APPENDIX 11

THE SHOES (L)

T G Padley

Some 166 Roman leather shoes and shoe parts have been recovered from the northern Lanes. At first glance, this appears to compare well with Castle Street (172 items; Padley 1991d) and Annetwell Street (122 items; Padley in prep e). However, the excavated area at the northern Lanes is much larger than either of those sites; furthermore, nearly half of the shoes came from one feature, the fill (232) of third-century stone-lined well 226 (Period 11D; Ch 4, p 119). When these provisos are borne in mind, the amount of material is sparser than that recovered from the southern Lanes (104 items; Padley 2010).

There are four main types of shoe represented (Table 47). These are based on those defined by Rhodes in his study of the Billingsgate Buildings material (1980, 99-128), and have been used to categorise the material from other sites in Carlisle (Padley 1991d; 2010).

Nailed shoes form the largest category. These have a bottom unit made up of two or more layers, the outer one hobnailed. The different elements of the bottom unit are kept together by thonging, by tunnel stitching, or both. The uppers, where they survive, vary in style, and, as today, would probably have been the main factor in choosing between shoes. Unfortunately, only limited evidence survives about the uppers from this assemblage. The other type of shoe with a (usually) nailed sole is the sandal. This has a bottom unit made of multiple layers, kept together with close-set edge-thonging. The shape of the bottom unit varies with date. Sandal uppers, which do not survive in this assemblage, were made of an arrangement of straps.

The stitched shoe category covers all bottom units made without the use of hobnails. It is based on the observable technology, and covers more than one

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<th>Stitched</th>
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<td>3</td>
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<td>-</td>
<td>1</td>
<td>1</td>
</tr>
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<td>1</td>
<td>1</td>
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<td>28</td>
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</tbody>
</table>

**Table 47: Shoes by period**
type of shoe. In the first type, the shoes would have appeared identical to hobnailed ones, except for the nailing patterns. At the Tullie House development site, for example, within the southern part of the fort, on Annettwell Street (Caruana in prep b), two shoes belonging to van Driel-Murray’s ‘Fell’ boot type (1993, fig 17, no 1) were recovered, but one had hobnails in the sole (Padley in prep f, no 91), while the other did not (op cit, no 85), although their construction techniques were otherwise identical and their original appearance would have been very similar.

The second stitched shoe type is a peep-toed mule with a raised sole; this had a padded bottom unit made up of a leather sole and insole, sandwiching a mid-sole made of cork or leather off-cuts. This type is represented by L143 (p 578). Where the diagnostic components of these two shoe types are missing, they are referred to simply as stitched shoes.

The final shoe category is the one-piece T-seam shoe. This is made from a single piece of leather which was cut to shape and folded round the foot. Its characteristic feature is a seam at the centre-back in the shape of an inverted T. The definition of the terms used can be found in the glossary prepared by the late John Thornton (1973).

#### The Nailing Patterns

The classification of nailing patterns was originally developed for the Castle Street assemblage (Padley 1991d), but has been expanded to cover new variants seen in other collections from Carlisle. Only those which occur in the northern Lanes are included here. In the text, reference is also made to the typology devised by Carol van Driel-Murray (1995), abbreviated here to VDM.

**Type A**

A single row of nails is set around the edge of the sole, with clusters under the tread and seat, arranged in straight lines. Often there is also an isolated nail at the waist. Variations in the shapes of the clusters form the basis of the divisions into different sub-types.

**Variants of type A include:**

A2 A single row of nails down the centre of the shoe;

A3 Similar to A2, but with some elaboration on either side of the central line under the tread;

A4 The cluster under the tread is arranged in a diamond;

A15 Similar to A2, but the cluster under the tread is arranged as a square-bottomed trident;

A16 The cluster under the tread is arranged as a V-bottomed trident.

**Type B**

A single row of nails is arranged along the inside edge of the sole, and a double one along the outside. The clusters under the tread and seat are arranged in straight lines, and there are one or more nails at the waist. No variants of this type were found.

**Type B/C**

It is not clear if the shoe should be classified as a type B nailing pattern or as type C.

**Type C**

A double row of nails has been placed around the whole of the edge of the sole, with the clusters under the seat and tread arranged in straight lines.

**Variants of type C include:**

C3 The clusters under the seat and tread consist of single lines.

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### Thonging

Three different types of thonging were used to hold together bottom units of nailed shoes.

**Type 1**

A row of paired thonging slots, widely spaced, runs up the centre of the shoe.

**Type 2**

This is similar to type 1, but with additional thonging slots at the tread, at the approximate position of the inside and outside joints.

**Type 3**

This is the most unusual type of thonging, comprising widely spaced slots along the edge of the shoe (not to be confused with the closely set edge-thonging of sandals).

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### Early Roman Activity

The early Roman structural phases produced only four shoes, three of which are nailed (Table 47; Periods 4C-5B). The earliest (L1) is a bottom unit, which was largely complete when discarded, but showed signs of wear (Fig 255). Type 2 thonging, where there is a pair of thonging slots at the approximate position of the inside and outside joints, in addition to those found running down the centre of the shoe, is present. Rhodes suggests that this type is common in northern Britain, and can be seen as a regional characteristic (1991, 196);
the earliest example he cites is from Castle Street, Carlisle (Padley 1991d, 232, no 956), from a context dated from the late AD 70s/mid-80s to AD 92-3. Shoe L1 has a broad tread and type B nailing (VDM type 3c); the shape and heavy nailing, together with the fact that it is adult size 7 (continental 41), suggest that it belonged to a man, and is possibly military.

The other two nailed shoes are less well preserved. Shoe L2 (p 566) survives only as an insole with type A nailing, with a cluster under the tread comprising a circle surrounding a single nail, and an isolated nail at the waist (VDM type 1c). The third (L3; p 566) survives only as fragments of insole, but is the only significant find from Period 5B.

The fourth early Roman shoe is an almost complete one-piece T-seam shoe (L14, Fig 256), with a low and plain backpart, in child’s size 6 (continental 23). This was recovered from a small pit (559, fill 546), of Period 3-5 (Ch 2, p 48).

Later Second-century Activity

Some 46 shoes and shoe parts were recovered from contexts dated to the mid/late second century (Table 47; Periods 6-10C); nailed shoes are the most numerous. The most common nailing pattern is type A (Table 48); this is the equivalent of VDM type 1, with variations in the arrangement of nails in the interior of the sole falling into her three sub-types, although on one shoe (L25; p 569) the details of the tread and seat clusters have not survived.

Type 1a has a single line up the centre of the shoe, and may or may not have some elaboration on either side at the tread and seat. The three shoes in this sub-group come from Period 8B (L18, L22; pp 567-8) and Period 10B (L27). Type 1b, the largest sub-group, has distinct clusters at tread and seat, separated by a gap; examples came from Period 6 to Period 8B. The shape of the clusters vary within this group; the simplest pattern is a single line up the centre of the sole, interrupted at the waist, but with no isolated nail present there (L23). A more elaborate pattern, with two examples, has the nails under the tread arranged in an X (L4, L21). There are three other patterns: a circle surrounding a central nail (L5; p 566); a lozenge (L6); and a tendril pattern (L19, p 568).

