

Introduction

The small finds appendix (Barker *et al* 1997, 251-2) includes all horse trappings in this section together with the decorated studs and mounts. Examination of the records of the latter suggests that not all of these were military. Most therefore have been summarised in the fasteners and fittings section.

Bliss discussed individual elements separately, for example all the buckles were discussed together irrespective of whether they came from cuirasses or belts, other parts of which were discussed in separate reports. In what follows the relevant discussion have been grouped together, for example all the different elements of the late belt suites of the Hawkes and Dunning (1961) have been grouped together, though originally they were spread between the different reports on belt fittings, buckles, strap ends and pendants.

Weapons

Copper alloy

The only copper alloy item in this category is a complete dolabra sheath terminal (**2699/2700**). It consists of a 'U'-shaped copper alloy sheet with dome-headed rivet passing through both sides at one end. At the other end, the bottom of the 'U' extends into a sub square sectioned rod with a conical terminal which is bent back on itself at its end to form a small hook. It is 49mm long, the sheath is 29mm long and 11mm wide. The sheath is of normal type although the object varies in the exact shape and length of the sheath and the form of the terminal knob (compare, for example, Bushe-Fox 1914, pl. XX no. 3 with knob and round shaft). Bliss noted that earlier excavations at Wroxeter had produced two pairs and three single examples.

Iron

The iron weapons were assigned in the database print-outs to Manning's (1985) typology.

Arrowheads

In total 10 arrowheads or possible arrowheads were identified (**6589, 6590-94, 6614-5, 6618-9**), but of these only two were identified as Roman with it being suggested that half were of medieval date. The Roman examples are **6589** which is a Manning type I with a plain triangular blade and **6591** assigned to Manning Type II (three ribbed).

Catapult bolt

There are five examples of Manning Type I (**6595-9**).

Pilum

There are two examples (**6609, 6613**).

Martio barbula

The small finds appendix (Barker *et al* 1997, 251) noted seven examples but the database print-out lists eight (**4922-9**).

Spearheads

Ten spearheads and possible spearheads are listed in the database print-out. Manning Type I, a small spearhead with blades between 45 and 65mm in length and 20 to 30mm. are represented by **6600**, **6603** and **6602** with the first two being Type IIA with a welded socket. **6004-6** and **6767** belong to the larger form Manning Type II, with **6005-6** having welded sockets. The other spearheads (**6601**, **6617**, **6620**) were unclassified.

Scabbard fittings

Copper alloy

Four items were identified as parts of scabbards. There was a broken slide (**2613**), one certain and one possible slide terminals (**2614-5**) and the end loop from a scabbard suspension loop band (**2612**).

2613 is the end of a scabbard slide/runner. The face is slightly convex and tapers to a broken end where there is a rivet on the back surface. The other end has a projecting flat-backed terminal which has a stepped profile and consists of a baluster with a knob head sitting on two reels. On the back there is a sub-rectangular recession which may have held an iron shank. It is 78mm long and 13mm wide at the maximum.

2614 could be confidently identified as a scabbard slide terminal by the distinctive cross-section shape of a flange set at right angles to the plate, its large flat-backed knob at the end and the trefoil-shaped plate on a shaft and its decoration, a cross made by two curved grooves. It is 27.7mm long and has a maximum width of 11mm. **2615** was more tentatively identified as a scabbard slide terminal due to being incomplete and thin. Bliss included it here not only because of the form, but because of the crudely-cut inward slanting grooves on the base of the shaft which she judged to be characteristic of this type of terminal and which she had not found on other types of objects. Complete examples are tear-drop-shaped with a pelta cut in openwork with an openwork trefoil below. See for example one from Prysge Field Caerleon (Nash-Williams 1932, fig. 36 nos. 2-3, 8-9).

2612 may be the end loop of a scabbard suspension loop judged by its similarity to one in the Corbridge Hoard (Allason-Jones and Bishop 1988, 75, fig. 94 no. 229). It consists of a curved bronze plate with a circular-shaped head with a small central perforation which would be used for attaching the loop to the rear face. Below this there is a rectangular-shaped plate which is decorated with opposing concave and convex curves. It is 20mm long, 13mm wide and the head is 11mm in diameter.

