

Anne Nørgård Jørgensen

## Military organisation and sea-defence in Denmark 200-1200 AD

In 1993, the Centre for Maritime Archaeology at the National Museum of Denmark was founded on a five year grant from the Danish National Research Foundation. One of the main subjects of research under the theme *Maritime Aspects of Archaeology* was the *military organisation* and – what seems natural considering to the geographical position of the Danish territory – the *sea-defence*.

### The military organisation

One of the first steps when investigating the subject of *military organisation* was first of all to provide a *Stand der Forschung* based on a discussion between historians and archaeologists. This was the reason why the newly established Centre for Maritime Archaeology of the National Museum of Denmark – in conjunction with the Royal Army Museum in Stockholm, the Institute of History at the University of Copenhagen, and the Archaeological Secretariat under the State Antiquary of National Danish Antiquities – invited scholars to an international symposium at the National Museum in Copenhagen from the 2nd to 4th of May 1996. The theme *Military Aspects of Scandinavian Society in a European Perspective, AD 1-1300* turned out to be of great interest to archaeologists and historians both from Denmark and abroad (Nørgård Jørgensen & Clausen 1997).

The military organisation of early societies deserved to be the subject of a large-scale international scholarly meeting in Scandinavia, while this subject, together with factors such as trade and religion, is one of the cornerstones in the process of *state-formation*. It is of vital importance for our understanding of prehistoric and historical societies that we discuss the changeover from military organisation on a tribal basis to a state army as reflected by both written sources and archaeological finds. Scandinavian historians have worked on the subject for many years, but there has not been a contribution to match this from the side of archaeology, where other

important areas of research concerning society and community have been at the centre of attention in recent decades. This is of course not the case when dealing with fortifications and other ancient monuments of military character. In this respect, there has been a great research tradition.

In modern historical research, there is a tendency to see factors such as religious and military organisation as the strong forces in the development of society. In archaeology, such subjects cannot be taken up until empirical archaeology has created a usable basis of chronological analysis, etc. Therefore, in archaeological research, it is not necessarily the main strands in contemporary debate that are decisive for the choice of subject but rather the level of fundamental knowledge created by basic research.

Scandinavian historical studies are naturally limited to the period after the 11th century, unless one uses external sources, rune-stones or comparative studies of the Nordic archaeological material and archaeological or written sources from areas outside the Nordic region. It is when the Frankish state annals initiated the continuous written tradition in northern Europe from the mid- and late 8th century AD that the Nordic region entered the stage of political history with respect to military operations, diplomatic exchanges and peace negotiations.

The earliest record of any concept of military organisation in the Nordic region comes from 1085, when the *Leidang* was mentioned in Knud the Holy's deed of a gift to the church in Lund. Of course, this does not necessarily mean that military organisation belongs exclusively to the 11th-century and later Nordic history. The earliest Germanic law texts do not contain military legal provisions in the traditional sense. Actual statutory instruments concerning military matters, as written into the Danish provincial laws from the 13th-14th centuries onwards, probably provide evidence only of a limited selection of the rules that would have existed. It has nonetheless proved possible to gain a relatively detailed insight into military organisation by this means.

