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SEA MAMMAL HUNTING STRATEGY IN THE EASTERN BALTIC

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The eastern Baltic is among those areas where hunter-fisher-gatherer traditions were very strong and enduring, maintaining their significance and influence from the time of the earliest occupation up to the Early Metal Age. One of the important components of this subsistence strategy in the Stone Age, mainly in the Neolithic, was the exploitation of marine resources, i.e. the hunting of sea-mammals.

THE EUROPEAN CONTEXT

The earliest evidence of the presence of seals from Stone Age settlement sites in the form of faunal remains and worked animal bones has been obtained from Late Palaeolithic cave sites in Italy (Grimaldi, Romanelli) and Spain (Gorhams Cave, Altmira, Las Palmas) (Clark J.G.D., 1946, 12–48; 1947, 122–136; Cleyet-Merle, J.-J., 1990, 41–45;). Along the western coasts of Europe any possible traces of seals have disappeared under the waters of the Atlantic Ocean together with drowned sites. Still, some finds bearing witness to seal hunting have been preserved in the inland regions of France, 10 to 200 kilometres from the present coast. These are mandibulae of ringed seal from the shelter of Castanet (Vézère Valley), a mandibula of a gray seal, found at the site of Raymondén (Chanselade, Isle Valley) and a tooth-pendant from La Marche (Vienne) (Cleyet-Merle, J.-J. and Madeleine St., 1995, 303–308). Also to be mentioned are the well-known pieces of Magdalenian mobiliary art – drawings on bones and bone artifacts – found in southern France (Brassempouy, Isturitz, Duruthy etc.). The most interesting is the rock engraving from Cosquer Cave not far from Marseilles, dated around 19000–27000 BP, perhaps the earliest drawing of a seal.

In the context of North-Western Europe, the hunting of sea mammals is observed from the very end of the Late Glacial period. Marine deposits of seal bones have been found in the submerged coastal region of

northern Jutland. Due to the particularly suitable ecological conditions a strong sea-mammal hunting strategy is thought to have been present on the Swedish west coast, in the Uddevalla and Götaälv Straits and outer archipelago during the Late Palaeolithic and Early Mesolithic, the time of the Hensbacka Culture (Kindgren H., 1995, 191–206).

Seal bones have been found on coastal and inland settlement sites in western Sweden, western and northern Norway and Finland, from the Earliest Mesolithic until the Early Metal Age. The hunting and fishing technique developed, and artistic representations of sea-mammals (seals and whales) appeared in Nordic rock art (Lindqvist Ch., 1994). Such representations are to be seen in the rock engravings at Hammer VI and VII and Buavika in northern Norway (Nord-Trøndelag), where some whales or perhaps porpoises are shown (Fig. 5: 12). During the 7th and 6th millennia BP a marine adaptation developed in all North European coastal areas. This hunting strategy had a particularly important role in the Neolithic stage of the Stone Age (6000–3500 yrs. BP). For this period a lot of evidence has been obtained from all of Northern Europe-faunal remains, art representations, the inventory of settlement sites and grave-goods from cemeteries. Of course, there were differences between particular regions. Researchers have stressed the significance of the Baltic Basin, including the eastern Baltic, in the seal hunting economy during the Stone Age. The new finds and latest studies in all three Baltic countries – Lithuania, Latvia and Estonia – provide support for this assumption.

THE EASTERN BALTIC EVIDENCE

From the eastern Baltic area there is considerable evidence testifying to the importance of marine mammal hunting during the Stone Age. This evidence is in the form of: 1) the location of settlement sites on the

