



The Sound of Magic? Bells in Roman Britain

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ABSTRACT

Bells are recorded in many published excavation reports from Roman sites, but there has been no previous study of the British material. This paper explores the significance of bells in the Roman world from both a ritual and a functional perspective. We create a first typology of Romano-British bells, provide an understanding of their chronology and examine any spatial and social differences in their use. Special attention is paid to bells from funerary or ritual contexts in order to explore the symbolic significance of these small objects. Bells from other parts of the Roman world are considered to provide comparisons with those from Roman Britain. The paper demonstrates that small bells were used as protective charms and may have been preferentially placed into the graves of children and young women. The paper identifies a new, probably Roman type of bell that has no parallels within the Empire, although similar pieces occur in first- and second-century graves in the Black Sea region.

Keywords: Roman bells; amulets; burial; ritual; openwork bells; Black Sea

INTRODUCTION

Many Romano-British sites contain small copper-alloy or iron bells, which on the whole are briefly mentioned in the site reports, illustrated and then forgotten. The aim of this paper is to consider the function, distribution and symbolic meaning of bells. It provides a typology and chronology of the bells, and a greater understanding of their spatial and social distribution. The funerary and ritual evidence in particular is considered in detail. The analysis is based on a corpus of just over 300 bells from Britain and consideration of some continental examples. Much of this work is based on the second author's MA dissertation.¹

Bells are usually small and the vast majority are cast in copper alloy, with only eight examples made from iron. These figures are likely skewed by the under-recording of iron objects on many sites prior to systematic x-ray analysis and the bias towards copper-alloy objects recorded on the Portable Antiquities Scheme (PAS). All bells would have originally had a suspension loop at the top and contained a clapper suspended from the apex of the

¹ Williams 2009; while some additions were made, it was not possible to carry out a complete survey of material published since 2009.

bell (FIG. 1). There are some examples which appear to have been modified or repaired, including bells which have had a hole drilled into them, possibly in order to replace a clapper or crown staple that had broken. The main form of decoration on Romano-British bells consists of incised grooves around the circumference of the bell; some have small feet on each corner.

There have been numerous theories about the function of the bells, ranging from simple animal bells to apotropaic objects. There is information on Roman bells from written, iconographical and archaeological sources. Bells have been mentioned in Greek and Roman literature from as early as the fifth century B.C., when Aeschylus describes in detail Tydeus' shield, which contained many bells used to cause terror among his enemies by their sound: 'and at his shield's rim, terror in their tone, clang and reverberate the brazen bells'.² This trick of using bells to frighten an enemy is seen almost 700 years later, as Cassius Dio informs us that a northern British tribe, the Maetae, had bells attached to the end of their short spears 'so that when it is shaken it may clash and terrify the enemy'.³ Bells could also be used to sound a warning; for example, sentries carried bells while on duty in order to let their comrades know that all was well and to give warning if anything was amiss.⁴

As well as their use as doorbells, classical sources also mention use as animal bells, which is the use highlighted by many modern commentators.⁵ Some early Roman coins bear images of elephants wearing bells around their necks.⁶ More commonly, bells are known to have been used for mule and horse harnesses, as noted by Apuleius⁷ and as depicted on a relief now in Naples.⁸ In Beuningen (Netherlands) a horse was carefully buried with its headstall; among the studs were a lunula and a domed bell with hexagonal loop.⁹ In such contexts bells may have been amuletic, as has been suggested for early medieval high-status male graves containing horses with bells on their harness.¹⁰ At Kalkriese, the site of the Battle of the Teutoburg Forest (A.D. 9), the remains of a mule buried under a bank were found and *in situ* around the animal's neck was a large bronze bell.¹¹ The bell had been filled with vegetal matter (the stalks of beans or peas) to silence it; this had been picked fresh from the ground as it still contained roots.¹² Experiments using a replica suggest that this bell would have been audible for up to 400 m if rung deliberately and for up to 200 m if worn around an animal's neck and sounding as it walked.¹³ That carts may have had bells attached is suggested by the discovery of quadrangular bells next to a cart found in the courtyard of the House of Menander in Pompeii.¹⁴

Bells were also used to announce the opening — and most likely the closing — of the baths and markets. Martial¹⁵ tells us that those who do not get to the baths when the bell of the warm bath

² Aeschylus, *Seven Against Thebes*, ll. 385–6.

³ Cassius Dio, *Roman History* 77.12.3.

⁴ Plutarch, *Life of Aratus* 7.

⁵ e.g. Neal 1996, 58; Price 2000, 67.

⁶ Crawford 2001, 390.

⁷ Apuleius, *Golden Ass* 10.46.

⁸ Furger and Schneider 1993, fig. 9.

⁹ Zwart 1998.

¹⁰ Reiß 1995.

¹¹ Harnecker 2008, 18, pl. 45.

¹² Schlüter 1993, 206, fig. 11.

¹³ Drescher 1998, 162.

¹⁴ Stefani 2003, 205.

¹⁵ Martial, *Epigrams* 14.163.

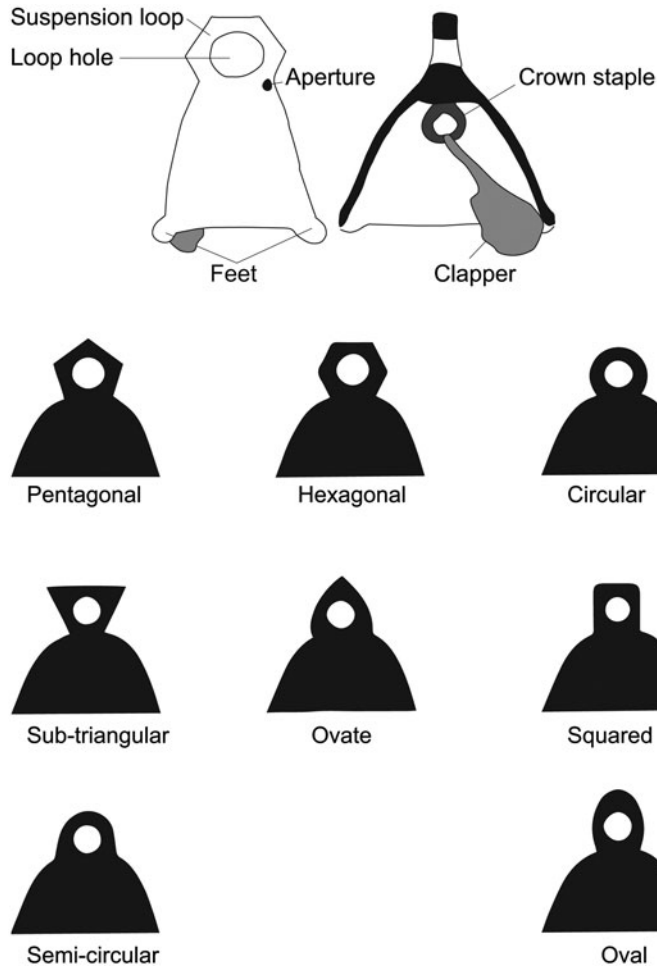


FIG. 1. Terminology and common loop shapes. (Original images by Sandie Williams and Amy Atkins)

rings, will end up with a cold bath and Plutarch mentions the market bell.¹⁶ An official and possibly liturgical function is likely for larger inscribed bells, such as the example from Tarragona, Spain, thought to have been used as part of the imperial cult,¹⁷ and bells dedicated to Mercury.¹⁸

Finally, there are the apotropaic or ritual uses for bells. Juvenal refers to bells used to ward off the eclipse of the moon.¹⁹ Bells were rung in religious ceremonies and could be attached to the costumes of dancers, for example in Bacchic rituals but also mimes.²⁰ As protective charms

¹⁶ Plutarch, *Symposiacs* 4.4.2.

¹⁷ Caballero Zoreda 1990, no. 91.

¹⁸ See below; Martin-Kilcher 2000a, 135.

¹⁹ Juvenal, *Satires* 4, 398–456.

²⁰ Wardle 1980, 79; 1981, 355.

against the ‘evil eye’ bells were included in graves. Wind chimes (*tintinnabula*) and bells were suspended in doorways, houses and gardens to offer protection; splendid examples are known from Vesuvian sites.²¹ Mimicking the use of bells in doorways, Augustus hung bells from the temple to Jupiter Tonans.²² Bells of different sizes and types clearly had different functions. This paper will explore their use in Roman Britain in detail.

METHODOLOGY

A dataset of 303 bells was collected from published reports, the Portable Antiquities Scheme and some museum collections in 2009. From this, a catalogue was created, which contains detailed descriptions, dimensions, context and site information, references and scanned images.²³ The data were entered into an Access database in 2014 by Amy Atkins; some editing and checking of context dates and similar information also took place. Each bell was given a catalogue number, which is provided in the text below and can be used to cross-reference information in the database (available on the Archaeological Data Service website: <https://doi.org/10.5284/1043774>).

Once all the data were collected, the bells were sorted into different typological groups, but establishing a chronology for the bells proved difficult due to the nature of the collection, with the PAS and many published finds derived from contexts with limited dating information. Where possible, bell types were cross-referenced to their continental counterparts. Next, the geographical spread was mapped and any sub-types with regional distributions identified. Finally, the bells’ social distribution and contexts were examined. One of the main problems faced during this study was to define context and site types. Many sites had multiple uses over time (such as Colchester) and we also have to face the issue of excavation bias, where there are significantly more military and villa sites excavated than small settlements or *vici*.²⁴ Context information is often limited but where detailed data were available, especially in funerary contexts, temples and hoards, it is possible to analyse the ritual and symbolic meaning of bells.

TYOLOGY AND CHRONOLOGY

Bells occur throughout the Roman period in a wide variety of shapes and sizes, so for a clearer understanding of their function it is important to divide them into types. Hitherto, there has been some terminological confusion, with, for instance, examples of ‘Type 1 Quadrangular bells’ described as ‘pyramidal’, ‘rectangular’ and ‘sub-rectangular’.²⁵ Similarly, for suspension loops the terms pentagonal and hexagonal are frequently mixed up (FIG. 1). This section aims to provide a typological study of both bell and suspension loop types, in order to form an identification system from which finds specialists can work and which can be compared to continental typologies.

Obviously all bells were manufactured with basic features which are dictated by functional requirements. In order to suspend a bell a suspension loop is required and to be heard it needs a clapper. These are rarely found due to loss during use, leading to the bell being discarded, and

²¹ e.g. Johns 1989, fig. 14; Dierichs 1999; Parker forthcoming.

²² Suetonius, *Life of Augustus* 91.

²³ Williams 2009.

²⁴ Hingley 1991; Eckardt 2005.

