

Section 46 Animal trappings and transportation

H B Duncan

Cross-references to Digital Supplement in red
Cross-references to Printed Synthesis in brown

Introduction

Category 9 consists of objects used in equipping animals for transport, farming, grooming, and tethering. At La Grava the majority of the objects that comprise this category are associated with horses [46.01]. Spurs and their fittings have also been included here as, although forming part of an individual's dress, they are worn primarily for riding.

Period	Horseshoes	Shoeing nails	Bits	Harness fittings	Spurs/rowels	Total
5.2	1	12				13
5.3	5	25		1	1	32
5.4	14	60	1	1	4	80
5.5	7	11		1		19
5.6	12	38		1	5	56
6.1	21	87		2	3	113
6.2	31	70	6	4	9	120
7	94	40	10	8	9	161

46.01 Table of occurrence of transport equipment by phase

Spurs

A total of 22 spurs was recovered from Periods 5 and 6, seventeen of which were classifiable: all rowel spurs. The appearance of rowel spurs in England has been dated to the 13th century, general use of this form not occurring until the first half of the 14th century (Ellis 1990, 1037–38).

The practice of plating spurs, in either tin or silver, was common in the medieval period and continued into the 17th century (Jope 1956, 35–42). Five of the spurs from La Grava were plated, three tinned, and two silvered. One silvered spur, not illustrated, (Sf 1747 T23 C10 S23A/S19A) occurred in deposits of phase 5.4. The remaining plated spurs were from Period 7 deposits although their forms span the 13th/14th to 17th centuries.

Two features, curvature of the sides, and length and orientation of the neck, aid in the dating of rowel spurs. Rowel spurs of the 13th to 15th centuries generally had well-curved sides either uniformly curved [46.02/322] or sharply curved [46.02/323].

The addition of a crest and finial at the junction of the arms and neck [46.02/324–325] did not come into use until the late 14th century and continued in popularity into the 15th century. An additional feature of the 15th-century rowel spur was the lengthening of the neck cf [46.02/323].

Fourteen spurs were dated from the 13th into the 15th centuries. Six of these correspond with that of the site phasing, occurring in phases 5.4 to 6.1. The remaining spurs of this form were found in phase 6.2 and Period 7.

In the 16th and 17th centuries spurs had either curved or straight sides, 16th-century spurs possessing straight necks while their 17th-century counterparts had either short necks [46.02/326] or necks bent at an angle [46.02/327]. At the close of the 17th century and into the 18th, straight sides predominated. Ten 16th- to 18th-century spurs were identified; all were recovered from deposits of phase 6.2 and Period 7. A total of four detached rowels were also identified. It is rarely possible to date detached spur rowels closely, as the star-shape rowel has a lengthy history. [46.03/328], however, is one of the large, multi-pointed spur rowels which were high fashion in the second half of the 14th century (Ellis, pers comm).

The earliest phase yielding rowels was 5.4. Spurs typologically dated to the 16th to 18th centuries were concentrated mainly in S16. Some spurs of the medieval period were found in phase 6.2 and Period 7 in S16 suggesting disturbance during destruction. Remains of four spurs, two dated to the 14th and 15th centuries, were found in S19 (phase 5.6) and three in stables and barns (S30, S38, and S59).

Spurs 46.02/322-327

46.02/322

Sf 1805 T23 C6 [P6.2-7 S23A]

Complete iron rowel spur, uniformly curved arms, type F/F terminals, large six-pointed rowel. Spur plated with tin. Lth 141mm

46.02/323

Sf 2328 T30 C1 [P6.2-7]

Complete iron rowel spur with spur attachment and buckle *in situ*. Sharply bent arms, long neck, large six-pointed rowel. Terminals type F/F. Buckle fitting tin plated. Lth 164mm

46.02/324

Sf 1053 T6 C81 [P5.6 S19]

Iron rowel spur, uniformly curved arms, terminals and rowel missing. Crest and finial present at junction of neck and arms. Lth 118mm

46.02/325

Sf 931 T1 C2 [P7 S16D]

Iron rowel spur, curved arms with crest, terminals missing. Large six-pointed rowel *in situ*. Lth 134.5mm

46.02/326

Sf 353 T13 C112 [P6.2]

Copper-alloy rowel spur, rowel missing, short neck, straight arms, Type F/F terminals. Lth 89mm

46.02/327

Sf 383 T13 C74 [P6.2-7.S16D]

Iron rowel spur, six-pointed rowel *in situ*, neck bent at angle, straight arms, damaged type F/F terminals. Spur plated with a tin-lead alloy. Lth 118mm

Detached rowels 46.03/328-330

46.03/328

Sf 936 T1 C41 [P6.2-7 S63D]

Copper-alloy rowel, large multi-pointed variety. Dia 54.5mm

46.03/329

Sf 2709 T30 C775 [P5.4 S41]

Iron rowel, tin plated, large six pointed variety. Dia 65.3mm

46.03/330

Sf 2209 T30 C116 [P6.1 S50D]

Iron rowel, small six pointed variety. Dia 33mm.

