from the unpublished Biddle excavations at Ashley Terrace in 1964. These excavations have added a fourth piece to this group as the type of asymmetrical openwork decoration seen on no. 97 (Fig. 2), together with the integral rivet and washer is typical of the sort of strap fitting used in the 3rd century by the military (Bishop and Coulston 2006, 182, 190). The presence of this piece should be viewed alongside the divided bow brooches (nos. 3 and 4) as suggesting a possible military presence in the vicinity.

The other items in this category are all of 4th to 5th century date. No. 98 is the arm of a spur. In discussing the two found in Grave 1846 at Lankhills it was shown that these were a military fashion that began in the late 4th century (Booth *et al* 2010, 290-1). There are two types of copper alloy spur in use at that time in Britain. The commonest has a hook fashioned to resemble a bird head jutting forward above the heel prick, such as can be seen on one from Filey (Ottaway 2001, 129 no. 21, Illus. 29). This appears to be an insular variant. The other type, which the Lankhills spurs belong to, have a third riveted attachment above the heel rather than a hook. This type is much commoner on the continent than it is in Britain where it is very rare. No. 98 has few diagnostic features which would help assign it to one or other of the variants but the disc is larger than is often seen on the hooked form, and is of similar size to those on the Lankhills spurs. The difference in the size of the plates on the two variants is not universal, a triple-riveted spur from Bay's Meadow, Droitwich, for example, has smaller plates (Lloyd Morgan 2006, 197 no. 3) but in this case, given

the presence of the triple riveted spurs at Lankhills, it is perhaps more likely that no. 98 came from another example.

Rectangular sheet buckle plates such as no. 99 are another 4th century military type which was well-represented at Lankhills (Clark 1979, 272; Booth *et al* 2010, 286) and has also been found in domestic context around the town (Rees *et al* 2008, 173 nos. 936 and 938). It is possible that no. 100 came from a second example but it is too fragmented to be sure. Though assigned to Phase 1.3, the context no. 100 came from was a subsoil one which had items of much later date in and so the apparently early context need not argue against a 4th century date.

- 97 **Strap mount (Fig. 2)**; one end missing. Copper alloy. Openwork face divided into four elements asymmetrical elements with 'D'-sectioned bars. Complete end has two outer bars ending in scrolls, one facing in, one facing out. Integral rivet with disc washer behind extant terminal. Present length 32mm, maximum width 19.5, diameter of washer 9mm. Ctx DC1579. SF DC473. (ID 1381) Phase 2.4.
- 98 **Spur (Fig. 2)**; one arm. Copper alloy. Perforated disc with stem. Length 35mm. CtxNH2221 SF NH829. (ID 546) Phase 5 BW5.
- 99 **Buckle plate**. Copper alloy. Rectangular sheet folded in half with cut-out for of pin; one side now much fragmented. Extant corner retains rivet. Length 20mm, width at least 23mm. Ctx DC1592, SF DC446. (ID 1363) Phase 2.3.
- 100 **Buckle plate or strap end**. Copper alloy. Fragment of folded sheet with edge of perforation. Dimensions 15 x 13mm. Ctx NH6061, SfNH1645. (ID 144) Phase 1.3.

Religious items

Bells can have a number of uses but it is clear that in antiquity they frequently formed part of tintinnabula to ward off evil spirits (Manning *et al* 1995, 55-6). They are not chronologically sensitive. This example was found in a floor layer of Structure 8518 and it is possible that it was deliberately incorporated in this deposit. A large copper alloy bell had clearly formed a threshold deposit at Scole (Seeley 1995), and quadrangular bell was also found in a make-up level for a large house at Culver Street, Colchester (Crummy 1992, 187 no. 1663). The example from Scole and the

fact that bells had this protective role makes it distinctly possible that those in floors were deliberately, rather than randomly, included.

101 **Bell (Fig. 2).** Iron. Square-sectioned, conical with loop; clapper missing. Length 37mm, maximum width 35mm. Ctx NH1175, SF NH166. (ID 925) Phase 2.3.

Industrial by-products

Small amounts of evidence for the casting copper alloy artefacts (no. 102: Fig. 3), and blowing glass (no. 103) were recovered. There is also evidence of iron forging in the form of hammerscale. These are the small fragments of iron that fly off as sparks when iron is being forged. It is an invaluable indicator that smithing is taking place in the vicinity. Amongst the material submitted to me a single fragment of flake hammerscale came from a sample from a surface which was part of DC7002 (SF DC918 – Phase 2.1). A larger quantity (9.5g. Ctx DC1630) was recovered from a dark earth context. For the main discussion of iron smithing on the site see Starley, *Digital Section 4.1*.

No. 102 is most likely to be the waste metal that accumulates when the molten copper alloy was poured into a mould. It was found in a dark earth layer but may perhaps be added to the crucible fragment from structure NH8521 as indicating that copper alloy artefacts were being made in the vicinity.

Finally the moile no. 103 provides evidence for the blowing of blue/green glass vessels, as it is the waste glass that remains around the neck of the blowing iron when the vessel has been blown and knocked off. Unfortunately it comes from the subsoil attributed to Phase 1.3 but which, given the variously dated items it contains, cannot be used as a dating indicator. The blue/green colour would indicate the blowing of vessels sometime within the 1st to 3rd centuries. It is unlikely to have been on this site as there is no other evidence of glass blowing waste at all and even a small glass blowing episode will result in relatively large quantities of very characteristic waste products (see for example Price and Worrell 2006, 132-4 Colour plates 2-20). Four fragments of glass blowing waste were found at Victoria Road in contexts ranging from the late 2nd to the 13th to 14th centuries (Rees *et al* 2008, 181). Again the quantity was insufficient to suggest an *in situ* glass blowing industry and

the fragments were presumably re-deposited as this one must have been. That glass vessels were being blown in Winchester need occasion no surprise as there is an ever growing *corpus* of the characteristic waste products (see for example Price 2002, Cool 2003, 141. More sites could now be added). This indicates that the small scale production of glass vessels was probably regularly undertaken in southern Britain during the Roman period.

- 102 **Sprue? (Fig. 3)** Copper alloy. Assymmetrical cone with irregular hollow centre; rectangular-sectioned 'shank' with bevelled cut end. Length 25mm, maximum section of cone 23 x 20mm, section shank 12.5 x 5mm. Ctx NH2444. SF NH957. (ID 544) Phase 2.4.
- 103 **Cylindrical moile**, fragment. Blue/green with darkly yellow/green - black impurities by broken 'rim' edge. Cylindrical expanding out slightly to conchoidal break at rim; diagonal streaked impurities with parallel elongated bubbles. Diameter c. 30mm, wall thickness 3mm, present height 17mm. Ctx NH6061, SF NH1614. (ID 154) Phase 1.3.

Miscellaneous

A number of items cannot be assigned to a functional category and they are catalogued here. In the case of the numerous bone shank fragments (nos. 104-12) they might have come from hair pins or needles which are represented otherwise in the assemblage, or from bone spoons which are not.

- 104 **Shank**; fragment. Bone. Circular-sectioned, tapering; both ends broken. Present length 43mm, maximum section 3mm. Ctx DC3371. SF DC336. (ID 1448) Phase 2.1.
- 105 **Shank**; fragment. Bone. Circular-sectioned tapering slightly towards both broken ends. Present length 44mm, section 4mm. Ctx NH1415. NH sf139. (ID1562). Phase 2.3.
- 106 **Shank**; fragment. Bone. Circular-sectioned; both ends broken. Present length 37mm, section 3.5mm. Ctx NH9543. (ID1563). Phase 2.3.
- 107 **Shank**; fragment. Bone. Circular-sectioned tapering shank; both ends broken. Present length 25mm, section 2.5mm. Ctx NH1426. SF NH153 (ID1574). Phase 2.3
- 108 **Shank**; fragment. Bone. Circular-sectioned, tapering to point; other end broken. Present

- length 47mm, maximum section 3mm. Ctx NH2239. SF NH839. (ID 1500) Phase 2.3.
- 109 Shank. Bone. Circular-sectioned tapering slightly towards both broken ends. Present length 51mm, section 3.5mm. Ctx NH1316. NH sf119. (ID1561). Phase 2.4.
- 110 **Shank**; fragment. Bone. Circular-sectioned tapering to one end; both ends broken. Present length 38mm, section 4mm. Ctx NH2269. (ID1571). NH2269. (ID1571). Phase 5 BW4.
- 111 **Shank**; fragment. Bone. Circular-sectioned, tapering to point; other end broken. Present length 35mm, maximum section 4mm. Ctx NH3286 : SF NH1021. (ID 184) Phase 6 BW3.
- 112 **Shank**; fragment. Bone. Circular-sectioned tapering; both ends broken. Present length 34mm, section 3.5mm. Ctx NH2129. SF NH827. (ID 1501) Phase 6 BE5
- 113 **Spike**. Iron. Slender tapering to point with other end bent at 90 degrees. Length 45mm, maximum thickness 4mm. Ctx NH6061, SF NH1613. (ID 439) Phase 1.3.
- 114 **Spike**. Iron. Length 160, width 7mm. Ctx DC1687 SF DC566 (ID 1116) Phase 2.3.
- 115 **Spike**. Iron. Length 160mm., maximum width 10mm. Ctx DC1630 SF DC491. (ID 1204) Phase 2.4.
- 116 **Ring**. Iron. Diameter 20mm. Ctx NH6061. (ID 486) Phase 1.3.
- 117 **Ring**. Iron. Rectangular-section (flat). Diameter 53mm. Ctx NH6059, SF NH1603. (ID 39) Phase 2.4.
- 118 **Weight (Fig. 3)**. Lead alloy. Perforated hemisphere, perforation approximately square-sectioned and tapering out to base. Diameter 29 x 28mm, thickness 11mm. Perforation diameter 10-14 x 16mm, weight 43g. Ctx NH2039, SF NH936. (ID 963). Phase 2.4.
- 119 **Bar**. Bone, large mammal long bone. Rectangular-sectioned with cancellous tissue in underside; bevelled short edges. Length 169mm, section 13 x 6mm. Ctx NH1522. SF NH142. (ID 1567) Phase 2.1.
- 120 **Fragment**. Bone. Chip from edge of turned item retaining three ribs and concavities between; cancellous tissue on inside. Diameter c. 25mm, dimensions 13 x 11mm. Ctx DC1630. (ID1568), Phase 2.4.

Overview of the Roman finds

Assessing the nature of the occupation during the Roman period on these sites is somewhat hampered by the nature of the excavations and the truncation from later features. In the vessel glass assemblage one of the earliest fragments (no. 40) was found in a late Saxon context probably because it is a fragment from a robust pillar moulded bowl and is precisely the sort of item that survives in a recognisable form in a residual context. An urban site that has deep blue pillar moulded bowls might be expected to have a range of other mid 1st century vessels but only one is represented (no. 42), presumably because the early contexts that might have produced them were not excavated.

The finds attest to occupation from the mid 1st century to the late 4th to 5th centuries and it is the later periods that are best represented. This presumably reflects much more what was dug rather than fluctuating levels of occupation. Of particular note is the evidence suggesting a military presence in the vicinity in the later 2nd to 3rd centuries as attested to by the brooches nos. 3 and 4 and the mount no. 97. This joins other sporadic evidence of the presence of soldiers in the town at this time and probably attests to the presence of small units active on policing duties. Evidence of the presence of late 4th century military men is also present in the form of the spur fragment no 98 and the belt buckle no. 99. The question of whether people who wore belts at that time were soldiers or administrators is a vexed one. What may be said here is that this is precisely the sort of equipment that a subset of the people at the Lankhills cemetery were being buried with. Other indicators that people like those buried at Lankhills were living in the vicinity include the fragment from a bone bangle (no. 28) and the polychrome glass counter no. 60.

A certain amount of industrial activity is attested to including glass blowing (no. 103) and the casting of copper alloy artefacts (no. 102). The latter joins other evidence that copper smithing may have been taking place in the vicinity but the single glass moile is insufficient evidence that the same can be said for the glass blowing.

One context, the fill of pit 3330, is of special interest. As well as the shale table leg reported on elsewhere, it contained one of the substantially complete divided bow brooches (no. 4), the very unusual figured mount (no. 94) and a large number of hobnails indicative of at least one shoe. Whilst this could be casual rubbish disposal,

it is an unusual group and it might be possible that some element of structured deposition was taking place. Shoes were sometimes used in these rituals and a close examination of any animal bone and pottery present would be of interest.

The Late Anglo-Saxon to Medieval Finds

Three tables are presented here by way of introduction to the discussion of all the late Anglo-Saxon to medieval finds. Table 7 shows all of the finds found stratified in Phase 4 and later contexts which could be located to the various properties. This includes less diagnostic material and items that are residual Roman pieces. Not all Roman items can be distinguished from later ones on typological grounds, but Table 8 shows the distribution of those that can, again according to property. As can be seen from that, residuality does not appear to be a uniform problem and some properties suffer from it more than others. Finally Table 9 shows the items that on either typological grounds or according to context can be assigned to the late Saxon to medieval periods excluding obviously Roman pieces. As can be seen the main focus of deposition is in Phases 4.2 and 5 and as will become clear in what follows, much of the material is of 10th to 12th century date with high medieval material of the 13th century onwards being rare.

Personal equipment

Brooches

No. 121 (Fig. 3) from a Phase 4.2 context belongs to the late Saxon tradition of disc brooches made in a variety of metals ranging from gold and silver to iron and pewter. Large disc brooches in precious metals became fashionable in the 9th century (Tait 1986, 108), but it might be suspected that those in base metals were slightly later. At Coppergate, nine examples all of base metals were found concentrated in mid 10th to mid 11th century contexts though occupation was present there from the 9th century onwards (Mainman and Rogers 2000, 2571). Fine dating of the type normally relies on the art styles seen on the front face. Unfortunately it is not possible to explore that aspect for this example. All the surfaces of the piece are much corroded but there are

no traces of any decorative pattern on the front of the brooch and it must be assumed that what remains is the base plate. There are no traces of solder on the front as there are on the back for the attachment of the hinge and catchplate and so it is unlikely that the front was soldered in place. One possibility is that the decoration would have been applied to a thin sheet of copper alloy of slightly larger diameter which was fastened to the base plate by having the edges turned under as was done on a pair of iron disc brooches found at Coppergate, both from mid 10th century contexts (Mainman and Rogers 2000, 2571 - with other parallels noted).

Small pins such as no. 122 (Fig. 3) were suitable for the annular brooches and buckles popular in the later medieval period. Any date from the later 12th into the 15th centuries would be possible for this piece. Given this piece is made from silver this one probably came from a brooch. The presence of a silver brooch on this property (SE1, Phase 6) is of some note as neither the 1961-1971 excavations nor those on the northern suburb and defences sites produced any examples of annular brooches made in precious metals

Two items (nos. 123-4) have been included here as possible brooches though it has to be admitted at the outset that this is only a tentative identification. The one preserved in its most complete form (no. 123; Fig. 3) is broken into five pieces and the orientation of the plain fragment marked (a) on the illustration is not known so there is the possibility that this was originally a closed loop. The end of the bar which has the strip wrapping has been investigated and is broken. The decorated panel was clearly intended for display and the strip wrapped around the back bar could well have been the terminal of a pin. The elements are thus consistent with it being a brooch or buckle though it would be large for such an item. Given the face opposite the pin was clearly made for display, this would argue against it being a buckle as the strap would obscure the pattern. Equally though the contrast between the plain narrow back and the broad decorated front would suggest that it was more likely to be a buckle than a brooch. The late Saxon date of these items is undoubted given their contexts

- 121 **Disc brooch (Fig. 3);** fragmented but approximately three-quarters extant. Copper alloy disc. Separate hinge attachment consisting of rectangular strip pinched to form two projections for hinge bar, second rectangular soldered onto base; pin still in place. Hinge now detached from disc but original position still clear from straces of lead alloy solder. Fragments of detached strip for catchplate with traces of lead alloy and traces of lead alloy on disc where it was attached. Diameter disc 88mm, thickness of disc 1.5mm, length pin 45mm, section pin 2mm,

dimensions hinge base plate 15.5 x 6mm. Ctx NH4398, SF NH1267. (ID 825) Phase 4.2 BW1.

- 122 **Brooch or buckle pin (Fig. 3).** Silver. Perforated flat disc head; circular-sectioned shank tapering to point. Length 21mm, shank section (maximum) 1.5mm. Ctx NH5095, SF NH1448. (ID 567) Phase 6 SE1
- 123 **Brooch? (Fig. 3)** Iron. Possibly originally oval, back rectangular section expanding at ends and front to form flat crescentic field for decoration - 9 rectangular units of brass inlaid spirals with inlaid line on either side. Broken rectangular strip wound around lower part of back. Length 83mm, maximum section of inlaid zone 18 x 3.5mm. Ctx NH7667, SF NH1803. (ID 402) Phase 4 BW6.
- 124 **Brooch?** Iron. Crescentic plate with slight lozenge section with broken ends. Inlay of brass spirals. Length 85mm, maximum 14 x 4mm. Ctx NH1109, SF NH197. (ID 779) Phase 4.2 SE2.

Rings

Three rings were recovered from Phase 4.2 contexts. The metal one no. 125 (Fig. 3) is certainly large enough to have functioned as a finger ring. Bone rings such as nos. 126-7 seem to have been mainly in use during the 9th to 11th centuries. One in bone and two in antler were recovered from late 10th to mid 11th century contexts at Coppergate in York (MacGregor *et al* 1999, 1943). In the 1961-71 excavations in Winchester nine bone examples were found in contexts dated from the late 9th to the 19th centuries (Biddle 1990, 1136 nos. 432-9). Four of these pre-dated the early 12th century and of those from later contexts, three came from the St Pancras site on Brook Street where one had been found in a 9th to 10th century context and so could have been residual from this early activity. Though the rings have been included here amongst the personal equipment section, there is no consensus on what they would have been used for. Those from Coppergate were described as ‘probably finger rings’ whilst the earlier Winchester ones were include in the miscellaneous section.¹

No. 128 (Fig. 3) is stirrup-shaped finger ring, a form in common use in the 12th and 13th centuries (Hinton in Biddle 1990, 647) with some examples continuing in use in the 14th century (Hinton 1982, 31 pl 16). The example from the 1961-71 excavations came from a 13th century context, and that from Victoria Road from a

¹ Since this report was written, another bone ring of this sort has been found in the vicinity of these excavations during the excavations at Staple Court, Staple Gardens (SG10) by Border Archaeology.

13th to 15th century soil level (Rees *et al* 214 no. 1314). This example came from a Phase 6 context and may have been residual in the chalk surface it was found in.

- 125 **Finger ring (Fig. 3).** Copper alloy. Triangular-sectioned annular ring now with oval outline. Outer face has punched transverse decoration resembling a groove with expanded ends. Diameter 23 x 18mm, section 2 x 1.5mm. Ctx NH1210. SF NH72 (ID 816) Phase 4.2 SE2.
- 126 **Ring,** Bone. 'D'-sectioned. Approximately 25% extant. Diameter c. 18mm, section 4 x 2mm. Ctx NH4369. (ID1573). Phase 4.2 BW2.
- 127 **Ring (Fig. 3).** Bone. D-sectioned. Now snapped across at one point. Diameter 22mm, section 5 x 2.5mm. Ctx DC1357. SF DC936. Sample DC137. (ID 1468) Phase 4.2 BE2.
- 128 **Finger ring (Fig. 3).** Gilded copper alloy. Upper part of hoop and bezel. Circular-sectioned stirrup-shaped hoop expanding vertically to bezel with small circular setting, empty. Width 18mm, setting 3mm, hoop section 2mm. Ctx NH3224. SF NH1013. (ID 581) Phase 6 BW3.

Hooked tags

In general hooked tags such nos. 129-30 have a date range from the 7th to the 14th century (Rees *et al* 2008, 216). At Winchester they are a common find, most numerous in the 10th and 11th centuries. Prior to the recovery of this pair 18 had come from contexts of that date with a further eight being found in 12th century or later contexts (Hinton in Biddle 1990, 549-52 nos.1407-27; Rees *et al* 2008, 216 nos. 1337-41). They were made in both copper alloy and iron (see for example Ottaway 1992, 697). Hitherto only three iron examples have been found in Winchester but this balance between ferrous and non-ferrous examples probably merely reflects the fact that the earlier examples came from excavations conducted before X-radiography of the iron was routine. Certainly no. 129 would not have identified without the aid of X-radiography. It may be surmised that these little fittings would have been even commoner in the city in the 10th to 12th centuries than even this large assemblage indicates.

- 129 Hooked tag. Iron. Triangular with two perforations at base. Length 18mm, width 7mm. Ctx DC2290, SF DC1013, Sample DC251. (ID 1289) Phase 4.2 BE4.
- 130 Hooked tag. Copper alloy. Circular disc with bent tag, pair of small perforations at back.

Diameter 12 x 11mm, thickness 1.5mm, perforation diameter 1mm. Ctx DC3084, SF DC392, sample DC309. (ID 1387) Phase 5 BE5.

Pins

In discussing the finds from the 1961-1971 excavations glass-headed pins such as no. 131 (Fig. 3) were gathered together as Type C and a possible 11th to 12th century date was suggested (Biddle 1990, 554). It was noted that glass-headed pins were also found in Roman contexts and the possibility that they were residual was raised. The Roman form (Cool 1990, 165 Group 16) can easily be distinguished from pins like no. 131. The Roman ones have slender shanks for Roman hair pins (1-2mm in section) but the shank is clearly not slender wire as here. The heads tend to be mushroom-shaped and their formation by winding a trail of glass around the head can often be seen. The Winchester heads by contrast appear to be made as beads. On the X-radiograph for this example the head shows as a very bright shape and it is to be suspected that it is formed from lead glass which is known to have been worked in the 11th century (Bayley and Doonan 2000), but which was not in use during the Roman period other than for specialist glasses for enamels. The Roman pins have heads that are made of the typical soda lime silicate glass in common use at the period and, as a consequence, are translucent, unlike this example which appears almost opaque. The 11th to 12th century date of the Winchester Type C pins can thus be regarded as proven and is supported by the recovery of similar pins at London in contexts of the second half of the 12th century (Egan and Pritchard 2002, 304 nos. 1468-9).

There are two examples of 'sewing pins' (nos. 132-3) with wound heads. These were in use from the 13th century onwards in Winchester (up to the late 19th century) and have been fully discussed by Biddle and Barclay (in Biddle 1990, 560-571). Such pins are frequently found in large number and were clearly being used in very large quantities as dress accessories by the 14th century (see Egan and Pritchard 2002, 296). The fact that here only two examples were found is noteworthy, despite the sites having all the advantages of environmental sampling which frequently produces small accessories such as these. It illustrates very graphically the decline in occupation after the 12th century.

131 Dress pin (Fig. 3). Copper alloy broken wire shank, globular dark green spherical glass head with slight tooling mark on side. Present length 26mm, diameter of head 6mm, depth of head

5mm, shank section 0.5mm. Ctx NH2027, SF NH809. (ID 141) Phase 5 BW4.

- 132** 'Sewing pin' (Fig. 3). Copper alloy. Complete. Wound head of one and a half turns; circular-sectioned shank with pointed tip. Length 127mm, depth head 2mm, diameter head 3mm, diameter shank 1.25mm. (Imperial length excluding head 4 15/16"). Ctx NH3234. SF NH1059. (ID 588) Phase 6 BW3
- 133** 'Sewing pin'. Copper alloy. Shank with traces of wound wire at head. Circular-sectioned shank with pointed tip. Length 50mm, diameter shank 0.75mm. Ctx DC1296. SF DC169. (ID 1334) Phase 6 BE3.

Beads

The minute bead no. 134 is an unusual find for the 11th to 13th century context it was found in. Very small glass beads like this are found on late Roman sites and are also recovered on 17th and 18th century sites where they were being used as part of beaded decoration on clothing (Cool 2008b, 302). It seems most likely that this is either a residual or intrusive find, but has been catalogued here in case they are a hitherto unsuspected aspect of Saxo-Norman material culture. They are the sort of find that is only generally recovered through sieving and so may be under-represented in the archaeological record.

- 134 Bead; glass. Minute annular bead; translucent peacock (green/blue). Diameter 2mm, length 1.5mm, perforation diameter 1mm. Ctx DC3050, SF DC1115. (ID 1463) Phase 5 BE5.

Buckles and strap fittings

All of the buckles stratified in Phase 4 contexts were made of iron and had simple D-shaped or circular frames. The same is true of the only example from a Phase 5 context (no. 138). These are not chronologically sensitive and there is a growing amount of evidence that they were a regular part of late Roman belt equipment (Clarke 1979, 278; Booth *et al* 2010, 287). Given that such equipment has been found on this site, there is the possibility that 135-7 and the buckle pin no. 142 could be residual Roman pieces. Two of the pieces came from Properties BE1 and BW5 which both had high residual Roman components thought that was not the case for Property BE4 which produced two of these buckles. Even allowing for the possibility of some being residual, there does appear to be a trend on other contemporary Winchester sites for iron to be the preferred metal and simple undecorated frames to

be the preferred shapes for such buckles that were needed. Buckles of non-ferrous alloy generally appear to have been scarce in the late Saxon contexts in the 1961-71 excavations. Of the 152 medieval examples published only 13 came from 12th century or earlier contexts. Iron ones were proportionately slightly commoner during that period with nine of the 31 iron D-shaped buckles coming from the earlier contexts (Biddle 1990, 512-30). In the suburb and defences excavations late Saxon contexts with buckles were rare but where they occurred iron buckles of simple shapes were found (Rees *et al* 2008, 220 no. 1437, 222 no. 1460).

There is only one example, no. 139 (Fig. 3) from an unstratified context, of any of the high medieval type buckle types that are normally so common in medieval assemblages. It has an oval frame with ornate outside edge. In discussing the ones from London, Egan and Pritchard (2002, 76) date their period of use from the late 12th to late 14th centuries. Discussing the ones from the 1961-71 excavations at Winchester, Hinton (in Biddle 1990, 507) describes them as a 14th century form, and certainly the examples that are illustrated all come from 14th century contexts (*ibid* 517-9 nos. 1161, 1166, 1170, 1171). Nos. 1163 and 1167 there are also probably of this form and they too come from 14th century contexts. The example from Victoria Road also came from a broadly contemporary context (Rees *et al* 2008, 220 no. 1448 – 13th to 15th century cellar fill). At Winchester, therefore the form appears to be commonest in the 14th century.

