APPENDIX 10

THE WOODEN OBJECTS (K) AND BASKETRY

T G Padley with E R T Allnutt

Wooden Objects

There are some differences in the functional groups represented in the wooden objects from the northern Lanes when compared with those from the southern Lanes (Padley 2010). For instance, a single item of *personalia* was recovered, in the form of a clog (**K1**), a group absent from the southern Lanes. Toilet items are represented by combs from both areas, but there are twice as many than were found at the southern Lanes. Similar quantities of writing tablets came from both areas, while the presence of bobbins in the northern Lanes has increased the number of tool types recovered. There are fewer pegs than in the southern Lanes assemblage, but the number of objects of unidentified function is about the same.

Only the forepart of the clog (**K1**), in front of the waist, survives, complete with the stilt on the underside, which is made up of two opposed triangles, with their bases formed by the edge. In contrast to those recovered from within the fort, at Annetwell Street (Caruana and Allnutt in prep, D43-6) and during the Millennium project (Mould 2009, fig 511.20), this clog was secured to the foot by a broad strap over the instep, rather than by a thong between the toes, and so could have been worn as an overshoe. However, the general use suggested for clogs in Roman Britain is as bath sandals, similar to those still used in Turkish baths today to protect the bather's feet from the hot floor (Swann 1973, 16; Birley 1977, 125-6, fig 38, 117). The clog was recovered, together with a number of leather shoe fragments (*Appendix 11;* **L30-90**, **L117-20**, **L123-33**, **L138-41**, **L157-8**), from well *226* (Period 11D; *Ch 4, p 119*).

Toilet equipment is represented by two double-sided combs, one (**K3**) also from well *226*, the other (**K2**) from an earlier (Period 10C) pit in the northern part of the site (LAL C; *258*; *Ch 3, p 86*); these are similar to other Roman combs from Carlisle and elsewhere. The actual use to which these combs were put has been a source of much discussion. The discovery of animal hair in the teeth of one at Vindolanda suggested their use in hide preparation (Birley 1977, 123-4). Analysis of the combs from Ribchester, however, found the remains of human head lice (*Pediculus humanis capitis*) in associated soil residues (Fell 2000), which precludes the use of at least that comb on animals. Indeed, at Carlisle itself, a head louse was found between the teeth of a wooden comb from within the fort (Howard-Davis 2009f, 806; Smith and Tetlow 2009, 922). The decoration on an inlaid comb from the Annetwell Street site, also within the fort (Caruana and Allnutt in prep, D53, with discussion by G Lloyd-Morgan), shows that some, at least, were high-quality toilet articles. Thus it seems most likely that they were used as human hair combs, either for general use or specifically to remove head lice, and then may have been reused for hide preparation, as proposed by Boon (1985, 99). It has been suggested, however, that the animal hair could be evidence for the use of animal hair in wigs (Caruana and Allnutt in prep).

There is one possible piece of furniture (**K4**), which cannot be closely phased. It is a length of turned wood that has a tenon at one end, for which an interpretation as an item of furniture, though not certain, seems a reasonable supposition. Other putative pieces of wooden furniture have been found in the fort at Carlisle (Caruana and Allnutt in prep, no D264; Howard-Davis 2009f, 812, fig 486), and at the southern Lanes (Padley 2010, fig 140, K10).

Within the category of household utensils and furniture, the largest sub-group covers most of the aspects of Roman cooperage. There are two very large barrels; one (**K5**) had a maximum diameter of between 1.05 m and 1.1 m, and a height of at least 1.123 m, probably around 2 m. It had been reused as the lining for well *1016*, a truncated feature pre-dating Period 10C (*c* later second-century AD), but otherwise not closely phased (*Ch 3, p 75*). The second large barrel (**K6**) is represented by an offcut from a single stave, from well *226* (Period 11D; *Ch 4, p 119*). This type of barrel is well known from the Roman world (discussed by Boon 1975, 54). Parts of similar barrels have been found at many sites in Carlisle, including Castle Street (Padley 1991b, 206, fig 184, no 787), Annetwell Street (Caruana and Allnutt in prep), the Millennium project (Howard-Davis 2009f, 808, fig 482), and the southern Lanes (Padley 2010 K28). Their primary use was to transport wine from the

Rhineland, but they are usually recovered, having been reused, or as offcuts, which means that it is difficult to assign them to a particular functional group.

Four barrel heads (**K7-10**) come from much smaller stave-built vessels; these range in diameter from 124 mm (**K10**) to 240 mm (**K8**); the latter was also from well *226*. No evidence survives of the type of vessel they originally belonged to. Two wooden bungs (**K13-14**) are included with the cooperage, although they could also have been used to close ceramic vessels such as flagons (Caruana and Allnutt in prep).

Another type of stave-built vessel, a closed tub (**K11**), has 20 of the original 24 (or 25) staves surviving, together with one of the heads and two bungs. Originally, the top and bottom would have been closed, and the sides would have sloped in from bottom to top. The presence of bung holes in the side and top suggest that it originally held a liquid. This vessel was recovered from the fill of barrel-lined well *1016* (*Ch 3*, *p 75*).

The final stave-built container is a tankard (**K12**), of the type discussed by Corcoran (1952), from a Period 8B pit. Although in use by the Late Iron Age, a study has suggested that the simple copper-alloy handles associated with Roman examples were predominantly deposited *c* AD 70-140 (Horn 2015), which would accord with the dating of the deposits in which it was found (*Ch 3*, *p 66*). Although not common, Roman examples are best known from military contexts, perhaps the most pertinent being the Corbridge hoard (Allason-Jones and Bishop 1988, fig 102).

The remaining household utensils comprise a scoop and three turned bowls. The scoop (**K15**) came from well *226* (Period 11D; *Ch 4*, *p 119*). Although fragmentary, it was made from a single piece of wood, and has a body in the form of a hollow box without top or front. The handle protrudes from the centre of the top of the back. The edges bordering the missing parts are charred, suggesting that it had been part burnt. A broadly similar but better preserved scoop was recovered from a third-century dump at the Woolworth's Basement site in Lincoln (J Mann, *in litt*). Scoops are also known from the post-Roman period, including early historic sites at Lagore and the Ballinderry crannogs (Earwood 1993, 117, fig 80), but not from the earlier Roman periods, with the exception of a small example from the Carlisle fort (Howard-Davis 2009f, 811, fig 485.2). Functionally, they are related to the Iron Age ladles from Glastonbury (Bulleid 1968, pl 17, nos 11-2) and the Roman examples from Annetwell Street, Carlisle (Caruana and Allnutt in prep, D77-8), and also to the modified bone scapulae, also from the northern Lanes (*Appendix 9*, **J30-2**).

The three turned bowls are all different. The earliest (**K16**) is also the earliest surviving wooden artefact from the northern Lanes, coming from a Period 7 pit. In contrast to the medieval bowls from this area (Padley in prep d, K1-20), it is made of oak. It has a single exterior cordon and an inturned rim, decorated with a raised band, 15 mm across, containing a 7 mm-wide groove along the centre. A similar type of rim was produced in pottery at the Brampton kilns in Cumbria in the late first/early second century AD (M L Hird, *pers comm*; for the type, see Hird 1977). The ceramic assemblage from Period 7 includes a substantial late first/early second-century element, although the period as a whole dates to the early/mid-second century (*Ch 3*).

The second bowl (**K17**), from a Period 9 pit, has a hemispherical profile and is decorated on the exterior with at least two pairs of parallel grooves, and there are the remains of a foot or footring. A similar bowl, but with only one pair of incised lines and a slightly more angular profile, came from Annetwell Street (Caruana and Allnutt in prep, D70). The final bowl (**K18**) has a sharply carinated profile, with an external groove ornamenting the point of maximum diameter; it has a low footring. This form does not occur frequently in ceramics (M L Hird *pers comm*). It was found in the same third-century well, *226* (Period 11D), as wooden scoop **K15**.

Stylus writing-tablets are represented by ten definite and one possible example (**K19-29**), all falling into the categories devised for the collection from Castle Street, Carlisle (Padley 1991b, 210-11). They are all of type 1, except for one example of type 2 (**K27**). They are similar in size to the Castle Street tablets, and the estimated percentage of the leaf surviving is based on this. The size of the fragments varies from 3% to 50%, with the majority falling in the range 6-20%. The writing tablets came from contexts ranging from Period 8B to Period 11D (mid- to later Roman); two (**K21, K25**) are from barrel-lined well *1016* (Period pre-10C; *Ch 3*, *p 75*), and two (**K23-4**) are from later stone-lined well *226* (Period 11D; *Ch 4*, *p 119*).

A wooden wheel (**K30**) is the sole item in the transport and trade category, and a preliminary note on this has already been published (McCarthy *et al* 1982, 85-7, pl 3B). It came from the primary fill of barrel-lined well *1016* (Period pre-10C). The nave, seven spokes (out of 11), and about two-thirds of the felloe survive. Originally, it had both nave bands, and boxes at each end of the nave. Both the nave and the spokes were lathe-turned from field maple (*Acer campestre*), whilst the felloe was made of ash, with the ends butted together and held with an iron clamp, like the wheel from Newstead (Curle 1911, 292; Piggott 1965, fig 137). It may be that the wheel was not made in Carlisle, as field maple is not common further north than south Cumbria, although modern examples have been seen close to Carlisle (Halliday 1997, 323). The technology used has its origins in the pre-Roman Iron Age, as

similar spokes and a nave fragment are known from the Glastonbury lakeside village (Bulleid 1968, pl 17, nos 10, 13). Roman examples have been found at other sites in Carlisle and elsewhere. For instance, a spoke came from Castle Street, from a deposit dating to between AD 105 and the mid-to-late Hadrianic period (Padley 1991b, 218-20, fig 192, no 822). At Annetwell Street, the remains of six spokes, two reused, were recovered from deposits dating from the end of the first century to the first quarter of the second (Caruana and Allnutt in prep). The tradition clearly continues, since the Bar Hill example (Macdonald and Park 1906, 94; Robertson *et al* 1975, 48) dates to the second half of the second century.

The tools and industry category includes two bobbins (**K31-2**), each turned from a single piece of boxwood (*Buxus sempervirens*); they were originally symmetrical, with a slightly domed terminal at each end, separated by a waisted shaft. In use, the bobbins have become worn, with the maximum wear on one terminal opposite that on the other. This type of object is fairly common on Roman sites, including Newstead (Curle 1911, 311, fig 45.1), Bar Hill (Robertson *et al* 1975, 54, fig 17, no 16), Vindolanda (Birley 1977, pl 60), Silchester (Boon 1974, 145, fig 21, no 9, 284), and London (Chapman 1977, 67, fig 20, no 487), and locally at Annetwell Street (Caruana and Allnutt in prep, no D58).

The uses suggested for them range from the functional, as fastenings for tent doors, to the recreational, as 'yo-yos'. The most likely explanation is that they were bobbins, however, as thread was found attached to the central shaft of the example from Bar Hill, although this does not explain the asymmetrical wear pattern. They have been recovered from deposits ranging in date from *c* AD 105-25 at Annetwell Street (*ibid*) to not later than AD 280 in London (Chapman 1977, 67). Of the Lanes examples, one (**K32**) can only be dated to the Roman period, while the other (**K31**) comes from Period 11D (*Ch 4*).

The other two items in this category are offcuts, with sawn ends and surfaces which have been cleaved. The outer face (with respect to the rings) of one off-cut (**K33**) and the inner face of the other (**K34**) have an oblique lattice pattern cut with a knife. The marks are similar to those found on the edges of some of the staves of the large barrel (**K5**). What these offcuts were from is unknown.

