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Assembling the Full Cast: Ritual Performance, Gender Transgression and Iconographic Innovation in Viking-Age Ribe

By PIETERJAN DECKERS, SARAH CROIX and SØREN M SINDBÆK

Viking-Age iconography is mostly studied through stone sculpture and carvings and through metal dress accessories, which are often poorly contextualised finds. Here we present a new approach by studying an assemblage of casting moulds for figurative dress accessories from an early 9th-century workshop context in Ribe (Jutland, Denmark). We provide digital reconstructions of the fragmented moulds, including ‘Valkyrie’ pendants showing female figures bearing weapons. Comparable finds are mainly found in western Scandinavia, and the motifs demonstrate familiarity with images from Classical Antiquity and the Carolingian Renaissance. By highlighting iconographic and stylistic parallels with the tapestries of the Oseberg ship burial, we apply a novel perspective to the discussion of the armed woman motif and other Viking-Age figurative art. We argue that the common theme of the images is not the portrayal of heroic or mythological beings, but is instead ritual performance, in which women played a central role. We also consider the implications of the urban production context for this group of objects.

Viking-Age iconography has received much attention, for example through the study of Gotlandic and Anglo-Scandinavian stone sculpture, metalwork and the glimpses of preserved art on less durable materials, such as cloth and wood in the Oseberg ship burial (Norway). Numerous attempts have been made to decode these images and to relate them to myths, including those transmitted in the Eddic poems. In recent years, a growing corpus of metal ornaments have emerged through the steadily expanding practice of private metal detecting. This has revealed a number of previously rare or unknown figurative ornaments, often serving as pendants, which are commonly interpreted as amulets. Many show extraordinary iconographic detail in a naturalistic style that was long considered uncharacteristic of Viking-Age art, but their sheer number and wide distribution necessitate revising that assumption.

1 Maritime Cultures Research Institute (MARI), Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium. pieterjandeckers@gmail.com
2 Centre for Urban Network Evolutions (UrbNet), School of Culture and Society, Aarhus University, Moesgaard Allé 20, 4230, 2nd floor, DK-8270 Højbjerg, Denmark. markes@cas.au.dk
3 Ibid, farksm@cas.au.dk
4 Schetelig 1920; Bailey 1980; Lang 1984; Helmbrecht 2011; Wilson 2018; Oehrl 2019; Vedeler 2019.
5 Eg Price 2006.
6 Fuglesang 1989; Zeiten 1997; Gråslund 2007; Pedersen 2009; Jensen 2010.
7 Wicker 2003; Graham-Campbell 2013.

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Particular interest has been stirred by female figures bearing weapons, conventionally labelled ‘Valkyries’. These images have been studied in the context of Old Norse religion and myth. Recently, the identification of the deceased in the Birka weapon grave Bj. 581 (Björkö, Sweden) as female has aroused debate on these and other representations of women with weapons in Viking-Age art. The corpus of metal finds, however, has offered little context to guide interpretation.

This paper presents a new approach. Recent excavations in Ribe (SJM3 Posthustorvet, 2017–18) revealed an assemblage of casting moulds for two-dimensional figures similar to those known from detector finds, including an armed woman, a male figure, horses and miniature objects. The finds relate to a workshop that was active during a short period in the first half of the 9th century, thus offering an association and context for this otherwise weakly contextualised group of finds. In spite of the ‘Nordic’ appearance, we demonstrate that details link them to Classical imagery transmitted through coins and other Roman-period images, partly through the lens of Carolingian re-interpretations. This marks an example of cultural recycling, which would have complemented the intensive reuse of Roman materials such as glass and metals (largely imported from the Frankish Rhineland) documented in Ribe and similar early-medieval production sites. As meeting places for inspirations from Western Europe and Scandinavia, we suggest that emporia were quintessential loci for the cultural innovations seen in these images. Noting a particularly close correspondence with the Oseberg tapestry fragments, we further argue that the common theme of the images is ritual performance rather than heroic tales or mythological beings. We propose that the armed woman seen in these images is best understood as representing a transgression of gender roles performed in a ritual context. We can trace a counterpart in the figure of a man featuring the feminine gesture of gripping hair.

THE WORKSHOP CONTEXT

Over many years, excavations in Viking-Age Ribe have yielded numerous fragments of ceramic casting moulds that produced metal ornaments, a phenomenon well known from contemporary urban sites in Scandinavia. Most are found in strata dating from the late 8th to mid-9th centuries and in some cases are associated with direct evidence for metalworking. The 2017–18 excavations in Ribe, conducted as part of the Northern Emporium Project, unearthed a sequence of 8th-/9th-century workshops, with finds including over 7000 fragments of casting moulds. The finds hold major potential as contextual anchoring points for artefacts and designs in Viking-Age Scandinavia.

Most of the moulds discussed in this paper were found either associated with a workshop in Construction K23 or displaced in younger contexts and linked with the workshop through refitted glass and pottery sherds (Tab 1). They occurred together

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8 Vang Petersen 2005; 2010; Plochov 2007; Pedersen 2009, 296; Helmbrecht 2011; Gardela 2013, 301–4; 2018, 402–8; Pentz 2018.
9 Price et al 2019.
10 Cf the critique by Callmer 2008, 185, 204; more strongly worded by Jensen 2010, ii, 26–9.
11 Drescher 1983; Callmer 2002; Ambrosiani 2013; Pedersen 2016.
12 Brinch Madsen 1984; Feveile 2002; Croix, Neiß et al 2019.
13 Croix, Deckers et al 2019; Croix, Deckers et al forthcoming.
**Table 1**
Overview of the casting moulds depicted and discussed in this article.

| Mould impression | Site          | Number of fragments | Minimum number of distinct moulds | Minimum number of distinct models | SOL* artefact nos                          | Associated construction (site phase) |
|------------------|---------------|---------------------|-----------------------------------|-----------------------------------|-------------------------------------------|---------------------------------------|
| Armed woman      | SJM3 Posthustorvet | 10                  | 3 (one with double impression)    | 1                                | 200303569, 200303572, 200303574            | K23 (F11)                            |
| Hair-gripping man| SJM3 Posthustorvet | 4                   | 2                                 | 2                                | 200300193, 200302087, 200302312, 200302353 | K31 (F12)                            |
| Riderless steed  | SJM3 Posthustorvet | 8                   | 6                                 | 1                                | 200299911, 200299914, 200299922, 200302435, 200302441, 200302442, 200303466, 200304451 | K23 (F11), K24 (F12)                 |
| ASR 4M75         | Kunstmuseets Have | 3                   |                                   |                                  | 200031070                                  | N/A                                   |
| Miniature shield | SJM3 Posthustorvet | 2                   | 2                                 | 2                                | 200303523, 200304451                       | K23 (F11)                            |
| Miniature sword  | SJM3 Posthustorvet | 1                   | 1                                 | 1                                | 200304454                                  | K23 (F11)                            |
| Miniature wheel  | SJM3 Posthustorvet | 1                   | 1                                 | 1                                | 200304937                                  | K22 (F10)                            |

*Referring to <sol.sydvestfyskmuseer.dk>.
with moulds for a range of common metal ornaments, including more than 40 mould fragments for oval brooches, a few for round, equal-armed and cross-shaped brooches and, possibly, dress pins. A few fragments bearing the partially preserved impressions for pendant lugs or catch plates were present in the same contexts as the figurative moulds. The building phase where these finds were concentrated is dated to the 810s and 820s AD and appears to have been a multifunctional structure used both as a dwelling and for craft production. Its inhabitants had international contacts, attested through segmented beads imported from the Middle East and numerous finds from the Middle Rhenish/Frankish regions, such as sherds of Tating and Badorf ware and glass beakers.

VIRTUAL RECONSTRUCTION USING 3D SCANNING

The metallurgical process employed at the workshops in Ribe involved single-use ceramic moulds from reusable models. Most moulds were broken up and discarded after one use; consequently, few moulds have survived in a complete state. In most cases, only small parts of each individual mould are preserved. However, as fragments from several castings of the same model often occur, digital 3D reconstruction has made it possible to virtually assemble relatively complete reconstructions of the models.

Methods employed in the past to reconstruct such objects include physical reconstruction of fragmented items, photographs, reconstruction drawings, wax and silicone rubber casts, and, most recently, 3D scanning. We adopted 3D scanning using a 3Shape D1000 Blue LED multi-line lab laser. The scans were processed to document the casting mould fragments and to combine fragments from different moulds in order

14 Brinch Madsen 1984.
15 Eg Nancke-Krogh 1978; Croix, Neiß et al 2019.
to compare and virtually reconstruct the images impressed on them (Fig 1). The 3D models enable virtual reconstructions of the mould impressions by collating the best-preserved sections of the image from the different fragments. Using this method, we reconstructed several models in high detail: a horse brooch, the so-called Valkyrie pendant and large sections of two different male figurines. In addition, we present single-mould fragments bearing impressions of three different miniature objects.

THE RIDERLESS STEED

DESCRIPTION

Eight mould fragments depict a saddled stallion without a rider. Most impressions show the legs of the animal, but a single mould features a clear impression of the horse’s head and another of the hind parts. Refitted fragments of a single casting mould from an earlier, adjacent excavation (4M75 Kunstmuests Have) retain large parts of the same image except the animal’s lower legs and head. Combined with the new fragments, all originating from the same model, a near-complete image appears of a pacing horse with highly detailed tack: an empty saddle, saddle cloth, reins, breast strap, stirrup, haunch straps and breeching (Fig 2). The older mould was found in a context broadly dated to the 9th century, but it is undoubtedly contemporary with the finds from Posthusstorvet.

TYPOLOGICAL CONTEXT

Comparable artefacts have been found in western Scandinavia (Fig 3, e–g; Appendix nos 94–105), although none can be identified as a product of the Ribe model. Similar ornaments presumably were produced at Kaupang (Vestfold, Norway), as a lead model of comparable shape and detailing was found there. The horse-shaped items are typically interpreted as brooches, although the Kaupang model features parallel lugs on the back similar to those of Class 3 ‘Valkyrie’ pendants, suggesting that it served to cast mounts (as Unn Pedersen proposes) or pendants.

The horse harness depicted is of a widely used type. Breast straps and breechings are part of archaeological reconstructions of harnesses from across early-medieval north-western Europe, which have their origins in Celtic and Roman-period horse tack. In particular, depictions of horses and riders that show a knotted haunch junction are found across the same time frame in several artistic traditions, for instance on helmet plaques from Vendel (Upland, Sweden) and Valsgärde (Uppsala, Sweden), the Oseberg tapestries and illuminations in Carolingian manuscripts, for example in the Golden Psalter of St Gallen and the Leiden I Maccabees manuscript.

As a metal ornament, the Ribe model and its comparanda are part of a long tradition in Scandinavia. Horse-shaped brooches have been subdivided into two classes: highly stylised horses with ‘angled’ legs, which could be interpreted as battling a snake.

16 Croix et al 2020.
17 Brinch Madsen 1984; Nancke-Krogh 1978, 78.
18 Pedersen 2016, 56.
19 Bishop 1988; Fern 2005; Stoumann 2009, 264, fig 148; Fabech and Näsman 2017, fig 5.
20 Helmbrecht 2011, Abb 6, c–h.
and more naturalistic horse silhouettes with various forms of detailing. All feature a baseline marking a walking surface, which supports the openwork legs (Fig 3, a–c). The Ribe horses evidently belong to the second class, the pedigree of which can be traced to Roman-period and migration-period horse brooches in Western and Northern

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21 Nancke-Krogh 1978; Kleingärtner 2003; Callmer 2008, 202.
Europe, although links to Sarmatian and Scythian art have been proposed as well. On stylistic grounds, Scandinavian horse brooches are most often dated around AD 700, but some items were evidently in use much later, as attested by the horses in the elaborate animal art of Style C, found in the 9th-century burial Bj. 854 in Birka. It is also not unlikely that some of the simpler forms continued to be produced into the 8th or 9th centuries. An example may be the brooch of a horse with reins (no saddle) and a simple geometric decoration on the neck that was found in a 9th-century burial near Kaupang.