Buckle plates do not appear in this assemblage until Phase 5 which would support the idea that simple buckles were preferred in the late Saxon period. Simple forms of buckle plate such as no. 140 are not amenable to close dating. It clearly does not belong to the commonest forms of high medieval buckles as these need to be recessed at the outer edges of the fold to accommodate the frame and that feature is missing here. A similar sheet plate lacking the recesses was found in a late 12th to mid 13th century context at the Assizes Court South site (Hinton in Biddle 1990, 514 no. 1119).

The other plate (no. 141; Fig. 3) is unusual. The slot for the brooch pin and the recessed edges for the frame of the buckle are typical of high medieval buckle plates (see Egan and Pritchard 2002, 52) but the method of attaching the plate to the buckle frame is unusual.

Where they can be independently dated the other strap fittings are generally of high medieval date. The strap end no. 145 lacks its upper part through a break, but the

strap would only have occupied the space at the top of the strap-end where the break has occurred. The lower edges are clenched flat. Long thin strap-ends made in a similar way have been recovered from 14th century contexts in London but hitherto does not appear to have been recorded from Winchester (Egan and Pritchard 2002, 130 nos. 603-606).

Narrow bar mounts with perforations in either end were used as stiffeners on straps (Egan and Pritchard 2002, 209-15). In the 1961-71 excavations, an example with perforated expanded plates like no. 146 came from an early to mid 10th century context (Hinton in Biddle 1990, 544 no. 543), though most of the mounts that served this purpose were 13th century or later. At London similar simple forms were predominantly from late 13th to mid 14th century contexts (Egan and Pritchard 2002, 213). It is noticeable that mounts such as this are absent from assemblages such as Coppergate which otherwise have produce prolific amounts of 10th century metalwork (Mainman and Rogers 2000). It would be tempting to regard the early date for the example from the 1961-71 excavations with some caution but no. 146 also came from a late Saxon context and so the possibility that they did come into use much earlier now has to be entertained.

No. 147, from a Phase 6 context, seems likely to be a bar mount for stiffening straps like no. 136, though it is somewhat larger than normal. The form of a central lobe with two terminals has been recovered from London mainly from later 13th and 14th century contexts though one from a late 12th century context is also known (Egan and Pritchard 2002, 213). A small example from the 1961-71 excavations at Winchester was found in a mid to late 13th century context (Hinton in Biddle 1990, 543 no. 1371, fig. 144). The circular mount no. 148, also from a phase 6 context, was probably in use slightly later. They came into use during the 13th century and became very fashionable in the later 14th and early 15th centuries (Egan and Pritchard 2002, 162).

- 135** **Buckle;** complete. Iron. D-shaped frame, pin wrapped around cross bar and resting on frame. Length 40, width 30mm. Ctx DC1022, SF DC114. (ID 1121) Phase 4 BE1.
- 136** **Buckle (Fig. 3);** complete. Iron. Circular-sectioned oval frame with pin wrapped around crossbar. Mineralised organic in corrosion products. Dimensions 79 x 42mm, cross bar section c 6mm. Ctx DC2256, SF DC260 (ID 1088) Phase 4.2 BE4.

- 137 Buckle frame?** Iron. Part of oval frame. Present length 25mm. Ctx NH2534, SF NH965. (ID 286) Phase 4.2. BW5.
- 138 Buckle;** complete frame. Iron. D-shaped with straight crossbar with stepped ends. Corrosion products retaining much minerally preserved organic and piece of shell. Length 32mm, width 16mm. Ctx DC2051, SF DC612. (ID 1111) Phase 5 BE4.
- 139 Buckle frame.** Copper alloy. Oval frame with offset crossbar; two knobs with grooved bar between. Dimensions 19 x 16.5mm. Ctx DC u/s, SF DC311 (ID 1345)
- 140 Buckle plate;** fragment. Copper alloy Rectangular sheet, originally folded in half with rectangular cut-out for buckle pin, now broken along fold and only half remaining, central perforation near broken outer edge. Present length 24mm, width 20.5mm, thickness 1mm. Ctx NH6081, SF NH1623. (ID 121) Phase 5 SE1.
- 141 Buckle plate (Fig. 3).** Copper alloy. Square plate with two diamond-shaped terminal knobs at one end, other end has two projections to articulate with bar of buckle frame, one broken other bent under, recessed edges for buckle frame; curved sides; two rivets on underside in corners with traces of washers. Dimensions 25 x 22mm. Ctx DC2172, SF DC687, Sample DC216. (ID 1388) Phase 5 BE4.
- 142 Buckle pin.** Copper alloy. Circular-sectioned shank with very weak S-shaped curve; one end broken, other has bevel to fit onto frame. Present length c. 40mm, shank section 4mm. Ctx NH1148, SF NH60 (ID 804) Phase 4 SE3.
- 143 Buckle pin.** Copper alloy. Circular-sectioned shank bent over at one end to form loop, broken at other end. Present length 23mm, shank diameter 1.5mm. Ctx DC3118, SF DC309. (ID 1348) Phase 4.2 BE5.
- 144 Buckle pin;** fragment. Iron. Bar with one end broken, other end hammered flat and wound around in one and a half times. Present length 23mm. Ctx DC2142, SF DC642. (ID 1266) Phase 6 BE4.
- 145 Strap end.** Copper alloy. Sheet strip bent in half lengthways; upper part has only one thickness of metal; small central perforation at top. Length 85mm, maximum width 14mm. Ctx NH4102, SF NH1215 (ID 587) Phase 6 BW2.
- 146 Bar mount.** Copper alloy. D-sectioned bar with expanded flat terminals broken across perforations. Length 36mm; central section 3.5 x 2.5mm. Ctx NH2374. SF NH958. (ID 131) Phase 4.2.

- 147 Bar mount.** Copper alloy. 'D'-sectioned bar with trefoil terminals with small bent shanks behind each, oval moulding either side of central ring. Length c. 48mm, section 7 x 4mm. Ctx NH3236. SF NH1014. (ID 589) Phase 6 BW3
- 148 Mount.** Copper alloy. Circular sheet with central circular perforation; curved edge with dome around perforation. Diameter 21mm. Ctx DC3178, SF DC312. (ID 1346) Phase 6 BE4.
- 149 Strap guide.** Copper alloy. Rectangular-sectioned strip with ends bent back along length and overlapping. Length 26mm, strip section 4 x 2mm. Ctx NH4297. (ID 115) Phase 4.2. BW2.

Other dress fittings

The other dress fittings all came from Phase 6 contexts and are high medieval and early post-medieval types. Lace tags such as no. 150 were used to bind the ends of the laces that were important parts of dress from the 14th century onwards. At both London (Egan and Pritchard 2002, 282-4) and the 1961-71 excavations at Winchester (Biddle and Hinton in Biddle 1990, Table 79), isolated examples were found in contexts ranging from the 11th to 13th centuries, but their main popularity is later. At London the numbers recovered increase considerably in 14th century context, while at Winchester the rise could be seen in the 15th century. This is the only example identified from the excavations considered here, probably reflecting that the main period of occupation had passed before they became common.

Both nos. 151 and 152 (Fig. 4) of these items are likely to belong to the range of accessories and fasteners made of fine wire in use during the 16th and 17th centuries. They are perhaps best known from the hook and eye fasteners that have been found in 16th to 18th century contexts and which were clearly in use during the English Civil War as examples have been found in a deposit associated with one of the sieges at Pontefract Castle (i.e. either 1644-5 or 1648-9 – Duncan 2002, 274 no. 124) and in a deposit dated by clay pipes to 1640-60 at Chester (Cool 2008b, 314 no. 109). In London a range of items, including girdles and collars, have been recovered as well as elements of uncertain purpose from 16th century contexts (Egan 2005, 55). One of those was a pendant which had five elements very similar to no. 151 (Egan 2005, no. 242, fig. 41). It came from a context dated by pottery to the first half of the 16th century.

No. 153 (Fig. 4) has been included in this section but its precise function is

unclear though it could have served as a small pendant. It has a superficial resemblance to a screw fitting designed to fasten the ring in place, but the hollow back on the pendant suggests it had a decorative rather than functional purpose. The butt joint on the ring would have allowed the item to have functioned as an earring. The medieval context, however, would seem to argue against such an interpretation. Earrings were popular during the Roman period (Allason-Jones 1989), but this piece does not fit into any of the known types and is highly unlikely to be residual. After the Roman period and throughout much of the medieval period earrings were not a common type of ornament because most women wore their heads covered. The pictorial evidence is very useful here as even depictions of noble women and of the Virgin Mary which show them richly bejewelled, do not show them wearing ear ornaments (see for example Evans 1989, pls 5, 28, 30-33). So at present it is probably best to regard this piece as a decorative fitting of unknown purpose.

- 150** **Lace chape.** Copper alloy. Sheet wrapped into cone with end hooked over; broken at base. Length 27mm, maximum diameter 6mm. (ID 810) Phase 6 SE3.
- 151** **Wire fastener.** Copper alloy. Wire loop with ends wrapped by another wire; slightly curved. Present length 15mm, maximum diameter 3mm. Ctx DC3183. SF DC314. (ID 1349) Phase 6 BE4.
- 152** **Wire accessory (Fig. 4).** Copper alloy. Length of wire wound in an oval twice, then ends twisted together and arched over to form a 'handle' attached to the other side. Diameter 9 x 4mm, wire section c. 0.25mm, Ctx DC3276. SF DC1116. Sample DC325. (ID 1471) Phase 6 BE5
- 153** **Pendant (Fig. 4).** Copper alloy. Circular-sectioned wire ring with butt joint; solid ring-headed pendant with pointed end, ribbed sides, hollow back. Ring: diameter 13mm, section 1.5mm; pendant length 13mm, section 2.5 x 2mm. Ctx DC2235; DC259. (ID 1526) Phase 6 BE 4

Toilet Equipment

Parts of two single-sided composite antler combs were recovered, both from Phase 4.2 contexts. No. 154 (Fig. 4) is nearly complete and probably just lacks the end plates and ends of the side bars. It belongs to the type of comb which Galloway referred to as the North Sea group when discussing the examples recovered during the earlier excavations and formed the most numerous type recovered (Galloway in Biddle 1990,

667). Those were found in contexts dating from the early 10th century onwards with the overwhelming majority being in 10th and 11th century contexts.

It is unusual in two ways. The teeth plates project above the curved upper edge of the side bars and this projection is decorated on both sides by a row of single ring and dot. The rarity of this feature is shown by the fact that at Coppergate, for example, it was not present on any of the large group of this type of comb recovered. It was noted on an example from Wolvesey Palace in a late 10th to 11th century context (Galloway in Biddle 674 no. 2162, fig. 184) where the projection was decorated by three horizontal lines on at least one side. The other unusual feature is that the rivets are small cylinders of bone or antler. Normally the rivets on these combs are iron. The use of these small bone or antler pegs is far less intrusive and so does not detract from the decoration.

All that remains of no. 155 (Fig. 4) is the tooth plate with adjacent parts of the side plates. The undecorated side plates are very narrow and the possibility that this came from a handled comb cannot be ruled out as the ends away from the handle can be slender (see for example one from a mid 9th to early 10th century context at Coppergate – MacGregor *et al* 1999, fig. 896 no. 6789). Handled combs came into use earlier than the North Sea type represented by no. 154, and have been recovered from contexts as early as the 8th century (Rogers 1993, 1490 no. 5697) but they remained in use in the late Saxon period.

Tweezers such as no. 156 (Fig. 4) are not independently dateable either as simple strip metal forms such as these are common from the Roman period until the late Saxon period. They are less common in the later medieval period so this pair probably belong early in Phase 5.

154 **Single-sided composite comb (Fig. 4).** Antler. 16 joining fragments of side plate and tooth plates, lacking both ends. Plano-convex side bars tapering to either end with with pair of grooves parallel to both edges and row of single ring and dot centrally; seven tooth plates generally rivetted on junction between plates; five cylindrical bone or antler pegs forming rivets; tooth plates project above side plates and have single row of ring and dots on either side of the projection. Most of teeth missing, 7 teeth to 10mm. Length of side plate 118mm, length of tooth plates 121mm, maximum section of side bar 22 x 4mm. Ctx NH3433, SF NH1079. (ID 177) Phase 4.2 BW4.

155 **Single-sided composite comb (Fig. 4).** Antler. One tooth plate with notch on either side;

plano-convex side plate on either side. Length 28mm, section of side plate 8 x 2.5mm. Ctx NH4174. SF NH1225. (ID 187) Phase 4.2 BW2.

- 156 **Tweezers (Fig. 4)**; complete. Copper alloy. Rectangular-sectioned strip bent in half with constricted loop at top, arms bent out of shape. Length 50mm, section 5 x 1mm. Ctx NH2276. SF NH866 (ID 676) Phase 5 BW5.

Textile equipment

This category is one of the largest represented amongst the post-Roman finds and the different elements are summarised for ease of reference in Table 10 according to type and phase and in Table 11 according to broad category and property. In both cases the stone spindlewhorls reported on elsewhere (see Shaffrey, *Digital Section 8*) are also included. As can be seen from Table 11, this equipment is widespread but does show concentrations on particular properties. This will be returned to in the overview at the end.

Fibre preparation tools

Nos. 157-8 (Fig. 4) are both teeth of the sort used on combs used for processing wool before spinning and on heckles used for the processing of flax for linen. The teeth have very diagnostic bearded ends and were in use from the 7th to 13th centuries (Ottaway 1992, 540-2). Both of these examples were found in late Saxon assemblages. Attributing individual teeth to one form of tool or the other is problematic. Walton Rogers (2007, 21) has suggested several criteria based on length and curve to distinguish between them. Based on these, no. 157 falls within the standard length range for a wool comb tooth. No. 158 is slightly shorter and straighter than a wool comb tooth and so may be tentatively attributed to a heckle. Elsewhere in Winchester these teeth are regular finds in Saxo-Norman contexts. In the city centre sites five were recovered from Brook Street and one from Assize Court South (Gooddall in Biddle 215 nos. 48-54) in contexts of that date and they also occurred on five of the suburb and defences sites in late Saxon contexts (Rees *et al* 2008, 248 nos. 1687-92).

- 157 **Comb tooth (Fig. 4)**. Iron. Upper end square-sectioned with step; tooth bent and tapers to

point. Length 97mm, upper end section 5mm. Ctx NH3225, SF NH1018. (ID 513) Phase 4.2 BW 4.

- 158 **Heckle or comb tooth (Fig. 4).** Iron. Square-sectioned upper end with step; lower part tapering to point and become circular-sectioned tapering. Length 82mm; section (top) 4 x 4mm. Ctx NH2516, SF NH963. (ID 522) Phase 4.1 BW 5.

Spindlewhorls

Spindlewhorls made from cattle femur heads were very common in this assemblage being represented on six properties with most being found in Phase 4.2 contexts. Most were approximately hemispherical and four were shallower having a segmental or plano-convex outline. The bones from both mature and immature animals had been used as while the epiphyses appear to have been fully fused in many cases, several were not. This is most obvious in no. 165, whilst both nos. 161 and 170 show unfused elements. Most of the whorls had been minimally worked, and been formed simply by chopping off the head either just above or through the neck and then boring a cylindrical perforation through the centre from the naturally occurring depression on the upper face. One example no. 159 had been deliberately stained a bright green. This one also showed a little additional working in that the irregularities around the neck had been smoothed to reveal the cancellous tissue. This was one of the few that were recovered from a Phase 4.1 context.

The use of femur heads to make spindlewhorls is very occasionally seen in middle Saxon contexts (Walton Rogers 2007, 25) contexts, but is most common in the 10th to 11th centuries. During the 1961-71 excavations at Winchester, just over 50 were recovered with the earliest example from a 9th to ?10th century context, and their use clearly peaked in the 11th century (Woodland in Biddle 1990, 222 nos. 129-82, fig. 45f). On the suburb and defences sites 12 were found, eight of which were from either late Saxon or 11th to 12th century pits. A similar number were recovered from 16-22 Coppergate, York and there too their use was concentrated in the mid 10th to mid 11th centuries (Walton Rogers 1999, Table 177). The perforation diameters ranging from 9.5 to 12mm would agree with this date as by time date spindles had become quite thick compared to the earlier slender Roman examples (Walton Rogers 2007, 23).

One of the whorls (no. 167) shows evidence of re-working to create some other item but whatever the intention was, the attempt was abandoned before it was

completed. Interestingly this is one of the few examples from a Phase 5 or later context which emphasises how they were passing from use in the Anglo-Norman period when whorls of other materials became more popular. As can be seen from Table 10 the chronological distribution of bone and stone whorls here is almost mutually exclusive, and the relatively small number of the latter found on this site compared to the number of bone ones is another indicator of the decline in the intensity of occupation that takes place during the Anglo-Norman period.

- 159 **Spindlewhorl.** Bone, femur head with part of neck on side which has been smoothed to show cancellous tissue. Hemispherical; lower face of cancellous tissue; cylindrical perforation. Stained bright green throughout. Diameter 38mm, perforation diameter 11 x 10mm, height 20mm. Ctx NH4535. SF NH1292. (ID 174) Phase 4.1 BW2.
- 160 **Spindlewhorl.** Bone, femur head with part of neck on side. Hemispherical; lower face consists of cancellous tissue; cylindrical perforation with square upper face. Diameter 37mm, perforation diameter 10mm, height 20mm. Ctx NH4148. SF NH1223. (ID 179) Phase 4.2 BW2.
- 161 **Spindlewhorl.** Bone, femur head. Segmental; lower face of cancellous tissue with small area of natural unfused face. Diameter 37mm, perforation diameter 9.5mm, height 15mm. Ctx NH4146. SF NH1238. (ID 173) Phase 4.2 BW2.
- 162 **Spindlewhorl.** Bone, femur head with upper part of neck on side. Hemispherical; lower face consists of cancellous tissue; cylindrical perforation chipped around top. Diameter 38mm, perforation diameter 12mm, height 25mm. Ctx NH 4034. (ID 423) Phase 4.2 BW2.
- 163 **Spindlewhorl.** Bone, femur head. Segmental; lower face of cancellous tissue; cylindrical perforation. Burnt on one edge. Diameter 36mm, perforation diameter 11.5mm, height 17mm. Ctx NH4322. SF NH1288. (ID 180) Phase 4.2 BW2
- 164 **Spindlewhorl.** Bone, femur head. Segmental; lower face of cancellous tissue. Diameter 38mm, perforation diameter 10.5mm, height 15mm. Ctx NH4584. SF NH1295 (ID 181) Phase 5 BW3.
- 165 **Spindlewhorl.** Bone, femur head. Hemispherical; lower face has border of smoothed cancellous tissue but mainly consists of natural unfused face; cylindrical perforation. Diameter 44mm, perforation diameter 11 x 10mm, height 23mm. Ctx NH3222. (ID 418) Phase 5 BW4

- 166 **Spindlewhorl.** Bone, femur head with part of neck on side. Hemispherical; lower face consists of cancellous tissue; hourglass perforation. Diameter 39mm, maximum perforation diameter 15.5mm, minimum 10mm, height 27mm. Ctx NH2575. (ID 424) Phase 4.2 BW 4.
- 167 **Spindlewhorl;** re-worked. Bone, femur head with part of neck on side. Originally hemispherical with lower face of cancellous tissue; cylindrical perforation. Now partially cut back and squared off; groove cut across perforation on lower face. Present diameter 38 x 36mm, perforation diameter 13mm, height 20mm. Ctx NH2577. SF NH975. (ID 175) Phase 6 BW4.
- 168 **Spindlewhorl.** Bone, femur head sawn off just below top of neck. Hemispherical; lower face of cancellous tissue; cylindrical perforation. Diameter 40mm, perforation diameter 11mm, height 17mm. Ctx DC1354. SF DC567. Sample DC134. (ID 1442) Phase 4.2 BE2.
- 169 **Spindlewhorl.** Bone, cattle femur head with part of neck on side. Hemispherical; lower face consists of cancellous tissue; cylindrical perforation. Diameter 37mm, perforation diameter 11.5mm, height 22mm. Ctx DC2247. (ID1558). Phase 4.2 BE4
- 170 **Spindlewhorl.** Bone, femur head. Hemispherical; lower face consists of both smoothed cancellous tissue and natural unfused face; cylindrical perforation. Diameter 38mm, perforation diameter 10mm, height 21mm. Ctx DC2247. SF DC270. (ID 1451) Phase 4.2 BE4.
- 171 **Spindlewhorl.** Bone, femur head. Hemispherical; lower flat face consists of smoothed cancellous tissue; cylindrical perforation. Diameter 44mm, perforation diameter 12.5 x 12mm, height 20mm. Ctx DC2004. SF DC204. (ID 1452). Phase 4.2 BE4.
- 172 **Spindlewhorl.** Bone, femur head. Segmental; lower face of cancellous tissue. Diameter 33mm, perforation diameter 9.5mm, height 12mm. Ctx NH4697. SF NH1327. (ID 421) Phase 4.1 SE3
- 173 **Spindlewhorl;** re-worked. Bone, femur head with part of neck on side. Originally hemispherical with lower face of cancellous tissue; cylindrical perforation. Now partially cut back and squared off; groove cut across perforation on lower face. Present diameter 38 x 36mm, perforation diameter 13mm, height 20mm. Ctx NH2577. SF NH975. (ID 175) Phase 6 BW4.

Weaving tools

There are two items that can be identified as the small tools used to adjust the weft

whilst weaving. No. 174 lacks one end but is clearly tapering at the broken end and would originally have been cigar-shaped. This is the sort of pin-beater used on the warp-weighted loom. They are occasionally found in Roman contexts but were commonest during the early to mid Anglo-Saxon (Walton Rogers 2007, 33). They went out of use during the 9th to 10th centuries as the warp-weighted loom was replaced by the two beam loom. The equivalent tool for that sort of loom had one pointed and one flat end and is generally referred to as a 'picker-cum-beater' (Brown in Biddle 1990, 227). No. 175 is also broken but shows no indication that it is tapering towards the broken end and so is probably to be identified as this form of tool. The chronological relationship between the two forms is nicely demonstrated at 16-22, Coppergate, York where the cigar-shaped examples are found in early 9th century or earlier contexts and the picker-cum-beaters are common from the mid 9th century (MacGregor et al 1999, Table 178). Here the recovery of 174 from a Phase 4.2 context and no. 175 from a Phase 5 one also reflects this change in weaving technology.

Textile tools made of bone and antler tend to develop very glossy surfaces through use and both nos. 174 and 175 show this as does the unstratified shank fragment no. 176. Given the length of the piece and the fact that it is tapering in only one direction, it is probably most likely to be a picker-cum-beater rather than a pin-beater.

Bone needle-like objects made of slightly modified bones, frequently a pig fibula, are a feature of finds assemblages of the later first millennium (see for discussion MacGregor *et al* 1999, 1950-51). They seem to have had a variety of uses with some being dress pins and some possibly needles, though the sizes of the heads on many would have made them impractical for the latter use. In considering the examples with simple splayed perforated heads from the earlier excavations, it was suggested that they could have functioned like pickers-cum-beaters given most were coming from houses that showed a high density of other weaving implements (Keene in Biddle 1990, 232-3). Eight examples were recovered from these excavations, and the degree of gloss and polish seen on them suggest that a use in weaving was very likely. This identification is further strengthened by the fact that four (nos. 177-9, 184) have transverse wear patterns that would be consonant with them being used to repeatedly pick up groups of threads. Five (nos. 177-8, 182-4) have the slight curve seen on the earlier examples which it was suggested would be of practical use if they

were weaving implements.

This type appears to be broadly contemporary with pickers cum beaters as the earlier ones from Winchester were mainly recovered in contexts of the 11th to mid 12th centuries with two coming from 13th century ones. At Flaxengate, Lincoln an example with a head bevelled in a similar manner to several of those found here (179, 181-2, 184) came from a mid 12th century context (Mann 1982, 58 no. 216). Here the main focus of the type was in Phase 5 as can be seen in Table 10.

- 174 **Pin beater.** Bone (? Ivory). Oval-sectioned, cigar-shaped tapering to ends; one end broken. Glossy surfaces. Present length 84mm, maximum section 12 x 5.5mm. Ctx DC2228. SF DC606. (ID 1449) Phase 4.2 BE4.
- 175 **Picker-cum-beater.** Bone. Oval-sectioned; one end broken, other tapering to asymmetrical point. Surfaces glossy. Present length 73mm, maximum section 12.5 x 5mm. Ctx NH3314. SF NH1034. (ID 1502) Phase 5 BW3.
- 176 **Picker-cum-beater?** Bone. Oval-sectioned tapering slightly; broken at both ends. Glossy surfaces. Present length 74mm; section (maximum) 6.5x5mm Ctx NH8001. SF NH1900. (ID 185). Phase 8.
- 177 **Eyed weaving implement.** Bone. Oval-sectioned shank tapering to point, slightly curved; splayed head with straight top. Circular perforation in head, showing slight wear. Faint transverse marks on shank. High gloss. Length 91mm, section 5x3.5mm, perforation diameter 4mm. Ctx NH3532. SF NH1098. (ID 1505) Phase 5 BW4.
- 178 **Eyed weaving implement.** Bone. Oval-sectioned shank tapering to point, slightly curved; splayed head with straight broken top showing cancellous tissue. Circular perforation in head. Faint transverse marks near head. High gloss. Length 84mm, section 4.5 x 3mm, perforation diameter 3mm. Ctx DC1535. SF DC444. (ID 1439) Phase 5 BE3.
- 179 **Eyed weaving implement.** Bone (? Fibula). Bone. Oval-sectioned straight shank retaining natural contours, broken; splayed head with bevelled edges revealing cancellous tissue. Circular perforation. Transverse grooves below head, transverse notches on edges of lower part High gloss. Present length 108mm, section 5.5 x 4mm, perforation diameter 5mm. Ctx DC2157. SF DC243. (ID 1435) Phase 5 BE3.
- 180 **Eyed weaving implement.** Bone. Oval-sectioned straight shank tapering to broken tip; splayed head with flat edge revealing cancellous tissue. Oval perforation in head. High gloss. Present length 89mm, section 5 x 3mm, perforation diameter 5 x 2.5mm. Ctx DC2288,

SF DC275. (ID 1434) Phase 4.2 BE4.