Fasteners and fittings are represented by three pegs, two of which have been carefully made. The first (**K35**), from well *226* (Period 11D; *Ch 4, p 119*), has a D-shaped head; similar pegs are known from Annetwell Street (Caruana and Allnutt in prep, D189-90). The second (**K36**) is less carefully made, and may be a crude tent-peg. The third (**K37**), from barrel-lined well *1016* (Period pre-10C, *Ch 3, p 75*), is again carefully made, but the head does not survive; the shaft has been worked at one end, but as it is broken at each end, the original shape cannot be recovered.

The remaining artefacts are of unidentified purpose (**K38-45**). Object **K38** has one flat surface, and one surface which is concave at one end, having a convex roll-moulding at the other, with a triangular plinth beneath it. This object was attached to another by the male dovetail at one end; it was either a decorative piece or a handle. Another of the unidentifiable pieces is a large Y-shaped object (**K41**), made from a naturally occurring fork. Like **K38**, it is only part of a composite object, but in this case probably a structural one. The groove in the fork of the Y would have held another piece at an angle, while the shaft was attached to something else by the hole in the end of the leg.

The wooden artefacts have been identified to species where possible (by J Jones, formerly of the University of Durham; Table 46). The number of items identified is greater than the number of catalogued pieces, because of the small number of composite items, such as the large barrel (**K5**) and the wheel (**K30**), which have

Species	Type of artefact	Number of objects
Abies alba (silver fir)	Large barrel (staves)	1
	Barrel head	3
	Bungs	2
	Writing tablets	9
	Off-cuts	2
Acer campestre (field maple)	Wheel (nave and spokes)	1
Alnus sp (alder)	Clog	1
Buxus sp (box)	Combs	2
	Bobbins	2
Corylus sp (hazel)	Barrel hoops	1
Fraxinus excelsior (ash)	Wheel (felloe)	1
	Unidentified object	1
Larix sp (larch)	Writing tablet	1
Populus sp (poplar)	Barrel hoops	1

Table 46: Species used in the manufacture of wooden artefacts

Species	Type of artefact	Number of objects
Prunus avium/Padus sp (bird cherry/cherry)	Writing tablet	1
	Unidentified object	1
Quercus sp (oak)	Furniture	1
	Barrel head	1
	Stave-built tub	1
	Bowl	1
	Unidentified object	1
Unidentified	-	13
Total		***48***

Table 46: Species used in the manufacture of wooden artefacts (cont'd)

components made of different species. The range of species used is greater than that at the southern Lanes (Padley 2010, table 63), but all the species are known from other Roman sites in Carlisle.

The clog (**K1**) is made of alder (*Alnus* sp), as are those from Annetwell Street; alder is the traditional wood for making British clogs (Caruana and Allnutt in prep). The combs (**K2-3**) are of boxwood (*Buxus* sp), as are all those from other sites in Carlisle. Box is not native to northern Britain, and so the combs must have been imported, even if only from southern Britain (Stace 2010, 122). According to Diocletian's price edict, boxwood combs were less than half the cost of those made from other species (Weeks and Rhodes 1986, 230). The hoops of the large barrel (**K5**) are made of two different woods, hazel (*Corylus* sp) and poplar (*Populus* sp); such evidence does not survive for other large barrels from the city.

Among the writing tablets is one made of larch (*Larix* sp; **K24**), the rest being made of the more usual silver fir (*Abies alba*). Larch tablets are also known from the Tullie House site in Carlisle (Caruana and Allnutt in prep, no 17), Chew Valley in Somerset (Rahtz and Greenfield 1977, 63, pl 28), possibly Vindolanda (Bowman and Thomas 1983, 28-9), and Southwark (Keepax 1978). The writing tablet made of bird cherry/

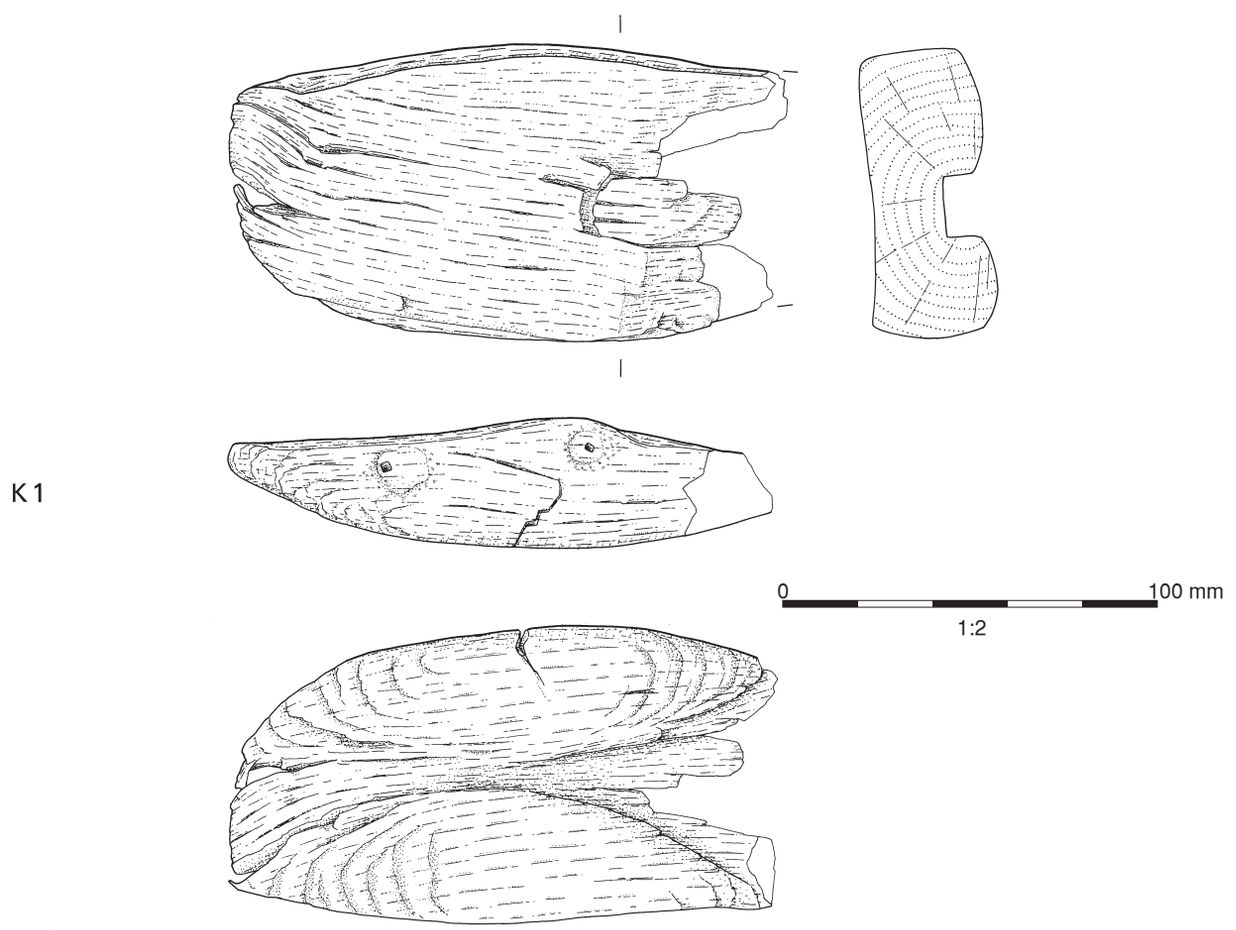

Figure 240: Wooden clog

cherry (*Prunus avium/Padus* sp; **K26**) appears to be unique, at least in Carlisle.

Whilst the felloe of the wheel (**K30**) is made of ash (*Fraxinus* sp), like other Romano-British examples, the nave, of field maple (*Acer campestre*), is different from the other wheel naves known; both the Newstead and Bar Hill wheel naves (Curle 1911, 292; Robertson *et al* 1975, 48) are made of elm (*Ulmus* sp), a wood considered most suitable in the nineteenth century (Sturt 1943, 46-8). The spokes are also different in being made of field maple, rather than willow (*Salix* sp), as at Newstead (Curle 1911, 292), or ash, as at Bar Hill (Robertson *et al* 1975, 48).

Catalogue

Personalia

K1 The forepart, to the waist, of a left clog (Fig 240), probably alder. The toe is square, and the sides have a gentle curve, which is more pronounced on the outside than the inside. The footbed is smooth and flat. The sole is worn, but enough survives to show that the front stilt was formed by two opposing triangles, with their bases created by the edges of the sole. There are two nail holes to secure an instep strap on each side of the shoe, and corrosion deposits suggest that the nails had heads between 10 mm and 15 mm across, with shafts 2 mm square. As there is no evidence for a hole between the great and second toe, it seems that the clog was held on to the foot by the instep strap only.
L (surviving): 140 mm; W (across tread): 81 mm; Th (max): 29 mm
LAL D *232.12*, WD 55, Period 11D

Toilet, pharmaceutical, and surgical instruments

K2 One end of a double-sided lozenge-sectioned comb made of boxwood (Fig 241). On one side, the teeth are spaced at five per l0 mm, and on the other, at ten per 10 mm, with a plain dividing strip *c* 8 mm wide between the two rows of teeth. The surviving end is half-lozenge-shaped and undecorated.
L: 81 mm; W: 50 mm; Th (max): 7 mm
LAL C *248*, WD 136, Period 10C

K3 One end of a double-sided lozenge-sectioned comb made of boxwood (Fig 241). On one side the teeth are spaced at six per l0 mm, and on the other, at ten per 10 mm, with a plain dividing strip decorated with a raised rib, l mm wide, running longitudinally between the two rows of teeth. On one side of the comb, this rib could have run to the end, as there is a scar of the appropriate width visible, but on the other side it did not. There is a possible marking-out line visible at the base of