²⁵ Bishop 1996, 8; Cowan 1992, 91; Crummy 1992, 187.

corrosion processes of iron, from which the majority of clappers were made. However, there are several examples where the clappers were made of lengths of copper alloy.²⁶ The clapper could be suspended from a loop fastened to the top of the bell or two holes could be drilled and a wire from which the clapper could be suspended was threaded through them. It has been suggested that beads found within bells at Colchester and Scole were replacement clappers, but these are interpreted here as votive deposits (see below); in any case, such beads would at best have produced a dull sound. We are aware of one bell with a maker's name (Facundus).²⁷

The Romano-British bells were divided into seven typological groups; an eighth group (Openwork bells) is not certainly Roman (FIG. 2).

TYPE 1: QUADRANGULAR BELLS

This form of bell has four sides, with walls that expand out slightly from the top of the bell. Frequently the bell is not square, but rectangular, with the shorter side normally aligned with the loop hole. Many examples have small 'feet' at each corner; these are cast and globular or flat in profile. The suspension loop is usually hexagonal or pentagonal but can be circular (FIG. 2). All the examples of this form originally had an iron clapper hanging from the apex of the bell, but this has either broken off or been lost due to the natural corrosion process, although the corroded residue is frequently visible on the internal apex of the bell or on the walls.

This type of bell is common in Britain (total 54) and is found on a variety of military, urban and rural sites. One example is a possible votive offering at one of the springs at Springhead²⁸ and another is from the Seven Sisters hoard.²⁹ Type 1 bells in Britain occur in contexts dated from the second half of the first to the later third century, with the earliest examples found at Fishbourne,³⁰ Seven Sisters³¹ and in the foundations of the eastern gateway at the Lunt;³² there is also a pre-Flavian example from Usk.³³

TYPE 2: DOMED BELLS

Domed bells do not normally have feet, while the suspension loop is usually rounded or hexagonal but can be pentagonal. If the loop is not cast integrally with the bell, wire can be used to suspend the bell (FIG. 2). Some examples have incised grooves around the body as decoration; these can be below the loop, in the middle of the body or towards the base. These bells are again commonly found with the remains of iron residue in the apex of the bell, but occasionally, especially in the smallest examples found in burial contexts, they have long, straight copper-alloy clappers, which hang below the base of the bell. This is the most common type (total 70). The domed group of bells also has a sub-group where the base of the bell has a lip (total 10; overall total 80).

²⁶ e.g. Colchester No. 57: Crummy 1983, 51, fig. 54.1811; Frocester No. 113: Price 2000, 67, fig. 3.2.49/a; Wood Eaton No. 13: Bagnall-Smith 1999, fig. 16.1; Gayton No. 245: NMS-1BD971.

²⁷ <http://artefacts.mom.fr/fr/result.php?id=CLT-4016&find=clochette&pagenum=1&affmode=vign>

²⁸ No. 45: Schuster 2011, 271, fig. 119, no. 304.

²⁹ No. 312: Davies and Spratling 1976, 127, fig. 4.8.

³⁰ No. 33; A.D. 43–75/80: Cunliffe 1971, 112, fig. 46.107.

³¹ No. 312; A.D. 50–75: Davies and Spratling 1976, 127, fig. 4.8.

³² No. 38; A.D. 64–70: Hobley 1973, 75, fig. 24.38.

³³ No. 47: Manning 1995, 56, fig. 20.3.

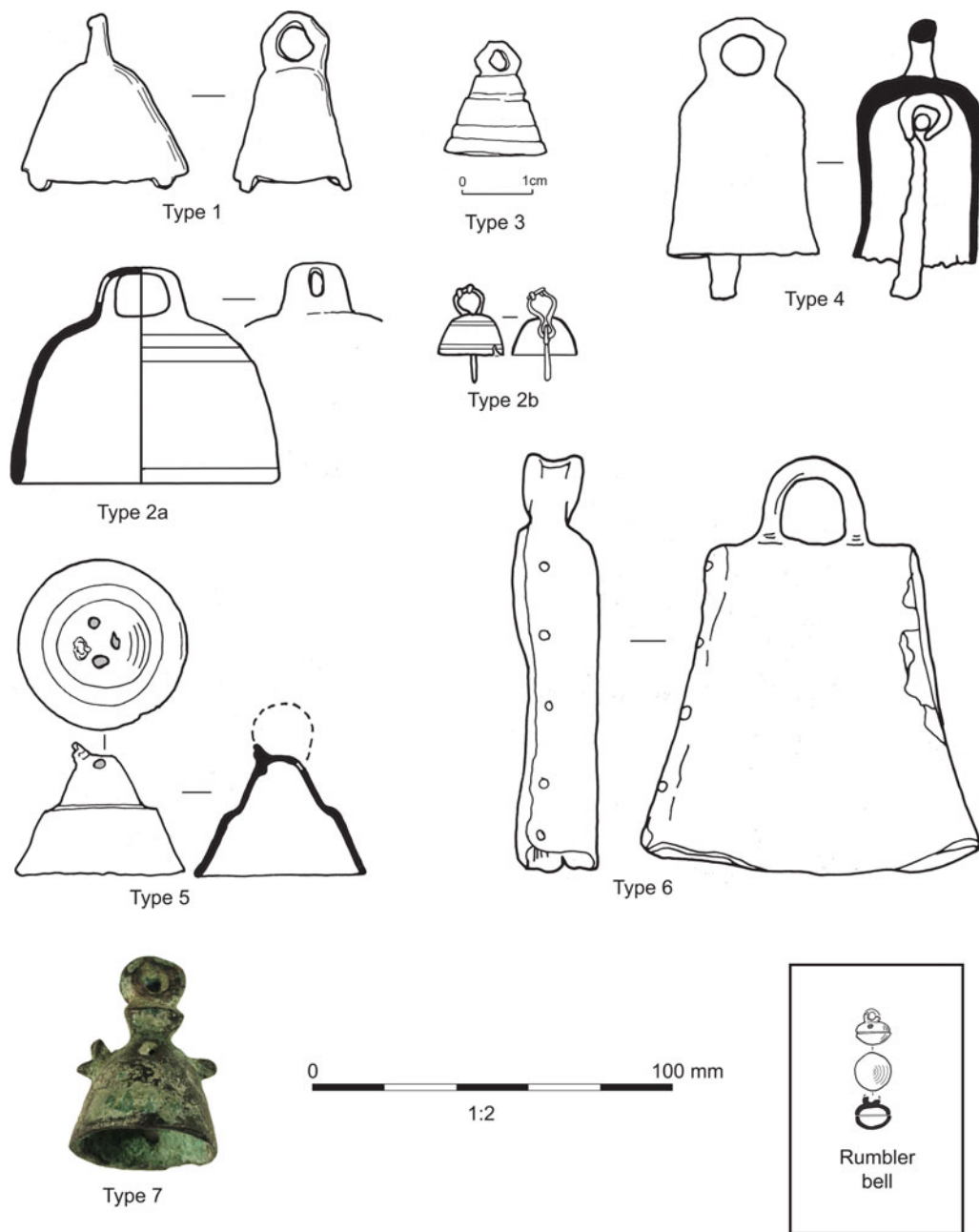


FIG. 2. Bell typology: Type 1: Quadrangular bells (after No. 32, Colchester: Crummy 1992, fig. 5.51.1663); Type 2: Domed bells (after No. 92, Coventina's Well: Allason-Jones and McKay 1985, fig. 67; and No. 57, Colchester: Crummy 1983, fig. 54.1811); Type 3: Conical bells (after No. 102, Trentholme Drive, York: Wenham 1968, fig. 36.7); Type 4: Tulip bells (after No. 3, Loughor: Marvell and Owen-John 1997, fig. 101.158); Type 5: Shouldered bells (after No. 9, Catterick: Wilson 2002, fig. 301.16); Type 6: Iron bells (after No. 109, Beadlam: Neal 1996, fig. 40.96); Type 7: Miscellaneous and fragmentary bells (after No. 282, Cold Kitchen Hill: unpublished, Devizes Museum DZSWS:2004.240.2).

Rumbler bells, *not* Roman (after No. 23, Verulamium: Frere 1984, fig. 21.195).

Type 2 bells are again attested in a number of pre-Flavian contexts, notably Fishbourne,³⁴ the Seven Sisters hoard,³⁵ Usk³⁶ and Leadenhall Court, London.³⁷ There is also one in a Flavian burial from Winchester.³⁸ The many examples from later contexts extend into the third and even fourth century and may indicate that this is a very long-lived type, although some may be residual. Domed bells are known from Anglo-Saxon graves³⁹ but these were not counted here. The lipped domed bells are of similar date, with two early examples attested at Hod Hill⁴⁰ and Wanborough.⁴¹

TYPE 3: CONICAL BELLS

Whereas the body of Type 2 bells is rounded in form, Type 3 bells are conical in shape (total 46). The suspension loop is usually circular or oval but can be hexagonal, pentagonal or square. As with the domed bells there can be incised circular decoration on the body (FIG. 2). It is noticeable that the majority of Romano-British examples were recorded by the PAS, which may hint at a mainly rural distribution and also means that there is very little contextual dating evidence. Some may be medieval, but one recently excavated from London, Paternoster Square,⁴² is from a context dated to the later second or third century and another is from a mid-second-century burial at Pepper Hill, Southfleet;⁴³ both context dates chime with continental dates for this type (see below, Table 2).

TYPE 4: TULIP BELLS

Tulip bells are in general quite large in size (ranging from *c.* 35 mm by 74 mm to 71 mm by 129 mm). The apex of the bell is rounded in shape, before narrowing and then flaring out again — very similar in form to an inverted tulip (total 9; FIG. 2). A Type 4 bell at Binnington Carr was found with 12 silver coins of Caesar, Nero, Vitellius and Vespasian, with the latest coin dated to A.D. 75–6.⁴⁴ Others are found in contexts dated from the second to fourth century, probably residually.

This type of bell may have been used for ritual purposes more often than the smaller types, as one was used to contain a hoard and another comes from the temple at Wanborough.⁴⁵ On the other hand, the tulip bell from Canterbury⁴⁶ was found in the bath palaestra where it may have been used to announce the times for warm baths (see above).

³⁴ Nos 63 and 93; A.D. 43–75/80: Cunliffe 1971, 112.

³⁵ No. 311; A.D. 50–75: Davies and Spratling 1976, 127, fig. 4.7.

³⁶ Nos 80–2; A.D. 55–75: Manning 1995, 56, fig. 20.4a–c.

³⁷ No. 70; pre- A.D.75: Milne and Wardle 1993, 89, fig. 51.113.

³⁸ No. 86: Biddle 1967, 243–4, fig. 9.23.

³⁹ Hills and Lucy 2013, 91, fig. 2.29; White 1988, fig. 91.2.

⁴⁰ No. 98: Brailsford 1962, 2, fig. 2.A33.

⁴¹ No. 84; *c.* A.D. 65–75/80: Anderson *et al.* 2001, 76–7, fig. 29.7.

⁴² No. 310: Keily 2006, 98.

⁴³ No. 307: Booth and Cool 2006, 13.