Type 1c nailing differs from type 1b in having an isolated nail, or more than one, at the waist. The type 1c patterns include that seen on both later second-century sandals. The pattern on one (L121; p 575) is similar to that on one of the nailed shoes (L14), which comes from the same large pit, attributed to Period 7-8A (211, fill 188; Ch 3, p 61); they both have a lozenge under the tread (Fig 257; this is more elaborate than the type 1b lozenge, as on L6, which consists of only four nails). The other sandal (L122; p 575) is similar to another

<table>
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<th>Carlisle type</th>
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</thead>
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<td>1a</td>
</tr>
<tr>
<td>A</td>
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<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>3</td>
</tr>
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</table>

Table 48: Nailing types on shoes from second-century levels
type 1b shoe (L19; p 568) in that the tread cluster is a tendril pattern. Period 8B, which produced shoe L19, should, therefore, perhaps not be dated earlier than AD 160, as this type of pattern first appears around this date (van Driel-Murray 1995, 6).

Type B nailing (VDM type 3), where the line of nails along the outer edge is doubled, is represented by four examples (Table 48). The first (L26; p 569) has only the forepart surviving, and so cannot be classified with more precision. The cluster under the tread has the nails arranged in straight lines. Two other examples

are of VDM type 3b, with distinct clusters under the tread and seat, and a gap between them. One (L11; Fig 258) is more elaborate, in that the cluster under the tread is arranged in a ‘fish-shaped’ pattern, while the seat cluster is a four-nail lozenge going across the sole with a single nail in front of it. The second (L13; p 566) has the tread cluster made up of parallel lines of small nails with heads 4-5 mm in diameter; the shape of the seat cluster is unknown. The shoe has probably been repaired, as there is also a random pattern of larger nails, with 9 mm-diameter heads, superimposed on the original pattern. Finally, there is one shoe (L12) which has the clusters at tread and seat separated by an isolated nail at the waist, which thus belongs to VDM type 3c; this also has a tread cluster made of parallel lines of nails.

Of the shoes which can be assigned to left or right feet, half fall into each category (Table 49). Only 12 of the shoes survive to their full length. The range of sizes is from child’s size 10 (continental 28) to adult size 5 (continental 38), the commonest being adult size 3 (continental 35½), with three examples. The largest could have been for a man, but the others were probably for women/youths (Rhodes 1980, 102). When the nailing patterns are examined in conjunction with the shoe sizes, only those of adult size 4 (continental 37), or larger, have the heavier, type B (VDM type 3) nailing. The complete sandal, an adult size 3 (continental 35½), would probably have been worn by a woman; this is also the case for padded-sole mule L143 (adult size 2, continental 34; p 578) and a second probable example (L136; child’s size 13, continental 31½).

There is one possible group of associated shoes from later second-century levels. The fill (188) of large pit 211 (Period 7-8A; Ch 3, p 61) produced four shoes, which could have belonged to the same person: two nailed shoes (L13-14, pp 566-7), a sandal (L121; p 575); and the cork-soled mule (L143). The nailing patterns of the two nailed shoes are different, with L13 having VDM type 3b nailing, which may have been repaired, and L14 having VDM type 1c nailing, with the cluster under the tread arranged in a lozenge (Fig 257). Sandal L121 has a similar
nailing pattern to nailed shoe L14. Apart from the mule, which is adult size 2, the shoes are similar in shape and size, for although the nailed shoes fall into different modern size categories (adult sizes 3 and 4), the actual difference in the length of the two shoes is only 3 mm. The sandal, also an adult size 3, is a little shorter than both nailed shoes, but it is an open style which can be worn shorter than the closed shoes. The connection with the mule is more tenuous; its sole shape reflects the actual shape of the foot less than the others, but it is close enough in length to be considered. These similarities suggest that the shoes all came from the same act of disposal, and were either made by the same person or, more likely, were worn by the same woman. The pottery from this pit dates to the second half of the second century (M L Hird pers comm), but the presence of the mule suggests that it could be slightly later.

Nailed shoes
There are 25 nailed shoes from later second-century levels (L4-28; p 566-9). The amount surviving varies, from heel-stiffeners alone (L15-16) to a substantially complete bottom unit with part of the upper (L6). Some 18 bottom units had at least two layers present, of which 13 probably had at least three. The evidence varies from insoles that have survived on their own, but have thonging slots present in them, to bottom units where the mid-soles and wedges still survive. There are seven examples of the former (L9-10, L13, L22, L25-7). Examination of more complete bottom units from this site and elsewhere in Carlisle shows that thonging was not used at this period to attach the upper to the shoe, but rather to keep the various layers of mid-sole together before the upper and sole were attached. Both type 1 and type 2 thonging were used; unusually, one shoe has type 3 thonging (L20). This has thonging slots running down the edge of the insole, set further apart than the edge thonging used on sandals. As with type 2, it may be evidence of shoes made in a particular area.

Tunnel stitches are present on bottom-unit components of five shoes (L5-6, L13, L22-3). These can be divided into those where the tunnel stitches are on the flesh surface of the insole, at right-angles to the edge (L6), those where they are on the flesh surface of the sole, parallel to the edge (L13, L22), and those where they appear on both (L5, L23). Evidence from other sites in Carlisle has shown that these stitches were used to secure the lasting margins of the uppers to the insole and sole respectively, before nailing (Padley 1991d). Two shoes have wedges that are kept in position by through stitches (L6, L18). There is also one shoe (L21) that has two rough through stitches on the edge of its mid-sole, which may have been to help hold this in position.

Part of the upper survives in 11 cases. The most common survival, as usual, is the crescentic heel-stiffener (ten shoes). This was used grain side inside, and was inserted above the lasting margin and usually braced into position before nailing. There are also five shoes where more survives. Two (L12, L21) comprise only fragments of lasting margin; the third survives as a narrow strip with a row of through stitches along the top edge, which is interpreted as a possible lining strip (L11; Fig 259).

Finally, there are two shoes that have enough surviving to determine something of their original appearance. The first (L6) is a shoe with a rounded toe and an almost straight inside edge. In addition to the upper itself, there is a narrow strip around the bottom of the upper, interpreted as a lining, and there is also a heel stiffener. The upper is of single-piece construction with a centre-front vamp seam. The lasting margins survive, showing that it was attached to the insole and the sole by through stitches in the lasting margin, and tunnel stitches on the flesh surface of both the sole and insole. The visible part of the upper has a hemmed foot opening and a pierced ‘fishnet’ pattern. The outer row of holes would have been used to lace the shoe, and the hem could have held a lining in place.

The other shoe (L20) was recovered as fragments, but enough survives to show that it was of van Driel-Murray’s ‘Fell’ boot type (1993, 17, no 1). Here, the oval lace holes had lozenge shapes made up of small crosses between them.
The overall pattern of the uppers of shoes L6 and L20 is similar, but one is more elaborate than the other. They have a similar cutting pattern; each is made of a single piece of leather with a centre-front vamp seam, laced up the front, with the lace going through oval holes. The main difference is the decoration on the upper. The fishnet-decorated shoe (L6; Fig 260) was seemingly a high-status item, as the amount of work involved in its manufacture would probably have made it expensive. Evidence supporting this assertion comes from Vindolanda, where this shoe type is found with the material relating to the high-status inhabitants of the praetorium during periods 2 and 3, AD 92-103 (van Driel-Murray 1993, 33). In Carlisle, a shoe of this type was recovered from Castle Street (Padley 1991d, 230-1, fig 209, no 895) in a context dated to between AD 105 and the Antonine period. The style had a long life, however, as it is also found at Bar Hill on the Antonine Wall (Robertson et al. 1975, fig 23, nos 30-1).

Sandals

Only two sandals were recovered from later second-century levels. One survives only as fragments, probably of insole (L122; p 575); they can be identified as coming from a sandal by the diagnostic close-set thonging slots around the edge.

