



Society of Antiquaries
of **Scotland**

Bearsden

A Roman Fort on the Antonine Wall

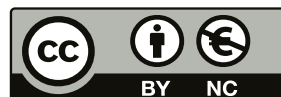
David J Breeze

ISBN: 978-1-908332-08-0 (hardback) • 978-1-908332-18-9 (PDF)

The text in this work is published under a [Creative Commons Attribution-NonCommercial 4.0 International](#) licence (CC BY-NC 4.0). This licence allows you to share, copy, distribute and transmit the work and to adapt the work for non-commercial purposes, providing attribution is made to the authors (but not in any way that suggests that they endorse you or your use of the work). Attribution should include the following information:

Breeze, D J 2016 *Bearsden: A Fort on the Antonine Wall*. Edinburgh: Society of Antiquaries of Scotland. <https://doi.org/10.9750/9781908332189>

Important: The illustrations and figures in this work are not covered by the terms of the Creative Commons licence. Permissions must be obtained from third-party copyright holders to reproduce any of the illustrations.



Every effort has been made to obtain permissions from the copyright holders of third-party material reproduced in this work. The Society of Antiquaries of Scotland would be grateful to hear of any errors or omissions.

Society of Antiquaries of Scotland is a registered Scottish charity number SC 010440. Visit our website at www.socantscot.org or find us on Twitter [@socantscot](https://twitter.com/socantscot).

Chapter 11

METALWORK

LAWRENCE KEPPIE

11.1 COPPER ALLOY (illus 11.1)

1. Ring. Diam: 25mm.
NK75AI; building 4, topsoil.
2. Stud. Diam: 10mm, with remnant of a shank. Cf Crummy 1983: 116, fig 120 no 3161.
NK73AW; annexe, south-west of bath-house, topsoil.
3. Flat strip. L: 40mm, with curving edge and small nail-hole.
NK73CJ, buildings 6 and 7, topsoil.
4. Nail, with flat circular head and square-sectioned stem. L: 29mm.
NK73Bu ; building 7, topsoil.
5. Nail, with flat circular head and square-sectioned stem. L: 24mm.
NK73CA: west intervallum beside building 3.
6. Spatula. L: 66mm, with stamped lettering, modern?
NK78AT; building 2, lying on subsoil.
7. Domed fitment or stud. L: 23mm, with shank at either extremity.
NK79DI; annexe, south of bath-house, topsoil.
8. Stud. Diam: 14mm, with remnant of shank.
NK78By; area east of annexe, grey clay below topsoil and above grey sand.
Cf Bishop 1996, 62 nos 371–403
9. Shank from a button-and-loop fastener. L: 25mm. Cf Curle 1911: 302 pl 75, nos 7–8; Macdonald & Curle 1929: 554, fig 115, no 13; Robertson 1957: 70, fig 12.1; Wild 1970: figs 1–2.
NK80DK; primary bath-house, burning round hearth.
10. Belt or strap fitting. L: 45mm.
NK77BC; building 5, daub.



Illustration 11.1
Copper alloy 1–10.



Illustration 11.2
Lead 1.

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL

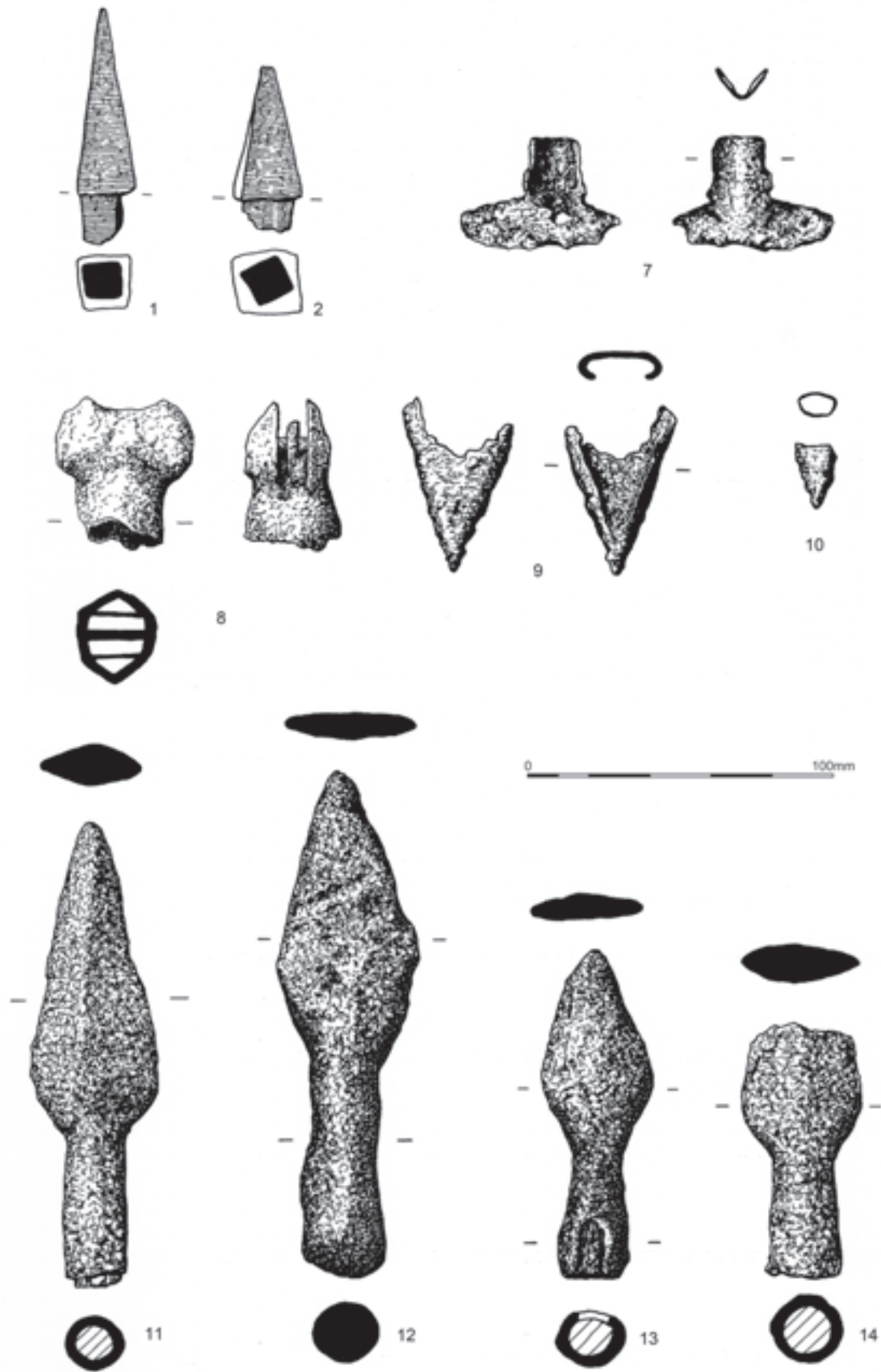


Illustration 11.3
Ironwork 1, 2, 7-10, 11-14.



Illustration 11.4
Ironwork from the middle west ditch.

11.2 LEAD

1. 'Ring'. Diam: 35mm; Th: 10mm, pierced with circular hole 15mm in diameter (illus 11.2). NK74CO; building 4, rubble.
2. Fragment, 44mm × 28mm, possibly of a vessel or container. NK75CO; bath-house, under floor of changing room.
3. Six fragments. NK73EP; bath-house hot room, dark soil in fill; NK73CD; bath-house cold room, above paving; NK75CO; bath-house, changing room under floor; NK75CE; east intervallum beside building 7; NK78DM; area east of annexe ditches; NK73EE; bath-house, debris over hot room.

11.3 IRON

11.3.1 Weapons

- 1–6. Six *pilum* heads (illus 11.3.1 and 2). L: 55–75mm; W: 12–20mm. All are broken off at or near the top of the shank. Where the tip has survived, it is bent or blunted from use. One example has an arrowhead fused to it. Similar heads have been recovered on the Antonine Wall at Bar Hill (Keppie 1975: 100, fig 33 no 18) and at Seabegs Wood (Keppie & Walker 1981: 146, fig 4 no 2). Larger than the accepted norm for *pila* (for which see Bishop & Coulston 2006: 129),

they have sometimes been supposed to be carpenters' bits (for which see Manning 1985: 27, pl 12 nos B58–73). NK78AS; middle west ditch, silt below organic layer.

7. Fragment of T-shaped hilt-mounting of dagger (*pugio*). L: 130mm; W: 65mm, preserving part of the crossbar and upright (illus 11.3.7). Cf Keppie 1975: 99, fig 32 no 15; Manning 1985: pl 73–4, nos V6–13. NK76BN; building 11, north range, topsoil.
8. Fragment of pommel of T-shaped hilt-mounting of dagger (*pugio*). L: 47mm; W: 42mm, preserving both sides and central rivet (illus 11.3.8). Cf Bishop and Coulston 2006: 84 fig 42; 135 fig 80; 165 fig 104. NK78DW; intervallum west of building 4, red/brown soil below topsoil.
9. Part of scabbard chape of a *gladius*. L: 59mm; W: 40mm; Th: 8mm (illus 11.3.9). NK73W9; intervallum west of building 3.
10. Terminal of scabbard chape of a *gladius*. L: 21mm (illus 11.3.10). Cf Webster 1979: 67, fig 29 no 5; Bishop and Coulston 2006: 81 fig 41.3–5. NK73W9; intervallum, west of building 3.
11. Socketed spearhead, total L: 145mm; L of blade 98mm; Diam of socket: 12mm (illus 11.3.11 and 11.6). Protruding from one

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL



Illustration 11.5
Ironwork from the middle west ditch.



Illustration 11.6
Ironwork 11, a spearhead.

