

A Roman symmetrical flanged bronze strainer found in Surrey and its counterparts in Highland Britain

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Four British broad-flanged symmetrical bronze strainers from Thorpe, Surrey; Coygan Cave, Pembrokeshire; Marston Moor, Yorkshire and Helmsdale, Sutherland are described and postulated as the products of a single military workshop. The writer observes that whilst their associations indicate a date in the 1st or early 2nd century AD, the decorative elements embodied in the embellishment of the flange and perforation pattern show analogies with a traditional design for drinking equipment with an ancestry set in the type of Graeco-Celtic straining device found at Vix.

Location

The gravel workings in the parish of Thorpe on the west bank flood loam of the river Thames have long been noted for their prolific and diverse yield of archaeological items. The bronze strainer described here was found during the 1940s in the vicinity of the Mixnams/Templefields workings at an approximate location of TQ 045 692. The strainer and other unassociated items were apparently recovered from the pits by dragline. During the war years, Neolithic, Iron Age and Roman features were investigated in the Mixnams area (TQ 040 692) and accounts of Neolithic and Bronze Age finds have since been published (Grimes 1960; Needham 1977; 1979; Tomalin 1982). Independent finds of prehistoric metalwork from the Mixnams area include a Later Bronze Age hoard and swords of the Ballintober type. It seems possible that an old channel of the Thames at Mixnams received votive deposits over a long period but there is unfortunately no stratigraphical evidence to substantiate this hypothesis. The bronze strainer is now housed in the Weybridge Museum.

The Thorpe strainer

The strainer comprises a circular sheet of bronze 22cm in diameter with its extreme edge upturned to a height of 1.5mm (fig 1; pls 1 & 2). The flange and bowl of the strainer are perfectly circular and a radiograph of the object shows that this precise shape was achieved by beating. No spinning techniques were employed.

The sheet has been beaten over a former to produce a central bowl of thin hammered bronze some 7cm deep. The wall of the bowl is perforated with a symmetrical pattern of carefully cut holes which are each some 1.8mm in diameter. When found the bowl was badly crushed but it has since been skilfully annealed and re-shaped by the British Museum Research Laboratory.

The bowl of the strainer is surrounded by a broad flange, 4.5cm wide, decorated with two opposed bands of carefully punched dots and hatched triangles. The triangles are examples of engraved decoration (Lowery *et al* 1971) and have apparently been cut by driving a common graver towards the base of each triangle (pl 2). A decorative motif is also present in the pattern formed by the strainer's perforations and comprises three equidistant roundels apparently set in a field of horizontal lines. These latter perforations would seem to have presented a series of rings when viewed in plan (fig 1). Due to extreme damage to the strainer bowl the complete design of the roundels and the setting of perforations at the base of the strainer is unknown, and there remains a possibility that a triskele arrangement may once have linked the roundel motifs in a manner reminiscent of the Coygan strainer cited in this article (fig 2).

The Thorpe find is one of four flanged bronze strainers known in Britain (figs 1–5). A fifth example may be suspected amongst some fragments found with a portion of a patera and other items at Verulamium (Wheeler 1936, 203; Eggers 1968, 153, Abb 53, f). Although individual

decoration and perforation patterns differ, the designs of all four strainers are similar enough to suggest that they may be the product of a single bronzesmith's workshop. That each is probably the product of a different craftsman is indicated by the variation in overall diameter and flange proportions indicated in figs 1–4 & 6.

British symmetrical flanged bronze strainers

<i>Site</i>	<i>cm diam</i>	<i>Associations</i>	<i>Illust</i>
Thorpe 1	22	None	fig 1 pls 1 & 2
Coygan	20.4	Late 1st-century AD patera but also perhaps Carausian coins	fig 2
Marston Moor	21.6	None	fig 3
Helmsdale	23.5	Six bronze bowls and Roman strainer bowl of 1st/2nd century AD	fig 4 pl 3