Spur attachments 46.03/331-334

Seven spur attachments were recovered (one *in situ* on [46.02/323]) and three forms were identified.

Form 1 consisted of a hooked riveted plate, either oval or sub-triangular in plan [46.03/331-332]. Four examples were found, occurring in both iron and copper alloy. Parallels centre on the 16th to 18th centuries (Moorhouse 1971, fig 21; Geddes 1985, fig 60.53, fig 61.54) although an example from Castle Acre was recovered from a mid-12th-century context (Coad and Streeten 1982, fig 41.137). The La Grava examples came from deposits of phase 6.2 and Period 7; [46.03/332] came from the same context as [46.02/325] typologically dated to c 1400.

Form 2 comprised a central iron plate with ends hooked in opposing directions [46.03/333]. Excavated examples of this form have been dated to the late 13th to 15th centuries (Good and Tabraham 1981, fig 11.88; Hurst and Hurst 1969 fig 60.14). One of the two attachments found at La Grava was *in situ* on a mid-15th-century spur [46.02/323], while the second was from a phase 6.2 destruction deposit.

Form 3 was made from a single plate with one hinged and one riveted end [46.03/334]. This form is paralleled by an example from Hull dated to the late 13th century (A Goodall 1987, fig 117.203). The single La Grava example was from a deposit of phase 6.2 and was from the same context as a 16th- to 17th-century spur (Sf 1252 T7 C616).

46.03/331

Sf 267 T13 C115 [P6.2 S63D]

Copper-alloy spur attachment, form 1 with sub-triangular plate, two copper-alloy rivets *in situ*. Lth 30mm

46.03/332

Sf 925 T1 C2 [P7 S16D]

Iron spur attachment, form 1 with oval plate, one rivet *in situ*. Lth 39mm

46.03/333

Sf 209 T13 C52 [P6.2]

Iron spur attachment, form 2 with lozenge-shaped plate. Lth 29.5mm

46.03/334

Sf 1371 T7 C616 [P6.2 S16]

Copper-alloy spur attachment, form 3, copper-alloy rivet *in situ*. Lth 31mm

Stirrup 46.03/335

One possible stirrup [46.03/335] was identified. Although incomplete and distorted, this appears to be a 17th-century form, paralleled at Basing House (Moorhouse 1971, fig 21.82).

46.03/335

Sf 537 T13 C169 [P6.2 S63D]

Iron stirrup, sides plain and bent but possibly of oval(?) form, expanded sub-rectangular tread. Upper frame and loop for stirrup leather missing. Ht 102mm

Curb bit 46.03/336

Curb bits were a more complex form of cheekpiece with additional loops for extra reins, linking bars, and chains, permitting greater control over the horse. These were used on riding horses whereas the snaffle bit could be used for both haulage and riding (Clark 1995, 46). Only one example of a curb bit was found [46.03/336]. This can be fairly closely paralleled by a mid-15th- to mid-16th-century example from Somerby, Lincolnshire (Goodall 1980a, fig 136.L50).

46.03/336

Sf 2803 T30 C1 [P6.2-7]

Iron double-looped and perforated curb bit, tin plated. Lth 220mm

Snaffle bits and mouthpieces 46.04/337-341

A total of fourteen cheekpieces were recovered, twelve of which were complete enough to categorise. Of these, eleven were Ward Perkins' Type C cheekpieces [46.04/337-339], the most common medieval form (1940, 80-81). Goodall (1980a L54-62) cites examples dating from the 12th to 16th centuries. Where surviving, the ends of the cheekpieces are either slightly expanded or knobbed. In most cases the loops are rounded [46.04/337, 339], only [46.04/338] having a pentagonal shape. This slight variation in form can be paralleled by a cheekpiece from Criccieth Castle, Gwynedd, dating from the 13th to early 15th century (Goodall 1980a, L56). All the Type C cheekpieces at La Grava were found in phase 6.2 and Period 7, with a concentration in destruction deposits of S16.