M E T A L W O R K

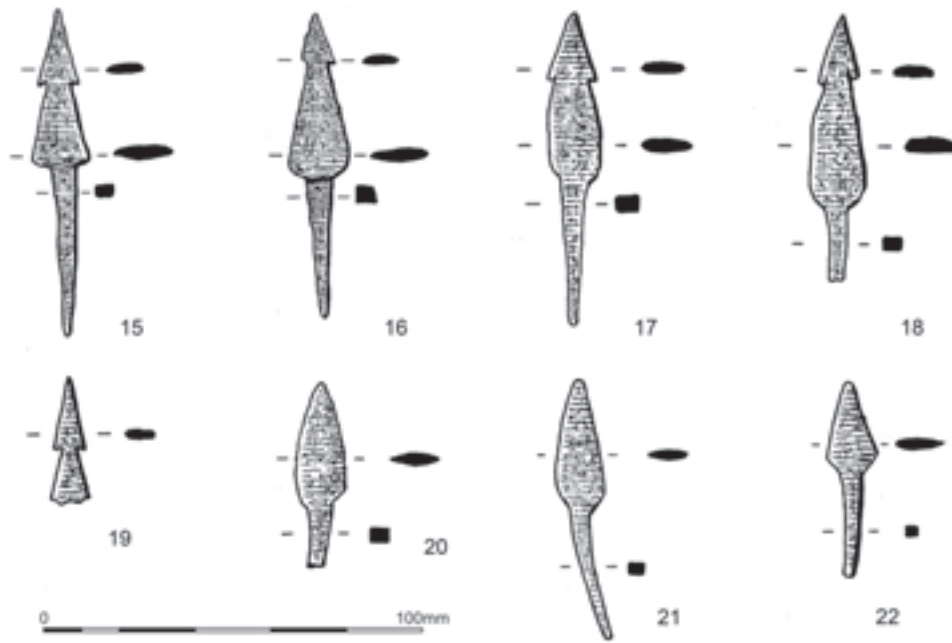


Illustration 11.7
Ironwork 15-22, arrowheads.



Illustration 11.8
Arrowheads from the middle west ditch.

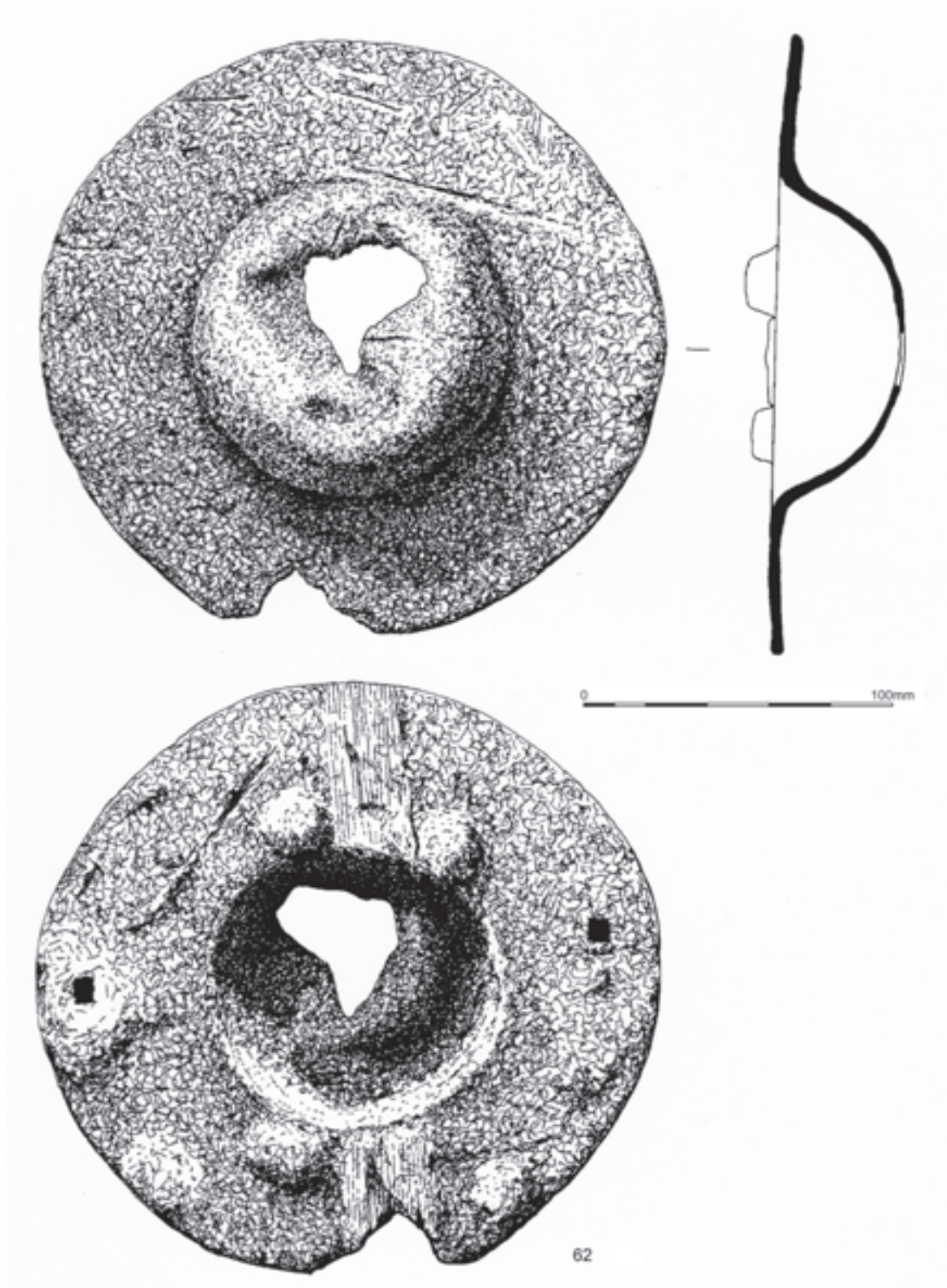


Illustration 11.9
Ironwork, 62, shield boss.



Illustration 11.10
Ironwork 62, the exterior face of the shield boss.



Illustration 11.11
Ironwork 62, the interior face of the shield boss.

side is an apparent tang; however x-rays showed that this was not an integral part of the object, but the result of corrosion. NK76CZ; building 3, destruction level.

12. Socketed spearhead, total L: 165mm; L of blade 67mm; Diam of socket: 17mm (illus 11.3.12).
NK77ES; building 7, officer's quarters, daub.
13. Socketed spearhead, total L: 107mm; L of blade: 60mm; Diam of socket: 16mm (illus 11.3.13).
NK76EG; buildings 13 and 14, topsoil.
14. Fragment of socketed spearhead, total L: 80mm; Diam of socket: 15mm (illus 11.3.14).
NK74AZ; intervallum west of building 1, topsoil.

In general, on spearheads, see Scott 1980; Manning 1985: 160–70, pl 76–81 nos V26–140; Marchant 1990; Manning 2006.

- 15–61. 47 arrowheads with flattened head and triangular blade; maximum L: 90mm, with maximum shank L: 52mm (illus 11.7.15–22; cf 11.8). 13 are intact, or nearly intact. One arrowhead is fused to a *pilum* head (see above). The majority are clearly barbed (illus 11.7.15–19); a few (illus 11.6, 20–22) have plain points. None exhibits conclusive evidence of use. Some fragments of shanks also survive separately.
NK78AS; middle west ditch, silt below organic layer.

This type of arrowhead is highly unusual, but cf Bushe-Fox 1949: 153 pl LIX no 302; Bidwell 1985: 136, no 31; Bishop and Coulston 2006: 205 fig 131.3. Coulston (1985: 266) suggests that the Bearsden arrowheads were 'locally produced for mural defence', or 'simply for hunting purposes'.

62. Shield boss. Diam: 205mm, with flange 45–50mm wide; damaged and scored across its surface (illus 11.9–11.11). The central dome has been pushed in by a heavy blow; a small segment of the flange is lost. No rivet holes are visible on the flange, but x-rays revealed two diametrically opposite holes, 4mm × 3mm. Others probably existed in line with the hand-grip. On the back are traces of wood, likely to be a vertical spar, part of the hand-grip, set between what seem to be domed rivets.
NK73DH; over west fort rampart west of building 4.
63. Four adjoining fragments preserving about one-third of a shield boss (illus 11.12). Diam: about 210mm, with central dome, badly dented and flattened, and flange 45mm wide. There are no visible rivet holes.
NK78EN; daub fill of gully outside south-east corner of building 2.

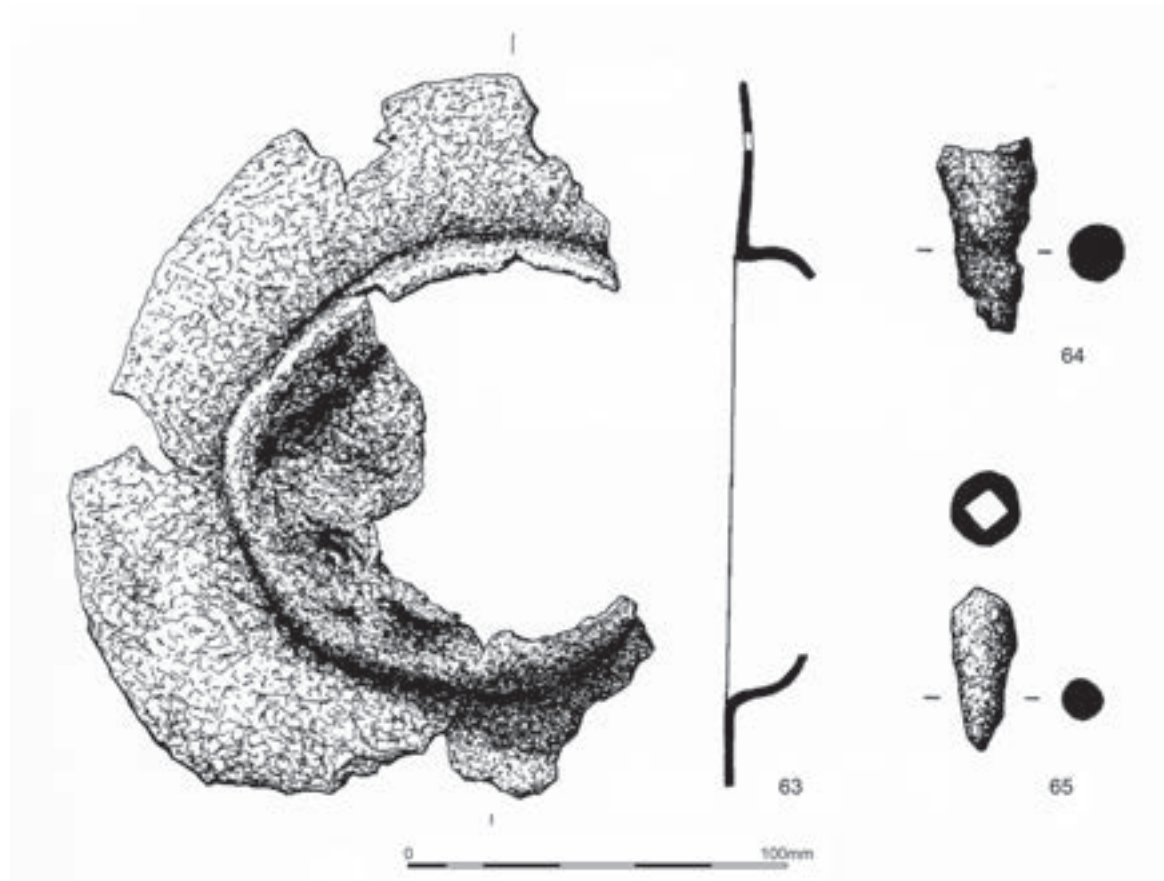


Illustration 11.12
Ironwork 63–65.