- 181 **Eyed weaving implement (Fig. 5).** Bone. Oval-sectioned straight shank tapering to broken tip, splayed head with bevelled edges revealing cancellous tissue. Oval perforation. High gloss. Present length 92mm, section 7 x 4mm, perforation diameter 5.5 x 3mm. Ctx DC2157. SF DC243. (ID 1447) Phase 5 BE4.
- 182 **Eyed weaving implement (Fig. 5) (?).** Bone. Oval-sectioned broken shank, slightly curved, splayed head with bevelled edges revealing cancellous tissue. Oval worn perforation. Slight gloss. Present length 68mm, section x 4mm, perforation diameter 6 x 3.5mm. Ctx DC3021. SF DC304. (ID 1453) Phase 5 BE5.
- 183 **Eyed weaving implement.** Bone. Oval-sectioned slightly curved shank tapering to point; head starting to splay and broken across base of perforation. High gloss. Present length 90mm, section 5 x 3mm, perforation diameter 5 x 3mm. Ctx DC3276, SF DC339. (ID 1441) Phase 6 BE5
- 184 **Eyed weaving implement.** Bone. Oval-sectioned tapering shank, very slightly curved; splayed head with bevelled edges revealing cancellous tissue, other end broken. Circular perforation in head, showing slight wear. One long edge shows very faint transverse marks. High gloss. Present length 91mm, section 5x3.5mm, perforation diameter 3.5mm. Ctx NH u/s. SF NH1360. (ID 1504) Unphased.

Other

Tenterhooks were used to stretch lengths of cloth after it had been fulled so that it would dry evenly. In the 1961-71 excavations 86 were recovered with 82 of them coming from Lower Brook Street (Goodall in Biddle 1990, 234-9) and a single example was identified at Victoria Road (Rees *et al* 2008, 249 no. 1716). Given the poor preservation of the ironwork from these excavations, the identification of no. 185 (Fig. 5) as a tenterhook has to be tentative but the extant measurements would indicate a complete item that falls within the tenterhook range and the piece appears is far too small to be a hinge pivot.

Given the wealth of evidence for textile manufacture in Phases 4 and 5 it is of some interest to note that the only needle (no. 186) was recovered from one of Phase 6.

Finally there are examples of bone bobbins (nos. 187-8). These are thought to have been associated with textile working, though their precise function is unknown.

They are generally found in 12th to 14th century contexts (MacGregor 1981. 183; Walton Rogers 1999, 1968) which is contemporary with the contexts these have been found in. The grooving is a typical feature on bobbins and the lack of iron staining internally on either piece would argue against them being handles for whittle tang knives. Most other examples are generally in the region of 60mm long. No. 187 approximates to this though no 188 is noticeably longer.

- 185 **Tenter-hook(?) (Fig. 5)**, fragment. Iron. L-shaped; part of narrow spike and wide shank. Present length wide arm 25mm. Ctx NH2044, SF NH828. (ID 278) Phase 5 BW5.
- 186 **Needle**. Iron. Complete other than tip. Large oval eye. Present length 70mm, section 2.5mm. Ctx NH3126, SF NH1004. (ID 495) Phase 6 BW3.
- 187 **Bobbin**. Bone. Hollow cylinder; deep wide groove by one end; three bands of four grooves, at either end and in centre; lower end notched radially around thickness of wall. Length 68mm, section 11 x 10mm. Ctx NH1364. SF NH124. (ID1577). Phase 5 SE3.
- 188 **Bobbin (Fig. 5)**. Bone. Perforated cylinder with flat ends tapering slightly in one direction. Narrower end has deep groove close to edge; four bands of shallower grooves spaced along length, band of 6 grooves by each end and two groups of five centrally. Slightly faceted along length, all outer surfaces polished. Length 82mm, diameter (maximum) 11.5mm, (minimum) 9.5 x 8.5mm. Ctx NH3286. (ID 425) Phase 6 BW3

Household items

No. 189 (Fig. 5) is the seventh example of a bone spatula with a very distinctive style of figurative incised decoration to have been found in Winchester (Collis and Kjølbye-Biddle 1979). The decoration, which always features an acanthus or flower-like motif, is very similar on all the examples and it seems reasonable to suppose that they are the work of a single person. An earlier study of their associations concluded that they were probably made in the early 11th century (Collis and Kjølbye-Biddle 1979, 383) but subsequent publication of one of the examples appears to have re-dated the context in which it was found from the 11th or early 12th century (*ibid.* 378 spoon 4) to the 10th century (Kjølbye-Biddle in Biddle 1990, 830 no 2621). This spoon came from the excavations at Lower Brook Street, a site whose stratigraphic

narrative was never published. In the absence of the narrative, clarification of the date is not possible, and all that can be said is that the spoons may have been made in the late 10th century but were certainly in use in the early 11th century. This example came from a Phase 4.2 slumped floor level in property BE2.

The decoration on no. 189 can be closely paralleled on the other spoons. In addition to the acanthus motif, it has the same type of bird perched on the acanthus as seen on one from Middle Brook Street (Collis and Kjølbye-Biddle 1979, fig. 2.3) and probably on that from the Slaughter House site in St George's Street (*ibid* fig. 2.2), though only the lowest part of the bird survives on the latter. The three leaf motif from which the main acanthus emerges is also present on the Middle Brook Street spoon. No. 189 does differ from the other spoons in that it only has decoration on the flat face, and not on the back as well, and has a second small acanthus close to the upper edge. It also differs in the junction between the bowl element and the handle. On the others where this survives, it takes the form of a cubic block. Most of the junction is missing on no. 189, but what survives suggests it may have been a rib rather than a block.

Earlier studies have referred to them as spoons but it may be noted that instead of the bowl being concave, it is flat and so could not have functioned as a spoon does. A better descriptive name is probably spatula or scoop. This example has wear scratches on the edge of the flat face at its tip. Polish caused by wear was also seen in a similar position on the spoon recovered from St George's Street (Collis and Kjølbye-Biddle 1979, 378 spoon 3), perhaps suggesting the functioned as scoops. In the first discussion of the type it was noted that all but one came from a domestic context and it was felt that they had a household rather than an ecclesiastical function (Collis and Kjølbye-Biddle 1979, 382-3). In a later discussion one of the authors suggested that they might have a liturgical function (Kjølbye-Biddle in Biddle 1990, 830). The recovery of no. 189 on another secular late Saxon property suggests that the former interpretation is probably correct.

Two other spatulas were recovered but these are much more mundane examples. A second simple bone spatula was recovered from a late Saxon context in Property BE3 and a broken iron one came from a Phase 6 context (Property BW3).

Nos. 192-3 are fragments of flesh-hooks for extracting meat from cauldrons. The securely identified examples from the 1961-71 excavations came from 10th and

11th century contexts (Goddall in Biddle 1990, 820 nos. 2546-8). These examples came from Phases 5 (Property BW4) and 6 (Property BE4).

The distinctive lozenge-shaped clips which can be seen on the X-radiograph of no. 194 (Phase 5 Property BW4) identifies this highly corroded piece of copper alloy sheet as being part of a vessel as in the medieval period they were used to mend tears on broken sheet copper alloy vessels, as can be seen on ones from London in contexts ranging from the 12th to 16th centuries (Egan 1998, 176; 2005, 101).

Vessel glass is represented on Property BE3 (Phase 5) by no. 195 which is clearly the body fragment of a potash vessel. No. 196 from Property BE2 (Phase 5) was probably a second vessel glass fragment though it had decayed to dust. What style of vessels were represented is unknown as this type of glass was used to make lamps, urinals and some tablewares. In the medieval period the presence of glass vessels is normally taken as being indicative of high status sites (Tyson 2000, 20-25) but to what degree isolated small fragments such as this should be interpreted in this way is open to question.

- 189 **Spatula/spoon (Fig. 5)**. Bone. All surfaces polished, slight pitting visible on surfaces from natural features of bone. D-sectioned handle, mostly missing broken across a small transverse rib on flat face, back broken away at this point. Very shallowly D-sectioned spatulate scoop. Flat face has delicately incised bird with flower (?) in its mouth standing on a flower/acanthus with a stem emerging from three leaves (?) by the cross-rib. A small flower/acanthus motif towards the tip of the scoop. Wear scratches on flat face of bowl on upper edge. Length 71mm, handle width 8mm, maximum scoop section 27 x 2.5. Ctx DC1354. SF DC568. (ID 1459) Phase 4.2 BE2.
- 190 **Spatula (Fig. 5)**. Bone retaining cancellous tissue on underside. Flat strip with straight sides expanding out to rounded end; other end broken just above transverse groove. Three shallow transverse grooves just above rounded end. Wear on underside at rounded end. Present length 125mm, maximum width 18mm, thickness 1.5mm. Ctx DC1577. SF DC447. (ID 1461) Phase 4 BE3.
- 191 **Spatula**. Iron. Expanded leaf-shaped end, broken shank. Length 65mm, dimensions of head 22 x 14mm. Ctx NH3068. (ID 681) Phase 6 BW3.
- 192 **Flesh hook**. Iron Three arms, one complete and two broken arms, broken tang. Length 85mm, width c. 75-80mm. Ctx NH2570, SF NH974. (ID 519) Phase 5 BW4

- 193 **Flesh hook**; fragment. Iron. Central bar with two broken arms. Length 75mm. Ctx DC2328, SF DC623. (ID 1242) Phase 6 BE4.
- 194 **Vessel**; 5 broken fragments very heavily corroded. Copper alloy. In X-radiograph possible to see sheet outlines with four mending clips - elongated lozenge-shaped sheets with ends first folded in and then folded back. Dimension of clip 12 x 10mm. Ctx NH3561. SF NH1117. (ID 593) Phase 5 BW4.
- 195 **Body fragment**. Potash glass. Ctx DC1345, SF DC418.(ID 1412) Phase 5 BE3.
- 196 **Body fragment**; potash glass now reduced to dust. Ctx DC1307. SF DC867. (ID 1405) Phase 6 BE2.

Box and furniture fittings

Seven strips of decorated bone and antler were recovered from Phase 5 and 6 contexts in Properties BW4 and 5, BE 3 and 4 and SE 1. Such items were used to decorate boxes and other items of furniture during both the Roman and medieval periods (MacGregor 1985, 197-200). Roman pieces tend not to have rivet holes and were often probably inlaid in a manner similar to that seen on a stile from a door found in a mid 4th century context at Hayton (Hartley *et al* 2006, 176 no. 138). In the late Anglo-Saxon period a more dense use of the strips appears to have been preferred and they were fastened to the surface of the wooden caskets with iron or bone rivets (see for example MacGregor 1985, fig. 107). Three of the examples found during these excavations had rivet holes with the iron rivets remaining in two of them (nos. 199, 200 (Fig. 5), 203) and this indicates they are most likely to be medieval pieces rather than residual Roman ones. This dating is also suggested in the case of no. 203 because it is made of antler, a material that is not particularly common amongst worked skeletal material in the Roman period. A medieval date is also to be preferred for no. 202 as the ring and dot motif used to decorate it is extremely common at that time as can be seen by comparing the material found during earlier excavations at Winchester recovered from 9th to 15th century contexts (Biddle and Hinton in Biddle 1990, 781-7). Though the motif was used in the Roman period it was not so ubiquitous on the bone inlays at the time as can be seen on the large group recovered from a late 3rd century context at the Bays Meadow villa (Barfield 2006).

There are slight marks along one edge of no. 201 similar to the marks on the side plates of combs caused by tooth cutting. They are not continuous along the edge as they would be if this was a side plate. This together with the thinness of the plate and overall shape of the piece make an identification as a mount rather than a comb element certain.

In York these mounts start to be found regularly in mid 10th century contexts at Coppergate (MacGregor *et al* 1999, Table 176), and are noticeably absent from the large 8th to 9th century finds assemblage found at Fishergate (Rogers 1993). A similar pattern can be seen in the those from the earlier excavations at Winchester. The earliest stratified example from the 1961-71 excavations is likely to be a residual Roman piece given its diamond-shaped outline (Biddle and Hinton in Biddle 1990, 782 no. 2407). Three came from mid to late 10th century contexts and there were nine in 11th to mid 12th century ones. Later 12th to 15th century contexts produced fourteen. On the suburb and defences sites as well the earliest decorated bone mount comes from an 11th to 12th century pit at St John's Street with four others coming from variously dated contexts of the 12th to 14th centuries (Rees *et al* 2008, 265-6 nos. 1805-9, the late Saxon example no. 1804 merely being a lightly scored strip and not convincing as a mount). The examples from these excavations are thus most likely to date from the later 10th century at the earliest, this is reflected in the fact that none were found in the otherwise prolific Phase 4.2 contexts and the first appear in Phase 5

Both nos. 200 and 203 have an openwork design. This is a relatively uncommon feature in medieval mounts, and was not common on the mounts from the earlier excavations. This sort of mount appears to have been used in conjunction with sheet metal placed between the mounts and the wood to provide a contrasting colour. On a box lid found at York the metal was copper alloy which would have provided a golden colour (MacGregor *et al* 1999, 1958 fig. 917). On another lid dated to the 11th to 12th century at Ludgershall Castle the openwork strips were backed by metal variously described as lead (MacGregor 1985, 199) or silver (MacGregor *et al* 1999, 1958, fig. 918) either of which would have provided a silver colour when new. On the back of no. 200 there is a dark grey metallic encrustation which appears to be the corroded remnants of such a sheet, possibly here some form of lead alloy. These two mounts would probably have come from more expensive caskets than some of the other mounts and might be indicative of more well-to-do occupation on the respective properties (BE3 and SE1).

In addition to the mounts identified with certainty, one other piece may also be noted. No. 199 has an outline broadly similar to no. 202 (Fig. 5) but the decoration is only lightly and carelessly scored and its identification as a mount is only tentative.

Iron box and chest fittings were relatively uncommon in this assemblage (nos. 205-6) possibly as a result of the poor preservation of the iron.

- 197 **Mount.** Strip with straight finished edge, all other edges broken; underside polished cancellous tissue. Parts of four ring and dots each consisting of quadruple rings and dot. Present length 31mm. Ctx NH3094. (ID 182) Phase 5 BW4.
- 198 **Mount.** Bone. Fragment from straight edge of mount retaining cancellous tissue on underside. Upper faces has parts of two inscribed rings, one around central perforation. Dimension 23 x 4mm, thickness 2.5mm. Ctx NH2250. (ID1572). Phase 5 BW5.
- 199 **Mount ?.** Bone. Rectangular strip with one long side starting to slope down to broken end; underside retains cancellous tissue. Lightly diagonal incised cross hatched lines. Score marks along flat base. Present length 48mm, width 28mm, thickness 1mm. Ctx DC1345, SF DC420. (ID 1443) Phase 5 BE3.
- 200 **Mount (Fig. 5).** Bone. One straight edge, all other edges broken. Groove parallel to straight edge; part of a pair of circular grooves; edges of (?) five cross-shaped cut-out perforations. Two iron rivets. Back has dark grey metallic encrustation. Dimensions 31 x 20mm, thickness 3mm. Ctx DC1281. SF DC508. (ID 1462) Phase 6 BE3.
- 201 **Mount.** Bone. Corner of square or rectangular plate with some cancellous tissue on underside. Groove parallel to each finished edge with one perforation towards corner retaining part of an iron rivet, broken across second perforation. Traces of one large and one small incised rings on broken edge. Traces of transverse grooves on longer finished edge. Dimensions 49 x 16mm, thickness (maximum 2.5mm). Ctx DC1281. SF DC507. (ID 1444) Phase 6 BE3.
- 202 **Mount (Fig. 5).** Bone. Rectangular strip with one short end pointed; underside retains cancellous tissue. Five double ring and dots arranged in two interlinked pairs with fifth at apex. Score marks along flat base, one side chipped. Length 46mm, width 25mm, thickness 1.5mm. Ctx DC2328, SF DC608. (ID 1507) Phase 6 BE4.
- 203 **Mount.** Antler. Plate with one straight edge and a second at 110 degrees to it; other edges broken; cancellous tissue on underside. Two grooves parallel to long edge with row of five single ring and dots between , broken at edge of sixth. Lower edge broken along an area of openwork decoration.. Two small circular rivet holes at edge of first and fourth ring and dot.

- Present length 63mm, maximum extant width 23mm, thickness 2mm. Ctx NH5128. (ID 189).
Phase 5 SE1
- 204 **Mount.** Bone. Fragment of flat strip with cancellous tissue on underside; upper face has part of a triple ring with dot and edge of outer ring. Burnt. Dimensions 11 x 7mm, thickness 2mm. Ctx NH5168. (ID 1570) Phase 5 SE1.
- 205 **Box fitting.** Iron. Bar forged into loop with outward turned spiral ends, one broken, possibly part of a hasp. Present length c. 50. Ctx NH2243, SF NH848. (ID 237) Phase 5 BW4.
- 206 **Chest mount;** fragment. Iron. Perforated disc at end of strap. Length 70mm, diameter of disc 43mm, perforation diameter 8mm. Ctx NH2353, SF NH9000. (ID 87) Phase 5 BW5
- 207 **Box mount (?)**. Copper alloy. Rectangular strip with broken end; one long side bent under edge; rib down either side transverse grooves. Now bent through 90 degrees. Present length 30mm, section 18 x 1mm. Ctx NH3539. SF NH1112. (ID 577) Phase 5 BW4.

Recreational equipment

This chess piece no. 208 (Fig. 5), from a Phase 6 context on Property BW3, is typical of the sets that were used when the game was first introduced. Knights and pawns both could both take this domed cylindrical form with the knight piece having a stylised horse's head that projects to the side at the side (MacGregor 1985, fig. 73a). A small section of the upper part is missing here but there are indications that the missing part had been decorated in the same way as on the other parts of the circumference. The piece can thus be identified with a pawn. Chess appears to have been introduced to Britain in the 11th century and MacGregor noted that this style of piece remained in use until the late 12th century at least (MacGregor 1985, 139). Several pieces belonging to similar sets have come from contexts in London dated to the 13th and 14th centuries (Egan 1998, 291-4) suggesting these non-figurative pieces continued in use in the 13th century and possibly into the 14th.

This is the second example of a domed pawn decorated with ring and dot decoration to have come from Winchester. One was recovered from a late 11th to early 13th century context in House XII on Lower Brook Street (Brown in Biddle

1990, 704 no. 2237) and one that had been faceted to an octagonal section came from a 13th to 14th century context at Wolvesey palace (ibid. 704 no. 2239).

Shaped horse and cattle metapodials such as nos. 209-10 are a common feature of late Saxon and Norman assemblages and a broad date range of the 8th to 13th centuries is appropriate for those from British sites. In the city centre sites they were predominantly found in 11th century contexts (MacGregor in Biddle, 708) whilst at Victoria Road examples were found in 11th to 14th century contexts (Rees *et al* 2008, 274 nos. 1919-21). They often show fine longitudinal striations on the underside and this wear pattern, together with pictorial and literary evidence, has led to them being identified as skates (MacGregor 1985, 141-4). Quite why people should need so many skates in a period that covered the climactic optimum of the tenth to twelfth centuries (see Smith 2005, 55-6) is an interesting but, as far as I am aware, unaddressed question

- 208 **Chess piece (Fig. 5);** in four joining fragments lacking small part of side at top. Bone. Cylindrical with domed top; central perforation formed by hollowing cancellous tissue; all outer surfaces polished. Two grooves around base, four pairs of vertical grooves at top with ring and dot between their lower ends, one set almost completely removed; traces of grooves at edge of void suggest the top was plugged and the pattern continued on the plug. Height 30mm, diameter 25mm. Ctx NH4046. Sf NH1207. (ID 186) Phase 6 BW3.
- 209 **Skate.** Bone metapodial lacking distal end. One face has narrow highly worn facet with longitudinal scratches. Present length 217mm. Ctx NH9666 (ID1557). Phase 5 BW5.
- 210 **Skate.** Bone, horse metacarpal. Broken with only proximal end remaining. Highly polished facet on under surface with typical long striations. Upper surface roughly worked and appears worn. Present length 130mm. Ctx NH5044. (ID1552). Phase 6 SE1

Weighing equipment

Four equal-armed balances were recovered (Fig. 6). All were of the type with fixed arms with a triangular pointer inserted into the central part of the arm. When complete a suspension fork was attached to either end of the small bar that would have passed through the perforation in the base of the pointer. When suspended, the pointer would have swung backwards and forwards depending on the amounts in the

pans. When the pointer was upright the amount being weighed in one pan would be equivalent to the weight in the other. No. 213 retains both pans but the majority of the suspension fork is missing. No. 211 retains the lower part of the suspension fork. Nos. 212 and 216 both lack the fork. No. 217 is an example of a complete suspension fork and no. 216 is a scale pan. No. 214 may be one of the weights that would have been used.

Fixed arm balances such as this are a late Saxon development. Though equal-armed balances were in use in the Roman period, they do not have the suspension arm and pointer feature. Instead they have a small central pierced lug and are suspended from a hook as can be seen on a complete example with the pans still attached from Pompeii (Ward-Perkins and Claridge 1976, no. 249). At Coppergate a similar balance retaining both the suspension fork and its pans came from a mid 10th century context (Mainman and Rogers 2000, 2645 no. 10409, fig. 1258). Elsewhere at Winchester a broken arm came from a mid 11th century context and a complete arm and pointer came from a late 11th to 12th century one (Biddle 1990 922, nos. 3208-9, fig. 284). Another example from York which retained the suspension fork and the small wire rings at the ends of the arms and in the head of the fork came from a 12th to 13th century context (Mainman and Rogers 2000, 2646 no. 10415, fig. 1258). Its state of preservation argues strongly that this is not a residual piece. Continued use is demonstrated by an almost complete example (lacking the suspension fork) of the folding version from St Pancras' Church, Winchester in a 13th to early 14th century context (Biddle 1990, 925 no. 3212). Another folding balance was found in a small box at Roche Abbey together with the pans and weights which contained a complete set of balance, pans and weights (Rigold 1978). Though the context of this was unknown the associated weights suggested it may well have been in use in the late 15th century. In discussing it Rigold also pointed out that balances of this type must still have been in use in the early 16th century given that the fixed arm version features in paintings of that period. Here they were found in contexts ranging from Phase 4.2 to 6.

Presumably these little balances were common because people had a need to weigh small items regularly. Possibly they distrusted the coinage of the period as it may be doubted that many people would have had need to measure small quantities of other expensive items such as spices or precious or semi-precious metals and stones. At Winchester there is the opportunity to consider the numbers recovered across a

relatively large number of sites where late Saxon to early Norman occupation has been recovered. This is done in Table 12. For these and the 1961-71 excavations the area excavated has been indicated (where known) as well as the total number of small finds recovered of all periods (where possible) to aid comparison. The latter figure is not easily available in the suburb and defences volume.

As can be seen these balances have been found regularly but interrogation of the data does suggest that the number found during these excavations might be somewhat exceptional. The large site at Brook Street produced three elements but two of these associated with Building IX/X might have come from the same balance as they consist of a balance arm lacking the fork and a separate fork. It is possible that the two from the Assize Court South could also have come from a single balance. Sussex Street stands out as being a small site with parts of two different balances. Here, however, both properties BE2 and SE1 produced two separate balances each and Property BE4 produced one as the balances were substantially complete or, in the case of SE1, the elements recovered were duplicated. In the case of Property SE1 both balances would have been in broadly contemporary use. In the other two properties they were found in different phases. Quite what this means for these properties is not really very clear but might perhaps hint at a more regular need to weigh small items than elsewhere in the city. As noted above coinage would seem an obvious candidate but it has to be said that the evidence from Sussex Street would not really support this. There only a single coin of the 11th and 12th centuries was found and that was the period when the balance would have been use (Rees *et al* 2008, 282). In the area examined during these excavations coinage is also conspicuous by its absence in the areas where the weighing equipment was found. The Discovery Centre excavations which produced nos. 211-3 produced no contemporary coinage. Coinage (two contemporary coins) was found at Northgate House but not on the same properties the balances were found in. This could just mean that people were looking after their coinage very carefully but the evidence at Victoria Road would not appear to support that explanation. There coinage was more regularly encountered, though still in small quantities, but there was only a single balance. The role of the balances found here will be further considered in the final overview.

- 211 **Equal-armed balance (Fig. 6).** Copper alloy. Circular-sectioned arm becoming square-sectioned towards one end; flat semicircular perforated terminal, each retaining a length of

- wire bent into a ring. Triangular pointer made as separate piece, riveted into beam. Lower part of suspension fork still riveted in place through perforation in pointer. Length 83mm, section of beam 4mm, length of pointer 23mm. Ctx DC1525. SF DC439. (ID 1354) Phase 4.2 BE2.
- 212 **Equal-armed balance (Fig. 6).** Copper alloy. Circular-sectioned arm becoming square-sectioned centrally and towards end; four ribs between arm and flat semi-circular perforated terminals, retaining a length of wire bent into a ring. Other arm broken. Triangular pointer made as separate piece and riveted into beam perforation at base for suspension of fork. Length 138mm, section of beam 3mm, length of pointer 38mm. Ctx DC1138. SF DC149. (ID 1523) Phase 6 BE2.
- 213 **Equal-armed balance and scale pans (Fig. 6).** Circular-sectioned arms tapering slightly towards each end, divided from flat semicircular perforated terminals by three transverse ribs, each retaining a length of wire bent into a ring. Triangular pointer made as separate piece and riveted into beam. Small part of suspension fork still riveted in place through perforation in pointer on one side. Two very shallowly curved circular scale pans, one broken into two pieces and lacking small part of circumference. Each pan has three perforations for suspension. Length beam 108mm, section of beam 3mm, length of pointer 27mm, diameter of scale pans 37mm. Ctx DC2126. SF DC2250. (ID 1524) Phase 4.2 BE 4.
- 214 **Weight.** Lead alloy. Roughly faceted disc. Diameter 28mm, Weight 62.5g. Ctx NH3340. SF NH1045. (ID 964) Phase 4.2 BW3.
- 215 **Scale pan (Fig. 6).** Copper alloy sheet. Shallow concave pan; three small circular perforations equally spaced around circumference punched through from interior. Diameter 26mm, depth 9mm, thickness 0.5mm, perforation diameter 1.5mm. Ctx NH2099. SF NH819. (ID 592) Phase 6. BW5
- 216 **Equal-armed balance.** Copper alloy. Complete but bent out of shape. Circular-sectioned arms tapering to rounded perforated terminals, each retaining a length of wire bent into a ring. Triangular pointer made as separate piece and riveted into beam, perforation for suspension fork in base, pointer bent. Length c. 100 (straightened), section of arm 3mm, length of pointer 16mm. Ctx NH5132. SF NH1462. (ID 568) Phase 5 SE1.
- 217 **Balance fork (Fig. 6).** Copper alloy. Cross bar with small perforated projection; square-sectioned arms with rounded perforation expansions. Length 44mm, section of terminals 3 x 0.5mm. Ctx NH5120. SF NH1469. (ID 674) Phase 5 SE1.