The other sandal (L121), from fill 188 of Period 7-8A pit 271 (Ch 3, p 61), is a nearly complete bottom unit. It differs from most sandals in that there is no thonging around the edge, but can be identified as such from other features: the front of the forepart being shaped to indicate toes; an attachment point for a strap-like upper at the junction of the great and second toes; and an insole decorated with stamps (Fig 261). Another feature, which is unusual for sandals from Carlisle, is that the mid-sole is made by the cut-and-expanded method. However, both the use of this type of mid-sole and the lack of a row of thonging slots along the edge are features noted in London (Rhodes 1980, 117).

The insole of L121 is decorated with two types of rosette stamps and a double impressed line. The first rosette type is made of eight wedge-shapes set in a circle, and is found around the edge of the insole, while the second type, on the interior, is more elaborate, and has nine wedge-shaped petals arranged around a circular centre, with the whole enclosed in an outer circle. Originally, the outer row of rosettes was linked by the double impressed line. The use of multiple stamps has been noted elsewhere in Carlisle, for example at the Old Grapes Lane site in the southern Lanes (Padley 2010, no M77) and, within the fort, at the Tullie House development site on Annetwell Street (Padley in prep f, no 21), and also at Vindolanda (van Driel-Murray 1993, 71, no 32, fig 28, no 6). The description of the stamp from Vindolanda suggests that it is similar in appearance to L121. It is on a type of shoe dated to between AD 90 and AD 120, while the Old Grapes Lane example is dated to the late second century (Padley 2010).

Stitched shoes

There are four examples of stitched shoes, two probably belonged to the type resembling nailed shoes, but made without the use of hobnails (L135, L137; pp 577-8); as only the insoles survive, however, this is

Figure 260: Fishnet decoration on a shoe upper

Figure 261: Decorated insole of a sandal
not certain. The other two are padded-sole mules. The first (L143; p 578), from fill 188 of Period 7-8A pit 211 (Ch 3, p 61), is represented by the cork mid-sole and the upper, together with the strips which enclosed the sides of the cork mid-sole. The leather sole survives to its full length, but there is some damage to the mid-sole and upper. The sole has a rounded toe, narrow tread, and minimal shaping. The upper is made from a single undecorated ‘butterfly’-shaped piece of thin leather. The material making up the mid-sole has been analysed and shown to be cork, probably from the Mediterranean cork oak (Quercus suber), and was therefore imported (J Jones in litt).

The identification of the other mule (L136; p 577) is less certain, as only the insole survives. This is complete, with a square toe, and is very narrow, especially across the tread. The shape, the presence of tunnel stitches around the flesh surface, and the lack of any evidence for nailing suggest that it comes from a padded-sole mule. Padded-sole mules are usually dated to the second half of the second century; the two from the northern Lanes come from Period 7-8A and Period 8B. At Vindolanda, this type of shoe appears in period 6, dated to c AD 160-80; there, a pair of padded-sole mules are suggested as possibly belonging to Sulpicia Lepidina; however, if they did, then she must have been at the forefront of fashion, as the style only reached the provinces some 50-60 years later (van Driel-Murray 1993, 46).

One-piece T-seam shoes
There are 11 examples of this shoe type (L145-55; pp 578-80). None are well preserved and only one (L145) is anything like complete. The pattern on the back part of this shoe, consisting of three rows of rectangles divided by diagonals, can be paralleled at Billingsgate Buildings, London, where it is classified as type i (Rhodes 1980, 123). One shoe (652) from that site is a particularly close match, as it even has the same protrusions at the loop junctions (op cit, fig 68). Rhodes suggests that this could be a London type, as it is not found elsewhere, but, as The Lanes example shows, it is more widespread, and it is possibly the lack of large published collections from other regions that has led to this conclusion.

Shoe L152 survives only as fragments, but one of them is a loop which has a double strap going into a single, flanked by two protrusions. This can be seen on more complete pieces from the southern Lanes (Padley 2010, nos M89-90). Two of the shoes (L148-9) have evidence for clumps having been attached to the soles as repairs, in the form of large irregular through stitch holes.

Late Roman Activity

There are 88 shoes from later Roman levels (Table 47), mostly from stone-lined well 226 (Period 11D; Ch 4, p 119). There are also three shoes from earlier contexts in Periods 11A and 11C, and three from the fill of stone well 678 (Period 11D-12; Ch 4, p 112).
A one-piece T-seam shoe, L156 (p 580), was recovered from a Period 11A pit in the northern part of the site (LAL C). It survives only as a fragment of the ‘upper’, and not enough is present to say which foot it belonged to. It comes from the forepart of the shoe, as there is a split tab of the kind found at the front of such shoes (for instance, in early Roman example L144), as well as a single side-loop made by the cut-and-expanded method.

Period 11B yielded two shoes, both from a deposit in the central part of the site (KLAC). Object L29 (p 570) is a nailed shoe, which has a curved blunt toe and an almost straight inside edge. It has type Anailing (VDM type 1c), with the tread cluster arranged in a double row. A row of through stitches from the broken rear edge of the waist to the tread may indicate a repair. A small square-sectioned plug of leather pierces the sole and insole at the approximate position of the junction of the great and second toes.

The other shoe (L164; p 580) is represented only by a cut and expanded mid-sole. It appears to be unused, as the outside edge is only roughly shaped, there are no thonging slots or nail holes, and it has a generally fresh appearance. This type of mid-sole construction has been found in London, but not elsewhere (p 560).

Well 678 (Period 11D-12; Ch 4, p 112) produced three shoes, one nailed and two of uncertain type. The nailed shoe (L91; p 573) consists of a fragment of sole with at least one row of nails around the edge and some elaboration under the tread. The two of uncertain type (L165-6; p 580) are similar in construction. The sole is missing in each case, and the mid-sole is much narrower than the insole. They are joined to each other with type 1 thonging, and are also thonged to the lasting margin of the upper by a zig-zag running stitch. The upper was also attached to the sole by a second thong, which passed through slots arranged in a line up the side of the lasting margin and probably through tunnel stitches in the flesh surface of the (missing) sole. The upper was used grain side out and had a back part with a curved top edge and vertical front. The sides are low and have a straight top edge. No evidence survives for the construction of the vamp. The general shape and method of construction is not incompatible with the late fourth-century date of the pottery from the well fill (Ch 4).

**Well 226 (Period 11D)**

The remains of 83 shoes were recovered from well 226 (Ch 4, p 119), including a wooden-soled clog (K1). The shoes are of several different types (Table 50), and, for some, whether they were worn on the right or the left foot could be ascertained (Table 51).

### Table 50: Leather shoe types from well 226

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</tr>
<tr>
<td>Total</td>
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</tbody>
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### Table 51: Leather shoes from well 226, arranged by left and right feet

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<td>Nailed</td>
<td>19 (29.2%)</td>
<td>19 (29.2%)</td>
<td>27 (41.6%)</td>
<td>65</td>
</tr>
<tr>
<td>Sandals</td>
<td>3 (27.3%)</td>
<td>5 (45.4%)</td>
<td>3 (27.3%)</td>
<td>11</td>
</tr>
<tr>
<td>T-Seam</td>
<td>-</td>
<td>-</td>
<td>2 (100.0%)</td>
<td>2</td>
</tr>
<tr>
<td>Stitched</td>
<td>-</td>
<td>3 (75.0%)</td>
<td>1 (25.0%)</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>22 (26.8%)</td>
<td>27 (32.9%)</td>
<td>33 (40.3%)</td>
<td>82</td>
</tr>
</tbody>
</table>

The nailing patterns on the nailed shoes and sandals have been classified using the VDM scheme (Table 52). Type 1 nailing predominates, with 83% being of this type. Type 2c, which has been seen as an indicator of late second/early third-century assemblages (van Driel-Murray 1995, 7), is represented by a single example (L73), a slight variant with two isolated nails at the waist rather than one. Type 3 is present, with three examples. One shoe with this type of nailing survives to its full length (L52; Fig 263). It is adult size 7 (continental 41), which suggests that it belonged to an adult male.

