

Leather and shoes

Site code: ONE94

Undated

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Introduction

The leather assemblage from No 1 Poultry consists primarily of over 160 shoes and a fairly large amount of waste pieces. The footwear includes a small group of unique openwork shoes that are of special interest not only locally and nationally but also in a wider European context. Other leather finds are surprisingly scarce and are limited to several straps, a scabbard and a motif piece. The condition of the leather is generally poor, the burial conditions not being wholly conducive to the preservation of organic materials. Waste leather is summarised in the section on Leatherworking.

Summary of footwear for ONE94

(Alison Nailer and Patricia Reid)

The footwear assemblage from Number One Poultry includes 22 complete or near complete shoes, substantial fragments representing at least a further 140 shoes and numerous indeterminate fragments and offcuts. Although the majority of the assemblage is in poor condition, and most of the shoes are fragmentary, stylistic and construction trends within them can be distinguished. Most of the shoes are very worn, and some have been cut up, presumably to salvage usable leather for recycling.

The styles and techniques of shoes and shoemaking in early medieval London have been comprehensively discussed (Pritchard 1991) and for the most part this assemblage conforms to the same trends. Stylistic and technical differences between the 10th and 11th centuries are difficult to define in London, partly due to a lack of early 11th century shoes and also due to a lack of closely dated secure stratigraphy. In the 10th century low cut slip-on shoes predominate; with leather thongs used to stitch the lasting seam between the sole and upper, generally using an edge-flesh stitch on the sole. In the 11th century the prevailing trend is for ankle boots, with the leather thong of the lasting seam replaced by thread tunnel stitched through the sole later in the century. However, a small number of ankle boots are found in the later 10th century and the low shoes continue to be made in the 11th century.

The pattern of the sole is the best indicator of 10th century shoes in London. the toe is rounded, while the sides widen across the tread before tapering towards the heel which ends in a back point, extending up the back of the foot to form a v-back. Little distinction is made between the right and left foot, a slightly asymmetric cut of the forepart on some shoes is the only indicator. The waist is not defined at all. In the 11th century the sole shape remains roughly the same; there is slightly more emphasis on the toe, with toes becoming more pointed, although really pointed toes do not appear until the end of the 11th century. Not all 10th and 11th century shoes have a v-back, some have a rounded heel. The v-back disappears in the early years of the 12th century when all heels become rounded.

The great majority of the shoes in this assemblage are two-piece turnshoes with a sole and one-piece upper (Grew and de Neergaard 1988). In most cases the one-piece upper was wrapped around to form a butt seam at the side, usually the inside of the foot, and attached to the sole using a leather thong. This may indicate an 11th century date as Pritchard (1990) believes that back seams are characteristic of 10th century shoes. In at least 13 cases, the upper was seamed at the back of the heel. Apart from a very unusual and distinctive group of 14 one-piece openwork shoes which are treated separately (see below) there are only 2 exceptions to these generalisations. In one case the shoe is cut from one piece with the sole only partly separated and later stitched to the upper, and five cases where a two-piece upper consisting of a main piece and a smaller piece are seamed together at side and back. The overall sole shape is symmetrical with a rounded or very gently pointed toe placed centrally, and straight or gently tapered sides: the soles are not waisted. This style is thought to be characteristic of the 11th century.

Within this common framework, there is a great deal of variation. In 66% of the assemblage the shoes have a v-back. Back points are usually equilateral triangles in shape but are sometimes elongated or flattened. In at least 20 cases, including the one-piece openwork shoes, the back point is wrapped over a pre-existing heel and attached by tunnel stitching so that no seaming is visible from the outside. In most cases, however, the back point is inserted into the heel area in a specially cut opening, or into an open back seam and attached using the same edge-flesh stitching as elsewhere for sole and upper. Shoes with rounded heels rather than v-backs are found in most groups. There are no examples of heel stiffeners from this site.

The full range of fastening types typical of 10th/11th century London is represented in this assemblage; although, unlike other London footwear assemblages such as those from Upper Thames Street and Cheapside (Goffin 2000), a slip-on style, with no built in fastening method, is commonest. Slip-ons are usually associated with low-cut styles from the 10th century. Simple forms of drawstring fastening with several small slits are also quite common. There are some examples of latchet and toggle fastenings, but these are relatively rare compared with other London assemblages. This type of fastening is usually associated with ankle shoes and low boots, as is the more complex method of a stitched on flap at the throat with built in tie straps found in five cases. These fastening techniques are associated with the 11th century. The one-piece openwork shoes, discussed separately, have a very unusual fastening style

On the whole, these are not decorated shoes although most have neat binding stitch on the top edges which may be partly decorative. Single embroidered vamp stripes are found on a number of shoes. The most unusual decorative features are the impressed patterns of lines and circles found on the V- backs of a small number of shoes. Similar examples have been identified in London from Vintry and impressed v-back patterns, although of different form, are found on two early 10th century shoes from Winchester. The most elaborate shoe is a very

low cut slipper type, small adult size, with a triple fanned vamp stripe, shaped profile curving up to the heel, neatly bound edges and decorated v-back.

A full range of sizes from infant's shoe to large adult's shoe is present in this assemblage. The children's shoes tend to be less worn and repaired than the adult shoes but there is little stylistic difference, except that the sole shape for the smaller shoes tends to be oval. Many of the shoes show signs of having been repaired, some still having repair patches in place, attached by crude leather thong tunnel stitching. A number of detached repair patches feature in the assemblage. One shoe shows signs of extensive modification to accommodate a severely swollen foot.

The Number One Poultry shoes cannot be closely dated as most are from dumps with little secure stratigraphy, and in many contexts shoes with 10th and 11th century characteristics are found together. This may indicate residuality within the dumps; or it may be a reflection of items that have been worn for as long as is practicable, then kept for their potential for patching and repairing other items before being discarded some years after they were made. Some of the shoes combine features which have previously been ascribed to either the 10th or the 11th century: which may suggest that they are of early 11th century date. Apart from the one-piece openwork shoes, only one clear 'type' is identifiable, of which there are at least six examples in this assemblage. This is a simple slipper type turnshoe, with a one-piece upper seamed at the back around the v-back, a gently rounded toe and bound edges. This type is found on other contemporary sites in London including Milk Street (Pritchard 1990), Upper Thames Street, and the neighbouring site of 72-75 Cheapside (Goffin 2000) It is also common in York, Dublin and many other sites in northern Europe with an example known from the Faeroes.

One-piece openwork shoes

(Patricia Reid)

A group of shoes from Number One Poultry have been identified as representing a unique and highly distinctive type of footwear in 10th century Europe. Of the 14 items of footwear, 10 come from one context, the lowest level of the east/west roadway dated to the main Late Saxon structural phase (period 35); the others are from pits dated tentatively to the next phase but plausibly contemporary with the road surface (Rowsome: pers. comm.) The main Late Saxon phase is dated broadly to AD 900-1050.

Table 1:

Context	Period	Area	No.	Catalogue numbers
1021	36	OA131 (pits)	1	L23
7279	36	OA131 (pits)	1	L24
12411	36	OA144 (pits)	1	L25
17317	35	OA144 (pits)	1	L11
17529	35	R102 (road/ditch)	11	L12 – L22
Total			15	

Although these shoes have some surviving Roman traits, they share enough similarity with other shoes of the 10th and 11th centuries in northern Europe to place them firmly in the early medieval period. However, they also show a range of striking features, which have not been observed before in any shoes in London (Reid, in prep) or, indeed, early-medieval northern Europe. Following the prevailing trend for 10th century shoes these shoes are made of relatively thick leather, probably cowhide, and seams are stitched with leather thongs. The overall sole shape is symmetrical and tapered towards the heel, with no suggestion of waisting. On vamps, stitch holes indicate the former presence of embroidered vamp stripes; heels have v-backs.

Unusually for London, and indeed for other contemporary footwear in Britain such that from Winchester (Thornton 1990), York (Macgregor 1982, Tweddle 1986) and Durham (Thornton 1979), these are one-piece shoes; cut as a single complex piece, folded (possibly around a last) and seamed to give a 3-dimensional shape. One-piece shoes are found across 10th century continental Europe and Ireland, where they represent the survival of an earlier trend. However, this group of shoes are more elaborate and complex than has been recorded elsewhere. The reconstruction is based on a combination of L12 <3339> [17529], L24 <1038> [7279] and L25 <3691> [12411].

Description

The basic cut of these one-piece shoes is similar to slippers of the period. They are low cut at the side and curve sharply upwards to the back. In one case, L12, the slopes are asymmetric, with the inside of the foot markedly lower than the outside. Most of the heels are seamless with points of leather wrapped and tunnel stitched over them to form v-backs, although L25 does show an ingenious back seaming arrangement. The peak of the v-back matches the highest point of the heel. The seat of the sole has not survived in any of these shoes and so the relationship between the sole and the v-back is uncertain. Small stitch holes at the base of some v-backs e.g. L12 and L22, suggest that perhaps a triangular piece was cut separately and attached to the back. It is, however, possible to envisage a cut which incorporates a sole with a back point. At the front of the

shoe the extraordinarily elongated toe strip is folded upwards around the toe and tunnel stitched down the centre of the vamp to match up with the vamp stripe.