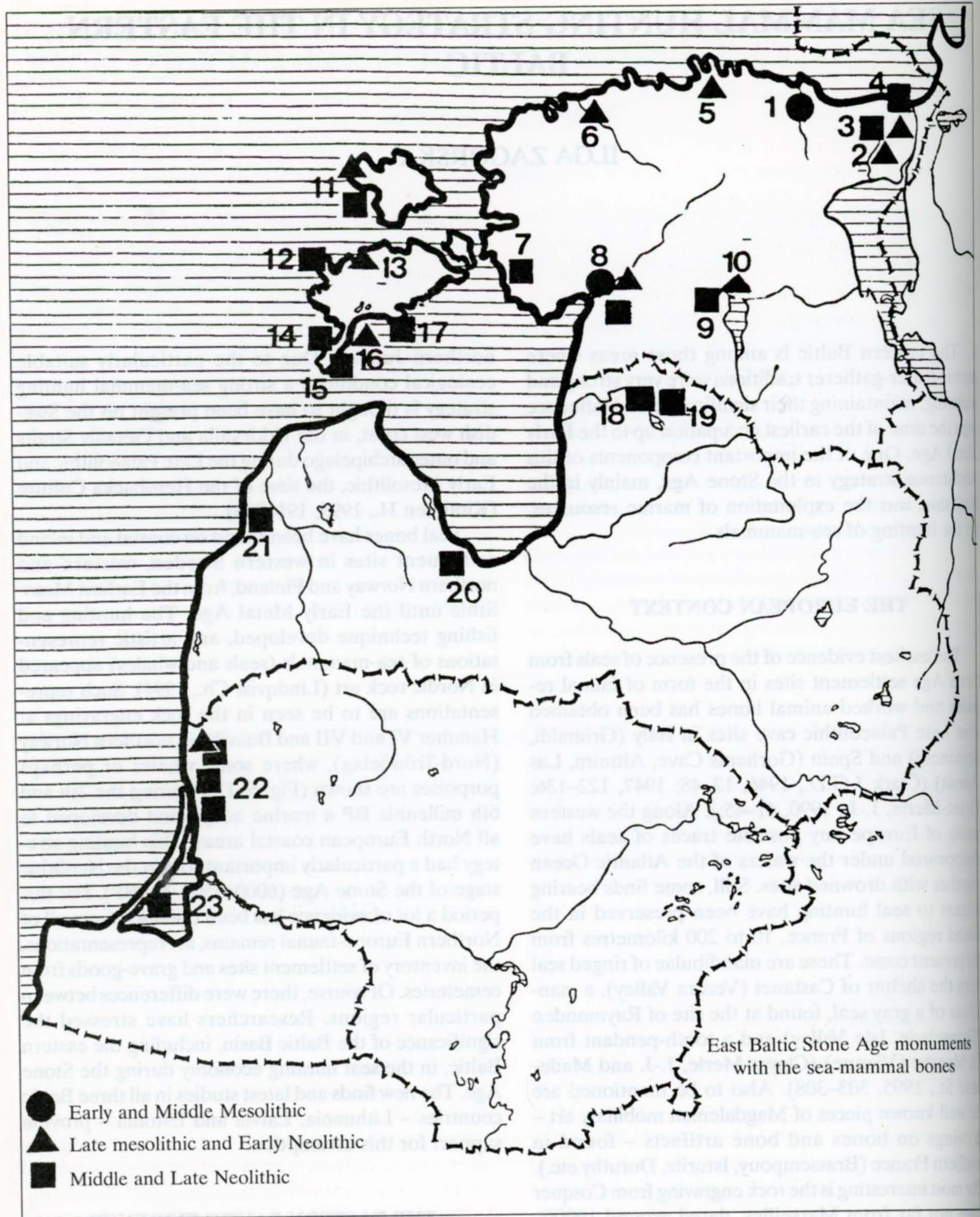


Fig. 1. East Baltic Stone Age monuments with the sea – mammal bones: 1 – Kunda – Lammasmägi; 2 – Narva Joaoru (I-III); 3 – Narva – Riigiküla (I – XIV); 4 – Kudruküla; 5 – Vihasoo III; 6 – Kroodi; 7 – Kaseküla; 8 – Reiu, Lodja, Lemmetsa, the stray finds; 9 – Valma; 10 – Siimusaare; 11 – Kõpu (I – XVII); 12 – Undva; 13 – Võhma (I – VII); 14 – Loona; 15 – Naakamäe; 16 – Kõnnu; 17 – Kõljala; 18 – Riņņukalns; 19 – Zvejnieki; 20 – Siliņupe; 21 – Sārņate; 22 – Šventoji sites; 23 – Nida.

sea-shore and in the archipelago (Estonia); 2) finds of sea-mammal remains in the refuse fauna collections from archaeological sites; 3) hunting equipment, mainly harpoons; 4) some artistic representations (drawings and figurines).

The earliest material relating to sea-mammals from eastern Baltic settlement sites has been obtained from the Middle Mesolithic, the Ancyclus Lake stage. The first grey seal (*Halichoerus grypus*) remains have been obtained from Stora Forvar cave on a small island near Gotland. Ringed seal (*Pusa hispida*) remains from the same time, approximately 8500 yrs. BP, have been obtained from the Kunda-Lammasmägi site (Fig. 1: 1). During this first stage the ringed seal species dominates among the rare finds from the eastern Baltic (Lõugas L., 1997, 66–68).

The number of seal remains from sites increased during the Litorina Sea/Atlantic climatic period, archaeologically the Late Mesolithic/Early Neolithic stage. In the eastern Baltic it dates approximately from 7600 yrs. BP to 5500/5350 yrs. BP.

The remains of seals (Fig. 1) have been found on the northern coast of Estonia (Narva Joaoru, Riigiküla III and IV, Kroodi, Vihasoo III), on Hiiumaa Island (Kõpu IV, VIII, I) and on Saaremaa Island (Võhma I, Kõnnu sites) (Kriiska A., 1996, 4. Tab. I). On the west coast of Lithuania the first seal bone finds also relate to the end of the Early Neolithic (mid-6th millennium BP). Seal tooth-pendants are known from one of the Šventoji settlement sites – Šventoji IV site (Daugnora L., Girininkas A., 1998, 22–23).

At the end of the Atlantic climatic period finds of harp seal (*Pagophilus groenlandicus*) have been identified among the faunal remains on prehistoric sites. The oldest finds come from Gotland (Stora Mafriids and Jakobs/Ajvide), dated to approximately 5250–5000 yr. BP. This species later dominated in the seal catches of the Eastern Baltic basin (Lõugas L., 1998, 63–69).

During the next, Subboreal climatic period, Middle and Late Neolithic (5350/5000–3500 yrs. BP), faunal remains of sea-mammals are found in the whole of the eastern Baltic – not only along the Estonian coast, but also in Latvian and Lithuanian coastal areas and on the islands (Fig. 1). The bones of harp, grey and ringed seal have been discovered, and catches were enriched by small toothed whale – the porpoise (*Phocaena phocaena*). To be mentioned are such coastal sites as Narva-Riigiküla I, Kudruküla in the lower reaches of the River Narva, Kaseküla site on the Estonian west coast and the stray finds in the estuary region of the River Pärnu (Reiu, Lodia, Lemmetsa). On Hiiumaa island rich seal remains have been

found at Kõpu XI site, while on Saaremaa such finds come from Loona and Naakamäe settlement sites. The latter, excavated by L. Jaanits, was located in the southern part of Saaremaa, on the former beach of the Litorina Sea, and yielded a great amount of different sea-mammal bones (Kriiska A., 1996, 4, Tab. I).

