

JOURNAL OF
SWEDISH ANTIQUARIAN
RESEARCH



2022/1

Miniatures with nine studs

Interdisciplinary explorations of a new type of Viking Age artefact

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Gardeła, L., 2022. Miniatures with nine studs: Interdisciplinary explorations of a new type of Viking Age artefact. *Fornvännen* 117. Stockholm.

This paper investigates the materiality and symbolic significance of a recently emerging group of Viking Age miniature pendants decorated with nine studs. Artefacts that make up this group, typically made of silver or copper alloy and known exclusively from Denmark and Norway, have all been discovered stray as a result of amateur metal detecting. Although their designs are varied and no two specimens are ever exactly the same, it appears that the number nine was of fundamental importance to their designers and users. Drawing on the 'concept of citation' and theoretical approaches to miniaturisation, this study explores the conceptual correspondences between miniatures with nine studs and other Viking Age objects that creatively utilised the number nine motif. In creating a 'web of citational relationships' with a host of other artefacts, these finds can be interpreted in the context of textual sources that emphasise the importance of the number nine in the Norse worldview.

Keywords: Viking Age, Old Norse religion, number nine, magic, amulets

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Introduction

Over the last two decades, metal detecting endeavours in Scandinavia and elsewhere in Western Europe have revealed numerous artefacts of outstanding quality and value (e.g. Kershaw 2013; Martens & Ravn 2016; Petersen 2016; Pentz 2018; Klæsøe et al. 2020). In addition to shedding new light on previously invisible settlement patterns, networks and cultural interactions, these discoveries have profoundly improved our understanding of Viking Age art and material manifestations of pre-Christian religious practice (e.g. Pentz 2017; 2018; 2021; Gardeła 2020; in press a; in press b; Gardeła et al. 2019; Deckers et al. 2021; Dengsø Jessen & Ramsøe Majland 2021; see also Wicker 2020).

Several Viking Age finds relatively recently unearthed by detectorists, such as the so-called 'Odin from Lejre' (Christensen 2013) and the 'Valkyrie from Hårby' (Henriksen & Petersen 2013), have already acquired an 'iconic' status: their images are frequently reproduced on the covers of scholarly publications (e.g. Eriksen et al. 2015; Larrington et al. 2016; Pedersen & Sindbæk 2020) and copies of them – in the form of metal figurines, wooden sculptures, key chain pendants etc. – are sold in museum shops all across Scandinavia. It can be expected that more such items will be discovered in the coming years.

Prior to what can be called the 'Age of the Metal Detector', anthropomorphic and zoomorphic miniatures, as well as items resembling weapons and small-scale furniture, were mainly encountered by archaeologists in funerary contexts, settlement sites and hoards (e.g. Arrhenius 1961; Fuglesang 1989; Zeiten 1997; Jensen 2010; Helmbrecht 2011; Gardela 2014). This led to the false conviction that Scandinavian societies used miniscule objects rarely or only under very particular circumstances. The surge of new finds unearthed by amateur enthusiasts of archaeology has turned this view on its head, showing unequivocally that in Viking Age northern Europe miniatures were far more popular (and thus probably more important) than scholars previously assumed.

The present paper seeks to investigate a relatively new and understudied artefact type that has come to light as a result of metal detecting. All known specimens can be regarded as stray finds – none have so far been discovered as part of hoards or burial assemblages. The miniature objects that concern us here are round or square-shaped and are usually made of silver or copper alloy. Some of them have well preserved suspension loops suggesting their use as pendants. The main feature which permits viewing them all as a group is their characteristic decoration: namely, nine studs which have either been cast as an integral part of the item or manufactured separately and pierced through its surface.

In the following all known examples of these artefacts will be investigated with an especial focus on their materiality as well as the possible symbolic meanings they may carry. In an attempt to reveal the more profound concepts they may have corresponded with, a broader exploration of the number nine motif in Old Norse literature and Viking archaeology will be commenced.

Naming the unknown

Many categories of artefacts that make up the corpus of Viking Age miniatures are fairly easy to identify and associate with their full-size counterparts. This is certainly the case with miniature weapons such as swords, spearheads, shields, axe heads and helmets, some of which

are made with such remarkable precision that it is possible to recognise the very specific types of martial equipment they represent (e.g. Gardela & Odebäck 2018; Gardela in press a; in press b; see also Kucypera et al. 2011). The same can be said about small-size furniture which closely corresponds with chairs of the kubbstol type commonly used in Viking and medieval households (Vierck 2002; Kalmring 2019; Price 2019, pp. 120-125; Dengsø Jessen & Ramsøe Majland 2021). Anthropomorphic figurines are slightly more challenging to understand, since they may have referred to living, dead or legendary humans, deities or other supernatural entities that inhabited the mythological landscape (e.g. Simek 2002; Price 2006; Helmbrecht 2011; Deckers et al. 2021). Regardless of the various obstacles that arise whenever one attempts to unravel what or who these miniscule items represent, we can immediately recognise at least some of their features and can thus situate them within a particular frame of reference.

The identification of the artefacts with nine studs that concern us here is far more difficult. In a brief but foundational article released in 2017, which introduced the first several specimens from Havsmarken, Tissø and other localities on Fyn and Jylland to the wider academic world, Peter Pentz noticed their uncanny, albeit obviously coincidental, resemblance to modern waffle irons (Da. vaffeljern) and apple slice cakelettes (Da. ableskivepande). As Pentz observed, however, when situated in the appropriate Viking Age context and against the background of Scandinavian-style material culture, the nine-stud motif becomes clearer and appears to have had a number of iconographic analogies. First and foremost, the nine-stud motif is an inherent detail of a fairly substantial group of 'double' miniatures portraying a rider and a standing figure which are often interpreted as representations of valkyries (cf. Petersen 1992; 2010; Deckers et al. 2021; Gardela 2021, pp. 117-124). The motif can also be spotted on a decorative ear pick discovered in grave Bj. 507 at Birka in Uppland, Sweden (Arbman 1940, Taf. 173; Arbman 1943, pp. 147-149). Chequered patterns, in some respects reminiscent of the nine-stud motif, can also be witnessed on the bodies of anthropo-



Fig. 1. The chequered square/nine-stud motif on different types of Viking Age artefacts: a) pendant from Havsmarken, Ærø, Denmark; b) pendant or applique from Tissø, Sjælland, Denmark. Photo courtesy of Mads Dengsø Jessen; c) earpick from Birka, Uppland, Sweden. Photo from the Statens historiska museers database (CC-BY-SA).

morphic beings portrayed on small gold foils known as guldgubber (Mannering 2017), clearly implying that in the Late Iron Age this was one of the ways to represent clothes (fig. 1).