Elaborate openwork reduces the vamp to a strip or panel tapering towards the throat and curving to link with the outer side of the shoe, giving the shoe an asymmetric appearance. All the surviving vamps have vamp stripes, most apparently embroidered. A strap with a long slit is also incorporated in the basic cut, branching across from the outer side of the foot. Large (20 mm long) eyeholes with lower edges serrated by knife cuts are situated on both quarters. The toe is centrally placed and has a slightly concave point: the strip coming up from below would have enhanced this. Wear marks and stretch patterns suggest that laces, presumably leather thongs, were threaded through the straps and eyeholes, to secure the shoe to the foot and lower leg. The cut edges are not bound, going against the standard practice for the period, but the edges are exceptionally clean-cut and sharp, showing no shredding and fraying.

These are all adult shoes, but not all worn by one person. The range of sizes (210 mm length for L24 and 260 mm length for L12) could suggest that both males and females wore them: alternatively, adolescent boys could have worn the smaller sizes. They must have been time-consuming to make, needing relatively large sheets of leather: these are not the shoes of the poor. Also, the style is not conducive to heavy use: the straps and panel strip attachments are frail and must easily have broken, and the asymmetry of the upper must have affected gait, as hinted by the misaligned repair patch on the front of L24.

The eccentric technical and stylistic features indicate that these shoes are all made by the same workshop, probably the same person. Furthermore, the shoes are so distinctive and limited in distribution that it seems likely that the wearing of them was significant – that they were in some way emblematic of small group identity. The heavy wear and repair implies that these were valued shoes, worn until they disintegrated beyond saving.

The one-piece cut of these shoes is not unique. Pre-Scandinavian Irish shoes offer the closest similarity (Lucas 1956). The Irish one-pieces fold upwards to an insert in the vamp, but the side seam is similar to these shoes. Unfortunately, the closest Irish match is unprovenanced. Hald describes a number of one-piece shoes from Jutland, some of which are Roman inspired but others related to a technical style going back to the Bronze Age (Hald 1972).

Tenth and early 11th century shoes from Hedeby and sites eastwards around the Baltic are also often one-piece, though not as elaborate as the Irish examples (Groeneman Van Watteringe 1984, 1988; Jadzewski 1966; Leciejewicz 1972). Montembault mentions a small group of Carolingian one-piece shoes from St Denis in Paris, which seam at the sole (Montembault 1998). From London, however, there is only one other example of a one-piece shoe; from Upper Thames Street, a tiny child's shoe otherwise quite conventional in style;

elsewhere in 10th century Britain the turnshoe with a separate sole seems universally established on present evidence (Reid; in prep).

Other features are more difficult to parallel. Only one other example of the large wrapped v-back is known in Britain at present, from 10th century Gloucester (Goudge 1979): this is tunnel stitched onto a back seam very like that of L166/7; there are, however, no large eyeholes and the cut edges are bound in conventional style. The high back, untypical of London or Winchester 10th century shoes, is found in the Irish shoes.

However, the elaborate openwork and the asymmetric vamp panel are the distinctive and unparalleled features of these shoes. On present evidence, the only 10th century footwear which displays an asymmetry of this kind is the highly stylised and symbolic sandals worn by biblical saints in certain manuscript illuminations. The stylised representations of these illuminations, however, limits their interpretative value. It is perhaps possible that the shoemaker (or his client) was inspired by pictures seen in manuscripts – which may explain why, although these shoes present a stylish impression, their actual construction is rather clumsy.

What seems unlikely at present is that these are the shoes of an ethnically different group living on Cheapside at the time. Neither are they fashionable shoes of the court – all portrayals of the courtiers at the time show foot-covering shoes. A possibility is that these shoes were worn within a religious community, served by a single in-house shoemaker. Other interpretations must await further examination of European shoe archives

Leatherworking

A significant quantity of fragmentary scrap and waste leather and parts of worn shoes were recovered from deposits in open areas to the west of Bucklersbury in periods P35 and P36. They occurred with other items, including skates and animal bone, and so presumably arrived as rubbish cast out from a site nearby rather than as waste from activity on the spot.

The type of waste, as well as the quantity in which it was found, indicates that leatherworking, probably shoemaking, was taking place in the vicinity of the site, perhaps in the area immediately to the west of Bucklersbury. The waste recovered includes fragments discarded from the three initial stages of shoemaking. First the unusable areas of the hide are removed; for this site predominantly hide edges and teats, including a large piece of cows udder. The shape of the uppers and soles are sketched out on the remaining pieces of leather and these rough shapes are cut out. The fragments most frequently left over from this part of the manufacturing process are roughly triangular pieces with curved sides many of which were found on this site. The upper and sole fragments are then trimmed before the shoe is assembled. The waste pieces

from this trimming stage are usually long, thin strips and shavings all of which occur on this site.

Table 2 Summary of leather waste pieces

Period 32								
Landuse	Context	Thin Offcuts	TO + HE/nipples	Trimmings	Thick Offcuts	TO+ HE/nipples	Scrap	Re-used
OA105	3218	10		5	1	2	6	
	3451		1					
OA140	11677							1
	6128			3				
Period 33								
OA110	3251	1		11				
	3544	36	9	17	4			
Period 34								
OA113	3540	3		3	1		7	
Period 35								
B117	17258	2			1			
OA119	7034	3						2
OA142	6100			1				
	6080	1		1		1		
	6089	2						
	6090	1						
	6096	1						
	6106							1
	6013	4	3	1	1			1
	6067				1			
	6031	1					3	
	6010						4	1
	6011	3				3		
	6012		1					
	6015							?2
R102	17529	?14	1	1	4	1	47	
	16916	33	4	28	2	4	71	4
	16993	66		6	13	10	84	2
	16780	1						
	16882	6		8			10	1

Period 36								
Landuse	Context	Thin Offcuts	TO + HE/nipples	Trimnings	Thick Offcuts	TO+ HE/nipples	Scrap	Re-used
OA129	8981	1			1			
OA131	7143					1		
	7416	1		1	1			
	7235	6		3				
	7279						2	
OA132	7182*	14	3	11	6	1		
OA135	16806	1		4	1		7	
	16992						12	1
OA143	11223	1						
OA144	11566					1		1
	11778	1						
	11715							1
	11305						1	
	12362	3	4	3	1			
	11974	2			2			
	11897	103		55	11	14		
OA145	11261	1				1		
Period 40/43								
OA137	18021			2				

NB this table includes a few pieces of accessioned waste

A few examples of pieces of waste that have been toyed with were found, including several trimming strips tied in knots (L7-L9). One small offcut had been used as a trial piece (L10) in a similar way to motif pieces of animal bone also found on this site. Other examples from the City have been found at Milk Street, Guildhall House, St. Alban's House, and Seal House (Vince 1991).

It is significant that a number of contexts contain both waste material and pieces of well-worn shoes which may have been discarded by cobblers as unrepairable or unsalvageable. There are also unidentifiable fragments of torn leather which may or may not have come from the manufacturing process, and a small quantity of pieces which have been cut from articles salvaged for reuse. This re-use of suitable leather is very common in all periods. It is noticeably in much poorer condition than most of the waste pieces.

Waste fragments were recovered from 46 contexts. Most of these deposits contained less than ten fragments but a number of contexts contained quite considerable amounts. Of these contexts, 22 also contained shoes or shoe pieces. It is noticeable that a few contexts contain much larger quantities of waste, and it is these which perhaps demonstrate dumping on a scale reflective of a local industry. Where there is fewer than ten pieces of waste in a group no conclusions as to means of deposition or surrounding activities can be safely drawn – the pieces may have arrived in the context from anywhere and by any means, including secondary dumping or redeposition within the boundaries of the

excavation. For this reason only the groups with more than ten pieces of waste have been examined for indications of industrial activity.

Although this waste assemblage is much larger than is normally found in Saxon London, it represents only a very small fraction of the quantities that would be produced by a regular workshop (Pritchard 1991, p211).

Complete catalogue of selected medieval leather fragments from

1 Poultry

Penny MacConnoran

<L1> Leather scabbard

<3052>, [16992]; period 10, phases 1 and 2, OA135

Complete. Knife scabbard. Single piece of folded leather with grain-flesh stitch holes along side seam. Undecorated. Suspension loop on blade edge; three horizontal slots at throat may also be to accommodate a strap or thong to hang the scabbard from a belt.

<L2> Leather strap

<3004>, [16882]; period 9, phase 2, R102

One piece of narrow strap.

<L3> Leather strap

<6778>, [16882]; period 9, phase 2, R102

Two pieces of narrow strap held together by leather thong.

<L4> Leather strap

<3264>, [16882]; period 9, phase 2, R102

Three pieces of narrow ?strap.

<L5> Leather strap

<3076>, [6011]; period 9, phase 2, OA142

One piece of narrow strap.

<L6> Leather strap

<3035>, [16916]; period 9, phase 2, R102

One piece of narrow strap, thong-stitched to triangular ?reinforcement patch.

<L7> Leather waste

<1037>, [7235]; period 10, phases 1 and 2, OA131

Two pieces of knotted waste.

<L8> Leather waste

<3036>, [16916]; period 9, phase 2, R102

Two pieces of knotted waste.

<L9> Leather waste

<6779>, [16916]; period 9, phase 2, R102

One piece of knotted waste.

<L10> Leather waste

<6776>, [17282]; unphased

Motif piece. Irregularly shaped offcut strip with rough interlace pattern set within two separate triangles; a third triangle is empty.