ICONOGRAPHIC DISCUSSION

The horse carried long-standing symbolism in pre-Christian Europe. A range of cosmological functions have been attributed to it, including that of guardian, fertility symbol and guide of souls to the afterlife. In pre-Viking Scandinavia, horses feature prominently on bracteates, presumably in reference to their role in shamanic travel. Horse images also occur on Viking-Age artefacts that more obviously represent unique, purpose-made amulets. The Ribe horse is thus firmly rooted in an existing ornamental and symbolic tradition. It departs from that tradition, however, in treating the subject in a naturalistic style with realistic anatomy and a highly detailed depiction of the harness, while also avoiding any hint of the animal ornament style seen in earlier versions of the horse motif. Depicting a saddle on the horse is a significant change; it marks the animal out specifically as a trained steed that, given its role in other depictions (see, eg the Vendel-Period helmet plaques), presumably signifies a warrior’s horse. The explicitly male gendering indicated by the genitals of the animal is consistent with recent genetic evidence showing a preference for the sacrifice of male steeds in Viking-Age burials: an association to which we will return.

In its naturalism and detail, the Ribe horse bears a particularly striking resemblance to other contemporary horse depictions, notably the Oseberg tapestries and Carolingian depictions, in particular an illumination of the mounted ‘King of Kings’ in the Apocalypse of Valenciennes (Fig 3, h–i). Despite the very different media, contexts and meanings of the images, the rendering of the harness is remarkably similar, including minute details like the decorative triplet straps dangling from the saddlecloth, which were derived from Roman-period tack. In a Scandinavian context, the Ribe mould thus represents a stylistic as well as an iconographic innovation that was widely adopted in metalwork and other crafts in the first half of the 9th century. While the stylistic similarities to contemporary Carolingian horse images might represent coincidental

References:
22 Simpson and Blance 1998, 275; Wamers 1998, 93–4; Heeren and van der Feijst 2017, 153, 161, 216.
23 Nancke-Krogh, 1978, 184.
24 Olsén 1945, 79–83; Orsnes 1966, 147; 1988; Kleingärtner 2003.
25 Blindheim et al 1999, 35–6.
26 Olsén 1945, 85, Anm 2; Kleingärtner 2003, 129; Orsnes 1988, 98–9; Zeiten 1997, 14; Oma 2016; Vedeler 2019, 65–71.
27 Hedeager 2011, 11.
28 Eg a trefoil brooch fragment repurposed as pendant, with an engraved horse on the back, from Schellenborg, Funen (Denmark) (Beck et al 2019, 72), or sheet-metal horse shapes found together with other amulets (Thunmark-Nylén 2006, 224).
29 Helmbrecht 2011, 316–24.
30 Nistelberger et al 2019.
31 Bishop 1988, 109.
developments, the production context in Ribe, which had close ties to the Carolingian world, suggests common inspiration.

THE ARMED WOMAN

DESCRIPTION

Ten casting mould fragments from four individual impressions depict an armed woman (Fig 4). The figure wears a long dress and ornaments at the neck, which identify her as female by Viking-Age Scandinavian conventions (see discussion below). She carries a round shield with a central boss and a rim marked in double outline. Her lower arm and hand, clutching the hilt of a sword, can be seen at the right edge of the shield, and the tip of the sword, held obliquely behind the shield, emerges above her arm to the left. The elbow of the arm holding the shield is visible to the left of the shield, beneath the tip of the sword. She carries an elaborate helmet with cheek pieces and crest decoration. A spiral at the back of the helmet may indicate a hair knot. The image can be identified as a ‘Valkyrie’ pendant. It forms part of a category of Viking-Age artefacts depicting a female figure, seen from the side. The closest parallels for the Ribe figure are recent finds from Sønderup (Zealand, Denmark) and Rostock-Dierkow (Mecklenburg-Western Pomerania, Germany), displaying a woman holding shield and sword in a similar position (Appendix, nos 29, 33; Fig 7, c). A male figurine from Hedeby also strikes a comparable pose.33

32 See eg sources cited in note 6.
33 Helmbrecht 2011, 115, fig 17c.
Three classes can be identified among the wider group of likely pendants commonly described as ‘Valkyries’, depicting figures in female dress seen in profile (Fig 5): \(^{34}\) Class 1) a single, standing unarmed woman, sometimes holding up a drinking horn (Appendix, nos 1–18); \(^{35}\) Class 2) a single woman carrying a shield, helmet and weapon (including the Ribe figure, Appendix, nos 19–37); and Class 3) a scene in which a similarly equipped female figure presents a horn, with another figure with a feminine hair-style standing by or riding a horse (Appendix, nos 38–84).

The three classes are clearly part of the same semantic field. Elements of these images recur together, for example in a pendant from Tyskerbakken (Randers, Denmark) and a few others from Jutland that feature an armed woman holding a drinking horn in addition to a sword and shield (Fig 7, b). The juxtaposition of female figure and horse rider in Class 3 pendants is also encountered elsewhere in contemporary Scandinavian art, for instance in Birka burial Bj. 825, where a Class 1 pendant is combined with two horse-and-rider pendants or mounts as neck ornaments, \(^{36}\) and in depictions of unarmed

\(^{34}\) Based on a comprehensive study of the material then available, Helmbrecht describes these items consistently as ‘Anhänger’ (2011, 68 and 306–7). The photographic inventory performed for the present discussion confirms the presence of pierced lugs on the back of most ‘Valkyrie’ pendants (a single lug for Classes 1–2, parallel lugs for Class 3). The off-centre position of these lugs towards the top of most artefacts further supports that this category of finds, generally speaking, served as pendants.

\(^{35}\) Further discussed and subdivided in Plochov 2007, 61–2.

\(^{36}\) Arwidsson 1989a.
women offering a drinking horn to a (male) armed rider on 9th-/10th-century Gotlandic picture stones. However, the geographic distributions of these classes differ (Fig 6). As Alexei Plochov observes, Class 1 is found in eastern and northern Scandinavia and the central and eastern Baltic, with a centre of gravity in Sweden. Casting mould finds attest that Class 1 pendants were produced at Birka and Staraya Ladoga (Leningrad Oblast, Russia). The westerly distributions of Classes 2 and 3 are markedly complementary to that of Class 1, covering Denmark, northern Germany and eastern England. They only co-occur with Class 1 in eastern Denmark and the trading site of Truso (Poland). For these classes as well, the find locations of casting moulds correspond with the distribution

37 Ney 2012; date following Imer 2012.
38 Plochov 2007, 61.
39 Plochov 2007, 61; Ambrosiani 2013, 240.
area: the Ribe finds are the only moulds known so far for Class 2, while mould fragments for Class 3 pendants were reportedly found at Hedeby.\textsuperscript{40}

The current absence of relevant finds from Norway, other than two amber pendants depicting unarmed women,\textsuperscript{41} may be skewed by the greater intensity of detector use and finds recording in Denmark. However, in light of the high recognisability of these items, it is not likely that significant numbers of Norwegian ‘Valkyrie’ pendants remain unpublished or unnoticed in private collections. In Denmark, on the other hand, this type of artefact was widely distributed throughout all settled areas.\textsuperscript{42} This connection is strengthened by the pattern observable in Britain, where the finds distribution corresponds to the Danelaw. Several of these English finds appear to be peculiar variants, sometimes of crude craftsmanship and not necessarily serving the same purpose. Like the imitative Borre-style disc brooches produced in the Danelaw,\textsuperscript{43} they are likely local products of the Danish diaspora.

Broadly speaking, ‘Valkyrie’ pendants can be dated between the early 9th and the mid-10th centuries. The corpus consists mostly of single (detector) finds, and as such, the Ribe moulds may be the earliest securely dated examples known. The Class 1 moulds from Birka and Staraya Ladoga are dated to the middle decades of the 9th (c 830–60) and the first half of the 10th centuries, respectively.\textsuperscript{44} Finds of ‘Valkyrie’ pendants and similar items in England, including one from a Viking winter camp near York dated to the mid- to late 870s (Appendix, no 37), further indicate that Classes 2 and 3 lived on during and after Danish settlement in the late 9th century.

ICONOGRAPHIC DISCUSSION

Some details of the armed woman from Ribe correspond to traits known from earlier or contemporary finds. Precedents for the dress and hairstyle of the ‘Valkyrie’ pendants at large (along with the gesture of offering a drinking vessel seen in Class 1) are considered principal markers of femininity on 6th- to early 8th-century gold-foil figures, as well as on picture stones, the Oseberg tapestries and other media (Fig 7, e–f).\textsuperscript{45} The lower dress and train, curving outwards at the back and with a straight border indicating an apron in the front, characterises many of the standing ‘Valkyrie’ figures.\textsuperscript{46} Like in many other ‘Valkyrie’ pendants (especially of Class 1) and female gold-foil figures, small feet with slightly arched soles are visible beneath the hem of the dress of the Ribe figure.

The hair knot at the back of the head, another element encountered in the gold-foil figures, also marks many ‘Valkyrie’ pendants as female.\textsuperscript{47} In the case of the Ribe figure, this interpretation is confounded by the unusual headdress, likely a helmet

\textsuperscript{40} Jankuhn 1937, 123.
\textsuperscript{41} Blindheim 1960.
\textsuperscript{42} Compare with the mapped proxies for Viking-Age population density and the distribution of metal-detector find-spots in Denmark (Gammeltoft et al 2015; Feveile 2015a).
\textsuperscript{43} Kershaw 2013.
\textsuperscript{44} Eniosova 2007, 177.
\textsuperscript{45} Simek 2002, 109–13; Watt 2002; Helmbrecht 2011, 120; Mannering 2016; Vedeler 2019.
\textsuperscript{46} Bau 1982.
\textsuperscript{47} Simek 2002, 97–9; Arvill-Nordbladh 2016. Unlike gold-foil figurines, the hair of the Ribe figure does not fall down from the knot, but this is true for some of the other female figurines from the Viking Age (eg Fig 9b, and the gaming piece from Tromminge: Mackeprang 1935, 242).
At least one other example, found near Ribe, appears to combine a hair knot at the back of the head with a conical helmet or hat (Appendix, no 20). The circular indentations at the neck of the armed woman could represent a string of beads. This element is present on several contemporary female figures, including pendants from Aska (Östergötland, Sweden) and Tuna (Upland, Sweden), and figurines from Hårby, Revninge (both Funen, Denmark), Lejre, and Trønninge (both Zealand, Denmark) (Fig 9,a–b).48 On the other hand, the number and irregular size and shape of the ‘beads’ are more consistent with a large disc-on-bow brooch, commonly associated with high-status female burials. The Ribe image was produced shortly after the time when these brooches saw their largest and most elaborate forms.49 They are depicted on pre-Viking gold-foil figures and on Viking-Age artefacts, including pendants from Aska, Uppåkra (Scania, Sweden), and Havsmarken (Ærø, Denmark) (Appendix, nos 15, 3).50

The helmet of the Ribe figure stands out amongst other depictions of armed women, which often feature a more stylised or ambiguous headdress. The closest comparisons are pre-Viking helmets with cheek pieces and a zoomorphic crest ornament, as well as the depictions of helmeted warriors on sheet-metal plates that