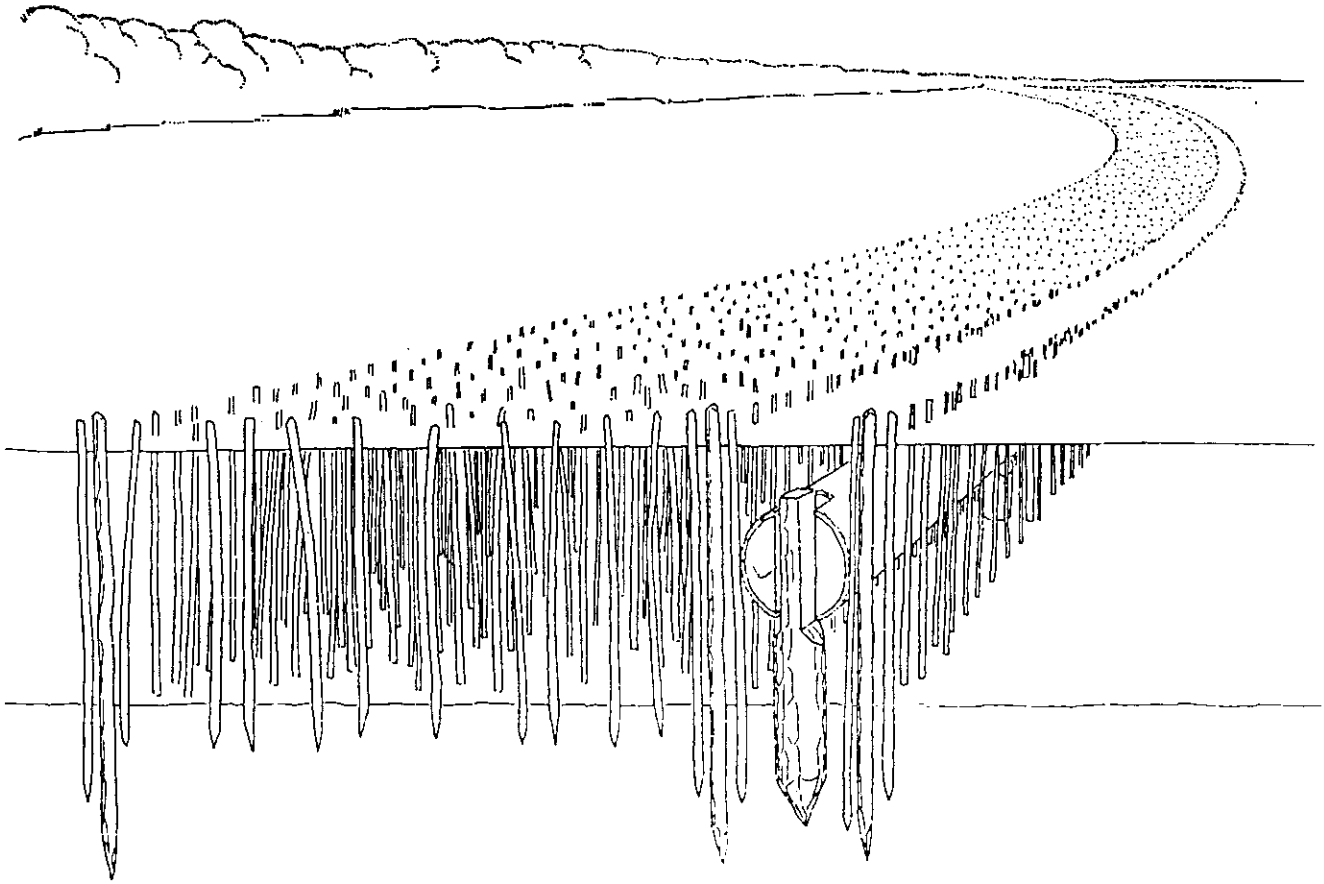


Fig. 1. - The off-shore defensive work at Hominde, Rødby Fjord, in the southern part of Denmark.