<L11> Leather one-piece openwork shoe

<6780>, [17317]; period 9, phase 2, R102

Incomplete. Vamp portion, very delaminated. Central vamp panel with open area to the right, and strap with slit coming across from right side. Edges unbound. See <L12> and <L24>.

<L12> Leather one-piece openwork shoe
<3339>, [17529]; period 9, phase 2, R102
Nearly complete; L c 250mm, W c 120mm, H c 65mm. Adult size. Mid left side missing, some delamination. One-piece shoe wrapped to presumably seam on the missing left side. No seams survive. Vamp cut to produce an asymmetric central panel, joined to right side of shoe with decorative cut-out at its root. Stitch marks indicate embroidered vamp stripe along the panel with broader stripe in toe area. A strap with slit is cut as part of the right side. A very large open hole with serrated lower edge is positioned either side of the exaggerated point of the V-back, which is tunnel-stitched on to the back of the upper. The toe is pointed with slight concavity. The quarters are markedly asymmetric. The sole area is heavily worn with a complex pattern of stitch holes indicating several repair patches. This shoe is one of a highly unusual group found on this site. See <L24> and <L25>.

<L13> Leather one-piece openwork shoe
<6781>, [17529]; period 9, phase 2, R102
Incomplete. Toe and centre vamp portion. Embroidered vamp stripe. The underside clearly reveals the former attachment of a strip that curved up and over the toe to be attached above the vamp stripe. See <L24>.

<L14> Leather one-piece openwork shoe
<6782>, [17529]; period 9, phase 2, R102
Incomplete. Central vamp panel, curving to the right at the lower end. Embroidered vamp stripe, with wider pairs of stitch holes above the toe.

<L15> Leather one-piece openwork shoe
<6783>, [17529]; period 9, phase 2, R102
Left quarter. Very large open hole with serrated lower edge. No seam to sole/upper. Sharp slope upwards towards the back. Top edges unbound.

<L16> Leather one-piece openwork shoe
<6784>, [17529]; period 9, phase 2, R102
Incomplete. Central vamp panel only. Traces of embroidered vamp stripe.

<L17> Leather one-piece openwork shoe
<6785>, [17529]; period 9, phase 2, R102
Rear right portion. Two very large eyeholes with serrated lower edges are present. Steep curve up to back. Stitch holes indicate the former presence of a large back point tunnel-stitched on to the seamless back to form V-back. Top edges unbound.

<L18> Leather one-piece openwork shoe
<6786>, [17529]; period 9, phase 2, R102

Incomplete. Quarter; side uncertain due to delamination. Two very large open holes with serrated lower edges. A butt side seam is indicated. No trace of lasting margin. Evidence of repair.

<L19> Leather one-piece openwork shoe
<6787>, [17529]; period 9, phase 2, R102

Incomplete. Upper fragment. Rear portion, in poor condition. No trace of lasting margin; V-back with thick back point (H 65mm) attached by tunnel stitching to the back, with superficial design cuts to mark its boundary. Almost certainly a one-piece shoe.

<L20> Leather one-piece openwork shoe
<6788>, [17529]; period 9, phase 2, R102

Incomplete. V-back with tall narrow back point attached to unseamed back. Pattern of tunnel-stitch attachment using leather thong suggests this is from a one-piece shoe.

<L21> Leather one-piece openwork shoe
<6789>, [17529]; period 9, phase 2, R102

Incomplete; H 47mm with sharp slope up to back at 83mm. Upper fragment; rear portion. V-back with large back point attached by tunnel stitching. Top edges bound. This is similar to the one-piece openwork shoe type.

<L22> Leather one-piece openwork shoe
<6790>, [17529]; period 9, phase 2, R102

Incomplete. Upper fragment; rear portion, some delamination. V-back heel, a large (H 80mm), narrow, back point is attached by leather thong tunnel stitching; superficial cut marks demarcate its boundaries on the seamless upper. A row of stitch holes across the base suggests separate attachment of back point rather than a sole/upper seam. This is probably another example of the one-piece openwork shoe group.

<L23> Leather one-piece openwork shoe
<6791>, [1021]; period 10, phases 1 and 2, OA135

Incomplete. Right quarter fragment. Very large open hole, with serrated cuts on lower edge; narrow strap extending from upper edge. Unbound edges. See <L12>.

<L24> Leather one-piece openwork shoe
<1038>, [7279]; period 10, phases 1 and 2, OA131

Incomplete; L 210mm. Small adult shoe. Heel section and right quarter missing. Elaborate one-piece cut, folded and butt-seamed in two places at the side to create a three-dimensional shape. Extensive and elaborate openwork has reduced the vamp to a narrow strip or panel that curves from the centre of the toe to the right side of the foot, implying an asymmetric vamp plan. An embroidered vamp stripe follows the central panel but, at the toe end, design cuts and traces of tunnel stitches show that a second strip was attached; remnants of this strip survive at the extreme tip and show that the strip originated under the shoe, curling up and over the toe and down to meet the vamp stripe. For similar, see <L13>. The openwork has also created a short, narrow strap with a long slit,

coming from the right side of the foot. On the left quarter and side, two large horizontal slots show clearly the pressure of thong(s), which passed through them as part of the fastening mechanism. The toe is pointed and slightly concave. The sole area is considerably worn and a large and thick repair patch is still attached to the front area, slightly off-centre.

This is clearly a most unusual shoe with, to date, no parallels from elsewhere. It is not, however, alone on this site, where at least 13 other examples have been identified. In particular, this item needs to be considered alongside <L12>, a very similar near-complete shoe but with a complete back section that is equally unusual. Whether these shoes represent an original but ultimately unsuccessful local innovation, or whether they were imported, cannot be determined at present.

<L25> Leather one-piece openwork shoe

<6792>, [12411]; period 10, phases 1 and 2, OA144

Incomplete; estimated L 300mm, H 90mm. Large adult shoe; rear portion. The large back point is wrapped over the seamed back and attached by tunnel stitching to form a V-back. Two large open holes with serrated lower edges are found just in front of the point. See <L12>. An integral cut strap crosses from the right side. Edges are clean-cut and unbound. The sole is very worn with a repair patch still in place. The front edge of the repair patch seems to have been cut and an associated patch fragment fits this cut edge well.

<L26> Leather ?one-piece openwork shoe

<6793>, [12411]; period 10, phases 1 and 2, OA144

Incomplete. Sole/upper fragment. Rear portion; V-back, with an unusually shaped back point, 125mm wide at the base and tapering in sharply for the lower half, then becoming a narrow parallel-sided strip; tunnel-stitched on to a seamless back of heel. All seams use leather thongs. Top edges are clean-cut and unbound. The small surviving sole area is very worn with the remnants of a repair patch still in place. The upper shows signs of cutting.

One-piece shoes

<L27> Leather one-piece shoe

<3262>, [16882]; period 9, phase 2, R102

Incomplete; L 140mm (estimated total L 170mm), H 40mm. Child's size.

Most of rear portion, vamp and left side missing. The upper and sole are cut as one piece; the left side of the sole is brought round to seam on to the wrapped-around upper, which is joined in a butt seam on the left side. Leather thong is used to stitch the sole side and upper in a turnshoe seam. Rounded heel. Top edges unbound. Repair patch remnant at rear of sole. Probably a slip-on style. This type of cut is common in shoes from 10th-/early 11th-century Hedeby (Groenman-van Waateringe 1984).

<L28> Leather turnshoe

<1212>, [3568]; intrusive in period 6.3, B64, room E

Incomplete. Fragment of child's low-cut shoe. 9th–11th century AD. Well-preserved front section of low-cut slipper-type shoe upper. Leather thong attachment to the sole in a turnshoe seam. This appears to be a slip-on shoe with a rounded toe. Edges unbound; no vamp decoration.

<L29> Leather turnshoe

<6794>, [6124]; period 8, phase 1, OA140

Incomplete. Rear part of ankle shoe, butt side seam. Sole/upper attached by leather thong stitching in a turnshoe seam, rounded heel. No binding stitch on top edge. Presumably one-piece upper wrapped to join at butt. Probably slip-on type. Associated ceramics dated to AD 900–1050.

<L30> Leather turnshoe

<3493>, [6132]; period 8, phase 1, OA140

Nearly complete; L 179mm, W 77mm. Child's ankle shoe. Right foot. Sole delaminated. Elongated oval-shaped sole with very rounded toe and rounded heel. One-piece upper, butt side seam, attached to sole with leather thong in turnshoe seam. Slit on each quarter, with a length of drawstring *in situ* on right quarter. Line of stitching at vamp throat suggests a tab, now missing, to which the drawstring may have been attached. No binding stitch on top edge. Single impressed vamp stripe. The sole shows little wear; no evidence of repair.

<L31> Leather turnshoe

<3186>, [6096]; period 9, phase 1, OA142

Incomplete. Front portion of low-cut slipper-type shoe. 10th century AD. One-piece upper, no side seams. Leather thong stitching in lasting margin. Rounded toe. Single embroidered vamp stripe, bound top edges. Associated ceramics dated to AD 970–1100.