Two coastal sites that have yielded seal bones, must be mentioned in the territory of Latvia – Sārnate on the west coast and Siliņupe in the coastal region of the Gulf of Riga (Vankina L., 1970, 62, 132).

Seal bones were found among the faunal remains from Šventoji 2B, 26, 6 and 23 settlement sites in Lithuania (Rimantiene R., 1996, 169). Some seal remains have been found at the Late Neolithic Corded ware sites Šventoji 1 A and Nida (Rimantiene R., 1994, 118). It must be stressed that the number of seal bones formed more than 50% at such Neolithic sites as Naakamäe, Siliņupe, Sārnate and Šventoji 6.

All of these sites were located by the sea, in very suitable locations for sea-mammal hunting (Fig. 1). Thus, a number of sites were situated on the sandy Litorina Sea ridges in the lower reaches of the Narva River, north – eastern Estonia. The southernmost part of the Kõpu peninsula was a strategically very favourable place for seal hunters. A gently sloping coast offered the best resting and breeding locations for seals in winters of poor ice formation, but the hunters chose their stopping place on the higher dry beach ridge (Kriiska A. and Lõugas L., 1999, 157–172; Kriiska A., 1999, 173–184; Lõugas L., 1999, 189–192). The Šventoji sites in Lithuania, about 42 in total, were concentrated around a former lagoon (Rimantienė R., 1979, 9–14).

SILINUPE SITE, LATVIA

A characteristic seal hunter settlement is the Siliņupe site on the western shore of the Gulf of Riga at the present village of Lapmežciems, about 0.5 km from the coast. In the view of geologist G. Eberhards, the settlement developed at the foot of a ridge of dunes in a small natural hollow protected from the sea winds. Later the site became bogged up, and so the Stone Age site with hearths, abandoned fishing and hunting implements, pottery vessels and bones of hunted mammals was covered in peat and well preserved. Archaeological excavations took place here in 1954 under the direction of L. Vankina, and in the summers of 1988 and 1989 under the direction of the present author (Vankina 1975, 132–137; Zagorska 1990, 181–187). On the basis of geology, pollen analysis and artefacts the site has been dated to the Sub-Boreal

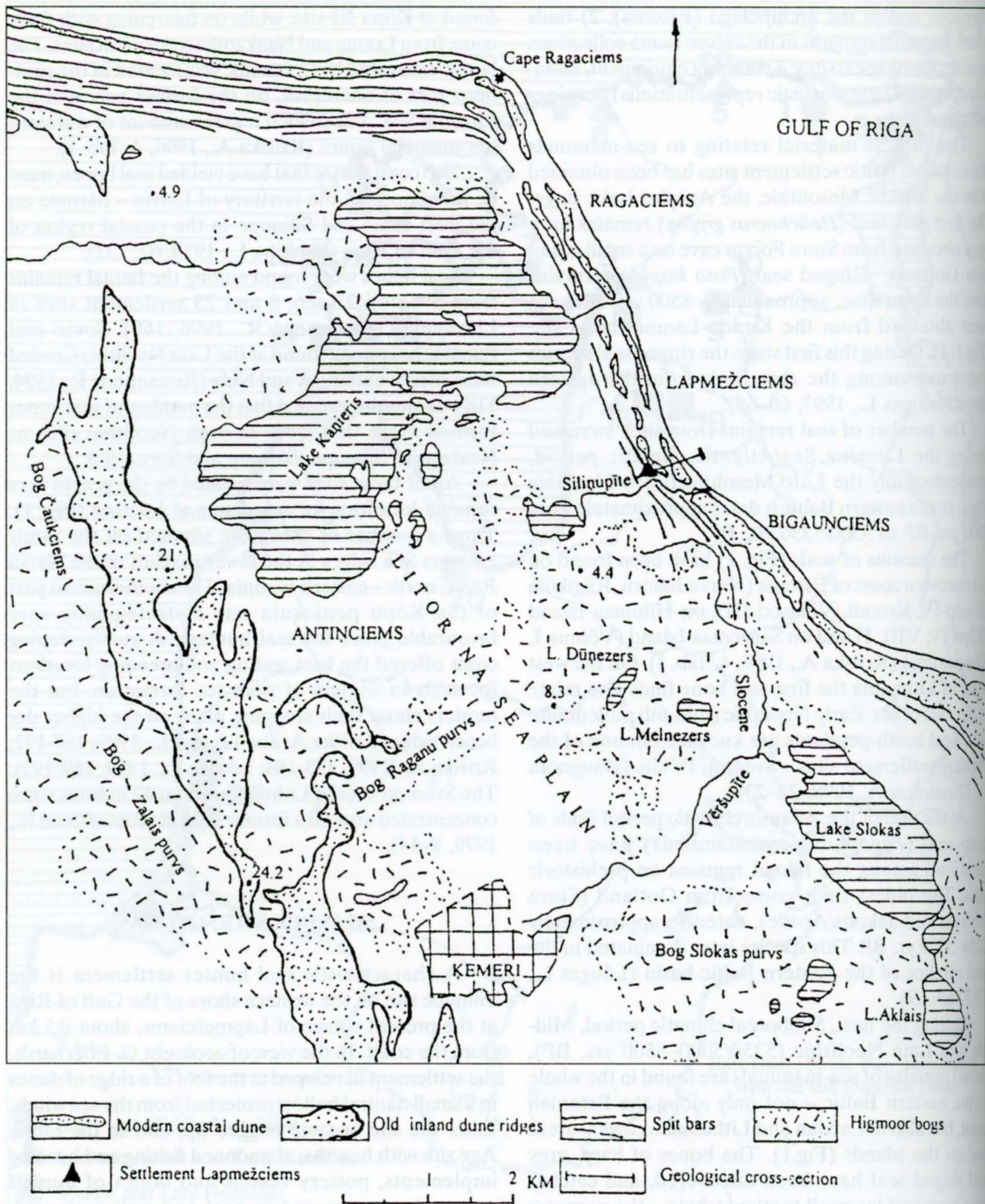


Fig. 2. Geomorphological map of the coastal zone between Ķemeri and Ragaciems. Made by Guntis Eberhards.