48 Ibid; Henriksen and Vang Petersen 2013; Feveile 2015b; Manering 2016.
49 Olsen 2006; Callmer 2008; Glørstad and Røstad 2015; Heen-Pettersen and Murray 2018, 57; Glørstad and Røstad 2021.
50 Pre-Viking gold-foil figures from Helgö, Sweden: Axboe 1986, fig 3; from Gudme, Denmark: Vang Petersen 1988, 88; from Sorte Muld, Denmark: Watt 2008, 42.
The armed woman and its suggested pre-Viking and Classical iconographic context. ‘Valkyrie’ pendants of Class 2, including the Ribe image: (a) Vrejlev (Appendix, no 30); (b) Tyskerbakken (Appendix, no 21); (c) Rostock-Dierkow (Appendix, no 33); (d) Ribe (reversed casting mould impression). Related Scandinavian imagery: (e) 6th- to 8th-century gold-foil figurine, Sorte Muld; (f) detail of the picture stone of Broa (Halla, Gotland). Roman coins featuring Minerva, and Roman cut gems found in Ribe showing comparable Classical imagery: (g) reverse of a bronze sestertius of Antoninus Pius, Rome, AD 145, type: RIC III Antoninus Pius 1243a/BMC 1776v; (h) reverse of a bronze of Septimius Severus, AD 194, type: RIC IV Septimius Severus 685/BMC 513 A; (i) Post Office, Ribe; (j) Kunstmueets Have, Ribe. Image credits: (a, b) National Museum of Denmark; (c) German Archaeological Institute/Rebekka Kuiter; (d) Image by authors; (e) National Museum of Denmark, CC BY-SA 2.0; (f) Wikimedia Commons/W.carter, CC BY-SA 4.0; (g, h) Numismatics.org/American Numismatic Society, <numismatics.org/collection/1957.172.1745>, <numismatics.org/collection/1951.61.80>; (i, j) Sydvestjyske Museer, artefact nos 200056546, 200042137 <sol.sydvestjyskemuseer.dk>, CC BY-SA 4.0.
decorated crested helmets, for example from Vendel and Valsgärde. The youngest surviving instance of the type, albeit without crest ornament, is the Coppergate Helmet from York, dated to the third quarter of the 8th century.51 Comparable helmets with crest ornament are worn by figures on the Franks Casket, an early 8th-century Northumbrian product,52 and on the 8th-/9th-century rune stone from Sparlösa (Västergötland, Sweden).53

No contemporary examples of helmets are known, and 10th-century helmets, most notably from Gjermundbu (Buskerud, Norway), no longer have cheek pieces or a zoomorphic crest ornament.54 However, given the 8th-century examples, crested helmets with cheek pieces could still have been in use when the Ribe ‘Valkyrie’ was designed.55 Furthermore, ancient helmets occasionally feature as heirlooms of a bygone, heroic-age figure in later skaldic poetry.56 Like the possible disc-on-bow brooch, the armed woman’s helmet could be read as a deliberately archaic attribute denoting high status and referencing an idealised past. Neither swords nor shields are seen in depictions of women in earlier Scandinavian iconography. The rounded pommel of the sword of the Ribe figure conforms to contemporary 9th-century types.57 The round shield is also a typical 9th-century form, as seen in the Gokstad ship burial (Vestfold, Norway).58

While individual traits such as the antiquated helmet may have arisen in various ways, the general pose and composition of the image suggest Classical Roman imagery (Fig 7, g–j). Common types of sestertii and asses feature images of female deities such as Minerva and Roma on their reverse, standing or seated, wearing a crested helmet, holding up a shield and/or brandishing a spear or staff, an iconography copied from the Greek image of Athena as warrior maiden.

Roman coins have been found in Viking-Age contexts from Ribe and its immediate vicinity and at other North Sea trading sites.59 They may have remained in circulation or have been extracted from Roman sites as raw material for crafting, together with glass and other metal artefacts.60 Similar imagery could have been encountered in other categories of Roman artefacts attested in Ribe. These include cut gems, of which ten examples have been found so far (Fig 7, i–j), and copper-alloy statuettes, represented in Ribe by a single fragment of scrap.61

The crested helmet worn by the Ribe figure is strongly reminiscent of these Classical templates. The similarity is strengthened by the long dress and round shield common to both images. The influence of Classical motifs — often found on coins — in post-Roman Scandinavian art has been suggested in other instances. The figures on the Class 3 ‘Valkyrie’ pendants have been linked to the

51 Tweddle 1992.
52 Webster 2012.
53 Norr 2009, 87.
54 Tweddle 1992, 1125–8.
55 It is also worth noting that the Coppergate helmet was deposited about a century after its production.
56 Norr 2009.
57 Petersen 1919.
58 Nicolaysen 1882, pl VIII, 7.
59 Ribe: Feveile 2006a, 284–5; Horsnæs forthcoming. Other sites: eg Dorestad, Netherlands: Van Es and Verwers 2009, 258; Hedeby, Germany: Wiechmann 2007, 200–1.
60 Fleming 2012.
61 Melander 1991; 2001; Frandsen and Jensen 2006, 31–2.
Classical *adventus* motif depicting the ceremonial arrival of the emperor.\(^{62}\) The horn held by ‘Valkyrie’ figures could similarly relate to Classical female deities carrying a cornucopia.\(^{63}\)

Like the ‘riderless steed’, the armed woman belongs to an existing Scandinavian tradition but was executed in a more detailed, naturalistic style. While related to the image of a woman carrying a drinking vessel seen in earlier and contemporary eastern Scandinavian pictures, it represents a striking re-imagination of this theme inspired by Classical iconography. Whether we understand the figure as representing a mythological being or something else, this combination would imply a transgression of normative gender roles, as warfare is typically portrayed as a male pursuit in skaldic poetry and commemorative runic texts.\(^{64}\) To contextualise the nature of this transgression, we must turn to the remaining items in the ensemble of casting moulds.

**THE GRIPPING MAN**

**DESCRIPTION**

Four further mould fragments from Ribe can be reconstructed as the impressions of two or three distinct but similar models (Fig 8). The depicted figure is male, based on its prominent, drooping moustache as well as its characteristic dress style consisting of breeches or narrow trousers and a tunic hanging down to the upper legs, constricted at the waist by a belt. The figure’s hands are raised to the sides of the head, gripping at lines protruding from his temples — likely his hair. The triangular head is further marked by large, round eyes and a rounded chin (beard/protruding tongue/dropping jaw?) without any detailing.

**TYPOLOGICAL CONTEXT**

There are no closely comparable images to this type among Scandinavian metal finds. The figure may have served as a pendant like the well-known hair-gripping ‘Freyja’ figurines and more singular (female) figurines from Hårby and Revninge (Fig 9). Few other finds provide parallels for the figure’s gesture. A detector find from Hedeby frontally depicts a man with hands raised to the temples of a large head tapering towards the chin.\(^{65}\) The lower body of the figure is missing. A figurine from an uncertain location at Seljord (Telemarken, Norway) strikes a pose similar to the Hedeby figurine.\(^{66}\)

**ICONOGRAPHIC DISCUSSION**

From an iconographic standpoint, the gripping man from Ribe can be read as a combination of common pictorial features. These include frontally depicted figures with raised arms, horned figures and male faces with prominent moustaches, often beardless,

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62 Vierck 2002; Lundin 2006.
63 Arwidsson 1989a, 58.
64 Jesch 2001.
65 Helmbrecht 2011, 153, fig 34j.
66 Anon 1930, 208.
all of which can be traced to at least the Late Iron Age.\textsuperscript{67} The large eyes, moustache, beard and/or dropping jaw, meanwhile, are similar to ‘mask’ pendants and images, which are common in later Viking-Age art.\textsuperscript{68} Strikingly, these facial features recur in other artistic products from Ribe (Fig 10, g–j); they closely resemble a lead model discovered as a stray find in Ribe and 16 moulds from an older phase at Sct Nicolajgade 8 in Ribe.\textsuperscript{69} These figures are sometimes interpreted as Odin due to the horns or birds above his head. A wide-eyed, frontal face sporting a moustache also features on coins probably minted in Ribe (see below).

Situated within Viking-Age iconography, the most straightforward explanation of the figure’s gesture appears to be that it is gripping strands of hair extending

\textsuperscript{67} Helmbrecht 2011; Pesch 2017.

\textsuperscript{68} Helmbrecht 2011, 223–9.

\textsuperscript{69} Stray find: Jensen 1990. Sct Nicolajgade: Frandsen and Jensen 1987, 180–2; Croix, Neiß et al 2019, 7–9.
from the side of the head. The hair-gripping theme is best exemplified by the ‘Freyja’ pendants representing a frontally depicted woman with raised arms, holding up strands of knotted hair. Several of these are shown with wide open mouth, parallel to the Ribe ‘Odin’ model, and, if we take into account that the mouth could be drilled open after casting, perhaps this was also done to the figure discussed here. The theme of gripping one’s own hair, moustache or beard — or even biting it — appears to have been introduced in the Viking Age: the earliest dated instances of hair-gripping are from the 9th century (besides the Ribe examples, in Vendel burial IV). 

70 Eg from Tisso, Denmark: Wamers 2017; Pentz 2018, 19–21.
71 Arwidsson 1989a, 59; Helmbrecht 2011, 138–40, 154–6; Thirup Kastholm 2015.
Casting the net wider, continental and Classical inspirations can be identified, as with the armed woman motif (Fig 10, a–f). Anna Gannon has suggested that the face on the 8th-century ‘Wodan/Monster’ sceattas, used and likely minted in Ribe, might be inspired by depictions of the god Oceanus’s bearded face and/or of the Gorgoneion (Medusa’s head) on Athena’s shield, as mediated through Roman and early-medieval tradition. A wide-eyed, frontal face with moustache and, arguably, open mouth are shared with the common group of the so-called mask images, for which a Classical origin has also been proposed. Examples such as Fig 10j show the typical traits used to identify a mask since antiquity: large open eyes and mouth, both needed to perform with the mask. If the similarity to these objects is accepted, the gripping man may thus be seen as a prototype for a common motif in Viking-Age art. The hair-gripping gesture has been related to images of the goddess Venus, similarly depicted holding up her hair (Venus Anadyomene) or a veil as a symbol of femininity. A version of this image is seen on a Roman gemstone found in Ribe (Fig 10, d). Venus’s seductive hair-gripping posture was cited by Insular and Carolingian depictions of mermaids, symbols of female temptation and vice in, for instance, the Psalter of St Riquier, dated to AD 795–800.

Like the armed woman, the gripping man appears to be a deliberately disguised, gender-transgressive image. This is borne out by the Classical and Carolingian associations of the image, but also by contemporary Scandinavian iconography, such as the more common female hair grippers (Appendix, nos 85–93), and the frontally depicted faces featuring both (male) moustaches and (female) knotted strands of hair seen on equal-armed brooches from southern Scandinavia. In the wider context of the Ribe mould assemblage, then, the gripping man is not a singular figure, but part of a wider theme.

**MINIATURE OBJECTS**

Five mould fragments show fragmentary impressions of a miniature sword, shield and wheel (Fig 11). Early 9th-century sword miniatures are rare. In his catalogue of Viking-Age amulets from Scandinavia, Bo Jensen lists three or four that might belong in the first half of the 9th century on the grounds of sword typology, with three more that could be of similar date based on their context. The cross-guard visible on the Ribe sword miniature (Fig 11, b) matches several sword types that were current in the early 9th century.

Shields are the most common form of Viking-Age miniature weapons, and are found in Scandinavia, northern Germany, further afield in the Baltic Sea region, and possibly in England. Most are produced from silver sheet-metal and date to the 10th and early 11th centuries. The Ribe shields (Fig 11, c), one of which was impressed on a mould also featuring a riderless steed (see Fig 2, a), were likely cast in copper alloy.

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72 Gannon 2015.
73 Wamers 2018.
74 *Venus Anadyomene*: Wamers 2017.
75 Leclercq-Marx 2014, ch 3.
76 Helmbrecht 2013, 20–1.
77 Jensen 2010, 47–9.
78 Petersen 1919; Peirce 2002.
79 Duczko 1989; Zeiten 1997, 18–19; Jensen 2010, 49–51; Gardela and Odebäck 2018.
Apart from the hub, the field furthermore lacks decoration such as the characteristic ‘running wheel’, although this could be added after casting. Miniature shields (and other weapons) have a long history in NW Europe, with finds attesting to their use before and during the Roman period and in the centuries before the Viking Age. Together with a small number of Danish finds of miniature shields apparently cast in copper alloy, the Ribe shields thus form part of a long-standing and widespread tradition, which peaked in the 10th century.

A final casting mould impression preserves about one quarter of a disc shape, which in complete form featured 12 radial Y-shapes surrounding a prominent hub and set within a broad, flat rim (Fig 11, a). Similar pendants are found across Scandinavia, dating broadly from the mid-9th to the late 10th centuries. The Y-shape of the spokes and the lack of decoration of the Ribe mould impression are unusual among the dozen known other examples, but the consistent number of 12 spokes and the existence of at least one other example with a bare rim (Vindinge, Zealand, Denmark) allows us to identify this as a mould for a miniature wheel pendant.