<L32> Leather turnshoe

<2894>, [6013]; period 9, phase 1, OA142

Incomplete; L 270mm, H 85mm. Adult shoe. 11th century. Rear upper with two associated sole/upper fragments. One-piece upper joined at butt seam on side, thick leather thong stitching in very heavy lasting margin. Toe very rounded and blunt, heel rounded. Top edges finished with large, well-spaced binding stitches. Slip-on shoe.

<L33> Leather turnshoe

<6795>, [6067]; period 9, phase 1, OA142

Incomplete; L 145mm (incomplete) with extension of 55mm for the back point. Child's shoe. 10th/11th century. Sole and three upper fragments; upper in good condition but sole very worn and delaminated. Toe missing. One-piece upper joins in a butt side seam, with leather thong stitching in lasting margin. The V-back is equilateral. This was probably a slip-on shoe. Top edges bound.

<L34> Leather turnshoe

<2831>, [6011]; period 9, phase 1, OA142

Incomplete. Small adult shoe fragment. 10th/11th century. Low-cut slipper-type shoe, left vamp fragment and forepart of sole only; leather thong stitching in

lasting margin. Toe gently rounded, edges bound. Fragments of front repair patch still in place.

<L35> Leather turnshoe

<2811>, [6012]; period 9, phase 1, OA142

Complete; L 240mm with an extension of 70mm for the back point, W 104mm. Adult low-cut slipper-type left shoe; ?10th century. Exceptionally low cut at the front and sides (H 58mm), but stepped up halfway along the quarters to give a relatively high back (H 90mm). One-piece upper with back seam, V-back with large back point. The back point is relatively tall and narrow (40mm at base). Upper edges rise to form small horns above the top of the back point. Leather thong stitching in lasting margin. The thong and stitching is fine and small by the standards of other shoes.

Broad, slightly tapered sole with gently rounded toe. Top edges bound; vamp decorated with a fan of three vamp stripes; back point decorated with an impressed pattern of dots and lines. Heavily worn sole, especially at right heel and left tread; stitch marks indicate the former presence of repair patches at front and rear. The rear patch overlapped the upper on the right side and superficial cut marks on upper and sole outline the edge of the patch, implying forward planning.

<L36> Leather turnshoe

<3763>, [17258]; period 9, phase 2, B117

Incomplete; L 150mm, estimated total L 180mm, H 50mm. Front portion of child's low-cut shoe. ?10th century AD. Leather thong stitching in lasting margin. Slip-on style. Rounded toe. Top edges bound.

<L37> Leather turnshoe

<6796>, [17258]; period 9, phase 2, B117

Incomplete; H 50mm. Upper fragment. ?10th century AD. Left side and back of low-cut shoe. One-piece upper seamed at back, V-back almost full height of shoe. Leather thong stitching in lasting margin. Slip-on style with rounded toe.

<L38> Leather turnshoe

<6797>, [17529]; period 9, phase 2, R102

Incomplete; H 50mm. Small adult shoe fragment. 10th/11th century. Front portion. Leather thong stitching in lasting margin. Top edges bound; narrow embroidered vamp stripe. Probably a slip-on style.

<L39> Leather turnshoe

<6798>, [17529]; period 9, phase 2, R102

Incomplete; L 160mm, H 50mm. Upper fragment. 10th/11th century. Right quarter and side of low-cut child's shoe, in good condition. One-piece upper, seamed at back around back point. Leather thong stitching in lasting margin. Top edges unbound. Slip-on style with rounded toe.

<L40> Leather turnshoe

<4081>, [17529]; period 9, phase 2, R102

Incomplete; H 90mm. Adult shoe fragment. 10th/11th century. Centre and rear portion of shoe. One-piece upper with side seam, leather thong stitching in lasting margin. V-back heel. Top edges bound; single embroidered vamp stripe. Sole very worn; stitch holes show front repair patch attachment. This seems to be a large low-cut shoe.

<L41> Leather turnshoe

<4084>, [17529]; period 9, phase 2, R102

Incomplete; L 180mm, estimated total L 190mm, H 70mm. Child's low-cut shoe. 10th/11th century. Vamp and left side portion. One-piece upper, leather thong stitching in lasting margin. Slip-on style with rounded toe. Worn at toe tip.

<L42> Leather turnshoe

<3100>, [17278]; period 9, phase 2, R102

Nearly complete; L 245mm, H 77mm. Adult shoe. 10th/11th century. Right shoe. One-piece upper butt-seamed at left side, leather thong stitching in lasting margin. This is a slip-on style with rounded toe, symmetrical sole and rounded heel. Top edges bound.

<L43> Leather turnshoe

<3300>, [17278]; period 9, phase 2, R102

Incomplete; L 150mm, estimated total L 170mm, H 35mm. Front portion of child's low-cut shoe in poor condition. Leather thong stitching in lasting margin. Slip-on style, very rounded toe. Unbound edges. Some cut marks on upper.

<L44> Leather turnshoe

<6799>, [17278]; period 9, phase 2, R102

Incomplete; L 225mm, H 75mm. Small adult shoe. 10th/11th century. Near-complete upper, right side and heel missing. Sole very delaminated and fragmentary. One-piece upper, not seamed at back. Fine leather thong stitching in lasting margin. Top edges bound. Slip-on style, rounded toe and elongated oval sole. Heavily worn at heel and tread. Forepart repaired at least twice and seat once.

<L45> Leather turnshoe

<3060>, [16916]; period 9, phase 2, R102

Nearly complete; L 190mm, W 75mm, H 65mm. Child's low-cut shoe. 11th century. ?Left foot. One-piece upper, butt-seamed at the right side, leather thong stitching in lasting margin. Symmetrical oval sole, rounded toe and rounded heel. Two slits suggest drawstring fastening. Top edges unbound. The right heel and tread are very worn; no sign of repair.

<L46> Leather turnshoe

<4146>, [16916]; period 9, phase 2, R102

Incomplete; L 190mm, estimated total L 210mm, H 65mm. Rear portion of ?small adult low-cut shoe. 10th/11th century. One-piece upper, possibly side seamed, with leather thong stitching in lasting margin; V-back heel. Top edges bound. There is evidence of repair.

<L47> Leather turnshoe

<4148>, [16916]; period 9, phase 2, R102
Incomplete; H 50mm, H at back 95mm. Left quarter of ?small adult low-cut shoe. 10th/11th century. This portion slopes up markedly to the back, probably seamed at back around the V-back. Top edges bound.

<L48> Leather turnshoe

<6800>, [16916]; period 9, phase 2, R102
Incomplete. Upper fragment. 10th/11th century. Rear portion in fair condition. Thin leather thong stitching on lasting margin. Slip-on style, probably rounded heel. Some edges are bound.

<L49> Leather turnshoe

<3990>, [16993]; period 9, phase 2, R102
Incomplete; H 55mm. Child's low-cut shoe. Upper fragment; left quarter. Leather thong used to stitch sole and upper in turnshoe seam. Top edges bound.

<L50> Leather turnshoe

<6801>, [16993]; period 9, phase 2, R102
Nearly complete; L 290mm based on upper, H 70mm, H of back point 90mm. Large adult low-cut shoe. Upper in fair condition with sole/upper margin mostly missing. Two-piece upper with butt seam at side and turnshoe seam around V-back. Leather thong used to stitch sole and upper. Rounded toe. Top edges bound.

<L51> Leather turnshoe

<6802>, [16993]; period 9, phase 2, R102
Incomplete; H 47mm. Upper fragment; left quarter. Leather thong used to stitch sole to upper in turnshoe seam. Low-cut slip-on style; suggestion of V-back with inset point. Top edges bound.

<L52> Leather turnshoe

<6803>, [16882]; period 9, phase 2, R102
Incomplete; H 95mm. Adult shoe. Near-complete upper, toe part of vamp missing. ?Left foot. One-piece upper seamed at the side, stitched to sole with leather thong in a turnshoe seam. This is probably a slip-on shoe. Top edges unbound. This upper seems to be mostly cut away from its sole, presumably for reuse.

<L53> Leather turnshoe

<2472>, [11626]; period 10, phases 1 and 2, OA144
Nearly complete; L 260mm with 50mm extension for a V-back. Adult left shoe in poor condition, especially the sole, which is worn and delaminated. One-piece upper wrapped to join at butt side seam. Sole/upper attached with leather thong in turnshoe seam. V-back, broad and only slightly tapered. Slip-on shoe with a rounded toe. Some edges are crudely bound. The sole is very worn, including the remains of a repair patch beneath the big toe area.

<L54> Leather turnshoe

<2625>, [8981]; period 10, phases 1 and 2, OA129

Incomplete; H 60mm. Small adult low-cut shoe. 10th/11th century. Fragmentary. One-piece upper wraps to join at a butt side seam; leather thong stitching in lasting margin. Slip-on style, gently pointed toe and V-back. Top edges neatly bound. Sole very worn; no evidence of repair. In places the upper shows signs of cutting, presumably for reuse.

<L55> Leather turnshoe

<1039>, [7279]; period 10, phases 1 and 2, OA131

Nearly complete. Adult right shoe. 10th/11th century. Fragmentary and delaminated sole, back partly missing. One-piece upper wraps around to join at butt side seam, leather thong stitching in lasting margin. Very rounded toe, heel is also rounded. A long cut into the vamp from the throat was probably intended to ease the fit of this slip-on style. Edges crudely bound. Sole is very worn.