A single example of a ring snaffle, Ward Perkin's Type A, was identified [46.04/341]. This form, unless found attached to a mouthpiece, cannot be identified with certainty. These simple snaffles can vary greatly in size and it is possible that detached examples are included under rings (see Objects with a wide range of uses in Section [49]). Dating these simple snaffles difficult as this type was used in all periods.

Nine mouthpieces were found, seven of which could be assigned to types. Four of these are of the two-link variety, Ward Perkins' Type II [46.04/337]. This form is common to all periods but perhaps more numerous at the beginning than at the end of the medieval period (Ward Perkins 1940, 81-5). Only two mouthpieces of this form came from phases earlier than 6.1. These were found in deposits of phases 5.4 and 5.4-5.6.

Single examples of Types III [46.04/339] and IV [46.04/340] were identified. Type III, frequently found with cheekpieces of Type D, is dated to the mid-14th century, while Type IV, although extant in the late 13th/mid-14th century, is more commonly in use in the post-medieval period (Clark 1995, 47). Both examples were from deposits of Period 7.

The final mouthpiece, [46.04/341], does not fit into any of the classifications of medieval mouthpieces. It is a two-link bit, the end formed of a solid bar with flared ends, the bar set at a right angle to the link. Just before the bar the link

arm is perforated for the attachment of the cheekpiece, in this instance, a ring snaffle. [46.04/341] was a topsoil find suggesting a post-medieval date.

46.04/337

Sf 1041 T7 C548 [P7 S16D]

Iron Type C cheekpiece and portion of Type II mouthpiece. Cheekpiece has rounded loop and slightly expanded ends. Cheekpiece lth 102mm, mouthpiece lth 94mm

46.04/338

Sf 1896 T23 C97/4 [P6.2 S23A]

Iron Type C cheekpiece and portion of Type II/III mouthpiece. Cheekpiece has pentagonal loop, ends damaged. Traces of tinning detected. Cheekpiece lth about 145mm, mouthpiece lth about 85mm.

46.04/339

Sf 1162 T7 C538 [P7 S16D]

Iron Type C cheekpiece and portion of Type III mouthpiece. Cheekpiece has rounded loop. Cheekpiece lth 113mm, mouthpiece lth 100mm

46.04/340

Sf 1325 T7 C502 [P7 S16D]

Iron Type IV mouthpiece, two-link bit with hollow conical ends. Lth 175mm

46.04/341

Sf 2462 T30 C1 [P6.2-7]

Iron snafflebit, Type A ring snaffle *in situ* on two(?) linked mouthpiece with bar with expanded ends at right angles to link. Mouthpiece lth 63.8mm, ring dia about 56mm

Strap loops 46.04/342

Strap loops with lengthened riveted plates were used to join straps to cheekpieces as well as to support swivel fittings or simply to join straps (cf Ward Perkins 1940, fig 18.3). Three incomplete examples were found [46.04/342], all from contexts of phase 6.2 and Period 7. Two examples were from destruction deposits of a byre, S38.

46.04/342

Sf 2317 T30 C1 [P6.2-7]

Iron strap loop for harness, rectangular section, one end hooked, opposite end flat riveted plate, remains of second plate surviving. Lth 42.3mm

Looped strap guides 46.04/343

Few medieval curb bits retain their associated fittings but two continental examples, illustrated in the London Museum catalogue, (Ward Perkins 1940, fig 18) indicate the variety of fittings used. Four looped strap guides are figured. The hooked ends of these guides were attached to the bit, while the leather harness strap passed freely through the loop (Goodall 1980a, 189). La Grava produced one such guide [46.04/343] from a topsoil layer. Excavated examples range in date from the 13th to 16th centuries (Goodall 1980a, L106-111).

46.04/343

Sf 811 T13 C1 [P6.2-7]

Iron looped strap guide, rectangular loop with hooked end. Lth 37.4mm

Swivel fittings 46.04/344

Harness incorporated various elements which had to be free to move about loosely and independently, swivel fittings provided this greater freedom of movement. 46.04/344 is the sole example found at La Grava. Excavated parallels date from the 13th to 16th centuries (Goodall 1980a, fig 138).

