

SCANDINAVIAN ARMIES

Military organization before the Viking Age

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The Baltic nations, Lithuania, Latvia and Estonia were, during the Viking Age and the high Middle Ages, under much influence from across the Baltic. A substantial part of this spell and fear was military in nature. But the roots of Scandinavian aggression (and defence) run deeper. Here pre-Viking armies are briefly discussed from an archaeological point of view.

Hjortspring

The famous Hjortspring boat-find and weapons sacrifice came from a tiny bog on the northern part of the island of Als just off the southeastern coast of Jutland (Rosenberg 1937; cf. Kaul 1988). The very many wooden items still draw much attention, although only about half the area of the find was undisturbed. The find, recently Carbon-14 dated to the late fourth century B. C. (cf. Tauber 1987), contained the following items, including several swords and spearheads which had been destroyed deliberately:

(A) One 19 m long light very elegant and technically extremely well-built boat with two identical double prows (also, Rieck and Crumlin) Petersen 1988).

It weighed about 0.5 ton. The interior measurements are c. 13 by 1.9 by 0.7 m. In the one end of the boat was a little, c. 1.2 m long, trapezoid deck with ornamented fronts, seating two persons facing the centre and a third one facing an open area at the "stern". Other 2 by 9 seats were found spaced one metre apart. A (side)rudder was found at the stern; a remnant of another probably similar rudder lay by the other end or the "prow".

The boat was thus manned by 18 ordinary paddlers (paddles have also been found) and two special persons, who may or may not have taken part in the paddling, plus at least one man at the rudder and a probable second at the alternative rudder, shouting, beating or even the rhythm of paddling and acting as a look-out, for instance when the boat was beached (a person at the "prow" is the only one who is facing a crew). Most important among the crew was no doubt the "steersman" of the small end of the little deck. In all 21 (or 22) men (there is hardly room for more), three (or four) of whom may be classified as "commanders", and the rest as common warriors (and paddlers). With the boat

came the following weapons and other artefacts, which, incidentally, may be fitted into the weaponry of the larger western Baltic region with some reference to the Central European, or Celtic, development (cf., e.g., Rapin 1991):

(B) 11 rather short single-edged swords (8 of which are complete). At least one is a "scimitar" (with inwardly curved edge).

(C) 169 spearheads (138 of iron, 31 of antler/bone) plus wooden shafts (the longest piece, broken at both ends, is almost 2 m). The antler spearheads are about 10 cm long, the iron specimens are of the following type:

(1) 31 short broad spearheads ("javelins") with a mid-rib and a (very) short free socket (5-16 cm long, -5 cm wide, at the middle of blade).

(2) 34 long narrow spearheads ("javelins", usually high sharp mid-rib) with a short free socket (13-29 cm, -3.2 cm wide, at the middle of blade). This form seems designed with deep penetration, perhaps of mail-coats, in mind.

(3) 8 long narrow bayonet-like spearheads ("lances") with a long (-12 cm) free socket ((13)-25/43.5 cm, -2.7/5.6 cm wide, at the base of blade). This type also seems designed for deep penetration.

(4) 64 powerful broad spearheads ("lances") with a free socket of some length (12-36.5 cm, -6.2/7.5 cm wide, at the base of blade). One additional specimen has no free socket, but is 30 cm long and with inlay in copper.

(D) Several, perhaps torn, mail-coats (10-12 (?)). The mail-coats were far too poorly preserved for closer study, only a few rings were brought to the museum (diameter usually 1.6-0.8 cm; other rings are of 0.4 and a few of 0.9-1.0 cm)).

(E) 64 (in the publication (Rosenberg 1937), 50) rounded-square flat and thin wooden shields sufficiently well preserved for their length and the width to be at least approximately measured or reconstructed plus a number of smaller fragments, which possibly comprise parts of additional specimens.