Writing equipment

There are two examples of the typical Saxon form of stylus which was made of copper alloy and had a triangular eraser (Biddle and Brown in Biddle 1990, 731). In general a date from the 7th to the 12th centuries can be assigned to them. No. 218 (Fig. 6) is precisely similar to, though very slightly smaller than, one found at Whitby Abbey (Peers and Radford 1943, 65, fig. 15.2). The Abbey was founded in AD657 and destroyed by raiders in AD867, but as the Whitby assemblage does include later material this cannot be taken as a secure indication of an 8th or 9th century date. Given this fragment occurs in a Phase 5 context and that material that pre-dates the 10th century from these excavations is rare, a date contemporary with its context is probably appropriate.

An iron stylus eraser from the disturbed subsoil assigned to Phase 1.3 might also be of late Saxon date as the shape is much more akin to styli of that date than to Roman ones.

- 218 **Stylus (Fig. 6)**; in three fragments. Copper alloy. Triangular eraser with edge slightly bevelled from one side, cross bar with notched ends below; upper shank has three ribs either side ovoid moulding; circular-sectioned shank tapering to point. Length 100mm, maximum section of eraser 13 x 1.5mm, shank section 2mm. Ctx NH2071. SF NH814 (ID 590). Phase 5 BW5
- 219 **Stylus**; head only. Copper alloy. Expanded triangular eraser head with one face bevelled down at edge, tapering to rectangular-sectioned, broken shank. Present length 30mm, maximum section of eraser 16 x 2.5; shank section 4 x 3mm. Ctx DC1261. SF DC162 (ID1336). Phase 4 BE3.
- 220 **Stylus (Fig. 7)**. Iron. Elongated triangular eraser; shank broken. Length 25mm, width of head 13mm. Ctx NH6061, SF NH1644. (ID 42) Phase 1.3.

Transport equipment

Horseshoes

Most of the horseshoes could be assigned to the types defined by Clark (2004, 75-123). Type 1 shoes have wide thin webs and circular holes in a countersinking.

During the 1961-71 excavations this form was found in 9th-10th century contexts (Goodall in Biddle 1992, fig. 340 no. 3941-5). On this site nos. 221-2, 225-6 and 229 have typical features which allow them to be placed in this type. No. 224 also probably belongs to this type though the web appears thicker than normal. Type 2 shoes have narrower, thicker webs and the counter sunk nail holes push out the walls of the web to form a wavy outline. The form appears in the late 11th century and is in use during the 12th and 13th centuries (for those from the 1961-71 excavations see Goodall in Biddle 1990, 1053 no. 3944 etc). It is represented here by no. 223, 228 and 230-31, and probably also by no. 227 though the web on that example is wider than normal. The later medieval form Type 3 has a broader thick web with a smooth outline and was in use in the 13 and 14 centuries. As is to be expected on this site where high medieval material is rare, it is represented by a single example (no. 234). The other horseshoes are too fragmentary to assign to a type.

The distribution of the various types are shown in Table 13 where it can be seen that the expected chronological progression is reproduced with Type 1 shoes appearing in Phase 4.1 context and Type 2 not appearing until Phase 5. As noted above no. 224 has a thicker web than normal for a type 1 shoe but the apparent lack of a calkin and the circular nail holes would be appropriate for that type. As it is complete it seems unlikely to be residual in the Phase 6 pit it was found in and so should probably be regarded as an aberrant form. Table 14 summarises the horseshoes by property. Though they are found regularly an interesting feature is that the properties with the highest numbers are not necessarily those with the highest number of finds overall. Property BW5, for example, has the highest number of shoes, but one of the lower overall totals (see Table 7). Property BW4 has no horseshoes which is interesting in the light of the evidence presented elsewhere that a blacksmith was working there. Clearly shoeing horses was not a major part of his trade.

- 221 **Horseshoe** (Clark Type 1); nearly complete in two fragments. Iron. Three circular nail perforations in recessed nail holes. Width 100mm, length 100mm, web width 20-23mm. Ctx NH6061, SF NH1636. (ID 40) Phase 1.3.
- 222 **Horseshoe** (Clark Type 1); fragment. Iron. Part of arm with three nail holes, 1 retaining nail shank; circular nail holes in recessed holes, smooth edge of web. Present length 90mm, web width 24mm. Ctx NH4281, SF NH1244. (ID 314) Phase 5 BW2

- 223 **Horseshoe** (Clark Type 2); fragment. Iron. Arm with calkin, heavily worn; three holes, possibly with countersunk holes; wavy outline Present length 110mm. Width of web c. 18mm. Ctx NH4181. SF NH1227. (ID 55) Phase 5 BW2.
- 224 **Horseshoe** (Clark Type 1); complete. Iron. Circular nail holes in counter sinking, no calkins apparent. Length 115mm., width 115, maximum web thickness 28mm, thickness at least 7mm, diameter of nail holes 7mm. Ctx NH3167, SF NH1006. (ID 736) Phase 6 BW3.
- 225 **Horseshoe** (Clark Type 1); fragment. Iron. Fragment of arm retaining three circular nail holes in counter-sunk holes. Web width c. 24mm, present length c. 120mm. Ctx NH2292, SF NH879. (ID 282) Phase 4.1 BW5.
- 226 **Horseshoe** (Clark Type 1); fragment. Iron. Fragment of arm with three nail-holes, best preserved is circular in a counter-sunk rectangular hole. Web width c. 20mm, present length c. 100mm. Ctx NH2208, SF NH831. (ID 241) Phase 4.1 BW5
- 227 **Horseshoe** (Clark Type 2); arm fragment. Iron. Large worn nail holes, probably countersunk; wavy outline with web much extended where holes are. Length 125mm, maximum web width 12mm. Ctx NH2070. (ID 639) Phase 5 BW5,
- 228 **Horseshoe** (Clark Type 2), arm fragment. Iron. Two countersunk nail holes, one appearing rectangular, outer edge damaged but possibly slightly wavy. Length c. 65mm, maximum width c. 16mm. Ctx NH2107. (ID 463) Phase 5 BW5
- 229 **Horseshoe** (Clark Type 1), half extant. Iron. Arm with 3 rounded rectangular nail holes in counter sinking, one retaining nail; smooth outline, no obvious calkin. Length c. 105mm, maximum width of web 23mm, diameter of hole 6.5 x 5mm. Ctx NH5054, SF NH1453. (ID 290) Phase 4.2 SE 1.
- 230 **Horseshoe (Fig. 7)** (Clark Type 2); half. Iron. One arm with three countersunk recessed nail holes, two retaining nails, curved outer edge; calkin. Present length 115mm, width of web (maximum) 15mm. Ctx NH5046, SF NH1441. (ID 302) Phase 6. SE1
- 231 **Horseshoe** (Clark Type 2); fragment of arm. Iron. Three circular nail-holes in countersinking, one retaining nail. Wavy edge. Length c. 105mm, maximum width web 14mm. Ctx DC1464, SF DC431. (ID 1207) Phase 5 BE2.
- 232 **Horseshoe**; arm fragment. Iron. In very poor condition and no useful dating details visible in X-radiograph. Ctx DC1384, SFDC415. (ID 1210) Phase 5 BE3.

- 233 **Horseshoe**; arm fragment. Iron. Remains one oval nail hole. Length c. 60, width of web 30mm. Ctx DC3254, SF DC318. (ID 1136) Phase 4.2 BE4.
- 234 **Horseshoe** (Clark Type 3); arm fragment. Iron. Three rectangular nail holes, one broken, two complete retaining nail; smooth outline. Length c. 70mm, web width 26mm. Ctx DC2132, SF DC235. (ID 972) Phase 5 BE4.
- 235 **Horseshoe**; arm fragment. Iron. Parts of three rectangular holes, broken. Smooth edge. Present length 100m, maximum width of web 23mm. Ctx DC2061, SF DC2061. (ID 1104) Phase 5 BE4.
- 236 **Horseshoe nails** (3). Iron. Fiddle key outline. Lengths c.20mm. Ctx DC1096, SF DC808. (ID 1531) Phase 5 BE 1.

Other fittings

Two iron fitting are also probably to be associated with horses. No. 237 (Fig. 7) does not fit into any of the medieval horses' bit forms identified by Ward-Perkins (1940, 77-85, see also Clark 2004, 43-53) but the loops at 90 degrees to the main plane of the piece seem to be designed as strap distributors and the item could have been a bridle cheek piece. No. 238 resembles a buckle and plate but differs from them in that there is no central notch in the plate to accommodate the pin. It was presumably intended to be a permanent junction between two straps and would be most appropriate as part of harness. No. 239 from a Phase 4.2 may be a fragment of a prick spur. The identification is very tentative because the piece is extremely corroded, but prick spurs were in use during the late Saxon period (Ellis in Biddle 1990, 1037)

- 237 **Bridle fitting? (Fig. 7)** Iron. Circular frame with external loop in the same plane and two loops from junction with external loop to approximately one quarter of the way around the circumference at 90 degrees to that. Exterior of frame has bright specks as if inlaid with non-ferrous decoration, no trace of this was found upon investigation but much of the original surfaces is missing. Length c. 80mm, diameter of frame c. 70mm.. Ctx NH3301, SF NH 1036. (ID 499) Phase 4.2 BW4
- 238 **Strap junction.** Iron. Part of frame with folded plate around the straight element of the frame secured with two rivets at back. Dimensions of plate 27 x 22mm, width of buckle 30mm. Ctx NH3395, SF NH1069. (ID 746) Phase 5 BW3.
- 239 **Prick spur?**; fragment. Iron. Back of arms with broken prick spur. Present length 70mm,

present length of spur 35mm, Ctx DC2382 SF DC293. (ID 1156) Phase 4.2 BE4

Structural finds

A large quantity of nails and a small quantity of other structural ironwork was found stratified in Phase 4 to phase 6 contexts. As discussed above there are grounds for thinking that a proportion of the nails are likely to be residual and the possibility exists that some of the other structural ironwork is as well. Table 15 quantifies the nails in Phase 4 to 6 by property. As can be seen the pattern of recovery is not uniform over time. Looking at properties which have produced 15 or more nails, the numbers decline through time on two (BE1 and BW2), on six they increase (BE3, BE4, BE5, BW3, BW4, SE1). The former pattern is what might be expected from residuality. The latter might point to active use of nails, though it is possible that it could merely reflect more active pitting with time on these sites disturbing earlier Roman levels. If the pattern of the occurrence of complete nails is looked at on the sites with 15 or more nails (Table 16) there is some evidence that this is not the case on properties BW4, BE3 and SE1 where the numbers of complete nails can be seen as increasing from Phase 5 onwards. This is certainly the case for property BW4 which, as can be seen from Table 8, has relatively few items securely identified Roman artefacts. On these sites it might be expected that nails were being actively used from Phase 5 and possibly also the other structural ironwork as well. Unfortunately the data on the occurrence of nails in post Roman contexts was not published for either the 1961-71 excavations or the suburb and defences sites, so it is not possible to see whether it was also happening elsewhere in Winchester on particular types of sites.

240 **Double spiked loop.** Iron. D-sectioned band forming semi-circle ; square-sectioned arms, one arm broken; circular-sectioned rod inside circle. Length 80mm, diameter of head 35mm. Ctx DC2289, SF DC276. (ID 1160) Phase 4.2 BE4.

241 **T Clamp.** Iron. Ctx DC2265. SF DC277. (ID 1154) Phase 6 BE4.

242 **Hinge pivot.** Iron. L-shaped; narrow arm pointed; short arm rectangular-sectioned. Long arm 80mm, short arm length 55mm. Ctx NH5094. (ID 103) Phase 6 SE1.

- 243 **Hinge pivot (Fig. 7).** Iron. L-shaped. One arm square-sectioned tapering to point; other widens to rectangular arm. Length of arms c. 80mm. Ctx NH1057 SF NH191. (ID 888) Phase 4.2 SE2.
- 242 **Hinge pivot.** Iron. L-shaped. Length long arm 105mm width 20mm, length short arm 50mm, width 12mm. Ctx NH1257, SF NH232. (ID 884) Phase 4.2 SE2.
- 243 **Structural fitting.** Iron L-shaped, square-sectioned bar, short end tapering to point; other end expanding and has two blunt-ended tines, square-sectioned recessed panel behind fork. Length 195mm, bar section 13 x 11mm. Ctx NH1007, SF NH50. (ID 877) Phase 6 SE2.
- 244 **Hinge pivot?.** Iron. L-shape with wider arm tapering to point, narrow arm possibly broken. Length 65mm, widths 13 and 7mm. Ctx NH8020. (ID 709) Phase 6 BW1.
- 245 **Masonry clamp.** L-shaped iron with one arm almost entirely encased in lead alloy. Maximum length 40mm. Ctx NH4124 SF NH1217. (ID 208) Phase 6 BW 1.
- 246 **Staple?.** Iron, Strip, bent out of shape, part of small joiner's dog? Present length 105mm. Ctx NH 4020, SF NH1200. (ID 191) Phase 6 BW2.
- 247 **Split pin.** Iron. Oval loop head, arms slightly splayed. Length 70mm, width head 20mm. Ctx NH4130. Ctx NH 4130. (ID 215) Phase 4.2 BW2.

Knives and tools

Knives were common in this assemblage as they were in the other late Saxon to medieval assemblages from the 1961-71 excavations (Goodall in Biddle 1990, 835-60) and those on the suburbs and defences Rees *et al* 2008, 311-25) sites. They are summarised by property in Table 17. As can be seen the majority have a whittle tang. This is to be expected on this site where occupation decreases after the 12th century as that form only came into use during the 13th century (Goodall in Biddle 1990, fig. 249). On this site the scale tang knives were recovered from Phase 5 (271) and Phase 6 (no. 256) contexts. The former from property BW3, had white metal rivets, end cap and shoulder guard. The metal had not been analysed but might be silver or a lead tin alloy as both have occasionally been noted on knives of this type from elsewhere in Winchester (Rees *et al* 2008, 315).

The majority of the finds were fragmentary with only four knives, all with whittle tangs, being complete and allowing them to be assigned to the various types already defined for Winchester. Of these, nos. 251, 266 and 272 could be assigned to Goodall's Type B and no. 264 to his Type C. The former appeared first elsewhere in Winchester in 10th century contexts (Goodall in Biddle 1990, fig. 249). Here three of them were from Phase 4.2 contexts. Of the knives that came from Phase 4.1 contexts (253, 257-8 and 261), only no. 261 retained the tang/blade junction. This was straight and is typical of various Roman forms (see Manning 1985, 114 type 11). Given that this property had a fairly proportion of residual Roman material (see Table 8), the possibility exists that this piece is residual.

Two of the knives retained evidence for their handles. No. 265 had a bone one-piece handle. No. 266 retained traces of a mineralised organic handle. The remains have not received specialist identification but it is possible that the fibrous nature indicates horn.

Given the concentration of rotating whetstones in properties BW4 which Shaffrey has suggested indicates the presence of a smiths workshop (see *Digital Section 8*), it is of interest to note that this was the property that produced the most blade fragments.

- 248 **Blade**; fragment. Iron. Both ends broken, edge sloping up towards back. Present length 90mm, maximum width 17mm. Ctx NH4094, SF NH1214. (ID 216) Phase 4.2 BW2.
- 249 **Blade**; fragment. Iron. Straight back. Edge mainly missing. Length 95mm, width of blade 16mm. Ctx NH4164, SF NH1237. (ID 315) Phase 4.2. BW 2.
- 250 **Blade**; fragment. Iron. Both ends broken. Present length 85mm NH4130. SF NH1293. (ID 62) Phase 4.2 BW2
- 251 **Knife**; complete. Iron. Whittle tang with back continuing line of tang; edge sloping up to point. Length 72mm, maximum width of blade 11mm. Ctx NH3363, SF NH1063. (ID 487) Phase 4.2 BW 3.
- 252 **Knife (Fig. 7)**; fragment. Iron. whittle tang broken at end expanding slightly to bolster; back continues line of tang; blade parallel to back; end broken. Length 70mm, width of blade 9.5mm. Ctx NH3356, SF NH1057. (ID 492) Phase 5 BW 3.

- 253 **Blade**; fragment. Iron. Straight back; both ends broken. Length 50mm, blade width 14mm. Ctx NH3476, SF NH1088. (ID 740) Phase 4.1 BW3.
- 254 **Blade**; fragment. Iron. Edge tapering towards missing point. Present length c. 45mm, width of blade 13mm. Ctx NH3105, SF NH1121. (ID 68) Phase 5 BW3
- 255 **Blade**; fragment. Iron. Length 35mm. Ctx NH3033. (ID 111) Phase 5 BW3.
- 256 **Knife (Fig. 8)**; fragment. Iron. Scale tang handle, one end has elongated diamond-shaped double thickness end cap of white metal, three rivets of same metal in tang; shoulder plate; upper part of blade. Present length c. 75mm, dimensions of end cap 16 x 9mm. Ctx NH3236. (ID 483) Phase 6 BW3
- 257 **Knife**; fragment. Iron. Whittle tang and blade fragment; back of blade continues line of tang. Present length 58mm. Ctx NH3672, SF NH1130. (ID 193) Phase 4.1 BW4
- 258 **Blade**; fragment. Iron. Both ends broken. Present length 45mm, width 13mm. Ctx NH3672, SF NH1131. (ID 201) Phase 4.1 BW4
- 259 **Blade**; fragment. Iron. Lower part of blade, back curving down to missing point. Present length 70mm. Ctx NH2026, SF NH808. (ID 271) Phase 6 BW 4.
- 260 **Knife**; complete. Iron. Broken whittle tang; back continues line of tang and curves down to tip; angled choil; edge parallel to back. Welding line down centre of blade. Length 230mm; maximum width of blade 20mm. Ctx NH2366; SF NH901. (ID 824) Phase 4.2 BW5.
- 261 **Knife**; fragment. Iron. Part of square-sectioned whittle tang; back of blade continues line of tang; choil at 90 degrees to tang; edge sloping up very slightly; tip missing. Present length 90mm, maximum depth blade 25mm. Ctx NH2208, SF NH831. (ID 240) Phase 4.1 BW5.
- 262 **Blade**; fragment. Iron. Straight back, edge sloping up slightly. Present length 50mm; section 15 x 2.5mm. Ctx NH7506, SF NH1800. (ID 464) Phase 5 BW5.
- 263 **Blade**; fragment. Iron. Straight back, edge curved up to point. Length 42mm, width 12mm. Ctx DC1154, SF DC576, sample DC111. (ID 994) Phase 4 BE1.
- 264 **Knife**; complete. Iron. Centrally placed whittle tang; back and edge parallel, edge curves up to point. Length 120mm, section 17 x 6mm. Ctx DC1354, SF DC807. (ID 1236) Phase 4.2 BE2.
- 265 **Handle**; fragment. Bone. Fragmentary one-piece handle with remnants of iron whittle tang.

- Now much fragmented. Present length c. 60mm. Ctx DC1144. SF DC157 (ID 1437). Phase 6 BE2.
- 266 **Knife (Fig. 8)**; fragment. Iron. Fragment of whittle tang encased in mineralised organic retaining a structure of parallel lines; upper end of knife blade. Present length 65mm. Ctx DC2003, SF DC202. (ID 1070) Phase 4.2 BE4.
- 267 **Knife**; fragment. Iron. Small part of whittle tang, straight back continuing line of tang; slightly convex-curved edge curving up to damaged point. Length 115mm, maximum section 31 x 4mm. Ctx DC2126, SF DC229. (ID 1095) Phase 4.2 BE4.
- 268 **Knife**. Iron. Rectangular-sectioned whittle tang expanding slightly to blade, end of tang broken; back continues line of tang; angled choil, convex-curved edge beginning to curve up to missing tip. Present length c. 170mm, maximum width of blade 35mm, maximum thickness of blade 9mm. Ctx NH2278, SF NH871. (ID 114) Phase 5 BE4
- 269 **Blade**; fragment. Iron. Straight back, edge sloping up to point. Present length 60, section 22 x 3mm. Ctx DC2288, SF DC280. (ID 1155) Phase 4.2 BE4.
- 270 **Blade**, fragment. Iron. Straight edge, back curving down to tip. Present length 85mm, section 31 x 3mm. Ctx DC2246, SF DC269. (ID 1105) Phase 4.2 BE4.
- 271 **Knife**, fragment. Iron. Lower part of scale tang; very slightly convex-curved back; edge approximately parallel to back; point missing. Present length 71mm, section 21 x 3mm. Ctx DC3013, SF DC303. (ID 1145) Phase 5 BE5.
- 272 **Knife**; complete. Iron. whittle tang with slightly sloped shoulder; straight back sloping down slightly to tip; edge sloping up to tip. Length 145mm, maximum width of blade 20mm. Ctx NH5107, SF NH1454. (ID 285) Phase 5 SE 1.

Iron tools

A small number of iron tools were recovered but the poor state of the iron preservation means that it is rarely possible to assign them to particular crafts. Of particular interest within the context of the site is the tanged punch no. 274 (Fig. 8) as this is a smith's tool (Ottaway 1992, 517-9.) It's presence on Property BW4 is evidence that joins that of the rotating whetstones as being indicative of the presence of a blacksmith there.

Carpentry is represented by a complete socketed axe-head (no. 276) still

retaining minerally preserved traces of the wooden handle in the socket. It is possible that no. 273 (Fig. 8) may be another carpenter's tool. The features observed on this piece are consistent with it being an auger though it lacks the slight expansion at the top before the edge-shaped tang noted on the much better preserved examples from Coppergate, York (Ottaway 1992, 532-5).

- 273 **Auger(?) (Fig. 8)**; fragment. Iron. Square-sectioned bar lower end broken; upper end tapering to wedge shape with mineralised wood on either face. Present length 115mm, shank section c. 12mm. Ctx NH4052; SF NH1208. (ID 207) BW3.
- 274 **Tanged punch (Fig. 8)**. Iron. Base of circular-sectioned tang; step to square-sectioned punch tapers to wege-shaped end now broken. Present length 90mm, tang diameter 6mm, width punch end 5mm. Ctx NH2106, SF NH823. (ID 247) Phase 4.2 BW4.
- 275 **Tanged knife?** With inlay at tang/ blade junction. Blade would appear to have slots?? - plus possible inlaid makers mark (seen only at assessment). Ctx NH7506. (ID 404) Phase 5 BW 5.
- 276 **Socketed axe-head**; complete. Iron. Oval socket retaining minerally preserved wood; front face sloping out slightly, rear face sloping out markedly; cutting edge slightly curved. Length 125mm, diameter of socket 26 x 18mm, depth blade edge 70mm. Ctx DC2380, SF DC291. (ID 1151). Phase 4.2 BE4.
- 277 **Bladed tool (Fig. 8)**; fragment. Rectangular-sectioned tang at angle to convex-curved blade with broken end. Investigation has shown that edge is blunt. Length 68mm, Section of blade 15 x 3mm. Ctx DC2458, SF DC602. (ID 979) Phase 4.2 BE4.
- 278 **Tanged implement**. Rounded D-section tapering to end. Length 90mm, section 15 x 9mm. Ctx DC2310 SF DC274. (ID 1157) Phase 5 BE4.
- 288 **Chisel edged tool**. Iron. Block expanding and thinning in one direction to form sharp edge, other end has attachment tang bent back along upper part of tool. Length 55mm, blade edge width 21mm. NH6161. SF NH1680. (ID 7). Phase 4.2. SE1

Modified bone tools

Three different types of animal bones modified for use as tools have been recognised here. Two of them, the socketed points (nos. 289-91) and the 'lucet' no. 292, are common types. The function of neither is known. The former are normally made from bovine metatarsals and are regularly found in late Saxon to early post-conquest

assemblages (see MacGregor *et al* 1999, 1989 for discussion). Slightly modified cattle nasal bones known as lucets are another regular feature of late Anglo-Saxon assemblages of the 10th and 11th centuries. Again their precise function is unknown though many authors have suggested a use in the textile industry (see MacGregor *et al* 1999, 1994 for discussion).

The third type is more unusual and the three examples (nos. 293-5) were all concentrated in Phase 5 contexts on Property SE3 with two being found in the same pit. They consist of cattle metatarsals which have had oval scoops removed on one face with more shallow facets on the other. They are clearly not just the by-product of bone working, possibly modified to remove oval blanks for some item, as they show the high gloss that comes from regular handling. At present no convincing function can be suggested for them.

The publications of the finds assemblages from the previous excavations do not appear to include these sorts of utilised tool but that is presumably a function of the reporting conventions. Several of the items catalogued here were found whilst processing the animal bone and not initially identified as modified. Given the piecemeal publication of the other excavations with only the items recognised as small finds published so far, it is to be expected that such items are present but not yet identified / published.

- 289 **Socketed point.** Bone metapodia. Cancellous tissue in proximal end neatly hollowed out; shaft cut into point with worn tip. Length 132mm. Ctx NH1126. (ID 1551). Phase 4.2 SE2.
- 290 **Socketed point.** Bone - sheep/goat tibia. Cancellous tissue in proximal end neatly hollowed out and head removed; shaft cut into point with worn tip. Length 140mm, Ctx DC2027. (ID1556). Phase 5 BE4
- 291 **Socketed point.** Bovine metatarsal? Cancellous tissue hollowed out to form socket running throughout the bone, shaft roughly chopped to a point that has become smooth and rounded through wear. Length 143mm. Ctx NH7510. (ID 427) Phase 5 BW5.
- 292 **'Lucet'.** Bone. Slightly modified bone plate with two pointed tines of unequal length. Surfaces glossy and worn through much handling. Length 111mm, maximum width 26mm. Ctx DC1064 SF DC475. (ID 1454) Phase 4 BE 3.
- 293 **Utilised bone.** Cattle metatarsal. One oval facet carved out of one face near distal end

revealing the central cavity, with two much shallower facets extending towards proximal end; other face behind deep facet has a shallow transverse oval facet. Surfaces of facets show polish from handling. Length 200mm, size of large facets 44 x 30mm. Ctx NH1450. SF NH188. (ID1555). Phase 5 SE3

- 294 **Utilised bone.** Cattle metatarsal. Two oval facets carved out of one face revealing the central cavity; other face opposite this has shallow faceting worn smooth. Length 175mm, size of facets 39 x 24mm, 43 x 28mm. Ctx NH1450. SF NH188. (ID1554). Phase 5 SE3
- 295 **Utilised bone.** Bone, metatarsal ? Distal end broken and missing. Two curved scoops removed from one case of the shaft and a third from the other side. The surfaces around these facets are highly glossy from much handling. The facets allow the fingers and thumb to grip the shaft comfortably but the extant proximal end which would be projecting from the hand if the facets were used to grasp it shows no wear. Present length 157mm. Ctx NH1407 (ID 1553). Phase 5 SE3.
- 296 **Modified proximal end of metatarsal?** Bone. Chopped in half lengthways and across shaft; lower part of shaft roughly faceted. Present length 75mm. Ctx DC2256. SF DC605. (ID 1450) Phase 4.2 BE4.