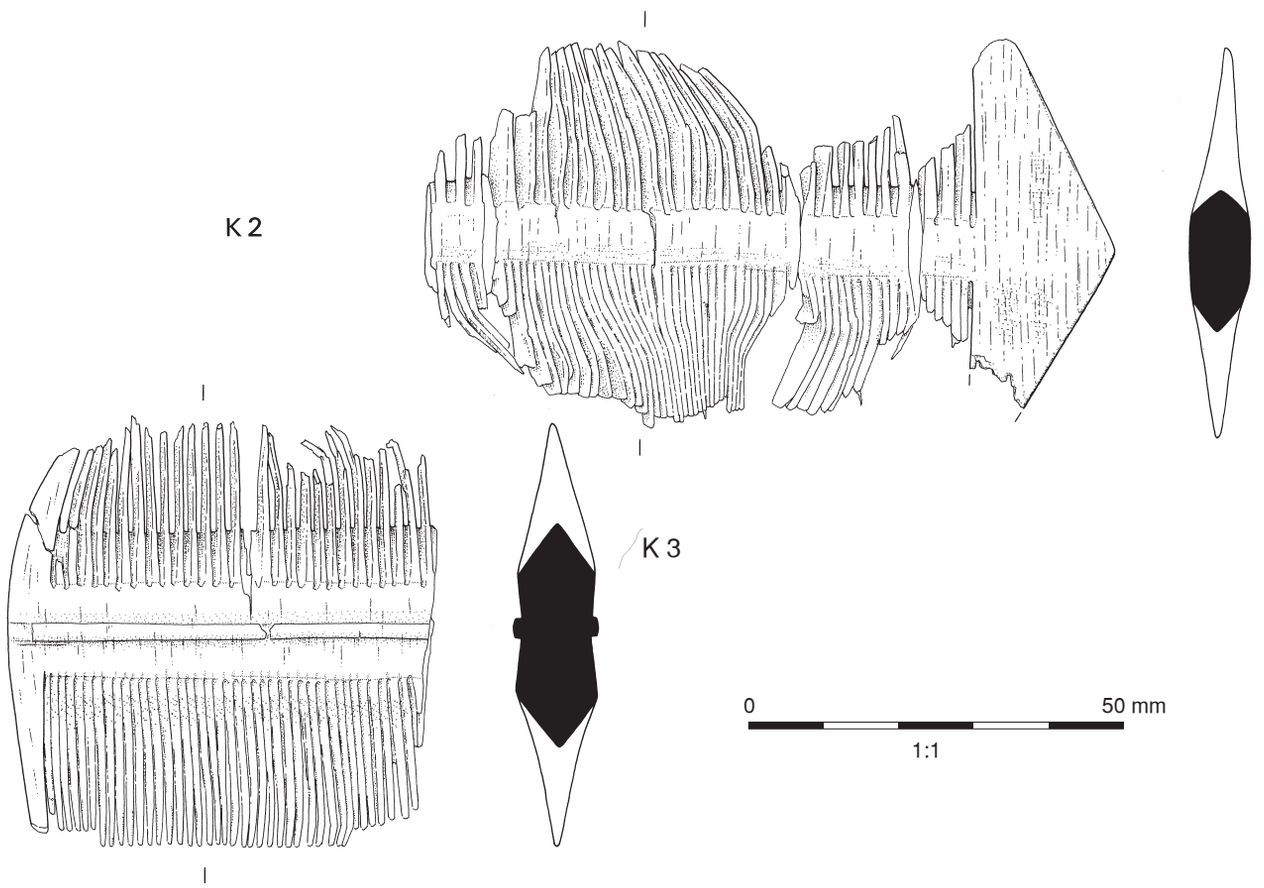

Figure 241: Wooden combs

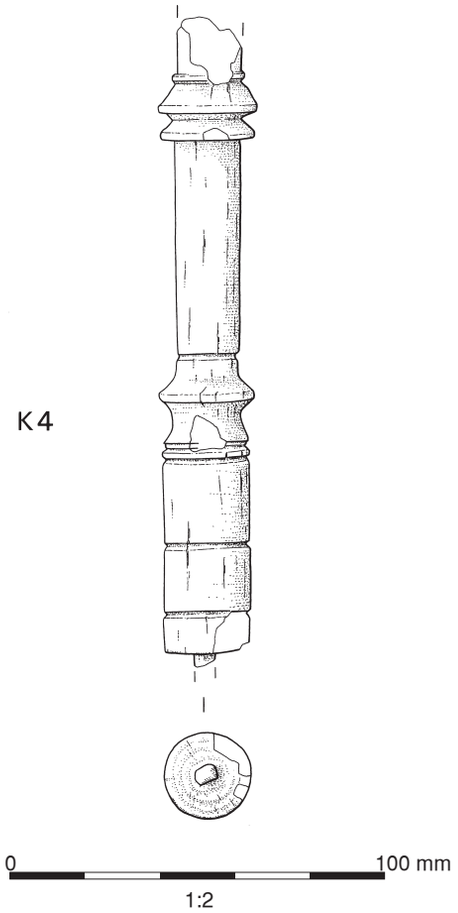

Figure 242: Fragment of furniture

each set of teeth on both sides. The surviving end is half-lozenge-shaped and undecorated.
L: 55 mm; W: 56 mm; Th (max): 11 mm
LAL D *232.18*, WD 118, Period 11D

Household utensils and furniture

K4 Furniture (Fig 242), in the form of a round-sectioned rod turned from a single piece of oak (*Quercus* sp). One end has been cut short and the other is broken, so it is uncertain how much survives. One end is flat with a short broken tenon. Above this, it is cylindrical, with regularly spaced incised lines in the surface. This element is separated from a second cylindrical section by a disc moulding. The second cylindrical moulding terminates in two triangular mouldings and a small square-sectioned one, before continuing as a cylinder. This ends in an acute-angled cut. The asymmetry of the two triangular mouldings may suggest that less than half of the object survives, and that the pattern was repeated on the other side. If this is the case, then it is possibly a stretcher from the frame of a piece of furniture.
L (surviving): 171 mm; Diam (max): 21 mm
KLAG *250*, WD 89, Roman, not closely phased

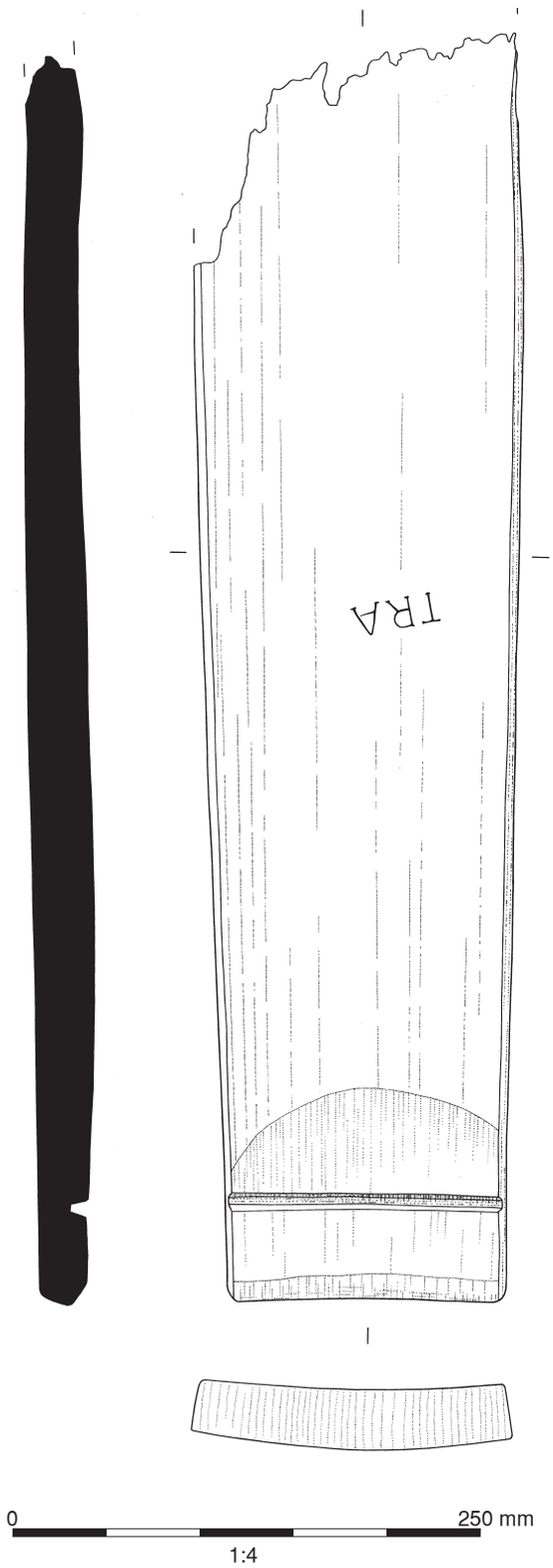

Figure 243: Stave from a barrel lining well 1016

K5 Barrel. Fragments of 18 staves and their hoops were recovered (Fig 243), the former silver fir (*Abies alba*) and the latter of poplar and hazel (*Populus* sp; *Corylus* sp). The complete circumference of the barrel survived, but the full height did not. The interior has a rectangular-sectioned groove *c* 45-49 mm from the bottom, 5-9 mm across, and 7-8 mm deep, to accommodate the head. Above the groove, there is a single D-shaped facet, 57-85 mm long, and beyond this the staves are curved. The stave edges are set radially to the barrel and, in some cases, have incised cross-hatching on them. One stave has the remains of a bung hole, 60 mm in diameter, below which there is a triangle (32 mm high and with a base width of 32 mm) scratched on to the exterior surface. The hoops survive as fragments and consist of D-sectioned pieces of split stem. The barrel was found lining a well, and had become distorted whilst buried, giving it an irregular maximum diameter of 1.05-1.1 m. One stave has been branded **TRA** on the inside face, which probably represents the abbreviated name of the manufacturer, probably of the form ***T(itus) R(*** ...) ***A(...)***.

Roger Tomlin writes: inscribed barrel staves found in Britain are collected in *RIB* II.4, 2442 (Collingwood and Wright 1992). Examples from London (56, 14, 23) and Silchester (17) carry abbreviated names branded on the inside face, which would have been invisible after the barrel had been assembled. Closer parallels can be seen in two staves from Vindolanda, likewise branded on the inside face (see Birley *et al* 1993, 78 and 82).
L (staves): 523-1123 mm; W (staves): 45-189 mm
LAL D *1016*, WD 288, Period pre-10C

K6 Barrel stave (Fig 244), only a fragment of which survives. One end has been sawn across. At the original end, there is a chamfer on the inside, 16 mm deep. Below this, the inside is flat for 39-44 mm, at which point there is a flat-bottomed groove, 8 mm wide at the top, which has sloping sides. Below the groove, the stave becomes thicker. The outer face is slightly curved. One edge is original, and this would have been radial to the barrel.
L: 118 mm; W: 36 mm; Th: 22-30 mm
LAL D *232.20*, WD 155, Period 11D

K7 Barrel head of silver fir, comprising an originally circular disc with a chamfered outer edge (Fig 244). Less than a third now survives, but it is in good enough condition to say that it is chamfered on one surface only.
Diam (est original): 230 mm; Th (max): 19 mm
LAL B **231**, WD 18, Period 9

K8 Barrel head of silver fir, comprising an originally circular disc with a chamfered outer edge (Fig 244). Only a third now survives.
Diam: 240 mm; Th (max): l5 mm
LAL D **232.17**, WD 98, Period 11D

K9 Barrel head of silver fir, comprising an originally circular disc with a chamfered outer edge (Fig 244). Only about a third survives. There are the remains of a bung hole, 24 mm in diameter, off-centre and abutting the break.
Diam: 170 mm; Th (max): 6 mm
KLA G *244*, WD 85, Roman, not closely phased

K10 Barrel head (Fig 244). This is a complete oak disc, chamfered on one side only. In the centre of the unchamfered side, there is a small depression, probably from marking out the piece.
Diam: 124-128 mm; Th: 7 mm
KLA G *250*, WD 80, Roman, not closely phased

K11 Stave-built vessel (Fig 245). A head, two bungs, and 20 staves were recovered, all of oak. The staves are all wider at one end than the other, implying that the sides tapered inwards from the base. Both the inner and the outer surfaces are curved, and the sides are set radially to the vessel. There is an internal groove at each end to hold a head, showing it to have been a closed vessel. On the exterior, there are two incised / scored lines near the narrow end, and another near the wide one. There are also other, less distinct, lines visible on many of the staves, and at least two of them had small-diameter (1 mm) holes through them. These are probably related to the position of the hoops, but the nature and position of these are now uncertain. One stave had a bung hole in it, 30 mm in diameter. This was well-finished on both the interior and the exterior. The cylindrical bung was also recovered, but it is broken at one end and one side has split away.

The head is a circular disc of wood with a chamfer on one surface. It is pierced with a circular bung hole, 26 mm in diameter. The bung which belongs with this is a short tapering length of oak, with vertical facets around the edge. There are some scratches on the surface of the head, one of which may be an arrow.