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80 Meaney 1981, 149–62; Duczko 1989; Simpson and Blance 1998, 277; for swords, see Näsman 1973; Capelle 2003.
81 Two from Tisso: Gardela and Odebäck 2018, 126, nos 40–1; two from Æro: DIME IDs 6285 and 38212; one from Hornum: Gardela and Odebäck 2018, 126, nos 35; one from Aggersborg: Pedersen et al 2014, 288–9; one from Hjørring: DIME ID 22049.
82 Jensen 2010, 63; also see Krogh 1970; Callmer 1989, 28; Zeiten 1997, 22–3.
Miniature weapons are widely considered to have amuletic significance. They are typically (but not exclusively) found in female burials, and have been interpreted in a multitude of ways with reference to both pagan and Christian belief systems. That miniature wheels were used as pendants is evident from finds in two female burials in Birka. Like the weapons, no single satisfying possibility has been offered to explain their meaning (including as sun symbol, circle of life, a reference to funerary wagons). As Jensen notes, known Nordic mythology contains no obvious references to wheels. Its origin may stretch back to the Scandinavian Bronze Age, but wheel pendants were also used during the Early Middle Ages in Western and Eastern Europe. Wheels, shields and swords occur widely in the same media as the human and horse figures discussed above. The examples from the Ribe moulds share the naturalistic style of the latter. While individually they give only limited clues for interpretation, we will argue that they share a broadly understood set of associations with the more elaborate figures of the assemblage.

DISCUSSION: THE FULL CAST

AN ICONOGRAPHIC ASSEMBLAGE

The casting moulds from Ribe are coherent in a physical sense; they originate from the same context, share stylistic similarities, and in some cases feature matching impressions of the same (types of) models across moulds. Regardless of their precise relation to Nordic or Christian beliefs, there is a consensus that an amuletic function can be attributed to the types of objects produced from these moulds. Furthermore, judging by the burial record across Scandinavia, typologically comparable finds, as well as amuletic items more generally, appear largely restricted to a use by (or at least deposition with) women, for example in Birka. Sometimes, elements of the assemblage occur together, like the suspension rings combining horse-shaped pendants and miniature weapons from female burials in Gotland. In addition to this consistent use context, several of the images are associated with others by their iconography. The miniature sword and shield recur with the armed woman. The riderless steed gains meaning through the recurring juxtaposition of horse(-rider) and (armed) woman in Viking-Age art.

It stands to reason that the artisans of Ribe who produced and used these moulds considered the images as united by some overarching context or narrative. Other instances of Viking-Age art rarely offer such an opportunity to study a coherent set of imagery. Amongst the few other iconographic assemblages, the Oseberg tapestry fragments are of particular importance as a point of reference. The similarity in the iconographic range and detail between the Oseberg tapestries and the Ribe

83 Gardeł and Odeback 2018, 82 and references.
84 Zeiten 1997, 17–19; Jensen 2010, 45, 49–51; Gardeł and Odeback 2018, 87, 101–3 and references therein.
85 Callmer 1989, 28.
86 Zeiten 1997, 23.
87 Jensen 2010, 63.
88 Krogh 1970; Meaney 1981, 225; Werbart 1996, 205.
89 More generally, see Zeiten 1997, 39; Jensen 2010, 106.
90 Thunmark-Nylén 2006, 224.
91 Kleingärtner 2003, 129; also see Arwidsson 1989a, 58–9.
moulds is striking (Fig 12) and incidentally forms a strong argument for the contemporaneity of both:92 the tapestries depict both women with weapons, masked figures and horses with riders and harnesses, the details of which match those of the riderless steed. In addition, we can point to the wagons depicted on the tapestries — to which the miniature wheel may allude. Furthermore, the tapestries include depictions of men with horned headdresses represented in Ribe moulds and metalwork finds from previous excavations. Other motifs on the tapestries, such as ‘weapon dancers’, are apparently not represented in the Ribe assemblage and occur only rarely in the wider corpus of Viking-Age ornamental metalwork.

While the picture stones from eastern Sweden and Gotland are important points of iconographic reference for Viking-Age art in general, they have less in common with the Ribe moulds. This observation might be explained by cultural heterogeneity within Scandinavia, as evident for instance from the distribution of pendants and other metalwork discussed here (see Fig 6). The contextualisation in the Oseberg tapestries suggests a new understanding of the meaning of the moulds’ imagery. On the tapestries, the armed women, weapon dancers, masked figures and other images appear in what has

92 Contra Vedeler (2019, 117–23), who suggested that due to the presence of seemingly archaic imagery, the Oseberg tapestries were included in the burial as an old heirloom. The Oseberg burial has a dendrochronological date of AD 834 (Bonde and Christensen 1993).
been interpreted as a large collective ritual, perhaps a ceremonial procession.93 Symbolic inversions challenging and transgressing moral and social norms, for example through masking or cross-gender dressing, are known from communal rituals and festivals across historical and cultural contexts.94 Therefore, as an assemblage, the mould images may not necessarily or primarily form direct reflections of mythological beings or concepts. Nor are they likely to simply depict social roles, such as that of female warrior, regardless if these existed. We suggest instead that they referred to practice and bodily performance in ritual contexts.95

This interpretation aligns with an idea previously suggested by Neil Price with reference to Viking-Age figurative metalwork, noting that, ‘perhaps very few of these objects were religious at all, might they represent ordinary men and women in extraordinary situations that required unusual clothing or dress?’96 A performative — as opposed to a purely mythological — explanation has been put forward for other forms of Scandinavian iconography, such as the Class 1 pendants depicting a female figure offering a drinking horn, or the weapon dancers and shape shifters found in pre-Viking imagery and in the Oseberg tapestries.97 Gold-foil figurines may depict aspects of shamanic performance.98 The grimaces and convulsive gripping seen on ‘Freyja’ figurines have been explained as physical expressions of shamanic trance.99 More broadly speaking, the gender transgression and ambiguity seen in ‘Valkyrie’ imagery may have been linked to magical practices.100

Many functions for such ritual reversal have been suggested, including magic, social catharsis, identity construction and re-affirmation of social order.101 That is not to say that the imagery was devoid of any narrative significance. Ritual performance is often woven into the recitation or re-enactment of mythological stories,102 and figurative artefacts could well serve as hooks for storytelling.103 One instance, often invoked to explain the iconography of the woman-and-rider pendants and comparable meeting scenes on Gotlandic picture stones, is the meeting between Sigurd and the Valkyrie Sigrdrífa/Brynhildr, as recounted in Sigrdrífunál in the Poetic Edda: Sigurd assumes that she is a male warrior until he lifts her helmet and reveals her hair.104

However, it is useful to detach iconography (as well as ritual) from the prevailing, largely mythological, framework of interpretation. The images produced in Ribe have no unambiguous counterparts in Norse mythology. It has proven difficult to reconcile the range of visual depictions of supposed ‘Valkyries’ with the textual descriptions.105 Rather, their posture seems to mimic martial behaviour inaccurately, just as

93 Gunnell 1995, 61–6; Murphy and Nygaard 2017; Vedeler 2019, 47–63.
94 Eg Tokofsky 1999; Pandian 2001.
95 Cf Bell 1992.
96 Price 2006, 182.
97 Holmqvist 1960; Gunnell 1995, 63–72.
98 Back Danielsson 1999.
99 Thirup Kastholm 2015, 87–8.
100 Solli 2002; Hedeager 2011, especially 126–8.
101 Pandian 2001, 558–60; DeMaris 2017.
102 Cf ancient mystery cults, medieval passion plays, eg Petersen 2009.
103 Neiß 2013.
104 Staecker 2006; Ney 2009. Helmets are also a part of Valkyrie attire in Hákonarmál 11 (Fulk 2012).
105 Eg Jesch 2015, 105–6; Gardela 2018, 406–8; Pentz 2018, 17–18; Price 2019, 280; Friðriksdóttir 2020, 68–9.
communal ritual performance may operate by transgressing ‘regular’ behaviour. On Class 2 pendants, the women in several cases carry their shield in an unusual fashion: inside-out, under the arm or in front of the sword, as if to emphasise that they are not meant to represent a use in combat (Fig 7, a–b). It is also noteworthy that kennings (concise figurative descriptions in poetry) for ‘Valkyrie’, which include weapons as one of their components, do not imply that the Valkyrie is actually wielding them. This is in sharp contrast to several examples of kennings for ‘warrior’, where a performative component in the kenning’s construction implies an actual use of the weapon.

It has been argued elsewhere that the fascination with the armed female figure in Old Norse poetry represents a symbolic transgression that served to reinforce, rather than challenge, a strict gender division in society. The iconographic variety is easiest to understand by interpreting the armed woman not as the direct representation of a mythological figure with a fixed repertoire of attributes, but as an image rooted in (potentially) real, yet transgressive, behaviour. The varied and unconventional ways in which armed women hold their shields and swords could be read as emphasising their transgressive character, or representing different uses — for instance producing a glamour. In the perspective of rituals that were, indeed, out of the ordinary, the regional versions of the ‘Valkyrie’ as either carrying weapons or holding up a drinking horn make sense as both expressions of particular, prominent acts and gestures performed by women.

The horse could fit this performative interpretation as a possible reference to horse riding during communal ceremonies or to horse sacrifice. Archaeology, runic inscriptions and contemporary writers like al-Tartuschi, Ibn Fadlan and Thietmar of Merseburg show that sacrificing horses and other animals was a key element of Viking-Age communal rituals, including in Ribe. A trained stallion in particular must have been a most prestigious gift to the gods. Thus, brooches depicting the ‘riderless steed’ could symbolise this ideal or ultimate sacrifice.

That some women in Viking-Age society acted as ritual specialists is well attested in contemporary written and archaeological sources. Prominent female members of the households were also involved in cult practices in domestic contexts. Some collective religious rituals, whether special events, cyclical festivities or embedded in day-to-day life, were closely related to sacrifice, feasting and hosting. By providing situations for the articulation of religious identities and group bonds, they were key in negotiating social relations and status.

We suggest that it is the roles performed in such rituals which are conveyed by the figurative pendants: figures depicting sometimes idealised, high-status performers, but — given their wide geographic distribution (see Fig 6) — likely worn by a broad group of women along with other ornaments and festive dress displayed on ceremonial occasions,

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106 Consider also that the Oseberg tapestry fragments 2 and 4, show women gripping swords just below the cross-guard, pointing downwards, in a distinctly non-martial gesture (Vedeler 2019, figs 68, 69).
107 Eg eisf adda ‘of the woman of weapon-points’, 1. 18 (Marold 2012a, kenning 6).
108 Eg ekandr oddnejtir ‘the oath-true arrow-user’ 1. 18 (Marold 2012b, kenning 1).
109 Murphy 2013, 147–8; Jesch 2015, 104.
110 Feveile and Jensen 2006, 78; Magnell 2019.
111 Kaliff and Oestigaard 2020, 216–18.
112 Ljungkvist 2011; Price 2019.
all of which would emphasise their role and status. Zanette Glørstad and Ingunn Røstad have suggested that by the 8th century and throughout the Viking Age, large disc-on-bow brooches, as worn by the armed-woman figure from Ribe, were only used on special occasions in which high-status women played a particularly prominent role. Glimpses of this role can be found in, for example, Ibn Fadlan’s account of the funeral of a Rus’ chieftain, with the figure of the ‘Angel of Death’ coordinating the ritual process, and in the *Voðsa þáttr*, a short story relating the devotional practices of a pagan household under the leadership of its oldest female member — both examples, incidentally, involving horse sacrifice. The ‘Valkyrie’ pendants of Classes 1 and 2 aptly reflect two aspects of this ritual leadership, and Class 3 pendants might similarly represent a specific ritual performance.

The female hair grippers could readily fit this performative interpretation as depictions of shamanic trance, but also of formal acts of grief, attested throughout the world and often associated with women, such as described in the 13th-century Icelandic *Njáls Saga*. The male hair-gripping figure from Ribe, if interpreted correctly, performs an act that was gendered as female and may thus relate to the concept of ‘ergi’ as known from the Old Norse literary corpus: a form of gender transgression in ritual context, with men acting as women. A number of depictions of gender-ambiguous figures have also been cast in this light. Of particular interest as a potential parallel to the gripping man from Ribe as a gender-transgressive figure is a silver pendant in the shape of a bearded ‘weapon dancer’, wearing a long dress and a horned helmet, from a female burial in Birka. The similarity of the head of the ‘gripping man’ with ‘mask’ pendants and similar depictions in Viking-Age art could mark a further link with cult performance. In numerous cultures, including the Classical world, the mask was an iconic accessory of ritual performance, a commonly used symbol of inversion of order and identity. The popularity of the mask image in Viking-Age art is readily associated with cult performance.