The shield-bosses are lenticular in shape and, along the longitudinal axis of the shield, divided into two halves by grooves and a moulding separating two protuberances. About 67/69 handles for shields were found plus 10 unfinished spares. The more or less intact shields belong, according to the publication, to three groups:

(1) 9 narrow shields (the width half the length).

(2) 24 medium shields (the width between 1/2 and 2/3 of the length).

(3) 17 broad shields (the width 2/3, or more, of the length).

However, a plot of the length against the width of all shields whose measures are recognizable, makes the latter division less obvious, although it is solely based on arithmetic. Using the measures and descriptions of the shields in the excavation report (not the publication, although the general results are the same), most of the specimens (out of the total number of c. 64) cluster around an average of 70-75 cm in length and c. 45 in width, the width being about two thirds of the length, whether the shield is short (down to 61 cm) or long (up to about 88 cm). Some 11 (or 12) shields are narrow (the width being half the length or less), again, whether short or long (66 to 102 cm).

(F) various other artefacts including an antler cheek-piece, turned highly profiled wooded boxes (for fire-making kits (?)), wooden spoons and bowls, some bronze belt fittings, a bronze bottom, a broken pin of bronze, perhaps a bronze coaudron, several tools (including some for iron-making), wooded plates with handles (perhaps "drums", some "handles" found may be drum-sticks),

a mallet, a scoop (for the boat), a needle, some shafts (for axes), strings, a ceramic vessel (dated to the early/middle pre-Roman Iron Age), on top of a shield and perhaps representing a *terminus ante quem* for the military sacrifice), etc.

The above numbers are minimum ones since, before the excavation, although quite random, cutting of peat in Hjortspring Bog in the 1880s destroyed an unknown number of items, including one plank (for the boat) and "a large number" of spearheads of "iron and bone". The bog is, however, very small, only c. 45 by 50 m, and was (almost) completely excavated. It should be noted that arrows and arrowheads are totally absent, as is cavalry equipment (except for one possible cheekpiece).

Warriors

On the basis of analyses of the military sacrifices of the late Roman Iron Age and the Migration period (for example, Lonstrup 1988), it has been suggested that the Hjortspring find contains the enemy spoils from a battle with local Alasian forces. The hypothesis, that the offering only comprises a percentage of the conquered equipment is impossible to verify, and may be altogether false since great effort was put into destroying the enemy weapons and utensils. We may refer to Orosius's famous, but not unique, description of the victory of the Cimbri and their allies over the Romans and their confederates perhaps 80,000 strong, at Rhone near Orange in Southern France in 105 B.C.:

"Having gained possession of both camps and of a huge amount of booty, the enemy seemed driven by some strange and unusual animus. They completely destroyed everything they had captured; clothing was cut to pieces and strewn about, gold and silver were thrown into the river, the breastplates of the men were hacked to pieces, the trappings of the horses were ruined, the horses themselves were drowned in whirlpools, and men, with nooses fastened around their necks, were hanged from trees. Thus the conqueror gained no booty, while the conquered obtained no mercy. At Rome there was not only very great sorrow, but also fear that the Cimbri would immediately cross the Alps and destroy Italy". (Orosius V. 16.).

We are also reminded of the sinking of the German high sea fleet after the First World War and the destruction of enormous amounts of German military equipment after the Second, no doubt the greatest military sacrifice in World history, underlining the ritual and symbolic power (used) weapons are bestowed even nowadays. Enemy weapons cannot be re-used by the noble winners of battle.

The first scenario to consider is the following: If each enemy warrior of the Hjortspring battle carried at least two spears, one heavy (lance) for close combat and one (or two) light, whether tipped by iron or antler, for throwing as a missile at the beginning of combat, and threw both in battle or in flight, the number of enemy troops would have been at least 84/85 (or a minimum of four manned boats) (Fig. 1). Counting only iron-tipped spears, we come up with 69 warriors, a number matched closely by the number of shield handles (67/69) and more generally by the number of shields (potentially thrown in flight, and if so no doubt sooner than the heavy spear and the sword). The number of swords is perhaps matched by the, allegedly uncertain, number of mail-coats (10-20(?)) and seems,

incidentally, to be about equal to the number of spears with bayonet-like heads (eight). If all the warriors were equipped with a sword and a mail-coat, only the man from one boat might have been slain/caught, the rest would have reached safety after having thrown their shields and spears in the flight (and the fight) (cf. Lønstrup 1988). And if so, perhaps only one-eighth of the force was lost.