Iron

There is one virtually complete sword chape (**6607**). The two iron scabbard fragments mentioned in the small find appendix (Barker *et al* 1997, 251) cannot be identified in the database print-out

Bone

Scabbard slides in bone are elongated blocks with concave sides and a rectangular slot pierced from side to side. This has two circular holes, one above and one below, and a small triangular tongue projecting from either side. Three examples were recovered. Two, **515** and **516**, were certainly of Greep's Type 1, a low flat side with concave sides (Greep 1983, 121). They did not show the perforations for securing the slide to the scabbard, and only one has extant tabs. The slides are

decorated with a pair of marginal grooves on the upper surfaces. **514**, appears to be more crudely made than the other two example. It is not as highly polished and the grooves are not as well defined. Also cancellous bone remains and has not been scraped away. The two complete slides measure 47mm and 33mm in length and 24mm and 21mm at their widest widths.

Belt fittings and straps

All of the items in this category are of copper alloy and what follows has been edited together from a number of different reports by Bliss.

Early to mid-Roman Belt Fittings

Enamelled belt plates.

Three fragmentary examples were recovered (**2617-9**) consisting of two plates and a single bar of ovals. They may be assigned to Bateson's (1981) typology. His Group II is represented by two pieces. The type consists of an open rectangular plate with a separate bar running across the open space. **2618** is part of a rectangular plate and **2617** is a detached bar. **2618** consists of a rectangular plate decorated with millefiori enamel consisting of blue squares with stars. On three sides the plate is bordered by copper alloy but at a lower plane giving it a stepped profile. The border has been removed or broken off in some places along one of the long sides. Its edges on the short sides are particularly rough which may represent all that is left of the side pelta decoration which members of this group normally have, and which usually consists of pelta shapes in red and blue enamel. On the reverse side are two pegs at either end, only one has an extant disc foot. In the centre of each of the short sides of the rectangular perforation there is a rectangular depression where a decorative bar would have been attached. It measures 36mm in length and 18mm in width and is a particularly small example of its type.

2617 consists of a bar of four ovals separate settings filled with blue enamel. They are joined by a central bar of alloy. At either end there is a short vertical bar decorated with transverse grooves beyond which the bar continues but is pared for attachment to the back of the plate. The bar is 45mm long, each oval is 13mm long and 8mm wide, and so the complete plate of which it would have been a part would have been a fairly large piece.

2619 is an example of Bateson's Group III. It is almost complete except for a very small part of the openwork at one side. It consists of a hollow cast, curved, rectangular plate which has a smaller central rectangular plate divided into four rectangular fields filled with red and blue enamel in chequer. This plate has two sets of borders and a stepped profile. From the short sides of the lowest plate extend openwork plates consisting of a disc surmounted by a knob with a foliate tendril either side. The disc has champlévé enamel decoration with an inner field of alternating blue and (?)red enamel and an outer ring of (?) only red enamel. At either end of the solid rectangular plate on the reverse side are two studs with disc feet. The overall length is 74mm, the plate is 43mm long and 27mm wide.

Openwork belt plate

There is one example of the form (**2616**). It consists of a rectangular plate with no evidence of formally having extensions on the side (compare Oldenstein 1977, Taf. 62 nos. 786, 791, 795). The openwork pattern is made up of opposed palmettes. It is not symmetrical and is comparatively crudely made. There is a stud with a washer on the reverse side at either end. It measures 43mm long, 20mm wide and 7mm high. No precise parallel for the openwork design was found.

Late Roman Belt fittings

The belt equipment studied by Hawkes and Dunning (1961) and the strap ends studied by Bohme (1974) and Simpson (1976) have been gathered here. In Bliss's original grouping these strap-ends formed her Group 1 strap ends.

Hawkes and Dunning Types

There was one example of a Type IIa buckle represented by the tongue (**2632**). It is trefoil-shaped with an expanded back with lateral, down curling extensions which would have interlocked with the loop terminals. At each end of the extension there is a stylised animal head. The tongue is a relatively wide and squat example.

