Archaic Martial Traditions in High Medieval Scandinavia: A Glimpse of Viking Age Warfare?

Abstract
Most written evidence regarding warfare in Viking Age Scandinavia originates either from contemporaneous chronicles – recorded by those at the receiving end of Norse attacks – from skaldic poetry, or from high medieval Scandinavian texts. However, these sources often prove problematic: either in the form of chronicles from other parts of Europe, which often exaggerate the brutality of Viking raids, or from 13th century Icelandic writers, who embellish accounts of long deceased rulers.

This article explores archaic martial features found in 12th- and 13th-century contemporaneous sagas and treatises to identify and analyse the continued influence of Viking Age military practices in high medieval Scandinavia. By comparing information found in three medieval texts to scholarly contributions on Viking Age warfare; skaldic poems; and archaeological evidence, this article aims to identify Viking Age military features that survived the military transformation, which followed the periods of internal struggles that the Scandinavian kingdoms underwent from the 1130s onwards.

Introduction
This article aims to reassess the continued effect of the martial culture of the Viking Age on the Scandinavian ‘state formation processes’. By identifying seemingly archaic features present in medieval military institutions and in warfare, the extent of transformation this meant for the Scandinavian societies will be analysed. This study will use a heterogeneous pool of sources, and establishes connections between the high medieval corpus and earlier texts, to identify descriptions of martial culture that predate the extensive administrative reforms of the 12th and 13th centuries. It is virtually indisputable that the political organisation and the power structures of the Scandinavian societies were thoroughly transformed during the processes of large-scale Christianisation and ‘state formation’ that took place in the region between the mid-10th and mid-14th centuries (Ulsig 1994; Line 2007; Bagge 2010; Dørum and Holberg 2017). These transformative processes were arguably even more palpable during the institutionalisation of royal and aristocratic power during the 12th and
13th centuries, when chanceries grew in size and became stationary; provincial laws were written down; and new forms of societal organisation and permanent taxation were introduced (Gelting 2005; Lindkvist 2014). Manifestations of martial culture were, of course, also affected as new types of military equipment and tactics were introduced; the aristocratic elites gained new privileges during these processes, and their increasingly preeminent role in governance and warfare is easily discernible through the sources. Predictably, this period of growing institutionalisation and literacy also led to an increased production of literary, political and administrative documents. Most of these narrative corpora, as well as detailed stipulations of military service, and martial instructional manuals, were written down between the late 12th and late 13th centuries (Christensen 1992: 7–17; Imsen 2000: 24–30; Þorleifur Hauksson 2007: xxii–xxxiii; Friis-Jensen and Fisher 2015: I: xxix–xlvi; Tamm and Vogt 2016).

The establishment of a privileged, tax-exempt aristocracy of service, and the reform of the naval levies into a relatively centralised and royally controlled institution between the mid-12th and mid-13th centuries thoroughly altered the organisational and practical aspects of warfare. As a result the importance of seaborne campaigns and the involvement of landowning and tenant farmers alike decreased decidedly (Ersland and Holm 2000: 80–94; Line 2007: 241–67; Elortza Larrea 2020). However, these reforms, largely inspired by Continental European practices reflected in the high medieval sources, often coexisted with older traditions and traits rooted in the Viking Age, or even earlier. The regional assemblies (things), lengthy sections of provincial laws, even the leiðangr – which was the quintessential institution of Scandinavian military organisation – in all likelihood predated many of the reforms mentioned above, yet still remained crucial parts of Danish, Norwegian and Swedish governance in the high medieval period (Lindkvist 1991; Raffield, Greenlow, Price and Collard 2016). The continued existence of these institutions and martial practices is what I will investigate in this article, through the presence of martial elements in the historical texts.

Most of the medieval Scandinavian literary and legal corpora were written down from the 12th century onwards. Still, combined with archaeological material, they can provide insights into social structures of the Viking Age (Semple, Sanmark, Iversen et al. 2020: 38–70). By approaching historical texts critically, I believe it is possible to find indicators describing the nature of socio-political dynamics in the 10th century, or even earlier, and in particular distinguish expressions of martial conduct and warfare. Interestingly, many of the older – archaic – practices of institutions, tactics or equipment still used in the 12th and 13th centuries were perfectly compatible with the new broader European socio-political reforms that were introduced.

While the Scandinavian ‘state formation processes’ heralded far-reaching reforms, certain societal structures, such as regional assemblies and naval levies, remained in place, albeit under considerably different circumstances. Many written sources, such as Saxo’s Gesta Danorum or the provincial laws, often provide a terminus ante quem for the main military reforms; as such, it is possible to use this material to explore the nature of these institutions before the reforms were implemented.
Methods and Sources
The methodological approach favoured in this study will contrast specific aspects and regulations found within the high medieval sources with excerpts from older written sources that are often regarded as unreliable, or too short, such as sagas or skaldic poems, as well as with results from archaeological research. In this context, Judith Jesch’s seminal work, *Ships and Men in the Late Viking Age: The Vocabulary of Runic Inscriptions and Skaldic Verse*, is of particular importance. In her study, Jesch makes extensive use of early medieval skaldic poems and runic inscriptions in a comparative study of the vocabulary used to describe armies, military hierarchies and martial practices. The relevance of her extensive study is considerable, not least due to the inclusion of other contemporaneous sources, such as the Old English poems describing the battles of Brunanburh and Maldon. As Jesch herself highlights, the skaldic corpus is well suited for the study of attitudes to war, although its usefulness when researching the practices of warfare might be more limited (Jesch 2001: 38, 42–3). Taking this into consideration, the combination of the high medieval written corpus and earlier sources will allow me to somewhat circumvent the limitations presented by the older material, thus making it possible to distinguish glimpses of Viking Age – and earlier – martial practices in the texts. In particular, I will analyse the two main socio-political and military institutions, the leiðangr and the hirð (OE: hir(e)d originally meaning personal retinue, later royal retinue, from an earlier *hīw-raed*, meaning household, family, farm [de Vries 1977: 228–9], both referring to bodyguards or hearth-guards), as well as two specific examples of battle practices. The main methodological limitation when exploring martial practices of the Viking Age is the dearth of contemporaneous descriptions of such behaviour in battles. Therefore, I have chosen two specific examples that appear both in high medieval written sources and in earlier material.

Important information about warfare, particularly regarding military organisation, is found in contemporaneous sagas; annals and chronicles; manuals and treatises; as well as a number of instructional texts for the aristocracy; and the provincial laws. Below, I will investigate descriptions of the function of the leiðangr; the hirð; and particular accounts of battle practices in selected medieval sources such as the contemporaneous *Sverris saga* (Þorleifur Hauksson 2007: xxii–xxxvi), a narrative text about Sverrir Sigurðarson of Norway (r. 1177/1184–1202); *Gesta Danorum*, written around 1210 (Friis-Jensen and Fisher 2015:1: xxix–xlvi); and *Heimskringla* (c. 1230). In addition, I will examine the *Hirðskrá* (written in the 1270s), which lists the duties, obligations and behavioural rules of the Norwegian royal household, as well as the mid-13th century Norwegian princely mirror, *Konungs Skuggsjá*.

The changes that the martial institutions underwent are highlighted by legal sources, as comparisons between laws and treatises compiled at different times accentuate changing requirements. However, the value of laws as source material is limited since they represent stipulations at a specific point in time – when they were compiled – rather than their evolution. They also limit the understanding of how martial institutions functioned, since the contents of the laws only represent an ideal. In reality, rulers might have been unable to collect the dues and/or demand obligations stipulated by the laws. The narrative sources, such as chronicles and sagas, often have a more politicised goal – e.g. praising or demonising rulers and population groups. However, this ‘creative license’ may not affect the overall
validity of their descriptions of warfare. Without a doubt, deeds and actions were exaggerated but certain passages can still shed some light on the function of these institutions.