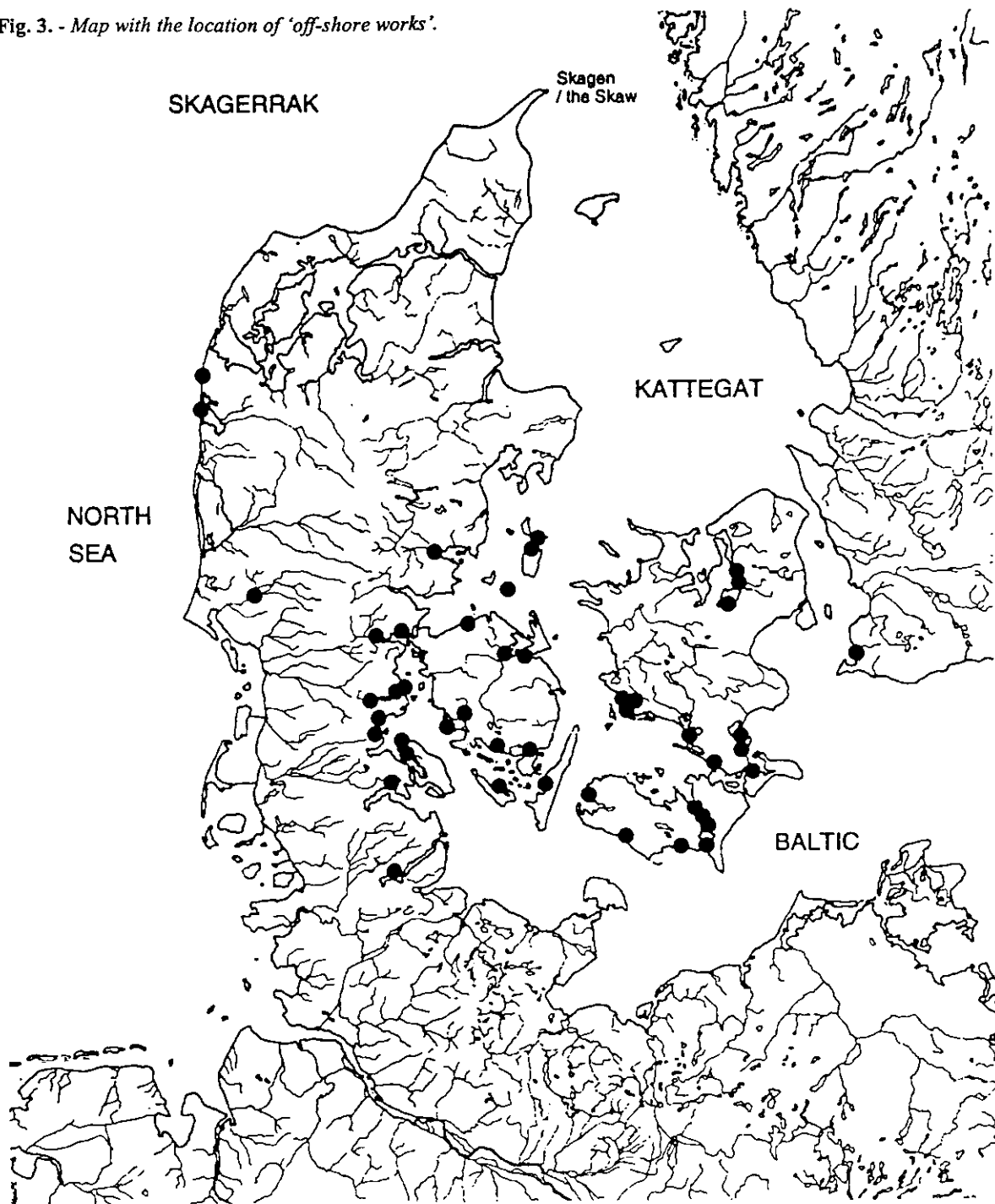
In contrast to the written sources, the archaeological remains contain data on the equipment of both the ordinary soldier and the military elite. When analysed in detail, this unique and in some instances colossal source can supplement the work of historians and the law texts, showing the development of weapons, which in some periods in the first millennium seem to *have changed with virtually each, or at least with every second, generation*. The character and distribution of the archaeological material through most of the first millennium leads us to believe that *the military system was built on a basis of customary law*. It is thus a matter for future research to pursue the tracing of these elements, and the seminar showed that much progress had already been made in this respect.

Because of advances in fine chronology made over the last 25-30 years by Scandinavian archaeo-

logists – especially those working with weapons deriving from graves and weapon sacrifices – it is possible to put forward analyses of tactical changes during the Iron Age, the Viking Age and the early Middle Ages, and to discuss subjects such as the relationship between infantry and cavalry, and to some extent also the order of battle and the military elite.

The research seminar programme for *Military Aspects of Scandinavian Society in a European Perspective, AD 1-1300* was carefully designed for both historical and archaeological research each presenting the impression of the prehistoric and early medieval military organisation. What materials do those fields have at their disposal, and how are selected aspects of that evidence analysed and interpreted? The naval organisation was of particularly major

Fig. 3. - Map with the location of 'off-shore works'.



importance around southern Scandinavia, and it was therefore covered in a separate session with both historical and archaeological contributions. The subject still deserves a whole seminar in itself. The last subject – logistical considerations – was chosen above all to highlight the importance of understanding and applying military-logistical thinking to the study of the sources which are available, whether they are material or written.

Not only history and archaeology take part in the discussion of prehistoric and early medieval military organisation. If one wishes to examine modern theoretical war-research within Denmark, it is helpful to turn to *ethnology*, a field where proposals for new theories on forms of state and defence were in fact put forward in 1995 (Højrup 1995). Højrup presented a re-evaluation of the concept of state and of forms of defence, on the basis of Clausewitz's early 19th-