Some 49 of the shoes with recognisable nailing patterns have been classified by the shape of the clusters under the tread (Table 53); these include two shoes where the edge nailing is missing and the nailing type cannot be assigned. The largest group is that where the clusters are made up of straight lines, with the next most frequent patterns being diamond-shaped clusters and tendrils. The five patterns classed together as ‘others’ comprise a trident, an arrowhead, a device which might be either a diamond or a tendril, a diamond surrounding a cluster, and a device with two isolated nails at the waist rather than one. Type 3 is present, with three examples. One shoe with this type of nailing survives to its full length (L52; Fig 263). It is adult size 7 (continental 41), which suggests that it belonged to an adult male.

### Nailed shoes

The nailed shoes (L30-90; pp 570-3, L117-20; p 575) are largely represented by bottom units. These are often made up of three layers, of which the upper two are thonged together. The thonging is either type 1, straight down the centre of the shoe (16 examples), or type 2, as type 1, but with a diamond shape at the front (14 examples). However, where the fronts of the shoes are damaged, type 2 evidence may be missing, leading to an over-representation of type 1.
Table 52: Leather shoes from well 226: nailing types, according to van Driel-Murray’s classification (1995)

<table>
<thead>
<tr>
<th>Nailing type</th>
<th>No recovered</th>
<th>Percentage of total</th>
<th>Percentage of group (all)</th>
<th>Total sub-group</th>
<th>Percentage of sub-group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>20.5</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a</td>
<td>20</td>
<td>45.5</td>
<td>55.6</td>
<td>66.7</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>4</td>
<td>9.1</td>
<td>11.1</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>1c</td>
<td>3</td>
<td>6.8</td>
<td>8.3</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>36</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4.5</td>
<td>40.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>1</td>
<td>2.3</td>
<td>20.0</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td>2</td>
<td>4.5</td>
<td>40.0</td>
<td>3</td>
<td>66.7</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>4.5</td>
<td>66.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>1</td>
<td>2.3</td>
<td>33.3</td>
<td>1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td></td>
<td></td>
<td><strong>34</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 53: Leather shoes from well 226: nailing patterns, classified by design

The uppers are mostly represented by lasting margins. These show that they were braced in position, and where the evidence survives, that the seam was at the centre-front, up the vamp. The other piece that often survives is the heel stifener; this is crescentic and was used grain side towards the foot. In five examples, enough survives of the upper for comment. The first of these, **L34** (p 570), has a hemmed opening around the ankle, and an open front which also has hemmed edges, with small crescent-shaped openings along them, spaced at 16 mm; these originally held a thong. There is no vamp seam. Fragments of this type of upper were recovered at Bar Hill (Robertson et al 1975, 75, nos 47-8, fig 24), but there it had a vamp seam. The upper also forms van Driel-Murray’s ‘Irthing’ type from Vindolanda (van Driel-Murray 2017).

There are four latchet boots (**L117-20**; p 575), with crescent-shaped eyelet holes and, originally, an integrally cut lace; this is a type of footwear known throughout the Roman Empire (Van Driel-Murray 2011). The four examples from the northern Lanes all have features in common, including a central bump at the back, flanked on either side by a hemmed top edge. Up to four pairs of eyelets survive, but no laces. There are, however, differences in detail; one (**L117**) has an impressed line running along the edge of the upper and around the eyelets. Two of the others (**L118, L120**) had linings in the quarters, around the eyelet holes. One of these (**L120**) survives, and is made of leather, whip-stitched into position. The fourth example (**L119**) was a boot, extending above the ankle bone. The remains of four pairs of eyelets are visible, and also a facing appliqué, which was stitched into position, grain side to the foot, using through stitches, giving a continuous thread impression around the edge.

Figure 263: Shoe with type 3 nailing from well 226

Table 53: Leather shoes from well 226: nailing patterns, classified by design
The nailed shoes cover a large spectrum of sizes, ranging from child’s size 8 (continental 26) to adult size 10 (continental 44), although only seven survive to their full length. There is another child’s shoe (size 13; continental 31), but the rest are all adult sizes, from size 1 (continental 33) upwards; four are larger than size 5 (continental 38), and therefore probably belonged to adult men (Rhodes 1980, 102).

**Sandals**

The second distinctive group comprises 11 sandals (L123-33; pp 575-7). Three of these survive to their full length; two are adult size 3 (continental 35) and one is adult size 6 (continental 39). Ten sandals are of the ‘standard’ shape, that is fairly ‘natural’, although the broadest part is slightly forward of the tread, with a smooth rounded toe. The bottom units are usually made up of three layers, but some have more, held together by close-set edge-thonging, which is interrupted at the waist. The only surviving evidence for the uppers is a large double slit at the approximate position of the junction between the great and second toes, which often contains the remains of a thong (Fig 264). The adult size 6 example, large enough to have been worn by an adult man, is similar to the other ‘standard’-shaped sandals. One (L131; p 577) differs in shape in that there is an indent in the front to show the position of the big toe; it also has a short row of thonging slots in the centre of the tread and the seat.

Nine of the sandals have VDM type 1 nailing; there is also one type 2 and one unknown. Of the type 1 examples, seven are type 1a. Two have unusually shaped clusters under the tread; one (L123) has a square-bottomed trident, while the other (L131) has a V-bottomed trident (Fig 265).

**Stitched shoes**

There are also four stitched shoes from the well (L138-41; p 578). These are probably padded-sole mules, similar to that from Period 7-8A (L143), only, in this case, the padded soles were filled with fragments of leather rather than being made of cork; these fragments survive for L141. Two examples (L140-1) survive to their full length, and are adult sizes 5 and 7 (continental 38 and 41).

**T-seam shoes**

Finally, there are two T-seam shoes (L157-8; p 580). Only one survives as more than fragments (L157); it has a low plain backpart and a single row of loops along the side. The other (L158) is represented by a back part with a simple scalloped edge, and a lace hole in the apex of the scallop.

**Dating**

This assemblage can be dated to the third century with confidence. Latchet boots are a common find of the period and are known from right across the Roman Empire. Sandals are also found in the majority of third-century assemblages in northern Europe, both on the Continent (Walheim (van Driel-Murray 1989) and Saalburg (Busch 1965)), and, in Britain, at St Magnus Quay, London (MacConnoran 1986), Vindolanda (van Driel-Murray 1993), and Birdoswald (Mould 1997). This combination is an early third-century phenomenon, with assemblages of a later date being characterised by a different shape of sandal, with a very broad front (up to 150 mm across). The latest pottery from the well group is dated not earlier than the mid-third century, although there is also much early third-century material (Ch 4). It is therefore suggested that the pottery and the shoes are of the same date, despite the absence of broad-fronted sandals.
Roman Shoes From Contexts Not Closely Phased

Some 28 shoes come from six contexts that cannot be assigned to site periods (Table 47). Material in the western part of the site (KLA F) produced five shoes similar to those from better-stratified levels elsewhere. Four are nailed (L92-5), the most complete being L93 (p 573), which is adult size 5 (continental 38). It has a pointed toe and minimal shaping to the waist. The nailing is VDM type 1b, with the cluster under the tread arranged in straight lines. It is unusual in having type 3 thonging. The upper would have been attached to the two tunnel stitches found in the centre of the flesh surface of the lower mid-sole. The upper is fragmentary, with a central vamp seam. There are the remains of probably crescent-shaped lace holes on the front, but these are not the same as those found on latchet boots. Again the most probable match for this shoe is in the later second-century deposits. A fragmentary nailed shoe (L97) was also recovered, as were a sandal (L134, p 577) and part of a stitched shoe (L142, p 578). The sandal, for a left foot, survived as the forepart of a sole and two mid-soles. It differs in shape from others in that it has a blunt squarish big toe with a V-shaped nick at the side, whereas the others are represented in a stylised manner; the foot itself is slender and elongated. The construction of L134 is the same as those from the early Roman levels (L121-2, p 575), and the nailing pattern is type A (VDM type 1c), with a lozenge-shaped cluster under the tread and an isolated nail at the waist. A similar sandal was recovered from a mid-to-late second-century context at Castle Street (Padley 1991d, 232, no 973, fig 213); the shape of the Castle Street example is more extreme than L134, however, so it is possible that the latter is slightly earlier.