⁴⁴ No. 1: Harland 1891, 29–30; Kitson Clark 1935, 65–6; Robertson 2000, 15, no. 74; York Museums Trust *n.d.*

⁴⁵ No. 1: Harland 1891; No. 6: Williams 2007.

⁴⁶ No. 278: Blockley *et al.* 1995, 1022, fig. 431.343.

TYPE 5: SHOULDERED BELLS

Shouldered bells are on the whole quite small in size and are characterised by a ‘step’ approximately one-third down from the apex (total 19; [FIG. 2](#)). Bells of this type can have a suspension loop (circular, hexagonal or squared) or the apex can be pierced with two or four holes for suspension. Type 5 is a later form on the Continent (see below) and the same appears to be true for Roman Britain, with three examples from contexts dated to the third to fourth century.⁴⁷ A shouldered bell is also known at Finsbury Circus, London from a burial dated to c. A.D. 200–400.⁴⁸ The earliest bell of this type is from Corbridge from a context dated to A.D. 86–163.⁴⁹ A bell from Wroxeter is published as coming from fortress layers and would thus date to A.D. 60–90, but it is quite possible that it is in fact from later deposits.⁵⁰

TYPE 6: IRON BELLS

Although the majority of the bells in this study are of copper alloy, there are eight iron bells from British excavation reports. Iron bells are likely under-represented within this dataset, as fragmented iron bells may not have been recognised, especially in older excavations prior to the systematic use of x-ray analysis. Metal-detectorists are also much more likely to collect and report copper-alloy rather than iron objects. In most cases these are simple sheets of iron which have been cut, folded and then welded or riveted into shape; iron bells are generally much larger than copper-alloy bells, with the exception of tulip bells. Most are roughly rectangular and similar to the Type 1 bells in overall shape, though without that type’s characteristic feet ([FIG. 2](#)). Two examples appear to have a copper-alloy coating, a feature also noticed on continental examples and thought to be for protection against corrosion rather than to change the sound.⁵¹

It is often suggested that iron bells are animal bells, with different sizes possibly used for goats and cattle.⁵² It has been suggested that a large iron bell from the Bennecourt (France) sanctuary may have been worn by a sacrificial beast.⁵³

Examples from dated contexts are known at Caerleon,⁵⁴ Vindolanda,⁵⁵ Maiden Castle⁵⁶ and Frocester.⁵⁷ This may point to a late Roman date overall.

TYPE 7: MISCELLANEOUS BELLS

This section includes bells which do not fit into any of the other categories, often because they are fragmentary or poorly illustrated (total 53). The unusual bells include very large examples from Wanborough (diameter 80 mm) and Castle Collen (diameter 98 mm).⁵⁸ A bell from an early

⁴⁷ Hambleton No. 12: Cocks [1921](#), 195; York No. 16: Cool *et al.* [1995](#), 1539, fig. 718.6323; and Arrow Valley No. 7: Palmer [1999](#), 140, fig. 58.54.

⁴⁸ No. 308: Harward *et al.* [2015](#), 152, fig. 121.3.

⁴⁹ No. 17: Bishop and Dore [1988](#), 170, fig. 80.90.

⁵⁰ No. 15: Webster [2002](#), 117, fig. 4.15.122.

⁵¹ Maiden Castle No. 105: Wheeler [1943](#), 288, fig. 97.2; and Vindolanda No. 106: Bidwell [1985](#), fig. 53.93; cf. Künzl [1993](#), 385–6 with further references.

⁵² cf. Künzl [1993](#), 385–6; Nowakowski [1988](#), 120–32; Picker [2015](#), 144–5.

⁵³ Bourgeois [1999](#), 101, fig. 76.474 and 115, fig. 85.620.

⁵⁴ No. 103; A.D. 75–300: Evans and Metcalf [1992](#), 169, fig. 33.

⁵⁵ No. 106; A.D. 235–60: Bidwell [1985](#), fig. 53.93.

⁵⁶ No. 105; fourth century: Wheeler [1943](#), fig. 97.2.

⁵⁷ No. 113; mid–late fourth century: Price [2000](#), 67, fig. 3.2.49/a.

⁵⁸ No. 115: Anderson *et al.* [2001](#), 76–7, fig. 29.9; and No. 313: Boon [1978](#), 18, fig. 2.

third-century child's burial at Brougham proved difficult to classify as it is domed and lipped but also has a slight step at the apex.⁵⁹

Two highly unusual bells come from the Romano-British temple on Cold Kitchen Hill in Wiltshire (FIG. 2). One has a lion's head in relief, a motif common on furniture studs,⁶⁰ while the other is described as depicting human figures.⁶¹ Relief-decorated bells are very rare; there are a few examples decorated with images of the god Bes and animal heads from Roman Egypt⁶² and the British Museum also houses a pair of miniature gold bells decorated with the labours of Hercules said to be from Tarsus, Turkey.⁶³

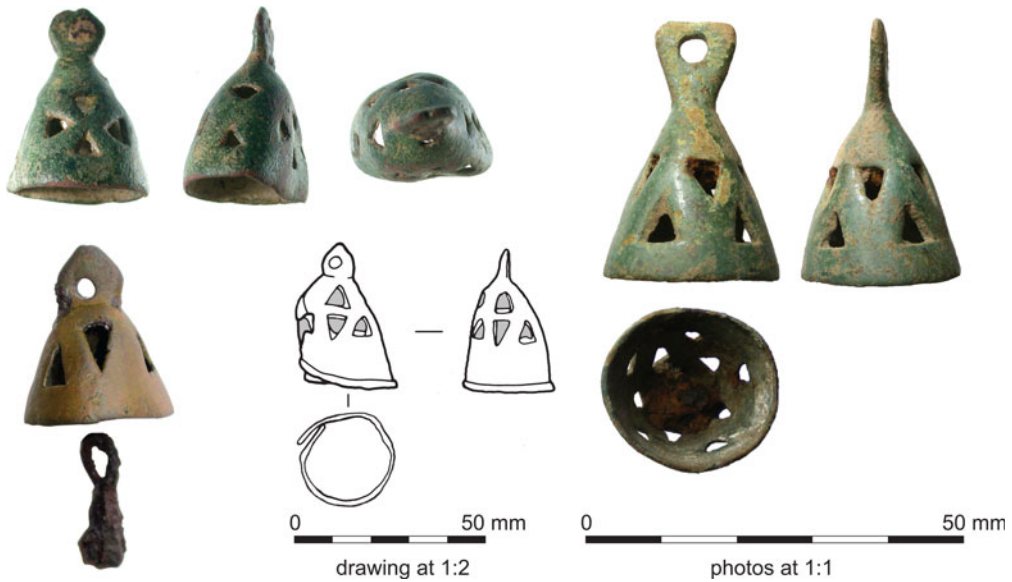


FIG. 3. Openwork bells from West Clandon (SUR-B48E74), Fincham (NMS-E837B5), Chippenham (SF-2C7AE4), Chilcomb (HAMP-AF9143) and Great Barton (SF-A755C5).

OPENWORK BELLS

Not included in the original dissertation, this is a new form of bell that has recently been recognised on the PAS, with 26 examples recorded by 2016 (see Table 1). The bells are all made from copper alloy, domed or conical in form and have distinctive triangular cut-outs, which can be arranged in a variety of patterns (FIG. 3). The most common design consists of a band of triangles set in an alternating pattern (apex to base). The number of triangles varies (and can often not be determined as many bells are only partially preserved), with the most

⁵⁹ No. 110: Cool 2004, 159, fig. 4.142.

⁶⁰ Lion-headed studs are commonly associated with boxes in funerary contexts (e.g. Skeleton Green burials 3 and 4 (Borrill 1981, 312–21) and Springhead burial 6345 (Schuster and Watson 2011)) and may have had apotropaic properties.

⁶¹ Nos 282–3: Robinson 2001, 160; Wiltshire Heritage Collections, Acc. nos DZSWS:2004.240.1; DZSWS:2004.240.2.

⁶² Anderson 1976, 32–5.

⁶³ Acc. nos: 1917,0601.3008 and 1917,0601.3009: http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=465947&partId=1&searchText=roman+bell&page=2. The same bell is illustrated by Froehner 1872, pl. 38.1–3 and Espérandieu 1911, 344, fig. 6997.

common number being six and the maximum twelve.⁶⁴ In one case there are only four very crude triangles that all appear to be aligned the same way (base down).⁶⁵ Some bells are decorated with more complex patterns; thus two similar but very fragmentary examples from Norfolk and Essex appear to have two rows of triangles aligned the same way (base down).⁶⁶ Two additional triangles (apex down) are set above an alternating band in a bell from Suffolk,⁶⁷ while other bells have pairs of opposing triangles separated by single triangles or other shapes. Thus SF-A755C5 from Great Barton (FIG. 3) has four pairs of opposing triangles set one above the other base to base, separated by single apex-up triangles, while ESS-954081 has six pairs, either opposing triangles (apex to apex) or a triangle above a rectangle. Two very similar examples from Norfolk and Cambridgeshire have a flower design created by four inward-pointing triangles; set between them is a pair of triangles, again with the apices pointing towards each other.⁶⁸ Perhaps the most elaborate example has a design of two rows of alternating triangles.⁶⁹ While there is variation in the number and alignment of the triangles, this is clearly a distinctive form of bell, usually with pentagonal or hexagonal loops. Even where the loop shape is unusual and where production at the same workshop may be assumed, the number of triangles can vary.⁷⁰ Three bells cross-referenced on the PAS from Monks Eleigh, Covehithe and Beeston with Bittering either have no perforations⁷¹ or circular perforations.⁷² The clapper only survives very rarely⁷³ but several examples have significant interior iron corrosion, in some cases completely filling the triangles.

The purpose of the triangles is unclear — openwork decoration works best visually when set against leather or fabric for contrast or when filled with enamel; the latter does not appear to be the case here and the former would render the object non-functional. Perhaps the aim was simply a decorative effect or the intention may have been to alter the sound produced by the bells. Unfortunately no openwork bells are as yet known from excavated contexts in Britain and there is consequently no contextual dating evidence. It is possible that they are a much later type, or even a modern import, although the wide spread is unlike the pattern created by metal-detector rallies where a site may have been ‘seeded’ with material bought on eBay. The distorting effect of modern imports is well demonstrated by coins with eastern Mediterranean mint marks from Scotland, which are in fact modern losses.⁷⁴

Bells of this type were originally thought to be of medieval date but research on ‘Norse’ bells has shown all certain examples to be of hexagonal shape, often with circle-and-dot decoration; the openwork bells are circular in plan and domed or conical, while the loop shapes are very similar to Roman bells. The openwork bells are broadly similar to domed bells in terms of their dimensions, ranging in height from 12 mm to 35 mm. Openwork bells also have a very different spatial distribution to the tenth-century bells with Scandinavian affiliations,⁷⁵ with the majority occurring in the south of Britain (see FIG. 6).

⁶⁴ SF-349CD7.

⁶⁵ BUC-E94117.

⁶⁶ NMS-323DE0 and BH-9C5145.