The bosses are of the circular type associated with the oval shields carried chiefly by auxiliaries, rather than the rectangular form with central dome on the shields of legionaries. Cf Jacobi 1897: taf 40, nos 20–1; Curle 1911: 180 pl 34.3; Piggott 1953: 36 figs 9 (C 38), 12 (B 30); Burley 1956: 200, no 382; Jarrett 1976: 72, fig 20.1; Buckland 1978; Webster 1979: 70, no 90, fig 33; Bidwell 1985: 130–1, fig 47.1; Barrett et al 2000: 124 fig 59.18, 128, fig 62.54–5; Bishop and Coulston 2006: 138 fig 83 no 5; Rushworth 2009: 458 fig 14.14 no 312; Ferris 2010: 367 no 55; etc.

64. Ferrule. L: 50mm; maximum Diam: 24mm tapering to 13mm (illus 11.12.64). Probably a spear-butt.

NK73BS; building 3, room 1, topsoil.

65. Ferrule, length 40mm, maximum Diam: 17mm tapering to 3mm (illus 11.12.65). Probably a spear butt.

NK73Fy; annexe, south of changing room of bath-house, occupation layer immediately under topsoil.

Cf Manning 1976: 21, fig 13, nos 24–6; Manning 1985: 140–1, pl 66 nos S57–83; Bishop and Dore 1988: 195, fig 91, nos 16–18; Frere and Wilkes 1989: 143, fig 70.17; Bishop and Coulston 2006: 77 fig 38 nos 17–24; Rushworth 2009: 459 fig 14.15 no 322.

66–87. Shield stiffeners. The oval shields of the auxiliaries were strengthened by narrow iron strips, flat on one side and

convex on the other, with the ends flattened to receive rivets. Some of the strips here seem rather flimsy (see also below no 159).

66. Fragment of strip, circular in section. L: 55mm; Diam: 9mm; flattened at one end to receive rivet.

NK77ET; building 16, pit.

67. Fragment of strip, rectangular in section. L: 52mm; maximum W: 15mm, with rounded end.

NK74AZ; intervallum west of building 1, topsoil.

68–73. Six fragments of narrow strip. L: 25mm–75mm, with one side flat and the other convex.

NK73Cu; between buildings 6 and 7 beside officer's quarters, overlying clay.

74–5. Two fragments of narrow strip, flat on one side, convex on the other; one has been flattened at one end to receive a rivet. L: 34 and 40mm.

NK79W9; intervallum west of building 4; topsoil.

76–81. Six fragments of strips, flat on one side, convex on the other. L: 21–45mm.

NK73AWW; annexe, south of changing room of bath-house, topsoil.

82-6. Five fragments of strips, flat one side, convex on the other. L: 30mm-40mm.

NK73AW; annexe, south of changing room of bath-house, topsoil.

87. Fragment of strip, convex on one side, almost flat on the other. L: 70mm.

NK73Cu; between buildings 6 and 7 beside officer's quarter, overlying clay.

Cf Curle 1911: 180 pl 34.1, 12; Keppie 1975: 100, fig 33, no 19; Buckland 1978: 250 fig 3; Manning 1985: 147, pl 71 nos T9-10; Bishop & Coulston 2006: fig 49 nos 5-6; Howard-Davis 2009: 706, fig 356.

11.3.2 Tools and implements

88. Note on the iron hoe by SIAN REES (illus 11.13)

The iron tool is almost certainly an example of the type of hoe which White (1967: 66) suggested is the *ascia/rastrum* described by classical authors (Palladius, *Opus Agriculturae* 1.43.3) as a small agricultural tool used to aerate the soil, remove weeds on a smaller, more delicate scale than would be possible with the other types of Roman hoe. Some 14 of these tools are known from Romano-British contexts and they are also relatively common on Roman sites on the Continent (Rees 1979: 309-10). The tool type is distinguished by having a short, stout blade on one side of the head, and two tines on the other. The tines would be used to loosen the soil, the blade to draw it. The heavily corroded example

from Bearsden, now 245mm in length, has a wide oval-shaped blade on one side of the head 135mm long, 85mm wide; only one of the forking tines remains, though the stump of the second survives sufficiently clearly to make the identification of the tool quite secure. The length of the tool would have originally been probably somewhat greater as the surviving tine is diminished by corrosion, though as is frequently the case with these tools, the tines were probably originally considerably shorter than the blade. The tines and the blade are set at the slight angle to the head which is normal on such tools, so that the working edges strike the ground at an effective angle when in use. The Bearsden tool fits comfortably into the size range displayed by other Romano-British examples (162-265mm), and the short, forking tines are, again, entirely characteristic of the type. The only somewhat unusual feature of the tool is the blade which, though similar in length to many other examples, is rather wider than normal; its oval shape also is uncommon, as the more normal blade shapes are triangular, chisel-shaped or spade-shaped. Few of the *ascia/rastrum* hoes found on Romano-British sites are well dated. The presence of an example from an early context on a site in London indicates a date of introduction into this country early in the Roman period, while the example found at Richborough is in a stratum where a fourth century coin indicated a late date, suggesting that the tool had a continued use throughout the Roman period. The tools appear to come mainly from highly Romanised sites rather than native sites, and are found on both civilian and, less commonly, on military sites. The identification of the tool as having an exclusively agricultural

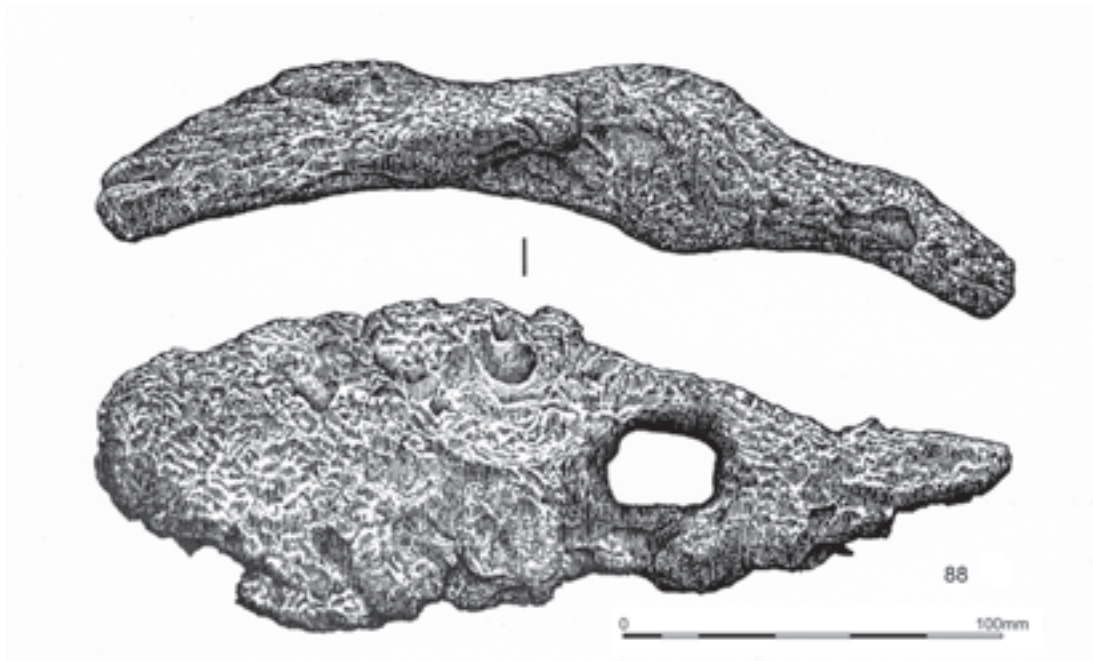


Illustration 11.13
Ironwork 88, hoe.

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL

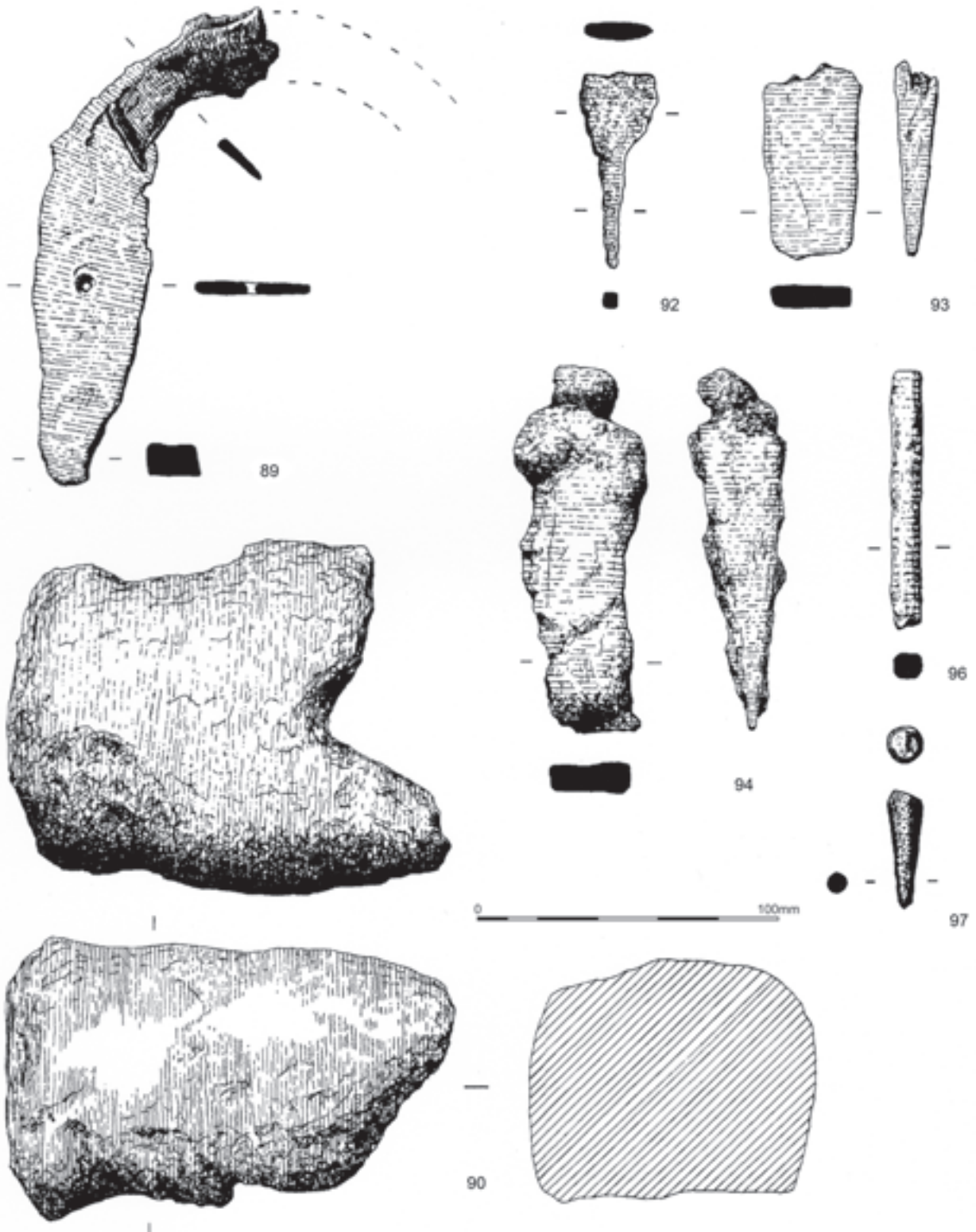


Illustration 11.14
Ironwork 89, 90, 92, 93, 94, 96, 97.