A close comparison of the external markings on the staves showed that they were all used one way up rather than alternating, which would have been necessary if a cylindrical vessel had

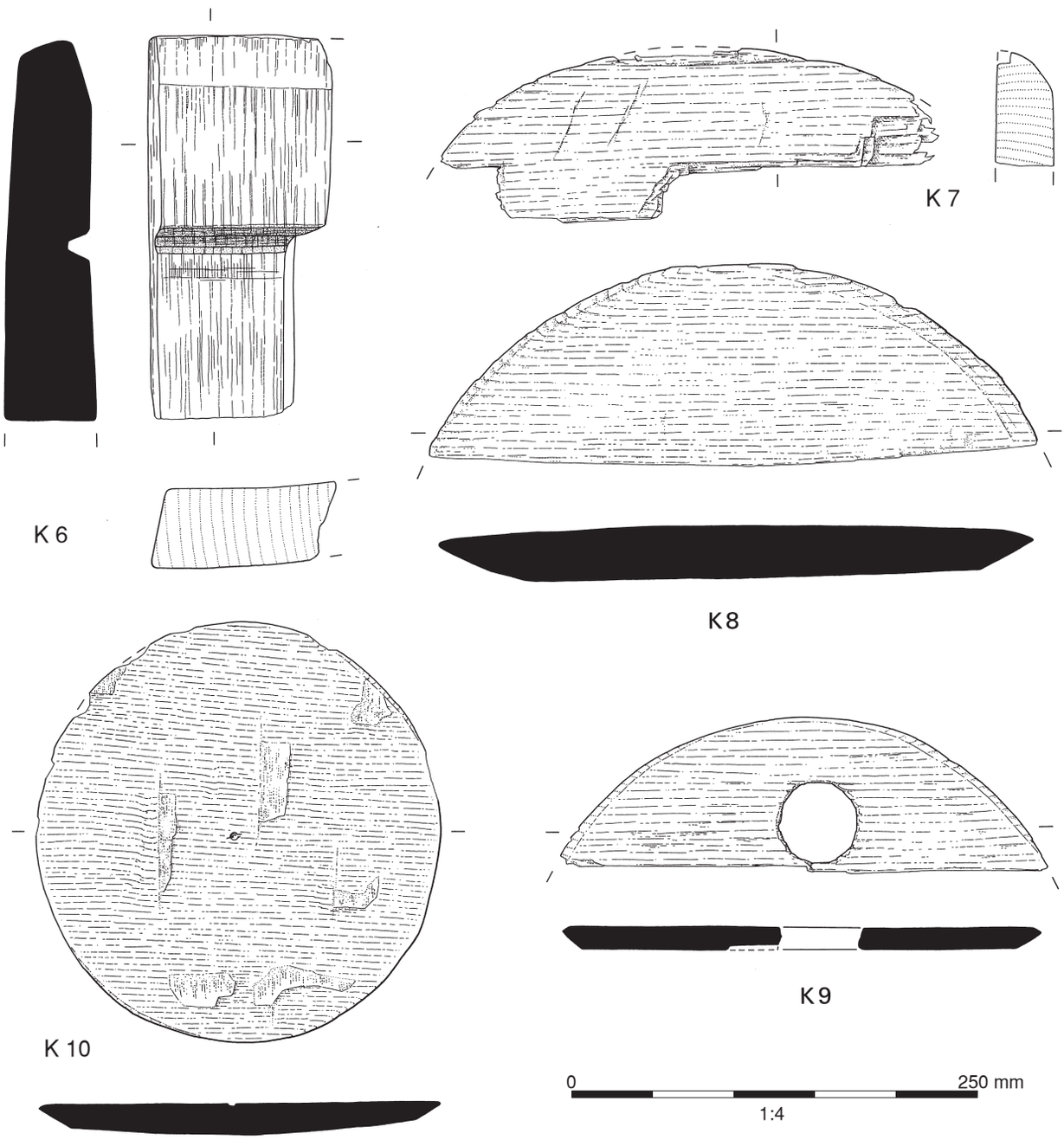

Figure 244: Elements of wooden barrels

been intended (S Winterbottom *pers comm*). As they narrow towards one end, the vessel would have had sides that deviated from the vertical by between 8" and 10" (200-255 mm). As the wider ends were between 0.5 mm and 1.5 mm thicker than the narrower ones, and were more worn, it is suggested that the vessel sloped in from base to top.

The head is too large to fit the smaller end of the vessel as reconstructed from the available staves, and 8 mm too small to fit the larger end. This, together with the difficulty in finding an edge-to-edge correlation between all the staves, suggests that not all the staves were present when it was discarded. On balance, the head, as it contains a bung hole, is more likely to come from the top of the vessel. This would give an internal diameter of about 283 mm for the top, and 344-354 mm for the base, giving a circumference of 1156-1158 mm. As the staves only account for a circumference of 964 mm, between four and five can be assumed to be missing. Thus, the vessel originally had 24 or 25 staves and was closed top and bottom; the sides sloped in from base to top and there were bung holes in the side and the top, and it had a base diameter of 368-378 mm (external)

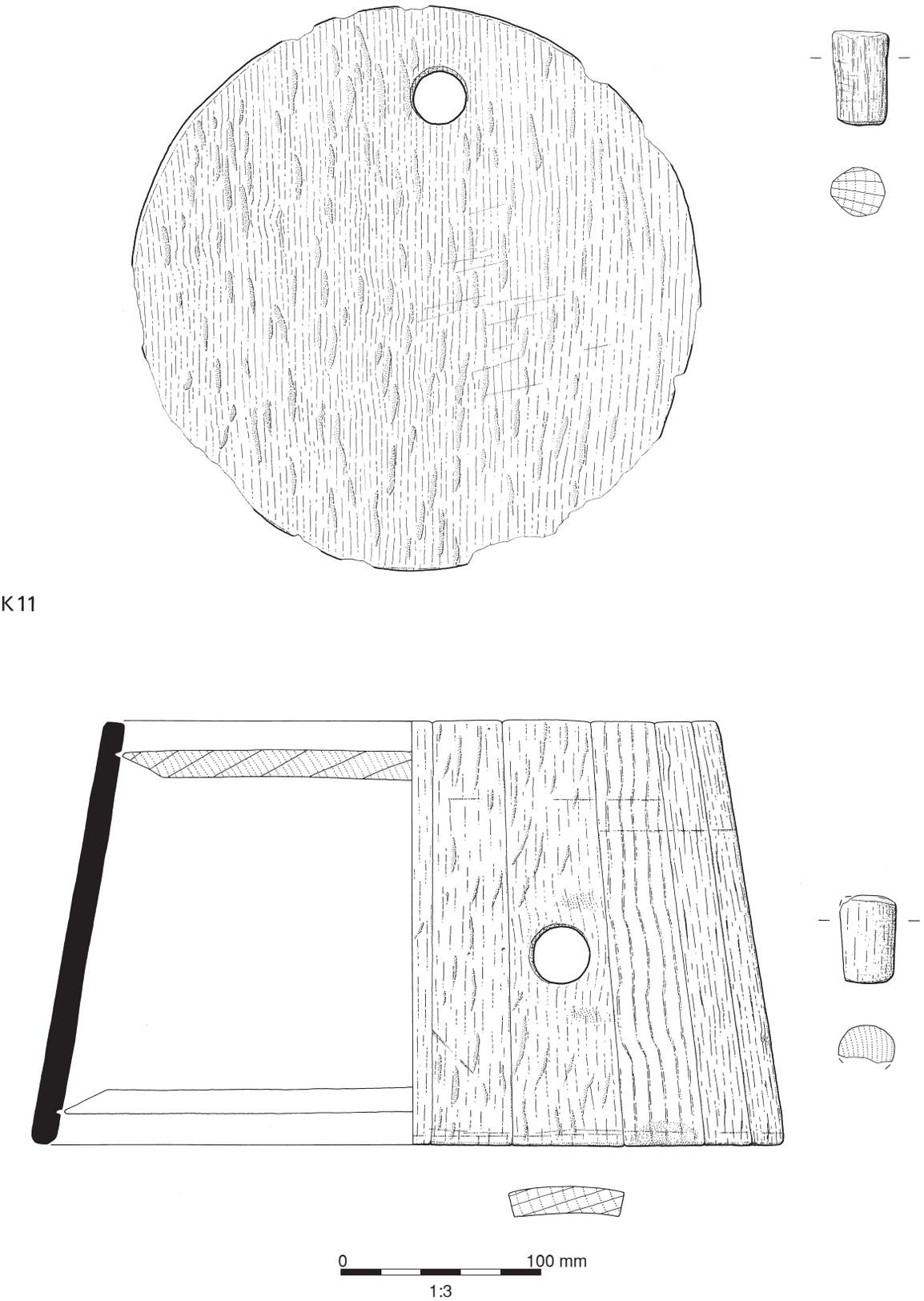

*Figure 245: Stave-built vessel **K11***

and a height of between 205 mm and 210 mm. L (staves, max): 213 mm; W (staves, min): 19-51 mm; W (staves, max): 34-66 mm; Th (staves): 12-15 mm; Diam (head) 283 mm; L (head bung): 45 mm; W (head bung): 21-27 mm; L (stave bung): 43 mm; W (stave bung): 17-26 mm
LAL D *1016.06*, WD 218/236; Period pre-10C

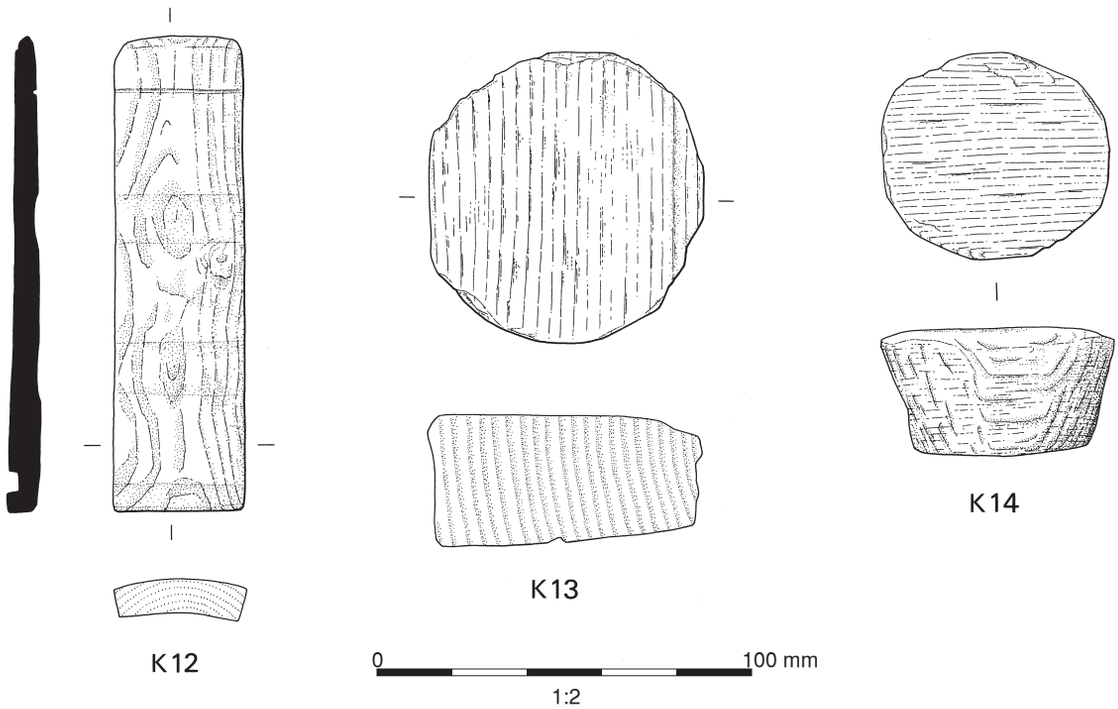

Figure 246: Wooden stave from a vessel, and bungs

K12 Stave-built vessel (Fig 246). Only a single stave survives from this small tankard. Both the interior and exterior surfaces are curved, and the sides are radial to the tankard base. The bottom edge is flat, while the top one has an asymmetric chamfer. There is a 6 mm-wide flat-bottomed groove, at 5 mm from the bottom edge. The exterior surface has marks from metal(?) hoops, which appear slightly blacker than the rest of the surface, and the wood below them has been compressed significantly. They are at the bottom (7 mm wide), 30 mm from the bottom (15 mm wide), 71 mm from it (13 mm wide), and 110 mm from it (15 mm wide). On the interior surface, there is a mark, 4 mm from the top edge, which, coupled with the fact that the top exterior mark goes all the way to the rim, suggests that the rim was sheathed.
L: 126 mm; W: 34 mm; Th: 6-9 mm; Diam (vessel, est): 130-140 mm
KLA C *1185.02*, WD 130, Period 8B