Inspired by these iconographic parallels and their former interpretations - Pentz (2017) was keen to interpret the nine-stud motif as a representation of a cloth, perhaps one that Viking Age warriors would attach to their horses' saddles. Associations of textiles and textile production with martial activities are vividly seen in an Old Norse poem known as Darraðarljóð, which is interpolated by Brennu-Njáls saga (Einar Ólafur Sveinsson 1954; see also Poole 1991; Price 2019). The song portrays a memorable scene where twelve valkyries weave battle on a macabre loom made of weapons; its warp consists of human intestines and cut off heads serve as weights. Closer studies of this remarkable text as well as other poems and sagas that speak of spinning and weaving lead to the unequivocal conclusion that in the Old Norse world of thought the inherently feminine practice of producing textiles was symbolically charged and, in some instances, had martial connotations (e.g. Bek-Pedersen 2007; 2008; 2011). The multivalence of spinning is particularly clear in the 'conceptual mechanics' and material culture of seiðr, a complex of spiritual practices which some scholars regard as a Norse form of shamanism (e.g. Strömbäck 2000; Solli 2002; Gardela 2016; Price 2019; contra Tolley 2009a; 2009b). It is noteworthy that the term seiðr has been translated to mean 'rope, halter, snare' or essentially 'thread' (Heide 2006a; 2006b; 2006c), which corresponds very well with what Old Norse texts

say *seiðr* was intended for: i.e. magically attracting people and things, attacking at a distance and binding others to the will of the ritual specialist.

In summary, most scholars today share the opinion that miniatures with nine studs are in some way or another connected with 'valkyries' as well as with textiles and the symbolism of textile production. In searching through online databases and reading through recent academic literature and social media discussions, it is apparent that these finds are already being eagerly captioned as 'hængesmykke skæbneklæde' / 'destiny cloth pendant' (Refshauge Beck et al. 2019, p. 47), 'skæbneklæde amulet' / 'destiny cloth amulet' (Agersø 2020, p. 87), 'kvadratisk vedhæng med prikmønster' / 'square-shaped pendant with dot pattern' (Refshauge Beck et al. 2019, p. 159) or 'valkyrieklæde' / 'valkyrie cloth' (in the Danish National Museum's digital catalogue GenReg). All these labels leave little space for alternative interpretations and obscure the potential deeper meaning these artefacts may carry. In view of the fact that since 2017 the find corpus has grown exponentially, revealing new and unconventional variants, there is an urgent need for revision. In recognition of their likely multivalence, and in order to avoid labels that narrow down the spectrum of potential interpretations, this study proposes a new and very neutral term: 'miniatures with nine studs'. What follows is an attempt to add further nuance to the debate surrounding these items.

Miniatures with nine studs: materiality and distribution

So far, a total of 30 miniatures with nine studs have been discovered. Except for one specimen from Stange in Norway, all other finds come from Denmark. Their complete list is provided below (table 1; figs. 2–3), together with additional information on their measurements and other details. The finds that make up the presently known corpus are cast in silver and copper alloy. Traces of niello have been noted on a few specimens and gilding is seen only on the find from Stange.

Although most of the miniatures with nine studs share a number of common features and

appear to have been intended as pendants, no two finds are ever exactly the same. Their closer study leads to the conclusion that they were made to order and by craftspeople with varying skills: while some specimens seem to have been created by talented artists, others look as if they have been produced in a hasty or simply sloppy manner. Two distinct types can be isolated in the corpus: square-shaped miniatures and round miniatures. At the present moment, the former type is represented by a total of 16 finds while the latter includes 14 finds.

Objects of the first type are usually shaped like a square or rectangle with a raised border. Ten examples have suspension loops leaving no doubt that they were intended as pendants (Havsmarken, Lem Sogn, Samsø, Tissø, Torderup, Trellerup and four from unspecified locations in Denmark). The fragmentary condition of the remaining finds hampers any attempts to determine if they also served the same purpose. The 'studs' on the square shaped specimens - all of which have been cast - are usually distributed in three straight rows. The only exception is the find from Ulstrup which has the studs positioned somewhat randomly. In the case of the specimen from Øster Lindet, eight studs are shown surrounding one centrally-placed stud.

The second 'round' type is remarkably diverse. Close analysis of the specimens indicates that even though their creators clearly had the same idea in mind, they all executed it in different ways. Of particular interest is the find from Jyderup which has been fashioned from a reused Arabic dirham. Its border is raised and the surface pierced with nine studs made of squaresectioned wire: they are evenly distributed in three rows, each of which has three studs. The specimen discovered near Revninge, also made from a re-used dirham, is in some regards similar to the one from Jyderup: in this case, too, the border of the dirham has been raised and the surface pierced with nine studs. Here, however, the studs are round in cross section. A metal band serving the role of a suspension loop has been riveted to the edge of the object. The third noteworthy specimen, the surface of which has nine empty holes (presumably for studs), comes