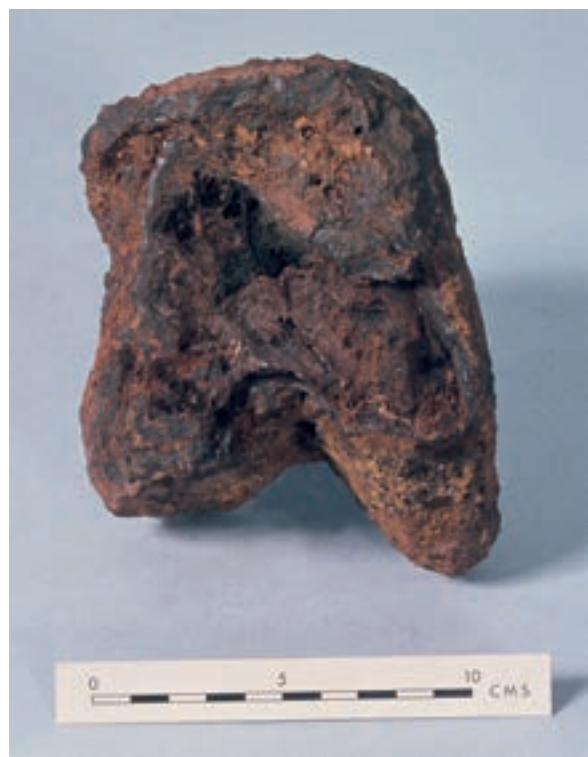


Illustration 11.15
Ironwork 90, the anvil.

function is acceptable for tools found in towns, at small settlements and villas, but is perhaps more questionable for examples from military sites. The hoes are found throughout Britain but are less commonly found in the north and west. One was found at Rough Castle (Buchanan et al 1905: 494, fig 2) and this is the only Scottish parallel known to me; another example comes from Housesteads (Manning 1976: 29 no 82).

Bath-house, unstratified.

89. Tanged reaping hook, bent over. Total L: 245mm; maximum W: 36mm, one end thickening to form tang; nail hole for rivet, to attach wooden handle (illus 11.14.89). Cf Curle 1911: pl 61.2, 5; Rees 1979: 455–9.
NK73BS; building 3, topsoil.
90. ?Block anvil. L: 140mm; W: 120mm; Th 80. The top is slightly domed (illus 11.14.90 and 11.15). Cf Manning 1985, 3, pl 1 nos A1–3.
NK74DB; gulley to west of building 3.
91. Tang of knife-blade or chisel. L: 45mm; W: 25mm.
NK74AZ; intervallum to west of building 1, topsoil.
Cf Bishop 1996, 86 nos 549–67.
92. Tang of knife-blade or chisel. L: 110mm; maximum W: 20mm; tang W: 12mm (illus 11.14.92). Cf Manning 1985, 115–6, pl 55 nos Q48–54.
NK76Eu; building 16, post-hole.

93. Fragment of tapering blade. L: 60mm; W: 30mm; Th: tapering from 11mm to 3mm (illus 11.14.93).
NK74CM; burnt wattle and daub fill of gulley north of building 1.
94. Chisel with remnant of ?tang. L: 120mm; W: 25mm; Th: tapering from about 15mm to 2mm (illus 11.14.94).
NK77Dx; drain between south rampart and intervallum.
95. Fragment of ?blade. L: 64mm; W: 21mm, with circular hole near one end, revealed by x-ray.
NK77AD; intervallum to east of building 7, topsoil.
96. Part of a ?file. L: 85mm; Diam: 10mm tapering to 4mm, with serrated surfaces (illus 11.14.96).
NK73Cu; area between buildings 6 and 7 beside officer's quarters, overlying clay.
97. Part of a punch. L: 39mm; Diam: 10mm, tapering to 4mm (illus 11.14.97).
NK78AS; middle west ditch, silt below organic layer.
98. Heavy triangular ?wedge. L: 185mm W: 57mm, ending in a point; Th: 10mm (illus 11.16.98).
NK73Cu; intervallum to east of building 7, topsoil.
99. Part of axe-blade (visible on x-ray). L of blade: 110mm; Th: tapering from 25 to 8mm (illus 11.16.99).
NK74AZ; intervallum to west of building 1, topsoil.

11.3.3 Structural items

100. Fragments of drop-hinge. The largest fragment, L: 105mm, preserves the thickened u-curve and part of one arm (illus 11.17.100). Cf Manning 1985: 126, pl 58 nos R8, R9.
NK78DC; gulley to north of building 1.
101. Slide bolt of tumbler lock. L: 70mm; W: 16mm; Th: 11mm tapering to 2mm (illus 11.17.101). Most examples are in copper alloy, eg Curle 1911: 306 pl 78, 7–8; Crummy 1983: 124 fig 136, nos 4133–6; Bishop & Dore 1988: 167 fig 79, no 73; Frere & Wilkes 1989: 156, fig 78, no 82; Bishop 1996: 77 nos 467–8; Cool & Philo 1998: nos 643–4; Hanson 2007: 411 no 55, fig 10.30; Rushworth 2009: 441, fig 14.7 nos 62–3; etc. A few are in iron, as here, eg Jacobi 1897: Taf 45, nos 1–5; Bidwell 1985: 148, fig 54 no 109.
NK78AS; middle west ditch, in silt below organic layer, together with no 102.
102. Small bolt-plate. L: 40mm, with hole (diameter 8mm) to receive bolt (illus 11.17.102). Cf Curle 1911: 286 pl 64.8; Manning 1985 124, pl 58, no R3.
NK78AS; middle west ditch, in silt below organic layer, together with no 101.
103. Joiner's dog. L: 155mm; maximum W: 27mm, with tangs, 10mm long, at both ends (illus 11.17.103). Cf Keppie 1975: 110, fig 37 no 56; Manning 1976: fig 25 no 164; Crummy 1983: 120, fig 127 no 4072; Manning 1985: 131, pl 61 nos R52–3; Frere & Wilkes 1989: 171, fig 89 no 196; etc.

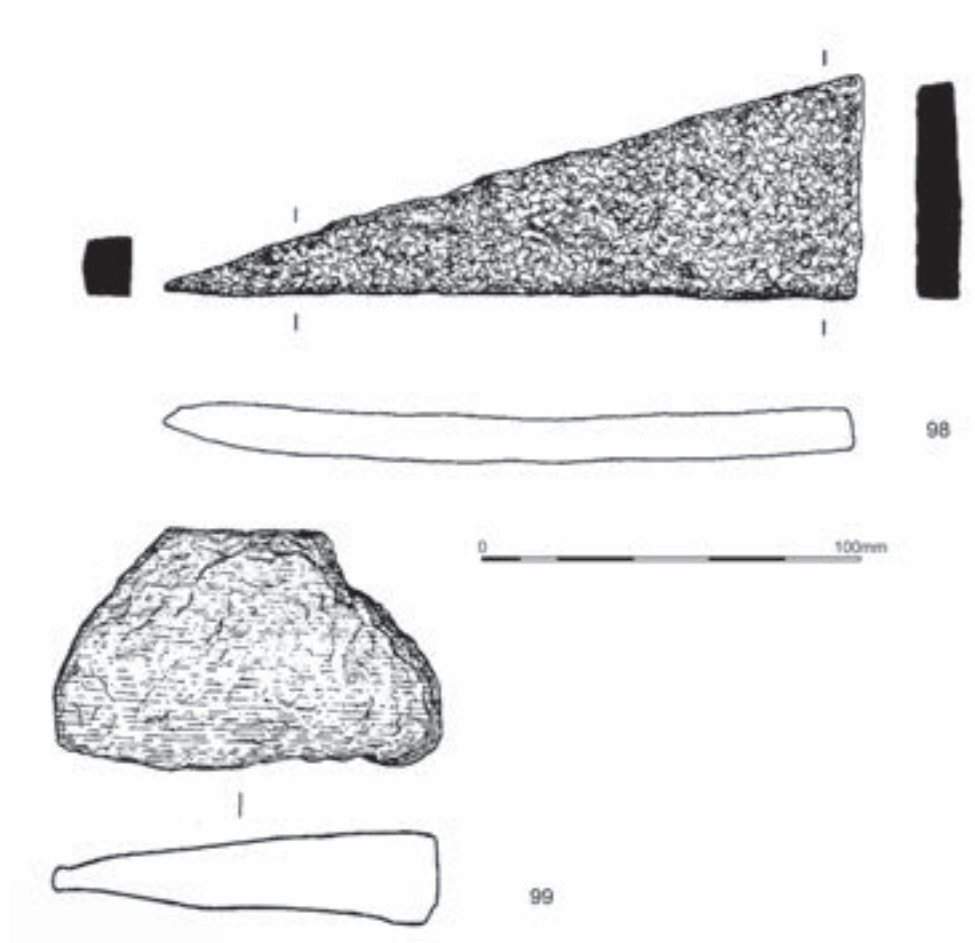


Illustration 11.16
Ironwork 98, 99.