46.04/344

Sf 1999 T30 C1 [P6.2-7]

Iron swivel fitting with swivel ring and hook, link and two independently moving buckles with integral loops. Tinning detected. Overall lth about 112mm

Harness pendants and bosses 46.05/345-347

The decoration of harness with bosses, pendants, and bells was a common medieval practice. Bridle bosses, usually round and domed with three rivets round the edge and a central rivet through the dome [46.05/345], served both to embellish the harness and to hide junctions, for example between the mouthpiece and cheekpiece (Goodall 1980a, 187). Three bosses were identified, all from topsoil layers of phase 6.2 and Period 7. Excavated parallels indicate a date range from at least the 13th century continuing into the post-medieval period (A Goodall 1981, 69; Goodall 1980a, 313).

Two pendants were recovered, one copper alloy and one iron. [8.11=46.05/346] is a gilt and enamelled shield-shaped pendant with heraldic motif. Shield-shaped pendants are thought to date to the 14th century; the majority are poorly manufactured suggesting use as corporate identity badges on the horses of, for example, estate retainers, bailiffs, and stewards (Griffiths 1986, 1).

[8.11=46.05/346], although much eroded, retains recognisable heraldry. Brooke-Little writes

the arms... are clearly the arms of England but with a label azure in chief as borne from c 1195, when they appear on the second great seal of Richard I, until c 1337 when Edward III quartered the arms of France with those of England. Our knowledge of the brisures used by the younger sons of the English kings during the period is limited, but from known evidence it would seem that the pendant is either of the arms of Edward I before his accession in 1272, the arms of Edward II before his accession in 1302 or of Edward III before he became king in 1327.

As the majority of shield-shaped pendants bearing heraldry are dated to the 14th century, it is possible that the pendant belonged to the retainers of Edward II or III before their accession. It is noteworthy that Mary of Woodstock, sister of Edward II, held the manor of La Grava from sometime before 1305 until her death in 1332 and that both Edward II and III were recorded as having visited La Grava in 1308, 1309, 1316 (Edward II), and 1337 (Edward III). Iron harness pendants are far less common than their copper-alloy counterparts, existing parallels have been dated from the 13th to 14th centuries (Goodall 1980a, 189) and are of a similar form to the single example [8.11=46.05/347] found at La Grava.

46.05/345

Sf 2677 T30 C1 [P6.2-7]

Circular, domed bridle boss of copper-alloy sheet; damaged and incomplete. Central rivet hole through dome and two further rivet holes, with rivets *in situ* on outer edge. Dia about 65mm

46.05/346=8.11

Sf 2081 T30 C1 [P6.2-7]

Cast, enamelled copper-alloy horse pendant with integral loop, surfaces gilded. Heraldry: the arms of England (three leopards rampant) with label azure. Lth 41.8mm

46.05/347

Sf 1062 T7 C528 [P6.2 S16A]

Iron harness pendant, oval plate (incomplete) with looped arm. Arm and plate decorated with parallel grooves inlaid with silver. Lth 62mm

Animal bells

Pellet bells **46.05/348-351**

Pellet or rumbler bells are usually assumed to have been worn by animals, for example hawks, hounds, and possibly livestock, or on harness. Additionally these bells were worn as costume decoration.

A total of seven rumbler bells were identified. These can be divided into two types based upon method of manufacture; bells made from two pieces of sheet metal [**46.05/348-349**] and larger, cast bells [**46.05/351**]. One object, of iron, may represent the manufacture of sheet bells. X-radiography revealed that [**46.05/350**] retained two circular perforations joined by a narrow slit, almost identical in form to the lower half of a rumbler bell. This may have served as a template. Rumbler bells of the sheet metal type make their appearance in the late 13th century continuing up to present day. Cast rumbler bells were popular in the late medieval and post-medieval periods. The sheet metal bells made their appearance at La Grava in phase 5.3, while the single cast bell was found in phase 6.2 to Period 7. The bells were not concentrated in any one area or structure.

46.05/348

Sf 634 T13 C132 [P5.5 S16A]

Sheet copper-alloy rumbler bell with suspension loop and iron pellet *in situ*. Dia. 21mm, ht 26mm

46.05/349

Sf 1118 T6 C30 [P6.1 S19D]

Sheet copper-alloy rumbler bell with suspension loop and iron pellet *in situ*. Dia 17mm, ht 20mm

46.05/350

Sf 2240 T30 C107 [P5.4]

Iron template for rumbler bell (?), circular sheet with domed centre, dome has two circular perforations joined by narrow slit. Dia 33mm

46.05/351

Sf 1691 T13 C1 [P6.2-7]

Cast copper-alloy rumbler bell with square suspension loop pierced with square hole, and two perforations on upper body. Lower body decorated with radiating lines and pseudo-heraldic motif. Dia 32mm, ht 38mm

Clapper bells 46.06/352-355

A single sheet-iron clapper bell was recovered [46.06/352]. Although secondary, non-pastoral use of such bells is a possibility (Luff 1990, 728-9), their principal role was the bellringing of domestic livestock. These bells were manufactured by folding a rectangular iron sheet and riveting the sides. They commonly had a D-shaped suspension loop and an internal ring for suspending the clapper. This form of bell is long lived, excavated examples having been found from the 5th century up to the post-medieval period.