	<u>PADDLERS/WARRIORS</u>	<u>COMMANDERS</u>
Mail-coats		10+ (?)
Swords		11
Bayonet-lances, iron-tipped		8
Lances, iron-tipped	65	
Javelins, iron-tipped	65	
- broad type	31	
- narrow type	34	
Javelins, antler/bone-tipped	31	
Shield-handles (plus 10 spears)	67/68	
Broad shields	52/52(82 %)	
Narrow shields		11/12 (18 %)

Fig. 1. Suggested ratios of warriors/commanders and concomitant equipment from the Hjortspring find (sacrifice).

A disturbing uncertainty remains, however, as it seems highly unlikely that all the warriors would have worn the no doubt very costly mail coats, some of the earliest in Europe, possibly reserved alone for the “steersmen” and the other commanders, to whom the swords (and the bayonet-spears), although not particularly costly, may also belong. Whether the commanders also carried shields is not known. On the one hand no particular shields were found (nor, incidentally, any field-colours), on the other, the shield seems to be a general weapon. Perhaps the rare narrow shields (11 or 12) in the Hjortspring find represent the main defensive weapon of the commanders. It can be argued that the commanders, dependent on their role in the fighting, also held the rather splendid spears with bayonet-like heads (type 3 above) and, perhaps, the couple of very heavy lances too (like the fine specimen mentioned above under Type 4). In fact, the Hjortspring strategos, like this Ancient Greek counterpart, may have fought alongside his men, but perhaps from the rear at the onset and only at the close of the fighting in the zone of death, as the bayonet-spear and the sword, weapons of killing rather than of wounding, might imply.

In fact, the numbers of different spears may be conclusive. Leaving aside the bonetipped ones, we have $64 + 1 = 65$ heavy lances of type 4 (for close combat) and $31 + 34 = 65$ light ones (javelins) of types 1 and 2 (for use as missiles). With the commanders equipped with mail-coats, swords and the bayonet-spears of type 3 (designed for piercing/killing), plus, perhaps, the couple of very heavy lances (supreme commanders?), the iron-tipped spears are satisfactorily distributed. We may allow the cheaper 31 antlerbone-tipped spears to be regarded as extras, possibly to be used at sea or in a first volley on land. The shields: short,

average, or long, broad or narrow, can only partially be distributed in variance with the weapon-types. Here, seemingly, other factors were at work, in particular the need for a rather broad specimen for the common warrior. At any rate, we must conclude that the equipment of the entire enemy army was conquered and sacrificed at Hjortspring. About the fate of the warriors we can only speculate; certainly they were not found in the bog. Probably they were killed, perhaps enslaved, perhaps even permitted to return, disarmed and humiliated, in the remaining boats.

If this line of argument is acceptable, the weapons in the Hjortspring find may thus be those of an entire army made up of a very minimum of three or four ships, each with one steersman (and a possible assistant) and two other commanders, plus some 18 common warriors with spears (and shields) alone. Since the find was disturbed before excavation, the real size of the Hjortspring army must have been somewhat larger. The very maximum size of the army would be six to eight ships, or about 150 (130-170) warriors, more likely only about 100 men, or slightly more. The 100 warriors may, however, represent a tribal group the size of perhaps 3,000 or even 5,000 people, or several hundred farmsteads. In the pre-Roman Iron Age, the island of Als (about 300 sq. km), on which Hjortspring bog is situated, was in the Pre-Roman Iron Age probably settled by a population of similar size, at any rate sufficient to sustain a militia force that won the battle with the intruders.