It was tentatively suggested that the buckle **2634** was an example of a Type IIIa dolphin buckle. It is 'D'-shaped and has the remains of a tongue wrapped around the hinge bar. It is both hemispherical and sub-triangular in section. At either side of the hinge bar there are two inward slanting and upstanding, moulded ridges. It is suggested that these may represent very degenerate and stylised animal heads. Type IIIa buckles are defined by confronted animal heads across the hinge bar. The attribution of **2634** to the type is based on the fact that a similar though not identical buckle was assigned to the type at Lankhills (Clarke 1979, 276-7 no. 496, fig. 274). **2634** would form a relatively small example since its internal width is only 19mm, and thus lies outside of the common range of 40mm to 120mm in external width.

Four small rings were identified as probably being suspension rings for the Type VI disc attachment. Bliss based the identification on the section shape, noting that a lozenge shape seemed to be the diagnostic feature. They are undecorated and circular-shaped. Three have a lozenge section and that of **2953** is triangular. Three of the hoops have internal diameters of about 15mm whilst **2954** is smaller at 11mm. They are fairly robust with sections measuring 4 x 4.5mm, 3 x 3.5mm and 2.75 x 4.25mm (**2953**). **2955** is a finer hoop and its section measures only 2 x 3mm. **2954-5** were probably cast, **2952** has slightly faceted surfaces and Bliss advance the possibility that these may have been cut by a knife. **2953** is heavily worn giving very smooth surfaces and a tall thin triangular shape. It appears to have been made by joining together two 'rings' of copper alloy leaving a single, circumferential, groove on the outer and inner surfaces.

2697 was identified as part of a disc attachment itself which had lost its suspension loop and some of its head. It consists of a disc-headed stud with an unusually robust and long shaft which widens towards its base. More commonly these attachments have a separate disc-headed rivet to attach the disc to the suspension loop. The disc head is decorated in a common way with a series of concentric circles and regular notching around the edge. Instead of a groove at the base of the suspension loop, there is a ridge. The disc is about 15mm in diameter and 20mm in length.

Simpson Group II buckles

Two items were identified as falling within this category which consists of buckles with D-shaped loops and rounded rectangular or semi-circular plates. Both are pieces from the loop. They are different from each other but both fall within the range illustrated by Simpson. **2367** is almost oval in shape and is circular in section. The loop gradually thickens away from the hinge bar. **2636** is of a more regular and geometric 'D'-shape with a straight hinge bar. It has an invariable oval section. The loop is badly corroded. The buckles are about 36mm and 27mm in length respectively. These lie within the range given by Simpson of 23 to 45mm.

Other late buckle types

One buckle, **2631**, was initially hard to define. It has chip-carved decoration with 'V'-shaped transverse grooves across the inner and outer edges to give the loop a scalloped profile. The loop is 'D'-shaped and broken at the hinge bar so the treatment of the loop terminals is unknown. It has a

sub-square section and its extant width is 46mm. After discussion with Roger White, Bliss noted that it could be compared to a buckle from Queniborough (White 1988, fig. 35 nos. 3-4) whose associations were with fifth and sixth century material.

Another puzzling item was **2610** which was described as either an improvised buckle or a hinged strap end. It consists of a roughly triangular-shaped plate with a rectangular perforation along its base which extends at the ends into short projections along its base. At the other end the plate expands into three flat-sectioned ‘prongs’. Through the perforation is a rectangular sheet now bent, but presumably once folded, with a single round perforation at each end. The rectangular plate is 27mm long (unfolded) and 14.5mm wide. The triangular-shaped body is 25mm wide near to the perforation and 20mm wide at the ‘prongs’.

A similar item was found in a grave at the Lankhills cemetery and Clarke suggested it was a simply constructed buckle, but noted the absence of a tongue (Clarke 1979, 186), Bliss suggested that instead one might be dealing with a hinged strap end, though noted it would not fall into any of the categories gathered together by Simpson, Bohme or Clarke. She concluded that though a precise identification was not possible, the fact that it was a belt fitting of some kind was undoubted. In an addendum to the report, following discussion with Roger White, it was suggested that a small zoomorphic buckle from Chester might provide a reminiscent type for the piece (McPeake *et al* 1980, fig. 8 no. 4).

Buckle tongues

In addition to **2632** which is securely identified as coming from a Hawkes and Dunning Type IIA buckle, there were also seven additional buckle tongues (**2630**, **2641-6**). The identification of two of them was possible rather than certain as they were represented by fragments (**2641-2**).