A second bell [8.06=46.06/353], of cast, high-tin bronze, was recovered from a phase 6.1 deposit. Bells of a similar size and form were found during excavations at Winchester where they were suggested to have been used in the mass to warn the congregation of important moments in the consecration and benediction. This practice is thought to have come into use in the early 13th century (Biddle and Hinton 1990, 725). However, the bell's find spot was well away from the ecclesiastic core; it was part of the fill of quarry pit CF15 which cut into the north end of S43. While some of the quarry's fill most likely derived from S43 demolition deposits, lying adjacent to agricultural building S42, the bell could have been introduced with material scraped up from elsewhere, including the core area to the north. In view of this ambiguity, the bell has been allocated to the category dealing with pastoral care, but its function is uncertain. Two detached iron clappers were identified, [46.06/354] retaining a hooked end while [46.06/355] was perforated.

46.06/352

Sf 34 T13 C1 [P6.2-7]

Sheet-iron clapper bell, folded and riveted. D-shaped suspension loop and internal ring *in situ*, clapper missing. Ht 84mm

46.06/353=8.06

Sf 2059 T30 C11/01 [P6.1 CF15/S43D]

Cast clapper bell of high-tin bronze, incomplete. Circular suspension lug, flaring body, at apex of interior are two small holes, casting errors(?) or for attachment of clapper. Ht 56mm

46.06/354

Sf 1255 T7 C633 [P6.1 S65A]

Iron clapper, hooked end, opposite end ovoid. Lth 79mm

46.06/355

Sf 596 T13 C248 [P5.3 S29A]

Iron clapper, perforated end, opposite end rectangular, incomplete. Lth 62mm

Curry comb 46.06/356

Curry combs of the medieval period have two- or three- armed handles which were riveted to the back of sheet iron combs. The two-armed handle is found throughout the medieval period whereas the three-armed variety occurs principally from 14th-century and later contexts (Goodall 1980a, 184). One possible two-armed curry comb was found at La Grava [46.06/356].

46.06/356

Sf 496 T13 C112 [P6.2]

Two-armed iron curry comb handle, arm terminals flattened and damaged, originally riveted to comb. Lth127mm

Horseshoes

The 193 horseshoes recovered, although including some complete and near-complete examples, are predominantly smaller fragments of heels or branches. Only 82 shoes (42.5%) were complete enough to categorise, the forms being as described by Clark (1986; 1995), Goodall (1990d, 1054–6) and Sparkes (1976). Of these 75, 91.5% were from phased contexts.

Although the date ranges forwarded by Clark (1986; 1995) are cited below, caution is advised as increasingly evidence points to the use of horseshoes in the Iron Age and Roman periods (Taylor 1978, 135–59). As Taylor states, and Ward Perkins (1940, 112) concluded, there is no way of distinguishing between the date of the horseshoe on grounds other than its archaeological context.

Horseshoes with countersunk nail-holes are thought to make their appearance in the archaeological record in the 9th and 10th centuries and continue in use into the late 13th to early 14th centuries. Earlier shoes of this form had circular nail-holes within large rectangular countersinking. Shoes of the late 11th into the 13th century have narrow webs, deep oval or rectangular countersinking, rectangular nail-holes and wavy or lobate outer edges, while their successors have a broader web, rectangular countersunk slots and smooth outer edges (Clark 1986; 1995, 86–7). A total of 24 shoes have countersunk rectangular nail-holes, only three possessing a slightly wavy outer edge cf [46.07/357]. These three shoes have a much wider web than normally associated with 11th- to 13th-century shoes; the wavy edge may be attributed to wear and corrosion. The remaining 21 shoes have smooth outer edges, with narrow rectangular countersinking [46.07/358–359] and are likely to be of 13th- to early 14th-century date. Twenty-three early medieval shoes were found in phased contexts, the first appearance occurring in phase 5.3.