⁶⁷ SF5439.

⁶⁸ NMS-FB6E62 and SF-2C7AE4.

⁶⁹ HAMP-AF9143.

⁷⁰ e.g. two very similar examples with sub-triangular loops from Norfolk and Suffolk: SF-349CD7 and NMS-E837B5.

⁷¹ SF-2071B7 and SF-0A9956.

⁷² NMS-B76AC8.

⁷³ e.g. West Clandon, Surrey: SUR-B48E74.

⁷⁴ Casey 1986, 109, figs 15–16.

⁷⁵ Schoenfelder and Richards 2011, esp. 153–4.

Until examples from excavated contexts are found in Britain, the date and origin of this enigmatic bell type will remain unclear. The only continental parallels we were able to identify come from the Black Sea region (see below).⁷⁶

NON-ROMAN RUMBLER BELLS

Eight bells that appear to have a closed form, often made in two halves and originally containing a pellet, were found during the literature search (FIG. 2). Unstratified examples come from Roman sites such as Verulamium and South Shields, and from two villa sites where the bells are said to be associated with first- and second-century material.⁷⁷ Such rumbler bells are usually thought to date from the thirteenth century onwards, although some earlier medieval examples are known from the Continent.⁷⁸ This is not a Roman type and it is most likely that these bells are in fact of much later date and intrusive in Roman layers.

BELLS IN OTHER PARTS OF THE ROMAN EMPIRE

Bells are frequent finds across the Roman Empire, but it is not the purpose of this paper to offer a full review of the continental material. However, we may note some large assemblages such as Augst, Vitodurum, Kempten and Lyon.⁷⁹ A very interesting phenomenon is the export of Roman bells into the Barbaricum, where they have mainly survived in burials.⁸⁰

Most continental typologies are based on that of Nowakowski⁸¹ and have been summarised by Flügel.⁸² This can be compared to a recent analysis by Nicolay⁸³ and an attempt by Furger and Schneider⁸⁴ to modify these typologies to more carefully reflect production techniques.

The continental data compare well with the British material both in terms of typology and chronology, though the continental material obviously has an earlier start date (Table 2).

SOCIAL AND SPATIAL DISTRIBUTION

To assess the bells' social distribution, the sites from which they were recorded were classified according to the methodology set out by Eckardt (FIG. 4).⁸⁵ Major towns include London, Verulamium and the *civitas* capitals; small towns are those defined by Burnham and Wachter;⁸⁶ and military sites encompass legionary fortresses, auxiliary forts and marching camps and their associated *vici*. In cases where there is both a military and an urban site (e.g. York or Colchester) and finds are without exact findspots or stratigraphic information, the value is split.

⁷⁶ We have consulted continental publications and specialists, but have not identified any parallels elsewhere; there is a bell from Ampurias, Spain, which has two cut-outs of irregular shape but those are most likely for the suspension of a clapper (<http://artefacts.mom.fr/fr/home.php>; CLT-4019; M. Feugère, pers. comm.).

⁷⁷ Keston Villa No. 19: Philp 1991, 175, fig. 54.114; and Rew Street, Isle of Wight, No. 20: Sherwin 1936, fig. 6; cf. Frere 1984, 53–5.

⁷⁸ Blunt 2005; Egan and Pritchard 1991, 336–41.

⁷⁹ Furger and Schneider 1993; Deschler-Erb 1996, 71–2, pl. 19; Flügel 1993, 99–103, pls 33–4; Boucher *et al.* 1980, 84–6.

⁸⁰ Nowakowski 1988; 1994; Schuster 2006, 93–4.

⁸¹ Nowakowski 1988.

⁸² Flügel 1993, 99, table 3.

⁸³ Nicolay 2008, 57–8, pls 94–5.

⁸⁴ Furger and Schneider 1993, 164–6.

⁸⁵ Eckardt 2005.

⁸⁶ Burnham and Wachter 1990.

The finds from the Romano-British countryside are divided into those from villas, those from other small settlements or shrines and the many bells recorded by the PAS, which do not have archaeological contexts but are likely to be from rural settlements.

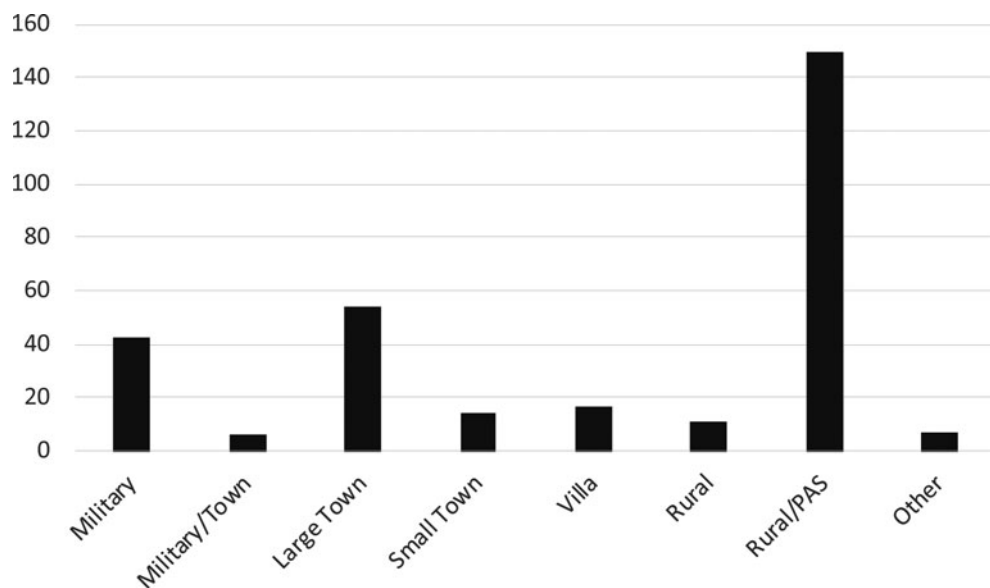


FIG. 4. The social distribution of all recorded Romano-British bells (total = 303).

The social distribution is heavily skewed towards the PAS data, which hugely increase the number of bells that probably came from rural sites; among the excavated sites military and urban settlements dominate. The context categories can then be broken down further to identify bells that were found in burials, hoards or temple areas (see below).

In terms of the spatial distribution, it is clear from the just over 300 bells recorded that these objects were in common use throughout Britannia (FIG. 5). They are found as far north as Scotland⁸⁷ and as far south as the Isle of Wight, with multiple finds mainly from major sites such as Colchester and London. A group of 14 quadrangular bells was found at Coggeshall, half way between Colchester and Braintree, Essex. Denison⁸⁸ has claimed that the fact that they were discovered ‘in a ring’ meant that they were buried deliberately, ‘perhaps as part of some forgotten ceremony’. Others suggest that they were accidentally lost on their way to market; all 14 are of the same type but slightly different dimensions and they may have been tied together for safe transport.⁸⁹ Areas with few or no bells, such as the Weald, the South-West and North-West, may reflect ancient practice but also, of course, patterns in settlement, metal-detecting and excavation; the concentration in East Anglia is typical of PAS data, for example, and reflects the fact that 153 of the 303 bells recorded here come from metal-detected finds.⁹⁰

⁸⁷ cf. Clarke 1972.

⁸⁸ Nos 275, 294–306: Denison 2000.

⁸⁹ Nina Crummy, pers. comm.

⁹⁰ Brindle 2014.

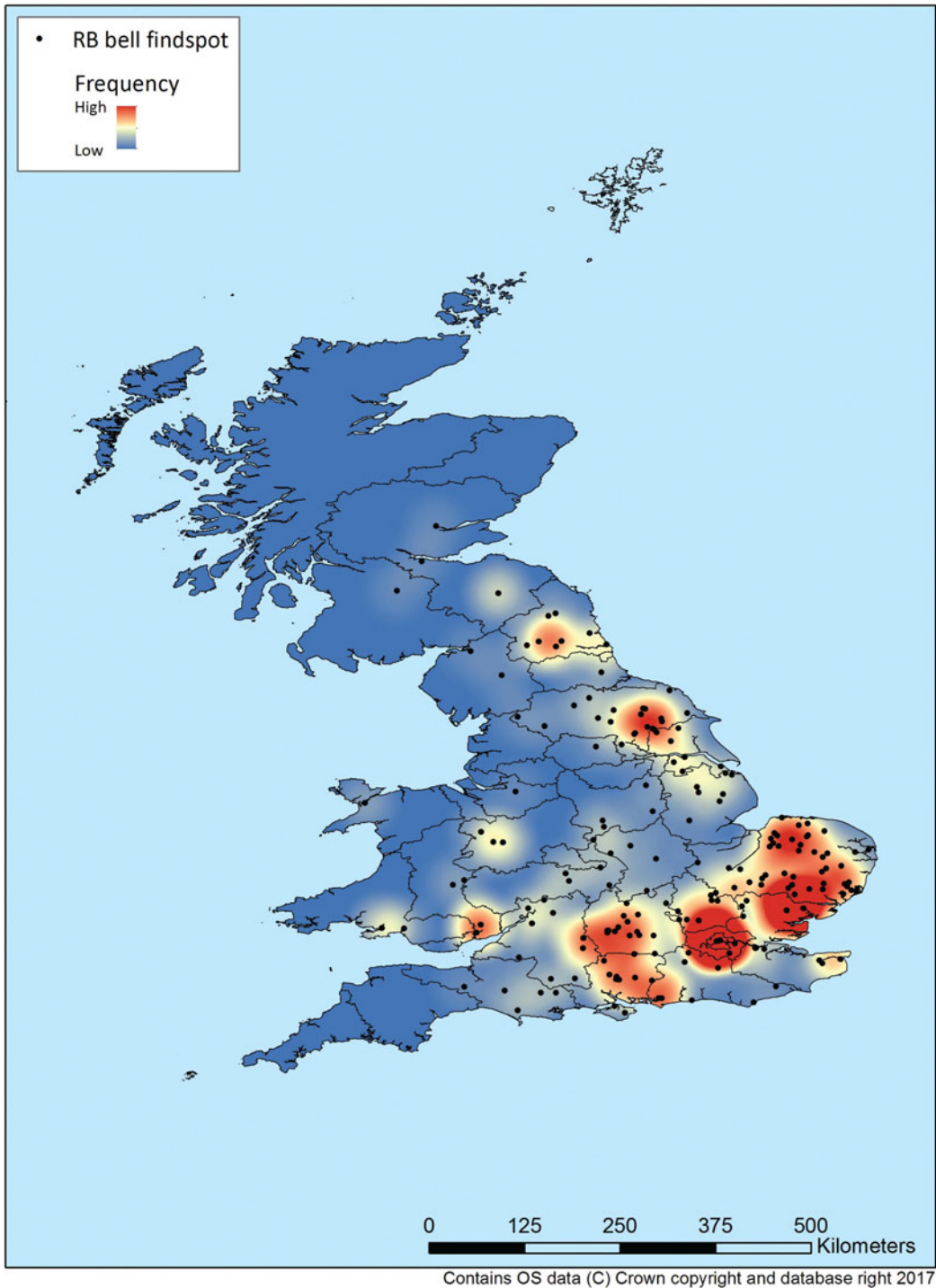


FIG. 5. Density map of all recorded bells. (*Produced by Rob Fry*)