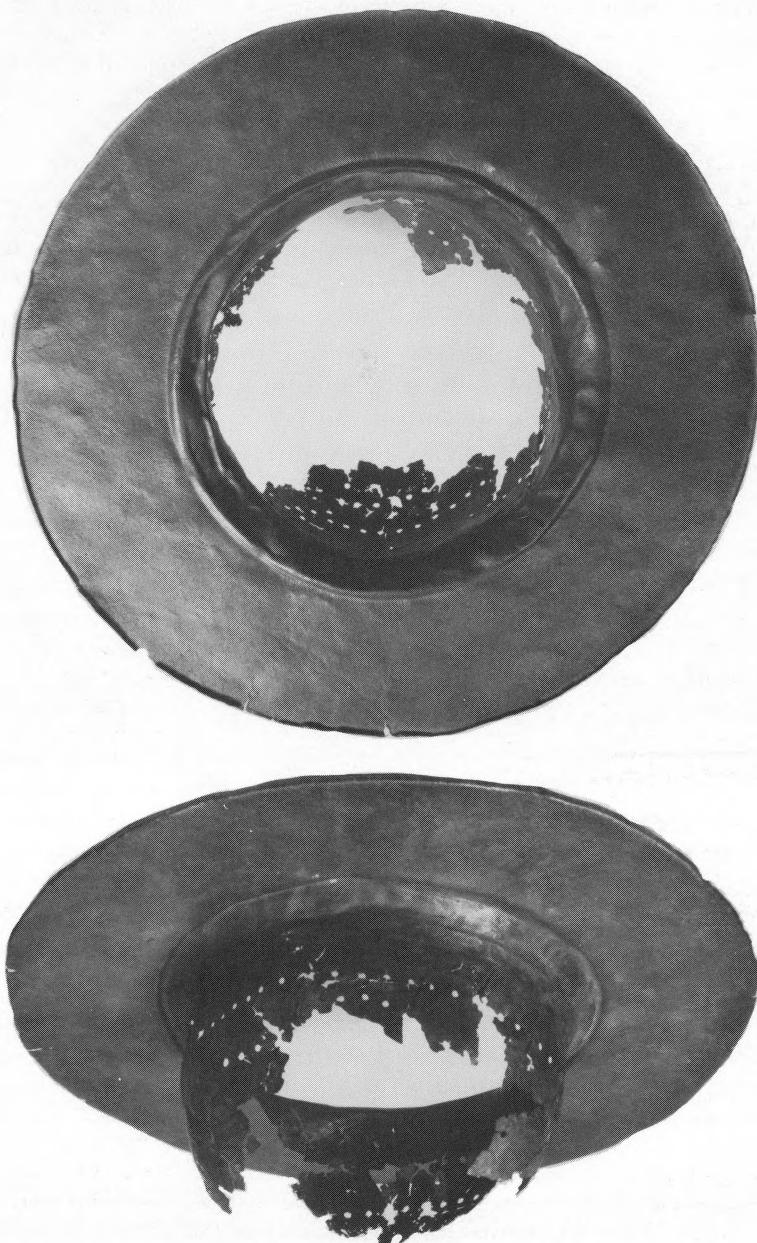
The history of the symmetrical form of bronze strainer

The symmetrical flanged strainer may be defined as one which comprises a perforated bowl surmounted by a broad flange facilitating lifting without the aid of a handle and supporting the object when resting in the neck of a decanter such as a bowl, drinking cup or jug. This device seems analogous with certain early classical strainers, some of which also bear opposed pairs of modest handles which are attached to the flange. This type of strainer claims considerable antiquity in the Celtic world, where its symmetrical form distinguishes it from the classical long-handled strainers which are better known in Roman Britain. Despite these analogies in basic design, however, no directly comparable examples of the Thorpe type of strainer are to be found either in the classical world or in northern Europe prior to the emergence of this type in Britain.

The idea of either lifting or resting patterned bronze strainers by means of flanges or symmetrically opposed handles belongs to the 6th and 5th centuries BC. An example, of Greek type, found with a 5th-century hydria in a tumulus at Duvanlij in southern Bulgaria shows a wide flange which is also equipped with opposed swan-neck handles (Filow *et al* 1934, 176, Abb 195). Coeval with these symmetrical pieces are long-handled strainers of the infundibulum type. A few infundibula like the 6th-century example in the Metropolitan Museum, New York (Richter 1937, 62F, 134) contain a strainer element which appears to have been borrowed from the flanged symmetrical type.

Bronze infundibula have sometimes been employed with the widely used Etruscan cordoned bronze situlae which were carried north of the Alps and into eastern Europe in Hallstatt D times. In the 5th-century Illyrian tumulus at Novi Pazar in Serbia, a cordoned situla was found with a bronze infundibulum decorated with hatched triangles and other motifs of Hallstatt style (Popović 1956, 80–1, p1 8, 8a, 39). The well-known find of an Etruscan cordoned situla in the bed of the river Wey at Weybridge in Surrey has been commonly claimed as evidence of import trade in the 5th century BC (Stjernquist 1967; Harbison & Laing 1974, 10–11) but the circumstances of discovery leave the case unproven (Stead 1984, 60–2).

A landmark in the establishment of the symmetrical flanged bronze strainer in northern Europe is found in the late 6th-century Hallstatt D tumulus at Vix near Châtillon-sur-Seine (Joffroy 1954; Piggott 1965, 184). The magnificent bronze crater from this grave was surmounted by a symmetrical flanged bronze strainer bearing a pair of small opposed cast bronze handles with palmette terminals. The thick wide flange of the Vix strainer certainly embodies principles of design and form which may be compared with Thorpe but the diameter of the French find, which is some 70cm, makes the scale of the two objects quite incompatible. It is possible that small craters of this



Pl 1. The Thorpe strainer viewed from above and below. (Diam approx 21cm)

type were fitted with similar strainer-lids but such have yet to be found in the Celtic world. The bronze crater from the 6th-century grave in the Trebenište cemetery in eastern Yugoslavia (Mano-Zisi & Popović 1969, 114, pl 23) has been cited as a smaller counterpart to the Vix crater (Joffroy 1954) but its strainer lid, if it existed, was not included in the burial. The mouth diameter of 31.5cm for the Trebenište crater would still require a strainer lid somewhat larger than the Thorpe type.