- NK73S3; annexe, south of changing room of bath-house, topsoil.
104. Fragment of ?joiner's dog. L: 72mm; W: 25mm, with one tang, 27mm long, surviving (illus 11.17.104).
NK73BS; building 3, topsoil.
105. One leg of holdfast. L: 50mm; W: 10mm; Th: 16mm, tapering to 3mm (illus 11.17.105).
NK78AS; middle west ditch, in silt below organic layer.
106. Fragment of holdfast. L: 70mm; W: 12mm; L of surviving leg 80mm (illus 11.17.106).
NK78AS; middle west ditch, in silt below organic layer.
107. Fragment of holdfast. L: 60mm; W: 14mm; L of surviving legs: 25mm (illus 11.17.107).
NK78AS; middle west ditch, in silt below organic layer.
108. Fragment of holdfast. L: 64mm; W: 11mm; L of surviving leg: 48mm (illus 11.17.108).
NK78AS; middle west ditch, in silt below organic layer.
109. Thin holdfast. L: 50mm; W: 3mm; L of surviving tang: 7mm.
- NK74M; burnt wattle and daub fill of gulley to north of building 1.
110. Leg of ?holdfast. L: 51mm; W: 10mm.
NK74BK; intervallum east of building 8, overlying natural.
111. Fragment of holdfast. L: 53mm.
NK80CK; primary bath-house, robber trench of south wall.
112. Linked-pin fragment. L: 31mm; Diam of pin: 20mm (illus 11.17.112).
NK75CG; brown soil below topsoil and above clay, east end of buildings 6 and 7.
- 113-14. Two linked-pin fragments. L: 90mm and 55mm (illus 11.17.103 and 114).
NK74CK, gulley to north of building 1.
115. upright arm of L-shaped staple, to support drop-hinge. L: 57mm; Th: 10-12mm (illus 11.17.115).
NK78AS; middle west ditch, in silt below organic layer.
116. ?L-shaped staple to support drop hinge. L of each arm: 52mm.
NK77ER; intervallum east of building 7.

METALWORK

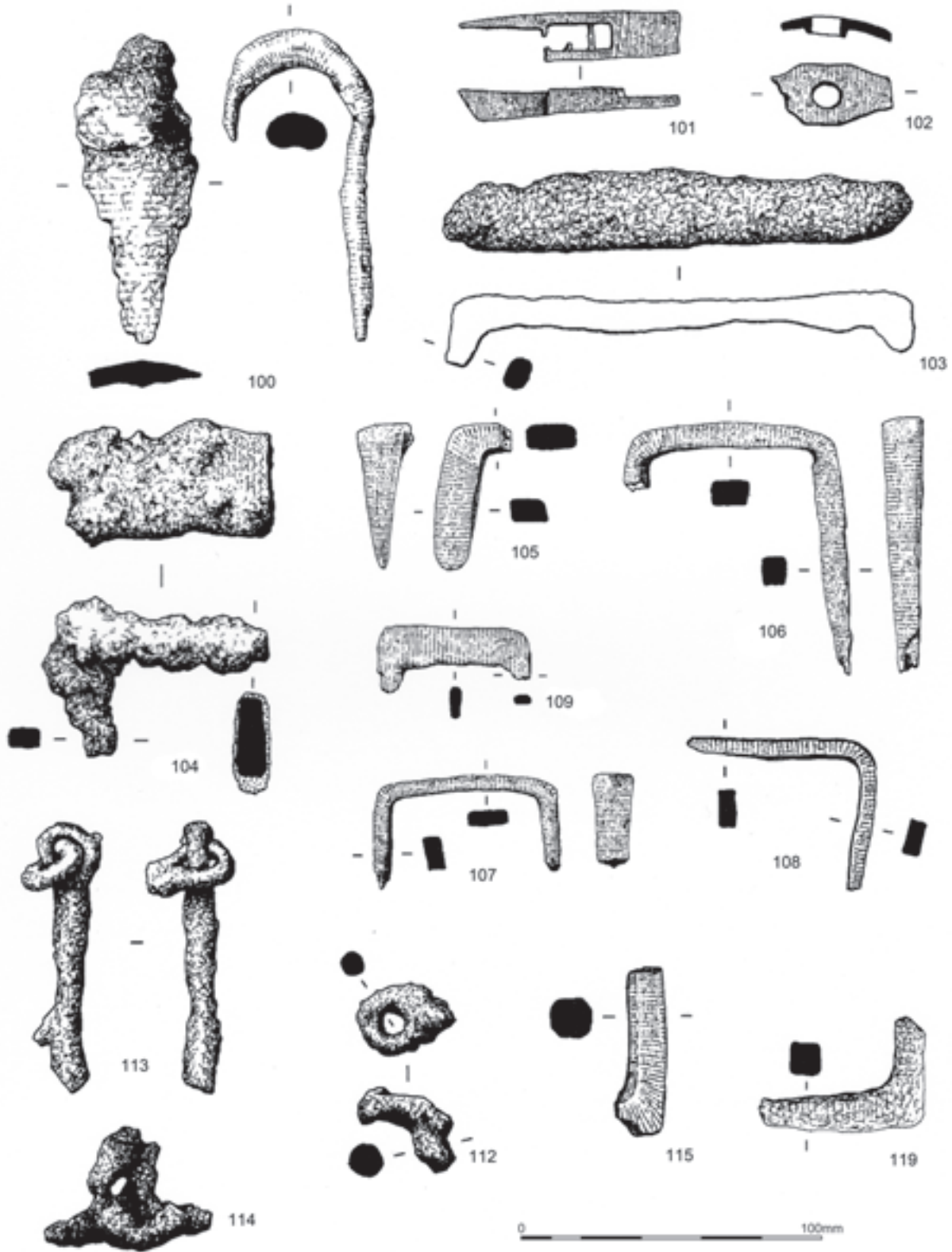


Illustration 11.17
Ironwork 100-9, 112-15, 119.

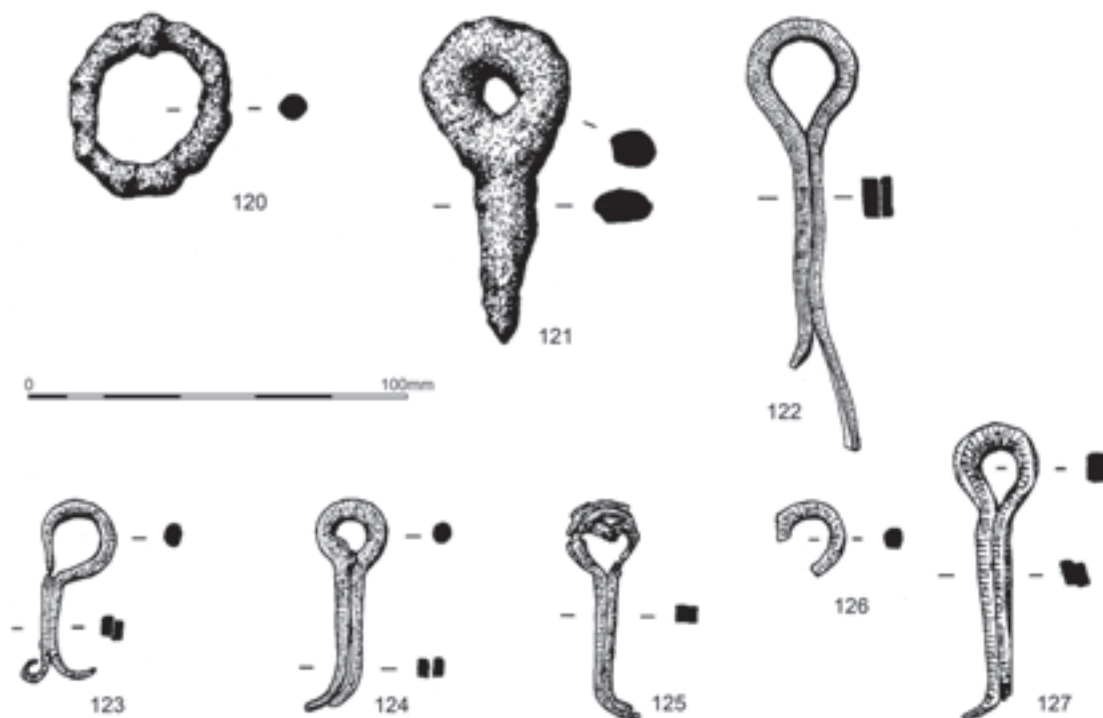


Illustration 11.18
Ironwork 120–127.

117. ?L-shaped staple, to support drop hinge. L: 65mm .
NK75BQ; western pit to west of bath-house changing room.
118. ?L-shaped staple, to support drop hinge. L: 66mm.
NK74CZ; wattle and daub fill of gulley to north-west of building 3.
119. L-shaped staple, to support drop hinge. L: 55mm (illus 11.17.119).
NK80AZ; bath-house, hot dry room, furnace.

For L-shaped staples cf Macdonald & Curle 1929: 563 nos 8–9; Manning 1972b: 180 no 58; Keppie 1975: 106, fig 35 no 38.

120. Ring. Diam: 47mm; Th: 6mm (illus 11.18.120). Cf Keppie 1975, 111, fig 38 nos 61–2; Webster 1979: fig 36 no 137, fig 39, no 198.
NK74BC; clay surface in intervallum east of building 8.
121. Ring-headed pin L: 85mm; external Diam of ring: 33mm (illus 11.18.121). Cf Manning, 1972: 187 fig 69, nos 95–8.
NK77ET; pit in south intervallum area south-east of building 16.
122. Double-spiked loop. Diam of ring: 28mm; L of legs: 80mm (illus 11.18.122).
NK78AS; middle west ditch, in silt below organic layer.

- 123–6. Fragments of double-spiked loops. Diam of ring: 18mm; L of legs: 25mm–35mm, two with legs bent over (illus 11.18.123–6).
NK78AS; middle west ditch, in silt below organic layer.
127. Double-spiked loop. Diam of ring: 22mm; L of legs: 50mm (illus 11.18.127).
NK78AS; middle west ditch, in silt below organic layer.
128. One leg of double-spiked loop. L: 86mm.
NK78AS; middle west ditch, in silt below organic layer.
129. Part of ?leg of double-spiked loop. L: 45mm.
NK78AS; middle west ditch, in silt below organic layer.
130. Small fragment of leg of double-spiked loop. L: 32mm.
NK78AS; middle west ditch, in silt below organic layer.
131. Fragment of small holdfast or double-spiked loop. L: 15mm.
NK78AS; middle west ditch, in silt below organic layer.

For double-spiked loops cf Curle 1911: 290, pl 67 nos 6, 10–13; Manning 1972: 184, fig 68 nos 90–4; Keppie 1975: 97, fig 31.1; Webster 1979: 81, fig 39 no 180; Crummy 1983: 119, figs 125–26 nos 4059–69; Manning 1985: 130 and pl 61 nos R34–47; Howard-Davis 2009: 755 fig 428; etc.