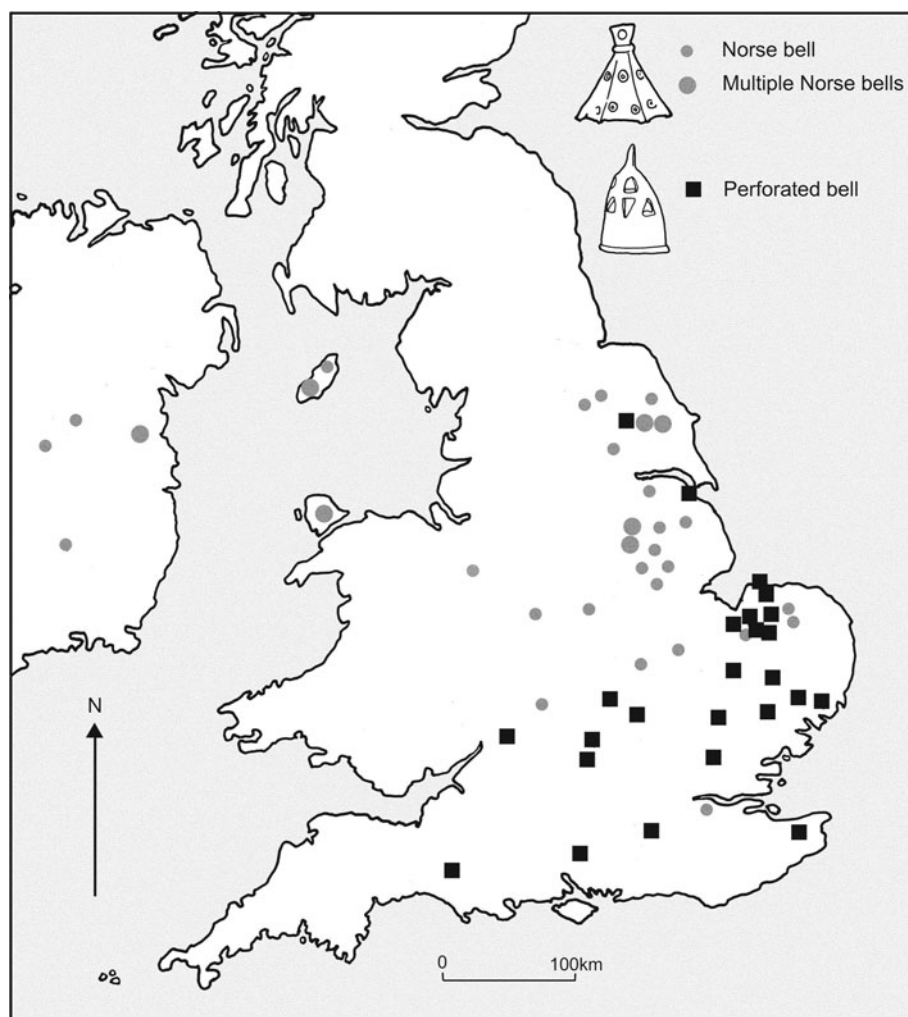


FIG. 6. Distribution of Type 8 openwork bells compared to Norse bells.

For the purpose of this paper we have only mapped openwork bells in detail as this is an unusual and new form of *possibly* Roman date. It is evident that this type has an essentially southern (and south-eastern) distribution (FIG. 6). The most northerly examples recorded by the PAS are in Yorkshire (Grimsby and Skirpenbeck). The overall distribution varies from that of Norse bells⁹¹ and would appear to be more typical of either Anglo-Saxon or Roman objects, with the multiple finds in the east characteristic of many PAS maps and essentially reflecting metal-detecting patterns.⁹² A number come from near Roman roads (e.g. Skirpenbeck, Stoke Hammond, a group in Norfolk around the terminal of Peddars Way) and this may hint at the means by which these particular objects were moved across the province.

⁹¹ Schoenfelder and Richards 2011, 153–4, fig. 2.

⁹² Brindle 2014.

We have been unable to find published parallels for this bell type in Britain and across the Roman Empire. However, there are strikingly close examples from a very distant region, namely the area around the Black Sea (see Table 3; FIG. 7).

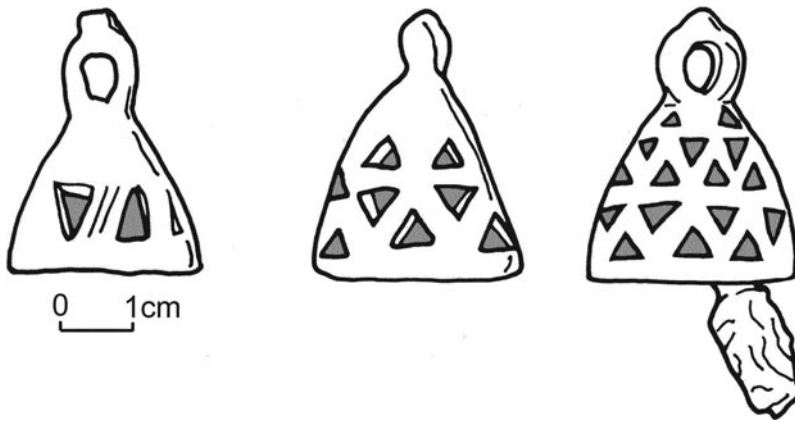


FIG. 7. Bells with triangular cut-outs from the Black Sea region: Ust-Kamyanka (after Simonenko *et al.* 2008, pl. 42d), Krasnodar (after Simonenko *et al.* 2008, pl. 178.6) and Ust'Labinsk (after Nowakowski 1988, fig. 24.12).

These bells all have various arrangements of alternating and opposing triangles in the same style as the British examples and similar loop shapes. Where this information is available they are perhaps slightly larger than the British examples (e.g. heights of 3.9 and 4.8 cm) but overall they are clearly very similar to the British PAS bells. Only one (Valea Lupului, Romania) is of a late Roman date while the remainder are thought to date to the (?later) first century.⁹³

Recently, Daniel Kostromichev has kindly drawn our attention to further examples from the region (FIG. 8). They are also generally dated to the first and second century and broadly associated with Sarmatian groups; many come from burials, including those of children.⁹⁴ There are conflicting views as to the place of manufacture of these perforated bells. Nowakowski⁹⁵ sees them as 'East-Sarmatian' products, or perhaps more broadly as local to the Black Sea region; however, Simonenko *et al.*⁹⁶ note that the form is rare compared to plain bells in the same region and suggest that they may be imported, although they do not specify where their source may lie. Standard Roman bells are quite commonly found in cemeteries within this region, where they can occur on items of female costume such as belts.⁹⁷ Thus by no means all bells in this region are of the openwork type.

⁹³ Simonenko *et al.* 2008, 322.

⁹⁴ Bakushev and Ilyukov 2012; Gorbenko and Kosyanenko 2015; Stoyanova 2012, fig. 8; 2016, fig. 9.

⁹⁵ Nowakowski 1988, 115–18.

⁹⁶ Simonenko *et al.* 2008, 322.

⁹⁷ e.g. Vaday 1985, 371; Vaday and Szőke 1983, 109–10, figs 9 and 23; Simonenko *et al.* 2008, pl. 11, 32, 51, 65, 70.

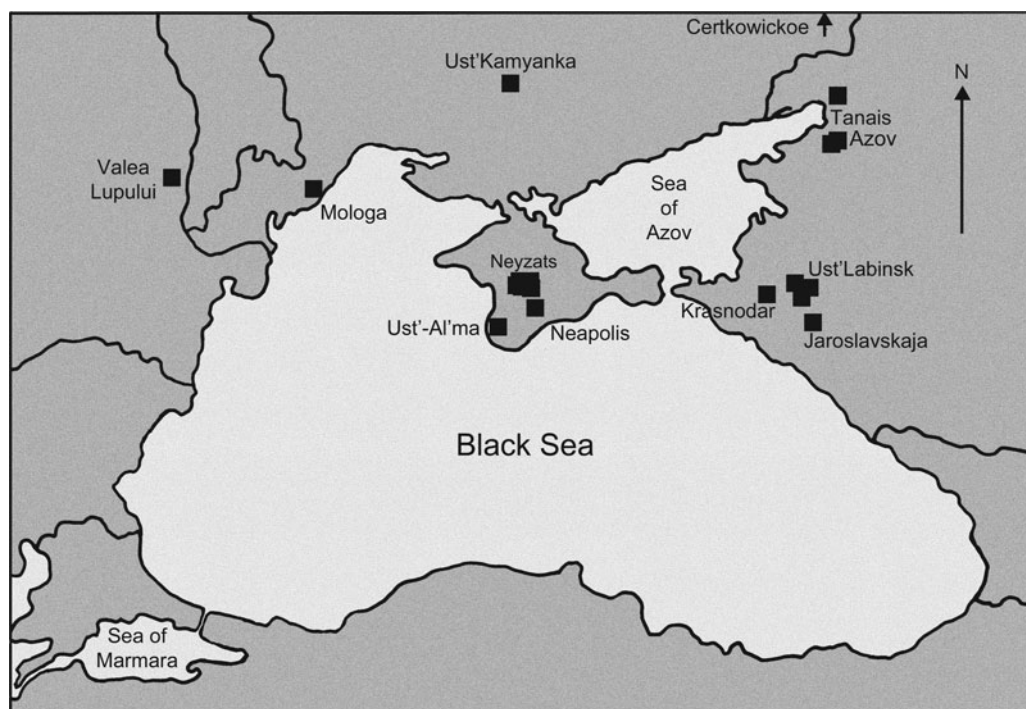


FIG. 8. The distribution of perforated bells in the Black Sea region.

If we assume that the British finds are genuine and of Roman date, it is difficult to explain their relationship, if any, with the Russian and Ukrainian parallels. The Black Sea region was wealthy in antiquity and from the first century B.C. onward Roman control increased through the establishment of provinces (Pontus and Bithynia, Moesia), the transformation of the Bosporan kingdom into a client kingdom and the presence of Roman garrisons in the Crimea; in general, the whole region was closely connected to the Mediterranean and the wider Roman Empire.⁹⁸ However, trade and general contact ought to result in finds across the Mediterranean or along the Danube. This is the case for cast buckles that were part of Roman military costume and widely copied in the Black Sea region; they are usually dated to the second quarter of the second century to the early fourth century and occur not just in the Crimea but along the Danube and Rhine as well as in Britain.⁹⁹

The occurrence of bells of this form apparently only in two regions without finds from the intermediate areas might appear to be more typical of the movement of people, most likely connected to the military. Movement of objects or people from the Black Sea to Britain may be thought to relate to the presence of Sarmatians in Britannia, a phenomenon that has been much debated. While there is epigraphic and sculptural evidence, the suggestion that objects such as gold-in-glass beads indicate a Sarmatian presence is much more contentious; in any case any Sarmatian presence is usually thought to date to the reign of Marcus Aurelius and later.¹⁰⁰ The

⁹⁸ e.g. Bekker-Nielsen 2006; Cojocaru *et al.* 2014; Podassinov 2002.