In order to make comparisons between medieval and Viking Age military organisation, two of the oldest extant laws will be reviewed. These are the *Gulabingslag* [ONorw] (G), possibly compiled in the late 11th century, which regulated justice in Western Norway, and *Guta lag* [OSw] (with its appendix, *Guta saga*), which served as the main legal text for the
island of Gotland c. 1220–1595 (Peel 2015: 21–5; Øyrehagen Sunde 2020). The main extant material from the Viking Age that I will be using for this comparison is composed of stanzas of skaldic poetry, particularly Glymdrápa, composed by Þorbjǫrn hornklofi in the late 9th century; it describes the early accomplishments of Haraldr hárfagri (‘Fairhair’) (ON: inn hárfagri), who had unified much of Western Norway by the early 10th century (Krag 1995: 107–18; Fulk 2012: 73).

Results and Discussion
By combining older and newer sources it is possible to reveal certain aspects of warfare and martial culture in Viking Age Scandinavia, especially regarding the martial institutions. As far as the leiðangr is concerned, legislative material makes it possible to trace when and how the naval levies changed during the Middle Ages. By using information from the earlier provincial laws, combined with archaeologically derived knowledge regarding boathouse networks, as well as what is known about the development of larger assembly districts during the centuries preceding royally driven kingdom formation, glimpses of the Viking Age leiðangr are discernible. Unlike their medieval successors, the naval levies of the Viking Age were collective defensive institutions, based upon shared obligations to build and maintain ships, largely controlled by the local magnates through their influence over growing assembly districts. Compliance was probably ensured through fines, triggered by neglected upkeep or military service. Information regarding the hirð is more fragmentary since high medieval sources tend to focus on the function of the hirð after it was repurposed into a royal institution. However, by looking at earlier sources, it seems as if the Viking Age hirð also contained an internal hierarchy, as it comprised high-status warriors as well as lower-status servants. Again, the similarities suggest that the high medieval institutions were built on existing traditions from the Viking Age. In addition, certain older practices present in the high medieval corpus demonstrate that the ‘Europeanisation’ of the martial culture was not as radical as pictorial or narrative sources often suggest. The presence of archaic weaponry and infantry formations in 13th-century Scandinavia highlights their continued importance for land-based warfare, and also elucidates martial realities of the Viking Age.

The Leiðangr
The household-based naval levies (ONorw: leiðangr, ODan: lething, OSw: leþunger) have been subject to considerable historiographical discussion in recent scholarship (Lund 1999; Williams 2002; Malmros 2005; Stylegar and Grimm 2005; Grimm 2006; Raffield, Greenlow, Price and Collard 2016). Much of the extant information regarding the nature of these levies is found in law-books compiled between the 12th and 14th centuries, but their origin lies in the Viking Age or possibly earlier. These aspects of the naval levies have been the subject of continuous debate in historiography (e.g. Bull 1920; Ersland and Holm 2000). In recent studies regarding the nature of the Danish leething, the opposing ideas of Niels Lund and Rikke Malmros are particularly relevant. Malmros has argued that the skaldic stanzas suggest that this was a centrally organised and royally controlled military organisation by the late 10th or early 11th centuries (Malmros 2005). Lund, on the other hand, has made extensive use of extant charters and legislation to argue that most of this centralisation did not
occur until after the victory of Valdemar I in the Danish internal struggles in the mid-12th century (Lund 1999). However, the information found in the provincial laws reveals strong area-specific regional differences, recorded at different points in time. Nevertheless, by the late 13th century leiðangr regulations had become largely homogeneous in Scandinavia since the military role of the levies had decreased. For instance, the last large-scale gathering of the Danish leðing took place in 1316, while the last known muster of a Danish levied fleet happened in 1360; by then, the burden of financing such an undertaking limited it to towns and monasteries, rather than households (Lund 1999: 282–4). In Norway, the last military use of the leiðangr took place in 1429, when the levies of the western counties were mobilised and eventually defeated, after trying to fight off an incursion by the Victual Brothers against Bergen (Ersland and Holm 2000: 124–8). One of the last large-scale mobilisations of the leiðangr probably happened much earlier, during the 1262–3 Scottish campaign under Hákon Hákonarson (r. 1217–63), although levied ships were also used in the Norwegian wars against Denmark in the 1280s and 1290s (Ersland and Holm 2000: 71–2, 99–100). The growing military importance of the aristocracy’s professional retinues, combined with a preponderance of land-based warfare, made the naval levies less relevant, and from the late 13th century onwards the leiðangr primarily served as a crucial form of taxation for the respective Scandinavian realms.

The older laws, such as the Gulapingslög, include a system of naval levies that was intended, first and foremost, for military purposes, suggesting that a similar ship-based mechanism for common defence must have predated written legislation. That Scandinavia was a region where sea travel was an important means of transport is attested by many sources: Ohthere’s Voyages, as told to Alfred ‘the Great’ (Bately and Englert 2007), important coastal emporia such as Hedeby, Birka, Ribe and Kaupang, or the etymology of the name Norway itself (Arbman 1939; Clarke and Ambrosiani 1991; Skre 2007; Skre 2014). This also means that seaborne attacks were common – often more than land-based ones. Magnates, as well as coastal communities, would have been acutely aware of this reality. Descriptions of 10th and 11th-century campaigns, such as those included in Magnüss saga ins góða or Haralds saga Sigurðarsonar in Heimskringla, highlight how uncommon overland campaigns or land battles were (e.g. Finnur Jónsson 1911: 435–44, 482–7). This is also visible in some of the earliest depictions of armed conflict in the region, such as the Tanum petroglyphs in Bohuslän (1800–500 BC) or the picture stones of Stora Hammars from Gotland, where warships feature prominently. Furthermore, several pre-Viking Age warships have been unearthed in other parts of Scandinavia, especially in Denmark. These include, among others, the Hjortspring boat, from the 4th century BC; the Halsnøy find from the 2nd century AD; and the Nydam boat, built in the early 4th century AD (Nørgård Jørgensen, Pind, Jørgensen and Clausen 2002). The extensive votive finds from Illerup Ådal, consisting of large amounts of weaponry and animals likely belonging to a defeated invading force, were deposited during the early 3rd century AD in a riverbed-turned-bog (Ilkjær, von Carnap-Bornheim, Biborski et al. 1991–2019; Ilkjær 2000), and suggest that large scale naval transport took place in Scandinavia by this time (Lund Hansen 2002: 29–30). For instance, it is possible that the horses sacrificed at Illerup Ådal originated either in Jylland, Sjælland, Skåne(land, which included present day Halland and Blekinge), or Viken (Dobat, Douglas Price, Kveiborg et al. 2014: 199–202). Archaeological excavations have uncovered networks of boathouses and coastal defences – such as underwater pole barriers – dat-
ing back to the 3rd century AD in many areas; boathouses are comparatively more common in Norway, while underwater barriers that blocked access to navigable inlets and fjords were built in the shallower Danish waters. Considering the nature of warfare in the region, the existing institutions for local defence must have taken the naval threat into account (Grimm 2002: 105–6; Nørgård Jørgensen 2002). The presence of larger boathouses, built between the 5th and 7th centuries, particularly in south-western and central Norway, also strengthens the idea that the collective naval organisation must have predated the establishment of supra-regional kingdoms. Although the construction of these boathouses has sometimes been attributed to local martial elites (Myhre 1985), it is equally possible that these structures were part of a collective effort, particularly when the Gulatingslǫg obligation to build and maintain boathouses is taken into account (Grimm 2002; Stylegar and Grimm 2005: G 304).