Fasteners and fittings

Locks and keys

Four barrel padlocks and/or parts of their casings were recovered. Nos. 300 and 305 (Fig. 9) were certainly examples of the pre-Conquest form of barrel padlock where the free end of the bolt is housed within tubes attached directly to the casing. No. 304 has not been cleaned and so the precise form cannot be identified with total certainty. It is clearly of approximately square cross-section and there is a hint in the X radiograph that the tube for the free arm is attached to the case. It is thus most likely to be another example of the type. The casing no. 298 is too fragmentary to assign to type.

The type of padlock found was designated Type A in Goodall's classification of padlocks for the 1961-71 excavations (in Biddle 1990, 1001). Most of the examples from those excavations came from 10th and 11th century contexts and the type was not thought to survive long into the 12th century. The comparanda assembled by Ottaway (1992, 666) for another example of the type from Coppergate also point to a 10th and 11th century date. This type of padlock was often decorated

with non-ferrous plating and additional decorative strips. This seems to have been the case for no. 300 as well but the poor condition of its preservation means that the features are represented merely by the small area of copper alloy plating and the ghost strips visible on the X-radiograph. No. 305 definitely had copper alloy decorative strips. The fact that the free arm on no. 300 seems to turn away from the tubes suggest that when lost/discarded the piece was not being used as a lock as the arm should have fitted into one of the tubes. The presence of two tubes on this piece is unusual, and a single tube as on no. 305 is more normal.

The padlock bolts (nos. 297, 299, 302 and 308, all from Phase 5 contexts; Fig. 8) would have come from a barrel padlock of this type or of the later type Type B (Goodall in Biddle 1990, 1001). Three keys (nos. 301, 303 and 309; Fig. 9) for padlocks were also found which could have been used in padlocks of the type A form. They are all examples of Type A padlock keys that in general have a date range that spreads from the pre-conquest period to the post-medieval period (Goodall in Biddle 1990, 1005, Type A see also Ottaway 1992, 675-6). During the 1961-71 excavations 29 were recovered from phased contexts of which nearly 60% came from those of 10th and 11th century date. No. 301 may have been similar to ones found in the 1961-71 excavations with expansions near a hooked end (Goodall in Biddle 1990, 1022 nos. 3706, 3713, 3715, 3718) in 10th to 14th century contexts.

Two keys from fixed locks were also found in Phase 4.2 contexts. No. 310 (Fig. 9) is an example of a Winchester Type 1. It was relatively common in the 1961-71 excavations with the majority found in early 10th to mid 11th century contexts, as it is elsewhere. It does not survive much into the post-conquest period (Goodall in Biddle 1990, 1024 nos. 3731-8, fig. 325). No. 307 is an example of a Winchester Type 5 key, a much rarer form. In the 1961-71 excavations they were found in mid 11th to mid 13th century contexts (Goodall in Biddle 1990, 1028 nos. 3781-85, fig. 327). In that report they were noted to be an unusual type. A sixth example was recovered from an 11th to 12th century pit at Sussex Street (Rees *et al* 2008, 337 no. 2555). The recovery of this seventh example from Winchester might suggest they were a local development.

The locks and keys are summarised in Table 18 as can be seen though relatively numerous they are concentrated in a handful of properties with nearly half coming from Property BE4 which shows a remarkable concern for security in both Phase 4.2 and Phase 5. Table 19 summarises the similar padlocks, padlock bolts and

keys from the 1961-71 excavations. Given the last two mentioned have long periods of use, only those in contexts contemporary to Phases 4.2 and 5 here are shown. As can be seen, these excavations have produced one third of all the padlock fittings of these types to have been recovered from Winchester in contexts of that date, and the only secular site to match this concentration was the Brook Street excavations of 1967-71. The number recovered from the demolition layers associated with the Old and New Minsters may also be noted. Though padlocks and their fitting are generally more common in Saxo-Norman assemblages than they are in Roman ones, such a concentration as seen here does appear to indicate something more than normal domestic concerns with security.

- 297 **Padlock bolt (Fig. 8)**. Iron. Complete. Spine with springs and complete free arm. Length 95mm, width end plate 20mm. Ctx NH4281, SF NH1245. (ID 304) Phase 5 BW2.
- 298 **Padlock case ?** Narrow cylindrical case in several pieces, iron with copper alloy. Diameter 48mm. Ctx NH3325. SF NH1044. (ID 728) Phase 5 BW3.
- 299 **Padlock bolt (Fig. 8)**. Iron. Three rectangular bars soldered together at one end. Length 70mm, width c. 16mm. Ctx NH3016. (ID 100) Phase 5 BW3.
- 300 **Barrel padlock (Fig. 9)** in two pieces lacking one end. Iron. Cylindrical case with a squared projection running along top, a vertical spine running along the projection internally divides the inner space into two tubes and is held in place by strip on either side between it and the side edges, investigation has shown that these strips are not now joined to the side plates, possibly indicating that originally they were brazed in place; X-radiograph shows ghosts of strips running around cylinder; end plate with bolt still in place with pair of springs; small area of free arm remains but curved away from channels on top of the case. One small area of copper alloy on exterior of case and much mineralised vegetation (? Grass stems) on one side. Present length 55mm, diameter of case 26mm. Ctx NH3094. (ID 52) Phase 5 BW4.
- 301 **Padlock key**. Iron. Handle with broken end, expansion near top; bit bent through 90 degrees. Surfaces much laminated. Length 105mm. Ctx NH2534. SF NH964. (ID 92) Phase 4.2 BW5.
- 302 **Padlock bolt ?** Iron. Terminal plate, central bar and springs. Length c. 80mm, diameter of end plate 35mm. Ctx NH2243, SF NH848. (ID 238) Phase 5 BW4.
- 303 **Padlock key (Fig. 9)**. Iron. The whole piece encased in a very heavy corrosion crust which disintegrated in part upon investigation. The bit would appear to have been set laterally to

- stem. Present length 105mm. Ctx DC1525, SF DC443. (ID 1211) Phase 4.2 BE2.
- 304 **Barrel padlock.** Complete. Rectangular case with rounded square section; bolt still in place. At one point a strip of beaded or twisted copper alloy visible within corrosion crust running along the length of the case. Length 90mm, section 35mm. Ctx DC2161, SF DC244. (ID 971) Phase 4.2 BE4.
- 305 **Barrel padlock casing (Fig. 9).** Iron. Approximately diamond-shaped end plate and cylindrical case; strengthening bars riveted in place between each of three corners, top of case has attached tube for free arm; rectangular slot for key in one end plate, aperture for bolt at the other, edge now broken. Length 80mm, section 35mm. Ctx DC3254, SF DC319. (ID 1128) Phase 4.2 BE4.
- 306 **Lock fitting?** Iron. Curved bar with flattened squared end with hole punched through. Present length c. 50, perforation diameter 7mm. Ctx DC2003, SF DC200 (ID 1075) Phase 4.2 BE4
- 307 **Key;** lacking bow. Iron. Stem solid at top, split at base; L-shaped bit. Present length 58mm, width of bit 32mm. Ctx DC3389, SF DC356. (ID 1182) Phase 4.2 BE4
- 308 **Padlock bolt.** Iron. Fragment retains bolt spring, end plate and part of free arm. Length 70mm. Ctx DC2238, SF DC262. (ID 1093) Phase 5 BE4.
- 309 **Padlock key (Fig. 9).** Iron. Rectangular-sectioned bar end rolled over; other end bends out through 90 degrees, broken across perforation. Length 103mm, section of bar 7 x 5mm. Ctx DC2027, SF DC271. (ID 1107) Phase 5 BE4.
- 310 **Key (Fig. 9);** complete. Iron. Pear-shaped bow; L-shaped bit and projecting stem tip. Length 106, width of bit 35mm. Ctx DC3237, SF DC347. (ID 1133) Phase 4.2 BE5.

Riveted bone mounts

There are 17 examples of a late Saxon artefact type whose function is not completely understood (nos. 312-5, 317-8, 320-2, 324-29 and 332-3). They consist of two thin bone plates held together by iron rivets with a void between them. In two cases here the void can be measured (nos. 312 and 314) and is five or six millimetres. In discussing the earlier finds from Winchester, Biddle (1990, 678-83) argued that they were the bone strengthening plates for double sided horn combs. Examples of such horn combs survived at York and London (MacGregor 1985, fig. 52), and some of the earlier Winchester finds had the characteristic notching on the long edges of the

mounts caused by the cutting of the teeth. Such notching can also be seen on two of the examples from these excavations. No. 322 shows close notching on one side and more widely spaced marks on the other which are typical of a double sided comb. No. 312 shows irregular marks on one side only.

A large group were also recovered from Coppergate (MacGregor *et al* 1999, 1952-4). The authors of that report, whilst agreeing that some of these mounts could well have come from combs, drew attention to the fact that none retained any traces of horn and considered their function to be obscure. The Coppergate site is famous for the quality of the preservation of its organic remains, but even there horn survived poorly (O'Connor 1999, 1899) and only a few pieces of waste survived (MacGregor *et al* 1999, 2047 nos. 7893-6). In such circumstances it could be argued that the absence of any trace of horn teeth plates cannot be taken as evidence that they were not comb side plates.

Despite that, they do occasionally show elements that cannot easily be reconciled with the side plate interpretation. In one earlier find from Winchester one of the plates had a small perforation in one corner, and it was argued that this indicated it was a comb case, the perforation being designed to take cord that would tie it to the comb (Biddle 1990, 680). A similar feature is seen on no. 312 but this is also one of the mounts that shows edge notches that can be interpreted as deriving from the cutting of the teeth. If they are evidence of the latter, then clearly the piece cannot be a comb case. It is difficult to see, however, what function the additional hole served if the mount was a comb side plate. Now that two examples have shown the additional hole in the same place, it becomes more difficult to interpret it as a misplaced rivet hole.

The earlier Winchester finds divided into two variants, those with two rivet holes and those with an additional one centrally. This is repeated here. Of those where both ends are present, four have two rivets (322, 314, 312, 320) and one has three (no. 313).

These mounts are quite closely dated. The York examples were concentrated in contexts dating from the mid 10th to mid 11th centuries (MacGregor *et al* 1999, table 175). The earlier examples from Winchester showed a similar concentration. Apart from one from a possible 9th century context, the earliest contexts they appeared in were those of the mid 10th to mid 11th centuries (five examples). One

came from an 11th century context, three from late 11th to early 12th century ones and the latest was dated to the mid to late 13th century (Biddle 1990, 686-90). Their *floruit* was thus clearly from the middle of the 10th century to the late 11th century. The examples from these excavations are summarised by phase in Table 20 which shows that they too are concentrated in Phase 4.2 and Phase 5 contexts. This table also includes the mount fragments which are likely to have come from riveted mounts but which do not retain the rivets or rivet holes (nos. 316, 319, 323, 330, 331). They seem evenly spread throughout the properties apart from the large group from Property SE3 in Phase 5. It is possible that the seven recorded over estimate the numbers as they are fragmentary and some fragments might conceivably come from the same example. Each has an a perforation for a rivet though, so at least two must be present given that each example would need four perforations.

These excavations have produced by far the largest group of these mounts from Winchester. Only 11 were recognised from the excavations from 1961 – 1971 and none from the suburb and defences excavations. Little should be read into this. As with the absence of Saxo-Norman modified bone tools, this is more likely to be a product of the publishing strategies for those excavations. It can be noted that the total number more than doubled for these excavations between assessment and analysis because of the identification of fragments from them during the analysis of the animal bone.

No. 311 (Fig. 9) has been described as a riveted mount but it is clearly different to those just discussed. They were made of thin bone, frequently identified as cattle rib bones, and the cancellous tissue can often be seen on the inner face. On no. 311 by contrast all the surfaces are carefully finished and the piece is much thicker. It also has one decoratively cut long edge and the extant iron rivet is much shorter than those associated with the other mounts. The piece is too thick to be a casket mount. It is possible that it might be a handle plate, though the notched edge would not be very practical for such a function.

311 **Riveted mount (Fig. 9).** Bone. One rectangular plate, one end retains iron rivet, other end broken across empty perforation. One long edge has rounded profile, other has decorative cut-out. Exterior and inner face polished. Present length 69mm, section (maximum) 12 x 3.5mm, section of rivet c. 3mm. Length of rivet 7mm. Ctx DC1022, SF DC154. (ID 1455) Phase 4 BE1.

- 312 **Riveted mount.** Bone. Now in three joining pieces lacking the end of one plate. Two rectangular plates, extant short ends slightly sloping; held together at either end by iron rivet. End of one plate has additional small perforation in corner. Exterior faces of natural outer face of bone. Inner faces retain cancellous tissue. Both plates show small vertical grooves along one edge. Length 79mm, width 15mm, thickness of bone 3mm, total thickness c 10mm, thickness of void between plates c 6mm, section of rivet c. 5mm. Ctx DC1354. SFDC483. (ID 1457) Phase 4.2 BE 2.
- 313 **Riveted mount.** Bone. Two rectangular plates now broken into eight fragments, one plate virtually complete, other lacks short ends; also fragments of two rivets. Originally plates held together by iron rivet at either end and one centrally. Exterior face polished. Inner face retains cancellous tissue. Dimensions of most complete plate Length 103mm, section 22 x 2.5mm. Ctx DC1365, SF DC551. (ID 1458) Phase 4.2 BE 2.
- 314 **Riveted mount (Fig. 9).** Bone. Two rectangular plates with sloping short ends held together at either end by iron rivet. Exterior faces of natural outer face of bone with scored guidelines in places marking out shape of strip. Inner faces retain cancellous tissue. Edges chipped but substantially complete. Length 75mm, width 16mm, thickness of bone 2.5mm, total thickness c 9mm, thickness of void between plates 5mm, section of rivet c. 3.5mm. Ctx DC2004. SF SF DC223. (ID 1456) Phase 4.2 BE4.
- 315 **Riveted mount.** Bone. One rectangular plate broken across one perforation which retains iron rivet and broken at edge of rivet hole at other end. Exterior and inner face polished to produce shallow D-section. Present length 87mm, section 13.5 x 3mm, section of rivet c. 4mm. Length of rivet 15. Ctx DC2171, SF DC607. (ID 1460) Phase 5 BE4.
- 316 **Mount?** Bone. Fragment from rectangular-sectioned rectangular strip, short end has marking out groove; lower face has cancellous tissue. Dimensions 12 x 11mm, thickness 2.5mm. Ctx DC2163. (ID 1569) Phase 4.2 BE4
- 317 **Riveted mount.** Bone. Rectangular-sectioned strip, one end broken across corner with perforation, other end broken, one side missing. Inner edge retaining cancellous tissue. Present length 89mm, thickness 1.5mm. Ctx NH4322. (ID 1547) Phase 4.2 BW2.
- 318 **Riveted mount.** Bone. Rectangular-sectioned strip, one end broken across corner with perforation, other end broken. Inner edge retaining cancellous tissue. Present length 84mm, section 18 x 2.5mm. Ctx NH4322. (ID 1546) Phase 4.2 BW2
- 319 **Mount or roughout.** Bone. Rectangular-sectioned rectangular strip; both ends broken.

- Under surface retains cancellous tissue. Present length 59mm, section 20 x 3mm. Ctx NH4322. (ID 1548) Phase 4.2 BW2
- 320 **Riveted mount.** Bone. One rectangular-sectioned rectangular plate now broken across corner; iron rivet at each end. Exterior face polished. Inner face retains cancellous tissue. Length 117mm, section 16 x 2.5mm. Ctx NH1365, (ID1534) Phase 4.2. BW3
- 321 **Riveted mount.** Bone. One rectangular plate retaining one original short end, broken across perforation at other end; retaining two iron rivets but lacking rivet for broken perforations. Exterior face polished. Interior face retains cancellous tissue. Long edges damaged. Present length 77mm, section 18 x 2mm, section of rivet c. 4mm. Length of rivet 11. Ctx NH4594, SF NH1299. (ID 176) Phase 5 BW3.
- 322 **Riveted mount.** Bone. One end of one rectangular plate retaining iron rivet and broken at edge of rivet hole at other end. Exterior face polished. Exterior has traces of cancellous tissue. Both edges show notches from cutting of teeth, one side has 10 notches to 10mm, other has c. 4 notches to 10mm. Present length 50mm, section 16 x 2mm, section of rivet c. 4mm. Length of rivet 13. Ctx NH 2399, Sample NH173. (ID 431) Phase 4.2 BW 5.
- 323 **Mount.** Bone (large mammal rib). Rectangular-sectioned rectangular strip, both ends broken; small perforation. Outer face polished, internal face retains cancellous tissue. Present length 80mm, section 25 x 2mm, perforation diameter 5mm. Ctx NH1156; SF NH65. (ID1536). Phase 4.2. SE 2.
- 324 **Riveted mount.** Bone. D-sectioned rectangular plate, one end diagonally cut and broken, other end broken. Small perforation centrally in complete end, broken perforation in corner of broken end. Exterior face polished, inner face retains cancellous tissue. Present length 85mm, section 13 x 3.5mm, perforation diameter 3mm. Ctx NH1450. SF NH188. (ID1540). Phase 5 SE3.
- 325 **Riveted mount.** Bone. 'D'-sectioned rectangular strip; one end retains marking out groove, other end broken across circular perforation. Inner face retains cancellous tissue. Present length 18mm, section 8 x 3mm. Ctx NH1407. SF NH184. (ID1542). Phase 5 SE3.
- 326 **Riveted mount.** Bone (large mammal rib). 'D'-sectioned rectangular strip, one end complete with circular perforation, other broken across edge of second perforation. Inner face retains cancellous tissue. Present length 69mm, section 9 x 3mm, perforation diameter 4mm. Ctx NH1340. (ID 1544). Phase 5 SE3.
- 327 **Riveted mount.** Bone (large mammal rib). D-sectioned rectangular strip, marking out groove

- across end, other end broken across perforation. Present length 24mm, section 13 x 2.5mm. Ctx NH1407. (ID1541). Phase 5 SE3.
- 328 **Riveted mount.** Bone. Corner of rectangular strip broken across perforation. Present length 50mm, thickness 2.5mm. Ctx NH1340. (ID1545). Phase 5 SE3.
- 329 **Riveted mount.** Bone. Rectangular plate, one end broken, complete end lacks corner and is broken across perforation. Exterior face polished, inner face retains cancellous tissue. Present length 130mm, section 22 x 3mm, perforation diameter 2.5mm. Ctx NH1342, (ID1538) Phase 5, SE 3.
- 330 **Mount.** Bone (large mammal rib). Rectangular-sectioned rectangular strip; both ends broken, one appears to have been broken across a diagonal edge, other across small perforation. Present length 40mm, section 20 x 2.5mm. Ctx NH1340. (ID 1543). Phase 5 SE3
- 331 **Mount.** Bone. Rectangular-sectioned rectangular strip, both ends broken, one break across small perforation. Outer face polished, internal face retains cancellous tissue. Present length 88mm, section 16 x 2.5mm. Ctx NH1450; SF NH188. (ID1536). Phase 5. SE 3.
- 332 **Riveted mount (Fig. 10).** Bone. One complete rectangular plate, one long edge slightly convex-curved and short ends sloping. Perforation at either end. Outer face highly polished. Inner face retains cancellous tissue. Length 109mm, width 23mm, thickness of bone 2mm, perforation diameter 2.5mm. Ctx NH3159. SF NH1005. (ID 422) Phase 8
- 333 **Riveted mount.** Bone. One end of rectangular-sectioned rectangular plate retaining iron rivet with small fragment of second plate. Exterior face polished. Inner face retains cancellous tissue. Present length 36mm, section 16 x 2mm. Ctx NH7593, (ID1535) Phase 8.

Studs

On any site such as this where there is a substantial underlying Roman presence, there is always the suspicion that many of the small studs found in Saxo-Norman assemblages such as this may well be residual Roman pieces because they tend to be very numerous in Roman assemblages. . Many of the forms represented by nos. 334-9 have already been found in Roman contexts here (see above), but there are some grounds for thinking that most from the Phase and 5 contexts are indeed of 10 to 12 century in date. Only the fragmented no. 337 comes from a property where a substantial residual Roman component is recorded in the Phase 4 to 6 contexts (see Table 8).

- 334 **Flat-headed stud.** Copper alloy. Circular head. Square-sectioned shank tapering to blunt point. Length 12.5mm, head diameter 5.5. Ctx NH3103. SF NH1040. (ID 578) Phase 5 BW3
- 335 **Flat-headed stud;** head only. Copper alloy. Head circular sheet with central perforation, edge curved over with concentric rib; shank missing. Diameter 13.5mm., perforation diameter 2mm, thickness 0.5mm. Ctx NH3236. SF NH1016. (ID 580) Phase 6 BW3.
- 336 **Conical-headed stud.** Copper alloy. Square-sectioned blunt-ended shank. Length 12mm, diameter of head 8mm. Ctx NH2263. SF NH849. (ID 140) Phase 5 BW4.
- 337 **Stud;** fragmented. Copper alloy. Hollow domed head with part of circular-sectioned shank. Head diameter 9mm. Ctx NH2353, SF NH907. (ID 553) Phase 5 BW5
- 338 **Flat-headed stud.** Copper alloy. Flat circular head now broken with two ribs on underside around edge and centrally; perforated centrally and retains square-sectioned shank tapering to point and bent to one side. Length 12mm, original head diameter c. 16mm. Ctx DC1218. SF DC158. (ID 1337) Phase 5 BE2.
- 339 **Flat-headed stud.** Iron. Small flat head. Length 10mm, head diameter 6mm. Ctx DC2467 SF DC1030 (ID 1300) Phase 5 BE4.
- 340 **Rivet.** Copper alloy. Fragment of sheet rolled into oval-sectioned pointed cone, sheet at other end bent over to form head. Now in two fragments. Length 23mm, maximum section 5 x 4mm. Ctx NH1222. SF NH87. (ID 819) Phase 4.2 SE2

Other items

Of the other items grouped here two are of special note. The finial no. 350 (Fig. 10) has a spear-shaped outline, but the edges are blunt. No 361 (Fig.10) is part of an elaborate iron chain. Staples are common with eight examples being recovered as well as a stapled hasp.

- 341 **Mount (Fig. 10).** Copper alloy. Rectangular-sectioned strip slightly curved towards one end, both ends broken; front face has beaded ridge along each edge, running floriate scroll between these; upper face retains traces of gilding. Present length 33mm, section 12 x 1.5mm. Ctx DC1303, SF DC189. (ID 1331) Phase 4 BE1.
- 342 **Angle bracket.** Iron. Length 80mm, width c. 20mm. Ctx DC1349, SF DC409. (ID 1205) Phase 4 BE1.

- 343 **Staple**; 2 examples. Iron. U-shaped. Larger has broken arm, extant arm turned out at tip, smaller incomplete. Largest - length 90mm, width 20; smaller width 23mm. Ctx DC1027, SF DC104. (ID 1039) Phase 4 BE1.
- 344 **Split pin**. Iron. Straight legs. Length 115mm, diameter loop 27mm. Ctx DC1254, SF DC185. (ID 1027) Phase 5 BE1.
- 345 **Mount**. Copper alloy. End of rectangular plate with two integral rivets at back asymmetrically placed. Width 12.5mm, present length 7.5mm, thickness 1.5mm. Ctx DC1090. SF DC142. (ID 1338) Phase 5 BE3.
- 346 **Mount**. Copper alloy. Rectangular sheet; circular perforation. Dimensions 10 x 6mm, thickness 1mm, perforation 2mm. Ctx DC2095 SF DC665. (ID 1370) Phase 5 BE4.
- 347 **Chain loop?** Iron. Oval ring fragment, much fragmented. Length 50mm. Ctx DC2178 SF DC1004. (ID 1324) Phase 4.2 BE4.
- 348 **Staple**. Iron. U-shaped, one arm broken. Length 95mm, width c. 35mm. Ctx NH2278, SF NH868. (ID 228) Phase 5 BE4
- 349 **Hook fragment**. Iron. Hook with broken end; other end has projecting tang. Length 67mm. Ctx DC2097, SF DC217. (ID 1089) Phase 6 BE4.
- 350 **Finial (Fig. 10)**; complete. Iron. Rectangular -sectioned flat leaf-shaped blade with blunt edges; conical socket occupying half length. Length 125mm, maximum width blade c. 18, thickness blade 8mm, diameter of socket 16mm. Ctx NH8049. (ID 112) Phase 6 BW1.
- 351 **Angle binding**. Iron L-shaped. Length 55mm, width c. 24mm. Ctx NH4328, SF NH1247 (ID 206). Phase 4.2 BW2.
- 352 **Staple**. Iron. U-shaped, one arm broken. Length 50mm. Ctx NH4085, SF NH 1233. (ID 73) Phase 4.2 BW2.
- 353 **Split pin and loop (Fig. 10)**. Iron. Parallel blunt-ended arms, with loop articulating through pin head. Length of split pin 50mm. Ctx NH4025, SF NH1202. (ID 65) Phase 6 BW2.
- 354 **Chain**, broken link. Iron. Oval link with broken end. Length c. 40mm, width c. 20mm. Ctx NH4369, SF NH261. (ID 359) Phase 4.2 BW2.