One zoomorphic form (**2630**) may represent a dogs’ head. Such a form is not illustrated with the Hawkes and Dunning types. Three examples (**2645-7**) are flat-sectioned, short pointed or squared strips affixed to the buckle by wrapping one end around the hinge bar. The tongues may be straight or curved. **2644** represents another form. The round-sectioned wire is curved in a manner reminiscent of some tongues and at one end there is a small square notch cut from one side which would enable the tongue to rest neatly on top of the loop. Apart from **2630**, all of the tongues are plain.

Belt Stiffener

One example of a propeller-shaped belt stiffener (**2620**) was recovered (see Clark 1979, 285). Bliss considered the piece to be base silver, the final publication described it as ‘tinned bronze’ (Barker *et al* 1997, 203 fig. 304.5). It consists of the central roundel and one triangular-shaped wing only. The latter is asymmetrical in shape and has a bevelled edge. It has a border of a finely incised zig-zag line and also a vertical central groove which runs from halfway down to the disc centre. There is a single rivet in the centre of the short side. The central disc has a bevelled and collared edge and the centre is dished with a central domed rivet which is broken off at the back. Although the collared edge has white metal, the centre face does not appear to be so. It is flat-backed. The broken length is 31mm but the full length would be 45mm. The disc is 15.5mm in diameter and the wing has a maximum width of 28mm.

Strap ends

There is one example of Bohme’s disc-shaped strap end (**2603**) which might equate with the globular amphora Sub-type c of Simpson’s typology. They are usually decorated, commonly with a stamped ring and dot motif and some have tags attached to the rounded edge and bent over to give a ‘V’-notched appearance on the edge, others have a beaded edge (Bohme 1974, 77). **2603** is unusual in having a solid and smooth trapezoidal neck which is paralleled by only a few other examples. Other unusual features include the fact that it is plain, it is also constructed with two plates rather than just having a split butt and is unusually small, measuring only 18.5mm in length with a maximum width of 15mm.

2602 is an example of a heart-shaped strap end (Simpson 1976, 201). It is unusual in that the neck has a smooth rounded profile and is rather elongated. The two lobes are wider and more squat in appearance than many. It is 22.5mm wide and 25mm long. It has a split butt and single rivet arrangement for suspension. Like many others it is decorated with three ring and dot stamped motifs arranged in a triangle.

Other strap fittings

Mounts

Bliss discussed all mounts as a single category and divided them into three classes. Her Class A (stud type mounts) are all ones that are normally associated with military activity and are therefore placed here.

There is one example of an oval mount (**2657**). It consists of a domed pointed oval-shaped plate decorated with three longitudinal grooves with a short shank without a washer. It is cast in one piece. It is broken just over halfway and it is currently 22mm long. It is 12mm wide at the maximum point. The type can be compared to ones found on the German *limes* (Oldenstein 1977, Taf. 58 nos. 720, 723-4).

2659 has an overall rectangular shape with bent down long sides. There are two deep and wide longitudinal grooves separated by a rib. At the short end on the reverse side there is a stud with a disc foot. Presumably there was one at the other end which is now missing. Its broken length is 19mm, its width 9mm and the length of the stud 7mm. It was hollow cast in one piece and may be silvered. It may be compared to one from South Shields (Allason-Jones and Miket 1984, 237 no. 3.872 - with other military *comparanda*).

Another form of rectangular stud mount is represented by **2658**. This has part of a rectangular plate with a marginal incised groove. At the centre of the short end on the reverse side there is a short shafted stud with a disc foot. There is a circular notch in the centre of the short end, whether this is deliberate or accidental is not known. Its broken length is 20.5mm; the width is 18.5mm and the length of the stud 5.5mm. *comparanda* were again cited from the German *limes* (Oldenstein 1977, Taf. 59 nos. 745-6).

2660 consists of a fragment of an openwork mount whose original shape is not clear. The open fragment tapers to a broken terminal which has a rivet on the reverse side. It is 24mm long. It clearly belongs to the family of openwork strap fittings of which the belt plate **2616** is a part.