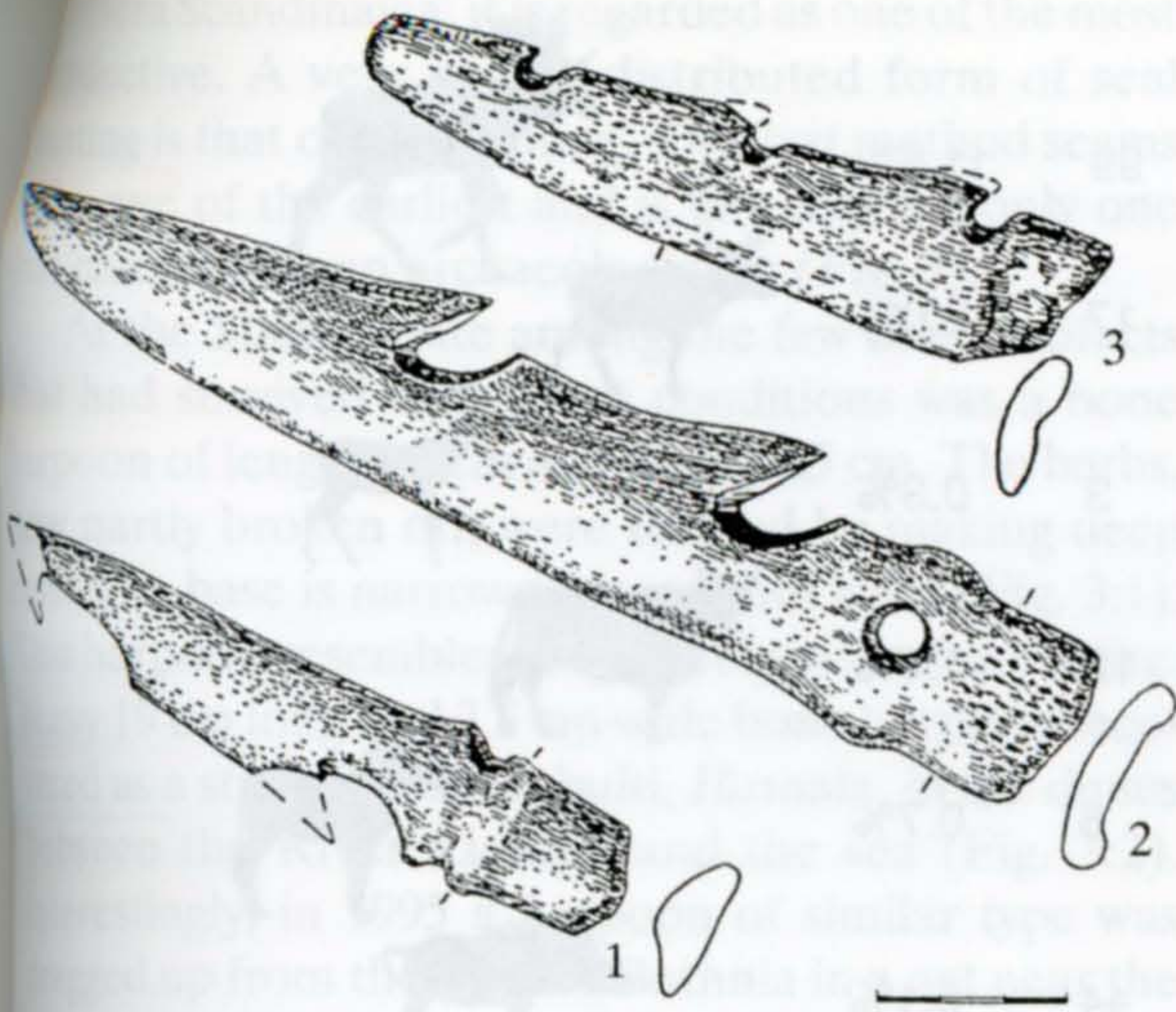


Fig. 3. The bone harpoon heads from Latvia : 1 – Siliņupe settlement site; 2 – a stray find from Dubulti, Jūrmala; 3 – Sārnate, dwelling place “T”. Drawings by Marta Jāņkalniņa.

climatic period, the Middle and Late Neolithic, i.e. mainly the 3rd millennium BC and perhaps the early 2nd millennium BC, too (Fig. 2).

Siliņupe as a coastal site is distinguished by the fact that the inhabitants had access both to the resources of the surrounding forests and rivers, and those of the sea, what is a very characteristic feature of the east Baltic coastal sites (Kriiska A., 1996, 1–6). This is shown by the hunted fauna, which includes both forest and marine animals. Fish include mainly freshwater species: mostly pike (*Esox lucius*), some pike-perch (*Lucioperca lucioperca*) and some bream (*Abramis brama*). Animal bones were identified by K. Paaver and L. Lōugas, fish remains by J. Sloka (Fig. 4).