The first demonstrable introduction of Mediterranean sheet bronze vessels to Britain begins in

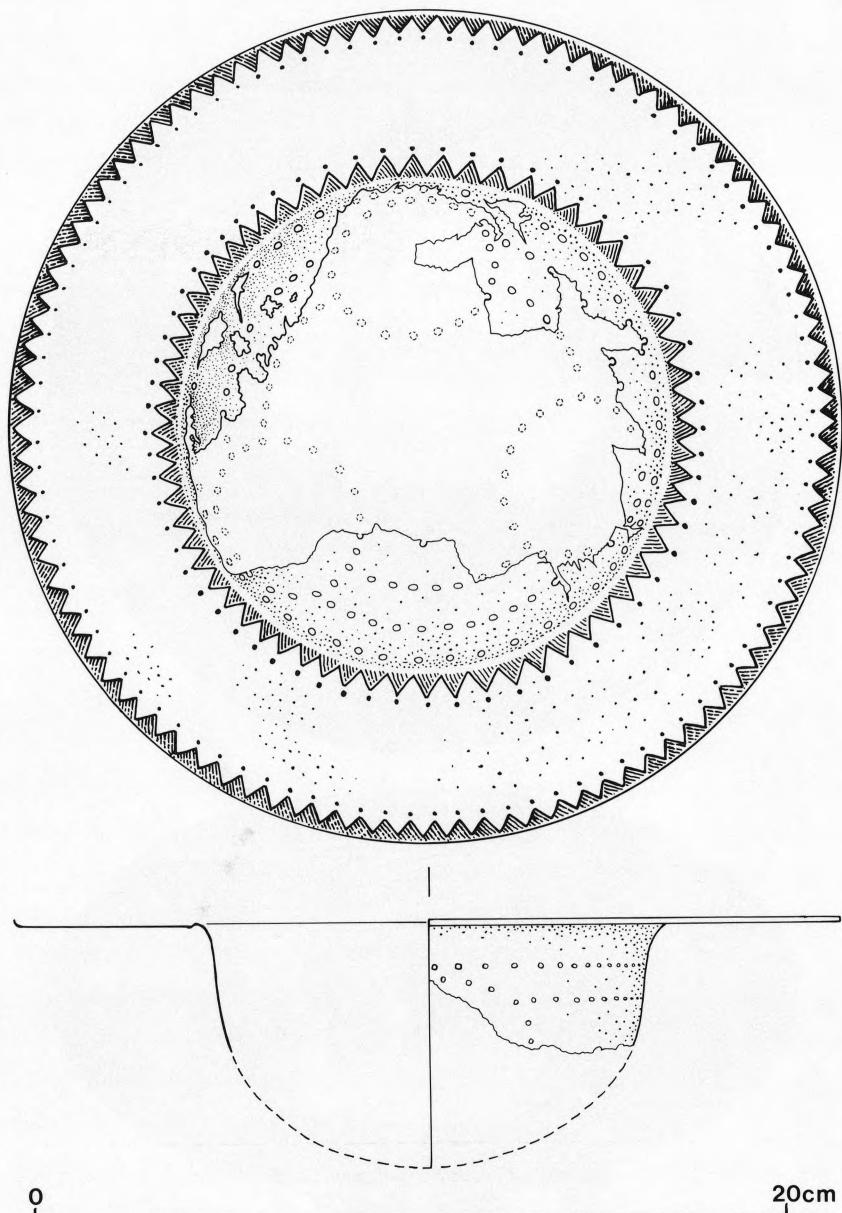


Fig 1. The symmetrical bronze strainer from Thorpe. 1/2

the late 1st century BC when Italian bronzes of the Ornavasso type were acquired through Belgic trade (Harbison & Laing 1974, 25–9; Stead 1984, 60–2). Dressel 1 amphorae of the 1st century BC identified in the hinterlands of Hengistbury and Camulodunum (Peacock 1971, 171–9) seemingly mark the awakening of British interest in viticultural products. The bronze-bound buckets used as cremation receptacles in the La Tène III burials at Aylesford, Lexden, Great Chesterford, Baldock, Marlborough and Hurstbourne Tarrant are perhaps a further indicator of wine drinking (Stead 1967; Stead & Rigby 1986). Some corroboration of the use of such buckets for wine serving comes from the late 1st-century BC grave at Welwyn Garden City. Here five Dressel 1B amphorae,