Illustration 11.19
Ironwork 132, 134, 136, 137, 144, 152-154.

- | | |
|--|---|
| <p>132. T-shaped clamp, crossbar. L: 120mm; surviving shank L: 195mm (illus 11.19.132).
NK73EP; bath-house, hot room.</p> <p>133. T-shaped clamp (now partially disintegrated). Crossbar L: about 120mm; original L of shank: 140mm.
NK79DL; bath-house, hot room, behind west wall-flag on north wall.</p> <p>134. ?Shank of T-shaped clamp. L: 127mm; Th: 11mm (illus 11.19.134).
NK73BW; drain through east annexe rampart.</p> <p>135. Shank of corroded T-shaped clamp. L: 78mm; W: 9mm.
NK73W5; building 3, topsoil.</p> | <p>136. Two adjoining fragments of T-shaped clamp. Crossbar L: 80mm; shank L: 85mm (illus 11.19.136).
NK73S4; annexe, south of cold room of bath-house, topsoil.</p> <p>137. Small T-shaped clamp. Crossbar L: 55mm; L of shank: 30mm (illus 11.19.137).
NK75CK; building 7, overlying occupation layer.</p> <p>138. Part of a T-shaped clamp. Crossbar L: originally 120mm; L of surviving shank: 38mm.
NK79DL; bath-house, hot room.</p> <p>139. Part of small T-shaped clamp, with corroded nail stem attached.
NK79AN; bath-house, second warm room between <i>pilae</i>.</p> |
|--|---|

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL

140. ?T-shaped clamp. L: 170mm .
NK79AZ; bath-house, basement of second warm room between *pilae*.
141. Part of T-shaped clamp, and iron object adhering to stone.
NK80BE; bath-house, basement of hot dry room, between dwarf walls.
142. T-shaped clamp, and clump of nails.
Bath-house.
T-shaped clamps held in place box-flue tiles against the internal walls of a bath-house. Cf Curle 1911: 290 pl 67.1-4; Macdonald 1931: 278, 294; Manning 1972: 185, fig 68 no 82; Manning 1976: 40, fig 25 nos 157-62; Bidwell 1979: 242, fig 76 nos 91-3; Crummy 1983: 169, fig 206 no 4677; Manning 1985: 131, pl 62 nos R65-9; Gillam, Jobey & Welsby 1993: 29, fig 9 no 7; Birley, A 2001: 42, fig 56; Holmes 2003: 115 illus 109. They are sometimes found in association with baked-clay 'spacers' (Money 1974: 278 with pl lviib; Bishop 1998: 42). At Bearsden some retained stone cladding in the hot room (*caldarium*) (illus 3.3.42), as they do at Chesters (Macdonald 1931: 278) and Risingham (Manning 1985: 131 no R67).
143. Hook fragment. Diam: 9mm; L: 35m.
NK76Cx; burnt wattle and daub fill of gulley crossing *via praetoria*.
144. Hook fragment. L: 45mm; maximum Diam: 12mm (illus 11.19.44).
NK76DD; annexe, south-west of bath-house, topsoil.
145. Hook fragment. L: 38mm; maximum Diam: 13mm.
NK73S3; annexe, south of changing room of bath-house, topsoil.
146. ?Hook fragment. L: 40mm; Diam: 7mm.
NK75AM; annexe, western pit west of bath-house changing room.
147. ?Hook fragment. L: 54mm; maximum Diam: 9mm.
NK74BK; intervallum east of building 8.
148. ?Hook fragment. L: 40mm.
NK74Cy; fill of gulley to north-west of building 3.
- For hooks cf Curle 1911: 290, pl 67.8; Manning 1976: 43, fig 26 nos 187-8.
- 149-51. Three short lengths of bars. Diam: 15mm; L: 116, 110, 95mm. A piece of wood, found in association, is *Picea* (spruce) or *Larix* (larch).
NK77AD; intervallum east of building 7, brown soil beneath topsoil.
152. Cylindrical bar. L: 135mm. Diam: 13mm, with possible nail hole visible on x-ray (illus 11.19.152). Cf Keppie 1975: 106, fig 35 no 36.
NK76CZ; building 3, south-east corner, destruction level.
153. Cylindrical bar, length 100mm, diameter 16mm, with flange near one end, confirmed on x-ray (illus 11.19.153).
NK76CZ; building 3, south-east corner, destruction level.
154. Fragment of ?bar, length 70mm, tapering in diameter from 20 to 14mm (illus 11.19.154).
NK76BM; annexe, south-west of bath-house, clay below topsoil.
155. Length of square-sectioned bar or bolt. L: 70mm; W: 15mm.
NK74DB; gulley to west of building 3.
156. Fragment of square-sectioned bar or bolt. L: about 110mm; W: 16-20mm.
Unstratified.
157. Square-sectioned ?collar. L: 25mm; W: 25mm.
Unstratified.

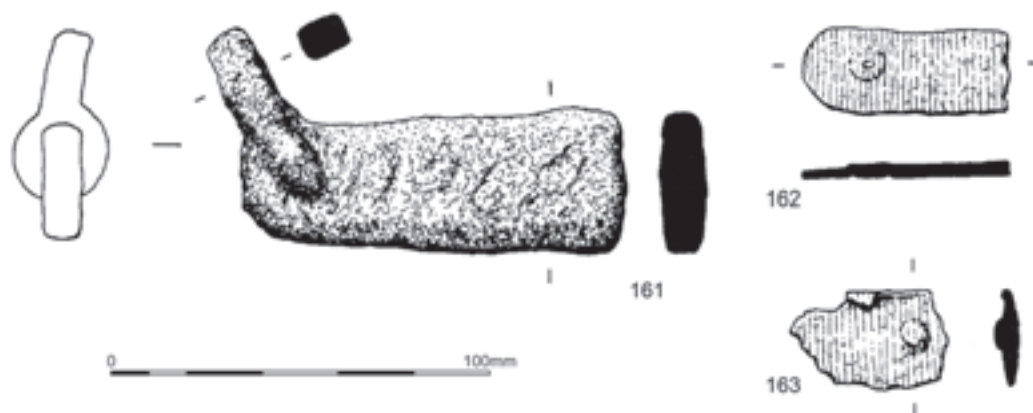


Illustration 11.20
Ironwork 161-163.

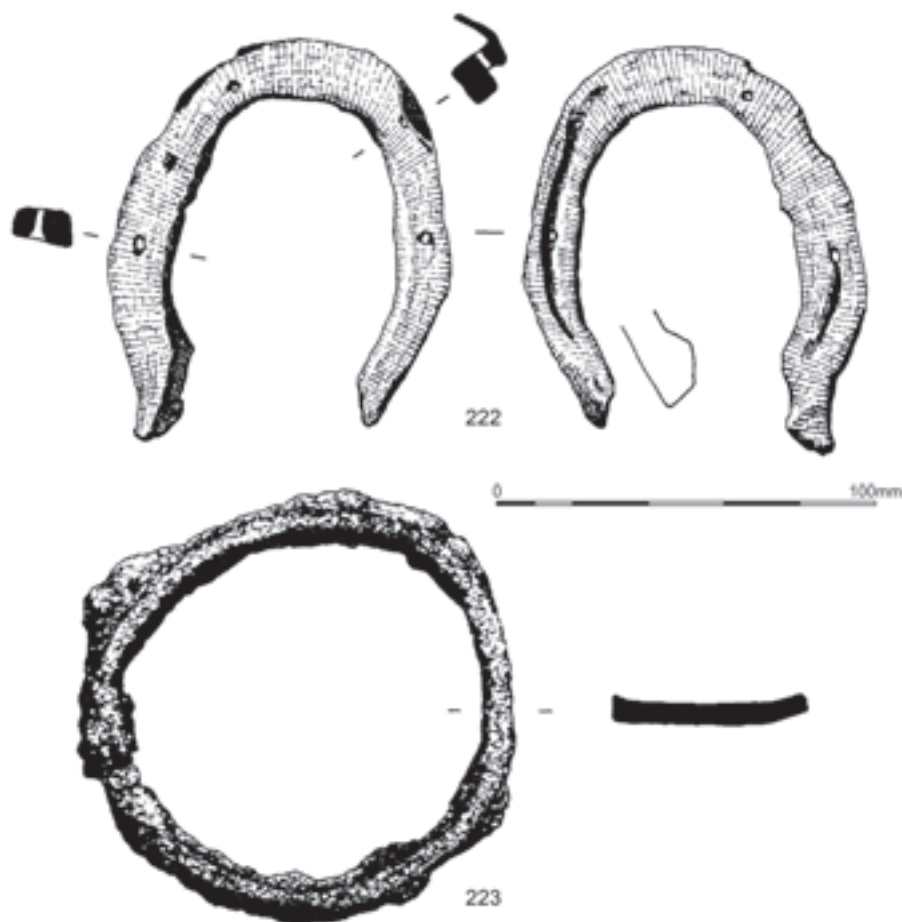


Illustration 11.21
Ironwork 222, 223.

11.3.4 Strappings and sheeting

158. Short length of thin strapping, with square end. L: 74mm; W: 30mm.
NK78AS; middle west ditch, in silt below organic layer.
159. Small fragments of thin metal strip. Maximum L: 52mm; W: 25mm. Several fragments are rounded over, and one has a small nail driven through it.
NK79AN; bath-house, second warm room, in hypocaust.
160. Fragment of strapping. L: 125mm W: 27mm (as seen in section), with nail hole near one end, revealed by x-ray.
NK76BM; annexe, south-west of bath-house, reddish clay below topsoil.
161. Fragment of strapping, with chain link attached. L: 100mm (illus 11.20.161).
NK74CM; burnt wattle and daub fill of gulley to north of building 1.
162. Fragment of strapping with rounded end, and nail head surviving. L: 52mm (illus 11.20.162).
NK74CM; burnt wattle and daub fill of gulley to north of building 1.
163. Fragment of strapping, with nail? L: 43mm (illus 11.20.163).
NK74CM; burnt wattle and daub fill of gulley to north of building 1.
164. Fragment of strapping, somewhat convex, length 57mm.
NK74DB; gulley to east of building 3.
165. Length of strapping with nail. L: 100mm; W: 38mm
NK79CJ; drain through annexe rampart north of latrine.
166. Fragment of strapping. L: 30mm, with shaped end broadened for nail.
NK74CM; burnt wattle and daub fill of gulley to north of building 1.
167. Fragment of strapping, length 67mm, very corroded, with part of a nail.
NK75CF; burnt material over intervallum to east of buildings 6 and 7.



Illustration 11.22
Ironwork 223, the hub lining.