No.	Location	Material	Size and Type	Museum Number	References and finders
1.	Frøslev. Vest, Jylland, Denmark (fig. 3m)	Copper alloy	Round	-	Found by Simon Tinko Madsen
2.	Harløsegård, Sjælland, Denmark (fig. 3d)	Silver with niello	1,54 x 2,01 cm Round	C 45083	-
3.	Havsmarken, Ærø, Denmark (fig. 2g)	Silver	1,6 x 1 cm Square-shaped	C 39155	Uldum 2013, p. 162; Pentz 2017; 2018, pp. 17–18; Agersø 2020, p. 87
4.	Hersnap, Fyn, Denmark (fig. 3g)	Silver	Round	-	Found by Jan Hein
5.	Høgsbrogård Plantage, Jylland, Denmark (fig. 2j)	Copper alloy?	Square-shaped	-	Found by Henrik Brinch Chris- tiansen
6.	Høgsbrogård Plantage, Jylland, Denmark (fig. 2k)	Copper alloy	Square shaped / possibly a brooch	-	Found by Henrik Brinch Chris- tiansen
7.	Hørby Kirke, Jylland, Denmark	Copper alloy	2,30 x 1,30cm Square-shaped	C 54267	-
8.	Jyderup, Sjælland, Denmark (fig. 3a)	Silver (re-used dirham)	Round	-	Found by Lukas Zimakoff
9.	Jyderup, Sjælland, Denmark (fig. 3h)	Copper alloy?	Round	-	Found by Lukas Zimakoff
10.	Lem Sogn, Jylland, Denmark (fig. 2c)	Silver	1,90 x 1,30 cm Square-shaped	C52296	-
11.	Lustrup, Jylland, Den- mark (fig. 3f)	Copper alloy	1,5 x 1,4 cm Round	SOL: Samlinger Online; 200296374 / ASR 2327x0841	Found by Dan Lønborg
12.	Munkebo Bakke, Fyn, Denmark (fig. 3e)	Copper alloy	Round	-	Found by Jesper Dall Olsen
13.	Obbekær, Jylland, Denmark (fig. 2i)	Copper alloy	1,5 x 1,5 cm Square-shaped	DIME ID: 39737	Found by Henrik Brinch Chris- tiansen
14.	Øster Lindet, Jylland, Denmark (fig. 2l)	Copper alloy	1,5 x 1,5 cm Square-shaped	-	-
15.	Stange, Norway (fig. 3c)	Silver, gilded	Round	-	-
16.	Tissø, Sjælland, Den- mark (fig. 20)	Copper alloy	Square-shaped	KU 3788	Pentz 2017

Table 1. Miniatures with nine studs.

Table 1 continuing

No.	Location	Material	Size and Type	Museum Number	References and finders
17.	Torderup, Jylland, Denmark (fig. 2m)	Copper alloy	1,1 x 2,9 cm Square-shaped	ÅHM6300K004-6 / C427628 / D166/2016	Refshauge Beck et al. 2019, p. 159
18.	Trellerup, Fyn, Denmark (fig. 2a)	Silver with niello	2,1 x 1,3 cm Square-shaped	ØFM 462x91 / C42262	Feveile 2018, p. 46; Refshauge Beck et al. 2019, p. 47; Found by Dan Christensen
19.	Ulstrup, Jylland, Den- mark (fig. 2f)	Silver	1,5 x 1,3 cm Square-shaped	-	Found by Claus Enerich Rasmus- sen
20.	Voel II, Jylland, Den- mark	Copper alloy	1,60 x 2,20 cm Round	C52638	-
21.	Unspecified location near Bogense, Fyn, Denmark (fig. 2h)	?	Square-shaped	-	Found by Dorthe Schødts
22.	Unspecified location on Samsø, Denmark (fig. 2b)	Silver?	Square-shaped	-	Found by Kent Jensen
23.	Unspecified location near Trelleborg, Sjælland, Denmark (fig. 2d)	Copper alloy?	Square-shaped	-	Found by Henrik Haure Runestone
24.	Unspecified location, Denmark (fig. 2e)	Silver	1,5 x 2 cm Square-shaped	-	Found by Kenneth Vorregaard

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Fig. 2. Miniatures with nine studs: the square type: a) Trellerup, Fyn, Denmark. Photo from GenReg; b) Samsø, Denmark; c) Lem Sogn, Jylland, Denmark. Photo from GenReg; d) Unspecified location near Trelleborg, Sjælland, Denmark; e) Unspecified location, Denmark; f) Ulstrup, Jylland, Denmark. Photo from Detektor Denmark; g) Havsmarken, Ærø, Denmark. Photo from Detektor Denmark; h) Unspecified location near Bogense, Fyn, Denmark; i) Obbekær, Jylland, Denmark; j) Høgsbrogård Plantage, Jylland, Denmark; l) Øster Lindet, Jylland, Denmark. Photo by Lars Grundvad, Museet Sønderskov; m) Torderup, Jylland, Denmark. Photo by Søren Greve, Nationalmuseet; n) Unspecified location, Jylland. Photo from DIME; o) Tissø, Sjælland, Denmark. Not to scale. All images edited by Leszek Gardela.



No.	Location	Material	Size and Type	Museum Number	References and finders
25.	Unspecified location, Jylland, Denmark (fig. 2n)	Copper alloy	1,5 x 2,5 cm Square-shaped	DIME ID: 107976	-
26.	Unspecified location near Revninge, Fyn, Denmark (fig. 3b)	Silver	Round	-	-
27.	Unspecified location, Fyn, Denmark (fig. 3l)	Copper alloy?	Round	DIME ID: 71828	Found by Maria Bæk
28.	Unspecified location near Slagelse, Sjælland, Denmark (fig. 3k)	Copper alloy	2,2 x 2,6 cm Round	DIME ID: 145989	Found by Jacob Andersen
29.	Unspecified location, Denmark (fig. 3i)	Copper alloy	Round	-	Found by Michael Svendsen
30.	Unspecified location, Denmark (fig. 3j)	Copper alloy	Round	-	-

Table 1. Miniatures with nine studs.

