Sewing equipment

Virtually all the items in this category are needles. The small find appendix (Barker *et al* 1997, 254) also listed three thimbles in this section. These are discussed in Section 14 (late Saxon and later).

Copper alloy

Bliss divided the copper alloy needles into a main grouping of six (**3522-3, 3525-8**), and noted that there were also two fragments that might be needles of an earlier form (**3529-30**). She found that existing typologies did not easily accommodate the Wroxeter needles. On the whole the latter were smaller and more closely resembled modern needles than those at other sites. For this reason the Wroxeter needles were classified according to a site specific classification. All had similar shaped heads and eyes, but were differentiated from one another by the presence of a long groove above and below the eye. She noted that Crummy (1983) recognised the feature in her Type 3 needles, but that the Wroxeter needles without the feature did not 'fit' the other Crummy types.

Type 1 –flat, rectangular, tapering head with an oval or rectangular-shaped eye.
There are four examples of this type (**3522-3, 3525-6**), three of which were complete. Unlike the other examples **3526** does not have a head that tapers, it retains a rectangular shape. The eye is also rectangular rather than oval in shape. All of the needles except **3526** have a short oblique grooves above and/or below the eye. These are probably the result of the method to cut out the eyes. All the eyes appear to have been cut through the rod. It is possible that **3523** may have an eye cast in the mould since there is no evidence of tooling, but this may have been smoothed away. The heads are 2.5mm wide; that of **3526** is only 1.5mm wide. These needles closely resemble modern examples.

Type 2 –flat, rectangular, tapering head with an oval or rectangular-shaped eye above and below of which there is a long groove.
There are two examples of this group. Both are broken, one at the base of the eye and the other across the shaft. The eye of **3527** shows groove marks on one side, and the eye may have been cut through when the rod was cold. There is no similar evidence on needle **3528.** The needles are thinner than those of Type 1. The head of **3527** is 1.75mm wide and 1mm thick, compared to the Type 3 needles at Colchester where the narrowest head was 1.5mm wide and the others 2 to 3.5mm.

Early form.
The two needles in this category differ significantly from Types 1 and 2. They have flat-sectioned oval-shaped heads with a rectangular extension on top. The head of **3529** has a rectangular/oval-shaped perforation and a circular-sectioned shaft. The head is 5.5mm wide and the perforation is 4mm long. **3530** is less robust and the oval perforation much larger, 14mm long. The sides of the head are probably pulled apart and there is a long groove below the head which continues down the 'shaft' for 11mm to the broken end. The 'shaft' is flat-rectangular-sectioned but this may still be part of the head. It is 4mm wide at this point.

The function of needle can be questioned owing to the rectangular terminal on the head. A similar needle comes from Baldock in a Neronian context (Stead and Rigby 1986, fig. 55 no. 234) which suggests that the form is early.

Bone

Bliss recorded 46 bone needles including two broken examples where the type was still recognisable. The database print-out records 93 bone needles in total of which 38 do not have any typology attributed to them. Of the ones that are not attributed, the three illustrated examples (**375-8**) consists of broken shanks retaining the base of an eye. Bliss used the Greep typology based on the shape of the eye and on the head form (Greep 1983, 185-8).

1.1 – pointed head of oval section and a single round eye.
Eleven needles belonged to this group, none of which were complete (**325-35**). The length of the head varies considerably from 6mm to 3mm and the width of the head varies from 6.5 x 4mm (**329**) to 3 x 2.5mm (**331**). The diameter of the eyes ranges from 3mm (**331**) to 2mm (the modal value). One needle, **330**, has a more oval-shaped eye. Two needles, **333** and **334**, may have been green-stained.

1.2 – squared or slightly rounded heads with a flattened oval section and a single round eye.
There is one complete needle of this type and it is 71mm long (**336**).

2.1 – oval-sectioned pointed head with a figure-of-eight shaped eye.
There are 13 examples of this type (**338-50**). The group includes rather unusual examples such as **339** which has flat rectangular sections rather than oval ones. **348** may have been decorated with oblique engraved lines on the head though these may not be deliberate. One may possibly show signs of green staining but cannot be identified in the database. The heads range from 4.75 c 4mm to 2.75 x 3.75mm.

2.2 - squared or slightly rounded heads with figure-of-eight shaped eyes.
There are two examples, one has a more sub-rectangular section than oval (**352**). **337** is complete and measures 80mm in length.

3.1 – pointed and flattened heads with an oval cross-section and rectangular eyes.
There are five examples including two complete ones which are 84mm and 104mm long **353-7**. The heads vary from 4.5 x 3.5mm to 5.5 x 3.75mm. They eyes vary from 6 x 2.5mm to 3.5 x 2mm.

