

A Suggested Interpretation of the Maritime Nature of Mesolithic and Early Neolithic Culture in Finland

After Mikael Fortelius had carried out a series of osteological analyses for the Section for Prehistory of the National Board of Antiquities mainly concerning fragments of burnt bone from Stone Age sites (Fortelius 1981; 1984), the interpretation of this material has become the subject of lively interest with a clear qualitative change in related studies. The first to apply these results was Ari Siiriäinen (SIIRIÄINEN 1981 a & b, 1982) in a number of articles on the Stone Age economy of Finland. Although Fortelius took a highly critical view of the material and did not seem to believe in its potential, archaeologists have been, with due cause, much more optimistic. Osteological material opens up various aspects which — despite their apparent contradictions — provide more depth for interpretations concerning the Stone Age. The following paper will address these aspects.

I intend to present a number of references according to which the dichotomy of maritime vs. land-based adaptation in the Finnish Mesolithic is presented in a different light than previously. The material referred to consists of Fortelius's analyses of refuse fauna, as first published by Siiriäinen in *Suomen Museo* of 1980 and later in *Fennoscandia Antiqua* (1982). The same source-critical basis will be applied. In the latter respect, however, certain sites defined by Siiriäinen as single-component or »unmixed» in nature must be excluded.

These mixed sites, mainly denoted as belonging to the Typical Comb Ware Period, do not in themselves contradict Siiriäinen's model of the rise to dominance of seal hunting from the Mesolithic via the Early Comb Ware period to that Typical Comb Ware. However, they tend to distort the results, which is further added to by the eustatic rise of sea level during the Typical Comb Ware Period (DIGERFELDT 1975). These mixed-component sites are Nikkarinmäki in Kymi (KOKKONEN 1978), Kvarnbacken in Liljendal (RAUHALA 1977), Vantaa (FORSTÉN & BLOMKVIST 1977), Maarinkunnas in Vantaa (VIKKULA 1981) and Isokangas at Evijärvi (HIEKKANEN 1984). Nor can the Kaarre site at Paltamo be used due to its inland location. A source-critical problem in this connection — as pointed out by Heikki Matiskainen, among others — is the varying degree of bone preservation in different soil layers as well as matters relating to the handling of game at sites (MATISKAINEN & JUSSILA 1984).

Fig. 1 shows the material (with the exclusion of the above sites) presented in histograms and with a slightly different division than previously. The standard periods are applied — viz. the Suomusjärvi culture and the chronology of the various Comb Ware periods. The area of Finland is divided into three parts — Ostrobothnia, Satakunta and Uusimaa (Fig. 2). This geographical division implies in fact the coastal areas of the Gulf of Bothnia on the one hand and the Gulf of Finland on the other. The seaboard of the Gulf of Finland is a separate entity while the Bothnian seaboard falls into two areas with their boundary in the present region of Närpiö. This division can be criticized as