Late medieval shoes, dating between the early/mid 14th to 16th centuries, had plain square or rectangular nail-holes, wide webs, smooth edges and arched [46.07/360–362] or U-shaped [46.07/363–365] inner profiles. Forty-five shoes of this variety were identified. These shoes were first recovered from deposits of phase 5.4. Seven came from phases 5.4 to 5.6, six from phase 6.1 and the remainder from phase 6.2 and Period 7. A single example (Sf 1820 T23 C97/02 P7 S23A) was found with hoof attached.

Post-medieval shoes of the keyhole and tongue varieties were also recovered. Keyhole shoes had smooth outer edges and a keyhole shaped inner profile resulting from chamfered heel ends being brought closer together [46.10/366]. Fullers were sometimes present on shoes of this type by the close of the 18th century. These shoes are thought to date between 1650 and 1800 (Sparkes 1976) and were chiefly used on draught animals. Four examples of this type were identified, all from phase 6.2 and Period 7.

Tongue shoes had straight outer edges and a U- or tongue-shaped inner profile [46.10/367]. These are dated to between 1700 and 1815. Three examples were identified. The earliest occurrence, phase 5.6, is intrusive. The remaining examples were from Period 7.

Modern shoes can be sub-divided into draught and riding shoes, all six examples recovered appeared to be draught shoes. These shoes, although resembling the tongue shoes in shape, gradually became rounder in outline with an increasing

number of nail-holes [46.10/368–369]. Toe clips were introduced between 1825 and 1830. All six examples were from deposits of phase 6.2 and Period 7.

Of the 98 shoes that could be allocated to structures, 28 were found in the area of barns and stabling, while fourteen were from gates and bridges. Domestic and service structures, however, accounted for 53 of the shoes. Examination of the eleven structures which had concentrations of five or more horseshoes [46.08] indicates that occurrences of shoes in domestic and service buildings were normally restricted to external or destruction deposits, and not internal surfaces.

In addition to the horseshoes, two possible pony shoes and one donkey shoe were identified. Pony shoes are fairly round in shape, small and lightweight [46.10/370]. Worn out shoes are often mistaken for heel plates. Donkey shoes are similar to horseshoes but smaller, lighter and longer in relation to their width, resembling a large magnet [46.10/371]. Both the pony and donkey shoes were found in deposits of phase 6.2; the two pony from the area surrounding S63, the donkey shoe from S68.

S	Function	Internal surfaces	External surfaces	Destruction deposits	Total
51	Dovecote		5	3	8
41A	Byre	1	4	2	7
53	Bridge	1	5		6
16	Chapel		3	3	6
30	Staff quarters Gatehouse	2	3	1	6
50	Well house		4	2	6
35	Barn	2	3		5
43	Kitchen/dairy	1	2	2	5
27	Latrine block		3	2	5
63	Manor house		2	3	5
23	Smokehouse		4	1	5
	Total	7	38	19	64

46.08 Table giving Structures producing five or more horse shoes

Early medieval horseshoes 46.07/357–359

46.07/357

Sf 1509 T13 C1021 [P5.2–5.4 S 53A]

Horseshoe, incomplete, rectangular nail-holes (4/2) within rectangular countersinking. Outer edge wavy, inner profile U-shaped. Web with 27.7mm

46.07/358

Sf 1954 T25 C4 [unph]

Horseshoe, rectangular nail-holes (4/4) within narrow rectangular countersinking. Outer edge smooth, U-shaped inner profile. Brdth 113.8mm

46.07/359

Sf 2343 T30 C1 [P6.2–7]

Horseshoe, rectangular nail-holes (3/3) within rectangular countersinking, one nail (Type 2) *in situ*. Outer edge smooth, U-shaped inner profile. Brdth 109.3mm

Later medieval horseshoes 46.07/360–365

46.07/360

Sf 2525 T30 C754/1 [P6.2 S41A]

Horseshoe, rectangular nail-holes (3/3), three worn nails *in situ*. Smooth outer edge, arched inner profile. One caulkin, upset. Brdth 105.6mm

46.07/361

Sf 2348/1 T30 C1 [P6.2-7]

Horseshoe, rectangular nail-holes (4/4), five nails *in situ*. Smooth outer edge, slightly arched inner profile. Brdth 115.6mm

46.07/362

Sf 1012 T4 C25 [unph]

Horseshoe, rectangular nail-holes (3/3), two nails *in situ*. Smooth outer edge, arched inner profile. Brdth 110.5mm

46.07/363

Sf 2297 T30 C1 [P6.2-7]