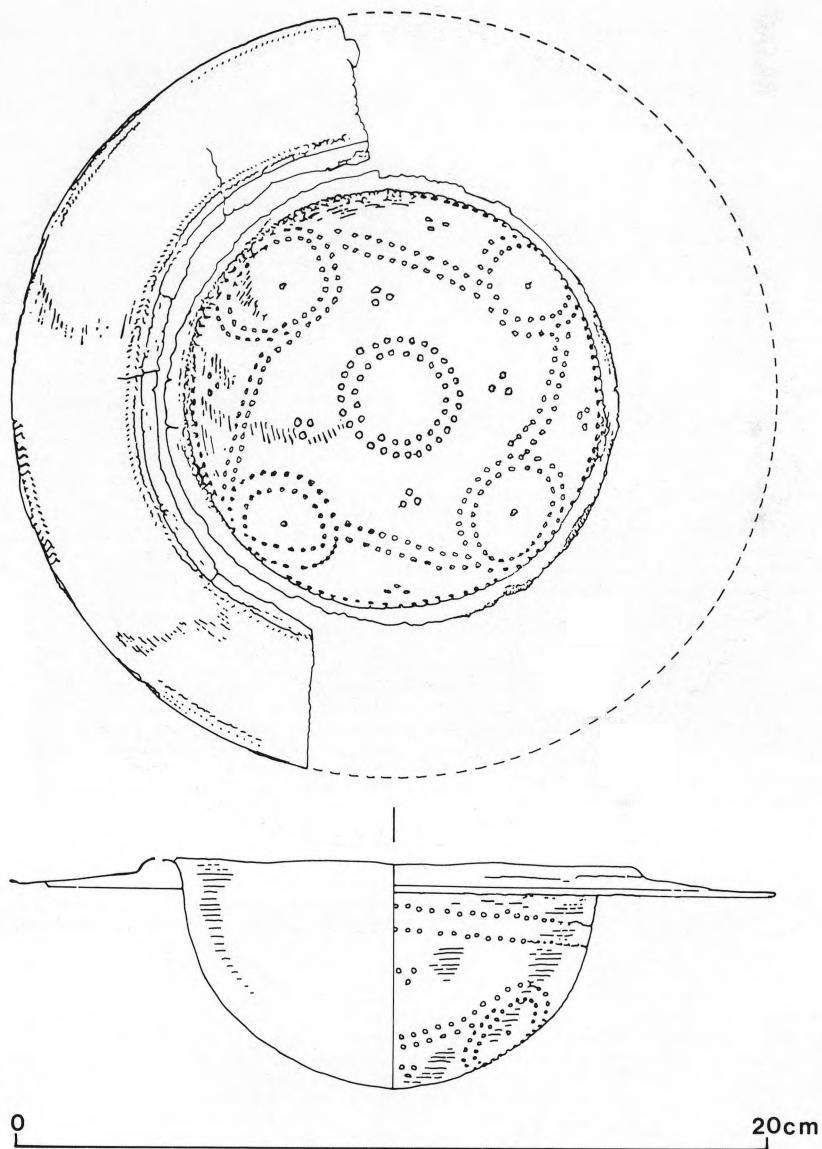
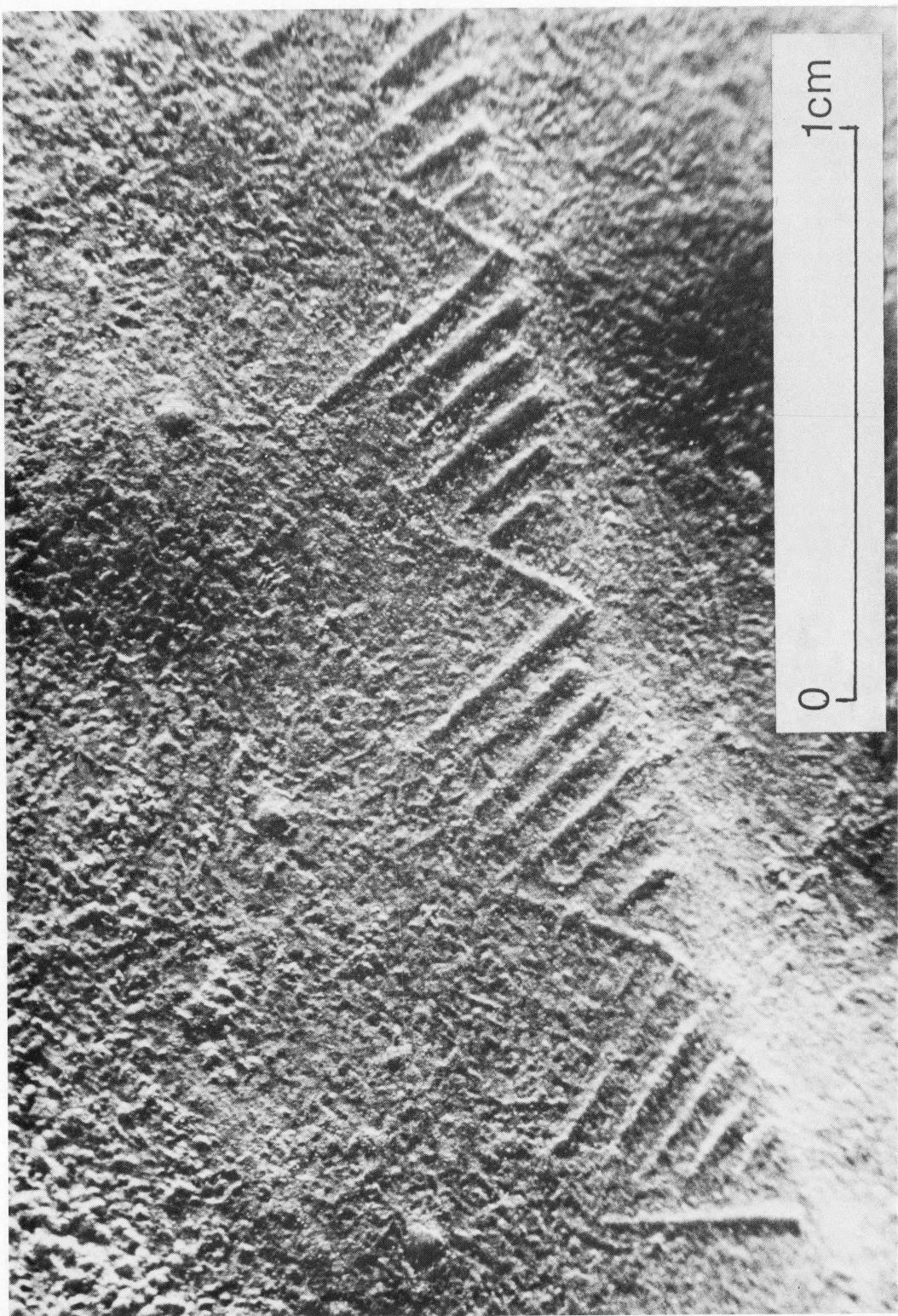