Fighting

The Hjortspring find constitutes a unique opportunity of gaining a close view of the size, equipment, fighting techniques, behaviour and rituals of a pre-Roman barbarian army and its opponent. According to the Mediterranean chronology, we find ourselves in the late Classical/early Hellenistic period or in the age of Philip of Macedonia and his son Alexander. In the case of the Hjortspring battle, the enemy force was an amphibious one. Cavalry was not employed. It is clear that the equipment was standardized and made up of one heavy spear (or lance) and one light spear (missile). A short sword was used for close combat, but seemingly only by a few of the fighters. Mail-coats too may have been restricted to commanders. The standardized weapons equipment indicates standardized methods of combat, involving whole contingents of beached infantry organized in units (or platoons) of 18 warriors under their commanders and "steersmen" (with mail-coats and swords). The battle was probably opened by the throwing of light spears followed by fighting at close quarters between shielded spearmen or lancers rushing to attack, since no more throwing spears were available than what early enemy fire may have left unbroken on the battle ground. Bow and arrow, though no doubt well known by the combatants, were, interestingly enough, not employed in the fighting. This absence may reflect a (mutual) code of combat.

The order of battle for each Hjortspring type platoon (and for grouped platoons, or companies) may hence, for military reasons and with an attack in mind, be drawn up in the following fashion, which is also in accordance with the seating in the boat (Fig. 2): The commanders (except the possible assistant steersman) are placed on the right flank of a phalanx two warriors deep. (The position

to the front and right is similar to the prestigious posting of Ancient Greek strategoi). The distribution of the javelins is hypothetical, but one of the ranks, in the battle order possibly the front one may (along with lance and shield) have held the narrow-headed precisely fired deep penetration javelins and probably the antler/bone-tipped “first volley” ones as well. Both weapons require rather high spearmanship. The second rank would thus (along with lance and shield) have been equipped with the broad-headed javelin.

(C) Wna Wna Wna Wna Wna Wna Wna Wna Wna C C (steersman)
 Wb Wb Wb Wb Wb Wb Wb Wb Wb C

Fig. 2. Hypothetical order of battle of the Hjortspring Boat platoon or phalanx. The front of battle is up.

Key: C=commander (with mail-coat, sword, bayonet-lance (or alternate) and narrow/long shield); W=common warrior (with lance and average shield); b=broad iron-tipped throwing spear; n=narrow iron-tipped javelin; a=antler/bone-tipped javelin.

The simple rationale, the first of at least two major possible ones, may be the following (perhaps running the risk of being too “modern” in perception of the discipline of the Hjortspring platoon): After the first volley of antler/bone-tipped javelins, a second would follow, at still closer range and from behind, with the broadheaded iron-tipped spears of the second rank, like the first volley aimed more or less randomly at the enemy line. Upon this, the first rank would charge, selecting precise targets for its piercing narrow-headed iron-tipped spears before being engaged in close combat to create a weak spot in the enemy formation. The second rank would follow suit, perhaps in a “Germanic” wedge-shaped formation, and add to the punch, seeking to break through the enemy phalanx or make it waver. Shortly after this, the commanders, having probably already moved towards the centre and thence to the point of fierce engagement, would be closing in too, perhaps seeking out their opponents in rank. The outcome of the battle would probably be decided relatively short time after that.

Another rationale would have the ranks reversed, but the sequence of firing the same. The first to engage at close quarters would then be the warriors with broad-bladed javelins. However, this scenario would make it more difficult for the men of the second rank, with the narrow-headed javelins, to seek out their targets. To put the commanders at the head of the charges is contradicted by their equipment.