The collective seaborne defensive institutions must have been introduced in conjunction with a network of land-based defences, as indicated by the large number of actively maintained hillforts in Norway and Sweden between the 3rd and 6th centuries AD (Iversen 2020: 269–71, 280–4). The introduction of sailing ships to Scandinavia around the mid-6th century would have increased the operational range of seaborne forces, which in turn necessitated more comprehensive naval defences – and territorial alliances – to counter the growing threat of plunder from the sea (Østmo 2020: 45–51). Unfortunately, there is no written material that sheds light on the function of these institutions before the 11th or 12th centuries.

The earliest documented use of the word leiðangr is dated to the early 11th century, when it was mentioned in Eiríksdrápa, a skaldic poem composed by Þórðr Kolbeinsson sometime between 1016 and 1023 (Carroll 2012: 487). The stanzas retell the build-up to the Battle of Hjørungavåg, which was fought c. AD 987 between Jarl Hákon Sigurðarson and the Jomsvikings of Sunnmøre:

\[ Enn í gegn at gunni glæheims skriðu mevvar, – renndi langt með landi leiðangr – Dana skriðar, Þær, es jarl und ǫ́ri um ærins golls á Mœri – barms rak vigg und þǫrrum Valkesti – hrauð flestar. \]

And the slim warships of the Danes glided on the glistening world [sea] in opposition, to the battle – the fleet sped a long way along the coast – most of which the jarl cleared under the envoys of plentiful gold [MEN] in Møre; the steed of the rim [SHIP] pushed on under a warm corpse-pile (Carroll, 2012: 494).

Chapter 20 of Hákonar saga góða, in Heimskringla, mentions that the institution had been introduced in Norway slightly before this date, during Hákon goði’s reign, sometime in the 930s (Finnur Jónsson 1911: 82–3). In Denmark, the network of large Trelleborg fortresses has been attributed to a royally controlled military institution, possibly the leiðangr, but such claims are impossible to confirm (Roesdahl 2008: 660–2; Roesdahl, Sindbæk, Pedersen and Wilson 2014). References to the use of the levies are common in many written sources, but the nature of the institution itself and how it was regulated are scarcely touched upon.
The earliest descriptions of the leiðangr, found in *Gesta Danorum*, the *Gulapingslog*, and *Guta saga*, were recorded several generations after the Viking Age. At best they provide a distorted view of the past, and at worst they are simply descriptions of the institution at the time when they were written. In all likelihood the stipulations and regulations described in these texts are different to those of previous centuries – especially as some of the sources were written to specify reforms. The development towards larger assembly regions, as argued by Frode Iversen, was probably not royally influenced. Hence, when local communities created larger judicial units their nature and function would still have been radically different from those described in later, royally sponsored legislature (Iversen 2019: 154–60, 168–70). The sources mentioned above can, however, be used to trace the development of these institutions, thus providing a glimpse of the nature of the leiðangr before the high medieval period.

Through the evolution of legislation in Denmark it is possible to discern how the naval levies changed during the Valdemarian period (c. 1157–241) and it also provides clues to the nature of the Danish lething before this period. The first Danish law that contains information about the naval levies is the Law of Skåne (Danish: *Skånske lov*) written sometime between 1202 and 1216, which describes a lething system that has almost entirely replaced military service with taxation. Moreover, the Law of Jylland (Danish: *Jyske lov*) promulgated in 1241, includes further specifications and regulations on lething taxes, and it also displays an even steeper trend towards centralisation (Tamm and Vogt 2016: 47–9, 238–9). The earliest reference to this amendment is found in book XIV, chapter 39 of *Gesta Danorum*, and according to Saxo:

*Figure 2. The leiðangr underway. Artist’s rendition of the leiðangr mobilising in Trøndelag during Magnús góði’s reign. Illustration by Halfdan Egelius for the 1899 edition of Heimskringla. CCO*
After the capture of Rügen [in 1168/9] [..] the Danes prepared a clever scheme whereby, when the numbers of the fleet had been surveyed, every fourth ship was to keep watch for those sea robbers, as long as the seasons and conditions would allow it; in this way the continued vigilance of certain crews would relieve them from universal hardship (Friis-Jensen and Fisher 2015: II: 1312–3).

Hence, by 1168/9, three quarters of the Danish lething were exempt from annual service and instead obliged to pay a monetary commutation. Before Rügen was conquered, those who were not mobilised probably did not pay this tax. There is an earlier and even more significant reform to the lething as well, which is mentioned both in book XI of Gesta Danorum and in the tenth chapter of Chronicon Roskildense, which was written in 1137/8 (Gelting 2002 [1979]: 40, 98–9). In 1085, Knútr Sveinsson (later: St. Canute) mustered the levies to sail on a military expedition against England and – frustrated with the poor turnout – decided to impose compensation for neglect, i.e. a fine for those who failed to serve in the lething. The sources mention that:

\[\text{Adiecit quoque, quanta pecunie summa ob impium desertionis crimine damnari merueint, gubernatorum singulis quadragena nummum talenta, terna remigum unicuique mulcte loco numeranda proponens.}\]

He also added the amount of money they should duly be condemned to pay for the unpatriotic offence of desertion, resolving that each single captain should give 40 marks, each rower 3, as a fine (Friis-Jensen and Fisher 2015: II: 848–9).

\[\text{Hic cum populum quadam noua lege et inaudita ad tributum, quod nostrales ‘nefgiald’ uocant, coegit.}\]

He constrained the people, with a certain new law and unheard of tax, which our people call ‘nefgiald’ (Gertz 1917: 23–4 [my translation]).

It is likely that the nefgiald mentioned above was a poll tax levied per person, possibly collected through the existing administrative network of the lething. A succinct sentence from a contemporaneous royal charter issued in 1085 for the landed estates of the canons of the Lund archbishopric explicitly mentions that such fines for neglect would be collected from the tenant farmers working at these estates: \text{Si expeditionem neglexerit, erga regem emendet}, or ‘If they neglect military service, they shall compensate the king’ (DD 1: 2, 21 [my translation]).

In the end, this wide-reaching reform did not come to fruition. Enraged by the new taxes the king was trying to impose, the peasantry – aided and abetted, no doubt, by the aristocracy – rose up in rebellion, and Knútr himself was murdered in July 1086 as he sought refuge in St. Alban’s priory in Odense (Friis-Jensen and Fisher 2015: II: 854–9). Through these two examples, some features of the Danish lething before the late 11th century become more discernible; there was no commutation tax in place, and certain royally controlled fines – especially those related to compensation for neglect – had not been introduced yet. This suggests that the influence of regional magnates and the provincial assemblies was still considerable, which helps discern the character of the Danish naval levies during the Viking Age. For offensive exploits the king could call upon the lething but the regional assemblies still decided whether they would participate. Since such assemblies were still dominated by local magnates, public opinion could be swayed one way or another. One example is from the 1160s, highlighted in book XIV, chapter 38 of Gesta Danorum, when the aristocracy of
Jylland managed to sabotage Valdemar I’s attack on Norway by convincing their compatriots to oppose the enterprise:

_Illic e Iutensibus aliqui iniquissima gubernatorum exhortatione proiecti concione facta remissionem expeditionis uiolenta suecclamatione poscebant._

Here a number of Jutlanders, swept along by the wicked advocacy of their captains, held a meeting in which they demanded with vehement shouts that the expedition [*lething*] be called off (Friis-Jensen and Fisher 2015: II: 1270–1).