Fig 2. The Coygan bronze strainer fragments after Wainwright 1967. 1/2

a silver drinking cup, a bronze strainer and other goods were accompanied by the remains of a bronze-bound wooden receptacle (Stead 1967).

Belgic finds unfortunately add nothing to our knowledge of symmetrical patterned strainers in Britain. The Welwyn Garden City strainer is an improvised trapezoidal plate ingeniously inserted into an omphalos-based bowl which apparently had been specially converted for straining purposes. This piece appears to be the work of a local craftsman who was no doubt prompted by the absence of a suitable Roman strainer. Continental finds of Augustan-Claudian date from sites such as Haltern and Augsburg (Werner 1954, 72, karte 2) show that Roman strainers of this period were long-handled types but no examples have been found in pre-Conquest contexts in Britain. Belgic ceramic strainers making their debut in Kent, London and Essex in the early 1st century are



Pl 2. Detail of flange decoration on the Thorpe strainer

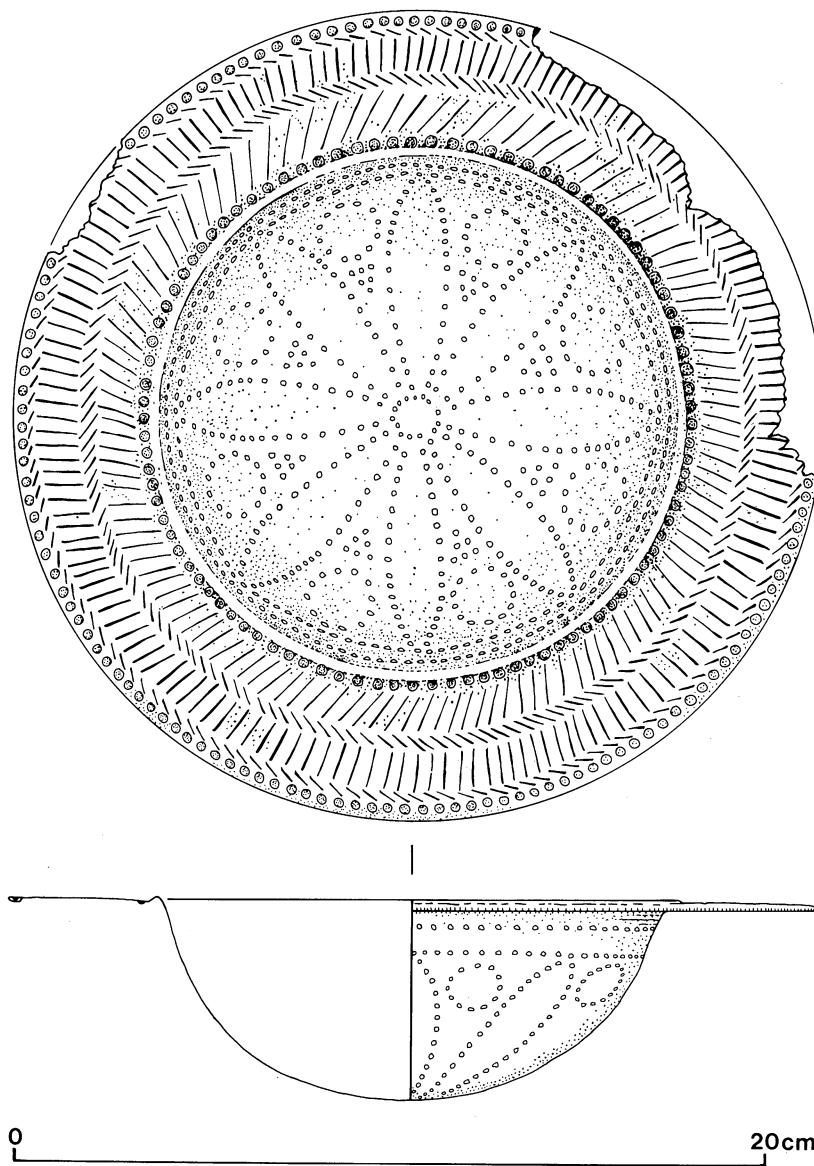


Fig 3. The bronze strainer from Marston Moor (with minor areas of damage restored). 1/2

inelegant wide-mouthed bowls (Thompson 1982, 558–9). These certainly appear to be a domestic design modified to serve as a colander rather than to fulfil wine serving requirements.