This perspective also requires us to reconsider the purpose of these objects. There is little in the find contexts of the pendants and other items discussed here to indicate their use, except as part of female dress. Through their citation of ritual actions, they were imbued with religious but also social significance. The identity of the ritual attributes and gestures with those depicted on the figures may have enabled the pendants to act as amulets, thus prolonging the effect of the ritual beyond the moment of its happening, but also as markers of a social role.

**URBAN AMULET PRODUCTION**

A further dimension of interpretation is the role and impact of Ribe as a production centre for these amulets. The replication of the same models across multiple moulds suggests serial production at a certain scale. This implies that the ornaments were

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113 Glørstad and Røstad 2015, 181.
114 Price 2019, 280 similarly suggests that ‘Valkyrie’ images might relate to social identities as much as religious belief.
115 Clover 1986, 162–9; quote from p 169.
116 Ström 1974.
117 Hedeager 2011, 126–7; Pesch 2018 and references therein.
118 Price 2019, 320.
produced as marketable commodities rather than individually commissioned products.\textsuperscript{119} It is remarkable that these figurative pendants and brooches, relating in some ways to rituals and the otherworldly, could be mass-produced alongside other, apparently more utilitarian female dress accessories, such as oval brooches. This suggests that there was no apparent segregation between the two spheres. On the contrary, as we see in burials, these items might have formed sets consisting of a pair of shoulder brooches connected by strings of beads, which were also traded in great numbers at Ribe. Pendants could be suspended from these strings or from the brooches themselves, which often feature a lug at the bottom for this purpose.\textsuperscript{120} The Ribe workshop provided a range of high-quality metalwork ornaments associated with female formal dress in Scandinavia. If anything, this context of production highlights the connection of these pendants to the expression of personal roles and representation, beyond a more strictly religious significance.

As argued above, the casting mould imagery represents a combination of existing Scandinavian motifs and conventions, and iconographic inspirations from elsewhere, especially from motifs transmitted from Classical Antiquity. The naturalistic style and the hints of acquaintance with Roman imagery seen in the Ribe moulds point to cultural dynamics shared with, and arguably related to, the contemporary Carolingian Renaissance. Carolingian culture may have been an intermediary for the transmission of Classical images and ideas, transported to the north through trade with the Rhineland, in the form of looted church items, and by the mobility of craftspeople, diplomats and missionaries.

Ribe’s workshops had a key role in harnessing post-Roman technologies, such as glass beadmaking or non-ferrous metalworking.\textsuperscript{121} As a large production site with multiple workshops, Ribe is likely to have hosted a community of artisans open to experimentation. Moreover, its role as a hub in a communication network enabled its innovations to spread across western Scandinavia. Consequently, Ribe was a likely place for imagery prevalent in eastern Denmark and southern Sweden to come together with depictions found on coins and other Roman-period artefacts circulating in the North Sea trade. Finds from Ribe show that artisans had access to images in Classical style, including the female deities oft-depicted on Roman coins. The emporium might furthermore have formed the context for the adoption of new religious ideas that in turn gave rise to novel forms of material culture.

CONCLUSION

When viewed as an ensemble, the images from the Ribe moulds suggest themes of ritual rather than mythology. This conclusion is sustained by the stylistic and iconographic correspondence to depictions like the Oseberg tapestries. It is in this light that we should understand the apparent inversions in the images: the man gripping locks of his hair and the woman bearing weapons and armour, along with the full cast of miniature accoutrements: swords, shields, steeds and wagon wheels. As amulets and as part of female formal dress, these trappings harnessed the potency of

\textsuperscript{119} Cf Pedersen 2016, 195–7; 2017.
\textsuperscript{120} Kershaw 2013, 164–8.
\textsuperscript{121} Glass beadmaking: Andersen and Sode 2010. Non-ferrous metalworking: Feveile 2002.
ritual actions involving the transgression of social — especially gendered — norms. Depicting ‘ordinary men and women in extraordinary situations’, they highlight the central role of women in communal ritual and the importance of this prominence for female status and identity.

In remodelling inherited Nordic representations, the craftspeople of Ribe could draw inspiration from the heritage and visual culture of the Mediterranean past, which increasingly reached Northern Europe both in terms of the recycling of materials and in the re-appropriation of ideas borrowed from Classical myth, Christian legend and migration-period heroic tales. The urban networks of these emporia and the intersections between Scandinavia and the wider world of post-Roman Europe can be seen in the trade materials and adopted craft technologies arriving in Ribe. They were equally at the heart of the iconographic transformations revealed by the imagery of its amulet casting moulds.

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APPENDIX: FINDS LIST

This inventory contains locations, type designations, and references corresponding to the metalwork finds mapped in Fig 6. Danish place names in this inventory include the name of the parish and municipality as well as the conventional six-digit site code (‘stednummer’). Major archaeological sites are listed under the most commonly used name (eg Tisso, Hedeby). UK place names are as given in the literature, including the county name. A small number of finds could only be localised at a regional level. References to a published source are included wherever available. Unpublished finds are listed by museum accession number, or, if unknown, by reference to an online source. These online sources, such as the Detektor Danmark group on Facebook, might be restricted or otherwise unavailable. Care has been taken by the authors to verify the reliability of all records.

UNARMED WOMAN PENDANTS (‘VALKYRIE’ PENDANTS, CLASS 1)

*Denmark*

1 Avnslev, Nyborg [090601] (National Museum of Denmark C39716)
2 Klemensker, Bornholm [060104] (Helmbrecht 2011, no 86)
3 Rise, Ærø [090704] (Claus Feveile pers comm)
4 Tisso [030106] (Helmbrecht 2011, no 185)

Price 2006, 182.
Poland
5–6 Truso (Gardela 2015)

Russia
7 Novgorod (Plochov 2007)

Sweden
8 Burial Bj 825, Birka (Helmbrecht 2011, no 552)
9 Burial Bj 968, Birka (Helmbrecht 2011, no 579)
10 Gamla Uppsala (Helmbrecht 2011, no 670)
11 Hjorthammar, Ronneby (Helmbrecht 2011, no 725)
12 Klinta, Köping (Helmbrecht 2011, no 803)
13 Sibble, Botkyrka (Helmbrecht 2011, no 905)
14 Tuna, Knivsta (Helmbrecht 2011, no 973)
15–17 Uppåkra (Helmbrecht 2011, nos 989–91)
18 Unknown location, Öland (Helmbrecht 2011, no 1173)

ARMED WOMAN PENDANTS (‘VALKYRIE’ PENDANTS, CLASS 2)

Denmark
19 Bjæverskov, Køge [050101] (National Museum of Denmark C49418)
20 Hviding, Esbjerg [210103] (Sol.sydvjyskmuseer.dk Artefact No 200148346)
21 Hørning (Nørre) (Tyskerbakken locality), Randers [141006] (National Museum of Denmark C45178)
22 Kølstrup, Kerteminde [080106] (Beck et al 2019)
23 Landet (Skodsebølle locality), Lolland [070508] (National Museum of Denmark C40308)
24 Lejre [020601] (Baastrup 2015, Kat nr 149) — fragment identified as Class 2 based on stylistic correspondence with nos 26–7)
25 Lem, Randers [140906] (C Feveile pers comm)
26 Ringsted Ls, Ringsted [040213] (Trine Borake pers comm)
27–28 Skørping, Rebild [120310] (DIME 33651–2)
29 Sønderup, Slagelse [040318] (T Borake pers comm)
30 Vrejlev, Hjørring [100116] (Helmbrecht 2011, no 23)
31 Unknown location, Lolland (Facebook, Detektor Danmark, 17 November 2019)

Germany
32 Hedeby (Helmbrecht 2011, no 261)
33 Rostock-Dierkow (Messal 2019)

United Kingdom
34 Cawthorpe, Lincolnshire (Leahy and Paterson 2001)
35 Exton, Rutland (PAS LEIC-C58A13)
36 Wickham Market, Suffolk (PAS SF9305)
37 Unknown location near York (ARSNY) (Hall and Williams 2020, 58–9)

WOMAN-AND-RIDER PENDANTS (‘VALKYRIE’ PENDANTS, CLASS 3)

Denmark
38 Agedrup, Odense [080101] (Beck et al 2019)
39 Boeshunde, Slagelse [040301] (National Museum of Denmark C45055)
40 Boeshunde, Slagelse [040301] (National Museum of Denmark C44739)
41–42 Dalby, Kerteminde [080103] (DIME 8738; Malene Beck pers comm)
43 Dollerup, Viborg [130803] (National Museum of Denmark C42194)
44 Flakkebjerg, Slagelse [040403] (C Feveile pers comm)
45 Gram, Haderslev [200201] (Helmbrrecht 2011, no 122)
46 Gudme, Svendborg [090104] (T Borake pers comm)
47 Gudum, Slagelse [040303] (National Museum of Denmark C44946)
48 Helleved, Brønderslev [100205] (Helmbrrecht 2011, no 174)
49 Hjødstrup, Nordfyns [080302] (Facebook, Detektor Danmark, 24 March 2019)
50 Kettrup, Jammerbugt [110704] (DIME 1541)
51 Magleby, Vordingborg [050507] (National Museum of Denmark C49589)
52 Mariager Landsogn, Mariagerfjord [140706] (Torben Trier Christiansen pers comm)
53 Odense, Odense [080407] (Runge and Henriksen 2018)
54–55 Ribe [190408/190409] (Helmbrrecht 2011, no 105; Feveile 2006b)
56–57 Rise, Ærø [090704] (National Museum of Denmark C37408, C39145)
58 Rynkeby, Kerteminde [080111] (Runge and Henriksen 2018)
59 Rørbæk, Rebild [120210] (T Trier Christiansen pers comm)
60 Sønder Tranders, Aalborg [120113] (Beck et al. 2019)
61–65 Tisso [030106] (Helmbrrecht 2011, nos 195–7; National Museum of Denmark C32167/ KN1828, C34048/FB1004)
66–67 Vestervig, Thisted [110612] (National Museum of Denmark C46607; Facebook, Danske Amatorarkæologer, 7 January 2019)
68 Vindeby, Lolland [070413] (daneafaeblog.wordpress.com, 13 February 2018, now defunct online blog)
69 Unknown location, near Silkeborg (Facebook, Detektor Danmark, 11 April 2019)
70 Unknown location, NW Jutland (Facebook, Detektor Danmark, 12 April 2020)

Germany

71 Dannewerk (Astrid Tummuscheit pers comm)
72 Ellingstedt (Majchczack 2016)
73 Füsing, Schaalby (Dobat 2010, no 1311)
74 Grossenwiehe (A Tummuscheit pers comm)
75–77 Hedeby (Helmbrrecht 2011, nos 256–8)
78 Selk (A Tummuscheit pers comm)

Poland

79 Truso (Gardeł 2015)

United Kingdom

80 Bylaugh, Norfolk (Margerston 1997)
81 Fulmodstone, Norfolk (Margerston 1997)
82 Parham, Suffolk (PAS SF10754)
83 Peterborough, Northamptonshire (British Museum 1988,0407,1)
84 Winterton, Lincolnshire (Pestell 2015)

Hair-Pulling Woman Pendants

Denmark

85 Allerslev, Lejre [020601] (Thirup Kastholm 2015)
86 Hammer, Næstved [050401] (DIME 22733)
87 Holeby, Lolland [070309] (National Museum of Denmark C46526)
88 Horning (Nørre), Randers [141006] (possible model) (Helmbrcht 2011, no 172)
89–90 Tisso [030106] (Helmbrcht 2011, no 184; National Museum of Denmark C34048/FB1197)
91 Vindinge, Nyborg [090617] (Thirup Kastholm 2015)

Norway

92 Sør-Fron [Norges Metallsøkerforening [nmf.nu]]
93 Østre Toten (Norges Metallsøkerforening [nmf.nu])
RIDERSLESS STEED BROOCHES