K13 Circular bung, complete except for some minor surface damage (Fig 246). It has been cut from a larger, radially riven, fragment of silver fir (*Abies alba*). The bottom of the bung is only slightly smaller than the top.
Diam (top): 70-76 mm; Diam (bottom): 70-71 mm; Th: 31-34 mm
LAL B *244*, WD 23, Period 10A

K14 Almost complete circular bung (Fig 246) cut from a larger, riven fragment of silver fir. The sides slope in from the top to the bottom.
Diam (top, max): 60 mm; Diam (bottom, max): 51 mm; Th (max): 34 mm
LAL B *224*, WD 24, Period 10C

K15 Scoop, originally carved from a single piece of wood (Fig 247). Now fragmentary and poorly preserved, part of the base and one side are missing. The body of the scoop is a rectangular box, without top or front. The sides curve down slightly towards the front, and the base slopes from front to back. The sub-rectangular-sectioned handle springs from towards the top of the middle of the back and thickens as it goes away from the body of the scoop. It probably ended in a curl on the underside, but the state of preservation makes this uncertain. The edges which border the missing sides are charred.
L (overall): 327 mm; L (handle): 150 mm; Ht (sides, est max): 70 mm
LAL D *232.18*, WD 133, Period 11D

K16 Lathe-turned oak bowl (Fig 248), between a third and a half surviving. It has a slightly concave base, bordered by a shallow (2 mm) footring. The exterior of the bowl is decorated with a single cordon. The inturned rim is decorated on its upper

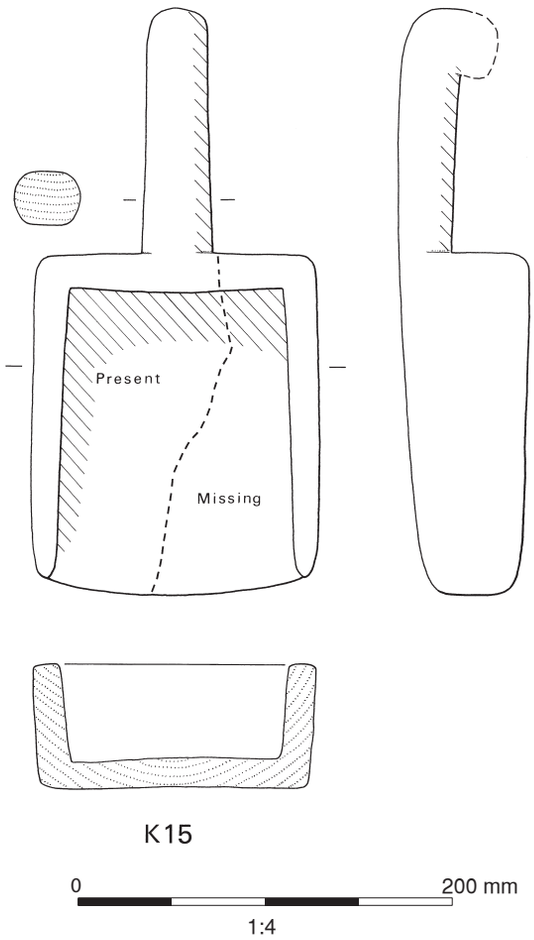

Figure 247: Wooden scoop

surface by a raised band, 15 mm across, which has a flat-bottomed groove, 7 mm across, running along the centre of it. The interior is undecorated.
Diam (est max): 213 mm; Th: 7-13 mm
LAL C *398.05*, WD 262, Period 7

K17 Lathe-turned hemispherical bowl, now split radially into long narrow strips. The exterior is decorated with at least two pairs of parallel grooves. The top edge is broken. At the base are the remains of a foot, or footring. The interior is undecorated.
Diam (est min): 150 mm; Th: 3-7 mm
LAL B *231*, WD 14, Period 9

K18 Lathe-turned bowl (Fig 248), now split radially, with most of the rim missing. The exterior has a 3 mm-high foot, above which the side slopes abruptly out until it reaches its maximum diameter, where there is a marked carination, ornamented with a groove. Above this, the sides slope in again, ending with a simple curved rim. The interior is undecorated. The bottom is slightly domed and has a central depression, 10 mm across.
Diam: 112 mm; Th: 7-15 mm
LAL D *232.12*, WD 59, Period 11D

Written communication
The typology of the stylus writing tablets is that devised for the tablets from Castle Street, Carlisle (Padley 1991b, 210-11). Only those types represented by examples from the northern Lanes are reproduced; they are of a similar size to those from Castle Street (*ibid*).

Type 1 is single-sided. One side of the tablet is recessed to hold wax; the other side is plain. Type 2b is double-sided. Both sides are recessed to hold wax, but one has a broad groove cut across it. Further subdivision is possible:

i No writing visible on either side;
ii Writing visible on one side;
iii Writing visible on both sides.

K19 Type 1i writing tablet in silver fir (*Abies alba*), only about 6% of the leaf surviving. The unrecessed side is plain. The recessed side has raised rims surviving at the top and on the right. There is a binding hole 50 mm from the right-hand edge. The notch forms part of the left-hand edge. It was about 13 mm long originally. No text is visible.

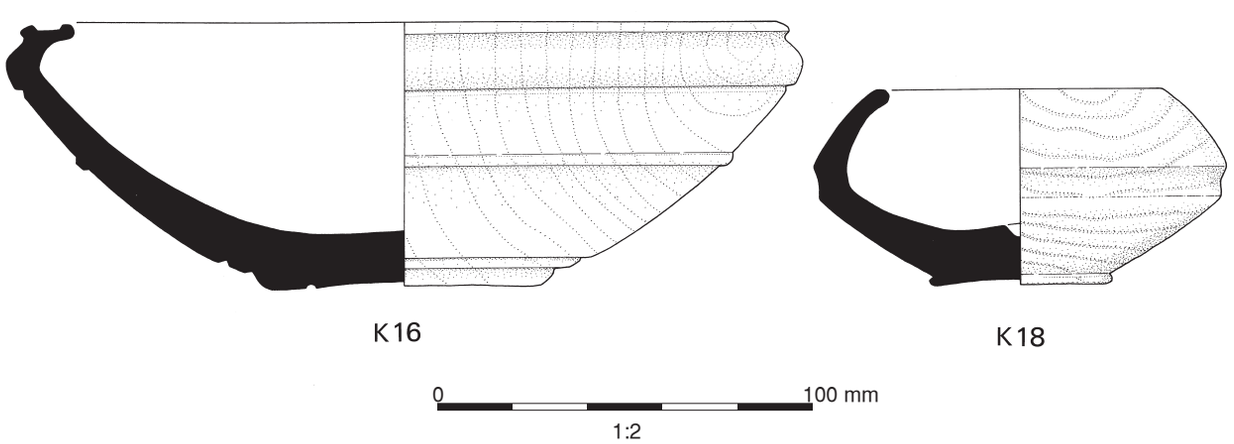

Figure 248: Lathe-turned bowls

L: 20 mm; W (max): 96 mm; Th (at centre): 3 mm; Th (at edge): 4 mm
LAL B *257*, WD 65, Period 8B

K20 Type 1i writing tablet in silver fir (*Abies alba*), only about 11% of the leaf surviving. The unrecessed side is plain, whilst the recessed side has raised rims surviving at the bottom and along the left-hand edge. No text is visible.
L: 33 mm; W (max): 86 mm; Th (at centre): 3 mm; Th (at edge): 5 mm
LAL C *295.01*, WD 207, Period 10A

K21 Type 1ii writing tablet in silver fir (*Abies alba*), about 50% surviving (Fig 249). The unrecessed side has some lines on it, which appear to have been made deliberately. The recessed side has raised rims visible along the bottom, left-, and right-hand edges. The central area has the remains of cursive writing visible, probably the top of a 'page', with three to four lines of cursive, written over traces of earlier text(s). A few letters are legible. There are two irregular lines of small (about 1 mm in diameter) holes across the central area, which are also visible on the plain side, but were made from the recessed side. They were perhaps made with the point of a stylus.
L: 80 mm; W: 142 mm; Th (at centre): 3 mm; Th (at edge): 6 mm
LAL D *1016.05*, WD 211, Period pre-10C

K22 Type 1ii writing tablet in silver fir (*Abies alba*), only about 33% surviving (Fig 249). The unrecessed side is plain. The recessed side has raised edges surviving at the top, and along the left- and right-hand edges, and a few little diagonal notches belonging to a cursive text. On the unrecessed side, there are three or four scored diagonal lines, perhaps a 'cancellation', for example of the 'address' of a letter. There are two binding holes in the top edge, 34 mm and 111 mm from the left-hand edge. There is also a narrow notch in the top edge, 73 mm from the left-hand edge.
L: 40 mm; W: 150 mm; Th (at centre): 3 mm; Th (at edge): 4 mm
LAL C *209.05*, WD 135, Period 11A

K23 Type 1ii writing tablet in silver fir (*Abies alba*), only about 16% of the leaf surviving. The unrecessed side is plain, whilst the recessed side has a raised rim surviving on the left, and the remains of one on the right. The central area contains the remains of three incomplete lines of cursive, written over traces of earlier text(s). A few letters are legible.
L: 33 mm; W: 156 mm; Th (at centre): 3 mm;

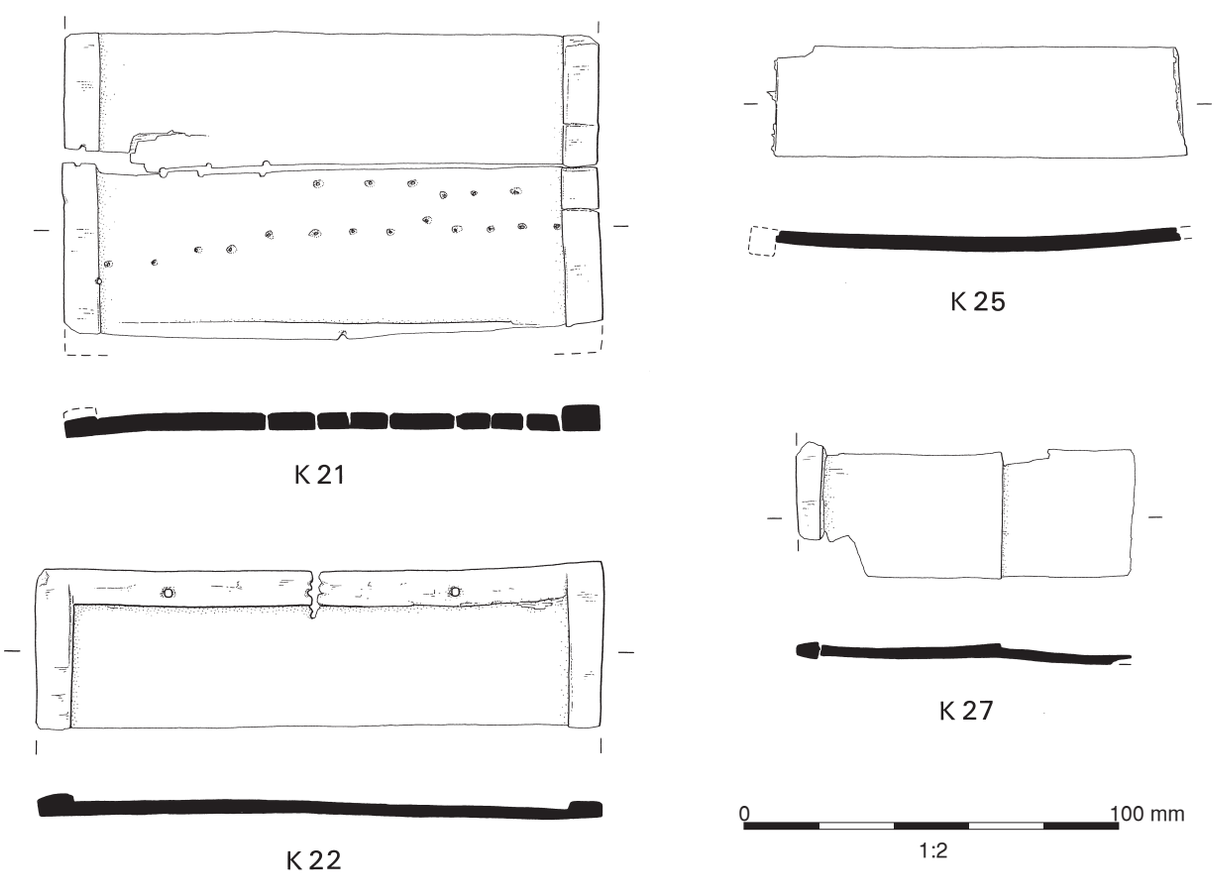

Figure 249: Writing tablets

Th (at edge): 4 mm
LAL D *232.15*, WD 79, Period 11D

K24 Type 1ii writing tablet in larch (*Larix* sp), only about 10% of the leaf surviving. Only one original edge survives, and this has the scar from a raised rim along it. The unrecessed side is plain. The recessed area has faint traces of three incomplete lines of cursive, of which one or two letters are legible.
L: 32 mm; W: 74 mm; Th: 4 mm
LAL D *232.15*, WD 80, Period 11D