<L56> Leather turnshoe

<6417>, [7346]; period 10, phases 1 and 2, OA132

Incomplete; L 221mm, with extension of 30mm for equilateral back point. Small adult shoe. 10th/11th century. Three associated fragments: joined sole/vamp section, heel portion and left side; upper in good condition but sole worn and delaminated. One-piece upper wraps around to join in a butt side seam; thin leather thong stitching in a narrow lasting margin; V-back with small point. Toe pointed, sole gently tapered to the rear. This is a slip-on shoe. Top edges bound. Very worn sole, even through the attached repair patches at front and rear.

<L57> Leather turnshoe

<2590>, [11597]; period 10, phases 1 and 2, OA144

Incomplete; H 70mm. Nearly complete upper. 10th/11th century. Heel missing. One-piece upper wraps to join in a butt side seam, leather thong stitching in lasting margin. This is a slip-on style with a rounded toe. Top edges bound.

<L58> Leather turnshoe

<3306>, [16806]; period 10, phases 1 and 2, OA135

Incomplete; H 67mm. Upper fragment of low-cut shoe. 10th/11th century. ?Right quarter. Butt side seam with leather thong. Top edges unbound.

Turnshoes: ankle shoes/boots

<L59> Leather turnshoe

<2930>, [unstratified]

Incomplete; L 100mm, W 70mm. Sole/upper fragment. ?10th/11th century. Front portion of joined sole and upper in fair condition. Leather thong used to attach sole and upper in turnshoe seam. Gently pointed toe.

<L60> Leather turnshoe

<3370>, [17282]; unphased

Incomplete. Upper fragment. 10th/11th century. Quarter fragment, in poor condition. Leather thong used to attach sole to upper. Edges bound.

<L61> Leather turnshoe

<532>, [1223]; period 8, phase 1, OA105

Incomplete; L 250mm with further extension of 50mm for a back point, W 80mm tapering minimally to the heel. Near-complete right sole of turnshoe, heavily worn and delaminated. Attached to upper with edge-flesh stitching using leather thong. Rounded toe and small equilateral back point. The sole is worn at the big toe and right heel; repair patches formerly attached at front and rear. 10th/11th century.

<L62> Leather turnshoe

<6804>, [6124]; period 8, phase 1, OA140

Incomplete; L 165mm, estimated overall L 200mm, W 80mm, H 70mm. Small adult ankle shoe. Associated fragments of sole and upper, fairly complete except for heel. Upper in good condition but sole delaminated and distorted by concretions. One-piece upper, seam at back (no side seams). Very rounded toe and symmetrical sole tapering slightly towards the rear. No binding stitch on top edge. Single embroidered vamp stripe. Very worn sole, especially at heel and toe; no evidence of repairs. Wear suggests right foot. Associated ceramics dated to AD 900–1050.

<L63> Leather turnshoe

<785>, [3218]; period 8, phase 1, OA105

Incomplete; H 120mm sloping up to back. Ankle shoe/boot. Left quarter and back fragment. V-back. Sole/upper stitched by leather thong in turnshoe seam. Binding stitch on top edge. Associated ceramics dated to AD 1050–1100.

<L64> Leather turnshoe

<4241>, [6100]; period 9, phase 1, OA142

Incomplete. Front portion of adult shoe, very delaminated and worn sole. Lasting margin possibly using leather thong tunnel stitch. Toe very rounded with a broad base; sole tapers slightly towards the rear.

<L65> Leather turnshoe

<3190>, [6080]; period 9, phase 1, OA142

Incomplete; L 225mm, estimated total L 280mm, W 90mm. Near-complete large right sole, seat missing. Sole tunnel-stitched on to the upper, may have been a sole repair replacement. The toe is quite pointed and tapers very gently towards the heel. Right of tread worn.

<L66> Leather turnshoe

<3147>, [6081]; period 9, phase 1, OA142

Incomplete. Central and rear part of a right sole with 75mm extension for back point. Leather thong and edge-flesh stitching used in lasting margin. Sole sharply tapered towards back forming a tall, thin, inset V-back. Little wear; stitch holes indicate repair patch at seat.

<L67> Leather turnshoe

<3543>, [6082]; period 9, phase 1, OA142

Incomplete. Sole forepart fragment. Leather thong edge-flesh stitching in lasting margin. Pointed toe. No sign of wear, but stitch holes indicate former attachment of repair patch.

<L68> Leather turnshoe

<2894>, [6013]; period 9, phase 1, OA142
?Latchet. Narrow triangular strip, W 30mm. Neatly bound edges, large slit at the narrow end possibly for insertion of toggle.

<L69> Leather turnshoe

<2919>, [6018]; period 9, phase 1, OA142

Incomplete. Two sole fragments, leather thong stitching in lasting margin. Repair stitch holes on the larger fragment.

<L70> Leather turnshoe

<6805>, [6067]; period 9, phase 1, OA142

Incomplete; L 154mm (incomplete), extension of 40mm for back point, W 50mm, H 60mm. Child's drawstring shoe fragment. 11th century. Right foot. One main rear upper fragment, one sole/upper fragment and one sole fragment. One-piece upper, wrapped to join at butt side seam, leather thong stitching in lasting margin. V-back with shallow point inset into the upper. Five pairs of small slits indicate drawstring fastening. Top edges unbound.

<L71> Leather turnshoe

<6806>, [6031]; period 9, phase 1, OA142

Incomplete; H 60mm. Upper fragment. Right vamp and quarter in poor condition. Very rounded toe. No decoration on vamp; top edges bound.

<L72> Leather turnshoe

<6807>, [6031]; period 9, phase 1, OA142

Incomplete. Upper fragment. Quarters up to side seam, in poor condition. No back seam, probably one-piece upper joined at the side. Top edges bound.

<L73> Leather turnshoe

<6808>, [6031]; period 9, phase 1, OA142

Incomplete. ?Drawstring shoe, upper fragment. 11th century. Quarter with butt side seam, in poor condition. Vertical slit near the throat indicates drawstring fastening. Top edges bound. Some cut edges suggest recycling.

<L74> Leather turnshoe

<2892>, [6010]; period 9, phase 1, OA142

Fragment of adult turnshoe. Three delaminated and fragmented pieces of sole and upper of one shoe. Leather thong stitching in lasting margin. Repair patch stitch holes overlap on to upper.

<L75> Leather turnshoe

<2810>, [6011]; period 9, phase 1, OA142

Complete; L 312mm, W 126mm, H 105mm. Large adult drawstring shoe. 11th century. Right shoe; one of the largest in the assemblage. Thick leather in excellent condition. One-piece upper, butt seam on left side. Leather thong stitching in lasting margin. Very rounded toe, rounded heel. One slit in the centre of each quarter indicates drawstring fastening. Single embroidered vamp stripe along the centre of the vamp; top edges unbound. The oval sole is heavily worn, especially in the left heel and right tread, with a hole at the big toe point. Repair

patch, attached by tunnel stitching, still in place in the forepart of the sole.
Probably a man's shoe.

<L76> Leather turnshoe

<2813>, [6011]; period 9, phase 1, OA142

Fragments of adult shoes. 10th/11th century. Two sole/upper fragments and one upper fragment, not the same shoe. Leather thong stitching in lasting margins on both sole/upper fragments; one also shows evidence of repair.

<L77> Leather turnshoe

<2817>, [6011]; period 9, phase 1, OA142

Nearly complete; L 238mm, back point extension of 55mm, max W 89mm, H 137mm. Adult high-sided boot. 11th century. Left foot. One-piece upper, butt seam on right side, leather thong stitching in lasting margin; V-back, back point inset into upper. Impressed pattern of lines and dots on back point. See <L83> (Fig 261). Sole tapers gently to the heel, back point equilateral. Top edges bound. Impressed stripe along centre of vamp. This ankle boot is a particularly good example of latchet, toggle and tag fastening. One large latchet, W 80mm at base and 40mm at tip, carries two toggles, one complete, made of rolled leather and inserted through a slit in the latchet and knotted on the inside. The toggles each slotted into a tag (a shaped strip with slit) also attached by insertion and knotting. The upper tag is complete. In use, the latchet must have wrapped very tightly around a relatively slender ankle. Very worn, substantial repair patch *in situ* over the seat of the sole, overlapping the sole edges; evidence of a former patch over the forepart.

<L78> Leather turnshoe

<3003>, [6011]; period 9, phase 1, OA142

Complete; L 263mm, W 105mm, H 90mm. Adult drawstring shoe. 11th century. Right shoe. Upper in good condition; sole almost completely delaminated. One-piece upper joining in butt seam on left side, leather thong stitching in lasting margin. Two slits indicate drawstring fastening. Toe rounded, heel rounded. Top edges bound. Heavily worn sole, especially the right heel and left tread. Substantial portion of repair patch still attached by tunnel stitching in the forepart – even this is worn through in the big toe area.

<L79> Leather turnshoe

<3075>, [6011]; period 9, phase 1, OA142

Incomplete. Small adult shoe. 11th century. Mid portion of shoe. Butt side seam, leather thong stitching in lasting margin. Rounded toe. Top edges bound; wide embroidered vamp stripe. A bound cut flap at the vamp throat suggests an unusual fastening type where a narrow strap was stitched across the flap end and presumably threaded back through the quarters. See <L30> for another example of this feature from this site.