Fig. 3. Miniatures with nine studs: the round type: a) Jyderup, Jylland, Denmark; b) Unspecified location near Revninge, Fyn, Denmark; c) Stange, Norway. Photo by Terje Staale Sande; d) Harløsegård, Sjælland, Denmark. Photo from Gen-Reg; e) Munkebo Bakke, Fyn, Denmark. Photo by Jesper Dall Olsen; f) Lustrup, Jylland, Denmark; g) Hersnap, Fyn, Denmark; h) Jyderup, Jylland, Denmark; i) Unspecified location, Denmark; j) Unspecified location, Denmark; k) Unspecified location near Slagelse, Sjælland, Denmark; l) Unspecified location, Fyn, Denmark; m) Frøslev. Vest, Jylland, Denmark. Not to scale. All images edited by Leszek Gardela.



Fornvännen 117 (2022)

from an unspecified location in Denmark. In contrast to the aforementioned finds, this one has no studs in place and it is impossible to determine if they have fallen out or never been part of the object. The remaining specimens from *inter alia* Harløsegård, Hersnap, Jyderup and Stange have all been cast whole, together with the studs and suspension loops. Their decoration is varied: the studs are placed in three straight rows of three (Harløsegård, Lustrup, Stange), distributed randomly (Jyderup) or surround one centrally-positioned stud (e.g. Hersnap, Munkebo Bakke).

The corpus of miniatures with nine studs is still relatively small compared to other small size objects known from Viking Age contexts in Scandinavia. For this reason, any observations concerning their geographical origin and distribution must be regarded as tentative. At the present moment, this particular type of artefact appears to be characteristic of Denmark, with the largest concentration in Jylland (12 specimens). On account of the fact that another group of finds with the same motif, known as 'double miniatures' or 'valkyrie figurines' is also encountered predominantly in Denmark (the few specimens from England and Poland all come from locations with well-attested archaeological traces of 'Danish' presence), there are good reasons to believe that the miniatures with nine studs are likewise of 'Danish' manufacture. Future research may, however, change this preliminary impression.

The concept of citation: miniatures, textiles, and gaming boards

As highlighted above, previous scholars have observed that the miniatures with nine studs may have been visually and conceptually linked to 'chequered square' motifs depicted on so-called 'valkyrie figurines'. By cross-referencing archaeological imagery and textual sources, the miniatures with nine studs have thus been interpreted as possible representations of textiles and as artefacts that conveyed messages associated with the symbolism of spinning and weaving (e.g. Pentz 2017; 2018, pp. 17–18). This method of inquiry – involving the observation and analysis of correspondences between human and non-hu-

man beings, objects, spaces and places – brings to mind the 'concept of citation' introduced to Viking Age archaeology by Howard Williams (2016, p. 407) and defined as:

(...) practices of selection and deployment of artefacts, substances, images, architectures, monuments, and spaces that, separately and in combination, created mnemonic material references to other things, places, peoples and times.

Although the concept of citation is investigated by Williams mainly in relation to mortuary archaeology, it can also serve as a handy tool when exploring all kinds of material and immaterial entanglements beyond the funerary context, including the world of miniature items (on miniaturisation, see Bailey 2005). One important and refreshing aspect of this approach is that it does not follow a single theoretical framework but instead interweaves (Williams 2016, p. 401):

(...) a range of themes in recent mortuary and memory theory, including approaches to ritual practice, cultural biographies of things and monuments, and the material turn in archaeological research emphasizing the entangled and enmeshed relationships between people and things.

In looking at the miniatures with nine studs, we can see that they not only display formal and conceptual links with the chequered motifs on the 'valkyrie' figurines but also closely resemble gaming boards, both those that survive as tangible material objects and those that exist only in iconographic form, for instance on the runestone from Ockelbo in Sweden. Surviving wooden examples of Viking Age gaming boards, such as those from Ballindery and Waterford (Hall 2016, p. 449), not only strikingly resemble the miniatures as regards their overall shape but also have special perforations, which would allow the gaming pieces to be fixed into them, making it easier to play when travelling or sailing. The holes in some of the round pendants discussed above (e.g. Jyderup) may imitate or 'cite' this feature of full-size gaming boards while the sep-

arately-made studs may represent gaming pieces. In this context, it is noteworthy that miniature gaming boards, serving as badges and probably possessing rich symbolism, were also in use in the Netherlands in the fourteenth century and later times. As Mark Hall (2001) observes, these miniatures resembled full-size chess boards and may have referred to chess episodes in romance tales.

Across Viking and medieval Europe, playing board games was a popular form of entertainment among men and women belonging to virtually all social groups. Archaeological and written sources strongly emphasise, however, that the elite engaged in this activity with particular fondness (e.g. van Hamel 1934, pp. 230-232; Jesch 2006; Gardela 2012; Hall 2016). Interestingly, some Old Norse texts speak of gaming pieces or gaming boards made of gold (Völuspá, st. 61; Gull-Póris saga, ch. 14; cf. van Hamel 1934, pp. 230–231), attributing special significance to them.

In Scandinavia, gaming boards and gaming pieces are encountered in a variety of archaeological contexts, ranging from settlements and ports of trade to cemeteries. In the funerary record, objects associated with play are usually part of richly furnished graves which tend to contain martial equipment and/or other expensive and prestigious goods, all implying that the deceased or those who buried them belonged to the highest echelons of society (see Rundkvist & Williams 2008; Hall 2016 for specific examples and further references). The preoccupation of the Scandinavian elite with board games is well illustrated in a twelfth-century poem attributed to Earl Rögnvald of Orkney who lists playing chess among the most important nine skills that he has mastered (see Jesch 2006), alongside his knowledge of runes and books, craftsmanship skills, the ability to glide on skis, shoot and row as well as his capacity to play the harp and understand poetry. It is noteworthy that in addition to being something that people would engage in to simply kill time, playing games allowed one to test and demonstrate wit, learn to interact with others and accept the fact that luck is fleeting.