- 355 **Staple.** Iron. U-shaped with widened central part; one arm broken. Length 32mm., maximum width 8mm. Ctx NH3507, SF NH1109. (ID 197) Phase 4.1 BW 3.
- 356 **Staple.** Iron. U-shaped, one arm broken. Length c. 38mm, width 19mm. Ctx NH3354, SF NH1065. (ID 502) Phase 5 BW3.
- 357 **Staple.** Iron. U-shaped. Length 42mm, width 20mm. Ctx NH3105, SF NH1122. (ID 328) Phase 5 BW3.
- 358 **Staple.** Iron. U-shaped. Length 42mm, width 20mm. Ctx NH3105, SF NH1122. (ID 328) Phase 5 BW3.
- 359 **Looped pin.** Iron. Bar bent round to loop at one end. Length 45mm, loop diameter 20mm. Ctx NH3105, SF NH1119. (ID 321) Phase 5 BW 3.
- 360 **Mount.** Copper alloy. Two rectangular sheets connected by 2 rivets. Dimensions 15 x 7mm, depth 7mm. Ctx NH2106. SF NH821. (ID 545) Phase 4.2 BW 4.
- 361 **Chain (Fig. 10).** Iron. Figure of eight link with unclosed arms ending in scrolls; each loop articulating with additional link. Complete link 36mm. Ctx NH2241, SF NH 850. (ID 259) Phase 5 BW 4.
- 362 **Washer; fragment.** Iron. Approximately half of perforated disc. Diameter 17mm, perforation diameter 4mm. Ctx NH6204, sample NH374. (ID 625) Phase 4 SE1.
- 363 **Stapled hasp.** Iron. Angled strip, one end rounded with D-shaped perforation to form a loop, other end pointed with hasp. Length c. 120mm, width 20mm. Ctx NH5114, SF NH1458. (ID 313) Phase 5 SE1.
- 364 **Suspension hook.** Iron. Penannular ring with shank. Length 50mm, diameter 30mm. Ctx NH5046, SF NH1428. (ID 337) Phase 6 SE1
- 365 **Openwork mount; fragment.** Copper alloy. Flat back curved front edges to bars; one straight edge starting to curve in. Dimensions 21x19mm, thickness 2.5mm. Ctx NH6095, SF NH1651. (ID 143) Phase 5 SE1.
- 366 **Binding; fragment.** Iron. Length of plate bent into a U-section; both ends broken. Length 110mm, width 28mm, thickness c. 10mm. Ctx NH1264, SF NH99. (ID 883) Phase 4 SE3.
- 367 **Suspension fitting.** Iron. Half a ring with a strap around it at one point. Small nail corroded

to it. Diameter ring 45mm. Ctx NH8027. (ID 106) Phase 5.

- 368 **Mount (Fig. 10)**. Copper alloy. Square with circular perforation in each corner, one deformed. Dimensions 19 x 17.5mm, thickness 0.5mm, perforation diameters 2mm. Ctx NH8044. SF NH1901. (ID 120) Phase 6.

Agricultural and horticultural equipment

Two items that seem most likely to belong to this category were recovered (Fig. 10). A very similar but smaller example of the fork no. 369 came from Coppergate and was interpreted as a cooking implement, but this appears too large and is more likely a horticulture tool (Ottaway 1992, 599). No. 370 is a spade shoe which would have fitted around a wooded spade. Pre-conquest examples are rare (see Ottaway 1992, 555), and they become more common later and the shape of this example indicates it is one of the later examples (Goodall in Biddle 1990, 450). It came from a phase 6 context and attest to the change of land use in the area.

- 369 **Fork (Fig. 10)**. Iron. Complete socket with perforation at base; one tine extant, other missing. Length 205mm, diameter of socket 28mm. CtxNH9554. (ID 113) Phase 4 BW5.
- 370 **Spade shoe (Fig. 10)**; part of one arm missing. Iron. Slightly pointed U-shape with V-shaped cross section. Length 190mm, original width c. 160, section 16 x 35mm. Ctx DC2265 SF DC279, (ID 1162) Phase 6 BE4.

Hunting and military equipment

Two arrowheads were recovered from Property BW2. No. 370 from a Phase 4.2 is tanged and this appears to be an early form. Those from the 9th to 10th century contexts at Coppergate were predominantly tanged like this one (Ottaway 1992, 710). The arrowheads published from 10th century and later context from the 1961-71 excavations were socketed like no. 371 (Fig. 11) from a Phase 5 context (Goodall in Biddle 1990, 1071-3).

Arrowheads were not particularly common finds in the 10th to 12th century contexts within the 1961-71 excavations. Equally there was only one from a late Saxon context on the suburb and defences sites and that was thought to be intrusive (Rees *et al* 2008, 350 no. 26646). In the city centre there was one from the Castle bailey in a late 11th century context, three from scattered properties in Brook Street and a large one thought to be appropriate for large game from a mid 12 century context at Wolvesey Palace (Goodall in Biddle 1071 nos. 3990-91, 3995A, 396-7). Those from the castle and Wolvesey Palace clearly indicate a use amongst military and aristocratic milieus in the Anglo-Norman period, and so the recovery of two from this property, one of them in an Anglo-Norman context is of some interest.

371 **Arrowhead (Fig. 11)**; complete. Iron. Flat leaf-shaped blade, rectangular-sectioned tang. Length c. 70mm, blade section 19 x 3mm, tang section 5mm. Ctx NH4095, SF NH1213. (ID 196) Phase 4.2 BW 2.

372 **Arrowhead (Fig. 11)**; complete. Iron. Lozenge-shaped head; conical socket. The preservation was such that it was not possible to ascertain the section of the blade. Length 50mm, maximum width head 10mm, width of socket 9mm. Ctx NH4186, SF NH1248. (ID 198) Phase 5 BW2.

Religious items

A small cast fragment (no. 373; Fig. 11) most probably from a figurine was recovered from surface 8628 on Property SE2. This would have come from an element of statuary in a church or chapel. Given that the foundations associated with the chapel that was part of the archdeacon's residence cut this surface, it raises the intriguing possibility that there might have been some religious activity on the site prior to the building of the chapel.

No. 374 (Fig. 11) is a clapper from a bell (see Ottaway 1992, 557-8, figs. 225 nos. 2751, 2755). The difficulty of assigning bells to function as been discussed in connection with those found during the 1961-71 excavations (Biddle 1990, 725) but given they were definitely used at different points of worship it is useful to tentatively include them in this functional category. This was found on a site without any obvious religious connotations (Property BW4), but given a smith appears to have

been active in this area this need not necessarily indicate a secular use as it could have been one of the products of the forge.

- 373 **Figurine (Fig. 11)**; fragment. Copper alloy. Exterior has linear decoration, possibly from drapery; interior irregular from casting; lower edge finished. Dimensions 20 x 17mm, thickness 2mm. Ctx NH1062 SF NH193. (ID 805) Phase 5 SE2.
- 374 **Bell clapper (Fig. 11)**. Iron. Circular-sectioned clapper with one rounded end tapering to other squared -section tang bending over to form ring. Length 65mm, maximum section 10mm. Ctx NH2027. (ID 721) Phase 5 BW4.

Industrial and craft by products

The debris from working bone, and less commonly antler, was found stratified in Phase 4 contexts in four properties (BW2, BW4, SE3 AND BE2). It was also found in later contexts Properties BW3 and BW5. There are no major concentrations and the pattern seems to be for low level utilisation of the material. Amongst the rough-outs there are strips (nos. 376-7) that could have come from the manufacture of riveted mounts (see above) and one femur head (no. 380) which may have been intended to be a spindlewhorl (see above). Evidence for bone working is also discussed in the animal bone report (see *Digital Section 11*).

Metal-working debris is dealt with elsewhere (see *Digital Section 4*) but it may be noted that amongst the material submitted to me, there were numerous fragments of spheroidal hammerscale (weight 16g) from a Phase 4.1 context (NH3624) on property BW4 supporting the hypothesis that a smith was at work in that property. Hammerscale was also present in properties BE1 during phase 4 (DC1471, DC1154). During Phase 5 it was present Property BE2 (DC1459) and BE3 (DC1270). The latter was a group weighing just under 10g consisting of many small fragments including spheroidal hammerscale with the X-radiograph showing very bright non-ferrous patches indicative of non-ferrous metalworking as well.

- 375 **Working waste**. Antler. Junction of tine and beam with three sawn surfaces. Length 25mm. Ctx NH4714. SF NH1338. (ID 428) Phase 4.1 BW2.

- 376 **Rough-outs.** Bone. Three flat strips of bone retaining cancellous tissue on underside; some edges retaining marking out scoring lines. Maximum dimensions 78 x 23mm, thickness 1.5mm. Ctx NH4322. (ID1549) Phase 4.2 BW2
- 377 **Rough-out.** Bone. One end of a rectangular strip with cancellous tissue on underside. Scored along straight end, other end broken. Dimensions 47 x 22mm, thickness 2mm. Ctx NH4425. SF NH1283. (ID 1506) Phase 4.2 BW2.
- 378 **Working waste.** Bone. Scapula with curving cut edge. Length 155mm. Ctx NH3286. SF NH1023. (ID 426) Phase 6 BW 3.
- 379 **Working waste.** Bone. Rectangular block from a strip with the two long edges showing saw marks. Back smoothed and retaining traces of cancellous tissue. Dimensions 28 x 14mm., thickness 3mm. Ctx NH2114. (ID 188) Phase 4.2 BW4.
- 380 **Rough-out.** Bone, cattle femur head with part of neck on side. Hemispherical; lower face consists of cancellous tissue with conical pit in base. Diameter 47mm, height 27mm. Ctx NH3168. (ID1558). Phase 4.2. BW4
- 381 **Working waste.** Bone, Broken end of long bone with shaft detached by sawing. Ctx NH2323. (ID 1550). Phase 5 BW5.
- 382 **Rough-out.** Bone. Lower part of a roughly faceted shank; transverse grooves on one side. Present length 47mm, section 6 x 4.5mm. Ctx NH1513. SF NH163. (ID1575) Phase 4 SE3.
- 383 **Rough-out.** Approximately square-sectioned bar roughly faceted and retaining cancellous tissue along one edge. Roughly faceted with wedge-shaped end. Length 82mm, section 10 x 10mm. Ctx DC1362. SF DC555. (ID 1446) Phase 4.2 BE2
- 384 **Working waste.** Antler tine. Sawn across base. Length 107mm. Ctx DC3219, SF DC340. (ID 1440) Phase 6 BE5.
- 385 **Working waste.** Bone. Four fragments of rectangular strip of cancellous tissue. Maximum section 17 x 3.5mm, lengths 41mm, 32mm, 28mm, 20mm. Ctx DC3277. (ID1539) Phase 6 BE5

Miscellaneous

- 386 **Ring.** Iron. Approximately half extant. Diameter 25mm. Ctx 2116. (ID 723) Phase 4.2 BW4

- 387 **Penannular ring.** Copper alloy. Rounded square section tapering slightly to overlapping ends. Diameter 24mm, section 4.5mm. Ctx NH4085. SF NH1231. (ID 528). Phase 4.2 BW2.
- 388 **Ring.** Copper alloy. Circular-sectioned. Diameter 24mm, section 2mm. Ctx NH4075. SF NH1209. (ID 575) Phase 6 BW2
- 389 **Ring (Fig. 11).** Iron. Bar bent into spiral with overlap of c. one-quarter. Diameter 35mm, bar section 6mm. Ctx NH3353, SF NH1054. (ID 743) Phase 5 BW3.
- 390 **Ring.** Copper alloy. Circular section. Diameter 23 x 22mm, section 2.5mm. Ctx NH3286. SF NH1029. (ID 128) Phase 6 BW3.
- 391 **Spiral ring.** Iron. Diameter c 25mm. Ctx NH3467, SF NH1089. (ID 303) Phase 5 BW4.
- 392 **Ring;** fragment. Iron. Rounded rectangular outline; square-sectioned. Length 35mm, section 4.5mm. Ctx NH2023 SF NH962. (ID 83) Phase 4.2 BW5.
- 393 **Ring;** segment. Copper alloy. D-sectioned with cross-bar on side face. 35% of circumference extant. Original diameter c. 45mm, section 6 x 5mm. Ctx NH5051. SF NH1421. (ID 539) Phase 6. SE1.
- 394 **Ring;** complete. Iron. Oval. Dimensions 26 x 20mm. Ctx DC2003, SF DC201. (ID 1072) Phase 4.2 BE4.
- 395 **Weight.** Lead alloy and stone. Oval pebble wrapped with sheet of lead. Length 23mm. Weight 16.8g. Ctx NH4425, SFNH1281. (ID 968) Phase 4.2 BW2.
- 396 **Weight (Fig. 11).** Lead alloy. Cast perforated cone; perforation approximately circular and widening slightly to base. Diameter 18 x 16mm, height 10mm, perforation diameter 6.5 - 9mm, weight 14g. Ctx NH4133, SF NH1221 (ID 826) Phase 4.2 BW2.
- 397 **Spike.** Iron. Bar tapering to point. Length 90mm, section 10mm. Ctx NH3354, SF NH1048. (ID 742) Phase 5 BW3.
- 398 **Implement (Fig. 11).** Lead alloy. Circular-sectioned shank with diamond and triangle faceted cube and spatulate terminal at one end; circular-sectioned shank; similar diamond and triangle cube and circular-sectioned shank below; damaged end. Now bent in two. Length 111mm, section of cube 7 x 5, section of shank 5mm, weight 18g. Ctx NH3246, SF NH1015. (ID 970) Phase 5 BW4.

- 399 **Antler beam** retaining lower part of forking crown. All ends broken. Beam has high polish from regular handling. Present length 190mm. Ctx NH2628. (ID 429) Phase 4.2 BW4.
- 400 **Point.** Iron. Square-sectioned bar tapering to wedge-shaped point. Present length 95mm, maximum section 8mm. Ctx NH2241, SF NH847. (ID 232) Phase 5 BW4.
- 401 **Notched bar (Fig. 11).** Copper alloy. Rectangular-sectioned rectangular bar with V-shaped notch in each end, slight waisting of sides behind one end which is slightly thicker; pair of transverse grooves behind each end. Length 38mm, section 7 x 1mm. Ctx NH7606, SF NH1766. (ID 563) Phase 5 BW6.
- 402 **Cast plate fragment.** Copper alloy. Possibly from a disc with a cogwheel-outline; one square block outlined by two V-shaped notches with parts of similar blocks on either side. Dimensions 27 x 19mm, thickness 2mm. Ctx DC3029, SF DC366. (ID 1352) Phase 5 BE5.
- 403 **'Blade' (Fig. 11).** Iron. Round-ended blunt blade with scalloped edge at shoulder junction with tang. Length 65mm, maximum width 15mm. Ctx NH1014. SF NH169. Phase 6 SE2.

Overview of the Late Saxon to medieval finds assemblage

As will be clear from the discussion so far, the 10th to 12th century assemblage of small finds provides a very good opportunity to explore whether the different properties were being used for different functions. Many of the objects discussed came from pit fills and so it seems reasonable to assume that they may have been in use in the properties on which they were found rather than representing brought in rubbish or levelling material. There are also relatively large numbers of items that have quite specific functions (tools associated with the manufacture of textiles, padlocks, balances, horseshoes) that can be used to structure the enquiry around. The relatively homogenous date range of the finds makes it relatively easy to extract assemblages from the different properties which exclude most of the residual Roman material and the items that clearly belong to the 13th century and later. We also have the advantage that during the 10th to 12th centuries the use of the area appears to be domestic and secular. The data set is thus much simpler with regard to both chronology and site type than the one relating to the 1961-71 excavations which Barclay, Biddle and Orton explored in their pioneering work on assemblage

composition (Biddle 1990, 42-73). It might also be suspected that the assemblages considered there may have included a component of residual material that has been excluded here.

At various points in the discussion of the finds, attention has been drawn to the fact that large numbers of particular finds have been concentrated on a particular property. An important aspect to consider is whether this just comes about because particular properties have larger assemblages than others. Table 21 shows the total numbers of items for each property which can be assigned to function (excluding structural and miscellaneous finds, industrial waste, residual finds and finds that can be dated to the 13th century or later). The total ranges from 1 to 44 with the latter coming from Property BE4. This is unsurprising given that much more of this property was excavated than many of the others. To a certain extent the finds total does reflect the footprint of the excavation. Thus properties BE1-3 produce approximately half the number of finds that properties BW2-5 do reflecting the different areas dug.

Table 21 also shows the incidence of selected items with specific functions as well as that of the numerous riveted bone mounts for which no satisfactory function has yet been advanced. These are shown as both absolute numbers and percentage of the property total. Percentages on such small numbers can be misleading but here it allows a rapid comparison across properties. As can be seen, features that attracted attention when just one functional category was considered, such as the high number of security fittings in Property BE4 (see Table 18), now fall into a regular pattern when considered against the background of all finds from all properties. There are ten properties with more than 10 items and padlocks and their fitting occur on six of these, with the BE4 pattern being proportionately the same as that on Properties BE2, BW3 and BW4. Tools for the production of cloth occur on all of the ten properties with more than ten items and on one of the properties with less than that. Excluding the last mentioned property, they form between 6% and 27% of the total. It is noticeable that the properties at the lower end of the range (BE1, SE1) have only spindlewhorls whilst that at the top (Property BW4) has tools for the preparation of the whole range of production (fibre preparation, yarn spinning, cloth weaving – see Table 10). The size of the assemblage does not necessarily influence this. Property BE4, the most prolific one, has only two categories of these tools (yarn spinning, cloth weaving). So there might have been a degree of specialisation and localisation

in the process. Spinning would have been a regular task which could be carried out everywhere as a woman can easily carry a spindle around with her. Fibre preparation and weaving are more static tasks and would appear here to have been carried out on a smaller number of properties.

The presence of shod horses appears to be a regular feature of the properties so the absence of any on property BW4 where there is evidence of a blacksmith at work is noticeable. Presumably this is a smith making items such as knives. The presence of blacksmithing and cloth manufacture on this property would have made it a hive of industry, if the activities were taking place at the same time.

An interesting feature of this table is that there is not a close association between the padlocks and their fittings and the balances. So whatever was being weighed was not felt to be in great need of security. Something similar could be seen in the contemporary houses at Brook Street. Padlocks occurred regularly and, especially in the case of Building XII, in some numbers (see Table 19). Balances were restricted to Building IX/X (Biddle 1990, 922-4). So at present we are no closer to knowing quite why so many balances were needed.

Plotting out the incidence of riveted mounts also does not help in identifying what they were being used for. They are not present on the property with the highest incidence of craft and industrial activity (BW4) but otherwise occur fairly regularly, noticeably on the same properties and in similar numbers to padlocks with the exception of the unusual group in property SE3.

The excavations have also produced a small number of what might be considered within this assemblage to be, if not luxury items, then things that are a little out of the normal pattern, possibly indicative of a more leisured existence. There is a small concentration of these on property BE3 during Phase 6 which produced both the chess piece no. 208 and the mount from a more elaborate casket than normal. Possibly by chance the same property produced one of the only two vessel glass fragments found (no. 195) from a Phase 5 context. As discussed in connection with this, in some circumstances vessel glass can be taken as indicative of a high status site. The only item of semi-precious metal, the silver brooch pin no. 122, came from Property SE1 in a phase 6 context. Another elaborate casket fitting (no. 203) had come from the same property in a Phase 5 context. The presence of arrowheads on Property BW2 is not matched by any other indications that this was a particularly wealthy or elite property and so suggests that they may not have had the associations

those from the 1961-71 excavations had. Finally, given the attention that the decorated spoons or spatulas have attracted in the past, it may be noted that the property on which no. 189 was found (BE2) had a well furnished assemblage, but which contained nothing else that was particularly out of the ordinary.

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Small Finds Tables

Table 1: The stratified finds by material (excluding nails)

Phase	Silver	Copper alloy	Lead alloy	Iron	Glass	Bone	Other	Total
1.1	-	-	-	1	-	-	-	1
1.3	-	4	-	7	4	-	1	16
2.1	-	3	-	8	11	2	-	24
2.2	-	8	-	11	1	-	-	20
2.3	-	29	1	179	8	15	-	232
2.4	-	20	6	55	14	4	1	100
4	-	12	1	43	3	4	1	64
4.1	-	9	1	46	1	3	-	60
4.2	-	27	7	92	9	38	-	173
5	-	46	5	128	11	32	2	224
6	1	30	3	39	12	15	2	102
Total	1	188	24	609	74	113	7	1016

Table 2: The Roman finds (excluding nails and miscellaneous items) by functional category and phase.

Function	1.1	1.3	2.1	2.2	2.3	2.4	Later	Total
Personal	1	1	3	7	155	40	61	268
Toilet	-	-	1	-	-	-	2	3
Textiles	-	-	-	-	5	1	1	7
Household	-	3	9	1	8	11	24	56
Recreation	-	-	-	-	1	-	1	2
Weighing	-	1	-	-	-	-	-	1
Structural	-	-	-	-	2	1	4	7
Tools	-	-	-	-	5	1	-	6
Fasteners	-	-	-	6	11	5	2	24
Military	-	1	-	-	1	1	1	4
Religion	-	-	-	-	1	-	-	1
Industrial	-	1	1	-	-	2	-	4
Total	1	7	14	14	189	62	96	383

Table 3. The distribution of hobnails by phase (quantified by extant heads)

Phase	Hobnail
1.1	1
2.1	2
2.2	7
2.3	148
2.4	34
4	16
4.1	10
5	4
6	4
Unphased	5
Total	231

Table 4. Roman household vessel glass fragments by colour and site phase

Phase	PMB	Yellow/ brown	Pale green	Colour- less	Blue/ green	Greenish colourless	Total
1.3	-	-	-	-	3	-	3
2.1	1	-	1	1	6	-	9
2.2	-	-	-	-	1	-	1
2.3	-	-	-	1	2	1	4
2.4	-	-	-	1	6	3	10
4	-	-	-	-	2	-	2
4.1	-	-	-	1	-	-	1
4.2	1	-	-	-	5	2	8
5	-	-	-	2	6	-	8
6	-	1	-	3	1	1	6
Total	2	1	1	9	32	7	52

Table 5. Iron nails by phase (quantified by heads) with the percentage of complete nails given for those phases producing more than 10 nails.

Phase	Complete	Broken	Total	% complete
1.3	1	8	9	-
2.1	1	3	4	-
2.2	3	7	10	-
2.3	52	36	88	59
2.4	19	25	44	43
4	7	19	26	27
4.1	2	5	7	-
4.2	11	25	36	31
5	42	77	119	35
6	20	52	72	28
Total	158	257	415	-

Table 6: Summary of the lengths of complete nails by phase (lengths in mm)
(Notes. Phase 2 also has one nail of 130mm length and Phase 5 one of 140mm.)

Phase	>29	30-9	40-9	50-9	60-9	70-9	80-9	90-9	100-09	110-19
2	1	3	15	15	14	12	6	3	-	2
4	-	2	5	5	3	2	2	-	-	1
5	-	5	8	11	12	4	1	-	-	-
6	1	1	5	3	7	2	-	-	-	1

Table 7: Finds stratified in late Saxon and later contexts by material and property

Property	Silver	Copper alloy	Lead alloy	Iron	Glass	Bone	composit e	Total
BE1	-	4	1	27	6	1	-	39
BE2	-	5	4	14	3	8	-	34
BE3	-	8	1	21	5	7	-	42
BE4	-	15	2	57	7	12	-	93
BE5	-	8	-	13	3	4	-	28
BW1	-	4	-	3	-	-	1	8
BW2	-	10	3	38	-	15	-	66
BW3	-	13	3	43	1	9	2	71
BW4	-	15	2	43	-	10	1	71
BW5	-	8	-	26	4	6	1	45
BW6	-	3	-	4	-	-	-	7
SE1	1	12	-	32	7	4	-	56
SE2	-	6	-	12	-	2	-	20
SE3	-	10	-	9	-	13	-	32
Total	1	121	16	342	36	91	5	612

Table 8: Number of Roman items found in securely stratified Phase 4 to Phase 6 contexts by property

Property	Roman	%age assemblage
BE1	14	36
BE2	7	20
BE3	14	33
BE4	11	12
BE5	6	21
BW1	-	0
BW2	2	3
BW3	9	13
BW4	3	4
BW5	11	24
BW6	-	0
SE1	9	16
SE2	1	5
SE3	1	3
Total	88	-

Table 9: The Late Saxon, Anglo-Norman and Medieval finds (excluding nails and miscellaneous items) by functional category and phase.

Function	1.3	4	4.1	4.2	5	6	8/US	Total
Personal	-	3	-	11	6	12	1	33
Toilet	-	-	-	2	1	-	-	3
Textiles	-	-	3	12	10	4	2	31
Household	-	1	-	1	11	6	-	19
Recreation	-	-	-	-	1	2	-	3
Weighing	-	-	-	3	2	2	-	7
Writing	1	1	-	-	1	-	-	3
Transport	1	-	2	4	12	2	1	22
Structural	-	-	-	4	4	6	-	14
Tools	-	2	4	19	14	5	-	44
Fasteners	-	7	1	23	33	6	2	72
Agricultural	-	1	-	-	-	1	-	2
Military	-	-	-	1	1	-	-	2
Religion	-	-	-	-	2	-	-	2
Industrial	-	4	2	7	3	3	-	19
Total	2	19	12	87	101	49	6	276

Table 10 :The Late Saxon, Anglo-Norman and Medieval textile equipment including stone spindle whorls (see p. 000)

Type	4.1	4.2	4	5	6	Total
Comb teeth	1	1	-	-	-	2
Bone spindle whorl	2	9	-	2	2	15
Stone spindle whorl	-	-	1	4	1	6
Pin beater	-	1	-	-	-	1
Picker-cum-beater	-	-	-	1	-	1
Eyed weaving tool	-	1	-	5	1	6
Tenter hook	-	-	-	1	-	1
Needle	-	-	-	-	1	1
Bobbin	-	-	-	1	1	2
Total	3	12	1	14	6	35

Table 11: The Late Saxon, Anglo-Norman and Medieval cloth manufacture tools by property (including stone spindle whorls see p. 000)

Property	Comb teeth	Spindle whorls	Weaving tools	Tenter-hook	Total
BE1	-	1	-	-	1
BE2	-	2	-	-	2
BE3	-	-	2	-	2
BE4	-	2	3	-	5
BE5	-	-	2	-	2
BW2	-	5	-	-	5
BW3	-	3	1	-	4
BW4	1	4	1	-	6
BW5	1	-	-	1	2
SE1	-	1	-	-	1
SE3	-	1	-	-	1
Total	2	19	9	1	31

Table 12: Equal-armed balance elements from Winchester (Source: these excavations, Biddle 1990, 922 nos. 3208-16, Table 2; Rees *et al* 2008, 277 nos. 1932-6) (note (1) – the fragment is broken and it might be a folding balance).