There are also two examples (**2661-2**) of the type of pelta-shaped studs of the type discussed by Oldenstein (1977, 178-84). **2661** is a single pelta-shaped head mount with a central shank. Only one terminal is now present consisting of a simple florid scroll extension. It is unusual in not having the rimmed effect on the lower edge which is more commonly seen along the pelt arms and central shank as on **2662**. On the reverse there is a single short rivet. The mount measures 20mm across its arms. It is 17mm high and 6mm in length. **2662** represents one of the more elaborate examples of the type. Its cruciform shape was originally formed of four pelta-shaped mounts with central shanks, three are now extant. The arms and shanks are rimmed with crescentic-shaped mouldings with scroll terminals. The arms meet to form an openwork square. On the reverse side of the lobe of each pelta is a rivet. The piece is 45mm square and 7mm high.

In addition to these pieces Bliss described two additional pieces as miscellaneous stud-type mounts which may or may not have military associations.

2664 consists of a fragment with a rivet. It is triangular-shaped with a knob terminal and a curved strip shaft which has a moulded collar above the triangular end. The terminal is recessed but there is

no evidence of its contents. On the reverse side is a thick short-shafted stud with a disc foot. It is 21mm long and 11mm wide. Bliss found no parallel for it.

She tentatively suggested that **2663** might be a riveted pendant mount. It consists of a tear-drop-shaped, flat-backed plate with an incised central line. At the terminal are a knob and a collar below. Along the upper edge are two areas of broken-off metal. On the reverse side are two studs, one square and one circular-shaped, placed on the upper edge and at the terminal respectively. It is comparatively thick and robust, and relatively crude in appearance. It measures 32mm in width and 47mm in length. A similar ornament from Woodcuts has the remains of an openwork plate attached to the upper edge consisting of two outward curving scrolls with a gap in between and the remains of a circular-edged motif (Pitt Rivers 1887, 66, pl. XXI.7). It might also have come from a later Roman pendant if the two broken areas formed a loop as similar items are known (Bishop 1988, 91, 147, fig. 45 Type 5.)

Strap ends Group II

In Bliss's original consideration of strap ends she identified this group as being narrow rectangular strap ends with terminal knobs. She noted that they had some similarities with items variously identified as apron mounts or cavalry harness fittings but could find no close parallels. She divided them into two sub-groups.

Sub-group IIa consisted of two examples (**2606**, **2607**) which were made in two pieces, a body and a stud. **2605** might provide a third example but was incomplete and so its inclusion could not be certain. It differs from the other two because of its very wide body. They consisted of a flat-sectioned disc head with a collar which extended beyond the width of the body in the case of **2606**. The head is flat-backed, long and in the case of **2607** arched. It expands to a knob terminal which is flat-backed in the case of **2606** and round in the case of **2607**. On the back of the knob foot is a hook which appears as an extension of the collar at the front and is cast with the body. The second component is a small dome-headed stud threaded through the central perforation of the head for the attachment to the leather. This is still extant in the case of **2606** together with a washer on the back surface. Both of these are missing on **2607**. The objects measure 34 and 39mm in length; the feet 10mm and 8mm in width respectively. The width of **2605** is 11mm in comparison to 7 and 6mm for the other two.

Sub-group IIb consists of only one example, **2608**, and is cast in one piece. It too has a knob terminal which is flat-backed and separated by a wide and deep groove from a single collar of comparable width to the knob. As with the IIa terminals, on the back surface there is a hook at the level of the collar. The body is long, tapers and is hemispherical in section. At the head there is a shallow groove but no flat disc. Whether this has broken off is hard to say, the surface is not clearly a broken one. At the back is a short, circular-sectioned peg. It is 40mm long and tapers from 7mm to 3.5mm in width.

Strap ends Group III

The strap ends of Bliss's Group III were hinged strap ends with the hinge pin attached as a bar to the body. Two, **2604** and **2609**, consist of the body only: a spatulate tongue with a rectangular suspension loop. **2609** has a terminal knob. When complete there would have been a double plate threaded and folded through the suspension loop and riveted with a single rivet as in one from Chichester (Down 1978, fig. 10.38 no. 110). The type falls within Oldenstein's Group 1 strap ends (Oldenstein 1977, 142).