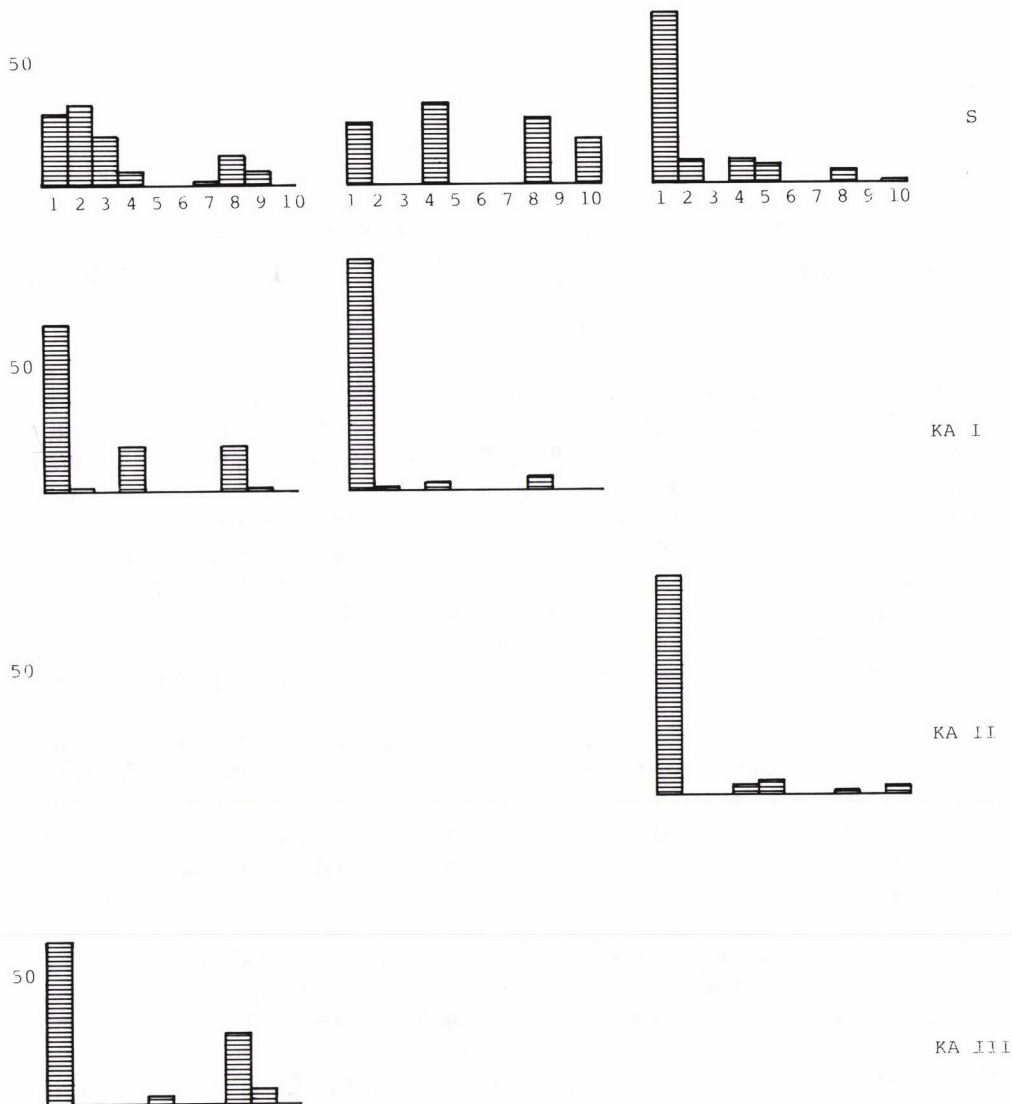


Fig. 1. Distribution of Mesolithic, Early Neolithic and Middle Neolithic game species according to coastal regions and based on osteological analyses of burnt bone. On the left is the northern region of the Gulf of Bothnia, in the middle the southern part of the Gulf of Bothnia and on the right the Gulf of Finland region. S = Suomusjärvi Culture, KA I = Early Comb Ware (Style I), KA II = Typical Comb Ware (Style II), KA III = Late Comb Ware (Style III), 1 = Phocidae, 2 = Alces, 3 = Ursus, 4 = Castor, 5 = Lepus, 6 = Sciurus, 7 = Martes, 8 = Pisces, 9 = Aves, 10 = Alter. Mam.

artificial, but it nevertheless permits observations which would not have come to the fore if reference is made to the whole area of Finland. Finland-Proper remains in this connection an intermediary area not covered by the analysis.

In connection with the diagrams for Ostrobothnia, i.e. the northern half of the Gulf of Bothnia it can be clearly seen how the proportion of seal (*Phocidae*) increases from the Mesolithic to the ceramic period from 20 to 60% or slightly more, remaining at this