Site	Area m ²	SF	Rigid arm	Folding arm	Fork	Scale pan	Total
These excavations	1925	1016	4	-	1	1	6
Brook Street	1202	8169	1	1	1	-	3
Sussex Street	222	-	1	-	-	1	2
Castle Yard		574	-	1	1	-	2
Assizes Court South	238	1044	1	1	-	-	2
Victoria Road	2,500		⁽¹⁾ 1	-	-	-	1
Cathedral Green	-	2947	-	-	1	-	1
Wolvesey Palace	-	4563	-	-	-	1	1
Chester Road	520	-	-	-	-	1	1
Brook Street C	635	659	-	-	-	-	0
Total			8	3	4	4	19

Table 13. Horseshoes by phase

Type	1.3	4.1	4.2	5	6	Total
Clark 1	1	2	1	1	1	6
Clark 2	-	-	-	4	1	5
Clark 3	-	-	-	1	-	1
Unclassified	-	-	1	2	-	3
Nails	-	-	-	3	-	3
Total	1	2	2	11	2	18

Table 14. Horseshoe by properties

Type	B W2	B W3	B W5	SE 1	BE 1	BE 2	BE 3	BE 4	Total
Type 1	1	1	2	1	-	-	-	-	5
Type 2	1	-	2	1	-	1	-	-	5
Type 3	-	-	-	-	-	-	-	1	1
Unclass.	-	-	-	-	-	-	1	2	3
Nails	-	-	-	-	3	-	-	-	3
Total	2	1	4	2	3	1	1	3	17

Table 15. Iron nails from stratified in late Saxon to medieval contexts by property (quantified by heads)

Property	4	4.1	4.2	5	6	Total
BE1	11	-	-	3	2	16
BE2	-	-	1	1	4	6
BE3	4	-	-	16	5	25
BE4	-	-	6	9	10	25
BE5	-	-	2	12	23	37
BW1	-	-	-	-	-	0
BW2	-	5	6	3	1	15
BW3	-	1	2	15	16	34
BW4	-	-	7	22	-	29
BW5	-	-	1	8	1	10
BW6	6	-	-	3	-	9
SE1	1	1	4	21	3	30
SE2	-	-	6	3	3	12
SE3	4	-	1	2	3	10
Total	26	7	36	118	71	258

Table 16: Complete iron nails from properties with 15 or more nails (quantified by heads) in late Saxon to medieval contexts

Property	4	4.1	4.2	5	6	Total
BE1	4	-	-	-	-	4
BE3	-	-	-	7	2	9
BE4	-	-	2	-	1	3
BE5	-	-	1	2	4	7
BW2	-	2	4	-	1	7
BW3	-	-	-	3	5	8
BW4	-	-	1	14	-	15
SE1	-	-	-	10	-	10
Total	4	2	8	36	13	63

Table 17: Summary of the knife and blade fragments from stratified Phase 4 to Phase 6 contexts by property.

Property	Whittle tang	Scale tang	Blade	Total
BW2	-	-	3	3
BW3	2	1	3	3
BW4	1	-	2	2
BW5	5	-	1	1
BW1	-	-	1	1
BE2	2	-	-	2
BE4	3	-	2	5
BE5	-	1	-	1
SE1	1	-	-	1
Total	11	2	12	25

Table 18: Summary of the locks and keys from stratified Phase 4 to Phase 6 contexts by property.

<i>Property</i>	<i>Padlock & fittings</i> <i>Phase 4.2</i>	<i>Phase 5</i>	<i>Fixed lock</i> <i>Phase 4.2</i>	<i>Total</i>
BW2	-	1	-	1
BW3	-	2	-	2
BW4	1	2	-	3
BE2	1	-	-	1
BE4	2	2	2	6
BE5	-	-	1	1
Total	4	7	3	14

Table 19: Summary of the locks and keys from the 1961-71 10 to 12 century city centre sites excavated in 1961-71 (see text for details)

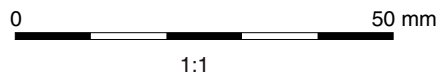
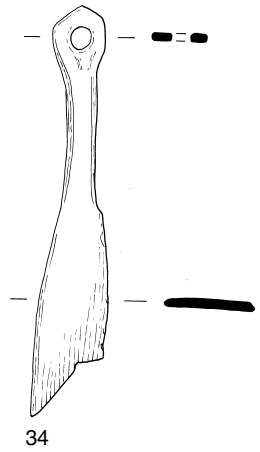
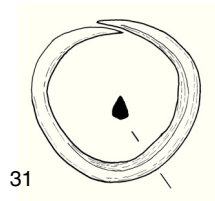
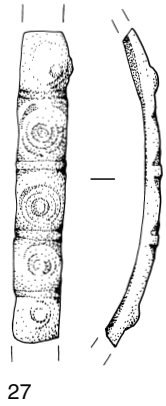
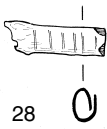
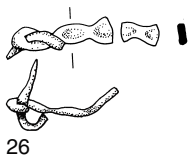
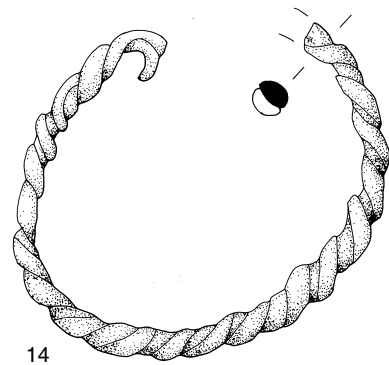
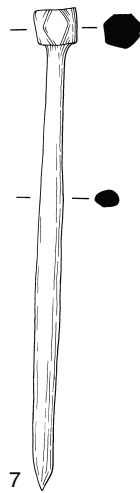
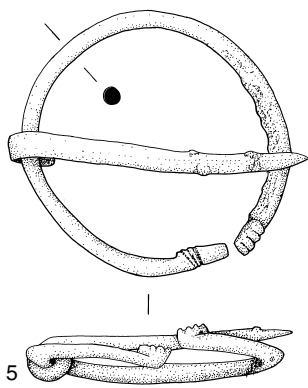
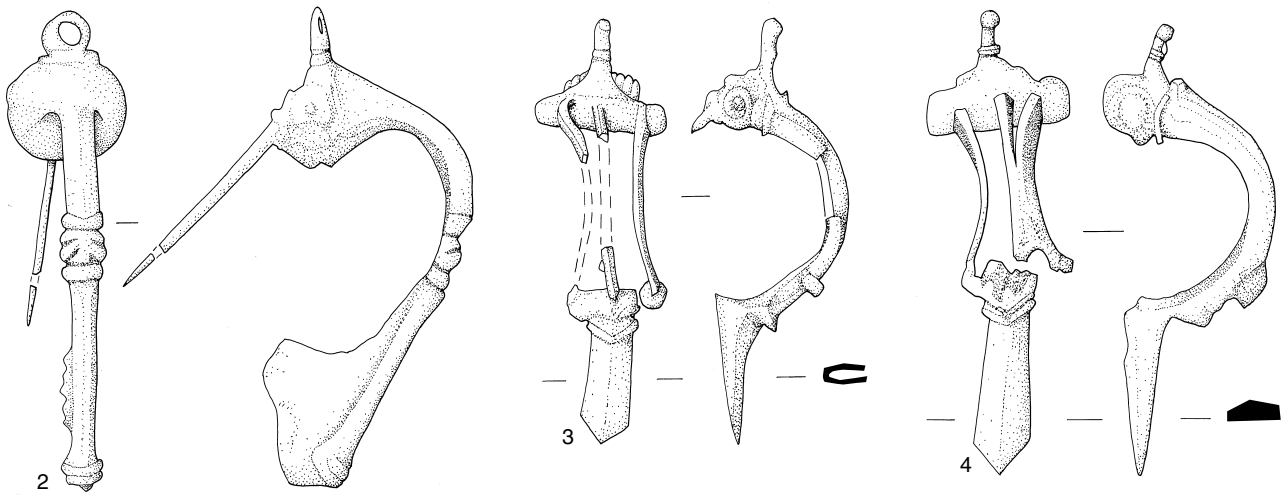
Site	Padlock	Bolt s	Ke y	Total
BS IX/X	2	-	2	4
BS XI	1	-	-	1
BS XII	1	3	4	8
BS other	-	1	-	1
Castle Yard	2	-	2	4
Cathedral Green	-	-	1	1
Old Minster	1	-	6	7
New Minster	2	-	-	2
Total	9	4	15	28

Table 20: Summary of the riveted bone mounts from stratified stratified late Saxon to Medieval contexts (Two additional examples were found in Phase 8 contexts).

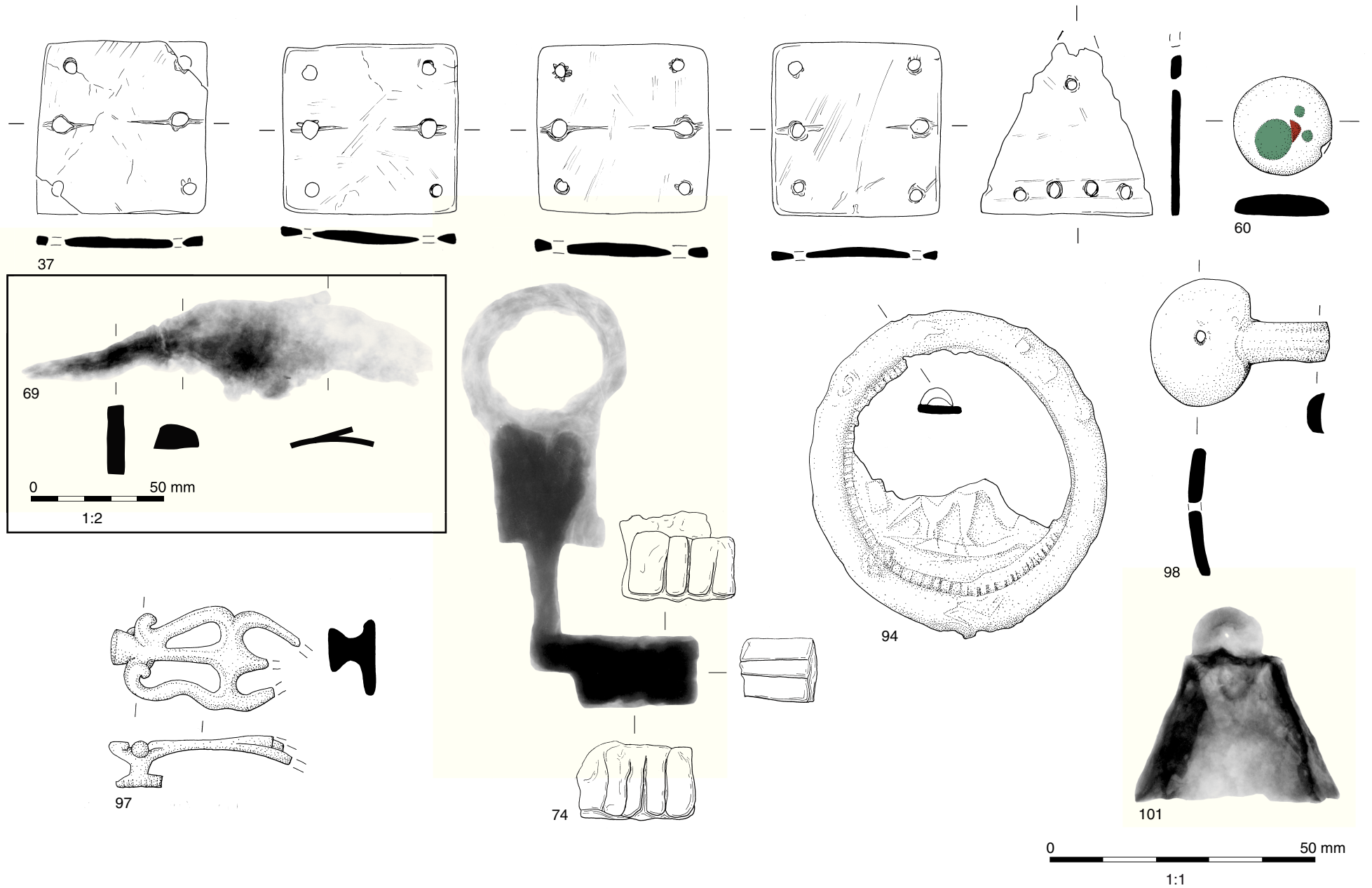
Property	Phase 4.2	Phase 5	Mount s	Total
BE2	2	-	-	2
BE4	1	1	1	3
BW2	2	-	1	3
BW3	1	1	-	2
BW5	-	1	-	1
SE2	-	-	1	1
SE3	-	7	2	9
Total	6	10	5	21

Table 21: Selected categories of finds from the different properties

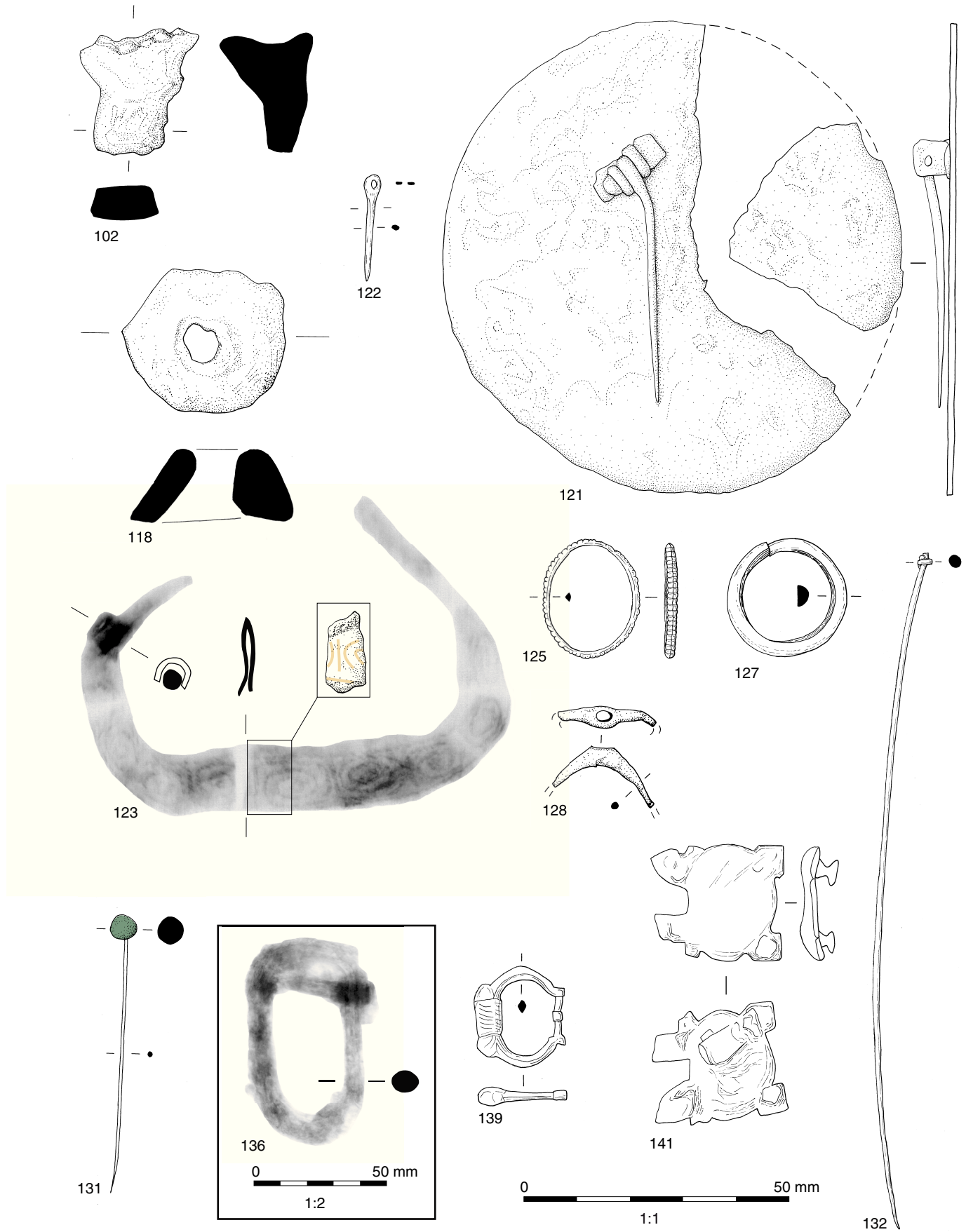
Property	Cloth production		Horseshoes		Riveted mount		Padlocks		Balances		Total
	No.	%age	No.	%age	No.	%age	No.	%age	No.	%age	
BE1	1	8	-	-	-	-	-	-	-	-	12
BE2	2	15	1	8	2	15	1	8	2	15	13
BE3	2	18	1	9	-	-	-	-	-	-	11
BE4	5	11	3	7	2	5	4	9	1	2	44
BE5	2	29	-	-	-	-	-	-	-	-	7
BW1	-	-	-	-	-	-	-	-	-	-	1
BW2	5	22	2	8	2	8	1	4	-	-	23
BW3	4	19	1	-5	2	10	2	10	-	-	21
BW4	6	27	-	-	-	-	2	9	-	-	22
BW5	2	10	4	19	1	5	1	5	1	5	21
BW6	-	-	-	-	-	-	-	-	-	-	1
SE1	1	7	2	14	-	-	-	-	2	14	14
SE2	-	-	-	-	-	-	-	-	-	-	4
SE3	1	16	-	-	5	31	-	-	-	-	17



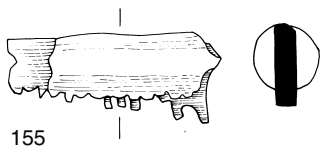
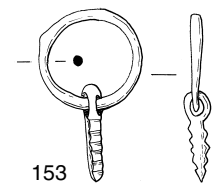
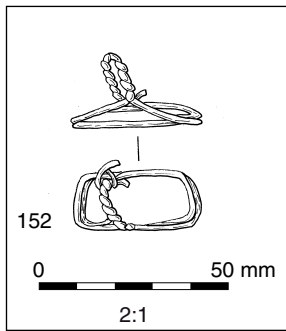
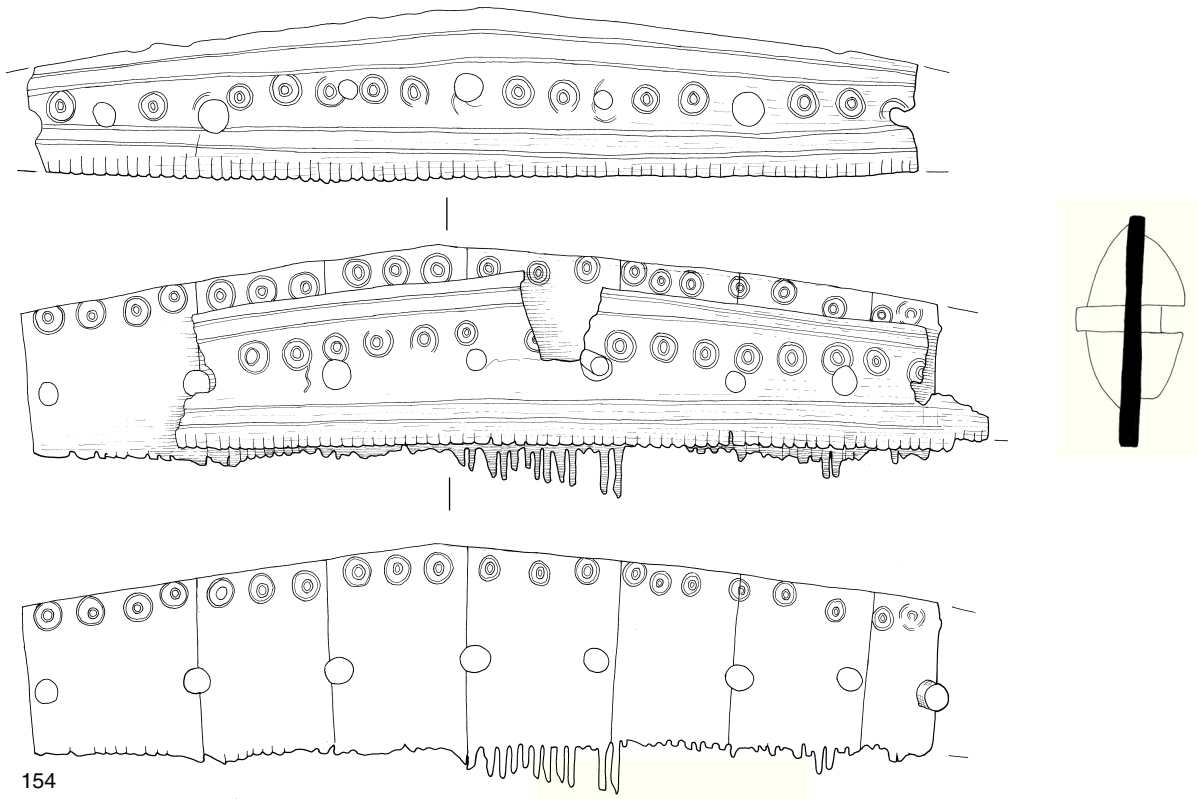
Section 3 Figure 1: Roman personal items



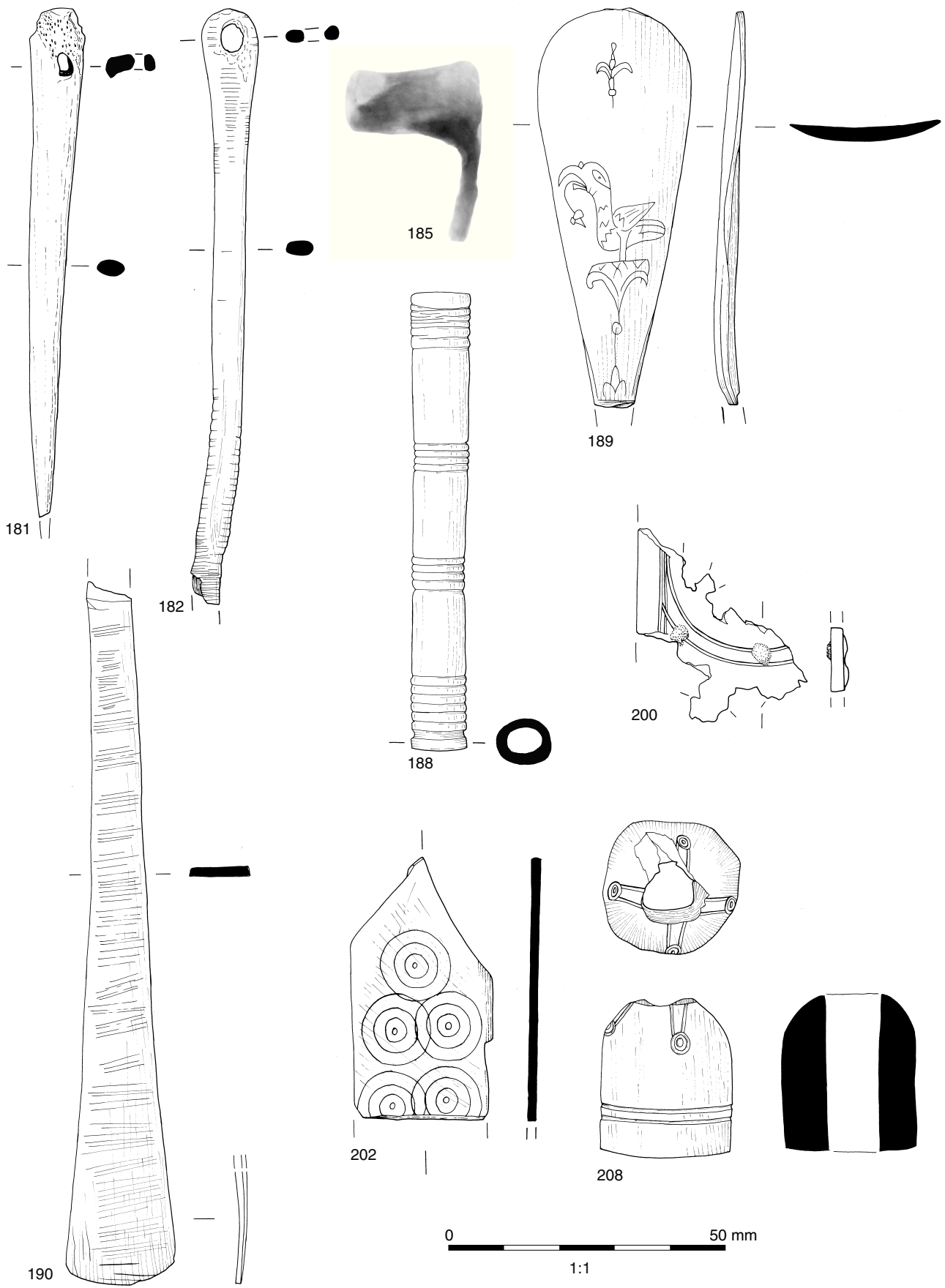
Section 3 Figure 2: Roman textile equipment, recreational items, tools, fasteners and fittings, military equipment and religious items