_Illic Iutensium magnates, quos aut metus aut impatentia stimulabant, regem apertis repetende patrie monitio aggressi inopem alimentorum expeditionem dimittit iubebant._

It was there that the Jutland notables, goaded by fear or impatience, approached the king with a plain admonition that he must return to his country, telling him he had to disband his expeditionary force [*lething*], because it was running out of food and supplies (Friis-Jensen and Fisher 2015: II: 1272–3).

It is also possible that each of the law provinces – Jylland, Sjælland and Skåne – had different regulations regarding armed service; this certainly seems to be the case in Norway, as is mentioned below. Nonetheless, it seems clear that during the Viking Age offensive military service by the *lething* was no duty at all.

In Norway, the earliest references to the function of the *leiðangr* are found in the _Gulaþingslǫg_. However, some form of oral legislation must have existed in western Norway before AD 930, as, according to the _Íslendingabók_, these laws were studied by the Icelander Ulfthjór before the establishment of the Icelandic _Alþingi_ in that year. However, according to chapters 11 and 20 of _Hákonar saga góða_, it was Hákon góði (r. 934–61) who introduced both the _Gulaþingslǫg_ and the _leiðangr_ (Finnur Jónsson 1911: 76, 82–3; Magerøy 2009). The law was probably recorded sometime before 1150 but the earliest surviving manuscript is dated to the late 12th century, and the only complete manuscript was written in the mid-13th century (Øyrehagen Sunde 2020). While it is very likely that the earlier, oral law was significantly different to the one in later manuscripts, the regulations for the naval levies seem relatively obsolete for mid-12th century conditions, especially when the descriptions of the _leiðangr_ taxation in _Sverris saga_ (see below) are taken into account. In addition, the mention of priests’ wives might indicate that this stipulation existed prior to Callixtus II’s categorical ban on clerical marriage during the First Lateran Council in 1123 (Schroeder 1937: 180). According to the law, a yearly _leiðangr_ payment was exacted from the populace, although the text does not mention any amount:

_Nu þal þat þegia hverir þeir menn ero er vér | fcolom eigi gera leiðangr firi fíc. oc eigi fírist preći finn. oc diakn finn. Meðfo prefír fcál enGi leiðangr gera. ne kona hans. ne klercr hans. En ef þeir hava fleiri hiun. geri leiðangr firi þau. Armaðr konongs fcál eigi leiðangr gera firi fíc. ne fíri kono sínna. ne man fítt_ (Gulaþingslǫg 1994: 161).

Now we shall tell what men there are for whom no dues shall be paid. A bishop shall pay no dues to the fleet for himself or for his priest or for his deacon. A mass priest shall pay no dues nor shall his wife or his cleric; but if there are others in the household, dues shall be paid for them. The king’s bailiff shall contribute nothing to the fleet either for himself or for his wife or his household (Larson 1935: 189).

It is likely that the dues referred to would have been collected in kind during the years the naval levies were inactive; thus, the victuals necessary for the upkeep of the crews were appropriated by the Crown. _Sverris saga_ mentions a similar occurrence during the period of internal struggles; in 1182, Magnús Erlingsson sailed into the Trondheimsfjord, which had been under the control of his enemies in the Birkebeiner faction, and requested the _leiðangr_
dues from the past three years, which the locals paid. This is mentioned in chapter 69 of *Sverris saga*:

*Nú vil ek at þér greiðið ok gjalðið leiðangr, allan almenning þann er þér hafið átt gera á heima tólf mánuðum ok þar med tvenna aðra er þér skylduð gǫrt hafa á tveium inum fyrrum sumrum* (Þorleifur Hauksson 2007: 108).

It is now my will that you provide and pay over the war-tax, the whole contribution which you had to furnish for the last twelve months, and also two other contributions (Sephton 1899: 88).

However, later the same source describes the opposite; in 1200, *Sverrir Sigurðarson* demanded the same *leiðangr* dues, which included a measure of grain, from the peasants of Viken. Outraged, the countryside peasantry – but not the burgheers of Tønsberg – rebelled. Chapter 162 of *Sverris saga* describes the source of the peasants’ anger:

*Sverrir konungr lagði á bœndr um vetrinn leiðangr, at ór hverjum liða skyldi gera mann ok umfram pund ok naut. [...] Gerðisk af þessum leiðangri mikill kurr í Vikinni* (Þorleifur Hauksson 2007: 249).

In the winter King Sverrir demanded the war-tax from the yeomen, and that each district of the levy should provide a man, likewise a load [of meal] and a neat. [...] This levy caused much complaint in the Vik (Sephton 1899: 206).

The populace of Viken reacted violently to the king’s request, perceiving it as harsh. This suggests that the *leiðangr* duties in Viken were different to those in Trøndelag, where Sverrir had built his powerbase during the initial stages of his rebellion. Lacking strong royal centres and contested by both Norwegians and Danes, the laws of the Viken region probably reflected an earlier legislative phase, where payments related to military service were not part of *leiðangr* legislation. The *Annales 1208–1288*, written in Sweden in the late 13th century, further reinforce this idea (Paulsson 1974: 38–49). *Lepunger* taxation was not introduced to Svealand, where royal power was particularly weak, until local aristocrats and peasants were defeated during the second Folkunga rebellion in 1247. The *Annales 1208–1288* (also known as the *Skänninge Annals*) describe the consequences of the failed revolt:

*Et eodem anno communitas rusticorum Uplandie Sparsaetrum amisit victoriam libertatis sue et inposite sunt eis spannale et skypuiste et honera plura.*

This same year, the community of farmers of Uppland loses its liberty at the Battle of Sparrsättra and the *spannmål*, *skeppvist* and many other burdens are imposed upon them (Paulsson 1974: 260 [my translation]).

The two taxes mentioned in this quote, *spannmål* and *skeppvist* (the duty to supply a ship), are also found in the first provincial law from Svealand, *Upplandslagen*, written down in 1296 (UL III. 10). *Spannmål* was a payment made in grain, much like the *unfram pond* requested by Sverrir, while *skeppvist* was paid in money (Line 2009: 242). The *Guta saga* also mentions a fine for neglected military service amounting to forty marks. This legislation was probably introduced around 1150 (Peel 2015: xviii–xix). Proper *lebunger* taxation, on the other hand, was not introduced in Gotland until 1285 (Peel 2015: 285). This type of *leiðangr* payments, either monetary or in kind, invariably seems to originate from an expansion of royal power in the 12th and 13th centuries, and as such are not applicable to the naval levies of the Viking Age.

**The Hirð**

The other high medieval military institution with roots in the Viking Age is the Norwegian *hirð*, also known as *lið* in Denmark and Sweden (UL III. 10; Christensen 1992: 33). The
Figure 3. The figures of the Norwegian leiðangr. The size and number of leiðangr ships required from each of the Norwegian fylkir, according to the Gulathing-law. Map by Jørgen H. Marthinsen, Norsk historisk leksikon 2. ed., 3. print (2004). Reproduced with kind permission from Cappelen Damm.
term *hirð* had been introduced in the 10th century as a loanword from Old English, and it originally referred to the retinues of the magnates; by the mid-13th century, the *hirð* had become a hybrid retinue-court institution (Ersland and Holm 2000: 33; Egilsson and Jónsson 1931: 252). The main text describing its functions, *Hirðskrá*, is rather extensive and specifies a plethora of duties and obligations of the *hirðmenn*. In an attempt to obtain more specific results, I will structure the ranks of the Norwegian *hirð* in detail aided by the table below.