The order of battle and the development of the combat for a Hjortspring phalanx under attack may not have been too different from the above scenario, apart, perhaps, from the posting in the terrain. Here locations protecting the flanks, areas near streams or bogs, peninsulas, even hill-tops etc., may have been chosen, if time allowed. Missiles would be hurled against the attackers and an attempt, perhaps by a throwing of the javelins with penetrating spearheads, made to stop the advance before the line of defense. If this was not successful, close combat would follow.

The phalanx

These battles would thus have resembled a clash between hoplite or other phalanx infantry forces of the Greek Archaic and Classical ages, the age of the rise of “The western way of warfare”, where quick military decision was sought in order to avoid protracted fighting and collateral damage (Hanson 1991; cf. Keegan 1993). It is in this context that the absence at Hjortspring of bow and arrow, which may have drawn out the final decision, is highly interesting. The small number of swords (limited in length and besides relatively cheap) may, perhaps, be seen in the same light. Again a long period of close fighting before decision was reached is avoided. At any rate, the swords are short and do not permit a free manoeuvre battle, perhaps dominated by single combat, as between warriors with longswords (and shields).

Whether a true phalanx type of combat was employed or a more loose formation chosen is of course unknown, although above we have opted for a version of the former. The standardization of infantry equipment, the close collaboration between warriors, organized in “ships”, speak in favour of solidarity and coherence, thus discipline, in action. On the other hand, the, seemingly, relatively short spears and lances (2 m) and in particular the technologically rather simple character of the weapons employed (in particular the small shield) do not permit most of the techniques of the heavily protected contemporary Greek deep Hoplite phalanx, which may virtually “push” its way into a breach in the enemy formation.

The warriors of the classic hoplite phalanx wore helmet, breast-plate, greaves and a very large shield (the hoplon), all in bronze (or, in the case of the shield, bronzecovered) and carried one, or two, rather long spears (2-3 m), with metal socket for killing stumbling or wounded enemy soldiers, and a short heavy sword. This weaponry is clearly reminiscent of Hjortspring, even in a direct way, since the “scimitar” of the find, with inward curving edge, most probably had an Etruscan or another southern prototype. However, the lack of heavy armour rather makes the Hjortspring warrior resemble the light-armed troops of the Mediterranean or their cousins, the “reformed” light hoplite of the late fourth century B.C., whose lance was, however, very long. (In fact, also the mail-coats belong with the mobile, often cavalry, troops from the period of the rise of Macedonia onwards (Warry 1980)).

It would be going too far to trace the emergence (probably in the twelfth century B.C.) and development of the phalanx with its preference for spear/lance and shield combat in formation. However, in this context it is worth pointing to the equipment shown on the “Face-urns” of the sixth century B.C. from the “region of Biskupin” and other planned fortress-towns in eastern central Poland (La Baume 1963) (Fig. 3). Indeed, the phalanx almost seems a logical extension of the solidarity, uniformity, and planning invested in the creation of Biskupin with its more than 100 structures of equal size along parallel streets. Incidentally, a secondary colonial attempt may be reflected in the strange concentration near Vejle in south-eastern Jutland of quite a number of central Polish artefacts (cf. Jensen 1969).

Rider	13
- with one spear	7
- with two spears	6
Waggon	11
Human with one spear	2
- with two spears	2
One spear	4
Two spears	25
Three spears	2
Sword/dagger	2
Shield/shield-boss	27

Fig. 3. Weapons and related equipment depicted on Polish "Face-urns" of, about, the sixth century B.C. (data, La Baume 1963). Concerning mobility, no boats are seen (only horses and waggons). The riders often participate in hunts. The Waggon (with four wheels) include horse (s) (and driver). The single weapons seemingly belong to the person represented by the face-urn.