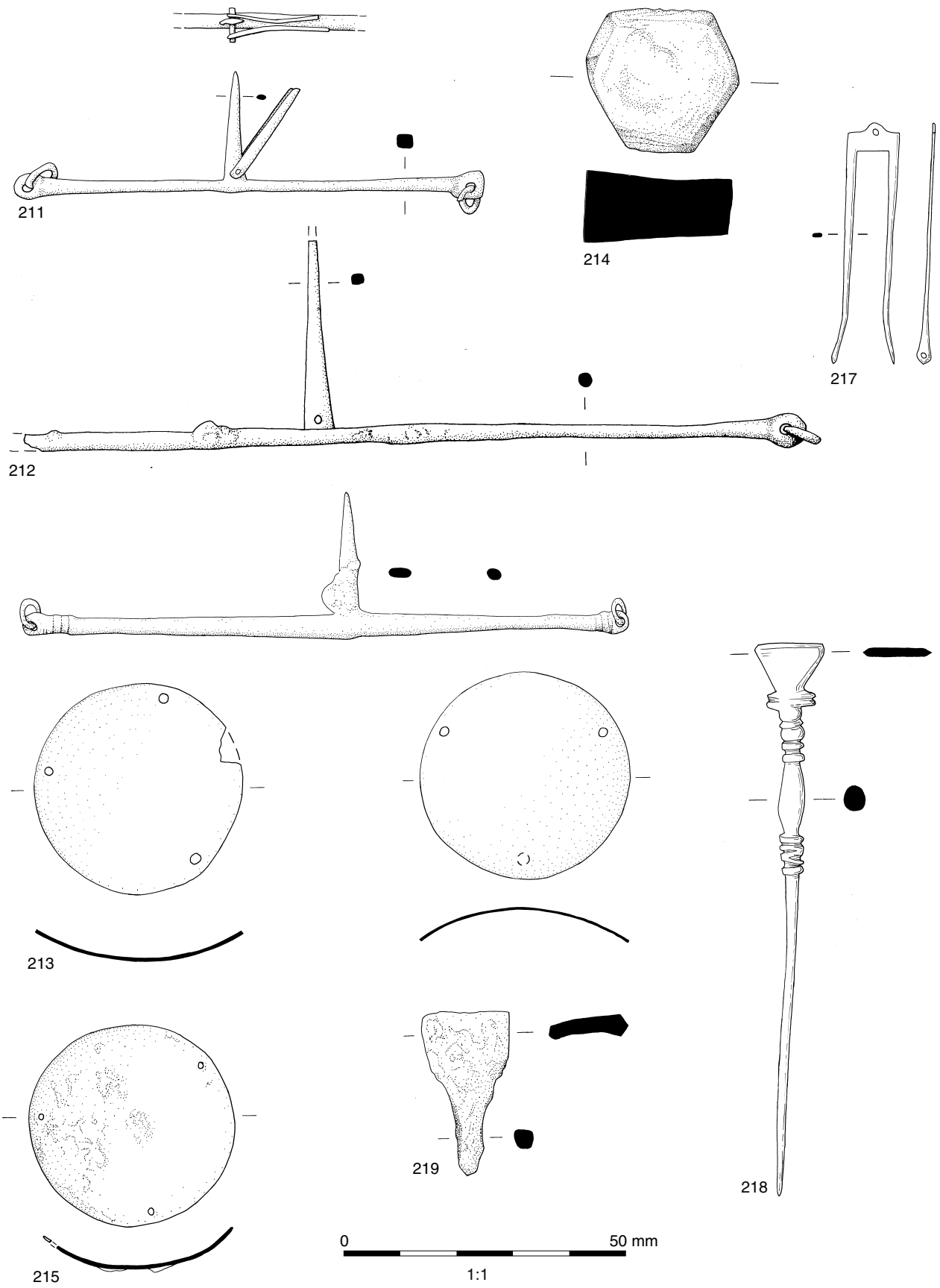
Section 3 Figure 3: Roman industrial by-products and miscellaneous items, and post-Roman personal equipment



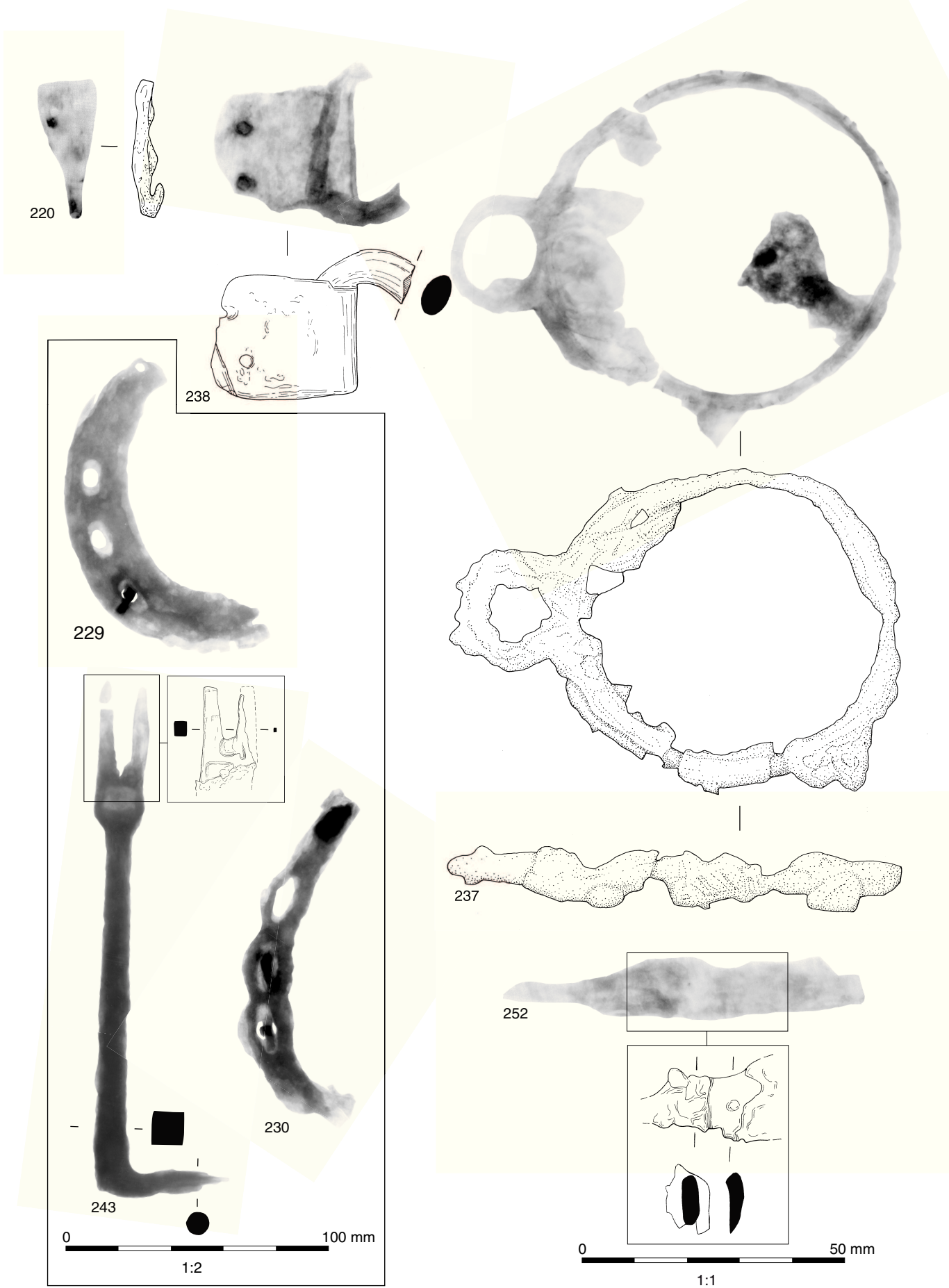
Section 3 Figure 4: Post-Roman personal items and textile equipment



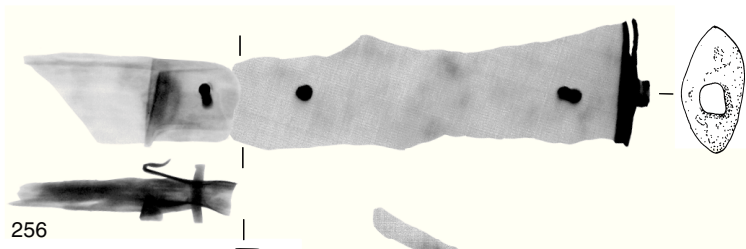
Section 3 Figure 5: Post-Roman textile equipment, household items, fittings and recreational equipment



Section 3 Figure 6: Post-Roman weighing and writing equipment



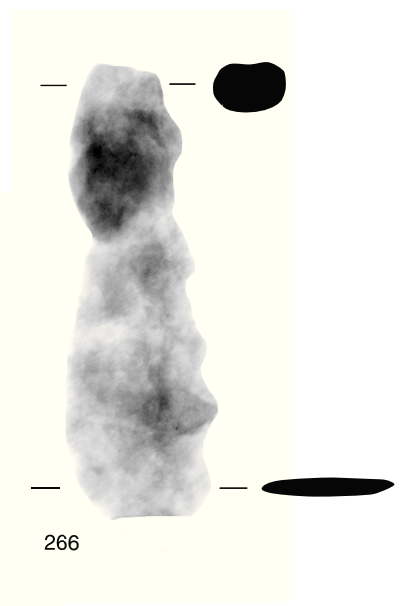
Section 3 Figure 7: Post-Roman writing equipment, transport items, structural finds and knives



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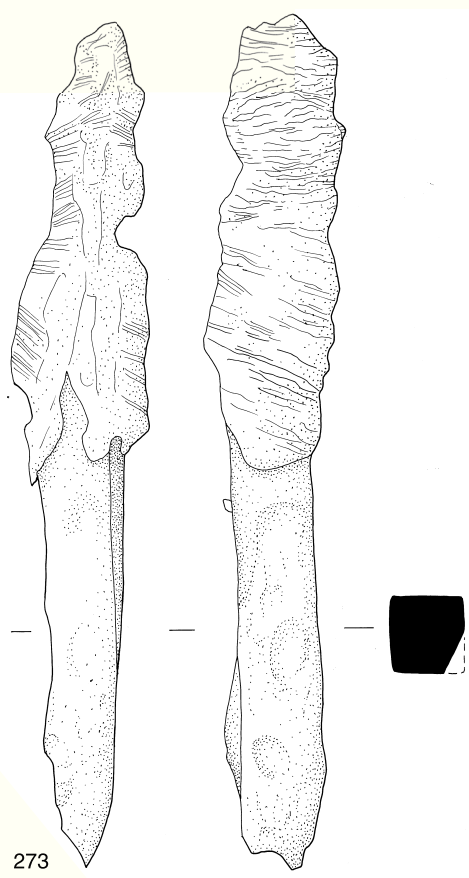
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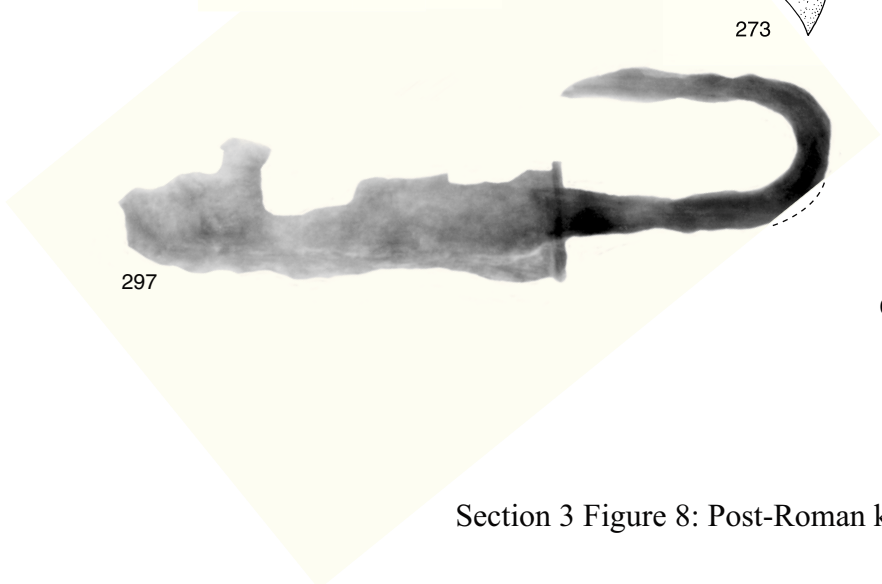
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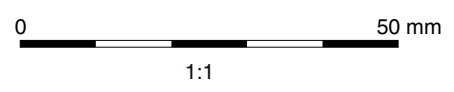
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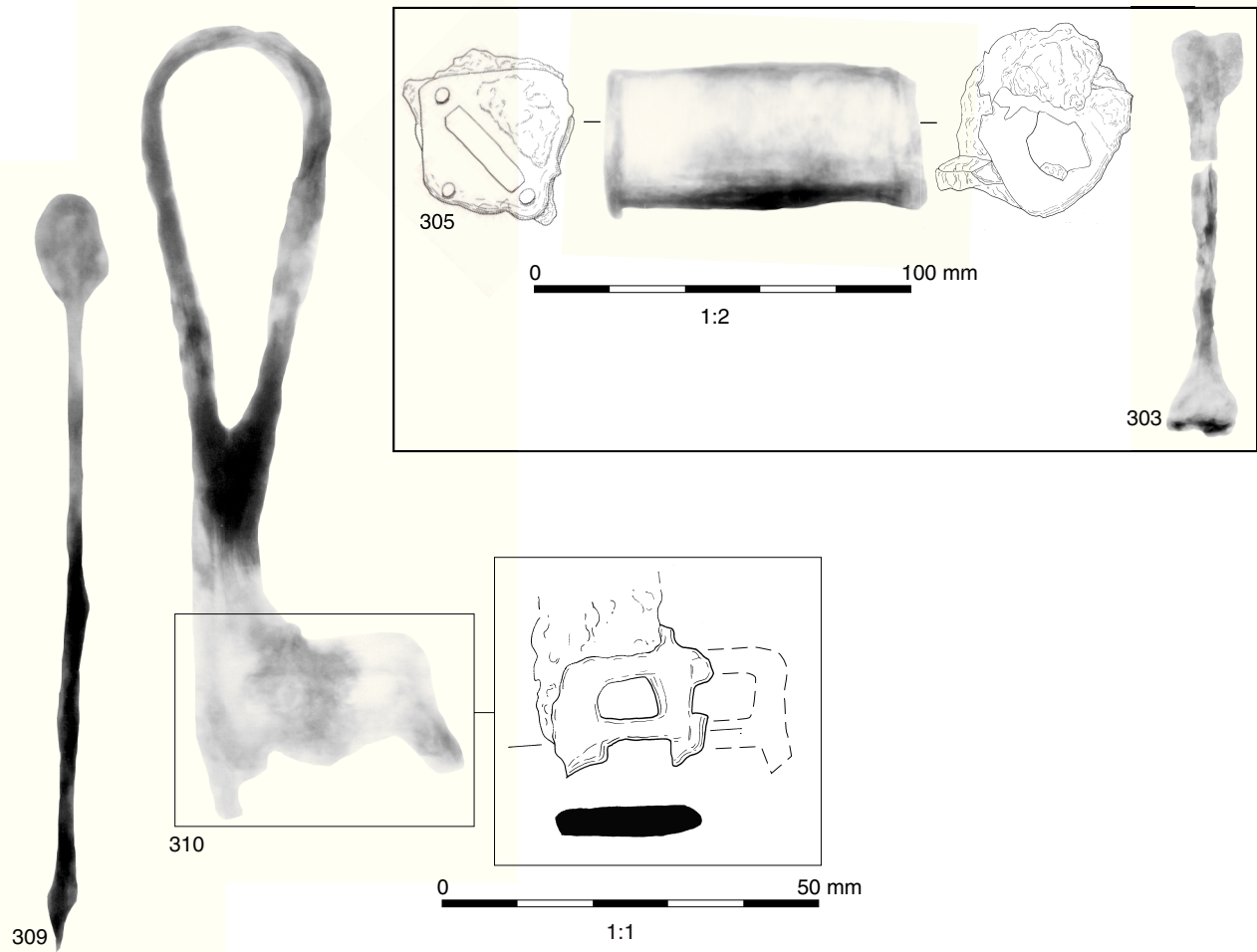
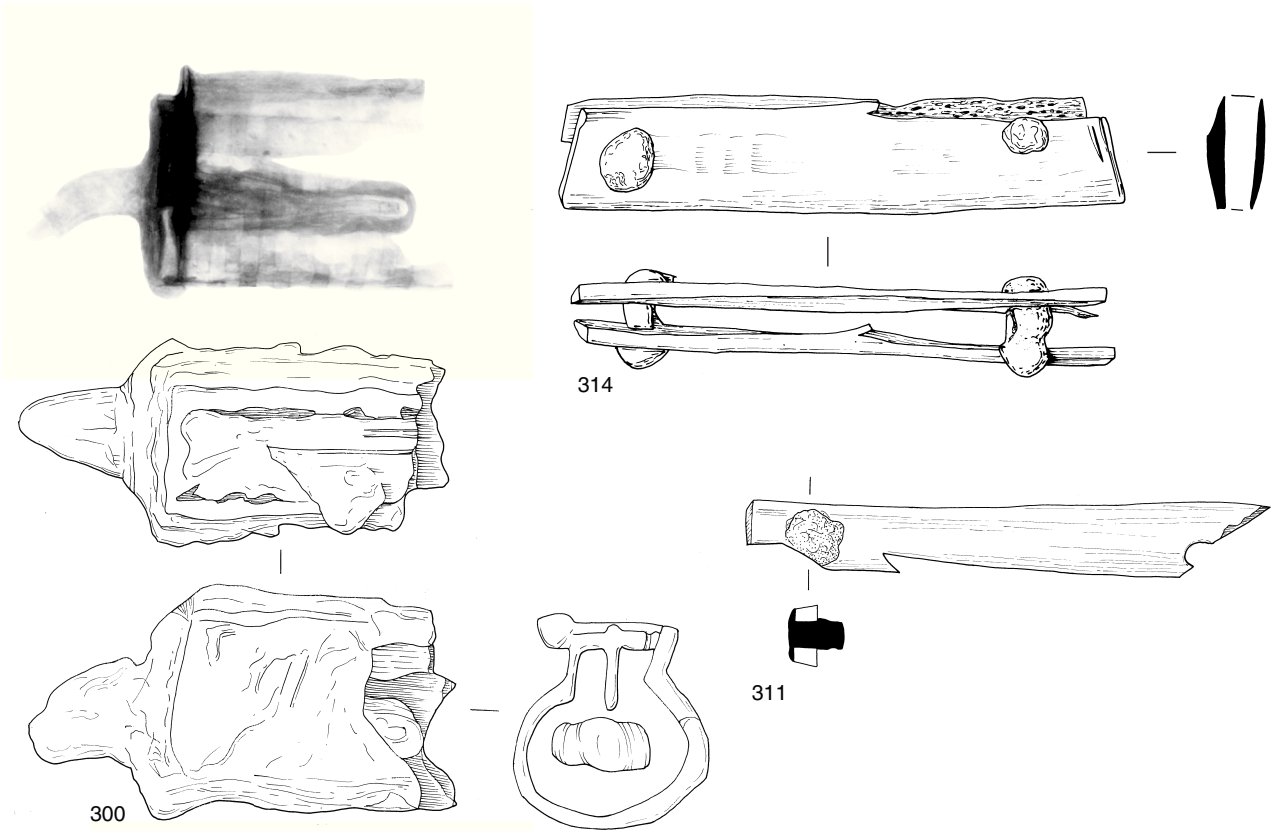
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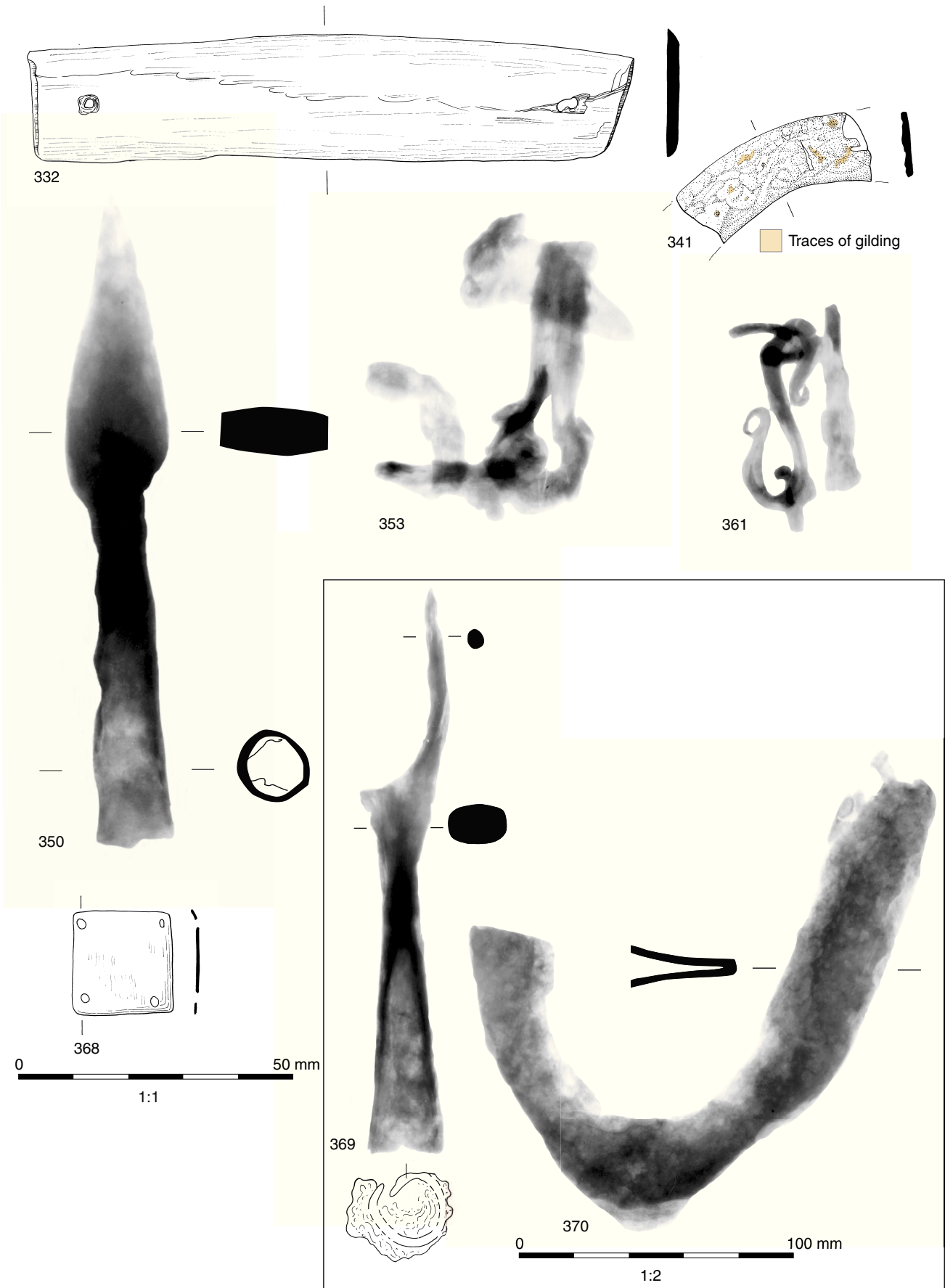
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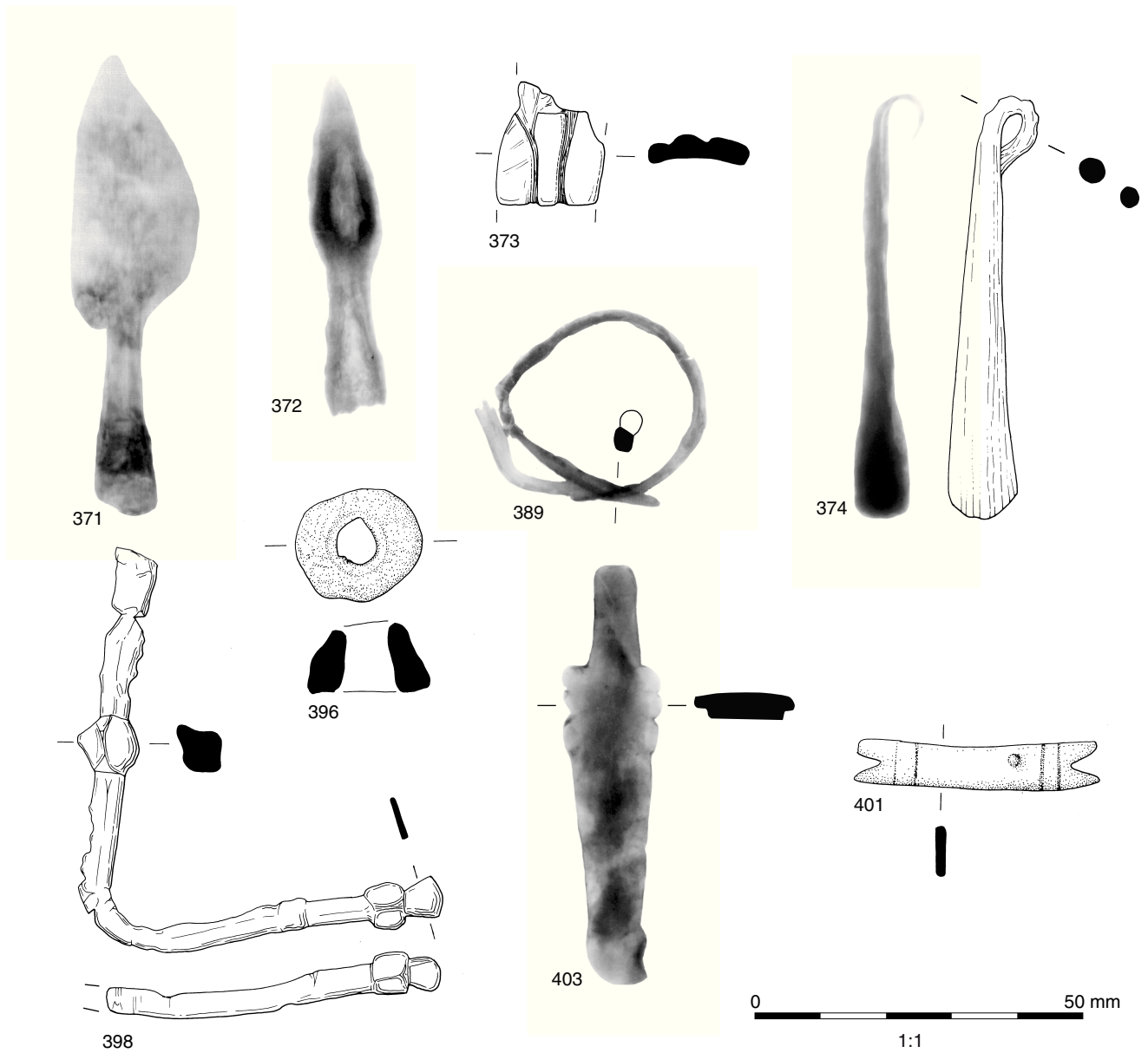
Section 3 Figure 8: Post-Roman knives, tools, fasteners and fittings



Section 3 Figure 9: Post-Roman fasteners and fittings



Section 3 Figure 10: Post-Roman fasteners and fittings, agricultural and horticultural equipment



Section 3 Figure 11: Post-Roman hunting and military equipment, religious items and miscellaneous items

WINCHESTER

A CITY IN THE MAKING

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