3.2 – flattened, slightly expanded and pared square heads with rectangular eyes.
Ten needles of this type were recovered (**358-67**). The head dimensions vary from 6 x 2mm to 4 x 1.5mm, and the dimensions of the eyes from 6.5 x 2.5mm to 4.5 x 2mm.

In addition, there were two other fragmentary Type 3 needles which could not be assigned to sub-divisions (**368-9**). The database included four other needles cautiously attributed to Type 3 (**374**, **410**, **413**, **2136**).

One needle does not appear to fit any of the defined types (**370)**. Its eye arrangement is unparalleled and it may well have been a more common type which has been subsequently re-cut and re-used. On one side there is a figure-of-eight shaped eye with an additional small eye below but connected with the figure-of-eight shape. On the other side and cut at a lower level, there is an oval perforation with a round hole above. There are slight traces of green staining.

The database numbers for the needles not assigned to a typology are **371-3, 375-409, 411, 414** and possibly **2134-6.**.

Iron

5452-6 are recorded as sewing needles. The small finds appendix states they have rectangular perforations at the eye.

Spinning equipment

Bone

Spindles
Three spindles were identified (**520-2**) but two were missing when Bliss did her work. They were of the simplest form, a simple rod with a marked swelling. (Greep 1983, 146-52, Type 1).

Spindle whorls
Bliss stated that one bone and one antler spindle whorl were recovered which belonged to Greep's Type 3, the commonest form. They were lathe-turned. One is biconical (**524)**, the other is too incomplete to be certain of the original form (**525)**. They are unusual in that they were blackened all through their sections. This may suggest deliberate staining to imitate jet or shale whorls which may have had other significance apart from the purely functional given the shale whorls from Wroxeter are quite elaborately decorated. Bliss noted that at the time of writing she had not found any other 'black' bone or antler whorls at other sites. In addition to these **2137** is also recorded as a bone spindle whorl.

Shale

Spindle whorls
Two complete and five fragmentary shale spindle whorls were recovered. Type 1 was defined as biconical with grooved decoration. Both of the complete examples belonged to this type (**7265-6**). Two fragmentary examples had a semi-spherical/sub-biconical outline with concentric grooves around the top surface (Type 2 – **7264, 7268**). Both of these types were produced by lathe-turning. Type 3 consists of the fragments where a shape cannot be securely identified. **7267** and **7629** both have a smooth conical shape with a sheared base and lack any evidence of how they were made. The fragment **7263** is only a flake but is lathe-turned with concentric grooves and a very faint zig-zag line around the perforation.

Fired Clay

Spindle whorls
Twenty fired clay whorls were identified as spindle whorls. **8576-7, 8582-3, 8588-90** and **8593** were all made from pottery vessel body fragments. In the case of **8578**, **8585** and **8594** the bases of vessels had been used. **8579**, **8584**, **8587**, **8592** and **8595** where all purpose-made whorls in a flat disc shape like the potsherd ones. The manufacturing method of **8591** was not stated but the illustration suggest it was a re-used potsherd.

Stone

There were also three spindle whorls made of stone, again in a flat disc shape (**8328, 8332-3**)

Weaving equipment

Bone

Pin beater
One example of a cigar-shaped pin beater used for beating up the threads in a warp-weighted loom was found (**528**). It is pointed at both ends with a maximum width at the centre. It is a small example (90mm) whereas Greep notes a range of 90 to 180mm (1983, 164). It has a triangular rounded section and a central longitudinal groove which may have aided holding it.

Weaving tablet
A single fragmentary weaving tablet was found (**529**). It belongs to Greep's Type 1.2 (Greep 1983, 179), a decorated triangular plate with three perforations. The decoration consisted of a double ring and dot as well as lightly incised double lines which run parallel with two of the edges. Full dimensions were not available but it was noted that at 1.5mm in thickness it was thinner than most examples.

Perforated metapodia
Six examples were recovered and placed in this category in the small finds appendix (Barker *et al* 1997, 254) though many authors would be cautious over about assigning them to such a precise function (MacGregor 1985, 103). Greep's typology has seven categories differentiated by the position of the perforation and the treatment of the ends (Greep 1983, 172-3). Two of the examples from Wroxeter are of Type A and have a single perforation with both ends present (**532-3**). One is of type D with one hole bored at the proximal end, it is complete and is 103mm long (**526**). The others are of uncertain type owing to their incomplete nature (**518, 530-1**).

Stone

The small find appendix noted three possible stone loom weights but these do not appear to have been included in the database print-out.

Other textile equipment

The small finds appendix assigns the two stone polishing stones (**8455-6**) to this category.