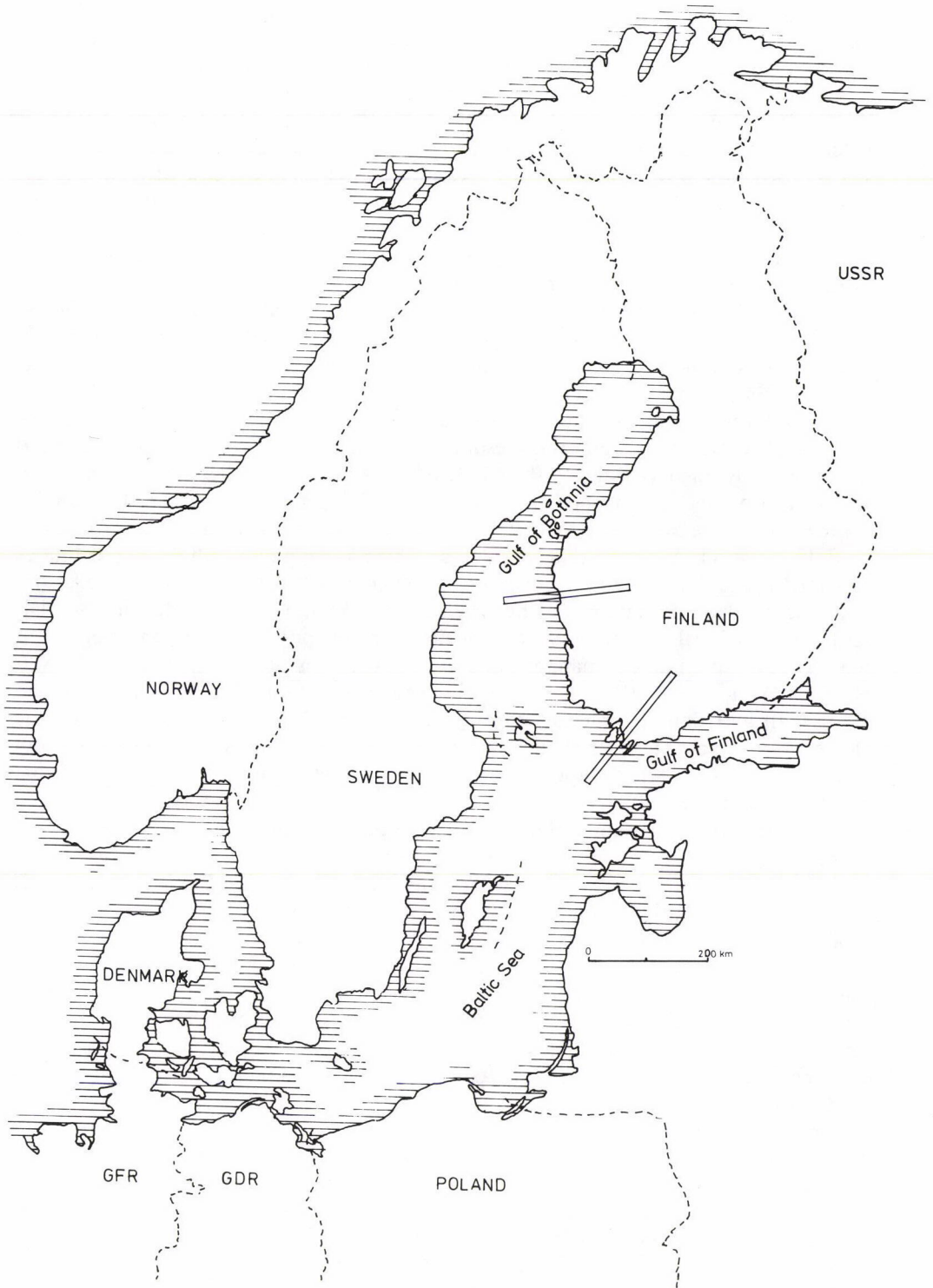


Fig. 2 = Division of the coastal regions of Finland into three areas: northern and southern Gulf of Bothnia and the Gulf of Finland.

level until the Late Comb Ware Period. Elk (*Alces*) in turn appears to disappear completely from the diagrams in the early stages of the Comb Ware Period. Also the gradual increase of fish (*Pisces*) can be seen rising from 10 to 25 %. In the Satakunta region — i.e. still on the Gulf of Bothnia — there is a similar course of development — but it is more marked with respect to seal with 90% of bones from Early Comb Ware sites belonging to this category. Elk is lacking in the finds from Satakunta and there is a sharp drop in the proportion of beaver (*Castor*) as well as in the case of fish. It is not possible to follow the situation in Satakunta over a longer period. In Uusimaa on the Gulf of Finland — the histogram for seal — differs to a considerable degree from the above. Already in the period of the Suomusjärvi Culture seal amounts to over 60 % of the osteological material. Thus, there is not such a drastic change in moving on to the next period, viz. Typical Comb Ware. At this stage seal amounts to slightly less than 85 %. It must be noted, however, that also in this region elk disappears completely after the Mesolithic and beaver decreases. In this connection fish can be regarded as secondary in nature.