Denmark

94 Bjæverskov, Køge [050101] (Wiuff Kristensen 2014)
95 Boeslunde, Slagelse [040301] (National Museum of Denmark C36736)
96 Egå, Århus [141102] (National Museum of Denmark C48293)
97 Farstrup, Aalborg [120701] (DIME 13854)
98 Hasseris (Budolfi Ls), Aalborg [120506] (Kleingärtner 2003)
99 Krogstrup, Frederikssund [010204] (National Museum of Denmark C36674)
100 Kværndrup, Faaborg-Midtfyn [090506] (Beck et al 2019)
101 Lejre [020601] (Baastrup 2015, Kat nr 492)
102–103 Tissø [030106] (Kleingärtner 2003)
104 Vrejlev, Hjørring [100116] (National Museum of Denmark C35204)

Norway

105 Kaupang (possible model) (Pedersen 2016)

BIBLIOGRAPHY

Ambrosiani, B 2013, Excavations in the Black Earth 1990–1995: Stratigraphy, 1. Part One: The Site and the Shore. Part Two: The Bronze Caster’s Workshop, Birka Stud 9.
Andersen, J H and Sode, T 2010, ‘The glass bead material’, in M Bencard, A K Rasmussen and H G Madsen (eds), Ribe Excavations 1970–76, Esbjerg: Jutland Archaeological Society Publications 75, 17–132.
Andrén, A, Jennbert, K and Raudvere, C (eds) 2006, Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions, Lund: Nordic Academic Press.
Anon 1930, ‘Universitetets Oldsaksamlings tilvekst 1929’ Universitetets Oldsaksamling Årbok 3, 167–230.
Arwidsson, G 1989a, ‘Verschiedene Schmuckgegenstände’, in Arwidsson 1989b, 55–62.
Arwidsson G (ed) 1989b, Birka 2:3. Systematische Analyse Der Gräberfunde, Stockholm: Kungl. Vitterhets Historie och Antikvitets Akademien/Almqvist and Wiksell.
Arwill-Nordbladh, E 2016, ‘Viking Age hair’, Internet Archaeol 42, <intarch.ac.uk/journal/issue42/6/8.cfm> [accessed 12 May 2020].
Axboe, M 1986, ‘Brisingamen — også et arkæologisk problem’, Danske Stud 1986, 116–21.
Back Danielsson, I-M 1999, ‘Engendering performance in the Late Iron Age’, Curv Steel Archaeol 7, 7–20.
Baastrup, M P 2015, ‘Metalfund, tekst og katalog’, in T Christensen (ed) Lejre Bag Myten: De Arkaologiske Udgravninger. Jysk Arkaologisk Selskabs Skrifter 87, 477–563.
Bailey, R N 1980, Viking Age Sculpture in Northern England, London: Collins.
Bau, F 1982, ‘Seler og slæb i Vikingetid. Birka’s kvindedragt i nyt lys/Straps and trains in the Viking Age: Birka’s female costume in a new light’, Kaml 1981, 13–48.
Bauer, A and Pesch, A (eds) 2018, Hvanndalir — Beiträge zur europäischen Altertumskunde und mediäristischen Literaturwissenschaft. Festschrift für Wilhelm Heizmann, Berlin–Boston (Massachusetts): De Gruyter, 463–96.
Beck, M R, Trier Christiansen, T and Henriksen, M B 2019, Fynske og Nordjyske Lokaliteter Med Metalfund 400–1100 e.K. Katalog. From Central Space to Urban Place, Odense: Odense By Museer.
Bell, C 1992, Ritual Theory, Ritual Practice, Oxford–New York (New York): Oxford University Press.
Bishop, M C 1988, ‘Cavalry equipment of the Roman army in the first century AD’, in J C Coulston (ed), Military Equipment and the Identity of Roman Soldiers, Brit Archaeol Rep Int Ser, 394, 67–195.
Blindheim, C 1960, ‘En amulett av rav’, Universitetets Oldsaksamling Årbok 1958–59, 78–90.
Blindheim, C, Heyerdahl-Larsen, B and Ingstad, A S 1999, Kaupang-Fjannene 2. Gravplassene i Bijkholbergene/Lamoya. Undersøkelserne 1950–1957. Del B. Oldsaksformer, Oslo: Universitetets Kulturhistoriske Museer, Oldsaksamling.
Bonde, N and Christensen, A E 1993, ‘Dendrochronological dating of the Viking Age ship burials at Oseberg, Gokstad and Tune, Norway’, Antiquity 67:256, 575–83.
Brinch Madsen, H 1984, ‘Metal casting: Techniques, production and workshops’, in M Bencard (ed), Ribe Excavations 1970–76 2, Esbjerg: Sydjysk Universitetsforlag, 15–93.

Callmer, J 1989, ‘Gegossene Schmuckangänge mit nordischer Ornamentik’, in Arwidsson 1989b, 19–42.

Callmer, J 2002, ‘North-European trading centres and the early medieval craftsman. Craftsmen at Åhus, north-eastern Scania, Sweden ca. AD 750–850’, in B Härth and L Larsson (eds), Central Places in the Migration and Merovingian Periods, Uppåkraestud, 6, 125–57.

Callmer, J 2008, ‘The meaning of women’s ornaments and ornamentation’, Acta Archaeol 79:1, 185–207.

Capelle, T 2003, ‘Fünf Miniaturen’, in Hårth, 163–71.

Clover, C J 1986, ‘Hildigunnr’s lament’, in J Lindow, L Lönnroth and G W Weber (eds), Structure and Meaning in Old Norse Literature: New Approaches to Textual Analysis and Literary Criticism, Odense: Odense University Press, 141–83.

Croix, S, Deckers, P, Feveile, C, et al 2019, ‘Single context, metacontext, and high definition archaeology: integrating new standards of stratigraphic excavation and recording’, J Archaeol Method Theory 26:4, 1391–631.

Croix, S, Deckers, P, Feveile, C, et al forthcoming, ‘Excavation atlas’, in S M Sindbæk (ed), Northern Emporium, Vol 1, Aarhus: Aarhus University Press.

Croix, S, Deckers, P and Sindbæk, S M 2020, ‘Recasting a Viking warrior woman from Ribe: 3D digital image reconstruction compared’, J Archaeol Sci Rep 32, 102455.

Croix, S, Neiß, M and Sindbæk, S M 2019, ‘The réseau opératoire of urbanization: craft collaborations and organization in an early medieval workshop in Ribe, Denmark’, Camb Archaeol J 29:2, 1–20.

DeMaris, R 2017, ‘Ritual transgression’, in R E DeMaris, J T Lamoreaux and S Muir (eds), Early Christian Ritual Life, London: Routledge, 146–66.

Dobat, A S 2010, ‘Ein frühmittelalterlicher Zentralplatz im Umfeld von Haithabu/ Schleswig Bericht über die Ergebnisse der Prospektionen 2003–2005’, Die Ausgrabungen in Haithabu 16, 131–256.

Drescher, H 1983, ‘Handelshandel der 8.–11. Jh. in Haithabu auf grund der Werkstattabfälle’, in H Jankuhn, W Janssen and R Schmidt-Wiegand (eds), Das Händelswerk in Vor- und Frühgeschichtlicher Zeit: 2. Archäologische und Philologische Beiträge, Göttingen: Vandenhoeck and Ruprecht, 174–92.

Duczko, W 1989, ‘Runde Silberblechanhänger mit punziertem Muster’, in Arwidsson 1989b, 9–18.

Eniosova, N 2007, ‘Viking Age gold from Old Rus’, in Fransson et al, 175–9.

Fabech, C and Näsman, U 2017, ‘Sösdala interpreted in its glocal context’, in C Fabech and U Näsman (eds), The Sösdala Horsemens and the Equestrian Elite of Fifth Century Europe, Jutland Archaeol Publ 99, 329–49.

Fern, C 2005, ‘The archaeological evidence for equestrianism in early Anglo-Saxon England, c.450–700’, in A Pluskowski (ed), Just Skin and Bones? New Perspectives on Human-Animal Relations in the Historical Past, Brit Archaeol Rep Int Ser 1410, 43–71.

Feveile, C 2002, ‘Stöbning av ovale skålspender i Ribe — type- og teknikvariation’, in M B Henriksen (ed), Metallhåndværk og Håndverkspladser fra Yngre Germansk Jernalder, Vikingetid og Tidlig middelalder, Skrifter fra Odense Bys Museum 9, 17–26.

Feveile, C 2006a, ‘Monterne fra det ældste Ribe’, in C Feveile (ed), Ribe Studier. Det Ældste Ribe. Udgravninger på Nordside af Ribe A 1984–2000 1.1, Højbjerg: Jysk Arkeologisk Selskab/Den Antikvariske Samling, 279–312.

Feveile, C 2006b, ASR 2165 Dagmargade Øst — et Glint af Ribes Vikingetid, Ribe: Den Antikvariske Samling.

Feveile, C (ed) 2006c, Ribe Studier. Det Ældste Ribe. Udgravninger på Nordside af Ribe A 1984–2000 1.2, Højbjerg: Jysk Arkeologisk Selskab/Den Antikvariske Samling.

Feveile, C 2015a, ‘Metaldektectorproblematten — uens regler og deres konsekvenser’, in Pedersen and Sindbæk, 120–35.

Feveile, C 2015b, ‘Revnings-figurens gåder’, Skalk 2015:1, 3–8.

Feveile, C and Jensen, S 2006, ‘ASR 8 Rosenallé’, in Feveile 2006c, 65–118.

Fleming, R 2012, ‘Recycling in Britain after the fall of Rome’s metal economy’, Past & Present 217:1, 3–45.

Frandsen, L B and Jensen, S 1987, ‘Pre-Viking and early Viking Age Ribe’, J Dan Archaeol 6:1, 173–89.

Frandsen, L B and Jensen, S 2006, ‘ASR 7 Sct. Nicolagade 8’, in Feveile 2006c, 9–64.

Fransson, U, Svedin, M, Bergerbrant, S, et al (eds) 2007, Cultural Interaction between East and West: Archaeology, Artefacts and Human Contacts in Northern Europe, Stockholm Stud Archaeol 44.
Friðriksdóttir, J K 2020, Valkyrie: The Women of the Viking World, London–New York (New York): Bloomsbury Academic.

Fuglesang, S H 1989, ‘Viking and medieval amulets in Scandinavia’, Fornvännen 84, 15–27.

Fulk, R D (ed) 2012, ‘Eyvindr skáldaspillir Finnsson, Hákonarmál 11’, in D Whaley (ed), Poetry from the Kings’ Sagas I: From Mythical Times to c. 1035, Skaldic Poetry of the Scandinavian Middle Ages 1, 186.

Gammeltoft, P, Jakobsen, J G and Sindbæk, S M 2015, ‘Vikingtidens bebyggelse omkring Kattegat og Skagerrak. Et forsøg på kortlægning’, in Pedersen and Sindbæk, 6–23.

Gannon, A 2015, ‘Series X and its international framework: an art historical contribution to the study of early-medieval coinage’, in A Willemsen and H Kik (eds), Golden Middle Ages in Europe: New Research into Early-Medieval Communities and Identities, Turnhout: Brepols, 71–80.

Gardela, L 2013, ‘Warrior-women’ in Viking Age Scandinavia? A preliminary archaeological study’, Analecta Archaeol Rossaviensi 8, 273–314.

Gardela, L, 2015, ‘Viking Age amulets in Poland: symbolism and context’, in J Glauser, K Müller-Wille and A K Richter (eds), The Sixteenth International Saga Conference. Sagas and Space. Preprint of Abstracts, Zürich: Schweizerische Gesellschaft Für Skandinavische Studien, 104–5.

Gardela, L 2018, ‘Amazons of the North? Armed females in Viking archaeology and medieval literature’, in Bauer and Pesch, 391–428.

Gardela, L and Odébäck, K 2018, ‘Miniature shields in the Viking Age: a reassessment’, Viking Medieval Scand 14, 81–133.

Glørstad, Z T and Rostad, I M 2015, ‘Mot en tid? Merovingertidens rygknappsperner som uttrykk for endring og erindring’, in M Vedeler and I M Rostad (eds), Snykker: Personlig Pynt i Kulturhistorisk lys, Trondheim: Museumforlaget, 181–210.