2609 represents a well-made example of the type. The head is shaped like an upside down triangle with convex sides and has a semi-circular perforation. Since the surface of the body is not in the same plane as the loop, the profile is stepped. The front surface is chamfered and it terminates with a knob. The back is flat. Its shape is reminiscent of a spear. The object is cast and a casting line/flaw can be seen on the back surface together with file marks. The perforation is not straight cut, which might suggest this was hand finished or cut. It is 35mm long, the loop is 8.5mm wide and the body has a maximum width of 8mm. **2604** represents a simpler and slighter example. It has a rectangular head and the body has only a small swell at the centre before tapering to a flat knob, although corrosion at

the foot makes it difficult to identify this. The back is flat and it has a hemispherical section, the front is not chamfered. The body has a maximum width of 5mm, the head is 7.5mm wide and it is 37.5mm long.

Strap or Apron mount

The mount **2698** has a rectangular head with two continuous opposing teardrop shapes below giving a figure-of-eight profile. The other end is broken but parallels show it probably ended with another rectangular plate. The surface is marked by a shallow, possibly 'V'-shape groove on the rectangular end with similar marginal straight grooves on the teardrop shapes below. Originally the mount was attached to the leather by a peg on the reverse side of each of the rectangular plates, only one of which survives. The broken length is 32mm and its width is 10mm. Webster identified this (*pers comm* 1988) as an apron mount. It also compares very closely to Bishop's Type 6g of strap mounts in his typology of cavalry horse harness (Bishop 1988, 103-4, fig. 56 table 11).

Toggle or male strap fastener

2696 consists of an upward curving T-bar which expands towards one broken end, and terminates in a deep groove and wide collar. It is flat-backed and measures 30mm in length, the 'T' is 14mm wide.

Given the fragmentary nature the original form is unknown. Similar objects have been variously described as belt or baldric fittings (e.g. Hawkes and Hull 1947, 339 pl. CIII no. 8), parts of horse bits (noted in Allason-Jones and Miket 1984, 222 no. 3.762), dress fasteners (Bushe-Fox 1926, 47 no. 28) and toggles (Webster 1960, fig. 7 no. 208). Bishop has identified them as the male half of the bar and keyhole type strap fastening on cavalry horse harness (Bishop 1988, 103, 169 Table 10 fig. 55). In comparison to the examples listed **2696** has a longer and thinner curved bar.

Pendants

Seven copper alloy pendants together with a loop used for the suspension of pendants were recovered. Three pendants and the loop are types identified as first century cavalry equipment (**2621-4**) and one (**2625**) as horse equipment of later date but not necessarily military. There are also three rosette pendants reminiscent of the attachments used on late Roman belts (**2626-8**).

First century cavalry equipment

The items were classified according to the system presented by Bishop (1988). There were two examples of the trifid form (Bishop Type I - **2622-3**). These basically consist of three leaves with two pelta-shaped perforations between their points of juncture, the central leaf resembles an oak leaf and the two side leaves frequently finish in acorns. **2622** is quite typical of the type, though one of the side leaves is missing. It belongs to Sub-group II. It measures 36.5mm in width and 44.5mm in length. **2623** is very atypical of the basic form and is identified by Bishop as forming a variant of its own (1u). In form it more closely resembles an upside down amphora since its terminal is very unusual. This is solid with two parallel openwork triangles and has shallow scallops on the lower edge to differentiate the central leaf from the side ones. Its decoration is unusual too. It is possibly tinned and has a margin of small punched dots with an incised line, there are three small circles above the pelta-shaped perforations in the body together with a medial line of punched dots. There is no evidence of niello inlay relating to grapes etc as is normal. Of the attachment only a strip extension remains. The pendant is small, relatively fragile and bends easily. It measures 21.5mm wide and 35mm long.

2621 is an example of the teardrop or heart-shaped pendant of Type 5. It is most like Sub-group 5c in shape (heart-shaped) but not in decoration since, although its lower part is missing, there is no

evidence for it having an openwork central motif, but rather appears to be a plain solid plate. It could therefore be the central pendant (Type 8f) of a lunate pendant (Type 9). It is differentiated from the leaf or teardrop shaped pendant by an indentation either side of the attachment hook. This consists of a flat-sectioned strip extension which is folded over on the reverse side to form a hook. It is small and measures 25mm (max) in width.

A winged pendant (Type 7) may be represented by **2624** by a loop from such a type which was used to suspend the pendants. It has square perforated terminals and is about 23mm in length when bent double.