On the basis of the above it appears that the model of a marked change from the hunting of terrestrial game in the Mesolithic to maritime game in the ceramic period does not apply unequivocally to the whole of Finland, or it applies only the seaboard of the Gulf of Bothnia. In the Uusimaa region seal appears to have been the main resource both in the Mesolithic as well as in the Neolithic, albeit with an increase in volume. It can also be assumed that this increase came about along with the opportunities provided by new species (e.g. *Pagophilus groenlandicus* Erxl.). In any case, elk does not appear to have been desired game. The change of hunting strategies towards specialized hunting of seal appears to have come about mainly on the Bothnian seaboard and notably in a more marked manner in its southern regions than in the north (see NUNEZ 1986). In Ostrobothnia seal hunting does not rise to dominance at any stage and along with its fishing is practised throughout the period, which was also a maritime element. In any case terrestrial game is no longer present. This is especially marked in connection with elk, which supports the view of a change in hunting strategies. However, it may be unnecessary to assume that elk was almost hunted to extinction.

According to Ari Siiriäinen the Mesolithic population, prior to moving to Finland, was »... partly adapted to sea and inland lake hunting and fishing. Although settlement was achieving permanence in both Eastern Karelia and in the East Baltic region already during the Preboreal, it was not interested in the shores of the Northern Baltic (Yoldia Sea) or the inland lakes of Eastern Finland before the beginning of the Boreal. The reason for this is evident: the large mammals, the main game, were still available in sufficient quantity in the forest areas to the east and south of Finland». The fact that Boreal period settlement gradually moved to the west and the north may have been due to a sharp decrease of elk and grey bear (*Ursus*) as a result of a thousand-year period of hunting. On the other hand, the simultaneously retreating ice sheet opened up the Baltic (Ancylus Lake) seaboard with its rich stocks of seal and fish.

The above results are in agreement with Siiriäinen's model in the coastal regions of the Gulf of Bothnia. It is obvious that in this area unspecialized hunting, especially of terrestrial game, was the dominant practice. However, the seaboard of the Gulf of Finland presents a differing area from Siiriäinen's model. It is possible that in this region the clear specialization in seal hunting, evident already in the Mesolithic together with almost insignificant hunting of terrestrial game, is related to environmental conditions different from those along the Gulf of Bothnia. It can also be assumed that the hunting populations in question were originally from an environment completely different to that in the northern area. A marine environment can be assumed in this connection.

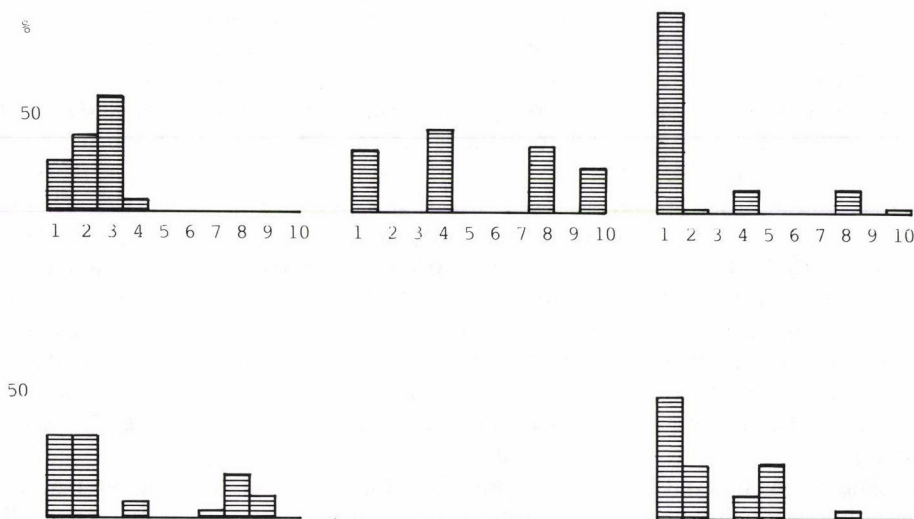


Fig. 3. Division of Mesolithic game by coastal region on the basis of osteological analyses of burnt bone. In the upper row are the sites of the Ancyclus Mesolithic and on the lower row the sites of the Litorina Mesolithic. Numeric symbols, see. Fig. 1.