168. Short length of strapping. L: 59mm, with nail hole. Unstratified.
169. Fragment of strapping. L: 72mm; W: 25mm. NK73BN; annexe, south-west of bath-house, topsoil.
170. Length of strapping. L: 70mm; W: 30mm, with rounded end. NK73BS; building 3, topsoil.
- 171–2. Two fragments of strapping. L: 43 and 30mm W: 27mm. NK77AL; topsoil over capping of drain through fort rampart east of building 7.
- 173–82. Ten small fragments of sheeting, found together with some nails. NK76CW; fill of depression south-east of building 4.
183. Fragment of ?strapping. L: 30mm; W: 25mm. NK74Cu; building 3, topsoil.
- 184–5. Two fragments of strapping. L: 25 and 35mm. W: 24mm. NK77DW; intervallum east of building 16, post-hole.
186. End-piece of ?strapping. L: 20mm; W: 20mm. NK74CG; west end of building 5, topsoil.
187. Triangular fragment of thin sheeting. L: 50mm; W: 45mm. NK74CM; burnt wattle and daub fill of gulley to north of building 1.
188. Fragment of sheeting. L: 105mm; W: 55mm, with curving edge.
- NK73S3; annexe, south of changing room of bath-house, topsoil.
189. Short length of strapping. L: 70mm; W: 15mm. NK74AZ; intervallum to north of building 1, topsoil.
190. Short length of strapping. L: 40mm; W: 15mm. NK77EN; intervallum south-east of building 16, pit.
- 191–6. Six fragments of strapping, and nails. Maximum L: 55mm; W: 15mm. NK74CK; gulley to north of building 1.
- 197–221. Some 25 fragments of narrow strapping, too small to merit individual description, came from various locations. Perhaps from doors, window grilles and other structural items. Cf Keppie 1975: 102; Crummy 1983: 123, fig 134 nos 4122, 4127; 169, fig 206 no 4668.

11.3.5 Transport

222. Horseshoe, 110mm×90mm, with small external flange and nail-holes, of which three are set in grooves (illus 11.21.222). The holes (seen also on x-ray) were rectangular and measured 4mm×3mm. Cf Jacobi 1897: Taf 41 nos 8–12; Manning 1976: figs 19–20 nos 89–96, especially no 92; Allason-Jones & Miket 1984: 294 nos 5.69–71; Manning (1976: 31) discusses the arguments for and against a Roman date for horseshoes found on Romano-British sites. NK74BO; building 7, east end, topsoil.
223. Hub lining. W: 50mm; Diam: 110mm (illus 11.21.223). Cf Keppie 1975, 111, figs 38–9 nos 63–7; Manning 1985, 72, nos H35–8 with pl 30. NK75BN; annexe, western pit to west of bath-house changing room.

11.3.6 Footwear

Note: for leather see section 19.

224. Seven hobnails. NK74Bx; intervallum road to west of building 1, topsoil.
225. Fused clump of hobnails. NK73W9; lying over intervallum road west of building 4.
226. Ten hobnails and fragments. NK73CK; annexe, south-west of bath-house, topsoil.
227. Fused clump of hobnails. NK74CH; east end of building 5, post-hole.
228. 35 hobnails. NK73W9, lying over intervallum road west of building 4.
229. Fused clump of hobnails. NK76FA; grey clay overlying natural to south of building 7.

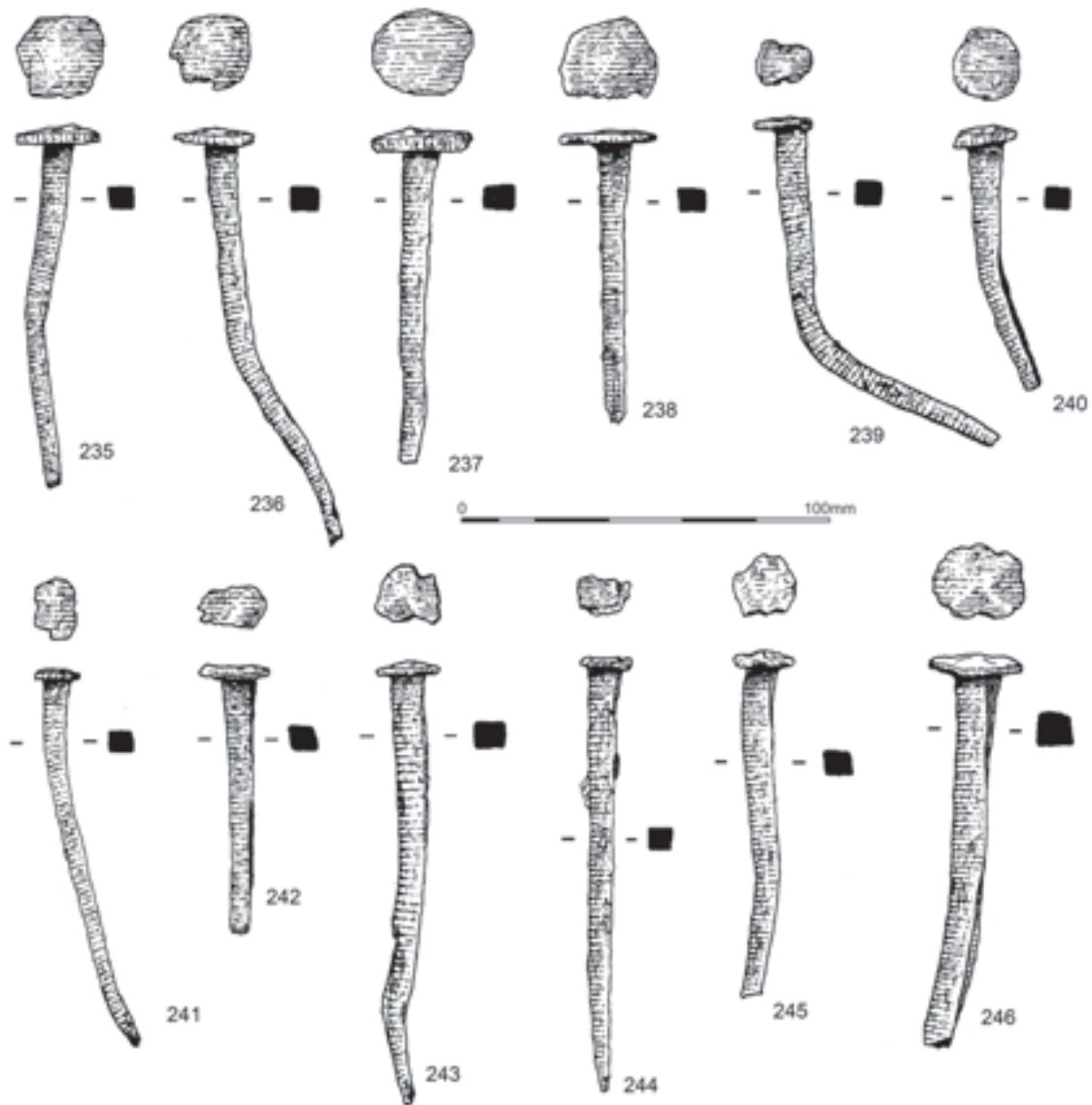


Illustration 11.23
Ironwork 235–46.

- 230. Two fused clumps of hobnails.
NK73BJ; building 3, topsoil.
- 231. Fused clump of hobnails, and some individual hobnails.
NK73S3; annexe, south-west of bath-house, topsoil.
- 232. Hobnail (or small tack?). L: 15mm.
NK75BH; building 3, unstratified.
- 233. Hobnail (or small tack?). L: 15mm.
NK75CG; brown soil overlying clay in intervallum to east of building 6.
- 234. Six hobnails.
NK80AO; bath-house, south of furnace to steam range.

11.3.7 Nails

Of the *c* 90 nails which survived intact or nearly intact at Bearsden, most belong easily within the classification system devised by Manning (1972: 186; 1985: 134). Only a few are illustrated here as examples of each class, except a group found together in the middle west ditch in 1978 which is extensively illustrated.

Manning Type 1

Type 1 has a square-sectioned tapering stem. Larger examples (Type 1A) have round, conical or pyramidal heads, flattened by hammering; smaller examples (Type 1B) generally have flat heads. See Manning 1985: 136 pl 63 nos R88–92.



Illustration 11.24
Ironwork 247-56, 277, 286-8.

235-76. 42 nails. L: 38mm-120mm, many with heavy square heads, some pyramidal and with square-section, tapering shafts, two with other fragments of iron adhering. There is a considerable variety among the types of head. Illus 11.23-4 show a selection. Some are complete, but others have been cut off at a point 30mm below the head, probably deliberately.

NK78AS; middle west ditch, in silt below organic layer.

Other complete or near complete examples of Manning Type 1 were recovered:

277. Nail with pyramidal head. L: 126mm.
NK73BE; building 3, topsoil.

278. Nail. L: 62mm.
NK74DE; intervallum road to east of building 8.

279. Nail. L: 100mm, with large rectangular head.
NK77AE; intervallum east of building 7, topsoil.

280-3. Four nail fragments without heads, one with wood adhering. L: 52-85mm. The wood is identifiable as *cf Picea* (spruce).
NK77AD; intervallum east of building 7, topsoil.