Glørstad, Z T and Rostad, I M 2021, ‘Echoes of the past: women, memories and disc-on-bow brooches in Vendel- and Viking-period Scandinavia’, Eu fj Archaeol 24:1, 89–107.

Graham-Campbell, J 2013, Viking Art, London: Thames and Hudson.

Gräslund, A-S 2007, ‘Some Viking-Age amulets — the Birka evidence’, in Fransson et al, 90–6.

Gunnell, T 1995, The Origins of Drama in Scandinavia, Cambridge: D S Brewer.

Hall, R and Williams, G 2020, ‘A riverine site near York: a possible Viking camp?’, in G Williams (ed), A Riverine Site near York: A Possible Viking Camp?, London: British Museum, London, 3–102.

Hedeager, L 2011, Iron Age Myth and Materiality: An Archaeology of Scandinavia, AD 400–1000, London–New York (New York): Routledge.

Heeren, S and van der Feijst, L 2017, Prehistorische, Romeinse en Middeleeuwse Fibulae uit de Lage Landen: Beschrijving, Analyse en Interpretatie van een Archeologische Vondstcategorie, Amersfoort: Publisher Unknown.

Helmbrecht, M 2011, Wirknüchtige Kommunikationsmedien: menschenbilder der Vendel- und Wikingerzeit und ihre Kontexte, Acta Archaeol Lundensia Ser Prima in 4º 30.

Helmbrecht, M 2013, ‘Figures, foils and faces — fragments of a pictorial world. Anthropomorphic images from the Vendel Period and Viking Age found at Uppåkra’, in B Hårdd and L Larsson (eds), Folk, fa Och Fynd, Uppåkrastud 12, 9–31.

Henriksen, M B and Vang Petersen, P 2013, ‘Valkyriefund’, Skalk 2013:2, 3–10.

Holmqvist, W 1960, ‘The dancing gods’, Acta Archaeol 31, 101–27.

Hornsæs, H W forthcoming, ‘Ancient coins in Denmark in the Viking context, the Middle Ages and the modern period. Varying find patterns and some (almost) unique novelties/znaleziska monet antycznych od okresu wikingijskiego do czasów współczesnych z terenów Danii’, in M Bogucki, A Dymowski and G Śnieżko (eds), Okruchy Starożytności. Użytkowanie Monet Antycznych w Europie Środowej, Wschodniej i Północnej w Średieowieczu i Okresie Nowożytnym/Slicers of the Antiquity. Use of Ancient Coins in Central, Eastern and Northern Europe in the Medieval and Modern Periods, Warsaw: Warsaw University Press.

Hårdb, B (ed) 2003, Fler fynd i centrum: materialstudier i och kring Uppåkra, Uppåkrastud 9.

Imer, L M 2012, ‘The Viking period Gotlandic picture stones. A chronological revision’, in Karnell, 115–18.

Jankuhn, H 1937, Die Wehranlagen der Wikingerzeit zwischen Schlei und Treene, Ausgrabungen in Haithabu 1.
Jensen, S 2010, *Viking age amulets in Scandinavia and Western Europe*, Brit Archaeol Rep Int Ser 2169.

Jensen, J 2004, *Danmarks oldtid. Yngre jernalder og vikingetid* 400–1050 e. Kr, Copenhagen: Gyldendal.

Jensen, S 1990, ‘Odin fra Ribe/Odin from Ribe’, in P Kjær and R A Olsen (eds), *Oldtidsens Ansigt/Pages of the past, s.l.: Det Kongelige Nordiske Oldskriftselskab/Tysk Arkeologisk Selskab*, 178–9.

Jesch, J 2001, *Ships and Men in the Late Viking Age: The Vocabulary of Runic Inscriptions and Skaldic Verse*, Woodbridge: Boydell Press.

Jesch, J 2015, *The Viking Diaspora*, London: Routledge.

Karnell, M H 2012, *Gotland’s picture stones: bearers of an enigmatic legacy*, Rep Friends Histor Museum Assoc 84.

Kaliff, A and Oestigaard, T 2020, *The Great Indo-European Horse Sacrifice: 4000 Years of Cosmological Continuity from Sintashta and the Steppe to Scandinavian Skeld*, Uppsala: Uppsala Universitet.

Kershaw, J F 2013, *Viking Identities: Scandinavian Jewellery in England*, Oxford: Oxford University Press.

Krogh, S 1970, ‘Furreby-hjulet’, *Kuml*, 149–64.

Lang, J 1984, *Coutus of Anglo-Saxon Stone Sculpture*, Volume 6, Northern Yorkshire, Oxford: Oxford University Press.

Leahy, K and Paterson, G 2001, ‘New light on the Viking presence in Lincolnshire: the artefactual evidence’, in J Graham-Campbell (ed), *Vikings and the Danelaw. Select Papers from the Thirteenth Viking Congress*, Oxford: Oxbow, 181–202.

Leclercq-Marx, J 2014, *La Sirène dans la Pensée et dans l’art de l’Antiquité et du Moyen Age: du Mythe Païen au Symbole Chrétien*, Brussels: Académie Royale de Belgique, Classe Des Beaux-Arts, <www.koregos.org/fr/jacqueline-leclercq-mars-la-sirene-dans-la-pensee-et-dans-l-art-de-l-antiquite-et-du-moyen-age/> [accessed 12 May 2020].

Ljungkvist, J 2011, ‘Mistresses of the cult — evidence of female cult leaders from an archaeological perspective’, in D Quast (ed), *Weibliche Eliten in der Frühgeschichte/Female Elites in Protohistoric Europe. Internationale Tagung vom 13. bis zum 14. Juni 2008 im Rahmen des Forschungsschwerpunktes “Eliten”,* Mainz: Verlag des Römisch-Germanischen Zentralmuseums, 251–65.

Lundin, A 2006, ‘The advent of the esteemed horseman-sovereign. A study of rider-motifs on Gotlandic picture-stones’, in Andrén et al, 369–74.

Mackeprang, M B 1935, ‘Menschendarstellungen aus der Eisenzeit Dänemarks’, *Acta Archaeol 6*, 228–39.

Magnell, O, 2019, ‘Animals of sacrifice: animals and the blót in the Old Norse sources and ritual depositions of bones from archaeological sites’, in K Wikström af Edholm, P Jackson Rova, A Nordberg (eds), *Myth, Materiality and Lived Religion in Merovingian and Viking Scandinavia*, Stockholm: Stockholm University, 305–37.

Majchczack, B 2016, ‘The current model of archaeological metal detecting and its success in Schleswig-Holstein’, in J Martens and M Ravn (eds), *Pløjeford Som Kontekst. Nye Udfordringer for Forskning, Focaltung og Formidling*, Oslo: Portal Forlag og Kulturhistorisk Museum, Arkeologisk Sektjon, 89–100.

Manering, U 2016, *Iconic Costumes: Scandinavian Late Iron Age Costume Iconography*, Oxford–Havertown (Pennsylvania): Oxbow Books.

Margeson, S 1997, *The Vikings in Norfolk*, Norwich: Castle Museum.

Marold, E (ed) 2012a, *Einarr skalaglamm Helgason, Vellekla 7*, in Whaley, 291.

Marold, E (ed) 2012b, *Einarr skalaglamm Helgason, Vellekla 6*, in Whaley, 290.

Meaney, A 1981, *Anglo-Saxon Amulets and Caring Stones*, Brit Archaeol Rep Brit Ser 96.

Melander, T 1991, ‘Ribesten fra Rhinen af?’, *By Marsk og Geest 4*, 15–24.

Melander, T 2001, ‘Flere ‘gemmer’ fra markedspladser’, *By Marsk og Geest 13*, 33–6.

Messel, S 2019, ‘Auf der suche nach dem Ältesten Hafen Rostocks: Archäologische Untersuchungen auf dem Frühmittelalterlichen Seehandelsplatz am Primelberg in Rostock-Dierkow’, Wilhelmshaven: Niedersächsisches Institut Für Historische Küstenforschung.

Murphy, L J 2013, Herjans D and the blót in the Old Norse sources and ritual depositions of bones from archaeological sites’, in K Wikström af Edholm, P Jackson Rova, A Nordberg (eds), *Myth, Materiality and Lived Religion in Merovingian and Viking Scandinavia*, Stockholm: Stockholm University, 305–37.

Næsman, U 1973, ‘Vapenminiatyrer från Eketorp’, *TOR 15*:1972–73, 94–102.

Neiß, M 2013, ‘Viking Age animal art as a material anchor? A new theory based on a
head motif’, in L. Gardela and K. Kajkowski (eds), Måtvæ Glæwv w Dawnych Kulturach/the Head Motif in past Societies, Bytów: Muzeum Zachódniokaszubskie w Bytowie, 74–87.

Ney, A 2009, ‘Sigurdstraditionens välkomstmotiv i text och bild’, in A Ney, A Jakobsson and A Lassen (eds), Fornaldarsagaerne. Myter og Virkelighed: Studier i de Oldislandske Fornaldarsögur Nörðurlanda, Copenhagen: Museum Tusculanum’s Forlag, 143–52.

Ney, A 2012, ‘The welcoming scene on Gotlandic picture stones in comparison with Viking Period and Medieval Literary Sources’, in K. Rennell, 73–82.

Nicolaessen, N 1882, Langskibet fra Gokstad ved Sandefjord, Kristiania: Alb. Cammermeyer.

Nistelberger, H M, P. Die Bildsteine Gotlands: Probleme und Auswahl. – Alte Studier: The Place and Its People, Scandinavia and a sign of its time, in L. Garde and K. Kajkowski (eds), Bytow: Muzeum – Odniokaszubskie w Bytowie, 74–87.

Norr, S 2009, ‘Old gold — the helmet in Håkonarmál as a sign of its time’, in S Norr (ed), Valsgärde Studies: The Place and Its People, Past and Present, Occas Pap Archaeol 42, 83–114.

Nygaard, S and Murphy, L J 2017, ‘Processier in forkristen nordisk religion’, Religionsvådensabeligt Tidebog 66, 40–77.

Oehrl, 2019, Die Bildsteine Gotlands: Probleme und neue Wege ihrer Dokumentation, Lesung und Deutung, Friedberg: Lkias.

Olsen, V S 2006, ‘The development of (proto-) disc-on-bow brooches in England, Frisia and Scandinavia’, Paalohistoria 47–8:2005–2006, 479–528.

Olshén, P 1945, Die Saxe von Valsgärde I, Uppsalastockholm: Almqvist and Wiksell.

Oma, K A 2016, ‘From horses to Jesus: saving souls in the transition from pagan to Christian Scandinavia’, in D Davis and A Maurstad (eds), The Meaning of Horses: Biosocial Encounters, Abingdon: New York (New York): Routledge, 23–38.

Ornes, M 1966, Form og Stil i Sydskandinaviens Yngre Germaniske Jernalder, København: Nationalmuseet.

Orns, M, 1983, ‘Hestebilleder’, in A Andersen (eds), Festskrift til Olaf Olsen på 60–Ars Dagen den 7. Juni 1983, Copenhagen: Det Kongelige Nordiske Oldskriftselskab, 93–104.

Pandian, J 2001, ‘Symbolic inversions. An interpretation of contrary behavior in ritual’, Anthropos 96, 557–62.

Pedersen, A 2009, ‘Amulettet i Æne- og Wikingerzeit in Südskandinavien’, in U Von Freeden, H Friesinger and E Wamers (eds), Glaube, Kult und Herrschaft: Phänomene des Religiösen im 1. Jahrtausend n. Chr. in Mittel- Und Nordeuropa, Bonn: Rudolf Habelt, 287–302.

Pedersen, U 2016, Into the melting pot: non-ferrous metalworkers in Viking-Period Kaupang, Kaupang Excavation Project Publ Ser 4.

Pedersen, A, Roesdahl, E and Graham-Campbell, J 2014, ‘Dress accessories and personal ornaments of metal. Amulets’, in E Roesdahl et al (eds), Aggersborg. The Viking-Age Settlement and Fortress, Højbjerg: Jutland Archaeological Society, 279–89.