Dominant among the forest fauna are elk (11.5%) and wild boar (5.1%). Also hunted were red deer, roe deer, aurochs, bear and beaver. Wild horse bones have also been found. However, sea mammals make up the overwhelming majority, with seal (42%) and porpoise (15.8%) totalling over half (60%) of the hunted fauna. A proportion of the seal bones were too fragmented and poorly preserved, so that it was no longer possible to identify all of them to species. Dominant among determined seal bones at Siliņupe was the harp seal, but other seal species, grey and ringed seal, were also represented. It seems that the inhabitants at this site specialised particularly in hunting porpoise. This animal, a species of the small toothed whale, would have been very easily caught in the spring and autumn migration periods when it entered and stayed in small, narrow bays. Individual porpoises are occasionally found in the waters of the Eastern Baltic even today.

These data provide evidence of the great importance of sea-mammal hunting in the procurement system of the eastern Baltic Stone Age from the Middle Mesolithic until the end of the Neolithic period. During the Stone Age, as was mentioned, four main sea-mammal species – the ringed seal, the grey seal, the harp seal and the small toothed whale, the porpoise, lived in the Baltic basin.

Initially, in the Ancylus Lake, it was the ringed seal that was dominant, with some grey seal, but later, along with the salty currents flowing into the Baltic Basin through the Straits of Denmark, the harp seal entered the Litorina Sea, and in particular phases of the Sub-Boreal climatic period so did the porpoise.

In the Stone Age the Baltic basin clearly had appropriate climatic conditions and a rich fish fauna that attracted the *Phocidae* and *Phocaenidae*. It is thought that the Greenland seal could have lived in the sea in autumn and early winter, before it froze over completely. The porpoise was also migratory, entering the basin and living there mainly in summer and autumn. Porpoise bones have been found in large numbers at the Neolithic settlement sites of Åland (Nunez M., 1990, 34), for example at Jettböle, and on Saaremaa, at the site of Naakamäe, and the largest number from coastal sites comes from Siliņupe (around 16%). Some porpoise bones have also been found on the sites of the west coast of Lithuania, as at Šventoji 2B and in the Riigiküla I, III and IV, north-eastern Estonia. It seems that the ringed seal could stay longer in the waters of the Baltic, since it was the only species capable of maintaining breathing holes in the ice. The ringed seal was also a more solitary species and one that kept more to the coast, heading up rivers in search of food, even into lake systems. For this reason the species is described as the “bay seal” (*vikare*) in the Scandinavian literature (Burenhult G., 1970, 15–21). The grey and harp seals had a greater tendency to gather in groups, staying further from the shore, on reefs, small islands or floating ice. It is thought that all species of seal were most easily caught in shallow coastal bays and lagoons where they came in order to rest. Here they would have been subject to seasonal hunting on a large scale. The most advantageous times for catching seals were early spring (February and March) and late autumn-winter.

Judging from ethnographic accounts, seals might be clubbed when they were resting on ice or at the sea-shore, and on dark, misty autumn nights they might be caught in nets (Kalits 1959, 481–484). This method is widely known and has long been used in