century theories in the work 'Om Krig' ('Vom Kriege' - 'On War' 1832-34), and also with reference to the theories of Boserup, an influential defence-policy researcher in the 1970s-80s. Through his definition of *the martial state*, Højrup comes close to a usable conceptual apparatus which can be used in the analysis of early military systems. That form of state differentiates itself from the form which followed – *the mercurial state* – in that '*the political, the economic and the ideological relations-concepts [seem] to be shaped directly with a view to a particular form of defence*'. The martial state holds within it systems such as 'the fortified state', 'the tribal state', 'the imperial state' etc. The theoretical considerations are based upon Højrup's and Boserup's extension of Clausewitz's conceptual logic *that the defensive form of battle is stronger than the offensive*. The concept of *Virtual war* (war which exists but has not yet shown itself actively - a balance of terror), where the ability of homogeneous social systems to defend themselves was reciprocally recognized and effective, is probably a concept we can detect here in the Nordic region as early as the middle of the first millennium (Højrup 1995, 217 ff). Here, the connection between the Germanic symbol-world and the archaeological evidence is so convincing that there can be no doubt that in parts of the Nordic region there was not only a symbol-world corresponding to that of other prominent peoples in Europe, but there were probably also elements of the underlying military rank-system and forms of defence in use. If this ethnological conceptual apparatus were developed within the two subjects of history and archaeology in such a way that it also covered basic scientific theory, much ground would thereby be gained towards the logical conclusion concerning the vast material with which both disciplines are working.

### The Sea-defence

Apart from the subject military organisation the *sea-defence* or to be more exact the *off-shore defence works in Denmark AD 200-1300* have been taken up in recent research.

In the last 40 to 50 years, a comprehensive body of archaeological material in the form of off-shore defensive works have come to light through the Danish and Swedish archaeological underwater investigations. These underwater constructions consist of stakes, stones, box caissons, sunken ships, etc., located in the mouths of fjords and bays. The barrages or underwater fortifications derive from both the Iron Age, the Viking Age, and the early Middle Ages. Seen from the perspective of defence, it is the Dan-

ish territory – with a coastline over 7,400 km in length and a geographical position as the gateway between the Baltic sea and the North Sea – which is particularly vulnerable to overseas attack.

The coastline with its innumerable inlets also offers opportunities for the strategically well-planned placing of important centres inside a sheltered fjord-area protected by one or more off-shore works. The relatively large scale of the country's territorial waters has also had the effect that throughout virtually the whole of the known part of the country's military history, there has been special emphasis on the sea-going part of military organisation. And in some periods, this was probably well put to the test, even though we do not have direct evidence as to the underlying organisational system.

The off-shore defence works are mentioned in several written sources. The following quotation derives from Saxo Grammaticus describing the period of the 1150s during the Wendish attacks on the southern part of Denmark:

*'Neither weapons nor towns were reckoned to secure safety but bays and creeks were blocked with long stockades and bars to prevent the pirates to descend.'*

Saxo Grammaticus, Book 14: Winkel Horn 1985, 128.

The first discoveries of off-shore defence works in Denmark were made in the 1930s, in dammed-up areas in the southern part of the country, in the Rødby Fjord on Lolland and in the Henninge Nor on Langeland. In these cases, the defence works consisted of simple pole-structures placed to make good use of local topography (Fig. 1). In 1994, a new archaeological investigation was carried out on the defence work in the Rødby Fjord, and the results of this show that the building-work originated in the years just after 1139/40, and that this must therefore have been linked to the political unrest at that time, caused by the massive threat of attack by the Wends.

In 1958, Ole Crumlin-Pedersen and Olaf Olsen investigated the first sea-barrage structure in the present-day maritime area near Skuldelev in the Roskilde Fjord (Olsen & Crumlin-Pedersen 1967). The five ships, as is now well-known, had been sunk in order to block the sea-approach to Roskilde, probably in the early 12th century. This barrage had been constructed in two phases, and in this case again the topography of the sea-bed had been thoroughly exploited for the purpose of closing off a quite distinct sea-channel, Peberrenden.

Since the Skuldelev find, a large quantity of information has come to light about off-shore works. With only a few exceptions, all registrations

have been made by the Maritime Investigations Unit of the National Museum, which means that for many years the comprehensive survey-work (supported by local amateur diving clubs) has depended on a very small number of people. Among the 58 local archaeological museums in Denmark, there are only two which undertake maritime investigations. This centralisation has both advantages and disadvantages. One of the advantages is that one has a coherent view of all the reports. This has led to a conscious effort to look for and research into the sea-defence structures. Ole Crumlin-Pedersen gathered together his observations and published a 'Stand der Forschung' in his article in *Archaeological Formation Processes* in 1985 (Crumlin-Pedersen 1985). A few years later, new observations had been added and once again an account of recent research could be published, in 1991, by Flemming Rieck, who at that time was engaged in excavations of the barrage-structure in Gudsø Vig and in Haderslev Fjord (Rieck 1991).