<L80> Leather turnshoe

<3088>, [6011]; period 9, phase 1, OA142

Nearly complete; L 183mm with 40mm extension for a back point, W 77mm, H 100mm. Small adult ankle shoe. 11th century. Seat missing. Very symmetrical

elongated oval sole with broad tread and gently rounded toe. One-piece upper joined at butt seam on side, leather thong stitching in lasting margin. Two narrow latches meet two tags across the instep. Top edges bound.

<L81> Leather turnshoe

<3098>, [6011]; period 9, phase 1, OA142

Incomplete; L 250mm. Adult boot. 11th century. Near-complete upper, heel area and tip of toe missing, sole fragment attached. Butt side seam, leather thong stitching in lasting margin. Toe rounded. One narrow latchet with toggle remnant; the base of a second latchet can be seen above. Top edges bound.

<L82> Leather turnshoe

<6809>, [6011]; period 9, phase 1, OA142

Small latchet, edges neatly finished with binding stitch; rolled leather toggle, inserted and knotted on the inside.

<L83> Leather turnshoe

<6810>, [6011]; period 9, phase 1, OA142

Incomplete. Decorated back point. 10th/11th century. Back point of sole, tall, narrow and slightly concave, formerly attached by tunnel stitching to the rear of a shoe. Impressed pattern of alternate lines and rows of dots runs up the length of the point. Similar impressed decoration on back points is found on this site, notably on <L136>.

<L84> Leather turnshoe

<6811>, [6011]; period 9, phase 1, OA142

Incomplete. Five fragments of upper, probably from different shoes. Three have unbound edges, two show side seams, and one shows a very rounded toe.

<L85> Leather turnshoe

<6812>, [17258]; period 9, phase 2, B117

Incomplete; H 70mm. Rear portion of one-piece upper, butt-seamed at side. Leather thong stitching in lasting margin. Inset V-back. Top edges bound; single embroidered vamp stripe. 10th/11th century.

<L86> Leather turnshoe

<1040>, [7392]; period 9, phase 2, OA119

Incomplete; L 218mm, extension of 75mm for the back point, W 95mm. Small adult shoe. ?11th century. ?Right foot. Sole and upper, mostly right side, fragmentary and delaminated. Two-piece upper, seamed at back and side. Leather thong stitching in lasting margin. V-back with equilateral, but slightly concave, back point attached by tunnel stitching on to the back of the shoe. Toe gently pointed. Top edges bound. Sole very worn on right side; no evidence for repair.

<L87> Leather turnshoe

<3371>, [17317]; period 9, phase 2, R102

Incomplete. Fragments. Sole/upper fragment with cut edge and leather thong stitching in lasting margin.

<L88> Leather turnshoe

<6813>, [17317]; period 9, phase 2, R102

Incomplete. Upper fragment. 10th/11th century. Right quarter. One-piece upper seamed at right side. Leather thong stitching in lasting margin. Top edges bound.

<L89> Leather turnshoe

<6814>, [17317]; period 9, phase 2, R102

Incomplete. Upper fragment. 10th/11th century. Front portion in very poor condition. Leather thong stitching in lasting margin. Rounded toe, unbound top edges.

<L90> Leather turnshoe

<3338>, [17529]; period 9, phase 2, R102

Nearly complete; L 176mm with 35mm extension for back point, W 69mm, H 70mm. Child's left ankle boot. 11th century. One-piece upper butt-seamed at right side, leather thong stitching in lasting margin. Narrow, elongated sole with very rounded toe and V-back; back point is equilateral. Drawstring fastening with flat thong still *in situ* in three slits and slotted across the vamp throat. Top edges unbound. Slight wear at left heel, with indications of former repair patch on seat.

<L91> Leather turnshoe

<6815>, [17529]; period 9, phase 2, R102

Incomplete; H 75mm. Upper fragment. 10th/11th century. Right quarter, in good condition. One- or two-piece upper, butt-seamed at back; V-back. Leather thong stitching in lasting margin. Top edges bound.

<L92> Leather turnshoe

<6777>, [17529]; period 9, phase 2, R102

Incomplete; H 80mm. Upper fragment 10th/11th century. Rear portion. One- or two-piece upper, butt-seamed at side and possibly at back. Leather thong used to stitch upper to sole in turnshoe seam. V-back. Top edges bound.

<L93> Leather turnshoe

<6816>, [17529]; period 9, phase 2, R102

Incomplete. Upper fragment. Child's shoe, front portion, tab fastening.

<L94> Leather turnshoe

<4055>, [17529]; period 9, phase 2, R102

Incomplete; L 245mm. Adult shoe. 10th/11th century. Most of an adult shoe, left vamp missing, but in very poor condition. One-piece upper wraps to join in butt side seam on the left, thick leather thong stitching in lasting margin. Pointed toe and rounded heel. Very worn sole with evidence for former repair patch on seat.

<L95> Leather turnshoe

<4082>, [17529]; period 9, phase 2, R102

Nearly complete; L 203mm, estimated total L 210mm, W 83mm, H 135mm. Small adult ankle shoe. 11th century. Very worn sole, heel missing. One-piece upper, side seam, leather thong stitching in lasting margin. Seam for attaching fastening latchet, but slits suggest drawstring thong rather than tag/toggle. Rounded toe and rounded heel. Top edges unbound. Single impressed vamp stripe. Sole is very worn at heel; no sign of repair.

<L96> Leather turnshoe

<4083>, [17259]; period 9, phase 2, R102

Incomplete; L 240mm, estimated total L 250mm, H 90mm. ?Ankle shoe/boot fragment. 11th century. Front and centre portion, in poor condition. One-piece upper, seamed on left side, leather thong stitching in lasting margin. Seam for fastening attachment, possibly tab type. Sole very worn and delaminated.

<L97> Leather turnshoe

<4085>, [17529]; period 9, phase 2, R102

Incomplete. Adult shoe fragment. 10th/11th century. Front/right side portion. Pointed toe and V-back heel. Very worn sole, but no sign of repair.

<L98> Leather turnshoe

<4320>, [17529]; period 9, phase 2, R102

Incomplete; H 53mm. Upper fragment. Part of right quarter, in poor condition. Some edges bound. Three parallel engraved lines in horizontal decoration.

<L99> Leather turnshoe

<6817>, [17529]; period 9, phase 2, R102

Incomplete. Sole fragment. Rear portion, rounded heel. Heavily worn right side with rear repair patch in place.

<L100> Leather turnshoe

<3590>, [17278]; period 9, phase 2, R102

Incomplete. Upper fragment. Probably vamp, very poor condition. One-piece upper, butt-seamed at side. Leather thong stitching in lasting margin. Rounded toe.

<L101> Leather turnshoe

<6818>, [17278]; period 9, phase 2, R102

Incomplete. Upper fragment. Front portion. One-piece upper, butt-seamed at side, leather thong stitching in lasting margin. Rounded toe.

<L102> Leather turnshoe

<3974>, [16916]; period 9, phase 2, R102

Nearly complete; L 230mm, H 110mm. Small adult ankle boot. 10th/11th century. ?Left upper, separate right quarter missing. Butt seams at side and back. Leather thong stitching in lasting margin. V-back, slightly pointed toe. Top edges bound.

<L103> leather turnshoe

<3975>, [16916]; period 9, phase 2, R102

Nearly complete; L 230mm, H 80. Adult shoe. 11th century. ?Right foot, sole very worn at heel and tread. One-piece upper, butt-seamed on left side, leather thong stitching in lasting margin. One slit on each quarter suggests drawstring fastening. Rounded toe and rounded heel. Top edges unbound. Rear repair patch remnant overlaps on to upper; stitch holes indicate former patch at front.

<L104> Leather turnshoe

<6819>, [16916]; period 9, phase 2, R102

Incomplete. Sole fragment. 10th/11th century. Small portion sole, parallel sided. Leather thong stitching in lasting margin.

<L105> Leather turnshoe
<6820>, [16916]; period 9, phase 2, R102
Incomplete. Sole fragment. Heel portion, delaminated. Unusual stitching, possibly tunnel stitching for lasting margin. Rounded heel.

<L106> Leather turnshoe
<6821>, [16916]; period 9, phase 2, R102
Incomplete. Sole fragment. Rear portion, heavily worn with repair patch attached.

<L107> Leather turnshoe
<6822>, [16916]; period 9, phase 2, R102
Incomplete. Sole fragment. 10th/11th century. Central portion. Leather thong stitching in lasting margin. Narrow, parallel-sided. Evidence of repair at least twice.

<L108> Leather turnshoe
<6823>, [16916]; period 9, phase 2, R102
Incomplete. Sole fragment. Central portion. Leather thong stitching in lasting margin. Straight, gently tapered sides.

<L109> Leather turnshoe
<4104>, [16916]; period 9, phase 2, R102
Incomplete; H 88mm. Upper fragment. 10th/11th century. Vamp and left side portion of ?left shoe. Butt-seamed on the right side, leather thong stitching in lasting margin. Rounded toe.

<L110> Leather turnshoe
<4145>, [16916]; period 9, phase 2, R102
Incomplete. Upper fragment. 10th/11th century. Vamp fragment with embroidered stripe. Leather thong stitching in lasting margin

<L111> Leather turnshoe
<4147>, [16916]; period 9, phase 2, R102
Incomplete. Ankle shoe/boot. 11th century. Right quarter, probably minor piece in a two-piece upper, as edges indicate V-back heel and side seam. Inset back point is high, 90mm. Two slots suggest drawstring fastening. A line of stitch holes parallel to the side seam suggests an attachment, possibly a decorative reinforcement. Top edges neatly bound.