The special significance of games in the northern hemisphere is also emphasised in the Old Norse poem Völuspá which forms part of a collection of texts known as the Poetic Edda (e.g. Dronke 1997). One of the stanzas illuminates the symbolic undertones of boardgames, suggesting that they were closely and conceptually bound with the idea of fate (e.g. van Hamel 1934; Whittaker 2016, pp. 108–109). At the beginning of the poem the still relatively young gods are shown merrily playing a board game in the meadow. Before long three mysterious giantesses arrive to disturb their peace and from that very moment the gods become aware of an impending catastrophe that will fall upon their world. Although Völuspá does not say this explicitly, one may get the impression that together with the women's arrival, the gods' golden gaming pieces disappear or at least are no longer in their control. In his thought-provoking and erudite study, Anton van Hamel (1934, p. 227) speculated that the giantesses actually steal them from the gods which has disastrous consequences because the gaming pieces are 'considered as being charged with a very strong magical power. The golden game is the magic through which the gods keep the world in order and prevent the intrusion of war' (van Hamel 1934, p. 227). It is noteworthy that the theft or loss of gold (which is to be seen as a symbol of prosperity and stability) is a recurring theme in Old Norse literature: in the poem Haustlöng the giant Þjazi steals Idunn's golden apples and in this way deprives the gods of their everlasting youth, whereas in Gröttasöngr (Tolley 2008) king Fróði's prosperity ends as soon as the two enslaved giantesses, Fenja and Menja, stop grinding gold for him.

After the dramatic events of the Ragnarök, or the 'Nordic Apocalypse' (cf. Gunnell & Lassen 2013), in the course of which the world ends up in flames, the reborn gods eventually find the lost gaming pieces in the grass (Völuspá, st. 61). One way of interpreting this scene is that the gaming pieces symbolise hope and regeneration, but they can also be viewed as items intrinsically linked to the idea of fate and the cycle of life: when one game ends, another one begins. As van Hamel (1934, p. 227) argues:

When the board and pieces are found again in st. 61, so that the gods can resume their

game, the unsown fields yield at once a rich produce and no more crimes or wars arise. The world then recovers the glorious aspect which it possessed before the three giantesses had deprived it of its preserving magic. Thus, it becomes clear enough why the giants desired the golden objects of the gods' game so vehemently. They wished to stop the happiness of the world and to create a possibility of introducing evil. This could be done by the fatal theft.

As in the case of the aforementioned poem *Darraðarljóð*, here too supernatural women become catalysts of change. Although the gaming board and the loom differ from each other in both general form and size (except, perhaps, for their square-ish shape), they serve as important material and symbolic 'props' in the unfolding drama of the two texts. The fact that *Völuspá* speaks of three women and *Darraðarljóð* of twelve (3x4) is no coincidence, it seems, and may have been intended to amplify the supernatural nature of the unfolding events and underline their gravity and inevitability.

In thinking about the various correlations the miniatures with nine studs appear to have with other things and concepts, and in trying to make sense of them, we can yet again refer to Williams' work and his observation that 'citations may not have been initially intentional'. As he rightly says (Williams 2016, p. 401):

They may instead involve the cumulative and unanticipated relationships that accrue through the assembling and juxtaposition, deposition and transformation of artefacts, bodies, graves and monuments.

When seen in this way, the miniatures with nine studs can be situated within what Williams (2016) calls 'a web of mnemonic citational relationships to other contemporary and past material cultures and spaces'. We have already discussed the correspondences the miniatures potentially share with 'valkyrie figurines', textiles and board games. Another 'citational relationship' they have is with the number nine. In trying to decipher the wider implications of this

link, we will draw attention to the occurrence of the number nine in the Old Norse literary corpus. This will be followed by a discussion of archaeological finds that utilise the number nine motif in creative ways.

Immaterial citations: the number nine in Old Norse literature

Surviving sagas and poems reveal that certain numbers held special significance among Norse societies. This was certainly the case with the numbers three and nine which are frequently mentioned in connection with the sphere of religion and/or ritual practice (e.g. Sołtysiak 2003; Simek 2006; Hellers 2012; Price 2014). In a recent thesis which offers the first systematic study of number symbolism in Old Norse literature, Li Tang (2015, p. 1) has noted that three and nine tend to be considered as 'the most important numbers in Norse mythology and this impression comes mainly from the reading of the two Eddas.'

Hávamál is probably the best-known eddic poem where the number nine appears in a ritual context. As part of his initiation, the god Óðinn has to spend nine nights hanging on the tree before he can acquire arcane wisdom. We learn from Hávamál that after this painful ordeal (on the significance of hanging in the Norse cultural context, see Fleck 1971; Gade 1985; Ström 1942), Óðinn learns nine mighty songs or charms. Regrettably, their content and purpose remains unknown but further in the poem the god utters eighteen (9x2) other songs which, as we learn, provide him with all kinds of advantages in everyday life, on the battlefield and in moments of danger, as well as giving him the ability to heal the sick and raise the dead.

The number nine is linked to Óðinn also in other Old Norse texts. In *Gylfaginning*, for instance, Snorri Sturluson describes how the god kills nine slaves to obtain the mead of poetry. Here, the number nine represents the obstacles he must overcome to achieve his desired goal and can thus be seen as a number linked to the process of initiation. In *Gylfaginning* (ch. 48) and *Skáldskaparmál* (ch. 33), Snorri also speaks of Óðinn's golden arm ring, Draupnir (Simek 2006: 65–66), which is made in such a way

that every ninth night it releases eight golden drops thus forming eight identical rings of equal weight (giving nine rings in total).

In Old Norse literature the number nine is also mentioned in connection with human or semi-human individuals who perform seiðr, a kind of magic mastered by Óðinn and often closely associated with him. In Eiríks saga rauða (ch. 4) a woman named Porbjörg and referred to as 'little völva' is asked to perform a prophetic seiðr ritual in order to help a local community to overcome famine (Einar Ólafur Sveinsson & Matthias Pórðarson 1935; see also Tollev 2009a; 2009b; Price 2019, pp. 39-41). The saga mentions that the woman once had nine sisters who apparently were all versed in magic. Another wise sorceress (völva) from the eddic poem Völuspá speaks of nine worlds in the cosmic tree (Dronke 1997).