Horseshoe, rectangular nail-holes (3/4), one nail *in situ*. Smooth outer edge, U-shaped inner profile. Brdth 118.7mm

46.07/364

Sf 1609 T13 C1039/20 [P6.1 S53A]

Horseshoe, rectangular nail-holes (3/3), five nails *in situ*. Smooth outer edge, U-shaped inner profile. One heel feathered, one turned caulkin. Brdth 95mm

46.07/365

Sf 2718 T30 C1 [P6.2-7]

Horseshoe, rectangular nail-holes (3/3), one nail *in situ*. Smooth outer edge, U-shaped inner profile. Left branch narrowed (surgical?), one folded caulkin and one feathered heel. Brdth 100.5mm

Keyhole 46.10/366

46.10/366

Sf 922 T1 C1 [P7 S16A]

Horseshoe, rectangular nail-holes (4/4), four nails *in situ*. Smooth outer edge, keyhole inner profile. Brdth 116.2mm

Tongue 46.10/367

46.10/367

Sf 2358 T30 C95 [P5.6-7 S56D]

Horseshoe, rectangular nail-holes (4/4), six nails *in situ*. Smooth outer edge, tongue-shaped inner profile. Turned caulkins on both heels. Brdth 127.3mm

Modern horseshoes 46.10/368-369

46.10/368

Sf 984 T2 C1 [P6.2 S35]

Horseshoe, rectangular nail-holes (3/5), seven nails *in situ*. Smooth outer edge, u-shaped inner profile. Fuller and toe clip both present. Brdth 145.5mm

46.10/369

Sf 1001 T3 C25 [P6.1-7 S35A]

Horseshoe, rectangular nail-holes (4/4), three nails *in situ*. Smooth outer edge, wide U-shaped inner profile. Fullered. Brdth 137.7mm

Pony shoe 46.10/370

46.10/370

Sf 320 T13 F124 [P6.2 S63D]

Pony shoe, circular nail-holes (3/3). Smooth outer edge, inner profile narrow arch with heels close together. Brdth 78.6mm

Mule/donkey shoe 46.10/371

46.10/371

Sf 995 T3 C2 [P6.2 S68]

Donkey shoe, rectangular nail-holes (2/2). Smooth outer edge, U-shaped inner profile. Brdth 66.6mm

Ox-shoes 46.10/372

Little attention has been given to ox-shoes in archaeological literature perhaps due to the fact that they are made of relatively thin metal and do not survive as well, frequently being mistaken for portions of horseshoe. The introduction of shoeing the forefeet of oxen is not certain, but documentary evidence indicates that this practice was known in the late 14th century (Goodall 1980a, 181). Ox-shoes dating from the mid-16th and early 17th century were identified at Waltham Abbey (Huggins 1972, fig 32).

The bifurcated foot of the oxen necessitates two half shoes per foot. The shoes vary in shape from a plain bent piece of strip iron, curved strips with bulbous terminals and later, elaborately shell-shaped crescents with clips. Nail-holes tend to be more closely placed than on horseshoes.

Eight possible oxshoes were identified at La Grava [46.10/372]. A single example came from phase 5.4 within S37. The remaining examples were from phase 6.1 and later, either from destruction (S16 and 63) or topsoil deposits.

46.10/372

Sf 2146 T30 C1 [P6.2-7]

Oxshoe with clip. Four rectangular nail holes, one nail *in situ*. Wavy outer edge. Wt 77.2g

Shoeing nails 46.10/373-377

Four forms of shoeing nail were identified amongst the assemblage of 402 nails (cf Goodall 1973, 173-4). While each head form was distinctive, all the shanks were noted to have fairly thin, ribbon-like cross-sections.

Type 1

Fiddle-key nails had semi-circular heads in plan, the profile being no thicker than the shank [46.10/373]. The heads are frequently worn to a T-shape. Nails of this type were used mainly on shoes with large countersunk nail-holes and a consequent wavy edge, dating from the mid/late-11th to the mid-13th centuries. Fiddle key nails continued in use on later shoes with narrow countersinking, overlapping in use with Type 2 nails. Type 1 nails, 26 recovered, formed about 7% of the total shoeing nail assemblage.

Type 2

These nails had trapezoidal heads, often with well-defined ears, and a marked expansion in profile [46.10/374]. These nails were used on shoes which had narrow rectangular countersunk slots coming into use prior to the second half of the 13th century to the early years of the 14th century. A number of shoes of this type retained nails *in situ* while a further 62 detached nails were recovered, forming about 15% of the assemblage.