⁹⁹ e.g. Kostromichyov 2016, figs 5 and 6.

¹⁰⁰ cf. Eckardt 2014, 45–50, fig. 2.7.

Roman military presence on the Black Sea coast and the Crimea is now quite well documented¹⁰¹ and the date of the bells may relate to a peak of Roman military activity during the Neronian period,¹⁰² but to our knowledge only one of the units attested in the region has possible links with Britain. However, while Legion VIII is attested in Moesia, most commentators are now not certain that this unit was involved in the conquest of Britain as had previously been thought.¹⁰³

No firm conclusion can be drawn at this point, but it is hoped that bells with triangular openwork are found in stratified contexts in the future so that their origin and date may be resolved.

THE RITUAL AND APOTROPAIC FUNCTION OF BELLS

One of the most intriguing aspects of the bells was their use as part of apotropaic or ‘good-luck’ charms and the part they played in both burial and religious rituals. This section will not only examine the bells from Britannia, but also examples for which ritual use can be suggested both in the Empire and the Barbaricum. Bells are thought of as magical in other cultures and times, for example in pre-Columbian Mesoamerica where bells ‘offered protection in war and structured rituals that celebrated fertility and regeneration’ and the sounds and colour of the metal ‘constituted a system of visual and aural symbols that created and recreated the experience of the sacred’.¹⁰⁴ A handbell or set of small handbells is rung at significant moments during the Catholic mass.

Tintinnabula were wind-chimes to be hung out in the garden or courtyard, which made a pleasant tinkling noise as they blew in the breeze. However, they also functioned as apotropaic charms against the ‘evil-eye’. Approximately 30 examples are known and most form part of a group of ithyphallic objects in order to give the owner a perceived sense of extra good luck.¹⁰⁵ Other examples of bells used in domestic ritual are also known. Seven bells were suspended from a bust of Mercury from Orange, France (FIG. 9).¹⁰⁶ Some hoard finds containing copper-alloy figurines that are presumably derived from shrines include bells, such as those from Brèves and La Comelle-sous-Beuvray (France).¹⁰⁷

That bells were associated with luck is also demonstrated by the dice tower from Froitzheim (Germany), where originally three bells hung just above the stairs down which the dice would have tumbled.¹⁰⁸ Another curious example comes from a grave in Rebenstorf (Free Germany), where a bronze container has three small bells fitted to its outside, possibly to protect its contents.¹⁰⁹

Bells with beads inside them may have functioned as votive offerings. In Colchester, Culver Street, a Type 1 bell was found in the floor make-up/dump of Building 120.¹¹⁰ Inside the bell was a blue frit melon bead. More recently, at the Roman small town of Scole in Suffolk, a Type 4 tulip bell was discovered underneath a packed flint threshold to a small building.¹¹¹ Once it was conserved, three blue frit melon beads were discovered inside the bell. Beads, and especially melon beads, were thought to have magical properties and may have been associated

¹⁰¹ Sarnowski 1988; 2015.

¹⁰² Podassinov 2002, 32.

¹⁰³ Oldenstein-Pferdehirt 1984, 398–400.

¹⁰⁴ Hosler 1993; 1995, 100.

¹⁰⁵ Dierichs 1999; 2009; Johns 1989, 67; Parker forthcoming.

¹⁰⁶ Rolland 1965, 53–5, no. 65.

¹⁰⁷ Kaufmann-Heinimann 1998, 241, figs 193 and 200.

¹⁰⁸ Horn 1989, 147, fig. 5.

¹⁰⁹ Erdrich 2002, 152, pl. 129.1.

¹¹⁰ No. 32: Crummy 1992, 187, fig. 5.51.

¹¹¹ No. 5: Seeley 1995, 5; Ashwin and Tester 2014, 354, nos 104–6 and 347.



FIG. 9. Bust of Mercury from Orange, France. (By kind permission of the Bibliothèque Nationale, Paris)

with bells as amulets, as in a small hoard from Augst (Switzerland), which contained melon beads, bronze rings and bells.¹¹² Two melon beads were found strung along with a bell, pierced coins and boar tusk amulets in a child's grave at Rouen, France.¹¹³ In the Winchester Grange Road grave discussed below both a bell and eight melon beads were among the finds.¹¹⁴ At the Bloomberg site, London, a melon bead was found in association with a bone hand and phallus amulet.¹¹⁵ Overall, the deposition of beads and bells in doorways might therefore point to them acting as protective or votive offerings.¹¹⁶

¹¹² Pfäffli 2013, 51, no. 47.

¹¹³ Pfäffli 2013, 42, fig. 14.

¹¹⁴ Biddle 1967, 245, fig. 9.

¹¹⁵ M. Marshall, pers. comm.; Marshall forthcoming.

¹¹⁶ cf. Booth and Cool 2006, 23; Crummy 2010, 54.

BELLS IN THE FUNERARY RECORD

One context in which bells may have served an apotropaic function as amulets is the funerary record.¹¹⁷ For example, in several of the catacombs of Rome, bells were found to have been placed in the soft mortar surrounding the *loculi* (niches) of children.¹¹⁸ In Pompeii's Porta Nocera cemetery a child aged between three and ten months was buried with a phallic amulet and a bracelet with an attached bell; this is thought by the excavators to be a girl.¹¹⁹ Martin-Kilcher, in her discussion of *mors immatura*, discusses the number and variety of amulets that have been found in the burials of young women and classifies them as *crepundia*, or objects that rattle or make a noise.¹²⁰ These were either worn on a string or chain or on rings and it is thought that their noise was important for their 'effect and function', in this case protection from the dead.¹²¹ There are many examples of bells in continental graves, including those of children.¹²² Bells occur in children's graves in Gaul, often associated with other amulets or protective charms.¹²³ From Arras there is an example of a child's grave where a bell is combined with a phallic amulet, much as in the Colchester grave discussed below.¹²⁴ Bells were used in the Byzantine period to ward off evil spirits, especially from children; John Chrysostom condemns women for tying bells to the hands of children in the late fourth century, but there are Byzantine graves with bells demonstrating that this practice existed.¹²⁵ Bells also occur in Anglo-Saxon graves, where they are usually interpreted as belonging to animals,¹²⁶ but this should perhaps be rethought.

In the Romano-British dataset 17 bells were found in 16 graves; there is also one (No. 102) that could not be attributed to a specific grave in the densely packed Trentholme Drive cemetery at York.¹²⁷ Where sexing and/or ageing was possible, these are the graves of either women or young children (Table 4).

Female graves were identified on the basis of both osteological information and grave goods. At the St Bartholomew's Hospital site in London a bell was found in the fill above the coffin of a young female, aged 17–24, who had been buried with seven bracelets and two finger-rings placed onto her chest.¹²⁸ The late Flavian Grave 2 at Grange Road, Winchester contained feasting (a shale tray, multiple ceramic vessels, copper-alloy and glass jugs) and writing (a seal-box,¹²⁹ two styli, a pen-knife and an iron double-ended spatula) equipment as well as 18 glass counters, a spoon, melon beads and a piece of banded flint. The grave was mistakenly thought by Biddle to be male on the basis of the grave goods but the osteological analysis suggested that 'the cremated remains are those of an immature individual, perhaps a teenager or a fairly slender female'.¹³⁰ Multiple beads and in one case a hairpin from two graves at Victoria Road, Winchester suggest that they are of females; one is an adult but the bone for the other is lost.¹³¹ In a first-century

¹¹⁷ Crummy 2010, 53–4.

¹¹⁸ Nuzzo 2000, 252.

¹¹⁹ Tomb 10, Andringa and Lepetz 2013, 357–67, fig. 238; 1248, pl. 1.

¹²⁰ Martin-Kilcher 2000b.

¹²¹ Martin-Kilcher 2000b, 73.

¹²² Furger and Schneider 1993, 167, note 35; cf. Philpott 1991, 163, note 9; Cool 2004, 401–2; Deschler-Erb 1996, 72, notes 540–1.

¹²³ Dasen 2015, 189, fig. 3; 2005, 181, figs 5–6; cf. Dasen 2003; Forrer 1919, 1030.

¹²⁴ Jelski 1984.

¹²⁵ Maguire 1997, 1038–9.

¹²⁶ Hills and Lucy 2013, 91–2, with further references.

¹²⁷ Wenham 1968, 97, fig. 36.7.

¹²⁸ Bentley and Pritchard 1982, 149.

¹²⁹ Only the lid survives and it may have been placed into the grave for its decoration (a crouched animal) rather than as a functioning object (Nina Crummy, pers. comm.; cf. Biddle 1967, 242–4, fig. 9).

¹³⁰ Biddle 1967, 248.

¹³¹ Ottaway *et al.* 2012, 80; Rees *et al.* 2008, 60, 203–4.

cremation at Hyde Street, Winchester a mature woman was buried with a child of *c.* three years, though it is not possible to determine with which individual the bell was associated.¹³² In the Pepper Hill cemetery at Southfleet a woman was buried with an infant; the only grave goods accompanying the second-century urned cremation were a bell and a torc-twisted bracelet or necklace.¹³³ At the Finsbury Circus site in London the inhumation grave (dated to *c.* A.D. 200–400) of an unsexed adult aged 36–45 years buried with an infant, possibly a neonate, cradled on the chest, is probably that of a woman. Two ceramic beakers were placed by the right shoulder and by the skull of the adult; the bell was found on the right side of the adult's pelvis, by the feet of the infant.¹³⁴

All remaining graves are those of children, with three known from the later Roman Butt Road cemetery at Colchester. The bell from G1 was found in the grave of a girl around ten years of age, and was attached to a copper-alloy armlet on which there was also a bead.¹³⁵ The second grave, G94, is the inhumation of a child and contained two bells on a short length of chain.¹³⁶ Both date to Period 2, the mid- to later fourth century. The final grave, G278, contained what appears to be a chain purse containing several amuletic objects. Among the objects were the bell, an amber pendant in the form of a human head with a possibly phallic nose, a small copper-alloy horned phallus and two pierced coins (FIG. 10). This grave is dated to Period 1 (pre-A.D. 320/40); there was no evidence of any remains in the grave, but the size of the grave cut indicated that it, too, belonged to a child.¹³⁷ At a grave in Guilden Morden the bell was hung on the wrist of a child of unspecified age, together with two beads.¹³⁸

One burial from Chichester (Burial Group 11) contained a child burial with grave goods consisting of an iron bell, a red-slipped carinated bowl with a graffito of a cross on the base, and a small pebble.¹³⁹ The authors claim that both the bell and the pebble represent toys, but they could also be classed as *crepundia*. At the military cemetery at Brougham, which is argued to be the final resting place of people with Danubian origins, a bell was placed (apparently unburnt) into the BB1 jar that also contained the cremated remains of a three-to-four-year-old child; there were three further ceramic vessels, one of which covered the jar.¹⁴⁰ A bell and a single nail were found in a neonate's (0–4 weeks) burial at Springhead, Kent, and both may have had an apotropaic meaning for the parents.¹⁴¹ It is possible that the vessel into which the newborn had been placed contained the remains of another neonate; it was placed in one of the sanctuary areas of the site (Property 2, which includes a temple).