A third factor to be considered are the various types of occupation sites which have different archaeological visibility.

The model of different origin — i.e. two areas from where the populations originated — is in my opinion worth considering. It is natural to assume that the populations which moved to the shores of the Gulf of Bothnia (Ancyclus Lake) during the spread into Finland of the Boreal pine-birch mixed forest, had originated from the Late Paleolithic/Early Mesolithic population of East Karelia to the north of Lake Onega. On the other hand, the populations of the northern seaboard of the Gulf of Finland would have been from the East Baltic region representing groups which have been archaeologically observed at the Niemen, Pulli and Kunda sites.

The Mesolithic of Finland is, however, a long period of some three thousand years, which may easily be forgotten in a formal classification of find groups into cultures and periods. Accordingly, the Mesolithic can easily become a concept of similar source-critical value as the Typical Comb Ware period. The osteological material can also be reviewed within the Mesolithic to assess the degree of maritime adaptation of the populations concerned.

In Fig. 3 the portion of the Mesolithic is divided into two parts — an early stage and a late stage. In this connection I have applied Heikki Matiskainen's well functioning chronological division into the Ancyclus and Litorina Mesolithic Periods with a chronological boundary in the early 7th millenium B.C. (MATISKAINEN 1986, 1988). Geographically the division is the same as above, involving the northern part (Ostrobothnia) and southern part (Satakunta) of the Gulf of Bothnia and the Gulf of Finland.

In the case of Ostrobothnia it can be seen that the proportion of elk is around 30 % in both the Ancyclus and Litorina Mesolithic Periods. On the other hand, bear, the other main land species, disappears completely, while the proportion of beaver remains more or less the same. Maritime hunting indicates a clear trend of growth with the proportion of sea rising from 20 to slightly over 30 %. At the same time the proportion of

fish increases from practically nil to almost 20 %. Also to be noted is the introduction of birds (Aves) — possibly water fowl — during the Litorina Mesolithic.

In the Satakunta region the periods cannot be compared, as there is for practical purposes only one site — Hietaranta at Honkajoki — which dates to the Ancyclus Mesolithic. With respect to seal it corresponds to the diagram for Ostrobothnia, but other wise it differs clearly from the latter region.

Perhaps the most surprising course of development is on the seaboard of the Gulf of Finland. Here, the proportion of seal during the Ancyclus Mesolithic is almost 80 %, i.e. equal to the Typical Comb Ware Period with its clearly specialized seal hunting. With reference to the material, however, this situation does not seem to prevail and during the Litorina Mesolithic the proportion of seal decreases to 50 %. At the same time elk rises from a few percent to over 20 %. The proportion of beaver remains the same — slightly less than 10 % — but hare (*Lepus*) increases considerably. According to remains of burnt bone there was no hunting of bear on the seaboard of the Gulf of Finland.

It can again be observed that on the coast of the Gulf Bothnia the model of unspecialized hunting gradually progressing towards the dominance of sealing holds true. But on the Gulf of Finland, the course of development is the opposite — here specialized seal hunting is replaced by unspecialized or less-specialized hunting of marine and terrestrial fauna.

Can it thus be assumed that the seaboard of the Gulf of Finland came to receive hunting populations which had specialized in seal already in their original areas and in new conditions on the southern coast of Finland together with changes in vegetation went on to hunt other game, including terrestrial animals? Or are there sites along the Gulf of Finland which represent a hitherto unknown older phase with the same division of species as in Ostrobothnia. A further possibility is that the statistical basis of the osteological analyses is still too narrow and the results thus contain »noise». I would not place much weight on the last two alternatives: the results — regardless of when they are obtained — are those of the day at hand and are to be assessed and criticized in future times.

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