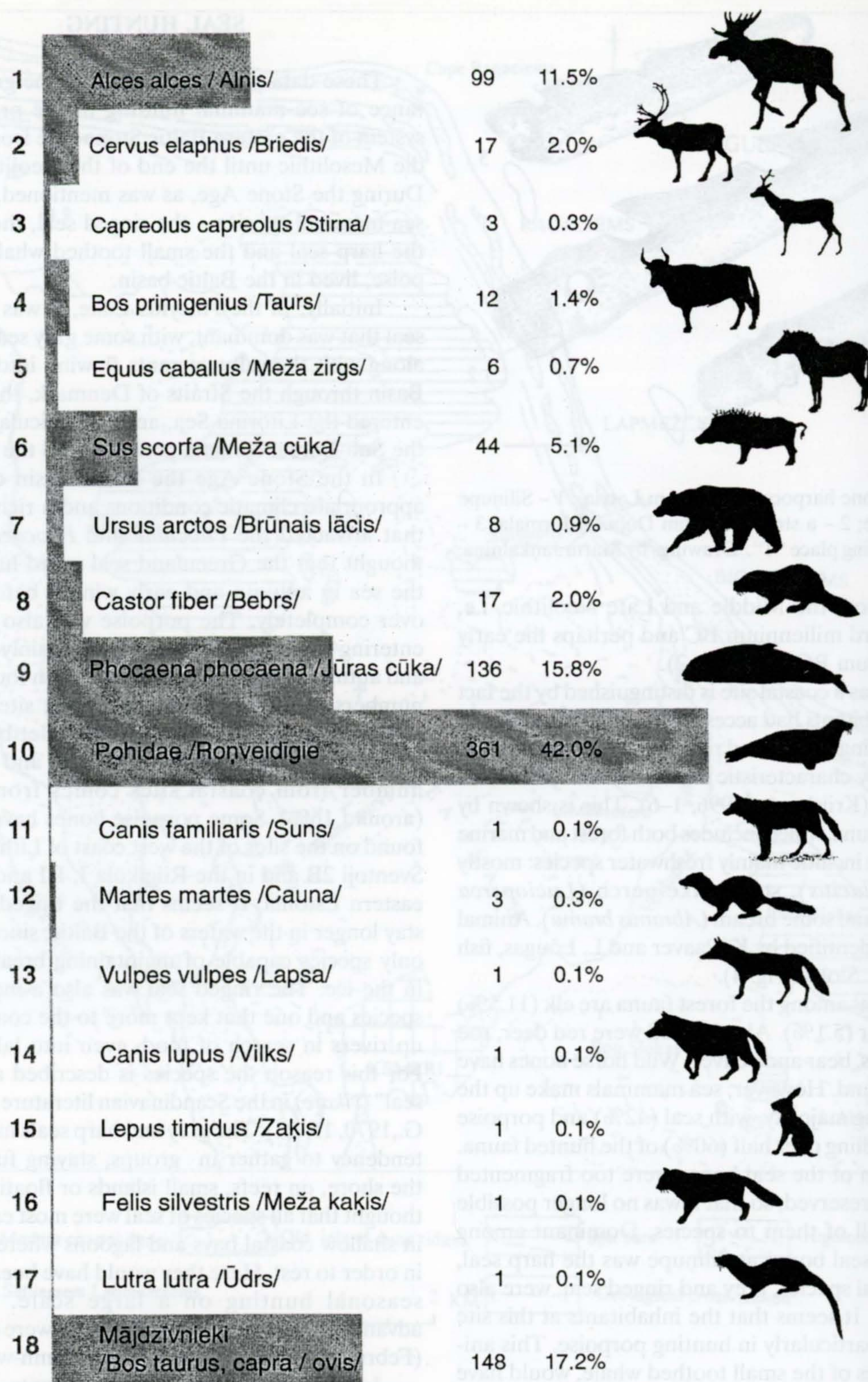


Fig. 4. The hunted game from the Siliņupe settlement site: 1 – elk; 2 – red deer; 3 – roe deer; 4 – uroxs; 5 – wild horse; 6 – wild boar; 7 – brown bear; 8 – beaver; 9 – porpoise; 10 – seals; 11 – dog; 12 – marten; 13 – fox; 14 – wolf; 15 – hare; 16 – wild cat; 17 – otter; 18 – domesticated animals. The computer graphic by Arnis Zagorskis.

northern Scandinavia; it is regarded as one of the most productive. A very widely distributed form of seal hunting is that of harpooning. This last method seems to be one of the earliest and is virtually the only one that can be proven archaeologically (Fig. 3).

At the Siliņupe site among the few bone artifacts that had survived in the wet conditions was a bone harpoon of length 12 cm and width 2.5 cm. The barbs, now partly broken off, were formed by making deep cuts. The base is narrowed from both sides (Fig. 3:1). This harpoon resembles very closely in form an entire, heavy 19 cm long and 3.5 cm wide bone harpoon recovered as a stray find at Dubulti, Jūrmala, in the dunes between the River Lielupe and the sea (Fig. 3:2). Interestingly, in 1995 a harpoon of similar type was dragged up from the Gulf of Bothnia in a net near the Finnish coast between the towns of Kaskinen and Kristiinankaupunki. The age of the harpoon has been determined by radiocarbon as 4290 ± 70 BP (Edgren T. 2000, 49–56). This is not the only such find in Finnish coastal waters. A well-known find comes from Närpiö, where a slender harpoon with sloping barbs was found along with the remains of a harp seal. The seal is thought to have been killed about 10 km from the former coastline and to have sunk at a depth of 42 km. Another piece of evidence for seal harpooning comes from the deposits of the River Oulu, where a second slender harpoon with sloping barbs, partially preserved, was obtained together with ringed seal bones. It is calculated that this seal sank 30 km from the coast at a depth of 62 m. Another entire harpoon has been found in association with seal bones at Hammarland in the Åland islands. This harpoon is also thought to have sunk in the sea not far from the coast. Such hunting could have taken place in the late spring and summer, when the seals had not yet developed the thick layers of blubber that kept them afloat. It seems this was a strong argument in favour of hunting in autumn and winter. Possibly also used for seal hunting was a harpoon preserved in fragmentary state outside dwelling “T” of Sārņate wetland settlement site, not far from seal bones (Fig. 3:3). The dwelling is dated to the Middle Neolithic: 4700 ± 250 BP (Vankina 1970, 62, 132). Some of the net remains, obtained from Šventoži sites around the ancient Litorina Sea lagoon, also are supposed to be used in the seal hunting (Rimantienė R., 1995, 74). The best evidence is well known find from Pori, Finland, where the net remains, dated to the Late Neolithic – Bronze Age, were found together with grey seal bones (Nunez M., 1990, 32–33).

All of these examples testify to the great importance of sea mammals in the Stone Age economy. Seals provided Stone Age people with blood, meat, blubber,

skin and bone. Thus, an adult grey seal might produce around 200 kg of meat, a harp seal around 115–180 kg and a ringed seal around 90–125 kg. The mean weight of the porpoise is calculated at around 60 kg (Lindqvist & Störa 1997, 22–23). Blubber comprised about 45–50% of the animal's weight. The meat and blood provided the ancient hunter with essential proteins, while the fat had twice the number of calories as the protein, which was particularly important in the winter. Archaeological evidence has been found of the uses of seal bone. Thus, at Šventoži site 23 (Late Neolithic) split and worked long bones of the hind – limbs of seals have been found. R. Rimantienė considers these as scrapers for hide – working. The skin would have been very useful for clothing and footwear, tents, boats and other purposes. Ethnographers have recorded that right up to the late 19th century seals were intensively hunted along the Latvian coast, particularly in the Irbe Straits. Warm and durable footwear for children was made from the skin. The old fishermen remember that the paws used to clatter as children walked around the house (Šulcs 1961, 157–168).

As seal hunting was a seasonal activity, an important aspect was of course the storage of the products obtained. Skin bags were suitable for this purpose, but researchers attach significance to the introduction of large, pointed-based pottery vessels. Worthy of particular mention are the oval clay bowls, a well-known form in the Neolithic. Researchers mention indoor lighting, using seal blubber, as one of the functions of these bowls, which has also been proven experimentally. All of the bowls found in the Sārņate bog dwellings, saturated with fat, still preserve traces of burnt residues and sooting inside and outside (Bērziņš 1999, 19–24).