The stitched shoe (L142; p 578) survives only as a complete narrow mid-sole, with a pointed toe and a nearly straight inside edge; the type of stitched shoe represented is uncertain, though. It has two rows of stitching: an oblique row of tunnel stitches and a row of single through-stitch holes around the edge. There is also the impression of a lasting margin going all around the shoe. The shoe is adult size 1 (continental 33).

Finally, there is a group of fragmentary nailed shoes from a truncated Roman pit in Old Bush Lane at the southern extremity of the site (Ch 1, p 12, Fig 5). The lower fill of this feature yielded pieces probably from two separate shoes. Item L115 is a right insole, with the remains of type 1 thonging and type A (VDM type 1c) nailing (p 575). The other shoe (L116) consists only of fragments, which cannot be attached to L115. The upper fill produced 17 items (L98-114), although it is possible that no more than 13 shoes are represented. The most common nailing type is type A (VDM type 1), with six examples, of which three can be classified further into sub-groups a, b, and c. There is also one shoe with type B nailing (VDM type 2).

Two of the bottom units from the upper fill were thonged together; L99 (p 573) shows type 1 thonging, although the slots at the tread are displaced slightly to the right. The lasting margin of the upper was held in position by tunnel stitches running parallel to the edge of the flesh side of the sole. Two other pieces (L100, L111; p 573) show type 3 thonging and probably represent a single shoe; L111 also has a row of tunnel...
The nailing and thonging types listed under ‘Nail’ and ‘Thong’ are those defined (p 556).

### Nailed shoes

<table>
<thead>
<tr>
<th>No.</th>
<th>Foot</th>
<th>Parts</th>
<th>Nail</th>
<th>Thong</th>
<th>Upper details</th>
<th>L</th>
<th>Tr</th>
<th>Size</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>L</td>
<td>S, 2M, I, W</td>
<td>B</td>
<td></td>
<td>impression from bracing (Fig 267)</td>
<td>273</td>
<td>109</td>
<td>A7</td>
<td>4C</td>
</tr>
<tr>
<td>L2</td>
<td>R</td>
<td>S</td>
<td>A</td>
<td></td>
<td></td>
<td>165</td>
<td>81</td>
<td></td>
<td>5A-B</td>
</tr>
<tr>
<td>L3</td>
<td>?</td>
<td>I</td>
<td>Y</td>
<td></td>
<td></td>
<td>90</td>
<td></td>
<td></td>
<td>5B</td>
</tr>
<tr>
<td>L4</td>
<td>R</td>
<td>S, I, HS</td>
<td>A</td>
<td></td>
<td></td>
<td>225</td>
<td>70</td>
<td>A1</td>
<td>6</td>
</tr>
<tr>
<td>L5</td>
<td>R</td>
<td>S, I, W, HS</td>
<td>A?</td>
<td>Y</td>
<td>braced (Fig 267)</td>
<td>219</td>
<td>74</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>L6</td>
<td>L</td>
<td>S, I, HS, U</td>
<td>A</td>
<td>Y</td>
<td>openwork, lining (Fig 267)</td>
<td>222</td>
<td>66</td>
<td>A1</td>
<td>6</td>
</tr>
<tr>
<td>L7</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>136</td>
<td>55</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>L8</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94</td>
<td>55</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>L9</td>
<td>R</td>
<td>S, I, HS, U</td>
<td>B</td>
<td></td>
<td>lining only? (Fig 268)</td>
<td>260</td>
<td>87</td>
<td>A5</td>
<td>7</td>
</tr>
<tr>
<td>L10</td>
<td>L</td>
<td>S, M, I, HS, U</td>
<td>B</td>
<td></td>
<td>lasting margin only.</td>
<td>255</td>
<td>86</td>
<td>A5</td>
<td>7</td>
</tr>
</tbody>
</table>

### Catalogue

Abbreviations used in the catalogues:

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>I</th>
<th>W</th>
<th>BU</th>
<th>HS</th>
<th>U</th>
<th>L</th>
<th>R</th>
<th>Y</th>
<th>imp</th>
<th>Tr</th>
</tr>
</thead>
<tbody>
<tr>
<td>sole</td>
<td>mid-sole</td>
<td>insole</td>
<td>wedge</td>
<td>bottom unit</td>
<td>heel stiffener</td>
<td>upper</td>
<td>left</td>
<td>right</td>
<td>present</td>
<td>impression</td>
<td>tread</td>
</tr>
</tbody>
</table>

Shoe sizes

| A5, etc | English adult size 5, etc |
| C13, etc | English child’s size 13, etc |
Figure 267: Nailed shoes, Periods 4C-6

L: 248 mm; Tr: 77 mm; Size: A4
KLA B 188.05, L 741, Period 7-8A

L14 Foot: L; Parts: S, M, I; Nail: A (Fig 268).
L: 245 mm; Tr: 82 mm; Size: A3
KLA B 188.05, L 810, Period 7-8A

L15 Foot: ?; Parts: HS.
KLA C 1192, L 33, Period 8A

L16 Foot: ?; Parts: HS.
KLA C 1846, L 57, Period 8A

L17 Foot: ?; Parts: I.
KLA C 1857, L 63, Period 8A

L18 Foot: L; Parts: S, W2, I; Nail: A; Stitch: Y.
L: 145 mm+; Tr: 74 mm
KLA A 1031.03, L 1434, Period 8B
Figure 268: Nailed shoes, Periods 7-8B

L19  Foot: ?; Parts: S, M(s), I; Nail: ?.
L: 83 mm+
KLA B 1249.01, L 3265, Period 8B

L20  Foot: ?; Parts: HS, U, M, I, W; Nail: ?; Thong: 3;
Upper details: fragments.
KLA B 1249.01, L 3269, L 3270, L 3271, L 3272, L 3274, Period 8B

L21  Foot: R; Parts: S, M, I, W, U; Nail: A7; Thong: 2?
Stitches: Y; Upper details: fragment of lasting margin.

L14  Foot: ?; Parts: S, M(s), I; Nail: ?.
L: 83 mm+
KLA B 1249.01, L 3265, Period 8B

L22  Foot: L; Parts: S, I, U?; Nail: A; Thong: 2;
Stitch: Y; Upper details: fragments (Fig 268).
L: 192 mm; Tr: 64 mm; Size: C10
KLA D 464, L 6, Period 8B

L23  Foot: R; Parts: S, M, I; Nail: A; Stitch: Y
(Fig 268).
L: 228 mm+; Tr: 71 mm+
LAL B 257, L 17, Period 8B
L24 Foot: R; Parts: I (Fig 269).
L: 145 mm+; Tr: 38 mm
LAL B 231, L 10, Period 9

L: 217 mm; Tr: 72 mm; Size: C13
LAL C 365.01, L 40, Period 9

L26 Foot: R?; Parts: I; Nail: B?; Thong: Y.