Pedersen, A and Sindbæk, S M (eds) 2015, Et Fælles Hav: Skagerak og Kattegat i Vikingetiden, Copenhagen: Nationalmuseet.

Peirce, I G 2002, Swords of the Viking Age, Rochester (New York): Boydell.

Pentz, P 2018, ‘Viking art, Snorri Sturluson and some recent metal detector finds’, Formvånnen 113, 17–33.

Pesch, A 2017, ‘Facing faces: the head motif in migration-period archaeology’, Med Archaeol 61:1, 41–68.

Pesch, A 2018, ‘Götterthronen und ein gefährlicher Stuhl: Bemerkungen zum ‘Odin aus Lejre’, in Bauer and Pesch, 463–96.

Pestell, T 2015, ‘Imports or immigrants? Reassessing Scandinavian metalwork in late Anglo-Saxon East Anglia’, in D Bates and R Liddiard (eds), East Anglia and its North Sea World in the Middle Ages, Martlesham: Boydell, 230–55.

Petersen, 1919, De Norske Vikingesverd: En Typologisk-Kronologisk Studie over Vikingtidsens Vaaben, Kristiania: Dybwad.

Petersen, N H 2009, ‘Biblical reception, representational ritual, and the question of “liturgical drama”, in G Iversen and N Bell (eds), Sapientia et Eloquentia, Turnhout: Brepols, 163–201.

Plochov, A V 2007, ‘An interesting find from Staraja Ladoga: A representation of Freyja?’, in Fransson et al, 61–5.

Price, N 2006, ‘What’s in a Name? An Archaeological Identity Crisis for the Norse Gods (and Some of Their Friends)’, in Andrén et al, 179–83.

Price, N 2019, The Viking Way: Magic and Mind in Late Iron Age Scandinavia, (2nd edn), Oxford: Oxbow.
Runge, M and Henriksen, M B 2018, ‘The origins of Odense — new aspects of early urbanisation in southern Scandinavia’, Dan J Archaeol 7:1, 2–68.

Schetelig, H 1920, Vestfoldskolen, Kristiania: Universitetets Oldsaksamling.

Simek, R 2002, ‘Goddesses, mothers, dísir: iconography and interpretation of the female deity in Scandinavia in the first millennium’, in Simek and Heizmann, 93–123.

Simek, R and Heizmann, W (eds) 2002, Mythological Women: Studies in Memory of Lotte Motz, Stud Medieval Septentriionalia 7.

Simpson, G and Blance, B 1998, ‘Do brooches have ritual associations?’, in J Bird (ed), Form and Fabric: Studies in Rome’s Material past in Honour of B.R. Hartley, Oxford: Oxbow Books, 267–79.

Solli, B 2002, Sex: myster, Sjamanisme og Kjøn i Vikingenes Tid, Oslo: Pax.

Staecker, J 2006, ‘Heroes, kings and gods: discovering sagas on Gotlandic Picture-Stones’, in Andrén et al, 363–8.

Stoumann, I 2009, Rytetgraven Fra Grimstrup og Andre Vikingetidsgrave ved Esbjerg, Esbjerg: Sydvestjyske Museer.

Ström, F 1974, Nö, Egrí and Old Norse Moral Attitudes, London: Viking Society for Northern Research.

Thirup, K O 2015, ‘En Hårriver fra Vikingetiden — Nyt fra udgravningerne i Vindinge’, Romu 2014, 77–94.

Thunmark-Nylén, L 2006, Die Wikingerzeit Gotlands 3:1. Text, Stockholm: Kungl. Vitterhets Historie Öfvensk Akademien.

Tokofsky, P 1999, ‘Masking gender: a German folk art custom in its social context’, West Folklore 58:3/4, 299–318.

Tweddel, D T 1992, ‘The Anglian Helmet from 16–22 Coppergate’, The Archaeology of York 17:8.

Van Es, W A and Verwers, W J H 2009, Excavations at Dorestad 3: Hoogstraat 0, II–IV, Amersfoort: Rijksdienst Voor Archeologie, Cultuurlandschap en Monumenten.

Vang Petersen, P 1988, ‘Gudme II, en guldskat i hust!’, Årbog for Skærborg og Ømøgs Museum 1988, 42–51.

Vang Petersen, P 2005, ‘Odins fugle, valkyrjer og bersærker’, in T Capelle and C Fischer (eds), Ragnarök: Odins Verden, Silkeborg: Silkeborg Museum, 57–86.

Vang Petersen, P 2010, ‘Valkyrjer og bersærker: mytologien i smykkekunsten’, in P O Nielsen and M Andersen (eds), Danfæ: Skatte Fra Den Danske Muld, Copenhagen: Gyldendal/Nationalmuseet, 134–8.

Vedeler, M 2019, The Oseberg Tapestries, Oslo: Scandinavian Academic.

Vierck, H 2002, ‘Zwei Amulettbilder als Zeugnisse des ausgehenden Heidentums in Haithabu’, Berichte über die Ausgrabungen in Haithabu 34, 9–67.

Wamers, E 1998, ‘Neu erworbene Bleimodelle im Frankfurter Museum für Vor- und Frühgesehichte’, Hammaburg NF 12, 89–98.

Wamers, E 2017, ‘Freya-Figurinen’, in S Holst, L Jørgensen and E Wamers (eds) Odin, Thor Und Freya: Skandinavische Kultplätze Des 1. Jahrtausends n. Chr, Regensburg: Schnell and Steiner 62.

Wamers, E 2018, ‘Odins Ahnen. Zum frühwikingzeitlichen Maskenanhang aus Tissö, Dänemark’, in A Wieczorek and K Wirth (eds), Von Hammarburg nach Herinsmudehsem: Festschrift für Ursula Koch, Heidelberg: Verlag Regionalkultur, 281–90.

Watt, M 2002, ‘Images of women on ‘Guldgubber’ from the Merovingian age’, in Simek and Heizmann, 81–92.

Watt, M, 2008, ‘Guldgubber’, in C Adamsen, U L Hansen and F O Nielsen (eds), Sorte Muld, Ronne: Bornholms Museum, 42–53.

Webster, L 2012, The Franks Casket, London: The British Museum.

Werbart, B 1996, ‘Khazars or “Saltovo-Majaki Culture”?’, Curr Saced Archaeol 4, 199–221.

Whaley, D (ed) 2012, Poetry from the Kings’ Sagas 1: From Mythical Times to c. 1035, Turnhout: Brepols.

Wicker, N L 2003, ‘The Scandinavian animal styles in response to Mediterranean and Christian narrative art’, in M Carver (ed), The Cross Goes North: Processes of Conversion in Northern Europe, an, 300–1300, York: York Medieval Press, 531–50.

Wichmann, R 2007, ‘Haithabu und sein Hinterland, ein lokaler numismatischer Raum?: Münzen und Münzfunde aus Haithabu (bis zum Jahr 2002)’, Berichte über die Ausgrabungen in Haithabu 36, 182–278.

Wilson, D M 2018, Manx Crosses: A Handbook of Stone Sculpture 500–1040 in the Isle Of Man, Oxford: Archæopress.

Wiufl Kristensen, N 2014, Bygherreraadport: KNV100 Ågård, Bjøøerskov Sogn, Bjøøerskov Herred, Tidl. Præstø Amt. Sted nr. 05.01.01., Vordinborg: Museum Sydøstdanmark.

Zeiten, M K 1997, ‘Amulets and amulet use in Viking Age Denmark’, Acta Archaeol 68, 1–74.
Résumé

Recoller les morceaux : performance, rituelle, transgression du genre et innovation iconographique à Ribe pendant la période viking par Pieterjan Deckers, Sarah Croix et Søren Sindbæk

L'iconographie de la période viking est étudiée principalement à travers la sculpture et les bas-reliefs en pierre, ainsi que par le biais d'accessoires vestimentaires en métal, qui sont souvent mal contextualisés. Nous présentons une nouvelle approche se basant sur l'étude d'un assemblage de moules de fonderie pour accessoires vestimentaires figuratifs provenant d'un atelier du début du 9e siècle à Ribe (Jutland, Danemark). Nous publions des reconstructions numériques des fragments de moules, notamment des pendentifs de type « valkyrie » montrant des figures féminines armées. Ce type se retrouve principalement dans l'ouest de la Scandinavie. Les motifs montrent une certaine familiarité avec les images de l'Antiquité classique et de la renaissance carolingienne. En soulignant les parallèles iconographiques et stylistiques avec les tentures de la tombe à navire d'Oseberg, nous appliquons une nouvelle perspective contribuant à l'interprétation du motif de la femme armée et d'autres représentations figurées de la période viking. Nous faisons valoir que le thème commun de ces images n'est pas celui de la représentation d'êtres héroïques ou mythologiques, mais plutôt de la performance d'un rituel, dans lequel les femmes occupaient un rôle central. Nous envisageons les implications de la production de ce type d'objets en du contexte urbain.

Zusammenfassung

Rekonstruierte Gussformen: Rituelle Handlungen, Überschreitung der Geschlechtergrenzen und ikonographische Innovation im Ribe der Wikingerzeit von Pieterjan Deckers, Sarah Croix und Søren Sindbæk

Die Ikonographie der Wikingerzeit wird meist anhand von Funden wie Steinskulpturen und Steinmetzarbeiten sowie metallenen Kleidungsaccessoires erforscht, die oft unzulänglich kontextualisiert sind. Wir verfolgen mit der Erforschung einer Ansammlung von Gussformen zur Herstellung figurativer Kleidungsaccessoires aus dem Kontext einer Werkstatt des frühen 9. Jahrhunderts in Ribe (Jütland, Dänemark) einen neuen Ansatz. Wir präsentieren digitale Rekonstruktionen der fragmentierten Gussformen, unter denen sich auch Formen für „Walküren“-Anhänger befinden, die waffenträgende weibliche Figuren darstellen. Vergleichbare Funde treten in erster Linie im Westen Skandinaviens auf. Die Motive bezeugen die Vertrautheit mit Darstellungen aus der klassischen Antike und der Karolingischen Renaissance. Indem wir ikonographische und stilistische Parallelen zu den Wandteppichen der Oseberg-Schiffsbestattung ziehen, beleuchten wir die Auseinandersetzung mit dem Motiv der bewaffneten Frau und mit anderer figurativer Kunst der Wikingerzeit aus einer neuartigen Perspektive. Wir argumentieren, dass es sich beim gemeinsamen Thema der Bildnisse nicht um heldische oder mythologische Wesen handelt, sondern um rituelle Handlungen, bei denen Frauen eine zentrale Rolle spielten. Wir stellen Überlegungen zu den Auswirkungen des städtischen Herstellungskontextes auf diese Gruppe von Material an.

Riassunto

Ricomporre lo stampo completo: adempimento rituale, trasgressione di genere e innovazione iconografica nella Ribe di epoca vichinga di Pieterjan Deckers, Sarah Croix, e Søren Sindbæk

L'iconografia dell'epoca vichinga viene studiata principalmente attraverso sculture e intagli in pietra oltre che attraverso accessori di abbigliamento in metallo, reperti spesso scarsamente contestualizzati. Presentiamo qui un nuovo approccio attraverso lo studio di una raccolta di stampi per colata destinati ad accessorii di abbigliamento provenienti dal contesto di un'officina di Ribe (Jutland, Danimarca) degli inizi del IX secolo. Forniamo le ricostruzioni digitali dei frammenti degli stampi, compresi i pendentivi ‘Valchiria’ raffiguranti figure femminili armate. Ritrovamenti paragonabili avvengono soprattutto nella Scandinavia occidentale. I motivi dimostrano familiarità con immagini dell'antichità classica e della rinascenti carolingia. Mettendo in evidenza i paralleli iconografici e stilistici con i cosiddetti...
arazzi della nave funeraria di Oseberg, adot-
tiamo una prospettiva nuova nella discus-
sione del motivo della donna armata e di
altri esempi di arte figurativa di epoca
vichinga. Sosteniamo che il tema comune
alle immagini non è il ritratto di figure
eroiche o mitologiche, ma che si tratta
invece di un adempimento rituale in cui le
donne rivestivano un ruolo centrale.
Prendiamo in considerazione le implicazioni
relative al contesto della produzione urbana
di questo gruppo di materiali.