In the late 1st century AD Roman long-handled strainers of the oar-handled type were introduced into Britain along with complementary skillets and paterae with which they were designed to fit. Kennett (1968, 32–3) notes that the handles of these strainers were of poor design: a fact attested by the broken and detached handles found at London, Verulamium, Rudchester, South Shields and Castle Dykes.

It is interesting to observe that it is amongst the paterae and strainers of the late 1st century AD that our symmetrical flanged bronze strainers occur. At Coygan Cave (Curtis 1871; Wainwright 1967), an example was found with a patera of the disc terminal handle type: a style produced by the

Capuan manufacturer Cipius Polybius and others in the late 1st century AD (Den Boesterd 1956, 7–81). The example in this case seems to have replaced the Capuan long-handled strainer which we might assume to have broken in the characteristic manner noted by Kennett. An alternative view might associate the patera and strainer merely as scrap. Paterae of this Capuan type are known to have persisted in use well into the 2nd century AD.

The 1st/2nd century AD association at Coygan seems to be confirmed at Helmsdale. Here the flanged strainer (fig 4; pl 3) was accompanied by a broken oar-handled strainer which it may have been intended to replace. The remaining five items in the Helmsdale hoard were atypical bronze

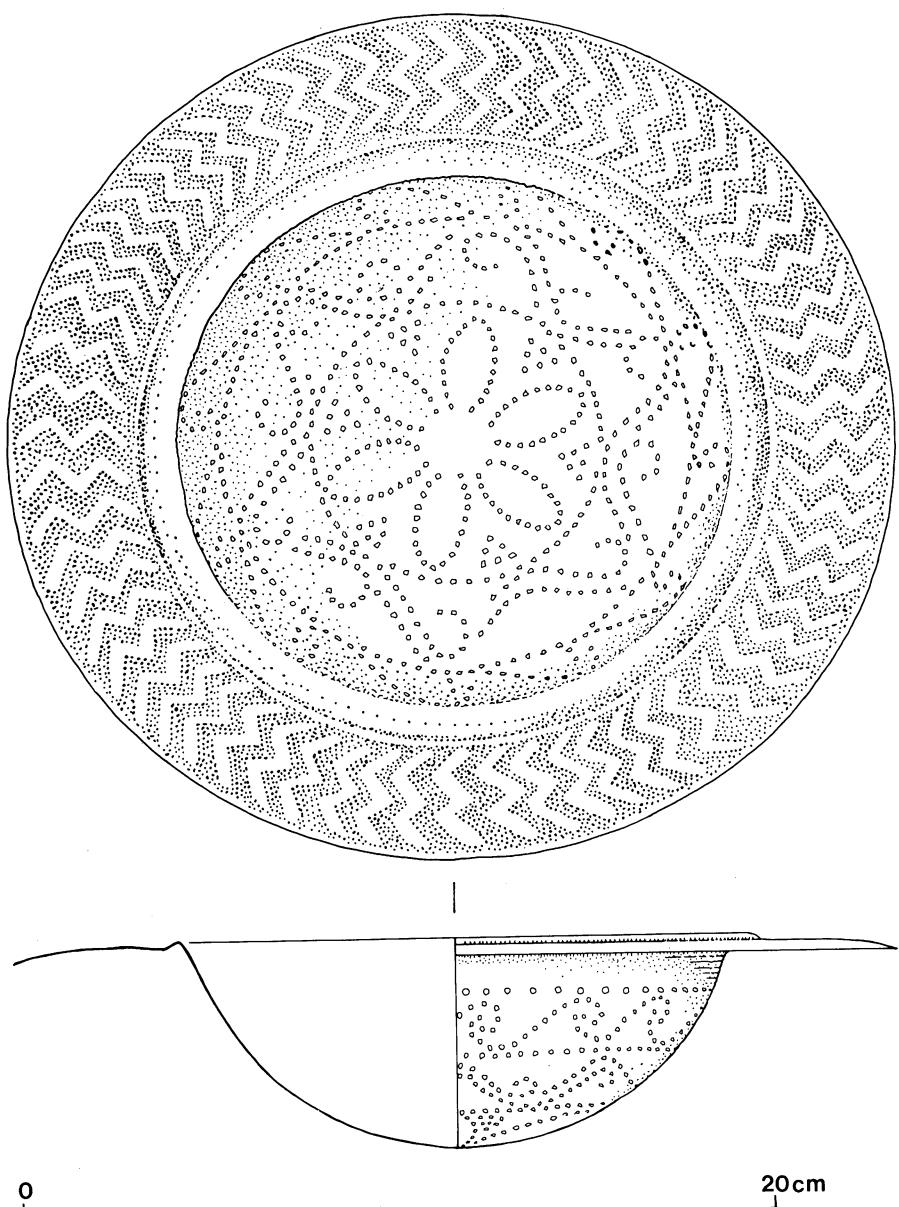


Fig 4. The Helmsdale strainer. 1/2



Pl 3. The Helmsdale strainer viewed from above and side. (Diam approx 24cm)

bowls which have never been accurately dated. A date in the late 1st/2nd century AD seems to be generally accepted on the strength of the oar-handled strainer (Curle 1931, 308–9; Kennett 1968 32–3; Robertson 1970, 207). When the hoard was found the strainers and bowls lay packed inside each other but they nevertheless represent an ad hoc collection (Joass 1886, 214). We are moreover still deprived of the vital identity of the container for which the flanged strainer was intended, for the Helmsdale example fits none of its accompanying vessels.