L27 Foot: ?; Parts: I; Nail: A?; Thong: Y.
L: 222 mm+
LAL D 1064, L 87, Period 10B

L28 Foot: ?; Parts: HS; I.
LAL D 1016.01, L 74, L 98, Period pre-10C

Figure 269: Nailed shoes, Periods 9-11D
L29  Foot: R; Parts: S, I; Nail: A; Stitch: Y. 
L: 208 mm+; Tr: 83 mm 
KLA C 1156, L 32, Period 11B

Upper details: fragment of lasting margin? 
L: 68 mm+ 
LAL D 232.05, L 13, Period 11D

L31  Foot: Parts: S, I, HS; Nail: ?; Thong: Y. 
L: 50 mm+ 
LAL D 232.05, L 21, Period 11D

L32  Foot: R; Parts: I, M, W, U; Nail: A3; Thong: 1; 
Upper details: fragment of lasting margin. 
L: 214 mm; Tr: 80 mm; Size: A1 
LAL D 232.09, L 14, Period 11D

L33  Foot: L; Parts: S, M, I, W, U; Nail: A; Thong: 1; 
Upper details: fragment of lasting margin. 
L: 125 mm+; Tr: 45 mm+ 
LAL D 232.10, L 15, Period 11D

L34  Foot: L; Parts: S, M, I, HS; Nail: C3; Thong: 1; 
Upper details: fragments (Fig 269). 
L: 261 mm; Tr: 100 mm+ 
LAL D 232.10, L 16, Period 11D

L35  Foot: L; Parts: S, I, W?; Nail: A4; Thong: 1; 
Upper details: impressions of lasting margin. 
L: 201 mm; Tr: 86 mm 
LAL D 232.10, L 17, Period 11D

L36  Foot: ?; Parts: I?; Thong: Y. 
L: 27 mm+ 
LAL D 232.10, L 18, Period 11D

L37  Foot: ?; Parts: I; Thong: Y. 
L: 54 mm+ 
LAL D 232.10, L 132, Period 11D

L38  Foot: R; Parts: I, U?; Nail: B?; Thong: 1; Upper details: fragments. 
L: 247 mm+; Tr: 87 mm+ 
LAL D 232.11, L 19, Period 11D

L39  Foot: ?; Parts: S, M, I; Nail: ?; Thong: 2? 
L: 143 mm+; Tr: 59 mm+ 
LAL D 232.11, L 29, Period 11D

L40  Foot: ?; Parts: S, I, HS; Nail: ?; Thong: Y; Stitch: Y. 
L: 112 mm+ 
LAL D 232.11, L 46, Period 11D

L41  Foot: R; Parts: S, M(s), I; Nail: A; Thong: 2 (Fig 269). 
L: 240 mm+; Tr: 86 mm 
LAL D 232.11, L 116, Period 11D

L42  Foot: ?; Parts: HS. 
LAL D 232.11, L 138, Period 11D

L43  Foot: ?; Parts: HS?; Upper details: could be an upper. 
LAL D 232.11, L 140, Period 11D

L44  Foot: ?; Parts: HS; Upper details: could be an upper. 
LAL D 232.11, L 141, Period 11D

L45  Foot: R; Parts: S, I; Nail: A3; Thong: Y. 
L: 251 mm+; Tr: 83 mm+ 
LAL D 232.12, L 22, Period 11D

L46  Foot: L; Parts: S, M(s), I, U; Nail: A; Stitch: Y; 
Upper details: fragment of lasting margin. 
L: 122 mm+ 
LAL D 232.12, L 23, Period 11D

L47  Foot: R; Parts: S, M, I, U; Nail: A; Stitch: Y; 
Upper details: lasting margin. 
L: 172 mm+; Tr: 80 mm 
LAL D 232.12, L 24, Period 11D

L48  Foot: L; Parts: S; Nail: A; Stitch: Y. 
L: 294 mm; Tr: 66 mm+; Size: A10 
LAL D 232.12, L 25, Period 11D

L: 170 mm+; Tr: 70 mm+ 
LAL D 232.12, L 31, Period 11D

L50  Foot: L; Parts: S, M, I, U; Nail: A; Thong: Y; 
Upper details: lasting margin. 
L: 250 mm+; Tr: 98 mm+ 
LAL D 232.12, L 34, Period 11D

L51  Foot: R; Parts: S, I, U; Nail: A; Upper details: 
lasting margin. 
L: 182 mm+; Tr: 80 mm 
LAL D 232.12, L 35, Period 11D

L52  Foot: R; Parts: S, M; Nail: B (Fig 269). 
L: 300 mm; Tr: 104 mm; Size: A7 
LAL D 232.12, L 120, Period 11D

L: 202 mm+, Tr: 54 mm+ 
LAL D 232.12, L 122, Period 11D

L54  Foot: L; Parts: S, M; Nail: A3; Stitch: Y (Fig 269). 
L: 190 mm+; Tr: 76 mm+ 
LAL D 232.12, L 123, Period 11D

L55  Foot: ?; Parts: HS. 
LAL D 232.12, L 124, Period 11D
L56
Foot: R; Parts: S, M, I; Nail: B.
L: 305 mm; Tr: 100 mm+; Size: A9
LAL D 232.12, L 125, Period 11D

L57
Foot: ?; Parts: S; Nail: ?; Stitch: Y.
L: 73 mm+
LAL D 232.12, L 131, Period 11D

L58
Foot: ?; Parts: I, HS, U; Thong: 2?; Upper details: fragments.
L: 189 mm+; Tr: 65 mm+
LAL D 232.12, L 125, Period 11D

L59
Foot: L; Parts: S, M, I; Nail: A; Upper details: fragment of lasting margin (Fig 269).
L: 267 mm; Tr: 82 mm; Size: A6
LAL D 232.13, L 32, Period 11D

L60
Foot: R; Parts: S; Nail: A; Stitch: Y (Fig 269).
L: 230 mm+; Tr: 77 mm
LAL D 232.13, L 36, Period 11D

L61
Foot: R; Parts: I, HS; Nail: A?; Thong: ?.
L: 233 mm+; Tr: 83 mm
LAL D 232.13, L 39, Period 11D

L62
Foot: R; Parts: S, M, HS; Nail: A?; Thong: Y.
L: 195 mm+; Tr: 83 mm+
LAL D 232.13, L 40, Period 11D

L63
Foot: L; Parts: I; Nail: A?; Thong: 2.
L: 197 mm+; Tr: 86 mm+
LAL D 232.13, L 42, Period 11D

L64
Foot: R; Parts: S, M, I, HS; Nail: A; Thong: 2 (Fig 270).
L: 272 mm+; Tr: 92 mm+
LAL D 232.13, L 119, Period 11D

L65
Foot: L?; Parts: 2M, I; Nail: ?; Thong: 2?
L: 222 mm+; Tr: 69 mm+
LAL D 232.13, L 127, Period 11D

L66
Foot: ?; Parts: S, M; Nail: A.
L: 150 mm+
LAL D 232.13, L 134, Period 11D

L67
Foot: L; Parts: I; Nail: A?; Thong: Y (Fig 270).
L: 228 mm+; Tr: 76 mm+
LAL D 232.13, L 135, Period 11D

L68
L: 150 mm+; Tr: 50 mm+
LAL D 232.13, L 139, Period 11D

L69
Foot: L; Parts: S, M(s), I; Nail: A; Thong: I; Upper details: fragments of lasting margin (Fig 270).
L: 274 mm+; Tr: 97 mm
LAL D 232.14, L 41, Period 11D