METALWORK

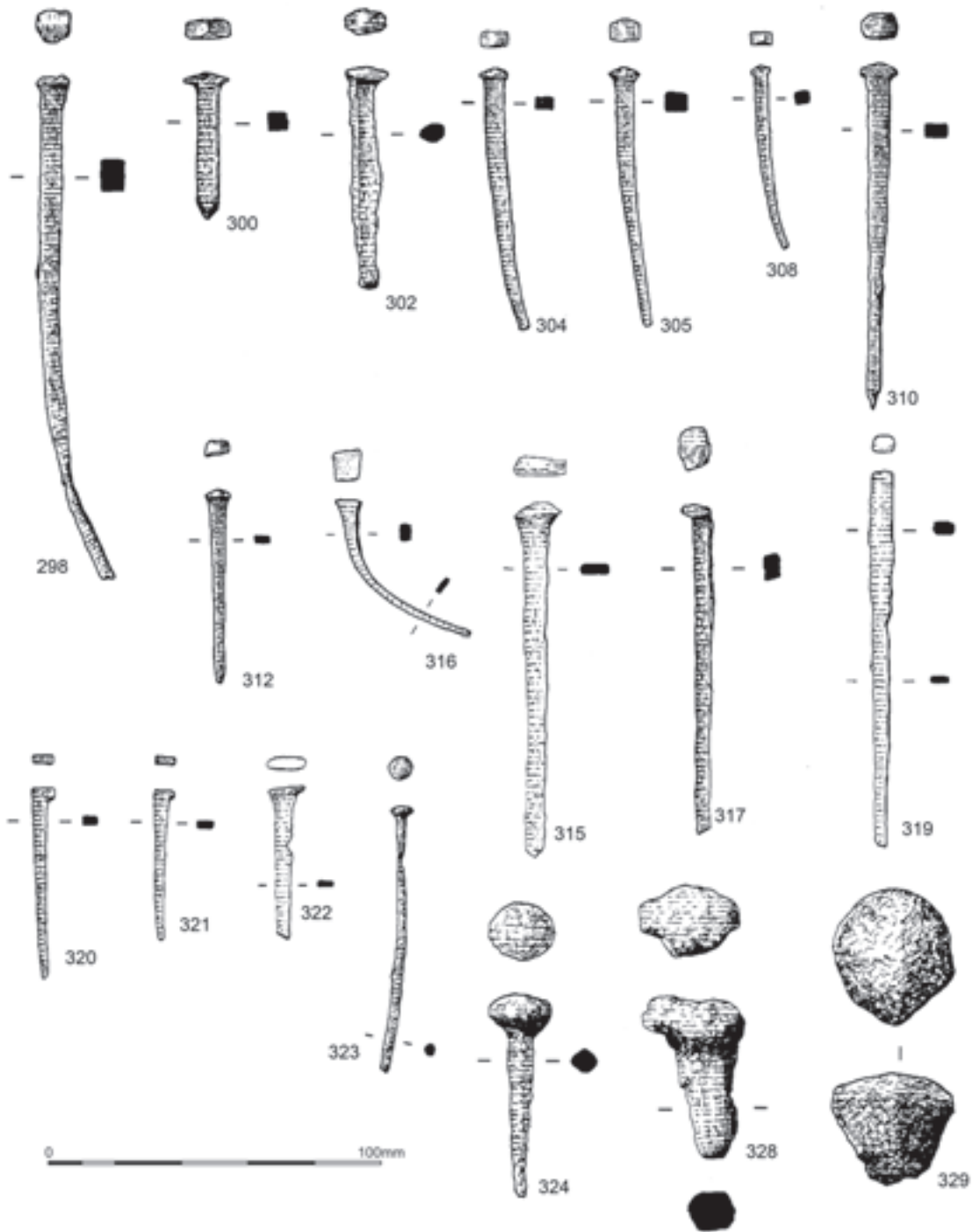


Illustration 11.25
Ironwork 298, 300, 302, 304, 305, 310, 312, 315-17, 319-24, 328, 329.

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL

284. Nail. L: 74mm.
NK76DL; building 12, unstratified.
285. Nail. L: 80mm.
NK76DK; to south of road south of building 12.
286. Nail with large, flat circular head and round stem. L: 55mm.
NK73W3, building 7, topsoil.
287. Nail with rectangular head. L: 40mm.
Unstratified.
288. Nail. L: 58mm.
NK73EP, bath-house, unstratified.
- 289–91. Three fragments of nails. L: 15–30mm.
NK78AS; middle west ditch, in silt above organic layer.
- The following nails, though corroded, seem likely to have belonged to Manning Type 1:
292. Nail. L: 75mm (and other fragments).
NK74W10; building 7, room 1.
293. Nail. L: 42mm.
NK74CE; daub in gully to north of building 3.
294. Number not used.
295. Nail with circular head. L: 45mm.
NK75BI; unstratified.
296. Nail with circular head. L: 41mm.
NK74CE; daub in gully to north of building 3.
297. Corroded mass of large nails. L of each: about 90mm, and strapping.
Demolition deposit within the fort.

Manning Type 2

Type 2 has a rectangular tapering stem and a triangular head, the same thickness as the stem (illus 11.25.298–319). The Bearsden examples are smaller than the norm, and the head is much less triangular than the classic specimens, even when allowance has been made for flattening as a result of hammering. See Manning 1985: 136, pl 63 nos 93–8.

298. Nail. L: 152 mm.
NK73BE; *via praetoria*, between building 4 and 7, topsoil.
299. Nail. L: 67mm.
NK73BF; building 7, top of natural clay.
300. Nail. L: 45mm.
NK73BF; building 7, top of natural clay.
- 301–3. Three nails. L: 27–47mm.
NK73Bu ; building 7, topsoil.
- 304–6. Three nails. L: 58–79mm.
NK75AH; bath-house, changing room, patch of burning beside south wall.

- 307–8. Two nails. L: 38 and 60mm.
NK76AF; building 16, topsoil.
309. Nail. L: 65mm.
NK75AO; building 7, east end, unstratified.
310. Nail. L: 100mm.
NK77AZ; building 5, north-east corner, topsoil.
311. Nail. L: 78mm (and many other fragments).
NK74DE; intervallum road to east of building 8.
312. Nail. L: 37mm.
NK74BM; between buildings 2 and 3, topsoil.
313. Nail. L: 44mm.
NK77AG; building 4, east end, topsoil.
314. Nail. L: 46mm.
NK73Cu; between buildings 6 and 7, beside officer's quarters, overlying clay.
315. Nail. L: 105mm.
NK80BO; in soil over annexe rampart east of bath-house.
316. Nail with square flat head and broad stem. L: 55mm.
NK76AM; building 11 and 12, topsoil.
317. Nail. L: 100mm.
NK75W21; building 3, unstratified.

There are some examples of this group with indistinct heads, close to Manning Type 5 (Manning 1985: 136, pl 63 no 100).

318. Nail. L: 78mm.
NK73S1; annexe, south-west of bath-house, topsoil.
319. Nail, with almost no 'head'. L: 103mm.
NK73Cu; between buildings 6 and 7, beside officer's quarters, overlying clay.

Manning Type 4

Type 4 has an L-shaped head, width matching the stem (illus 11.25.320–2). See Manning 1974: 173, fig 74, nos 487–8, 497–8.

- 320–1. Two nails. L: 58 and 45mm.
NK75AH; bath-house, changing room, patch of burning by south wall.
322. Nail (and other fragments). L: 45mm.
NK76AQ; buildings 11 and 12, topsoil.

Miscellaneous nails

323. Nail or pin with small circular head and stem. L: 85mm.
NK77AZ; building 5, north-east corner, topsoil.
324. Nail with circular head. L: 59mm (illus 11.25.324).
NK74BK; intervallum east of building 8, Roman level.

325. Nail stem embedded in wood, identified as *Coniferae* (conifer).

NK75Au; inner west ditch, brown clayey soil below topsoil.

326. Nail stem, with wood adhering. The wood is *Quercus* (oak).

NK74AZ, intervallum west of building 3, topsoil.

327. Nail, with wood adhering. The wood is *Quercus* (oak).

NK76BM; annexe, south-west of bath-house, reddish clay below topsoil.

Large nails and bolts

328. Heavy bolt-head, roughly made. L: 50mm (illus 11.25.328).

NK74Cy; fill of gully to north of building 3.

329. Large bolt-head. Diam: 45mm (illus 11.25.329).

NK76EG; buildings 13 and 14, overlying clay.

Other nail fragments

The other nails and fragments of nails are too badly preserved to be assigned to any particular category. The following is a list of their provenances only.

Fort: outer west ditch, silt (1); middle west ditch, silt below organic layer (2); gully to north of building 1 (1); intervallum to west of building 1, topsoil (1); intervallum to west of building 3 (11); burnt wattle and daub in gully to west of building 3 (10); intervallum to east of building 7 (2); intervallum to east of building 8 (8); south intervallum (3); gully beside *via praetoria* (6); *via praetoria* (1); overlaying *via decumana* (1); building 1, topsoil (16); building 1, burnt daub (1); officer's quarters of building 3 (1); men's quarters of building 3 (19); overlying path between buildings 3 and 4 (3); building 4 (4); post-hole in men's quarters of building 5 (2); building 6 (3); officer's quarters of building 7 (15); men's quarters of building 7 (10); path between east ends of buildings 6 and 7 (3); area between buildings 7 and 8 (3); fill of gully in building 10 (1); modern feature in building 11 (2); building 12 (1); overlying gully to north of building 13 (7); post-hole in building 14 (3); burnt patch in building 16.

Annexe: hearth in the primary bath-house (4); outside east wall of primary bath-house (6); robber trench of south wall of primary bath-house (2); bath-house (5); post-holes in cold room (2); in drain below floor of cold room (nail and hobnail fragments); hot bath (10); furnace of steam range (8); burnt debris in hot dry room (20); drain south of first warm room (1); area south of bath-house (15); south-west of bath-house (area A) (25); western pit to west of changing room (8); black layer to west of latrine (1); drain through east rampart (1).

Area to east of fort/annexe (1).

11.3.8 Miscellaneous

330. Stud. Diam: 30mm, with shank. L: 18mm (illus 11.26.330). Cf Curle 1911, 290, pl 67 nos 19, 20, 35.

NK78AS; middle west ditch, in silt below organic layer.

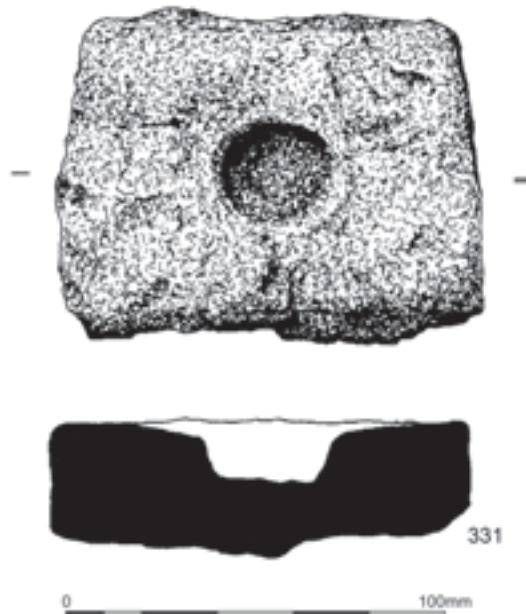


Illustration 11.26
Ironwork 330, 331.



Illustration 11.27
Ironwork 331, the ?pivot-block.

BEARSDEN: A ROMAN FORT ON THE ANTONINE WALL

331. Rectangular pivot?-block, 110mm×80mm×30mm with central circular semi-perforation (illus 11.26.331 and 11.27). NK73BW; annexe rampart, drain.
332. Straight, square-sectioned rod, 8mm across, tapering to 3mm at both ends; length 210mm. While this could simply

be a very long nail, other functions, eg part of a gridiron, fleshing hook or lamp-holder, may be considered. NK73FG; bath-house, hot room, topsoil.

Some relatively modern pieces of ironwork were also recovered during the excavation.