<L112> Leather turnshoe
<4150>, [16916]; period 9, phase 2, R102
Incomplete. Back point of sole, torn at base but showing former attachment to upper by leather thong tunnel stitching. 10th/11th century.

<L113> Leather turnshoe
<6824>, [16916]; period 9, phase 2, R102
Incomplete; H 60mm. Sole/upper fragment. 10th/11th century. Rear portion. Fine leather thong stitching in lasting margin. V-back heel. Top edges unbound.

<L114> Leather turnshoe
<6825>, [16916]; period 9, phase 2, R102

Incomplete. Upper fragment. 10th/11th century. Forepart, rounded toe. Fine leather thong stitching in lasting margin. Top edges unbound.

<L115> Leather turnshoe

<6826>, [16916]; period 9, phase 2, R102

Incomplete; H 60mm. Sole/upper fragment, rear portion, in poor condition. Thin leather thong used to stitch sole to upper in turnshoe seam, V-back heel. Top edges are neatly bound.

<L116> Leather turnshoe

<6827>, [16916]; period 9, phase 2, R102

Incomplete. Sole/upper fragment. Front portion of probably adult shoe. Very rounded toe. Considerable wear on the right of sole; no evidence of repair.

<L117> Leather turnshoe

<4234>, [16916]; period 9, phase 2, R102

Incomplete. Upper fragment; rear left quarter. V-back heel; back point missing. Remnants of two knotted tags in lower back corner, one still with a large loop which appears to have been on the inside of the shoe.

<L118> Leather turnshoe

<6416>, [16916]; period 9, phase 2, R102

Incomplete; H 120mm. Upper fragment. Rear portion, in good condition. No back seam, so presumably one-piece upper with side seam; V-back heel. Leather thong used to stitch sole and upper in turnshoe seam. Knotted-in tags with large rolled leather toggles attached, located in lower right quarter. Top edges bound. Some cutting for reuse.

<L119> Leather turnshoe

<6828>, [17316]; period 9, phase 2, R102

Incomplete; L 128mm, W 93mm. Sole/upper fragment. Front portion, upper in good condition. One-piece upper seamed at the side, possibly with thread. Leather thong used to stitch sole to upper in turnshoe seam. Rounded toe. Top edges unbound. Toe area worn but no sign of repair.

<L120> Leather turnshoe

<6829>, [17316]; period 9, phase 2, R102

Two latches, one complete with long slit, in good condition. Both fully bound, tapered to squared-off end; W at base 55mm.

<L121> Leather turnshoe

<2906>, [16993]; period 9, phase 2, R102

Incomplete. Sole/upper fragment. Leather thong stitching sole to upper in turnshoe seam. Some wear to sole.

<L122> Leather turnshoe

<2959>, [16993]; period 9, phase 2, R102

Incomplete. Large adult shoe. Substantial sole/upper fragment with very worn sole. One-piece upper, butt-seamed at the side; leather thong used to stitch sole and upper in a turnshoe seam. Rounded toe, rounded heel. One slot suggests

drawstring fastening. Top edges bound. A remnant of repair patch in place at front; evidence for repair at rear.

<L123> Leather turnshoe

<2960>, [16993]; period 9, phase 2, R102

Incomplete; H 70mm. Sole/upper fragment. Four associated fragments, including vamp, centre sole and quarter pieces, all in poor condition. One-piece upper, seaming at the side, with leather thong stitching sole to upper in a turnshoe seam. The side seam was probably thread-stitched, although no thread appears to survive. Top edges bound. Very worn sole, no sign of repair.

<L124> Leather turnshoe

<6830>, [16993]; period 9, phase 2, R102

Incomplete; L 215mm, estimated total L 245mm. Sole forepart. Possibly tunnel-stitched on to upper with leather thong. Symmetrical, almost parallel-sided shape, curving to rounded toe. Heavy wear at ball and toe; no sign of repair.

<L125> Leather turnshoe

<6775>, [16993]; period 9, phase 2, R102

Incomplete; W 80mm. Sole/upper, forepart fragment. Leather thong used to stitch sole and upper in turnshoe seam. Pointed toe.

<L126> Leather turnshoe

<6831>, [16993]; period 9, phase 2, R102

Incomplete; H 80mm. Upper fragment; rear portion in fair condition. Upper and sole stitched with leather thong in turnshoe seam. Side seam present, rounded heel. Top edges bound.

<L127> Leather turnshoe

<6139>, [16993]; period 9, phase 2, R102

Incomplete; L 50mm, W 92mm. Sole/upper fragment, central portion, straight-sided with gentle taper towards heel. Worn, with evidence of repair.

<L128> Leather turnshoe

<3027>, [16993]; period 9, phase 2, R102

Incomplete; H 88mm. Large adult shoe. Vamp fragment with associated quarter, in good condition. One-piece upper butt-seamed at left side, leather thong used to stitch sole and upper in turnshoe seam. Rounded toe. Top edges bound. Repair patch stitch holes in lower upper. Some cut marks indicate reuse.

<L129> Leather turnshoe

<6832>, [16993]; period 9, phase 2, R102

Incomplete; L 277mm, W 93mm. Nearly complete left sole, partly delaminated. Rounded toe and no back point. Right side badly worn especially at heel and ball. No sign of repair.

<L130> Leather turnshoe

<6833>, [16993]; period 9, phase 2, R102

Incomplete. Upper fragment. Left quarter in good condition. Butt seam at back. V-back; H of back point 50mm. Leather thong used to stitch sole and upper in turnshoe seam. Top edges bound.

<L131> Leather turnshoe

<6834>, [16993]; period 9, phase 2, R102

Incomplete; H 85mm. Large adult shoe; nearly complete upper, left side missing. One-piece upper, wrapped to butt seam at the side. V-back and rounded toe. Upper/sole seam mostly missing but leather thong in turnshoe seam where present. One slot on each quarter suggests drawstring fastening. Top edges bound. Single embroidered vamp stripe.

<L132> Leather turnshoe

<3265>, [16993]; period 9, phase 2, R102

Incomplete; H 110mm, H of back point 55mm. Small adult ankle boot. Rear portion of one-piece upper, butt-seamed at right side. V-back with point in place. Leather thong used to stitch sole and upper in turnshoe seam. Bound latchet fastening with slit; slots for tag insert. Top edges bound.

<L133> Leather turnshoe

<6835>, [16993]; period 9, phase 2, R102

Incomplete; L 60mm, W 72mm. Sole forepart fragment, very poor condition. Leather thong used to tunnel stitch sole to upper. Rounded toe.

<L134> Leather turnshoe

<6836>, [16993]; period 9, phase 2, R102

Incomplete. Upper fragment. Vamp of small adult shoe, fair condition. Leather thong stitching to sole. Pointed toe. Single embroidered vamp stripe.

<L135> Leather turnshoe

<6837>, [16993]; period 9, phase 2, R102

Incomplete; L 150mm, estimated total L 280mm. Sole fragment, seat. Leather thong used to stitch sole to upper in turnshoe seam. Marginal taper towards heel. Heavily worn heel; no sign of repair.

<L136> Leather turnshoe

<6838>, [16993]; period 9, phase 2, R102

Incomplete. Upper fragment. Elongated triangular piece with impressed pattern of vertical lines and rows of dots. See <L83>. Traces of grain-flesh stitching at right base, but no visible stitching on the main part. Probably a wrapped around back point with tunnel stitch holes removed through delamination of flesh surface.

<L137> Leather turnshoe

<6839>, [16993]; period 9, phase 2, R102

Incomplete; L 105mm, W 80mm. Sole fragment, forepart. Stitched to upper by a heavy turnshoe leather thong seam. Pointed toe. Considerable wear in big toe area; no sign of repair.

<L138> Leather turnshoe

<6140>, [16993]; period 9, phase 2, R102

Incomplete. Upper fragment. Vamp, toe missing. One-piece upper, butt-seamed at side with leather thong used to stitch sole to upper. Rounded toe, some cutting across vamp.

<L139> Leather turnshoe

<6840>, [16993]; period 9, phase 2, R102

Incomplete. Two upper fragments, not necessarily associated. One with bound edges, one with embroidered vamp stripe.

<L140> Leather turnshoe

<6841>, [16882]; period 9, phase 2, R102

Incomplete; L 200mm, estimated total L 230mm. Adult shoe. Rear sole/upper portion of shoe in poor condition with very worn sole. One-piece upper stitched to sole with leather thong in turnshoe seam, probably seamed at side. Top edges bound.

<L141> Leather turnshoe

<6842>, [16882]; period 9, phase 2, R102

Incomplete; L 135mm, estimated total L 240mm, W 83mm. Sole fragment. Rear portion of left shoe. Leather thong used in turnshoe seam. Rounded heel, very worn on outside; remnant of repair patch in place.

<L142> Leather turnshoe

<6843>, [16882]; period 9, phase 2, R102

Incomplete; L 130mm, W 73mm. Sole fragment. Centre portion of sole in very poor condition. Parallel-sided. No evidence for repair.