Horse pendant

One pendant, **2625**, does not easily fall within the typology of cavalry pendants, and was described by Dr Webster (*pers. comm.*) as a later Roman type. It is leaf-shaped, a slightly tapering ‘oblong’ with scalloped long sides and with a top edge with a central point from which a hook extends. This consists of a flat-sectioned narrow strip bent backwards onto the reverse side. This central apex is symmetrical about the short axis to the finial which ends in a knob. The decoration consists of gilding and six recessed crescents arranged in pairs vertically. The upper four are separated from one another by an incised circle. The crescents were probably once filled with enamel/niello although no remains can be seen. In addition there is punched dot decorations forming three interlocking heart forms around pairs of crescents and a vertical medial line. The pendant is about 40mm long and 20mm wide. The pendant can be paralleled by three similar examples from Maiden Castle found in a context dated to AD 370 (Wheeler 1943, 286, fig. 96 no. 111).

‘Rosette’ pendants

Three pendants are probably the same form although only one is complete (**2626-8**). It consists of a single piece of circular alloy doubled over. In the centre of each side is a hollow central boss which is perforated on one side. Its wide and flat circular rim, has tiny edge notches giving a frilled effect. The pendant is reminiscent of the military flat-sectioned rosette belt attachment. The other two examples consist of the hollow central bosses only and none has a perforation. The suspension modes appear to be of two types. **2627** has a cylindrical horizontal lug attached to the flat flange; the other two examples may show a perforated extension from the frilled rim. The diameter of the complete example is 18mm while the boss is 9.5mm in diameter.

Armour

All that follows in this section is based on Bliss’s report on the copper alloy. The two iron items from *lorica segmentata* are noted at the appropriate points. Both scale armour (*lorica squamata*) and laminated armour (*lorica segmenta*) were identified with certainty and one item might have come from chain mail (*lorica hamata*).

Lorica squamata

Six scales of scale armour were recovered and an attempt was made to fit them into the scheme offered by van Grollier (1901) for the material from Carnuntum but this was not found to be very satisfactory. Three overlapping scales still held together by circular-sectioned wire rings (**2650**) were assigned to his Type 22. The scales overlap one another laterally and about one-third of their width is

visible. They run from left to right. The group forms a curved rather than a straight line. The scales are of the most common shape, a rectangle with a rounded lower end. They are all of a similar size, 25mm by 13mm. The upper edge is pierced with a horizontal pair of relatively large round holes, placed in the upper half of the scale. The cross section of the individual scales is slightly convex. Their surfaces show no evidence of tinning.

2651 is similar to van Grolller's Type 29 but differs in that its lateral holes are placed higher up the long side. The scale is larger than those of **2650** and measures 34 by 25mm. It is rectangular in shape with a shallow rounded lower end. It is pierced with eight round holes that are slightly smaller than those of **2650**. Four are arranged in a square at the upper end, and are placed to one side of the centre' and a vertical pair is placed along each long side in the lower half of the scale. The holes do not retain any links. Although bent and broken in half, its lower end shows that the original section was convex. There is no visible evidence of tinning.

2649 is of similar size and cross-section to **2650** but the four round holes are differently arranged with two along the upper edge, but not parallel to one another. There is the same pattern along the lower edge although one is barely visible owing to corrosion products. On the opposite side but a little lower down, there is a circular hole which is broken to meet the edge. This most probably represents a perforation rather than a corrosion spot. Below this on the lower edge there is a single perforation. There are the remains of the fabric foundation on the reverse side.

The largest scale is **2648** and measures 45 by 22mm. It too is rectangular with rounded lower corners. It is pierced with three large round holes along the upper edge and a pair of smaller ones are placed in the one extant lower corner. Presumably there was another pair in the other lower corner which is now missing. The sheet is of comparable thickness the scales of **2650** and so thinner than those of the other two. Bliss noted that the metal appeared brass-like.

Lorica segmentata

This type of armour is represented by a complete girdle plate tie hook and a tie ring. An iron hook (**6715**) was also assigned to this form of armour. The iron buckle assigned to it in the small find appendix is not separately identified in the database print-out, and such buckles as were drawn offer no obvious candidate. There are also two further fasteners that Bliss felt might be associated and loose buckle loops of a similar form and shape to those associated with this form of armour. The girdle plate tie hook **2652** belongs to one of the three most common shapes (Robinson 1975, fig. 183). It has a tapering rectangular plate with a rounded end and two circular perforations along its longitudinal axis. The rivets are missing. From the centre of the broader end extends a thicker rectangular strip which is curved over to form a large open ring-shaped hook. The hook usually lies on the same plane as the plate but here, by intention or distortion, there is a recurve. The plate is 30mm long and tapers from 12mm to 6mm in width.