K25 Type 1?iii tablet in silver fir (*Abies alba*), only about 17% surviving (Fig 249). No original edges survive. On one side, scored angular lines are probably the remains of an 'address', while the other has very faint traces of writing.
L: 29 mm; W: 110 mm; Th: 4 mm
LAL D *1016.06*, WD 213, Period pre-10C

K26 Type 1? tablet in bird cherry (*Prunus avium*) or cherry (*Padus* sp), only fragments surviving. There is a probable raised rim running along the top of the piece, and a scar along the left-hand edge. There is no sign of any text. As these five fragments are unusually thin, retaining some cut edges, but no sure evidence of a raised border, and are not silver fir (the usual wood of stylus tablets), they are possibly leaf-tablets intended for an ink-written text.
L: 19 mm; W: 56 mm; Th (max): 5 mm
LAL C *209.05*, WD 140, Period 11A

K27 Type 2bii writing tablet in silver fir (*Abies alba*), only about 11% surviving (Fig 249). Both sides are recessed, and one has a broad groove running down it. The grooved side has five lines going down it, three in the groove and one on the raised part; the fifth line is diagonal, going between two of those in the groove. These lines were made with a point, probably a stylus. They might only be crossings-out, but they could also be seen as very large letters, perhaps M and IN. Roger Tomlin notes (*pers comm*) that the broad groove was originally cut to receive the seals of the witnesses to a legal document, but there is no other surviving trace of such a format.
L: 34 mm; W: 89 mm; Th (at centre): 2 mm; Th (at edge): 4 mm
LAL C *302.02*, WD 191, Period 10A

K28 Writing tablet in silver fir (*Abies alba*), of which two fragments only survive. Neither of these have diagnostic features, but are the correct thickness to be writing tablets, and are made of the usual species of wood. No text is visible.
Fragment 1: L: 11 mm; W: 57 mm; Th: 5 mm
Fragment 2: L: 11 mm; W: 28 mm; Th: 3 mm
LAL C *329*, WD 242, Period 10A

K29 Writing tablet in silver fir (*Abies alba*), only about 3% of the leaf surviving. It is not clear which kind of tablet produced this fragment, as there is no remaining evidence for raised rims. There are faint traces of lines scored across the grain of the fragment, presumably part of the 'address' of a letter.
L: 10 mm; W: 75 mm; Th: 3 mm
LAL C *329*, WD 245, Period 10A

Transport and trade

K30 Wheel (Fig 250). Only the nave, seven spokes (or part spokes), all field maple (*Acer campestre*), and about 66% of the ash wood (*Fraxinus excelsior*) felloe survive. The nave was turned from a gnarl of field maple. The central cavity is cylindrical, and originally there were iron boxes on the inside, and iron nave bands on the outside of each end. These survived only as corrosion products (the nave bands have been omitted from the drawing for the sake of clarity). On the inside of each nave band is a raised rectangular-sectioned cordon on the surface of the nave. Inside the cordons, the nave swells towards the middle. There are incised lines turned on to the exterior surface of the nave, which are marking-out lines for the position of the different components and the 11 sockets for the spokes. The nave had split before it was discarded and a repair had obviously been attempted, as there is a row of iron nails down the sides of the split, and much iron corrosion.

The ends of the spokes survive in the sockets of the nave. These tenons are complex in shape, being rectangular at the end and circular as they approach the body of the spokes. They are separated from the lathe-turned body by a raised band. The tenon holding the spoke to the body is simply rectangular in section.

The felloe is made of a single length of ash. The ends were butted together and originally fastened with an iron clamp, of which only one of the holes for the prongs survives. The outer surface of the felloe is charred, providing the only evidence for the metal iron tyre which would have held the whole wheel together.
Diam (est): 860 mm; L (nave): 375 mm; Diam (nave): 200-210 mm; L: (spoke, between nave and felloe): 267 mm; Diam (spoke): 36-41 mm; Th (felloe): 62 mm; W (felloe): 55 mm
LAL D *1016.07*, WD 215, Period pre-10C

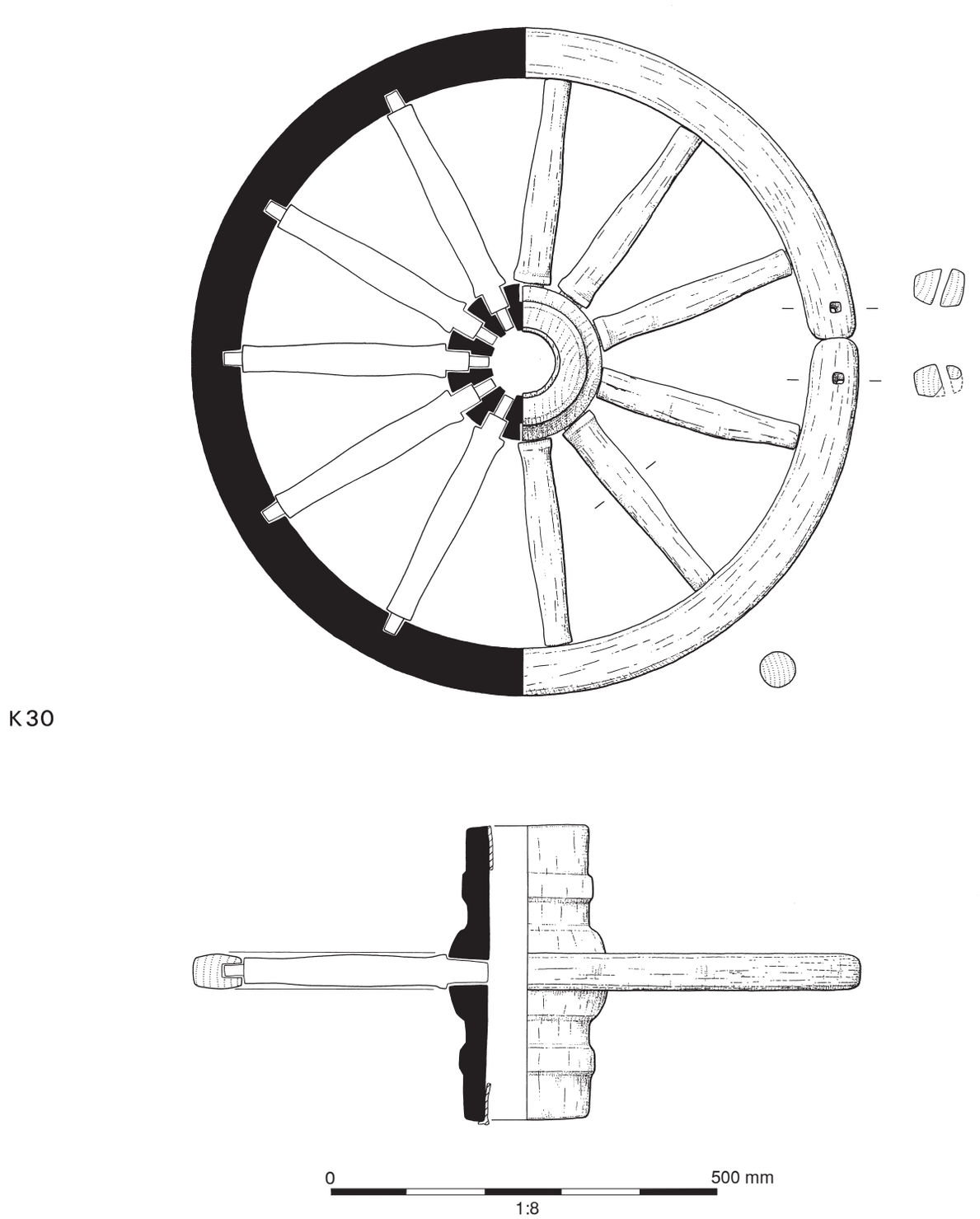

Figure 250: The wheel from well 1016

Tools and industry

K31 Complete boxwood (*Buxus sempervirens*) bobbin (Fig 251), with only slight damage to the edge of each terminal. It is turned from a single piece, and was originally symmetrical. Each terminal has a slightly domed end, and a single incised line 2 mm from the bottom edge. The underside is flat. The shaft separating the two terminals has a circular cross-section and is waisted. In use, the bobbin has become worn, with the maximum wear on one terminal opposite that on the other.
Diam (terminals): 59 mm; Diam (shaft): 15-18 mm; L (overall): 60 mm
LAL D *232.17*, WD 95, Period 11D

K32 Complete boxwood (*Buxus sempervirens*) bobbin (Fig 251), with only slight damage. It is

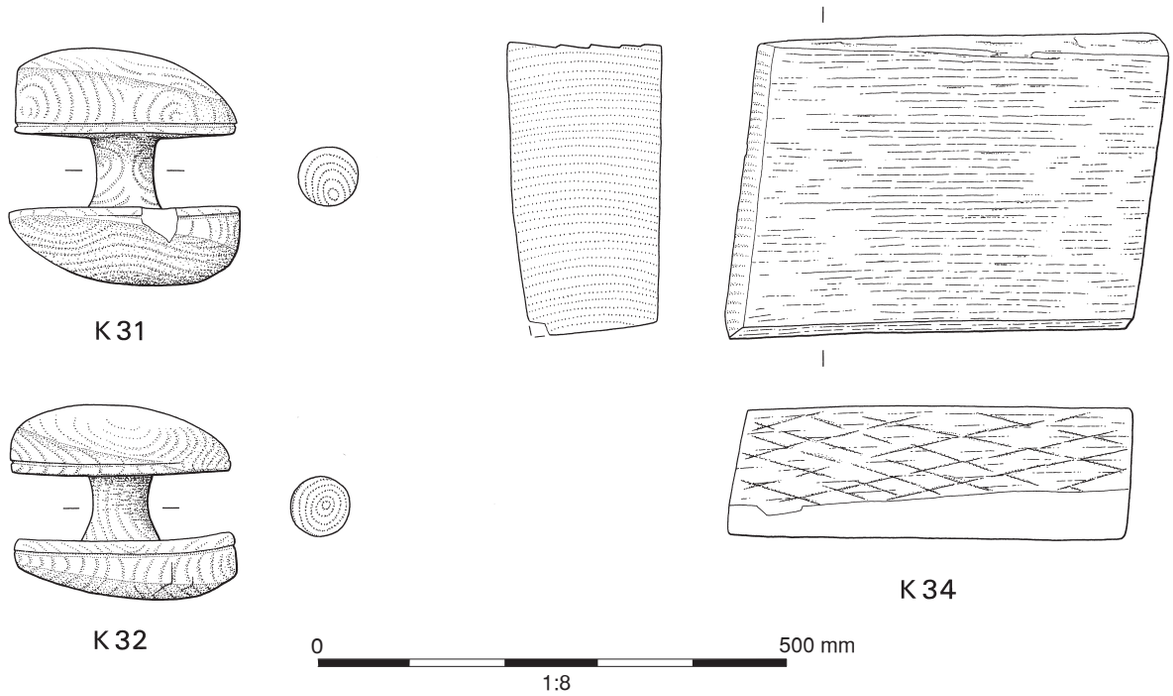

Figure 251: Wooden bobbins and sawn off-cut

turned from a single piece and was originally symmetrical. Each terminal has a slightly domed end, and there is a single incised line 2 mm from the bottom edge. The underside is very slightly concave. The terminals are separated by a circular-sectioned waisted shaft. In use, the bobbin has become worn, with the maximum amount of wear on one terminal opposite that on the other.
Diam (terminals): 61 mm; Diam (shaft): 15-19 mm; L (overall): 50 mm
KLA G *250*, WD 86, Roman, not closely phased