According to *Hirðskrá*, there were four main ranks within the *hirð*:

| Title name (landed men) | Status | Notes |
|-------------------------|--------|-------|
| Lendir menn (landed men) | *Hirðmenn* | Members of the high aristocracy, known as barúnar (barons) after 1277. The highest royal officials were recruited from this group. |
| Skutil-sveinar (lit. dish-men) | | Members of the low aristocracy, known as riddari (knights) after 1277. |
| Kerti-sveinar (candle-bearers) | Not *hirðmenn* | Had to have 'good family lineage'. Served as pages; sometimes took part in guard duties. Could be inducted as skutil-sveinar. |
| Gestir (guests) | | Received half pay and did not sit at the king’s table. Most likely of humble origins. |

Table 1. Ranks of the *hirð*, according to *Hirðskrá* (c. 1270).

The higher strata were composed of the aristocratic *lendir menn*, who were the king’s closest advisors and supporters, and the *skutil-sveinar* (literally, *dish-men*, often translated as *cup-bearers*), who served as the king’s retinue, and could be compared to the Continental European knightly class (Imsen 2000: 73–107, 121–3, 129–31). The candle-men (*kerti-sveinar*), and the lowlier peasant-born *gestir* were not considered as *hirðmenn* but were still part of the *hirð* (Imsen 2000: 154–7, 166–9). Each of these four groups had specific obligations, such as escort duties, or were charged with providing and maintaining specific military equipment; the division makes it clear, however, that social stratification was emphasised both within and between all groups. According to chapter 3 of *Óláfs saga kyrra* in *Heimskringla*, possibly referencing an earlier, now extinct source, the ranks of *skutil-sveinar* and *kerti-sveinar* were introduced during the reign of Óláfr kyrri (r. 1067–93):

*Óláfr konungr hafði þá hirðsiðu, at hann lét standa fyrir borði sinu skutil-sveina ok skenkja sér með borðurum, ok svá öllum tínum mónum, þeir er at hans borði sátu; hann hafði ok kerti-sveina, þá er kertum heldu fyrir borði hans* (Finnur Jónsson 1911: 515).

King Óláfr introduced these customs in his court that he had *cup-bearers* stand by his table to pour out the drink from pitchers, both for himself and all men of high rank who sat at the table. He also had *candle-bearers* who held tapers for him at the table (Hollander 1964: 665 [my additions in bold]).

The same chapter also mentions that Olav had a ‘long hundred’ (120) *hirðmenn* in his service, as well as 60 *gestir* and as many *húskarlar*: *Óláfr konungr hafði c. hirðmanna ok lx. gesta ok lx. húskarla* (King Óláfr had a hundred [120] men in his bodyguard and sixty ‘guests’, as well as sixty *housecarls*) (Finnur Jónsson 1911: 515, Hollander 1964: 665 [my additions in bold]).

There is no mention of these ranks having been introduced during Óláfs reign, which might indicate that a stratification of the *hirð* existed already in the Viking Age. The *hirð* of
the higher aristocracy not only comprised their retinue but also their households. In such a context húskarl (English: house-man [Zoëga 1910: 216], OE: huscarl) probably referred to servants who were part of the royal household while the gestir, although low-born, must have fulfilled some kind of military duty, as detailed in the Hírðskrá. There are indications that the 120 hírðmenn who accompanied the king were not only warriors, but that their positions also included a widely recognised social status, even during the Viking Age. In addition, chapter 2 of Fagrskinna mentions that Haraldr hárfragr (r. 865–c. 930) was accompanied by 60 hírðmenn during his peacetime travels, but that only men of certain social rank (ON: tignar menn) within his retinue were part of his entourage, whereas lower-ranking members, whose main duty during feasts was to serve the elites, were not (Finnur Jónsson 1902: 13). It is likely, therefore, that tangible social distinctions within the royal hírð existed as early as the 10th century.

Even if the structure of a Viking hírð and the one described by Hírðskrá were radically different, one remarkable similarity remains – they were both called hírð. The existence of two institutions, with profoundly different roles, that shared the same name reflects a deliberate use of continuity in those changeable times. This illusion of continued practices, by ‘constructing’ new realities upon the existing socio-political institutions of the Viking Age, emphasises how important the appropriation of the past was to the high medieval aristocracy in Norway. Similar parallels can be found both in Denmark and Sweden. The Lex Castrensis traces its regulations regarding the royal retinue (Old Danish: þinglið), back to Knútr inn ríki’s reign (1016–35). In Sweden, the jarl held the highest royal office until the mid-13th century; albeit instituted in the mid-12th century, it made references to the non-royal regional rulers of the Viking Age, who fulfilled important military duties (Larson and Fridell 2014).

**Battle Practices**

When contrasting high medieval texts with older written material, a number of archaic battle practices can be identified. I have chosen two examples that illustrate how a combination of sources can elucidate specific battle practices of the Viking Age. The archaeologist Bergljot Solberg (1985), for instance, examined martial equipment in Viking Age graves and found similarities with the stipulations on weaponry contained in the Gulatingslǫg, especially those traceable to the 10th century.

High medieval treatises, contemporaneous sagas and even 13th-century pictorial sources, suggest that the Scandinavian elites were aware of Continental European martial practices and military equipment. Kings and high-ranking aristocrats used seals that portrayed them as heavily armoured horsemen: such as those of Hákon Håkonarson in Norway, or the Swedish jarls Birger Bengtsson (in office 1174–202), Karl Bengtsson (in office 1216–20), and Birger Magnusson (in office 1248–66). In addition, ecclesiastical art depicting aristocratic warriors displayed increasing similarities to the milites of other parts of Europe: the late 12th-century baptismal font from Lyngsjö church, in modern-day Skåne, includes a contemporaneous depiction of Thomas Beckett’s murder including heavily-armoured warriors; while the Baldishol tapestry from Ringsaker in Norway, from the mid-12th century, shows an armoured horseman armed with a spear and a shield. While the Scandinavian aristocracy chose to portray themselves as fully integrated within the rest of Europe, certain
references in the narrative corpus indicate that their warfare practices did not always conform to Continental European ideals.

My first example concerns battle formations. Most narrative sources, such as Heimskringla, Sverris saga or Gesta Danorum, mention that the opposing sides of a melee would form their respective battle arrays, composed chiefly of foot soldiers but supported by cavalry, and eventually close in on each other. Konungs skuggsjá, however, advises the reader on how to act when fighting in a svínfylking, or wedge-shaped column: *Ef þu ert staddr íorrosto alannnde oc skal afeti bæriaaz oc ert þu staddr ibælli svínfylórar fylkingar [...]* (Holm-Olsen 1945: 59) ‘If you are fighting on foot in a land battle and are placed at the point of a wedge-shaped column [...]’ (Larson 1917: 214).

Presumably, such specific advice would not have been included in the text if the practice had not been in use during this period. Curiously, Tacitus mentions this same formation in the sixth chapter of his Germania, written in the 1st century AD, stating that it was a practice favoured by the Germanic peoples, namely: *Acies per cuneos componitur,* or ‘[Their] formation is composed of a wedge’ [the shape of a triangle] (Koestermann 1970: 9 [my translation]).

A possible connection between these two sources would probably seem tenuous, were it not for a mention in a third source, Saxo Grammaticus’ Gesta Danorum. According to Saxo, the wedge-shaped column was taught to the legendary King Hadding by an old man, probably representing a thinly veiled Óðinn:

*Ut prima per dyadem phalanx ac per tetradem secunda constaret, tertia uero octoadis adiectione succresceret, semperque priorem insequens dupliciatis augmento transcederer.*

In the first row he would put two men, four in the second, then increase the third to eight, and step up each succeeding rank by doubling the numbers of the one in front (Friis-Jensen and Fisher 2015: I: 66–9).