Yet another noteworthy example emphasising the connection of the number nine with ritual practices and practitioners can be encountered in the eddic poem Svipdagsmál where a sorceress named Gróa teaches her son Svipdagr nine chants that will help him on his dangerous quest (Larrington 2014; see also Motz 1975). In the later part of the poem, known as Fjölsvinnsmál, Svipdagr learns of a chest locked with nine locks which contains a magic staff called Lævateinn (Gardela 2016, pp. 141-144).

We also learn from the Old Norse literary corpus that the gods Ægir and Heimdall (Hyndluljóð, st. 35) had nine daughters and nine mothers respectively. Giants, too, are sometimes associated with the number nine: for instance, Privaldi has nine heads (Simek 2006, p. 328) and the 'clay giant' Mökkurkálfi is nine miles high and three miles across his shoulders (Słupecki 2016).

It has been noted earlier above that in Hávamál the number nine defines a period of (sacral/ritual) time that has to pass before Óðinn can acquire new wisdom. It is noteworthy in this context that in the eddic poem Grimnismál Óðinn (disguised as a man called Grímnir) undergoes another ordeal: imprisoned by an evil ruler, he sits for eight nights between fires until on the ninth day he can finally rise to his feet and set himself free (Schjødt 1988). Nine can thus be seen as a number intrinsically linked to rites of passage and initiation or transition from one state of being to another. Expressions of roughly the same idea can be encountered in other medieval texts. In the eddic poem Skirnismál, for instance, nine is the number of nights Freyr has to wait before he can have the giantess Gerðr for himself. In Gylfaginning, Óðinn's son Hermóðr embarks on a nine night journey to Hel in the hope of bringing his deceased brother Baldr back to Ásgarðr (Faulkes 1996). The same number of nights is also mentioned by Ibn Fadlan in his eyewitness description of a Rus funeral which takes place at the Volga in the first half of the tenth century: the deceased man is placed in a temporary chamber grave for nine nights and afterwards his body is exhumed and set ablaze on a ship together with opulent goods, slaughtered animals and a female slave (e.g. Montgomery 2000; Mackintosh-Smith & Montgomery 2014; see also Price 2008). All these funerary acts essentially lead to the complete transformation of the man's body and his possessions and to the reconfiguration of social relations among the group he was once part of.

The significance of the number nine in delineating periods of (sacral/ritual) time is also attested in Adam of Bremen's Gesta Hammaburgensis Ecclesiae Pontificum, an eleventh-century source which offers a vivid description of a pagan cult centre at Uppsala. As Adam writes (Tschan 2002, p. 208), the gatherings at Uppsala took place every nine years and were attended by people from all provinces of Sweden. In the course of the celebrations:

(...) of any living thing that is male, they offer nine heads, with the blood of which it is customary to placate gods of this sort. The bodies they hang in the sacred grove that adjoins the temple.

Although scholars tend to approach Adam's writings with caution and reserve, it is noteworthy that the chronicler mentions the number nine twice in his description of the events at Uppsala, i.e. the nine year long interval between the great pagan celebrations and the number of heads that are being offered. Even if the pagan

sacrifices that Adam describes never happened, or never had such a massive scope, the number nine serves as a conceptual link to other medieval records of Norse paganism, several of which have already been highlighted above. It is therefore justified to assume that in the mind of the chronicler the number nine was a 'magic number' which he consciously associated with pre-Christian ritual practice.

Not only Adam but also another German chronicler, Thietmar of Merseburg, speaks of the number nine in connection with Norse sacrificial acts. In his eleventh-century *Chronicon*, Thietmar describes (chapter XVII) the violent rituals conducted at Lejre in Sjælland, Denmark in these words (Warner 2001, p. 80):

Every nine years, in the month of January, after the day on which we celebrate the appearance of the Lord [6 January], they all convene here and offer their gods a burnt offering of ninety-nine human beings and as many horses, along with dogs and cocks – the latter being used in place of hawks. As I have said, they were convinced that these would do service for them with those who dwell beneath the earth and ensure their forgiveness for any misdeeds.

Leaving aside the problem of the historical veracity of these two Latin accounts, as well as the lack of tangible traces of violent and large-scale sacrificial acts in the archaeological record at Uppsala and Lejre, the fact that both Adam and Thietmar consistently refer to the number nine in ritual contexts leads to the supposition that the chroniclers wove their stories around an authentic and widespread idea rooted in the Viking Age.

Further expressions of the number nine motif in Viking archaeology

The web of citational relationships for the miniatures with nine studs can be woven not only with the help of Viking Age iconography and Old Norse and Latin texts but also by bringing together other categories of archaeological finds which in various ways refer to the idea of the number nine. The overview that follows dis-

cusses the most evocative cases which illustrate that the connections of the number nine with the sphere of ritual and religion in Old Norse literature were much more than literary *topoi*.

Probably the most vivid manifestation of the number nine motif in the material culture of the Viking Age comes in the form of the so-called valknútr, a symbol carved in wood, metal and stone which usually takes the form of three interlocking triangles (giving a total of nine triangle points). The occurrences of the valknútr motif in Viking Age iconography have been thoroughly investigated by Tom Hellers (2012) whose work convincingly demonstrates its ties with Óðinn as well as with the ideas of death, afterlife, and magic. On Gotlandic picture stones, the valknut is often seen as an integral part of imagery depicting equestrian warriors (e.g. the stones from Tängelgårda and Stenkyrka Lillbjärs I and II cf. Hellers 2012, pp. 231-232; Oehrl 2019) but it also appears in connection with sacrifices and other ritual acts (e.g. the stones from Sanda and Stora Hammars 1 – cf. Hellers 2012, pp. 221, 233; Oehrl 2019) (fig. 4). In approaching the valknútr, Hellers advises caution and rightly refrains from providing one overarching explanation of this evidently potent symbol. Instead, he advocates the idea of its multivalence and underlines the fact that it operated within an exclusively pagan context.

Expressions of the special significance of the number nine can also be found in the assemblages of four exceptional Viking Age graves dated between the ninth and tenth centuries. What is particularly striking about them is that they have all been interpreted as belonging to ritual specialists, similar to the *völur* of the Old Norse literature (Ingstad 1992; Kaland 2006; Gardeła 2016; Price 2019). In three cases, the number nine appears as a feature of the necklaces these individuals were laid to rest with.