L70
Foot: ?; Parts: HS, U?; Upper details: fragment only.
LAL D 232.14, L 47, Period 11D

L71
Foot: ?; Parts: HS.
LAL D 232.14, L 142, Period 11D

L72
Foot: R; Parts: M, HS, U?; Nail: ?; Thong: 1; Stitch: Y; Upper details: fragments (Fig 270).
L: 274 mm+; Tr: 104 mm
LAL D 232.15, L 44, Period 11D

L73
Foot: L; Parts: S, I, HS; Nail: 2; Stitch: Y.
L: 288 mm+; Tr: 90 mm+
LAL D 232.15, L 48, Period 11D

L74
Foot: ?; Parts: M, I, HS; Nail: ?; Thong: Y.
L: 112 mm+
LAL D 232.15, L 112, Period 11D

L75
Foot: ?; Parts: HS; Nail: ?.
LAL D 232.15, L 136, Period 11D

L76
Foot: R; Parts: S, I, U, W(s); Nail: C; Thong: 2; Upper details: fragment of lasting margin.
L: 229 mm+; Tr: 86 mm+
LAL D 232.15, L 143, Period 11D

L77
Foot: ?; Parts: I?, HS; Nail: A2?.
L: 128 mm+
LAL D 232.15, L 147, Period 11D

L78
Foot: R; Parts: S, M, I, U; Nail: A; Thong: 2; Upper details: fragment of lasting margin (Fig 270).
L: 186 mm; Tr: 61 mm; Size: C8
LAL D 232.16, L 45, Period 11D

L79
Foot: ?; Parts: W?; Nail: ?.
L: 52 mm
LAL D 232.16, L 49, Period 11D

L80
Foot: R; Parts: M(s), I; Nail: A?; Thong: 2; Stitch: Y (Fig 270).
L: 193 mm+; Tr: 71 mm+
LAL D 232.16, L 50, Period 11D

L81
Foot: ?; Parts: S, HS; Nail: A; Stitch: Y.
L: 130 mm+; Tr: 72 mm+
LAL D 232.16, L 137, Period 11D

L82
Foot: L?; Parts: M/I; Thong: 2.
L: 205 mm+; Tr: 90 mm+
LAL D 232.17, L 51, Period 11D
Figure 270: Nailed shoes, Period 11D

L84  Foot: R; Parts: M, I; Nail: ?; Thong: 1; Stitch: Y. L: 241 mm+; Tr: 68 mm+ LAL D 232.18, L 59, Period 11D

L85  Foot: L; Parts: S, M?, I, HS?; Nail: ?; Thong: 1. L: 173 mm+ LAL D 232.18, L 61, Period 11D

L86  Foot: ?; Parts: S, I, HS; Nail: ?; Thong: 2?. L: 123 mm+ LAL D 232.18, L 63, Period 11D

L87  Foot: R; Parts: S, I; Nail: B/C. L: 249 mm+; Tr: 91 mm+ LAL D 232.18, L 65, Period 11D

L88  Foot: ?; Parts: HS. LAL D 232.18, L66, Period 11D

L89  Foot: ?; Parts: 3M, I, HS; Nail: ?. L: 40 mm+ LAL D 232.18, L 146, Period 11D

L90  Foot: L; Parts:S,M,I,U;Nail:A;Thong:1;Upper details:fragments of lasting margin (Fig 270). L: 209 mm; Tr: 71 mm; Size: C13 LAL D 232.20, L 64, Period 11D

L91  Foot: ?; Parts: S; Nail: ?. L: 108 mm+; Tr: 79 mm+ KLA C 677.06, L 71, Period 11D-12

L92  Foot: R; Parts: S, I; Nail: A; Thong: 2 (Fig 271). L: 136 mm+; Tr: 84 mm+ KLA F 40, L 10, Roman, not closely phased

L93  Foot: R; Parts: S, I, U; Nail: A; Stitch: Y; Upper details: lasting margin, lining (Fig 271). L: 255 mm+; Tr: 82 mm; Size: A5 KLA F 40, L 3, Roman, not closely phased

L94  Foot: R; Parts: S, I, U; Nail: B; Upper details: lasting margin. L: 177 mm+; Tr: 80 mm+ KLA F 40, L 4, Roman, not closely phased

L95  Foot: R; Parts: I; Nail: ? (Fig 271). L: 205 mm+; Tr: 60 mm; Size: C11 KLA F 40, L 2, Roman, not closely phased

L96  Foot: R; Parts: 2M, I, U; Nail: A; Thong: 3; Stitch: Y; Upper details: 'Fell boot'? L: 207 mm+; Tr: 72 mm KLA G 151, L 2, Roman, not closely phased

L97  Foot: ?; Parts: S, I, HS. L: 60 mm+ KLA G 244, L 10, Roman, not closely phased

L98  Foot: ?; Parts: S; Nail: ?. OBL A 1, L 1, Roman, not closely phased

L99  Foot: R; Parts: S, 2M, I, HS, U; Nail: A; Thong: 1; Stitch: Y (Fig 271). L: 242 mm+; Tr: 77 mm OBL A 1, L 2, Roman, not closely phased

L100  Foot: ?. Parts: M; Nail: ?; Thong: 3. L: 115 mm+ OBL A 1, L 3, Roman, not closely phased

L101  Foot: L; Parts: S, M, HS; Nail: B?. L: 150 mm+; Tr 79 mm+ OBL A 1, L 4, Roman, not closely phased

L102  Foot: ?. Parts: S, U; Upper details: fragments. L: 145 mm+ OBL A 1, L 5, Roman, not closely phased

L103  Foot: ?. Parts: BU, U; Thong: Y; Upper details: fragment of lasting margin. L: 99 mm+ OBL A 1, L 6, Roman, not closely phased

L104  Foot: ?. Parts: HS. OBL A 1, L 7, Roman, not closely phased

L105  Foot: ?. Parts: M, W(s), HS, U; Upper details: fragment. L: 74 mm+ OBL A 1, L 9, Roman, not closely phased

L106  Foot: ?. Parts: U; Upper details: centre back. OBL A 1, L 12, Roman, not closely phased

L107  Foot: ?. Parts: U; Upper details: two fragments. OBL A 1, L 13, Roman, not closely phased

L108  Foot: ?. Parts: HS, U; Upper details: fragment. OBL A 1, L 14, Roman, not closely phased

L109  Foot: ?. Parts: M/W; Thong: Y. L: 114 mm+ OBL A 1; L 16; Roman, not closely phased

L110  Foot: ?. Parts: M?; Thong: Y. L:142 mm+ OBL A 1, L 17, Roman, not closely phased

L111  Foot: R; Parts: I, M; Nail: A; Thong: 3; Stitch: Y (Fig 271). L: 195 mm+; Tr: 75 mm OBL A 1, L 18, Roman, not closely phased
Figure 271: Nailed shoes from Roman contexts not closely phased

**L112**  Foot: ?; Parts: S; Nail: A; Stitch: Y (Fig 271).
L: 197 mm+  
OBL A 1, L 19, Roman, not closely phased

**L113**  Foot: L; Parts: I; Nail: A?.  
L: 233 mm+; Tr: 74 mm+  
OBL A 1, L 20, Roman, not closely phased
L114  Foot: L; Parts: I; Nail: A?.
L: 199 mm+; Tr: 96 mm+
OBL A 1, L 21, Roman, not closely phased

L115  Foot: R; Parts: I; Nail: A7; Thong: 1.
L: 241 mm+; Tr: 87 mm+
OBL A 2, L 8, Roman, not closely phased