Two other broadly similar pieces (**2654-5**) were suggested as possible tie plates though it was noted that they did not feature in Robinson's (1975) typology. They consisted of a rectangular plate from which extended a short shaft with a hooked end. They were not riveted and there was no evidence of how they would have been attached. They were also smaller than identified plate hooks. They measure 35 and 33mm in overall length; 20mm in plate length and 8-10mm in plate width.

There is also one example of a girdle tie plate loop (**2653**). Robinson (1975, 181 fig. 184) illustrated four types which vary slightly in the treatment of the eye/cross bar junction and in the shape of the cross bar. **2653** is comparable to the third type illustrated. It is complete apart from one corner of the cross bar. The shank is burred over through use. It is 17.5mm long, 13.5mm un diameter and 1.5mm thick.

Three buckle loops were suggested to be fastenings from this type of armour (**2638-40**). Such buckles consist of a loop with a separate iron hinge bar and a free-moving copper alloy flat-sectioned tongue. Of the three buckle loops two are D-shaped and one is rectangular-shaped. The loop sections are either square or circular and expand into flat-sectioned terminals which have central perforations for the hinge bar. The shape of the terminal expansion varies from circular to sub-square. The size of the perforation varies. **2640** still has the remains of an iron hinge bar in one of its perforations. Two loops are plain but **2639** is decorated with groups of transverse grooves near to the terminals and along one narrow edge which would have been visible when worn. The widths of the loops vary from 16mm (**2638**) to 21.5mm (**2639**).

Bliss also suggested that the only buckle to retain its plate recovered from the excavations (**2635**) might also have come from *lorica segmentata*. The double plate has two straight sides and a rounded end and is riveted with a single rivet placed in the centre of the rounded side. The shape of the loop is unknown as only the hinge bar and part of the remain. There may be traces of leather still adhering to the plate. The plate measures 16.5mm in width and 18.5mm (at its maximum length, suggesting the buckle was relatively small. The plate is plain and the tongue consists of a plain-sectioned strip wrapped around the hinge bar. The preference for identifying this buckle as a lorica fitting rested on its similarity to published examples of those (Robinson 1975, fig. 179), and its many points of difference with the late belt plates discussed by Simpson (1976) and Clarke (1979).

It was also suggested that the plate fragment **2635** was from a *lorica* buckle though without further discussion.

Lorica hamata

It was suggested that mail might have been represented amongst the Wroxeter finds by **2656**, a loop and folded strip plate with what appears to be a fragment of mail of a few interlocking fine wire rings *in situ* between the plates. It consists of a small square-sectioned and oval-shaped ring with a short double plate with a single rivet still extant in the centre of the short side. “V”-shaped notches are cut out on three sides of one plate. The overall length is 25mm; the plate is 15mm long and 13mm wide and the ring is 16mm in diameter.

Bliss noted that in his discussion of mail, Robinson (1975 164-72) made no reference to loops or buckles associated with the armour type and that the rings were a much smaller type than those commonly used. It was not possible to obtain an extant diameter of the *in situ* rings but they were approximately 2-3mm. A number of parallels were noted including a close, but larger, one from Rudston (Stead 1980, fig. 64 no. 45). In the introduction to the armour section she observed that this piece was probably more safely identified as a belt fitting.

Other horse trappings

As noted in the introduction all horse trappings were included in the weapons and military equipment section in the small finds appendix. Those certainly of military origin have already been discussed. In addition there were the following iron items that could have been of either military or civilian origin. They are identified in the database as horse fittings in the Simple Name field. They include six horseshoes (**4705-7, 4714-6**) which are presumably of post Roman date.

Snaffle bits

Seven examples of two-link bits were recovered (**4699-704, 4713**).

Hipposandals

There was one example of a Manning (1985) Type 2 (**4717**), two of Type 3 (**4707-10**) and one of a hybrid between Type 3 and 4 (**4711**). **4708, 4712** and **4718-9** were unclassified.