While a small dataset, the evidence from Britain certainly seems to suggest that bells were used as amulets, sometimes associated with other apotropaic objects such as a pierced dog's canine or melon beads; they were especially associated with children and women.

THE RITUAL USE OF BELLS IN TEMPLES

Tintinnabula may have been linked to Priapus and at Aventicum (Avenches, France) a large Type 2 bell with a dedication to Mercury was discovered just to the west of the sanctuary area of

¹³² Birbeck and Moore 2004, 99, fig. 8.9087.

¹³³ Booth and Cool 2006, 13.

¹³⁴ Harward *et al.* 2015, 151–2, fig. 121.

¹³⁵ Crummy 1983, 51, fig. 41.1610; Crummy *et al.* 1993, 155.

¹³⁶ Crummy *et al.* 1993, table 2.48, 155.

¹³⁷ Crummy 2010, 46–7, fig. 9; 1983, 51, fig. 54.1811; Crummy *et al.* 1993, 41.

¹³⁸ Lethbridge 1936, 119, pl. Xc.

¹³⁹ Down and Rule 1971, 91.

¹⁴⁰ Cool 2004, 159, 401–2.

¹⁴¹ Schuster 2011, 278.



FIG. 10. Grave 278 at Colchester. (After Crummy 2010, fig. 9)

the town.¹⁴² Although only a small fragment of the bell survives, this includes the key fragment with the inscription to *Deo Mer*. Inscribed bells are rare, but several have been found on the Continent with inscriptions to Mercury, perhaps invoking his role as mediator between men and gods.¹⁴³ Generally, an association of bells with sanctuaries has been suggested, as with the bell from the temple at Sichelen and the votive deposit of eight small bells from the sanctuary at Les Bolards, Nuits-Saint-Georges (France).¹⁴⁴

Bells have also been found at several Romano-British temple sites. Two bells from the poorly understood religious complex at Cold Kitchen Hill in Wiltshire have figurative decoration that may be of ritual significance. One is decorated with a lion's head, the other has two human figures.¹⁴⁵ At the Green Lane site in Wanborough, Wiltshire, a Type 4 tulip bell was discovered in the area around the religious site and the author believes that it may have either hung around the neck of an animal or been used during rituals.¹⁴⁶ Bells have also been found on temple sites at Maiden Castle,¹⁴⁷ Corbridge,¹⁴⁸ Haddenham¹⁴⁹ and Woodeaton.¹⁵⁰ In all these instances there is no certain

¹⁴² Martin-Kilcher 2000a, 135.

¹⁴³ Henig 1978, 70.

¹⁴⁴ Furger and Schneider 1993; Crummy 2010, 54.

¹⁴⁵ Nos 282–3: Robinson 2001, 158–60.

¹⁴⁶ No. 6: Williams 2007, 209.

¹⁴⁷ No. 72: Wheeler 1943, 288, fig. 97, 2–3.

¹⁴⁸ No. 17: Bishop and Dore 1988, 170, fig. 80.90.

¹⁴⁹ No. 11: Evans and Hodder 2006, fig. 7.29.

¹⁵⁰ No. 13: Bagnall-Smith 1999, fig. 16.1.

association with the temple and the activities that took place within it, but for the Mithras cult a case for the ritual use of bells can be made. This secretive cult, mainly associated with the military and only open to men, held their meetings in cavern-like locations, so recreating the myth of Mithras, who slayed a bull in a cave.¹⁵¹ At Segontium (Caernarvon) several iron fragments were found at the base of an altar within the third-century mithraeum, which are thought to be from a tall candleholder or standard; a small copper-alloy bell may have been hung from its two arms.¹⁵² Another bell of Type 2a form was found in the mithraeum at Tienen in Belgium¹⁵³ and two iron bells are known from the mithraeum at Strasbourg.¹⁵⁴ It has been suggested that bells were rung to increase the audience's attentiveness at certain points in the narration of the myth.¹⁵⁵

In some cases bells were among votive offerings, most notably in the case of Coventina's Well on Hadrian's Wall.¹⁵⁶ In a less formal context, it is also possible that the bell found with Roman pottery, an iron knife, oyster shells, burnt sticks as well as human and animal bones in a deep shaft at Plumstead were ritual offerings.¹⁵⁷

BELLS IN HOARDS

Several bells have been discovered in hoards in Britain. At Binnington Carr in North Yorkshire, a Type 4 tulip bell was discovered in a ploughed field in 1876.¹⁵⁸ Placed inside the bell were 12 silver coins, including one of Julius Caesar (49–44 B.C.), one of Nero (A.D. 54–68), three of Vitellius (A.D. 69) and seven of Vespasian (A.D. 69–79). At the Saxon Shore fort of Burgh Castle, Norfolk, a Type 1 quadrangular bell was discovered in a pit with a hoard of glass vessels and a small bronze vessel. The hoard was placed in a bronze bowl and all the items were contained within an iron-bound bucket.¹⁵⁹ Two bells were part of the Seven Sisters (near Neath, Wales) hoard discovered in 1875 and dated to A.D. 50–75 on the basis of Roman military equipment; the 37 objects recovered consist of horse gear and tankard handles as well as ingots, scrap metal and two casting jets, with the latter leading to the suggestion that this could be a metal-worker's hoard.¹⁶⁰ The hoard comprises objects of both 'Roman' and 'native' style and manufacture; more recent metal analysis showed differential use of alloys and the uptake of Roman techniques such as brass and enamels in the post-conquest period.¹⁶¹

Bells also occur in hoards on the Continent, both within the Empire and in the Barbaricum; examples include the hoard associated with a shrine to Dolichenus at Mauer-an-der-Url in Austria¹⁶² and the so-called Alemannic booty from the Rhine at Neupotz, Germany.¹⁶³ At Havor, in Gotland, a hoard was buried within a ring-fort, which on the evidence of the finds was of first-century date.¹⁶⁴ The hoard comprised a bronze situla, a large gold torc, a wine ladle

¹⁵¹ Clauss 2001.

¹⁵² Boon 1960, 162, pl. XVI.

¹⁵³ Martens 2004, 38.

¹⁵⁴ Forrer 1919, 1030f., after Schuster 2006, 93–4.

¹⁵⁵ Clauss 2001, 53.

¹⁵⁶ Nos 92–3: Allason-Jones and McKay 1985, 28, figs 66–7.

¹⁵⁷ Ross 1968, 270.

¹⁵⁸ No. 1: Harland 1891, 30; Robertson 2000, 15, no. 74.

¹⁵⁹ No. 27: Johnson 1983, 79.

¹⁶⁰ Davies and Spratling 1976.

¹⁶¹ Davis and Gwilt 2008.

¹⁶² Noll 1980, 94–6, nos 50–6.

¹⁶³ Künzl 1993, 385–6; Kat J15–24.

¹⁶⁴ Nylén *et al.* 2005, 90.

and strainer, and two large Type 4 tulip bells, which had been tied to a ring using a leather strap. Beside the bells were a stack of small copper-alloy saucepans, placed one inside the other.¹⁶⁵

River finds may be seen as votive but unfortunately the only information for the example from the Thames (No. 4) is that it came from the northern foreshore.¹⁶⁶

CONCLUSION

This study analysed a corpus of just over 300 published and unpublished bells from Roman Britain, with a database of this material now available on the ADS website (<https://doi.org/10.5284/1043774>). It has identified clear types and explored their possible functions. While iron bells may well have been used for animals and large forms such as tulip bells may have functioned as door, market or warning bells, many of the smaller forms appear to have had broadly amuletic or apotropaic functions. The use of a bell clearly depended on its size and material. Some objects appear to show long use, possibly in a variety of functions. We have summarised the available dating evidence from the province and the Continent, demonstrating that bells were used throughout the Roman period but with a peak in the first century.

Many of the types can be paralleled on the Continent but this paper has also identified a new bell type, characterised by triangular cut-outs in a variety of arrangements. Unfortunately all examples from Britain were recorded by the PAS, with none known from excavations. This is an unusual pattern, given that quite significant numbers have now been recorded, but there is no particular reason for seeing the PAS finds as modern imports. The finds come from widely dispersed sites (i.e. not from a small number of rallies by the same metal-detecting club) and while some are well preserved there are also many fragmentary examples. Doubts remain whether this openwork type really is Roman but it differs in details of design and distribution from early medieval bells. The only parallels we were able to identify are of first-century date and come from graves in the Black Sea region, a pattern that is difficult to explain. It is hoped that future finds will come from excavated contexts, so that the type can be more securely dated and its origin established.

An analysis of social distribution suggests that bells were used across the settlement hierarchy; among the excavated material there is an emphasis on military and urban sites but this is balanced by the new data available from the PAS, which show the widespread use of all types on rural sites. Bells occur on temple sites and in hoards, but contextual information for temples is quite poor, and they may occur in hoards for their metal value, as containers or for the sound they produced. We have much better information on the use of bells as amulets, in particular from the graves of children and young women. In these cases, it must have been the sound of the bells that exerted magical and protective powers. As suggested by Schoenfelder and Richards bells represent an ‘audible form of ostentation’¹⁶⁷ and, we would argue, magic.

¹⁶⁵ Nylén *et al.* 2005, 20, fig. 10.

¹⁶⁶ Wardle 1980.

¹⁶⁷ Schoenfelder and Richards 2011, 160.