In the latter half of the 2nd century AD, one symmetrical form of strainer or colander is to be found persisting as a narrow-flanged coarseware vessel in use in Votadinic territory at Inveresk, Midlothian (Gillam 1968, 34, 72, form 348).

Flange decoration

It would appear from the associations at Helmsdale and Coygan that the flanged bronze strainers of the Thorpe type were employed with paterae or skillets of the late 1st century AD in the popular Roman practice of preparing and serving fermented drink. A study of the flange decoration

suggests, however, that the archaic prototypes for our strainers should not be entirely ignored. At Marston Moor and Helmsdale both flanges are decorated with a similar design of incised chevrons (figs 3 & 4). At Marston Moor the chevron arms are distorted to accommodate a single line of repoussé indentations set at the inner and outer borders.

The regard for border decoration is repeated at Coygan (fig 2) where single narrow lines of finely engraved chevrons are restricted to the inner and outer edges of the flange. (The Coygan decorations has been described as being on the underside of the flange (Wainwright 1967, 86–7) but the bowl of the strainer has long been detached and this anomaly could consequently be the result of mistaken reconstruction.)

The striking feature of these three strainers is the simple and poorly executed geometric decoration used on the flange. Like the Cerrig-y-Drudion stamnos lid (Stead 1982) this flat annular field is ripe for curvilinear decoration but on all four strainers this opportunity has been ignored in favour of rigid geometric designs which are a commonplace and provide little evidence of the stylistic school followed by the strainer maker. The motif employed on the flange of the Thorpe piece is similarly unhelpful. In this case accurately spaced hatched triangles have been carefully confined to the borders of the flange. Each triangle points towards a finely punched dot (pl 1 & 2).

Whilst these particular motifs are well-attested amongst such items as the Wisbech scabbard, the Trelan Bahow mirror and shield no 2 at Tal-y-Llyn (Fox 1958), their obvious and simple design means that a specific British Iron Age ancestry for the decoration on the symmetrical bronze strainer cannot be argued with conviction. The use of both chevron and triangle motifs on certain North Italian bronze vessels demonstrates that the same style of decoration was similarly employed in Roman as well as Celtic metalwork and could be readily imported in the 1st century AD.

The relevant North Italian examples of engraved geometric motifs are to be found on certain



Fig 5. Distribution of symmetrical flanged bronze strainers

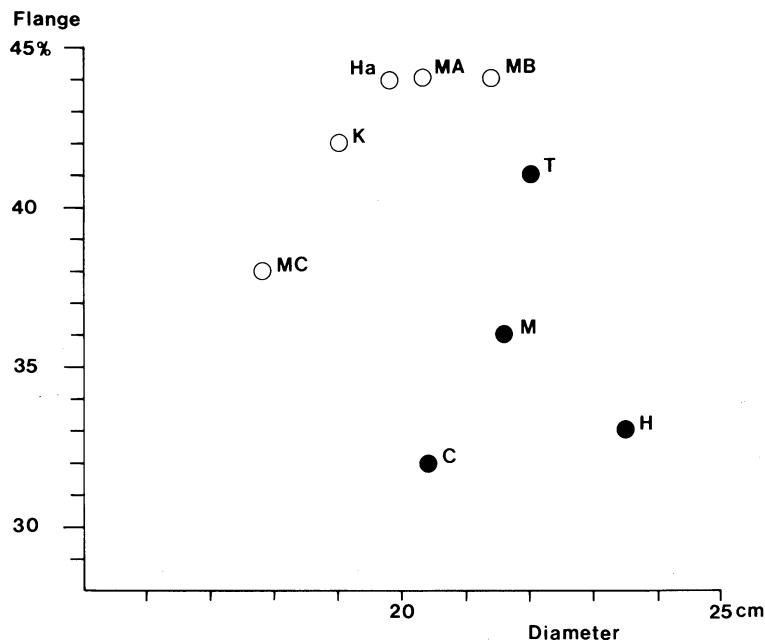


Fig 6.. Flange/diameter proportions in symmetrical bronze strainers (solid circles) and shield bosses (open circles). Strainers are identified by first letter of site. Shield bosses from Mainz are prefixed M. Those from Halmeag (Romania) and Kirkham (Lancashire) are Ha and K respectively

saucepans and dippers of a type which also occasionally occur in early 1st century AD contexts in northern Europe. A detached handle from Magdalensberg (Werner 1956, 62, Abb 7.9) and a bronze dipper in the Rijksmuseum G M Kam at Nijmegen are engraved with dot-punctuated triangles which resemble the decoration at Thorpe. A bronze saucepan in the same museum bears a small panel of incised chevrons which are reminiscent of the Helmsdale and Marston Moor flanges (Den Boesterd 1956, cat nos 4 & 46). The bowls of these and other vessels of this type display the same notable thinness which denotes a production technique similar to that employed for the strainers.