Type 3

These nails had shouldered heads with near vertical sides [46.10/375]. In profile the head expanded at the shoulders, sometimes thickening slightly above them. Nails of this type were used on late medieval shoes dating to the early/mid 14th to 16th centuries. One hundred detached examples, about 25% of the assemblage, were identified.

Type 4

These nails had triangular heads formed by the shank expanding from the sides up to a flat head [46.10/376-377]. Nails of this type varied considerably in size, the smaller examples better suited to ox-shoes rather than horseshoes (Goodall 1973, 174-5). They are thought in the main to date from the 15th century onwards although at Seacourt, Oxfordshire nails of this form were found in 14th-century contexts (Goodall 1980a, 183). Two hundred and fourteen examples were recognised, about 53% of the assemblage; the smaller ox-shoeing nails ranged in length from 24-35mm, the horse-shoeing nails ranged between 40-52mm.

Eighty-five percent of the shoeing nail assemblage was from phased deposits, quantities by type and phase as shown in [46.09]. The increase in recovery rates in phase 6.1 to Period 7 for all nail types is common throughout the non-ceramic artefact assemblage, reflecting the general ground disturbance during demolition. However, [46.09] does indicate some anomalies from the generally accepted dating pattern found at other sites. Type 2 nails would appear to continue in use beyond about 1325, while Types 3 and 4 start at an earlier date than hitherto 19th century [P6.1-6.2 S19D] Type 3 nail, suggested.

With the exception of two intrusive nails, no shoeing nails were recovered prior to phase 5.2, mirroring the pattern noted with horseshoes. The predominance of Type 4 nails is perhaps not unexpected as this form was current at the end of the site's occupation.

Three hundred and thirty-four nails could be associated with structures. Concentrations of ten or more shoeing nails were noted in thirteen structures [46.11]. Although six of the structures producing quantities of nails were associated with stabling or track/gateways, seven were of a domestic or service nature. It would be expected that finds of nails in these structures would be restricted to external surfaces and destruction deposits; however this is the case in only two instances (S50 and S63).

Period	Type 1	Type 2	Type 3	Type 4	Total
1	1				1
2					0
3					0
4			1		1
5.1					0
5.2	4	2		6	12
5.3	2	5	8	10	25
5.4	1	10	15	34	60
5.5		3	4	4	11
5.6	2	7	6	23	38
6.1	9	11	22	45	87
6.2	1	12	24	32	69
7	1	5	8	24	38
Total	21	55	88	178	342

46.09 Table showing shoeing nails by type and phase

S	Structure type	Internal surface	External surface	Destruction deposits	Total
16	Chapel/ Domestic / Agricultural	2	10	17	29
38	Ox Byre	10	10	9	29
43	Kitchen/dairy	7	14	6	27
56	Bailiff's house	3	6	11	20
30	Staff quarters/gatehouse	12	9		21
63	Manor house		2	18	20
29	Domestic	7	3	6	16
36	Granary	5	4	3	12
47	Barn	7	5		12
59	Dairy?	4	4	5	13
50	Well house		12	9	21
37	Barn	10			10
42	Stables	3	10		13
Total		70	89	84	243

46.11 Concentrations of shoeing nails by Structure

The occurrence of nails in S16 was limited to Period 7 deposits, the period succeeding its use as an agricultural building. Instances of nails occurring in internal surfaces of the remaining domestic/service buildings were limited to either the beginning or the end of the lifespan of these structures. It is also noteworthy that these four structures (S29, S43, S56, and S59) were in close proximity to stables, S42 and staff quarters S30.

46.10/373

T7 C538 [P7 S16D]

Type 1, fiddle key, nail. Flat, semi-circular head and narrow, rectangular-sectioned shank. Lth about 40mm

46.10/374

T7 C525 [P7 S16D]

Type 2 nail, trapezoidal head, triangular in section. Narrow, rectangular-sectioned shank.
Lth about 41mm

46.10/375

T23 C37 [P5.3-5.6 S23]

Type 3 nail; shouldered head, rectangular head and narrow, rectangular-sectioned shank.
Lth about 59mm

46.10/376

T13 C87 [unph]

Type 4 nail, triangular head with narrow, rectangular-sectioned shank. Lth 49mm

46.10/377

T23 C6 [P6.2-7 S23A]

Type 4 nail, triangular head with narrow, rectangular-sectioned shank. Lth c 30mm.