APPENDIX

TABLE 1. OPENWORK BELLS FROM BRITAIN RECORDED BY THE PAS

ID No.	Site	Reference	Description
173	Barwick, Somerset	PAS: SOM-ECC8D2	One row of five alternating triangles; hexagonal loop.
228	Brill, Bucks.	PAS: BUC-F532E5	One row of six alternating triangles; hexagonal loop.
191	Coberley, Glos.	PAS: GLO-986104	One row of six alternating triangles; hexagonal loop.
286	Paulerspury, Northants.	PAS: NARC-D9C172	One row of six alternating triangles; hexagonal loop.
287	West Clandon, Surrey	PAS: SUR-B48E74	One row of six alternating triangles; iron corrosion; pentagonal loop and large clapper.
174	Great Dunham, Norfolk	PAS: NMS-99EFB3 = HER 45401	One row of six alternating triangles, one with iron corrosion?
129	Marham, Norfolk	PAS: NMS-4892B4	One row of seven alternating triangles; hexagonal loop.
288	Barham, Suffolk	PAS: SF-4A8FA1	One row of ?seven alternating triangles; hexagonal loop.
270	Grimsby area, North Yorks.	PAS: NLM-7188	No image, but described as eight cut alternating triangles, iron corrosion.
180	Congham, Norfolk	PAS: NMS-E88365	One row of ten alternating triangles; rounded loop.
182	Fincham, Norfolk	PAS: NMS-E837B5	One row of ten alternating triangles; triangular loop.
190	Butley, Suffolk	PAS: SF-349CD7	One row of twelve alternating triangles; triangular loop.
167	Beachamwell, Norfolk	PAS: NMS-59BE96	One row of alternating triangles, four survive; hexagonal loop.
160	Bridge, Kent	PAS: LEIC-DA4DB7	One band of ?six to eight alternating triangles; hexagonal loop.
269	Ewelme, Oxon.	PAS: LVPL-1344	One band of ?five to six alternating triangles, three survive; round/hexagonal loop.
193	Sutton, Suffolk	PAS: SF-C1F282	One band of ?five to six alternating triangles, three survive; hexagonal loop.
289	Skirpenbeck, E Yorks.	PAS: YORYM-FD6653	One band of alternating triangles; pentagonal loop.
229	Stoke Hammond, Bucks.	PAS: BUC-E94117	Four triangles, not alternating; rounded loop, pronounced lip.
170	Barsham, Norfolk	PAS: NMS-323DE0	Two rows of triangles, each row aligned the same way (apex up); hexagonal loop.
175	Sheering, Essex	PAS: BH-9C5145	Two rows of triangles, each row aligned the same way (apex up); hexagonal loop.
290	Great Waldingfield, Suffolk	PAS: SF5439	Alternating triangles, perhaps originally eight, three survive; two more apex-down triangles (both now blocked with iron corrosion) at the top of the bell; squared loop.
192	Great Barton, Suffolk	PAS: SF-A755C5	Four pairs of opposing triangles set one above the other, base to base, separated by single apex-up triangles; pentagonal loop.
291	Newport, Uttlesford, North Essex	PAS: ESS-954081	Six pairs of perforations, either opposing triangles (apex to apex) or triangle above rectangle; pentagonal loop.
179	Bradenham, Norfolk	PAS: NMS-FB6E62 = HER 31358	Three sets of four triangular apertures with apex pointing inward; hexagonal loop.
292	Chippenham, Cambs.	PAS: SF-2C7AE4	Triangles in groups. Two groups consist of four triangles each, with their points arranged inwards towards each other. In between these groups are two pairs of opposing triangles, again with their points towards each other, with the bases towards loop and rim. Hexagonal loop.
130	Chilcomb, Hants.	PAS: HAMP-AF9143	Two rows of alternating triangles, with apex and base facing each other; loop does not survive.

TABLE 2. COMPARATIVE TYPOLOGIES

This paper	Nicolay 2008	Nowakowski 1988
Type 4 Tulip (A.D. 69+)	Type A (Augustan onwards)	Type A
Type 2 Domed (pre-Flavian)	Type B (Augustan onwards)	Type C
Type 1 Quadrangular (A.D. 64/70+)	Type C (late Augustan-Tiberian onwards)	Type B
Type 3 Conical	Type D (2 nd /3 rd century)	Type D
Type 5 Shouldered (3 rd –4 th century)	Type E (2 nd /3 rd century)	—

TABLE 3. OPENWORK BELLS FROM THE BLACK SEA REGION
(this is a sample, given the difficulties of accessing the relevant literature)

Site	Description	Context	Reference
Asov (Russia)	Three bands of alternating triangles	Krepostnoye cemetery, but not from grave	Gorbenko and Kosyanenko 2015, fig. 3.1
Asov (Russia)	Two bands of triangles, with lower band alternating	Krepostnoye cemetery, male inhumation grave, first century	Kosjanenko and Maslovskij 2008, 346, fig. 11
Certkowickoe, Voronež (Russia)	Single triangle, apex down; conical shape and rounded loop	Grave, late first–second century	Nowakowski 1988, 115–18, fig. 24.14
Jaroslavskaja (Russia)	Irregular triangles and possible diamond-shape; rounded loop	Double burial, bronze and silver vessels, armour, axe, knife and mirror	Simonenko <i>et al.</i> 2008, 334–5, no. 2, pl. 3.4
Krasnodar (Russia)	One band of alternating triangles, triangles (apex up) above and possibly further triangles at very top	Grave of child, also eye bead, spindlewhorl, brooch, bracelet and astragali	Simonenko <i>et al.</i> 2008, 372, no. 170, pl. 178.6
Mologa (Ukraine)	One band of alternating triangles with triangle (apex up) above it; rounded loop	Cemetery	Nowakowski 1988, 84; Gudkova 1982, 70–1, fig. 7.11
Neapolis (Crimea, Ukraine)	Irregular shapes across body of bells; loops poorly preserved/illustrated	Cemetery	Nowakowski 1988, 84, fig. 10.18–20
Neyzats (Crimea, Ukraine)	Two bells with single band of triangles, two with alternating triangles; one with single band of triangles is further decorated with a small ?horse	Cemetery; the relevant graves are of second-century date	Stoyanova 2016, fig. 9.3–7
Tanais (Russia)	Not illus.	Cemetery	Nowakowski 1988, 84
Ust'-Al'ma (Crimea, Ukraine)	Not illus.	First-century grave	Simonenko <i>et al.</i> 2008, 322
Ust-Kamyanka (Ukraine)	One band of alternating triangles; extension at top of rounded loop	Female grave, Kurgan 5; bronze bracelet, finger-ring and brooch, bucket amulet, mirror, pierced horse tooth	Sulimirski 1970, fig. 60; cf. Simonenko <i>et al.</i> 2008, 63, no. 54, pl.42d
Ust'Labinsk (Russia)	Two bands of alternating triangles, two further triangles at top (apex up); large clapper; rounded loop	Grave 18, no further finds or details	Nowakowski 1988, 115–18, fig. 24.12; Simonenko <i>et al.</i> 2008, 357, no. 77, pl. 112.1
Ust'Labinsk (Russia)	One band of alternating triangles; above it triangles with apex up; Bell 5 has an extension at top of rounded loop	Secondary burial in Kurgan 32; juvenile with gold and bronze jewellery, faience amulet; glass and silver vessels	Simonenko <i>et al.</i> 2008, 351, no. 54, pl. 84.5–6
Valea Lupului (Romania)	One band of alternating triangles, triangles (apex up) above it; ? hexagonal loop	Grave, fourth–fifth century	Nowakowski 1988, 115–18, fig. 24.15

TABLE 4. BURIALS WITH BELLS FROM ROMAN BRITAIN

ID No.	Site	Type	Date	Age/Sex	Notes	Ref.
110	Brougham	7	c. A.D. 200/ 20–240	Cremated child 3–4 yrs	Bell and cremated remains in BB1 jar, bowl as ‘lid’, beaker and cup on top	Cool 2004, 159, fig. 4.142
104	Chichester, St Pancras	6	—	Child	Burial Group 11C. Found with a carinated red slip bowl (X-graffito on base), and a spherical flint pebble	Down and Rule 1971, 91
56	Colchester	2	—	—	‘From a grave outside colonia’; now in Colchester and Essex Museum	Green 1975, 66, fig. 5. 58
57	Colchester, Butt Road	2	Early fourth century	No surviving bone, but grave cut appropriate for child	Grave 278. Amuletic objects in a purse of copper-alloy links: horned phallus, pierced dog’s canine, amber head, as of Hadrian, pierced as of Claudius, pierced denarius Julia Maesa	Crummy 2010, 46–7, fig. 9; Crummy 1983, 51, fig. 54.1811; Crummy <i>et al.</i> 1993, 41
58	Colchester, Butt Road	2	Mid-fourth century	Female 10 yrs	Grave G1. Bell and blue marvered bead threaded onto bronze armlet	Crummy 1983, 51, fig. 41.1610; Crummy <i>et al.</i> 1993, 155
284–5	Colchester, Butt Road	2	Mid-fourth century	Infant or child burial	Grave G94. 2 bells on iron chain, at west end of coffin and therefore prob. near the head	Crummy 2010, 47; Crummy <i>et al.</i> 1993, 155
293	Guilden Morden	2		‘Child’	Grave 6; bell and 2 bronze beads apparently hung on wrist	Lethbridge 1936, 119, pl. Xc
71	London, St Bartholomew’s Hospital	2	c. fourth century	Female 17–24	Burial 12. Bell found in overlying soil of grave. 7 bracelets and 2 finger-rings placed in pile on chest	Bentley and Pritchard 1982, 148, fig. 20.ix
308	London, Finsbury Circus	5	c. A.D. 200–400	Inhumation of an unsexed adult aged 36–45, buried with an infant (neonate) cradled on the chest	2 ceramic beakers	Harward <i>et al.</i> 2015, 152, fig. 121.3
307	Southfleet, Pepper Hill	3	Mid-second century	Female adult and infant	Grave Group 46511, urned cremation with torc-twisted bracelet or necklace	Booth and Cool 2006, 13
79	Springhead	2	Mid-Roman	Neonate(s) 0–4 weeks and 36 weeks in utero–2 weeks)	Grave 12222: one, possibly two neonates in a vessel with a single nail; within sanctuary area	Schuster 2011, 278
102	Trentholme Drive	3	Second century	—	Not associated with a body	Wenham 1968, 97, fig. 36.7

Continued

86	Winchester, Grange Road	2	Flavian (<i>c.</i> A.D. 85–95)	Immature individual, perhaps a teenager or a fairly slender female	Grave 2: very rich burial with a shale platter, 16 ceramic, 1 glass and 1 bronze vessels; writing equipment, gaming pieces and melon beads	Biddle 1967, 244, fig. 9.23
87	Winchester, Hyde Street	2	A.D. 55–65	Adult female (35–50 yrs) and infant (<i>c.</i> 3 yrs)	Grave 7101: un-urned cremation burial; 6 complete ceramic vessels (one containing cremation of infant) and Nauheim derivative brooch	Birbeck and Moore 2004, 99, fig. 8.9087
89	Winchester, Victoria Road	3	Late first–mid-second century	?Female; not aged or sexed but multiple beads may point to female	Grave 501, cremation; 2 melon beads, 3 glass beads, cu-alloy ring, bone counter, base of glass vessel	Ottaway <i>et al.</i> 2012, 80; Rees <i>et al.</i> 2008, 60, 204
88	Winchester, Victoria Road	2	Late second–mid-third century	?Female; not aged or sexed but grave goods may point to female	Grave 409, urned cremation. 1 glass and 1 bone bead, 2 cowrie shells, bone pin	Ottaway <i>et al.</i> 2012, 82; Rees <i>et al.</i> 2008, 60, 203

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