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Figure 4. Stora Hammars I. The Gotlandic picture stones of Stora Hammars contain one of the very few contemporary battle depictions from the Viking Age. The Stora Hammars I picture stone shows a large ship under sail and several instances of battles, although details about equipment or specific practices are difficult to discern. CCO
Predictably, Saxo does not mention the *svínfylking* in his contemporaneous chapters, where the use of cavalry and sieges in warfare is predominant. He did, however, recognise its existence and archaic character – as it was a pre-Christian deity who bestowed this knowledge upon the Danes. When combined with the references from Tacitus – regarding Germanic practices during the Early Principate – and in *Konungs skuggsjá*, the nature of the practice becomes clear: it must have been a vestige of warfare used in Scandinavia predating the introduction of Continental European military practices in the 12th century, and most contemporaneous writers recognised it as such.

The second example explores the use of one of the most commonly featured weapons in the Icelanders’ sagas and skaldic poems: throwing spears. Many of the battle descriptions in Old Norse narratives begin with the exchange of such missiles, the intensity of which is often used to describe the fierceness of the fight. According to the skaldic poem *Glymdrápa*, composed by Þórbjǫrn hornklofi in the late 9th century (Kristjánsson 1997: 94–5):

*Ríks þreifsk reiddra øxa*

> rymr – knöttu spjør glymja –
> – svartskyggð bitu seggi
> sverð – fjöðkomungs föðar,
> þás hugvylfra hölða
> (hlaut andskoti Gauta)
> hör vas söngr of svírum
> (sigr) flugbeiddra vigra.

The roar of the swung axes of the mighty king’s army swelled;
black-polished swords bit men;
spears resounded when the song of flight-driven spears was loud over the necks of courageous men;
the adversary of the Gautar [= Haraldr] gained victory (Marold 2012: 87).

According to the contemporaneous sagas, however, by the 13th century the nobility fought in a Continental European manner, using heavy cavalry tactics, wielding melee weapons and occasionally picking up crossbows. Whether such practices were actually used is, however, questionable since the use of spears as missile weapons was still documented in 12th- and 13th-century sagas. Several examples are found in the aforementioned *Sverris saga* and *Hákonar saga Hákonarsonar*, which details the life and deeds of Hákon Hákonarson. Furthermore, chapter 37 in *Konungs skuggsjá* twice mentions that spears should not be hurled against the enemy:

> þat skallíþu oc vist vararce at aldriggí later þu spiot þitt ifylkinghu laust næma þu hafir tvau. Þvi at hætra er æitt spiot ifylkingu avelli en tvau sverð til barðaga. En af askipum er barzk þa vel þu þer tvau spiot þau er þu skioter ævig fra þer annat þat sæm langsept se sva at vél taki skipa meðal. En annat þat sæm skam-sept se oc þu mæger vel nayta er þu leitar til upp gongu (Holm-Olsen 1945: 60).

You must also be especially careful, when in the battle line, never to throw your spear, unless you have two, for in battle array one spear is more effective than two swords. But if the fight is on shipboard, select two spears which are not to be thrown, one with a shaft long enough to reach easily from ship to ship and the one with a shorter shaft, which you will find particularly serviceable when you try to board the enemy’s ship (Larson 1917: 214–5).

Martial equipment from Viking Age graves suggests that throwing spears were indeed widely used in battle, even by those belonging to the higher societal strata. Some of the most famous grave goods from Viking Age Scandinavia, such as in Grave 1 from Gjermundbu and those of the much discussed Bj.531 from Birka, include two spear-heads among the
weapons. In addition, several javelin- and spear-heads have been found among the burnt remains of the Birka garrison (Grieg 1947: 3, Hedenstierna-Jonson 2006: 57–8; Hedenstierna-Jonson 2018: 28–30).

The value of these comparisons is two-fold: on the one hand, the combination of sources sheds some light on dubious tactics that are barely mentioned in the older material, such as the svínfylking. On the other hand, the inclusion of archaic martial practices in 13th-century sources shows that the transformation of the Scandinavian military institutions might not have been as complete as it seems at first glance, and that the importance of Viking Age practices and traditions persisted – although slightly below the surface – well after the processes of Christianisation and ‘state formation’.

Conclusion

What does the presence of archaic martial features reveal regarding the nature of warfare in high medieval Scandinavia? Firstly, that the military transformation during the ‘state formation processes’ and the periods of internal struggles in all three Scandinavian kingdoms was as deeply steeped in continuity as it was in change. Although socio-political realities changed, the new martial institutions were firmly based on existing ones, such as the leiðangr or the hird. Many innovations were adopted piecemeal, and should be understood as small reforms or tweaks of the existing reality rather than revolutionary social and military changes. Secondly, that the identification of archaic military practices in 13th-century sources provides a glimpse of the oft-archaic nature of Scandinavian societies during the high medieval period. Thus, through comparing and contrasting the information of the medieval corpus with earlier sources, certain aspects of the warrior culture during the period have been confirmed.

The evolving military organisation and its appropriation of existing martial institutions had a substantial impact, especially from a socio-economic perspective. The naval levies of the late 13th century had become a source of revenue for the Scandinavian kings as a result of warfare transforming into an aristocratic business to a degree hitherto unseen in the region. The importance of Continental European innovations such as castles and heavy cavalry tactics had made waging war increasingly expensive, and it could only be efficiently conducted by the aristocratic strata and consequently the peasantry’s participation in mili-

Figure 5. Birger Jarl’s seal. By the mid-13th century, the Scandinavian aristocracy presented itself as fully integrated with the rest of Europe. This seal depicts Birger Magnusson, jarl of Sweden c. 1248–66. The jarl, heavily armoured astride a warhorse, is virtually indistinguishable from contemporaneous Continental portrayals of warring aristocrats. CCO
tary campaigns had lost its importance. As elsewhere in Europe, war was conducted by the *bellatores*, the privileged lay aristocracy. At the same time, however, the changes were not as far-reaching in Scandinavia as they had been on the Continent. The *leiðangr*, although diminished in importance, continued to exist and was occasionally mustered; and older martial practices, such as infantry formations or throwing spears, were still in use and well known to the elites recording treatises and chronicles. The duality of these changes, i.e. an increasing aristocratic dominance in society, although still founded upon older institutions and practices, emphasises the nature of the ‘state formation processes’ of the Scandinavian realms. The societal elites made use of innovations from Continental Europe to solidify their political, societal and economic dominance, and the introduction of these changes was controlled by the elites themselves. The continued existence of sizeable naval levies, and older martial traditions, which doubtlessly solidified the economic and military capacities of the elites, should be understood as a by-product of aristocratic agency.

My attempt at identifying older traits by comparing the high medieval written material to older sources provides a valuable opportunity to corroborate the continued existence of many of the martial practices often attributed to the Viking Age. Through my method the nature of the *leiðangr* in the 9th and 10th centuries can be hypothesised, and it also makes it possible to critically assess Tacitus’ claims about Germanic war practices by comparing them to the fatherly advice compiled in *Konungs Skuggsjá*. In addition, this text-critical methodology allows a reassessment of certain archaeological finds.

Although many of these approaches are, indeed, neither revolutionary nor ground-breaking, this reappraisal of the medieval Scandinavian sources may prove a valuable and beneficial addition for those researching the Viking phenomenon.

**Note**

1 Although there are no extant legal sources from this period, it is possible that other types of fines were collected. Fines related to the upkeep of ships, boat-houses or sails, for example, are mentioned in the earliest Norwegian laws; these fines were collected by the ship-districts and the local assemblies rather than by the Crown, and must have predated the expansion of royal power in the high medieval period.