A highly interesting issue finally remains, namely the battlefield casualties. Above two calculations were presented for Hjortspring. In the first one, only one-eighth (or less) of the attacking force would (potentially) have lost life (the persons with mail-coats and/or swords). This is actually consistent with information from Greek hoplite battles (Lazenby 1991). In the other, and, due to the supposed rarity of mail-coats and other factors, more likely calculation, probably the whole army succumbed or, at least, surrendered their equipment. The first number of casualties is acceptable in fighting between neighbouring groups, who must live to see each other in the future. The second number, reflecting the possible loss of an entire force and the consequent displacement of a whole tribal group, would seem only acceptable in the case of distant enemies. This certainly underlines, as does the above quote from Orosius, the ferocity and cmelty even of Barbarian warfare in the late first millennium B.C.

After Hjortspring

The post-Hjortspring development of north European Iron Age warfare must be seen the light of the remarkable standardized Hjortspring phalanx and similar small armies, which represent the break with Bronze-, and Stone-Age practices. Unfortunately, relatively little information concerns the period between Hjortspring and the third century A.D., although weapons are not infrequent in burials from the end of the first millennium B.C. until the third century A.D. The size and character of the military organization in Denmark during the late Roman and Migration periods are directly reflected in the famous huge military offerings of this phase like Vimose, Illemp, Ejsbøl, Nydam, and Thorsbjerg, which, no doubt, mirror the equipment of Roman auxiliary and federate units (Fig. 4). These fine finds are, incidentally, all from the same, much contested, zone in which also Hjortspring was found, centred on the Lille Bælt sound between Jutlant and the island of Funen.

	<u>NYDAM I</u>	<u>EJSBØL N.</u>
Bridles	7	9
Saddles		9
Spurs (pairs)		8-9
Belts		58
Swords	107	59-60
Knives		56-60
Shields	73	175
Lances	c.300	189
Javelins	c.300	200
Axes	37	
Bows	40	
Arrows	170+	675
Fine weapon-sets		12-15

Fig. 4. Selected equipment in military sacrifices of the Roman period in Denmark (data, Exhibition, Museum at Gottorp Castle, Slesvig; Ørsnes 1984). Nydam I and Ejsbøl N. are both from the fourth century A.D.

The late Germanic armies were larger than Hjortspring, their boats were larger too and especially more suited to longer journeys and carrying a load. These armies also used bows and a little cavalry (including commanders), and more than half as many more swordsmen than Hjortspring, the sword now being the main and most prestigious weapon. The organization of warriors in standardized, but differently structured units, to judge from the numbers of the types of weapons and other equipment, both resemble the Hjortspring phalanx and is far more advanced than this. Highly important too is the fact that the better studied of the late finds confirm, through their near identical numbers of various types of weapons etc., the hypothesis stated above in connection with the study of Hjortspring, that the military sacrifices comprise equipment of whole armies (*contra* Lønstrup 1988).

Thus, at Ejsbøl in southeastern Jutland, in the fourth century A.D., some 60 swordsmen (including 12-15 commanders, 9 of whom led cavalry) were supported by a company or two of about 120 infantry with shield, lance and javelin (Orsnes 1984). At Nydam, also in southeastern Jutland, with its fine boats, at about the same time, or slightly earlier, we may reckon, according to data from the exhibition at Gottorp Castle, Slesvig, the interpretation of which is not final, with a company of swordsmen (also carrying shields), some 300 warriors with lances and javelins only and even a large platoon of bowmen with axes. To this comes a little cavalry, probably merely commanders.

About the methods of fighting, often successful, we are well informed by Roman literary sources (Engström 1992). And at any rate, the Migration period armies were forerunners of the Carolingian development, setting the standards, not least of cavalry warfare, in the high Middle Ages warfare and beyond, until the introduction of effective firearms.

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Ankstyvieji skandinavų ginklai. Karinė organizacija ikivikinginiu laikotarpiu

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Santrauka

Baltų tautos Vikingų laikotarpyje ir ankstyvaisiais viduramžiais buvo stiprioje Baltijos jūros vakarių pakrančių įtakoje. Straipsnyje trumpai analizuojama ikivikinginio laikotarpio Danijos kariauna, remiantis archeologine medžiaga iš Hjortspringo.