K33 Off-cut: a block of silver fir (*Abies alba*) with sawn ends and surfaces, which have been cleaved. The growth-rings go from top to bottom. The outer surface, with respect to the rings, has an oblique lattice pattern cut into it. The cuts are single, probably made with a knife.
L: 87 mm; W: 99 mm; Th: 24-33 mm
KLA G *244*, WD 76, Roman, not closely phased

K34 Off-cut: a block of silver fir (*Abies alba*) with sawn ends, and surfaces which have been cleaved (Fig 251). The rings go from top to bottom. The inner face, with respect to the rings, has an oblique lattice pattern cut into it. The cuts are single, probably made with a knife.
L: 106 mm; W: 73 mm; Th: 32-40 mm
KLA G *244*, WD 77, Roman, not closely phased

Fasteners and fittings

K35 Peg with a D-shaped head (Fig 252); the shaft is broken and there is slight damage to the head. The curve of the D-shaped head is made up of straight sections rather than being smooth. The rectangular-sectioned shaft protrudes from the middle of the head. The end of the shaft is missing and there is a slight taper on one side.
L: 107 mm; W (head): 55 mm; W (shaft): 21 mm; Th: 14-17 mm
LAL D *232.16*, WD 83, Period 11D

K36 Peg with a sub-rectangular cross-section (Fig 252). One end is shaped to form a blunt point, which slopes in one direction more than the other. The head was probably originally squarer than it is now, which would have made it more effective.
L: 306 mm; W (max): 29 mm; Th (max): 25 mm
KLA D *537*, WD 70, Roman, not closely phased

K37 ?Peg, broken at each end (Fig 252). The shaft is an oval-sectioned rod, and the lower end has been shaped to a stubby point with a missing tip.
L: 85 mm; W: 19 mm; Th: l3 mm
LAL D *1016.03*, WD 191, Period pre-10C

Other wooden objects

K38 Unidentified object (Fig 252), complete except for some minor damage. It has been carved from a single block. One end has

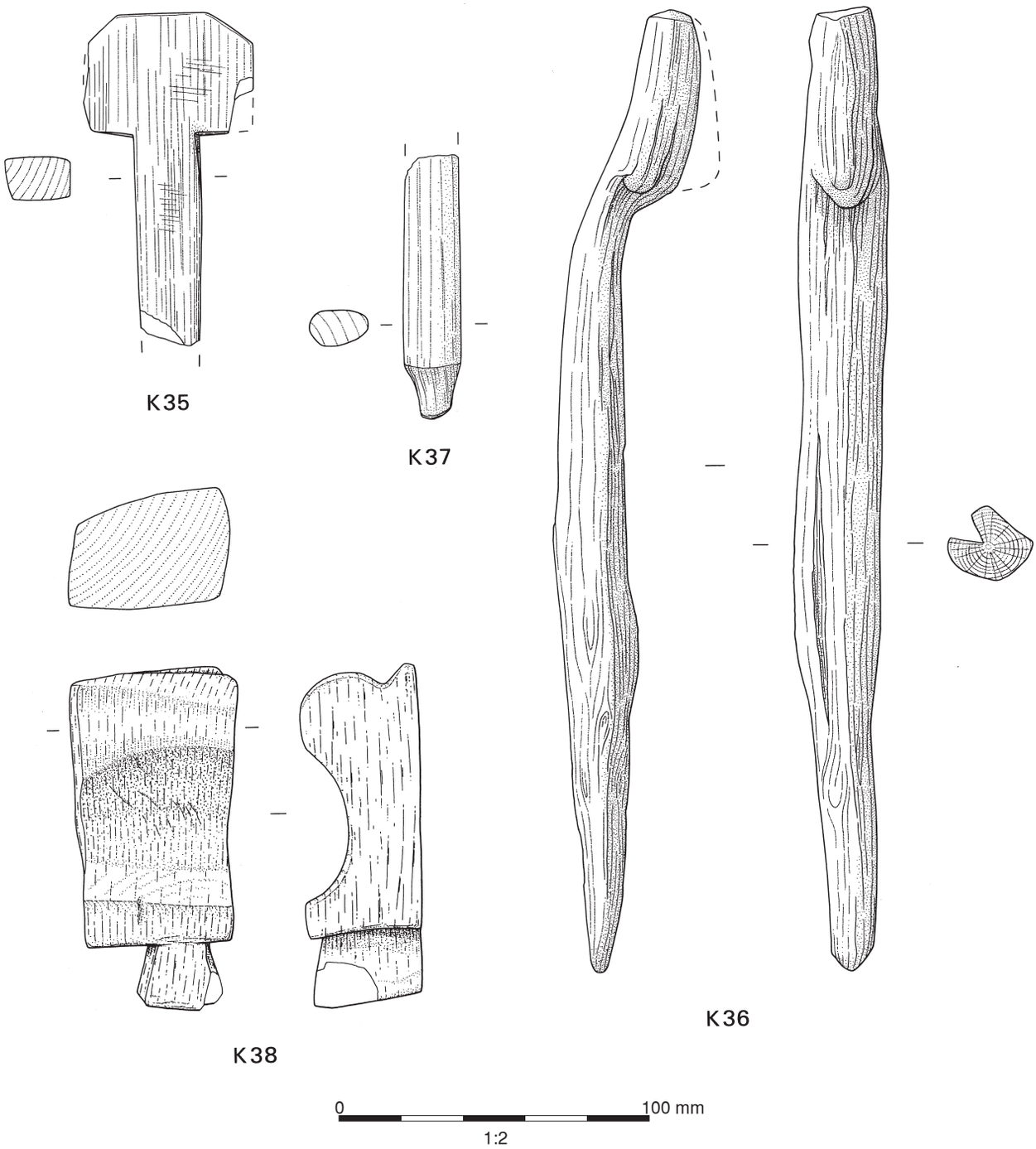

Figure 252: Wooden pegs and unidentified object

been worked into a male dovetail joint, which runs the full height of the block, but is off-centre, being 23 mm from one side but only 10 mm from the other. The main part of the block has been worked, with a concave top surface ending in a convex roll-moulding that has a triangular plinth beneath it. The underside and other edges are flat and undecorated.
L: 107 mm; W: 47 mm; Th: 38 mm
KLA C *1881*, WD 238, Period 8A

K39 Unidentified object, with two main pieces. One is a round-sectioned shaft, 40 mm in diameter. The facets running down it show that it was carved rather than turned. It survives as two pieces, one of which is charred at one end. The other piece is carved from a single lump. At one end there is a short round-sectioned spur, which is broken. It is set asymmetrically on to the wider end of a larger trapezoidal block. There is a wide groove running around the block at 110 mm

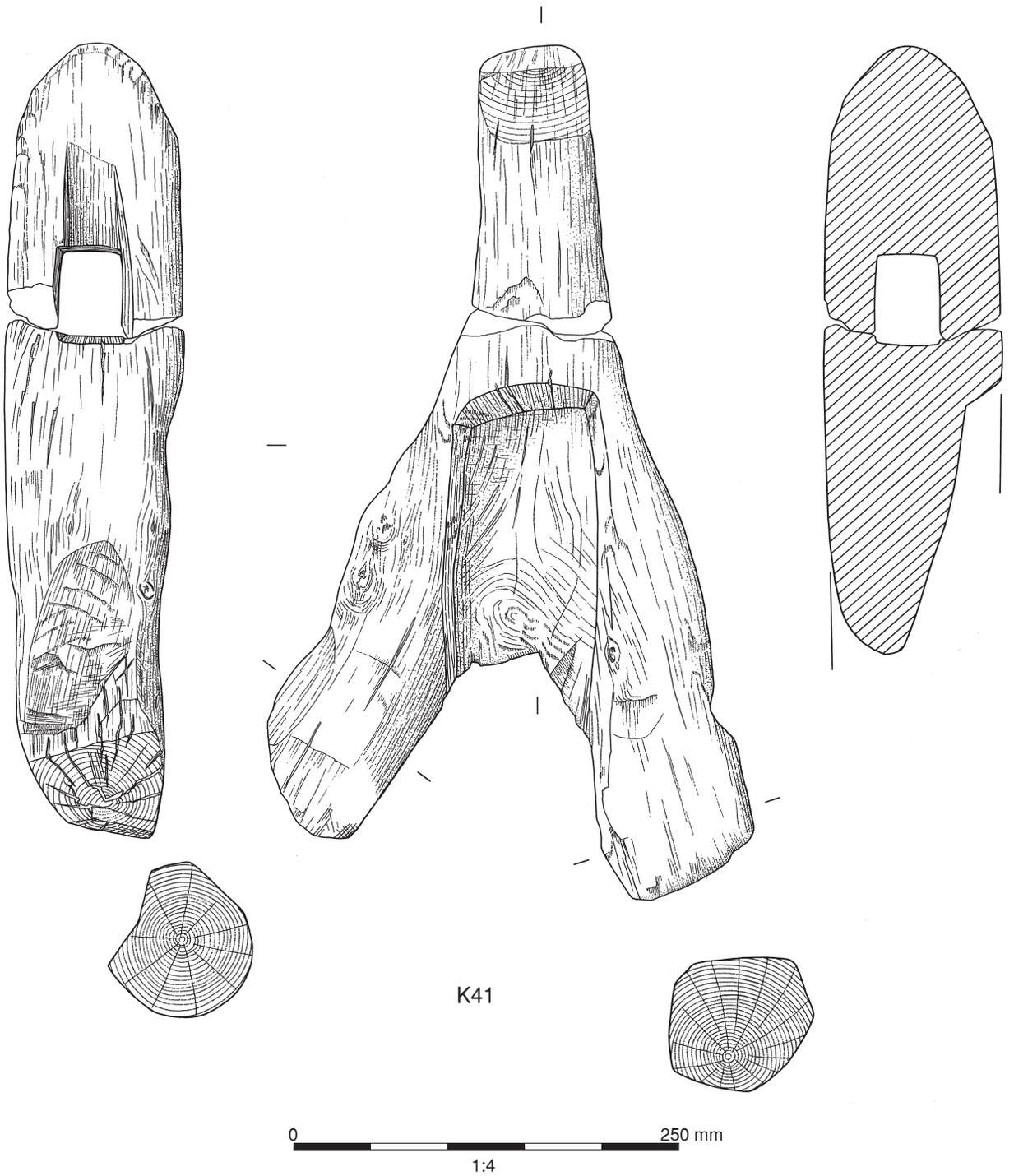

Figure 253: Y-shaped wooden object

from the end with the spur.
L (overall): 260 mm; W: 72-105 mm; Th: 62-77 mm
KLA D *545*, WD 78, Period 8A

K40 Unidentified object. This is a short length of oval-sectioned ash (*Fraxinus* sp) rod, which is broken at one end. One surface is charred.
L (max): 55 mm; W: 29 mm; Th: 24 mm
LAL D *1016.11*, WD 509, Period pre-10C