There is great cultural-historical potential in this area of research, and an impression of how great this potential is can be gained from the following statistical summary. The total number of reports of off-shore works in Denmark (including Scania and Slesvig) is 49 (Fig. 2-3). Of these 49, there are 43 which are sited in such a way that a defence significance or other sailing-control function is probable. Far from all these structures have been investigated, and on the basis of the number of professional investigations and surveys to date, there are to my mind only 13 structures in all which can be said with certainty at the present time to have been off-shore defence works.

In two cases there is clear evidence of blocking access by using sunk ships – i.e. at Fotevik in Scania and Skuldelev in the Roskilde Fjord. And in a few cases the obstruction has been made permanent by means of large stone dikes – as is also known from Fotevik.

Most off-shore defence works are made of wood, and this to a large extent offers possibilities for the relatively precise dating of the time of building. Today, datings are available for 17 of the 49 sites known, but apart from these splendid dendrochronological datings, we unfortunately do not have any of the further information as to construction or dimensions which would be necessary for a deeper analysis.

In the work of searching for off-shore defence works, place-names can be of great assistance. No less than 21 of the 49 known sites were recognised by place-names such as *stig*, *steg*, *stag*, *stavre* (which come from the Old Norse word *Stika*, which occurs

in connection with the setting up of stakes). This means that even before systematic searches for *stige*-names have been undertaken, a connection can be shown between off-shore defence works and place-names in no less than 43 % of the cases known.

Several of the total of 17 dated sites consist of more than one building-phase and comparison of all the datings shows that by far the majority occur after the year 1000 and before 1200. One single structure can be dated to the pre-Roman Iron Age. Two structures are dated to the Late Roman and Early Germanic periods – 4th-5th centuries – and both of them are directly linked to the war booties of the period, which means in other words that they were erected in connection to overseas attacks. In addition, there are two very important structures which are dated to the Late Germanic Iron Age in the early 8th century, both of them protecting natural harbours (possibly the fleet). Only one single sea-defence structure has datings pointing to the Viking Age, in the period 800-1000. From the following period, there are numerous sea-defence works. No less than 11 of the dated structures come from the period around the first decades after the year 1000, and onwards until the 1170s. Carbon-14 datings give results up to the 13th century in most cases, but the newly-calibrated average datings of Carbon-14 analyses and the dendrochronological datings lie for the most part within the period 1130-1170, a period characterized by both internal conflicts and overseas attacks. Certain structures are linked to very late datings, i.e. 14th-15th century, and finally one dating comes from the period after 1500; but none of these structures has been documented as defence works.

It is obvious that the building of off-shore defence works can have various causes, and that these defence works came into being in response to different needs – those of the local population or of the nobles, or by royal order. In some cases, they consist of obstructions of access to natural harbours, and in certain of these cases, there is a congruence with written information about naval bases. In other cases, it is a matter of protection of royal property or of the land of a local potentate.

## References

- CRUMLIN-PEDERSEN O. 1985: Ship Finds and Ship Blockages AD 800-1200, in: K. KRISTIANSEN (ed.), *Archaeological Formation Processes. The representativity of archaeological remains from Danish Prehistory*, Copenhagen, 1985.
- HØJRUP T. 1995: *Staat Kultur Gesellschaft. Über die Entwicklung der Lebensformanalyse*, København.

- NØRGÅRD JØRGENSEN A. & CLAUSEN B. 1997 (eds): *Military Aspects of Scandinavian Society in a European Perspective, AD 1-1300*, PNM, Publications of the National Museum, Studies in Archaeology and History 2, Copenhagen.
- OLSEN O. & CRUMLIN-PEDERSEN O. 1967: *The Skuldelev Ship (II)*, Acta Archaeologica 38, København, 1967.
- RIECK F. 1991: Aspects of Coastal defence in Denmark, in: O. CRUMLIN-PEDERSEN (ed.), *Aspects of Maritime Scandinavia AD 200-1200*, Roskilde.

Anne Nørgård Jørgensen  
National Museum of Denmark  
Centre for Maritime Archaeology  
Havnevej 7  
4000 Roskilde  
Denmark