<L143> Leather turnshoe

<6844>, [16882]; period 9, phase 2, R102

Incomplete. Upper fragment. Rear portion of ?right shoe upper with sole/upper margin torn away. One-piece upper joined at butt side seam, leather thong used to stitch sole to upper in thick turnshoe seam. A slot in each quarter suggests drawstring fastening. Probably rounded heel. Top edges unbound.

<L144> Leather turnshoe

<6845>, [16882]; period 9, phase 2, R102

Incomplete; H 78mm rising at back to 100mm. Upper/sole fragment. Rear portion of small adult ankle boot. One-piece upper, butt-seamed at right side, stitched to sole by leather thong in a turnshoe seam. V-back. A large loop is knotted into the lower right quarter, probably to accommodate a drawstring. Top edges bound. This upper shows some cutting, presumably for reuse.

<L145> Leather turnshoe

<2607>, [8981]; period 10, phases 1 and 2, OA129

L 215mm, extension of 45mm for the equilateral back point, W 88mm. Small adult ankle shoe. 10th/11th century. Near-complete right sole, most of upper deliberately cut away, leaving only the butt side seam and V-back areas. Probably one-piece upper. Side seam, leather thong stitching in lasting margin. Sole tapers gently to the rear from a slightly pointed toe. Top edges bound. Sole worn at back of heel and the left side of the ball; no evidence for repair.

<L146> Leather turnshoe

<2624>, [8981]; period 10, phases 1 and 2, OA129

Incomplete; L 225mm, with a 35mm extension for the back point, W 82mm. Adult shoe. 10th/11th century. Nearly complete right sole, upper fragments on left side and at back. One-piece upper joined at a butt side seam, leather thong stitching in lasting margin; V-back heel with a broad and shallow back point. Pointed toe. Sole is elongated, slender, and tapered towards the rear. Top edges bound. Sole shows wear at the heel, tread and toe.

<L147> Leather turnshoe

<2630>, [8981]; period 10, phases 1 and 2, OA129

Incomplete. Adult ankle shoe. 11th century. Fragmentary. One-piece upper, no back seam suggests side seam (missing). Leather thong stitching in lasting margin. Apparent V-back and drawstring fastening. Top edges bound. Remnant of repair patch near the heel.

<L148> Leather turnshoe

<2631>, [8981]; period 10, phases 1 and 2, OA129

Incomplete. Sole/upper fragment with leather thong stitching in lasting margin. 10th/11th century.

<L149> Leather turnshoe

<6846>, [1021]; period 10, phases 1 and 2, OA135

Incomplete. Sole/upper fragment. 10th/11th century. Central portion of shoe. Leather thong stitching in lasting margin.

<L150> Leather turnshoe

<6847>, [1021]; period 10, phases 1 and 2, OA135

Incomplete; H 65mm, W at base 55mm. Back point. Triangular sole extension. Leather thong used in grain-flesh stitching for attachment to upper.

<L151> Leather turnshoe

<6848>, [7387]; period 10, phases 1 and 2, OA132

Nearly complete; L 170mm, H 75mm. Child's ankle shoe/boot. 11th century. Small shoe upper in two parts, brittle and delaminated. Probably a one-piece upper seamed at the V-back, but an opening in the middle of the right side may have contained an insert. Back point tall and narrow. Leather thong stitching in lasting margin. Toe gently pointed. Pair of vertical slots on the right quarter indicate drawstring fastening. Top edges neatly bound.

<L152> Leather turnshoe

<1275>, [7416]; period 10, phases 1 and 2, OA131

Incomplete; H 65mm. Upper quarter fragment with butt side seam. 10th/11th century. Leather thong stitching in lasting margin.

<L153> Leather turnshoe

<2300>, [11305]; period 10, phases 1 and 2, OA144

Incomplete. Sole fragment. 10th/11th century. Centre portion. Leather thong stitches sole and upper in turnshoe seam. Straight-sided.

<L154> Leather turnshoe

<2448>, [11340]; period 10, phase 4, OA146

Incomplete. Back point of sole. Edge-flesh stitching on two sides.

<L155> Leather turnshoe

<6849>, [11566]; period 10, phases 1 and 2, OA144

Incomplete. Sole fragment. Centre portion of small sole, heavily worn. Grain-flesh stitch holes at edge.

<L156> Leather turnshoe

<2693>, [11704]; period 10, phases 1 and 2, OA144

Incomplete; H 50mm. Rear portion of child's shoe. 11th century. One-piece upper seamed at back, fine leather thong stitching in lasting margin. V-back. Slot in quarter suggests drawstring fastening. Very finely bound edges.

<L157> Leather turnshoe

<6850>, [11897]; period 10, phases 1 and 2, OA144

Incomplete; H 95mm. Ankle shoe fragment. ?11th century. Left quarter and back of upper. Butt side seam and grain-flesh stitching, possibly with thread in lasting margin. Rounded heel. Top edges bound with fine, close-packed stitches. Other quarter deliberately cut away.

<L158> Leather turnshoe

<3099>, [12362]; period 10, phases 1 and 2, OA144

Complete; L 307mm, W 125mm, H 80mm. Adult ankle shoe. 10th/11th century. One of the largest shoes in the assemblage. One-piece upper, wrapped to seam at a butt side seam. Thick leather thong used in lasting seam. Broad, elongated oval sole, rounded toe and rounded heel. Top edge unbound. Single embroidered vamp stripe. The sole is heavily worn, especially at the toe, and repair patches are in place front and rear. This shoe has been drastically modified to cope with what was probably a grossly swollen foot. Four long, lengthways slashes cut into the vamp; knotted loops to attach sole to upper in the toe area where the stitching has given way, and an exceptionally thick small patch under the toe area.

<L159> Leather turnshoe

<5368>, [16103]; period 10, phases 1 and 2, OA136

Incomplete. Small adult shoe. 10th/11th century. Lasting margin for most of shoe. Upper mostly cut away. One-piece upper, probably seamed at the side, leather thong stitching. Sole delaminated and fragmentary. Rounded toe and rounded heel.

<L160> Leather turnshoe

<2931>, [16613]; period 10, phases 1 and 2, OA136

Incomplete. Upper fragment. 10th/11th century. Probably right quarter, with partial back seam indicating V-back. Leather thong grain-flesh stitching in lasting margin. Evidence of cutting, presumably for reuse.

<L161> Leather turnshoe

<2932>, [16992]; period 10, phases 1 and 2, OA135

Nearly complete; L 300mm, W 114mm. Large adult shoe. ?10th century. Poor condition. One-piece upper, butt-seamed at the back, rounded heel. Leather thong stitching in lasting margin. Broad, oval sole with very rounded toe. Little wear.

<L162> Leather turnshoe

<3315>, [16992]; period 10, phases 1 and 2, OA135

Incomplete; L 180mm, estimated total L 220mm. Small adult shoe. ?11th century. Two large sole/upper fragments, associated, to make a near complete shoe but in very poor condition. Two-piece upper, butt-seamed at side and back, probably V-back. Leather thong stitching in lasting margin. Narrow elongated sole with pointed toe. Sole very worn at heel and tread, with evidence of repair.

<L163> Leather turnshoe

<3335>, [16992]; period 10, phases 1 and 2, OA135

Incomplete. Upper fragment. Side portion. Butt side seam. Leather thong stitching in lasting margin. Top edges bound.

Repair pieces

<L164> Leather ?shoe repair patch

<2918>, [8898]; period 8, phase 1, OA140

Incomplete. ?10th century AD. Comprises a very carefully shaped front part of a 'sole' yet the pattern of tunnel stitching suggests possibly a whole sole repair patch. Toe section extended into a needle point, attached with tiny stitches. The rest of the sole is broad and only slightly tapered towards the rear. This toe shape is very rare in London but a similar shape is known in a 10th-century AD boot from Hedeby (Groenman-van Waateringe 1984).

<L165> Leather shoe repair patch

<3002>, [6021]; period 9, phase 1, OA142

Carefully shaped front repair patch, tailored to a pointed toe, attached by neat tunnel stitching.

<L166> Leather shoe repair patch

<2832>, [6012]; period 9, phase 1, OA142

Large thick repair patch with tunnel stitch holes for attachment.

<L167> Leather shoe repair patch

<4086>, [17529]; period 9, phase 2, R102

10th/11th century. Very large complete repair patch with remnant of lasting margin stitched with leather thong. Delaminated but thick.

<L168> Leather shoe repair patch

<6851>, [17529]; period 9, phase 2, R102

10th/11th century. Front repair patch with sole still attached. Thick leather thong stitching in lasting margin. Rounded toe. Wear on ball of sole.

<L169> Leather shoe repair patch

<1481>, [16916]; period 9, phase 2, R102

Fragment only.

<L170> Leather shoe repair soles

<4102>, [16916]; period 9, phase 2, R102

Two complete front repair soles. Five near-complete repair soles of varying sizes from child to large adult. Six fragments of repair soles. All formerly attached by tunnel stitching with leather thong.

<L171> Leather shoe repair patches

<3071>, [16993]; period 9, phase 2, R102

Two patches, one forepart and one seat. Two small pieces of drawstring.

<L172> Leather shoe repair patches

<3176>, [11897]; period 10, phases 1 and 2, OA144

One complete repair patch, four incomplete. All with leather thong tunnel stitch attachment to soles.

<L173> Leather shoe repair patches

<3603>, [11897]; period 10, phases 1 and 2, OA144

Three repair patch fragments with rounded toes and leather thong.