REPRESENTATIONS IN ART

The significance of the *Phocidae* is also reflected in Stone Age art. Mention was already made of North European rock art (Fig. 5 : 12). The seal has also been represented in the form of clay figurines and in other materials: bone, flint and wood. Thus, at Ajvide cemetery site on Gotland a fired clay representation of the head of a seal has been found (Burenhult G., 1997, 19). R. Rimantienė has identified a seal representation on a decorated pot – sherd (Rimantienė R., 1995, 72–76, Fig. 60). An exceptional find is the ornamented seal figurine cut in bone that was recovered as a stray find on the southern shore of Lake Ladoga (Gurina N.N., 1961, Fig.19: 14). This list could be continued. In Latvia, too, in the lower layer of the Siliņupe settle-

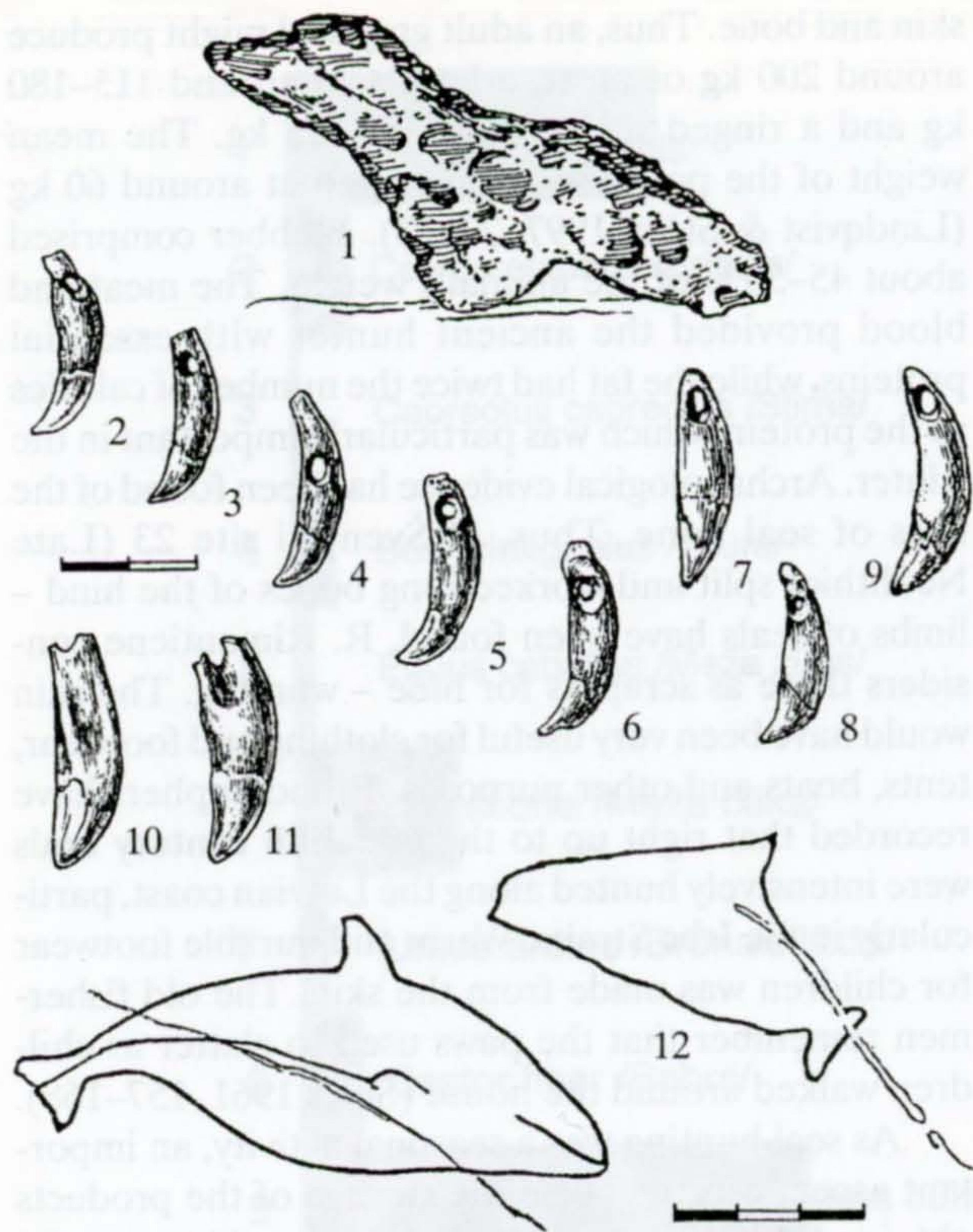


Fig. 5. The seal representations in art: 1 – seal figurine from Siliņupe settlement site; 2 – seal tooth – pendant from Zvejnieki burial ground, Grave Nr. 226; 2 – seal tooth – pendant from Kōljala burial ground (after L. Jaanits et al., 1982); 3 – 10 – teeth – pendants from Šventoji settlement sites (after R. Rimantiene, 1979; R. Rimantiene, 1996); 11 – the rock engraving (porpoises?) from North Norway, Buavika (after Ch. Lindqvist, 1994).

ment site, a 9 cm long and 3.4 cm wide figurine was found cut out of pine bark, showing a seal in characteristic posture, supported on its flippers and tail with the head extended (Fig. 5: 1). Such a find is not surprising, in view of the large proportion of sea-mammals among the animals hunted at Siliņupe.

Ornaments of seal tooth-pendants have also been found at Stone Age settlement and cemetery sites. Mention should be made of Šventoji sites 23 and 6 in Lithuania (Fig. 5 : 2–9). In southern Saaremaa, too, among the burials uncovered at Kōnnu, 14 seal tooth-pendants were found in a single grave. Such finds are also known from the burials in Kōljala (Jaanits L. et al., 1982). At Zvejnieki cemetery in northern Latvia, although the whole of the palaeozoological material has not yet been analysed, pendants of seal teeth have been found in particular child and juvenile graves (Nr. 226, 290) (analyses by J. Stōra, Stockholm).