Perforation patterns

The traditional nature of the perforation patterns in the four flanged strainers deserve some attention. The symmetrical patterned strainers of the 6th and 5th century BC show a common use of central rosette motifs. The leaves of these early rosettes seem to be blunted at their extremities to produce a wheel-like effect. The eight-leaved rosette at Duvanlij is composed of individually spaced leaves (Filow *et al* 1934). At Vix the lines of holes demarcating the individual leaves coalesce to form a wheel with 24 spokes.

Rosette designs persist into the Roman period where they appear indistinguishable from early work. The spoked wheel motif used at Vix for example can be found some 700 years later on a handled strainer at Nijmegen which is dated to the 3rd century AD (Den Boesterd 1956, cat no 59, pl 3). At Helmsdale and Marston Moor six and eight leaved rosettes respectively occupy the centre of the strainers. The pointed leaves of these motifs find no ready analogies in either early or late work.

Three features present in our strainers can be readily matched with Roman designs. At Helmsdale the central motif is surrounded by a border decoration of running scrolls (fig 4; pl 3). This design, in slightly varied form, is to be found on a number of Roman strainers including some Pompeian examples with bi-convex grips, a 3rd-century strainer at Nijmegen (Den Boesterd 1956, cat no 60) and 4th century strainer in the Irchester hoard (Kennett 1968, fig 9).

Roundel motifs are employed at Coygan, Marston Moor and apparently at Thorpe. Roundels do not seem to occur on early strainers but they are most certainly to be found on some late Romano-British ones. Although set in a more formal arrangement, the double walled roundels on the Irchester strainers provide a useful comparison for those at Coygan.

A technique frequently used to improve the efficiency of some Roman strainers involves the judicious adding of triangular groups of holes. Examples occur on the strainers with running scroll patterns at Nijmegen and Irchester. At Helmsdale, Marston Moor and Coygan triangular settings are also found and these seem to represent a technique which was apparently unknown in pre-Roman times.

Although the study of perforation patterns reveals no incontrovertible link with specific early or late strainers it does identify some individual motifs which may be traced in some late examples. These would seem to confirm a Roman date for our strainers.

Discussion

The form of our strainers and the style of their decoration suggest that the possibility of commissioned work from a single workshop deserves serious consideration. In support of such a case it may be significant that despite the widespread use of both paterae and strainers on military sites in Britain and Gaul, no other examples of the symmetrical flanged typed have yet been found.

For the flanged sheet bronze of which the strainer is composed there is an interesting analogy to be found in a group of 1st century military items. The relevant artefacts are a group of five thin beaten bronze shield bosses, three of which have been recovered from Mainz where they are equated with the presence of *Legio XXI* (Klumbach 1966). Their overall diameter, shape and proportions match closely with our strainers although a greater uniformity in flange proportion may distinguish the two groups (fig 6). If improvisation was devised in a legionary workshop in Britain, then the shield boss option was evidently discounted during manufacture. Certainly the complete flanges of the Thorpe and Helmsdale strainers show that the four stud holes for shield mounting were never made. If the 'underside' decoration on the Coygan strainer is correctly positioned in the reconstruction it is possible, however, that this piece was originally decorated with a shield boss function in mind. Despite the appealing similarity in design the postulated link between shield and strainer remains unsubstantiated.

The short timespan intimated for our British strainers would seem compatible with a single source of production. If we accept the face value of the Roman associations at Coygan and Helmsdale then the work of our strainer makers could tentatively be assigned to the period AD 57 to 87. This would allow for the acquisition of the Capuan patera and the improvised strainer by the friendly Demetae of Pembrokeshire after the subjugation of Wales. Unless, like the Traprain hoard, it was plundered from the south, the Helmsdale strainer could be in Sutherland before AD 87 when Inchtuthil and the northern Highlands were abandoned in the post-Agricolan withdrawal. Curle (1932), MacKie (1965) and Robertson (1970) have, however, commented on a later drift of Roman artefacts into the Caledonian Highlands, particularly during Flavian and Antonine times.

To speculate we may note that the Highland strainers are found in the wake of the XXth legion and could be disseminated by an auxiliary workshop through camp gate trade. An alternative possibility could group the strainers with late Belgic metalwork such as cauldron chains which have been tentatively associated with a Roman scheme to transfer southern agriculturists to Scotland in the late 1st century AD (Piggott 1955).

Conclusion

It would seem from the present evidence that symmetrical flanged bronze strainers were produced in Britain during the 1st century AD as an accessory to Italian style saucepans and paterae, for which they appear to be well suited. Their design may be possibly have been culled from contemporary beaten bronze shield bosses which, like the strainers, were seemingly the product of the military workshop.

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