Žymus Hjortspringo laivas su ginklų auka buvo rastas mažutėje pelkėje Al-so salos šiaurinėje dalyje, prie pat pietrytinės Jutlandijos pakrantės. 19 metrų gerai išlikęs ir technologiškai puikiai pastatytas laivas su dviejomis analogiškomis laivo nosimis, sveriantis apie pusę tonos galėjo pakelti 21 (ar 22) žmonių įgulą. Joje 3 ar 4 žmonės buvo vadai - vairininkai, kiti kariai ir irklininkai. Laive aptikti ginklai ir kiti daiktai gali būti skirtini plačiam vakarų Baltijos jūros regionui su kai kuriomis nuorodomis į Centrinę Europą ir keltų pasaulį.

Išliko daugybė medinių daiktų, tačiau tik apie pusė radimo vietos buvo nesusardyta. Radiokarboniniu datavimu buvo nustatyta, kad tai I a. pr. Kr. paskutinis ketvirtis. Aptikta keliolika kalavijų, 169 ietigaliai iš kurių 10 padaryti iš elnio rago,

kiti geležiniai, 114 įvairios formos medinių skydų, 10-12 (?) šarvinių apsiaustų, kitų įvairios paskirties daiktų iš rago, medžio, žalvario, molio ir t. t.

Remiantis senojo geležies amžiaus ir tautų kraustymosi laikotarpių ginkluotės aukojimo tyrinėjimais, iškelta hipotezė, kad tai karo grobis paimtas mūšyje su vietiniu Alsiano fortu. Iš aptiktų ginklų skaičius galima manyti, kad mūšyje galėjo dalyvauti mažiausiai 4 laivai su apie 84-85 kariais. Tačiau iki radimvietės suardymo pelkėje buvo daug daugiau ginklų ir Hjortspringo kariauną galėjo sudaryti daugiausia 6-8 laivai su apie 150 (130-170) karių, kurie buvo 3000-5000 žmonių genties nariai.

Hjortspringo radiniai duoda puikią galimybę sužinoti apie to meto ikiromėniško laikotarpio barbarų ir jų priešininkų kariaunų dydį, ginkluotę, kovos taktiką, elgesį ir apeigas. Hjortspringo atveju aišku, kad ginkluotė buvo standartizuota ir sudarė vieną artimai kovai skirtą ietį bei vieną svaidomąjį vienam kariui. Trumpi kalavijai buvo naudojami artimoje kovoje, tačiau tik keliolikos karių. Šarvuoti apsiaustai taip pat buvo nešiojami vadų. Standartiniai ginklai rodo ir taktikos vienumą įjungiant 18 karių su vadais ir „vairininkais“ į vieną būrį. Kautynės prasidėdavo svaidomųjų iečių metimu, po to ietininkai su skydais atakuodavo. Lankas ir strėlės, gerai žinomos kariams, nebuvo naudojamos. Mūšyje, pagal skaičiavimus, turėdavo žūti 1/8 karių, tačiau iš kai kurių požymių matyti, kad, greičiausiai dažnai pasiduodavo visa kariauna, sudėdama savo ginklus. Tai dažnas variantas kai kovodavo artimi kaimynai. Kitais atvejais, kai susidurdavo tolimi priešai ir žūdavo visas karių būrys, logiška manyti, kad gentis turėdavo trauktis.

Šiaurės Europos karybos raidoje po Hjortspringo pasireiškia mažų karinių būrių viešpatavimo pabaiga. Karių būriai didėja, jų laivai labiau pritaikomi tolimesnės kelionės ir didesniems kroviniams plukdyti. Danijos karinę organizaciją vėlyvajame Romėniškajame ir tautų kraustymosi laikotarpiais atspindi garsios aukojimo radimvietės Vimozės, Ilerupo, Esbjolo, Nydamo ir Thorsbergo pelkėse, kurios yra toje pačioje, kaip ir Hjortspringas zonoje.