**Bibliography**

Arbman, Holger
1939 *Birka: Sveriges äldsta handelsstad*. Bokförlags Aktiebolaget Thule, Stockholm.

Bagge, Sverre
2000 Innledende essay. In *Kongespeilet*, translated by Anton Wilhelm Brøgger, pp. vii–lxxi. De norske Bokklubbene, Oslo.

2010 *From Viking Stronghold to Christian Kingdom. State Formation in Norway c. 900–1350*. Museum Tusculanum Press, Copenhagen.

Bately, Janet and Anton Englert
2007 *Ohthere’s Voyages: A Late 9th-century Account of Voyages Along the Coasts of Norway and Denmark and Its Cultural Context*. Viking Ship Museum, Roskilde.

Brink, Stefan
2008 *Who were the Vikings?* In *The Viking World*, edited by Stefan Brink and Neil Price, pp. 4–7. Routledge, London.
Bull, Edvard
1920 Leding: militær- og finansforfattning i Norge i ældre tid. Steenske, Oslo.

Carroll, Jayne (translator)
2012 Þórðr Kolbeinsson, Eiriksdrápa. In Poetry from the Kings' Sagas 1: From Mythical Times to c. 1035, edited by Diana Whaley, pp. 487–513. Brepols, Turnhout.

Christiansen, Erik (translator)
1992 The Works of Sven Aggesen, Twelfth-Century Danish Historian. Viking Society for Northern Research, London.

Clarke, Helen and Björn Ambrosiani
1991 Towns in the Viking Age. Palgrave Macmillan, London.

DD: Diplomatarium Danicum. Edited by C.A. Christensen, Herluf Nielsen, Niels Skyum-Nielsen, Franz Blatt, Gustav Hermansen, Adam Afzelius, Kåre Olsen, H. Bach, K. Friis Johansen, Peter Jørgensen, Ernst Dittmer, Thomas Riis, Aage Andersen, Russell Friedman. 1932–2000. 35 volumes. Copenhagen.

Dobat, Andres Siegfried
2009 The State and the Strangers: The Role of External Forces in a Process of State Formation in Viking-Age South Scandinavia (C. AD 900–1050). Viking and Medieval Scandinavia 5: 65–104.

Dobat, Andres S, T. Douglas Price, Jacob Kveiborg, Jørgen Ilkjær and Peter Rowley-Conwy
2014 The four horses of the apocalypse: war-horses from the third-century weapon sacrifice at Illerup Aadal (Denmark). Antiquity 88: 191–204.

Dørum, Knut and Eirin Holberg
2017 Frå høvdingdøme til statsmakt i Noreg: ca. 200–1350. Cappelen Damm, Oslo.

Egilsson, Sveinbjörn and Finnur Jónsson
1931 [1913–16] Lexicon Poeticum Antiquæ Linguæ Septentrionalis. Ordbog over det norske-islandske skjaladesprog. S.L. Møllers Bogtrykkeri, Copenhagen.

Elortza Larrea, Beñat
2020 The Transformation of Naval Warfare in Scandinavia during the Twelfth Century. Journal of Medieval Military History XVIII: 81–98.

Ersland, Geir Atle and Terje H. Holm
2000 Norsk forsvarshistorie, bind 1: Krigsmaakt og kongemakt 900–1814. Eide Forlag, Bergen.

Finnur Jónsson (editor)
1902 Fagrskinna. Nóregs kononga tal. S. L. Møllers Bogtrykkeri, Copenhagen.
1911 Heimskringla. Nóregs Konunga Sǫgur. GEC Gad, Copenhagen.

Friis-Jensen, Karsten (editor) and Peter Fisher (translator)
2015 Saxo Grammaticus: Gesta Danorum. The History of the Danes, 2 volumes. Clarendon Press, Oxford

Fulk, R. D. (editor)
2012 Þorbjǫrn hornklofi. In Poetry of the Kings' Sagas 1: From Mythical Times to c. 1035, edited by Diana Whaley, p. 73. Brepols, Turnhout.

G: Gulatingslög
1935 The Earliest Norwegian Laws: being the Gulathing Law and the Frostathing Law. Translated by Laurence Marcellus Larson, pp. 35–210. Columbia University Press, New York.
1994 Den eldre Gulatingslova. Edited by Bjørn Eithun, Magnus Rindal and Tor Ulset. Riksarkivet, Oslo.

Gelting, Michael H (editor)
2002 [1979] Roskildekrøniken: Oversat og kommenteret. Wormianum, Højberg.

2005 Legal Reform and the Development of Peasant Dependence in Thirteenth-Century Denmark. In Forms of Servitude in Northern and Central Europe: Decline, Resistance, and Expansion, edited by Paul Freedman and Monique Bourin, pp. 343–67. Brepols, Turnhout.

Gertz, M. C. L (editor)
1917 Scriptores Minores Historiae Danicae Medii Aevi. GEC Gad, Copenhagen.
Grieg, Sigurd
1947 Norske oldfunn VIII, Gjermundbufunnet. Universitetets oldsaksamling, Oslo.

Grimm, Oliver
2002 The military context of Norwegian boathouses AD 1–1500. In Maritime Warfare in Northern Europe. Technology, organisation, logistics and administration 500 BC–1500 AD, edited by Anne Nørgård Jørgensen, John Pind, Lars Jørgensen and Birthe Clausen, pp. 105–123. PNM, Copenhagen.
2006 Großbootshaus – Zentrum und Herrschaft. De Gruyter, Berlin.

Hedenstierna-Jonson, Charlotte
2006 The Birka warrior. The material culture of a martial society. PhD dissertation, Archaeological Research Laboratory, Stockholm University, Stockholm.
2018 Women at War? The Birka Female Warrior and Her Implications. The SAA Archaeological Record 18 (3): 28–31.

Hollander, Lee M (translator)
1964 Heimskringla. The History of the Kings of Norway. University of Texas Press, Austin.

Holm-Olsen, Ludvig (editor)
1945 Konungs skuggsía. Norsk historisk-kjeldeskrift-institutt, Oslo.

Hybel, Nils
2018 The Nature of Kingship c.800–1300. The Danish incident. Brill, Leiden.
Ilkjær, Jørgen, Claus von Carnap-Bornheim, Marcin Biborski, Xenia Pauli Jensen, Lars Chr. Nørbach, Alexander Bursche and Andrzej Kokowski
1991–2019 Illerup Ådal. 15 vols. Jutland Archaeological Society, Højberg.

Ilkjær, Jørgen
2000 Den første Norgeshistorien. Illerupfunnet: Ny innsikt i skandinavisk romertid. Kulturhistorisk forlag, Tønsberg.

Imsen, Steinar
2000 Hirdskråen: Hirdloven til Norges konge og hans håndgagne menn. Riksarkivet, Oslo.

Iversen, Frode
2019 The Thing and the King: The Formation of the Norwegian Medieval Kingdom. In Polity and Neighbourhood in Early Medieval Europe, edited by Julio Escalona, Orri Vésteinsson and Stuart Brookes, pp. 147–72. Brepols, Turnhout.
2020 Between Tribe and Kingdom – People, Land and Law in Scandza AD 500–1350. In Rulership 1st to 14th century Scandinavia. Royal graves and sites in Avaldsnes and beyond, edited by Dagfinn Skre, pp. 245–304. De Gruyter, Berlin.

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

Kristjánsson, Jónas
1997 [1988] Eddas and Sagas, Iceland’s Medieval Literature. Translated by Peter Foote. Hið Íslenzka Forritafélag, Reykjavík.