A richly furnished grave (probably belonging to a woman) from Gutdalen in Sogn og Fjordane, Norway held as many as nine copper alloy pendants (six round, two face-shaped and one snake-shaped) as well as a massive iron staff and an array of other goods (Gardeła 2020, pp. 39-40; Westlye 2020). Thorough analyses of the pendants have recently led to the conclu-



Fig. 4. Picture stone from Tjängvide I_k Gotland showing a rider and a *valknut* motif. Photo: Leszek Gardeła.

sion that they functioned as amulets alluding to Old Norse mythological ideas, perhaps – in a conceptual sense – providing their owner with some advantages (Gardeła 2020; Westlye 2020). The Gutdalen staff likely served as a material marker of the deceased person's occupation as a ritual specialist skilled in the practice of *seiðr* (Gardela 2016).

In another grave with an iron staff discovered at Hilde in Sogn og Fjordane, Norway a different reference to the number nine has been noted (Price 2019, p. 150; Gardela 2016, pp. 298–299). Among the numerous goods cremated with the deceased person – including *inter alia* implements associated with cooking, textile production and agricultural work as well as an iron shield boss – lay a small iron ring with nine Pórr's hammer pendants attached (Nordeide 2006; 2011) (fig. 5g). Although rings with Pórr's hammer amulets are popular in Viking Age con-

texts in Scandinavia and the wider Viking world (e.g. Staecker 1999; Jensen 2010; Gardela 2014), this is the only specimen with as many as nine such pendants.

Yet another grave of a possible ritual specialist, containing an interesting expression of the number nine motif, was discovered at Trå in Hordaland, Norway (Kaland 2006; Gardela 2016, pp. 60–63). Like the two aforementioned graves, this one was also lavishly furnished with jewellery, implements for textile production and various kinds of vessels. Among the goods was an unusual ring-chain necklace consisting of beads and silver pendants (i.e. twisted wire rings, a snake-shaped pendant and a miniature fire-steel). One of the presumed amulets suspended from the necklace had the form of a tapering strip of silver with exactly nine pierced holes (fig. 5c-d).



Fornvännen 117 (2022)

The famous Oseberg grave is the fourth grave of an alleged sorceress which utilises the number nine motif in a creative way: the elaborately carved wagon, which was placed on the deck of the burial ship, has a carved panel portraying a total of nine cat-like creatures (Ingstad 1992, pp. 248-249) (fig. 5j-k). In the Old Norse literary corpus cats are linked with the goddess Freyja (whose wagon they pull) and with the aforementioned 'little völva' Porbjörg who wears a hood lined with catskin and catskin gloves (on cats in the Viking Age, see Toplak 2019). In the opinion of Hilda Ellis Davidson (1964, p. 120), the link between the carved cats and the Oseberg woman 'suggests that cats were among the animal spirits which would aid the völva on her supernatural journey'. Carved cat motifs, as well as the presence of other objects with likely religious connotations compelled Anne Stine Ingstad (1992, p. 254) to interpret the occupant of the Oseberg grave as 'Freyja's earthly representative and incarnation' ('Frøyas jordiske representant og inkarnasjon').

In addition to these various expressions of the number nine in funerary contexts, we may also witness it in other guises, for instance as an integral feature of oval brooches representing Jan Petersen's type 51, i.e. typical Scandinavian female jewellery used in the tenth century

Fig. 5. Selection of Viking Age artefacts that utilise the number nine motif: a-b) Hoen necklace. Photos from the Unimus portal (CC-BY-SA); c-d) Trå necklace. Photos: Leszek Gardeła; e) Oval brooch (type JP51) from Trå. Photo from the Unimus portal (CC-BY-SA); f) miniature with nine studs from Havsmarken; g) ring with nine Pórr's hammers from Hilde; h-i) runestone from Ockelbo showing two figures at a board game. Photo from Länsmuseet Gävleborg (CC-BY-SA); j) Oseberg wagon. Photo from the Unimus portal (CC-BY-SA); k) carved back panel of the Oseberg wagon depicting nine cats and a drawing of one of the cats. Illustration: Sofie Krafft. Both images from the Unimus portal (CC-BY-SA).

(fig. 5e). Each brooch of this type has nine knobs on the outer shell (Petersen 1928). We can hazard a guess that whoever first came up with this design operated within a pre-Christian intellectual framework and utilised the number nine motif not only for aesthetic but also symbolic purposes.

Speaking of Viking Age jewellery, the necklace from the remarkable ninth-century hoard from Hoen in Buskerud, Norway is also linked to the number nine motif (Fuglesang & Wilson 2006). One of its constituents is a 'silver-gilt ring of plain wire holding nine grevish white glass beads separated by eight gold(?) beaded spacer-rings' (Fuglesang & Wilson 2006, p. 276) (fig. 5a-b). The Hoen necklace, and the entire spectacular hoard it is part of, doubtlessly carries a myriad of intricate meanings and associations. Although we will never know who its owner was, in the context of the above discussions and in light of the fact that one of the pendants suspended from the necklace takes the form of a gold coiled snake (closely corresponding with the pendants from Gutdalen and Trå; see Fuglesang 2006; Gardela 2020), there are good reasons to believe that it may have belonged to an individual responsible for cult practices and/or versed in magic.

Last but not least, it is necessary to draw attention to a recently discovered copper alloy pendant from Sollykkegård Nordvest on the island of Fyn, Denmark (fig. 6). The artefact is very similar to the round studded pendants



Fig. 6. Unusual copper alloy miniature with twenty seven studs. Photo by Andreas Jæger Manøe Schäfler, Nationalmuseet.

discussed above but much larger in size (ca. 2,8 x 3,4 cm). Remarkably, instead of nine it has as many as twenty seven studs. Perhaps the creator of this unusual object used twenty seven studs to amplify (9x3) the powers attributed to the number nine?