L116  Foot: ?; Parts: I?; Thong: Y.
OBL A 2, L 11, Roman, not closely phased

Latchet boots
L117  Foot: ?; Parts: U; Upper details: eight fragments (Fig 272).
LAL D 232.09, L 26, Period 11D

L118  Foot: L; Parts: S, M, I, HS, U; Nail: A; Thong: 1;
Stitch: Y; Upper details: quarters (Fig 272).
L: 232 mm+; Tr: 86 mm
LAL D 232.10, L 27, Period 11D

L119  Foot: L; Parts: 2M, I, U; Nail: A3; Thong: 1;
Upper details: back part and appliqué (Fig 272).
L: 261 mm+; Tr: 92 mm+
LAL D 232.11, L 114, Period 11D

L120  Foot: ?; Parts: S, 2M, I, U, W7; Thong: 17;
Stitch: Y; Upper details: three fragments.
L: 88 mm+
LAL D 232.12, L37, Period 11D

Sandals
L121  Foot: R; Parts: S, M, I; Nail: A (Fig 273).
L: 239 mm+; Tr: 82 mm; Size: A3
KLA B 188.05, L 809, Period 7-8A

L122  Foot: ?; Parts: I?; Nail: A.
L: 85 mm+
LAL B 224, L 15, Period 10C

L123  Foot: R; Parts: S, 3M, I; Nail: A15. Upper
details: attachment at front (Fig 273).
L: 190 mm+; Tr: 91 mm
LAL D 232.11, L 20, Period 11D

L124  Foot: R; Parts: S, M(s), I; Nail: A.
L: 168 mm+; Tr: 98 mm
LAL D 232.12, L 28, Period 11D

L125  Foot: R; Parts: S, M, I; Nail: A (Fig 273).
L: 242 mm+; Tr: 78 mm; Size: A3
LAL D 232.12, L 30, Period 11D

L126  Foot: L; Parts: S, I; Nail: B12; Upper details:
attachment point.
L: 124 mm+; Tr: 92 mm
LAL D 232.12, L 108, Period 11D
**Figure 273: Sandals**

**L127** Foot: ?; Parts: S, I; Nail: ?.
L: 123 mm+; Tr: 57 mm+
LAL D 232.12, L 109, Period 11D

**L128** Foot: R7; Parts: S, M, I; Nail: A2?.
L: 188 mm+
LAL D 232.12, L 110, Period 11D
Stitched shoes

L135  Foot: L; Parts: I; Stitch: Y (Fig 274).
L: 246 mm; Tr: 80 mm; Size: A4
KLA F 50, L 15, Period 6

L136  Foot: L; Parts: I; Stitch: Y (Fig 274).
L: 215 mm; Tr: 50 mm, Size: C13
KLA B 1249.01, L 3264, Period 8B

Figure 274: Stitched shoes
L137  Foot: R; Parts: I?; Thong: Y, Stitch: Y (Fig 274).  
L: 112 mm+; Tr: 46 mm  
LAL B 224, L 12, Period 10C

L138  Foot: ?; Parts: I?; Stitch: Y (Fig 274).  
L: 152 mm+  
LAL D 232.10, L 126, Period 11D

L139  Foot: R; Parts: I; Stitch: Y (Fig 274).  
L: 215 mm+; Tr: 79 mm  
LAL D 232.12, L 107, Period 11D

L140  Foot: R; Parts: I; Stitch: Y (Fig 274).  
L: 253 mm; Tr: 78 mm; Size: A5  
LAL D 232.12, L 121, Period 11D

L141  Foot: R; Parts: S, Ms, U?; Stitch: Y; Upper details: side piece (Fig 274).  
L: 274 mm; Tr: 88 mm; Size: A7  
LAL D 232.15, L 115, Period 11D

L142  Foot: R; Parts: M; Stitch: Y (Fig 274).  
L: 223 mm; Tr: 60 mm; Size: A1  
KLA G 250, L 13, Roman, not closely phased

Cork-soled mule  
L143  Foot: L; Parts: S, H, I, U; Stitch: Y; Upper details: side pieces, insole strap (Fig 275).

One-piece T-seam shoes  
L144  Foot: R; Upper details: almost complete (Fig 276).  
L: 158 mm; Tr: 64 mm; Size: C6  
KLA D 546, L 14, Period 3-5

L145  Foot: L; Upper details: almost complete (Fig 276).  
L: 300 mm+  
KLA C 1935, L 66, Period 6

L146  Foot: ?; Upper details: back part and one side (Fig 276).  
L: 205 mm+  
KLA F 50, L 16, Period 6

L147  Foot: ?; Upper details: back part (Fig 276).  
L: 135 mm+  
KLA F 50, L 17, Period 6

L148  Foot: ?; Upper details: fragments.  
L: 94 mm+  
KLA C 1871, L 72, Period 7

L149  Foot: ?; Upper details: back part (Fig 276).  
L: 190 mm+  
KLA C 1876, L 60, Period 7

Figure 275: Cork-soled mule
Figure 276: One-piece T-seam shoes, Periods 3-5 to 9

L150  Foot: ?; Upper details: fragment (Fig 276). L: 195 mm+ KLA B 188.05, L 1336, Period 7-8A

L151  Foot: ?; Upper details: fragment. L: 175 mm+ KLA B 188.05, L1337, Period 7-8A

L152  Foot: ?; Upper details: fragment. L: 84 mm+ KLA B 382.03, L 834, Period 7-8A

L153  Foot: ?; Upper details: fragments. L: 114 mm+ KLA C 1185.02, L 45, Period 8B
L154 Foot: ?; Upper details: fragment (Fig 276).
L: 91 mm+
KLA B 1268, L 3253, Period 9

L155 Foot: ?; Upper details: fragment.
L: 82 mm+
LAL D 1016.06, L 80, Period pre-10C

L156 Foot: ?; Upper details: fragment.
L: 71 mm+
LAL C 209.06, L 32, Period 11A

L157 Foot: ?; Upper details: one side and fragments (Fig 277).
L: 225 mm; Size: A1/2
LAL D 232.17, L 52, Period 11D

L158 Foot: ?; Upper details: fragments.
L: 129 mm+
LAL D 232.17, L 113, Period 11D

L159 Foot: R; Upper details: front only (Fig 277).
L: 207 mm+
KLA F 40, L 12, Roman, not closely phased

Shoes of uncertain type
L160 Foot: R; Parts: I; Stitch: Y (Fig 277).
L: 236 mm; TR: 71 mm; Size: A2
KLA F 50, L 13, Period 6

L161 Foot: ?; Parts: I?; Nail: ?.
L: 145 mm++; Tr: 89 mm+
KLA D 524.01, L 10, Period 7

L162 Foot: L; Parts: I, M(s); Thong: 2.
L: 145 mm+
KLA D 464, L 6A, Period 8B

L163 Foot: ?; Parts: BU; Thong: Y.
L: 50 mm+
LAL D 1016.06, L 81, Period pre-10C

L164 Foot: R; Parts: M (Fig 277).
L: 204 mm++; Size: C12
KLA C 1156, L 73, Period 11B

L165 Foot: ?; Parts: M, I, U; Thong: Y; Upper details: part of one side (Fig 278).
L: 160 mm+
KLA C 677.06, L 50, Period 11D-12

L166 Foot: L?; Parts: S, M, I; Thong: Y (Fig 278).
L: 152 mm++; Tr: 53 mm+
KLA C 677.06, L 51, Period 11D-12

Figure 277: One-piece T-seam shoes, and others of uncertain type
Figure 278: Shoes of uncertain type