Koestermann, Erich (editor)
1970 Germania, Agricola, Dialogus de Oratoribus. De Gruyter, Berlin.

Krag, Claus
1995 Vikingtid og rikssamling: 800–1130. Aschehoug, Oslo.

Larson, Laurence Marcellus (translator)
1917 The King’s Mirror (Speculum Regale – Konungs Skuggsía). New York American-Scandinavian Foundation, New York.

Larsson, Mats G. and Staffan Fridell
2014 Roden och jarlen. Namn och bygd 102: 51–68.
Lindkvist, Thomas
1988 *Plundring, skatter och den feodala statens framväxt. Organisatoriska tendenser i Sverige under övergången från vikingatid till tidig medeltid. Historiska institutionen, Uppsala.*
1991 Social and Political Power in Sweden, 1000–1300: Predatory Incursions, Royal Taxation, and the Formation of a Feudal State. In *Social Approaches to Viking Studies*, edited by Ross Samson, pp. 137–45. Cruithne Press, Glasgow.
2014 The Land, Men and Law of Västergötland. In *New Approaches to Early Law in Scandinavia*, edited by Stefan Brink and Lisa Collinson, pp. 89–99. Brepols, Turnhout.

Line, Philip
2007 *Kingship and State Formation in Sweden 1130–1290*. Brill, Leiden.

Ljungqvist, Fredrik Charpentier
2015 *Lagfäst Kungamakt under Högmmedeltiden – en komparativ internordisk studie*. Institutet för rätthistorisk forskning, Stockholm.

Lund, Niels
1999 *Lið, Leding og Landeværn. Hær og samfund i Danmark i ældre middelalder*. Vikingeskibshallen, Roskilde.

Lund Hansen, Ulla
2002 Logistic considerations in connection with the attacks on Denmark from the sea in the Late Roman period. In *Maritime Warfare in Northern Europe. Technology, organisation, logistics and administration 500 BC–1500 AD*, edited by Anne Nørgård Jørgensen, John Pind, Lars Jørgensen and Birthe Clausen, pp. 29–46. PNM, Copenhagen.

Malmros, Rikke
2005 Kongemagt og leding i Norge og Danmark omkring 1100 belyst ud fra den tidlige kristne fyrstedigting. *Historisk Tidsskrift* 105 (2): 320–80.

Magerøy, Hallvard
2009 *Store Norske Leksikon*. Electronic document, [https://snl.no/Ulfj%C3%96%20] last accessed 25.11.2020

Marold, Edith (editor)
2012 *Þorbjǫrn hornklofi, Glymdrápa*. In *Poetry from the Kings’ Sagas 1: From Mythical Times to c. 1035*, edited by Diana Whaley, pp. 75–90. Brepols, Turnhout.

Myhre, Bjørn
1985 Boathouses as Indicators of Political Organisation. *Norwegian Archaeological Review* 18: 37–60.

Nørgård Jørgensen, Anne
2002 Naval Bases in Southern Scandinavia from the 7th to the 12th Century. In *Maritime Warfare in Northern Europe. Technology, organisation, logistics and administration 500 BC–1500 AD*, edited by Anne Nørgård Jørgensen, John Pind, Lars Jørgensen and Birthe Clausen, pp. 125–52. PNM, Copenhagen.

Nørgård Jørgensen, Anne, John Pind, Lars Jørgensen and Birthe Clausen (editors)
2002 *Maritime Warfare in Northern Europe. Technology, organisation, logistics and administration 500 BC–1500 AD*. PNM, Copenhagen.

Paulsson, Göte (editor)
1974 *Annales Suecici Medii Aevi*. Svensk medeltidsannalistik kommenterad och utgiven. Bibliotheca Historica Lundensis, Lund.

Pedersen, Anne
2014 *Dead Warriors in Living Memory. A Study of Weapon and Equestrian Burials in Viking-Age Denmark, AD 800–1000*. PNM, Copenhagen.

Peel, Christine (editor)
2015 *Guta Lag and Guta Saga. The Law and History of the Gotlanders*. Routledge, Abingdon.

Raffield, Ben, Claire Greenlow, Neil Price and Mark Collard
2016 Ingroup identification, identity fusion and the formation of Viking war bands. *World Archaeology* 48 (1): 35–50.
Roesdahl, Else
2008 The Emergence of Denmark and the Reign of Harald Bluetooth. In The Viking World, edited by Stefan Brink and Neil Price, pp. 652–64. Routledge, London.

Roesdahl, Else, Søren M. Sindbæk, Anne Pedersen and David M. Wilson
2014 Aggersborg: The Viking-Age settlement and fortress. Jutland Archaeological Society, Moesgaard.

Schroeder, H. J (editor)
1937 Disciplinary Decrees of the General Councils: Text, Translation and Commentary. B. Herder, St. Louis.

Semple, Sarah, Alexandra Sanmark, Frode Iversen and Natascha Mehler
2020 Negotiating the North: Meeting-Places in the Middle Ages in the North Sea Zone. Routledge, London.

Septhon, J (translator)
1899 The saga of King Sverri of Norway. David Nutt, London.

Skovgaard-Petersen, Inge
2009 Den Store Danske. Electronic document, [https://denstoredanske.lex.dk/annaler] last accessed 20.07.2020.

Skre, Dagfinn
2007 Kaupang in Skiringssal: Excavations and Surveys at Kaupang and Huseby, 1998–2003. Background and Results. Aarhus University Press, Aarhus.
2014 Norðvegr – Norway: From Sailing Route to Kingdom. European Review 22 (1): 34–44.

Solberg, Bergljot
1985 Social status in the Merovingian and Viking periods in Norway from archaeological and historical sources. Norwegian Archaeological Review 18: 61–76.

Stylegar, Frans-Arne and Oliver Grimm
2005 Boathouses in Northern Europe and the North Atlantic. The International Journal of Nautical Archaeology 34 (2): 253–68.

Tamm, Ditlev and Helle Vogt (editors)
2016 The Danish medieval laws. The laws of Scania, Zeoland and Jutland. Routledge, Abingdon.

UL: Upplandslagen. Svenska Landskapslagar I: Upplandslagen. Edited by Åke Holmbäck and Elias Wessén 1933. Hugo Gebers Förlag, Stockholm.

Ulsig, Erik
1994 Højmiddelalder (1050–1350). In Middelalderens Danmark. Kultur og samfund fra trosskifte til reformation, edited by Per Ingesman, pp. 28–39. GEC Gads Forlag, Copenhagen.

de Vries, Jan
1977 Altnordisches Etymologisches Wörterbuch. Brill, Leiden.

Williams, Gareth
2002 Ship-levies in the Viking Age. The methodology of studying military institutions in a semi-historical society. In Maritime Warfare in Northern Europe. Technology, organisation, logistics and administration 500 BC–1500 AD, edited by Anne Norgård Jørgensen, John Pind, Lars Jørgensen and Birthe Clausen, pp. 293–308. PNM, Copenhagen.

Zoëga, Geir T.
1910 A Concise Dictionary of Old Icelandic. Clarendon Press, Oxford.
Þorleifur Hauksson (editor)
2007 Sverris saga. Íslenzk fornrit, volume 30. Hið Íslenzka Fornritafélag, Reykjavík.

Østmo, Einar
2020 The History of the Norvegr 2000 BC–1000 AD. In Rulership 1st to 14th century Scandinavia. Royal graves and sites in Avaldsnes and beyond, edited by Dagfinn Skre, pp. 3–66. De Gruyter, Berlin.

Øyrehagen Sunde, Jørn
2020 Store Norske Leksikon. Electronic document, [https://snl.no/Gulatingslova] last accessed 03.04.2020.