Together with the overview of relevant textual sources, this brief presentation of archaeological evidence shows unequivocally that the number nine motif occupied an important space in the minds and worldviews of Viking Age Scandinavians: it was a number associated with Óðinn, initiation and sacrificial acts as well as with magic and its performers. All these texts and material embodiments of the number nine motif permit us to create a dense 'web of mnemonic citational relationships to other contemporary and past material cultures and spaces' (Williams 2016) which has the capacity to improve our understanding of the curious miniatures with nine studs. This web that captures and enmeshes things as well as their wider

conceptual contexts is illustrated in the figure below (fig. 7).

Conclusions

In a ground-breaking monograph discussing the phenomenon of miniaturisation, Douglass Bailev (2005) argues that miniatures from the past should be viewed, in a literal and metaphorical sense, from multiple perspectives. He strongly emphasizes the importance of researching the psychological effects they evoke on their users, including their capacity to make one feel enlarged, empowered and omnipresent. As Bailey notes, miniatures can also unsettle the people viewing and/or holding them and lead to flights of imagination; in the Viking Age context, these 'flights of fantasy' could metaphorically transport people into the world of myth and magic.

When the miniatures with nine studs are viewed in the light of Bailey's theories and as part of a dense web of citational relationships, we can see more clearly how their Viking Age

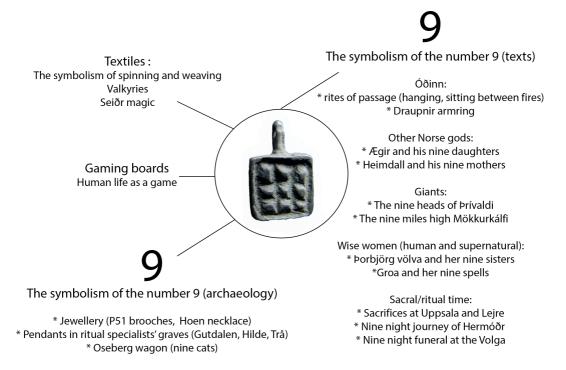


Fig. 7. Miniatures with nine studs in a web of correspondences. Illustration: Leszek Gardela.

owners could have conceptualised them. At first glance their physical appearance likely brought forth associations with textiles and gaming boards, but underneath this surface layer they encapsulated a plethora or other meanings: they were probably associated with the symbolically charged acts of spinning, weaving and gaming which, as extant textual sources lead us to believe, enabled the manipulation of fate. Concurrently, the nine fields or studs on the miniatures' surface may have served to display links with a plethora of other concepts, religious practices and mythical figures including inter alia Óðinn and his dangerous initiatory rituals.

Due to the fact that, so far, all miniatures with nine studs have been found stray, it is impossible to determine for whom they were actually produced as well as how and in what way exactly they were carried around. There are good reasons to believe that they served as pendants (hung around the neck or suspended from a waist belt) but it remains obscure if they were used singly or in combination with other pieces of jewellery. Knowing that in funerary contexts miniature items are usually associated with biologically female individuals, we may, however, hazard a guess that they belonged to women. In light of the discussions above, we can also surmise that these artefacts' reduced size and uncanny resemblance to gaming boards or textiles (with all their rich metaphorical associations) evoked in some of their wielders the feeling of exclusive and total control over their own fate or the fate of others - this would have made them very powerful artefacts indeed. It remains obscure if all the specimens we know of today are accidental losses or intentional deposits laid in the ground with a particular intention in mind. As the poem Völuspá so instructively illustrates, loosing control over a (symbolic) gaming board could lead to disastrous consequences.

Acknowledgements

This study is part of the "Tanken bag Tingene" project and was made possible by generous funding from Krogagerfonden. I would like to thank Peter Pentz for sharing his valuable observations on miniatures with nine studs. Special thanks are also due to Howard Williams for his comments on the first draft of this article and to Henrik Brinch Christiansen who drew my attention to a number of recent metal detector finds and kindly helped me with the final revisions of my manuscript. I am also grateful to Mark Hall for drawing my attention to medieval gaming board badges from the Netherlands. The photos of the miniatures with nine studs have been kindly provided by inter alia Jacob Andersen, Maria Bæk, Henrik Brinch Christiansen, Jesper Dall Olsen, Søren Greve, Lars Grundvad, Jan Hein, Simon Tinko Madsen, Terje Staale Sande, Andreas Jæger Manøe Schäfler, Dorthe Schødts and sourced from the Danish National Museum's database GenReg, open access databases (Detecting People, www.fibula.dk; DIME, www.metaldetektorfund.dk; Sydvestjyske Museers Arkæologiske Samling - SOL Samlingen, www.sol.sydvestjyskemuseer.dk) and Facebook (Detektor Danmark; Thy-Mors Detektorforening).

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Utgiven av

Kungl. Vitterhets Historie och Antikvitets Akademien i samarbete med Historiska museet.

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Produktion och distribution eddy.se ab

Prenumeration eddy.se ab order@bokorder.se 0498-25 39 00

Helårsprenumeration i Sverige (4 häften) 300 kronor, lösnummer 90 kronor Helårsprenumeration utlandet 350 kronor

Journal of Swedish Antiquarian Research published by The Royal Academy of Letters, History and Antiquities Subscription price outside Sweden (four issues) SEK 350:-

FORNVÄNNEN började utges av Kungl. Vitterhets Historie och Antikvitets Akademien år 1906 och ersatte då Akademiens Månadsblad samt Svenska Fornminnesföreningens Tidskrift, som båda tillkommit under 1870-talets första år. Förutom i Sverige finns Fornvännen på drygt 350 bibliotek och vetenskapliga institutioner i mer än 40 länder. Tidskriften är referentgranskad.

FORNVÄNNEN (»The Antiquarian») has been published by the Royal Academy of Letters, History and Anti quities since 1906, when it replaced two older journals which had started in the early years of the 1870s. Outside Sweden Fornvännen is held by more than 350 libraries and scientific institutions in over 40 countries. The journal is peer-reviewed.

ISSN 0015-7813 Printed in Sweden by Norra Skåne Offset, Klippan 2022