K41 Unidentified object (Fig 253). This is a Y-shaped object made from a naturally forked fragment of oak (*Quercus* sp). The leg of the Y has been shaped at the sides, and the end has been roughly rounded. A rectangular transverse hole has been cut through it. Above it on one side is a sloping rebate. The arms of the Y have been trimmed. In the junction between the arms, and leg of the Y is a large rectangular rebate. This has steeply sloping sides and a base which slopes

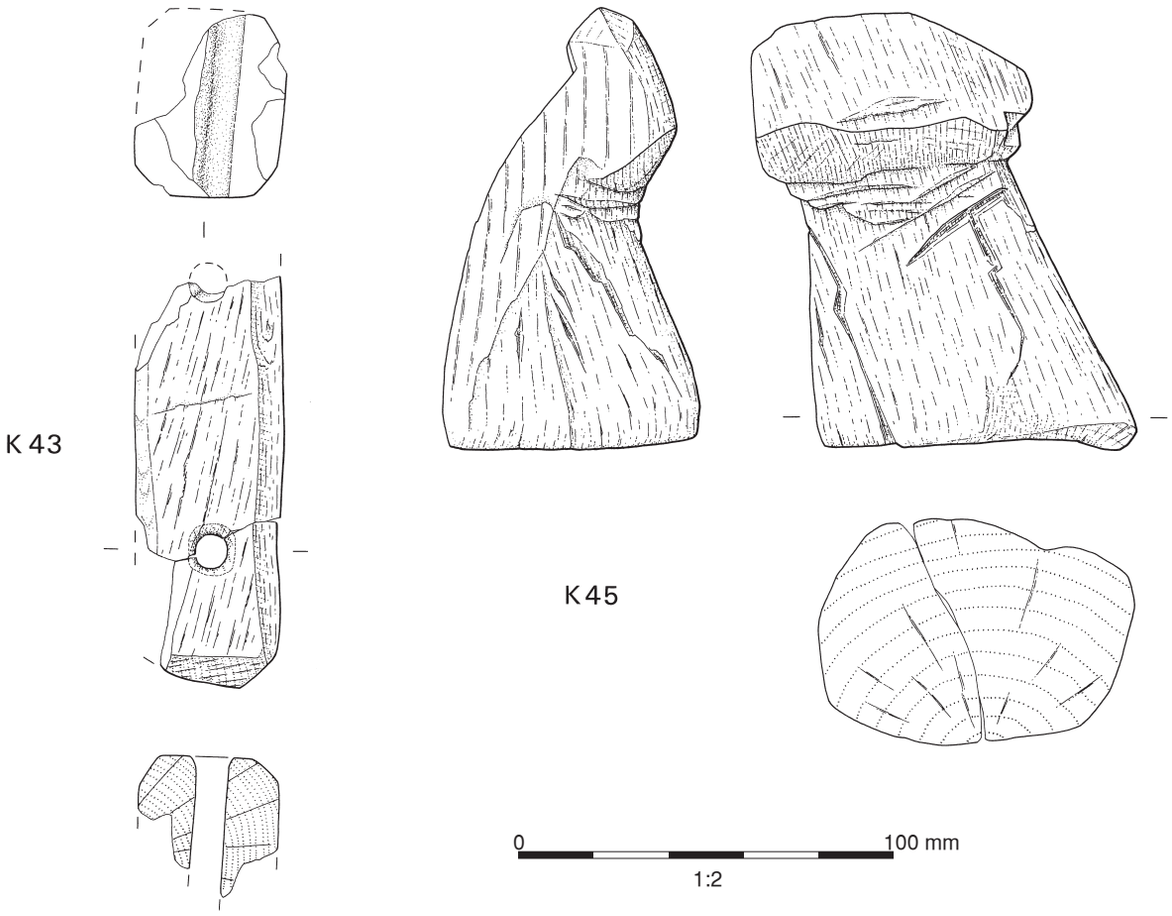

Figure 254: Unidentified wooden objects

from the edge nearest the leg to the junction with the arms, where there is no edge.
L: 550 mm; W: 320 mm; L (hole): 60 mm; W (hole): 45 mm; L (rebate): 270 mm; W (rebate): 95 mm
LAL D *1027.03*, WD 402, Period pre-10C

K42 Unidentified object. This is a thin, flat piece of bird cherry / cherry (*Prunus avium/Padus* sp) with two possibly original edges. One end is straight and is cut across the grain, and there is a cut 3 mm from it and parallel to it. The other possible original edge is at right-angles to the first.
L: 31 mm; W: 20 mm; Th: 1 mm
LAL C *209.05*, WD 143, Period 11A

K43 Unidentified object (Fig 254). This is a basically rectangular-sectioned block, with roughly chamfered corners. There are the remains of two holes through it, one, a sub-rectangular hole, 7 x 7 mm, at 30 mm from the more complete end, and a circular one, 8 mm in diameter, at the other end.
L: 108 mm; W: 50 mm; Th: 37 mm
LAL D *232.12*, WD 56, Period 11D

K44 Unidentified object. This is a cylindrical piece of wood which has two flat ends. One of these has a vertical-sided, flat-bottomed groove across it, which is wider at one side than the other.
L: 85 mm; W: 85 mm; Th: 88 mm; W (groove): 24-32 mm; Depth (groove): 30 mm
LAL D *232.14*, WD 69, Period 11D

K45 Unidentified object (Fig 254). A rectangular-sectioned block has been roughly carved into shape.
L: 108 mm; W: 83 mm
LAL D *232.16*, WD 94, Period 11D

Basketry

E R T Allnutt

For a glossary of basket terms, see Wright 1983.

W1 Fragment of ?ribbed basket with no original edges or evidence of how the weave was started or ended. The description and dimensions are taken from a drawing and

photograph created shortly after lifting. The remains of six splints are interwoven in randing, with bands of stems and more splints. The splints appear to be triangular in cross-section, suggesting that they are radially split. The ends of the stems are slyped. The stems and splints alternate, but each 'round' is of equal width. There is no difference in the size of the splints between the two elements of the weave. The stems are also worked in randing but do not appear to be worked with any regularity. Only one band exists in its entire width, encompassing 12 stems. These appear to be woven as individuals, in randing, but in some places two stems seem to be worked in slewing, with no apparent regularity in the choice of one or two stems. A split down the centre hampered identification of the weave, sometimes making it difficult to match the two parts together. No identification was made of the wood.
L (overall, min): 545 mm; W (overall, min): 240 mm; W (splints): 37-51 mm; Th (splints): 4 mm; Diam (rods): 6-13 mm
LAL D *1016.5*, W 667, Period pre-10C

W2 Wrapped border in very poor condition, so dried out that the individual parts have become unwoven and loose. The description is written with reference to the photographs taken before deterioration. This fragment has the remains of five stakes and a short length of core; no second element of weaving survives. It was too dried out for species identification. Dimensions are taken from the photographs.
L (frag): 34 mm; W (frag): 24 mm; W (border): 5 mm
KLA C *1185.02,* W 150, Period 8B

Basket **W1** was probably originally round or oval, the photographs showing a slight curve to the core, though it is not possible to be sure whether the curve is concave or convex on either view. The core of the wrapped border is usually placed around the outside of the basket when the walls have reached the required height, when each stake is looped over the cord and secured to finish off the basket. In this case each stake is looped over the core to the inside, and returned to the outside to the left of its original position. It then passed over itself and over the next two adjacent stakes to the right before being tucked inside again to rest on the inner face of the next stake, where any excess length would have been cut off.

Any identification of the material was impossible since its condition had deteriorated too much. It appeared twiggy and woody rather than soft and grassy, though it was perhaps too thin to be willow. The core seems to be made from the same material as the stakes and seems to be of similar dimensions.

Baskets can be made from a vast number of different materials, provided there is a natural flexibility in them, which will allow weaving. Willow stems, grasses, rushes, *etc* are more usual materials, but thin strips of wood cut along the rings from cleft quarter, or poles of wood, are not uncommon. Oak, ash, willow, hazel, birch, lime, beech, and larch have all been used, though the poles may require different treatments to render them pliable enough for weaving. The resulting thin strips may be used in a number of ways; in the traditional Sussex trugs, the willow splints are overlapped and nailed into position on a frame of ash or chestnut (Edlin 1949, 113), while in the Cumbrian swills, oak 'spelks' and 'taws' are woven in randing around a frame made of two overlapping hazel rods (Barratt 1983).

Wooden splints are usually woven into frames or ribbed baskets, though this does not mean that other materials are not used, either on their own or with the splints. This type of basket is made from one or two foundation rings of rods of ash, hazel, willow, birch, or other suitable wood. One ring forms the rim of the basket. The other optional one lies at right-angles to the first, one half forming the handle and the other half acting as one of a series of tapered ribs which form the bells of the basket and are woven in around the foundation ring. The intervening spaces are woven, usually in randing, around the ribs and the frame. The baskets are usually rounded on the bottom. In more modern times, such baskets tend to be 'working' baskets, used in agriculture and fishing, and made by the workers themselves rather than in a basket-maker's workshop. They tend therefore to be strong and serviceable rather than decorative, and idiosyncratic to their region and use (Wright 1983, 117).

There is no trace of any rod suitable for a frame on **W1**, which would indicate that this object was originally part of a frame basket. There is also no sign of any curve in any direction, which would also indicate a frame basket. However, the provenance of the fragment, within the backfill of a barrel-lined well (*1016*; *Ch 3*, *p 75*), indicates that it was probably discarded as rubbish and therefore may well have been incomplete or damaged before its deposition. Indeed, if the rods in the frame were reusable, it is quite likely that they would have been salvaged for reuse. The context also indicates that it was probably badly squashed *in situ*, which would lead to distortion. It should also be borne in mind that the piece is split down the middle, which might well mask any curve that might have been visible at one stage.

Although the material used for the frame will differ from that used for the body in a ribbed basket, it is unusual for two different materials to be used in the body of the basket, as is seen in **W1**. However, providing both materials are sufficiently flexible, there is no technical reason why they should not be combined.

If **W1** is interpreted as a frame basket then it would have been quite a large one. The size of the fragment reflects the size of the barrel into which it was put, rather than the size of the basket, which could well have been bigger. Cumbrian swills were made in a range of sizes from 16 inches to 40 inches (410-1020 mm), most measuring 24 x 20 x 6 inches (610 x 510 x 150 mm; Barratt 1983, 2). This remnant could well be part of one of the latter.

A fragment of a similar type of basketry was found in Exeter (Earwood 1991, fig 132, 277-8), dated to the late second century AD. This closely resembles the weave of Cumbrian swills and Worcester scuttle baskets, although, again, as with **W1**, there is no evidence definitely to make it a frame basket.

These seem to be the earliest known examples of splint baskets. The names given to these types of basket and their component parts seem to be of early medieval date. The name trug, though possibly reflecting the trough shape of the basket, possibly derives from the Anglo-Saxon word *troog*, meaning a boat (Edlin 1949, 113). 'Swill' may derive from the Anglo-Saxon *swilian*, meaning to wash. The bowl-like shape of the basket and the fact that it might well be water-tight when made by an expert suggest that the basket might have been associated with washing (Barratt 1983, 2). The longitudinal splints of the Lake District swills are called 'spelks', a word derived from Old Norse, meaning a splinter (Edlin 1949, 86).

Other examples of baskets with wrapped rather than woven borders, as in **W2**, seem to be designed especially for purposes where the comparative bulkiness of a woven border might impair the basket's use. A malt skip used for shovelling barley during brewing (Wright 1983, 48, illus 55) has one side pulled out to make a lip reinforced with a tin plate and a wrapped border. A seedlip made for the Museum of English Rural Life (*op cit*, 156, illus 248) has a wrapped border where presumably a woven one might impede the flow of the sower's hand. A winnowing fan, also in the Museum of English Rural Life (*op cit*, 157, illus 250), has a wrapped border to permit free flow of air during winnowing. Fragment **W2** is too small to be definite about its function.