This is quite a widespread occurrence in Neolithic cemeteries of the Baltic Sea basin. In this area quite a

large number of seal bones have been found in graves: both entire skulls, ribs, vertebrae and phalanges that may be regarded as offerings of meat given in funerary rituals. However, most commonly found with burials are tooth-pendants. Thus at Iru, Västernbiers, Visby and Ajvide seal tooth-pendants have been found in almost every grave, often forming splendid ornaments and parts of clothing (Burenhult G., 1991, Fig. 109, Fig. 112: 11). The number of tooth-pendants in graves varies from a few tens to over one hundred. It should be noted that, for example at Västernbiers cemetery, such ornaments have mostly been found in female graves or in graves where a woman has been buried together with a child (Janzon G. 1974, 132).

It is interesting to note that sometimes the sites with seal bones are not limited to the sea – coast, but also occur inland sites. Thus, seal bones have been found at Valma settlement site and Siimusaare burial ground near the Lake Virtsjärvi in central Estonia, and in the Lake Burtņieku basin in Latvia. At Rīņukalns Late Neolithic settlement site, located at the outflow of the River Salaca from Lake Burtņieku, a mandibula of the harp seal (*Pagophilus groenlandicus*) has been found, while from Zvejnieki cemetery on the north-western shore of Lake Burtņieku there are grey and ringed seal (?) tooth-pendant ornaments. These finds have been variously interpreted. Some researchers, as A. Kriiska and others, regard this as evidence of well-developed exchange contacts between inland and coastal groups (pers. comm.). However, the possibility must also be considered that, for example, a group of people living in the Lake Burtņieku basin travelled to the coast for seasonal hunting, which would have been in late autumn or early spring. Examples may be found in northern Swedish ethnographic material. In the area around the Gulf of Bothnia in the 16th century one could still observe how the men from inland villages came together for collective seasonal hunting expeditions to the coast for two to three months, leaving only the women and children at the villages. In these cases netting, considered one of the most productive methods of seal hunting, was widely employed (Broadbent N., 1979, 185–189). The possibility cannot be excluded that such a model of hunting had been developed by hunters in the East Baltic already in the Stone Age.

CONCLUSIONS

The material obtained from sites in the East Baltic shows that seal – hunting, which began already in the Middle Mesolithic (7th and 1st half of the 6th mille-

nium bc), attained particular importance during the Late Mesolithic/Early Neolithic period (2nd half of the 6th millennium, 5th and 4th millennia bc). In this area the food procurement economy reached its highest development and greatest intensification just at this time in the Late Mesolithic/Early Neolithic period, during the Climatic Optimum of the Atlantic period, before the beginnings of agriculture and stock-keeping appeared. In inland areas around lakes and along small rivers many new settlement sites appeared, the hunting and fishing toolkit became richer and more diverse and Stone Age art flourished. One of the features of this economic intensification was the utilisation of the coast and the archipelago and the development of hunting for sea-mammals. The further development of this activity took place in the Middle and Late Neolithic (3rd millennium and 1st half of the 2nd millennium bc), when several species of seal and some species of whales were widespread in the Baltic basin. In the Late Neolithic we already see a degree of

specialisation between sites, where particular species were being hunted at certain sites. Mention should be made of Naakamäe settlement site on Saaremaa and Siliņupe on the coast of the Gulf of Riga, where harp seal and porpoise were the main foray.

Similar sea – mammals hunting strategy had been observed on the eastern coast of the Gulf of Bothnia – in Ostrabothnia and Satakunta (Siiriainen A., 1982, 18–20; Hiekkinen M., 1990, 30).

As researchers have emphasised, seal hunting was a collective activity that brought together a series of collective activities. Thus, the strategy of seal – hunting also influenced all other aspects of economic and social life, stimulating the development of ancient cultural systems.

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JŪROS ŽINDUOLIŲ MEDŽIOKLĖS STRATEGIJA RYTŲ PABALTIJYJE

Ilga Zagorska

Santrauka

Žymi dalis Rytų Pabaltijo akmens amžiaus gyvenviečių medžiagos yra sietina su jūros žinduolių medžiokle. Šio verslo reikšmę visų pirma pabrėžia gyvenviečių topografinė padėtis (pav. 1, 2), o taip pat gyvenviečių archeologiniai radiniai (pav. 3), osteologinė medžiaga (pav. 4) bei akmens amžiaus menas ir laidojimo tradicijos.

Viduriniajame mezolite (VII tūkst. pr. Kr. – VI tūkst. pr. Kr. 1-oji pusė) radiniai, sietini su ruonių medžiokle, dar reti. Vėlyvajame mezolite ir ankstyvajame neolite (VI tūkst. pr. Kr. 2-oji pusė – V–IV tūkst. pr. Kr.) ruonių

medžioklės reikšmė pajūrio gyvenvietėse išauga. Viduriniajame ir vėlyvajame neolite (III tūkst. pr. Kr. – II tūkst. pr. Kr. 2-oji pusė) šis verslas specializuojasi, kai kuriose gyvenvietėse aptinkami tik tam tikrų rūšių gyvūnų kaulai, pvz., grenlandinio ruonio ir delfino kaulai Nakamijės gyv. Saaremos saloje ir Silinupės gyv. Latvijoje.

Šie duomenys atskleidžia labai didelę jūros žinduolių medžioklės reikšmę akmens amžiaus gyvenviečių pasisavinamajame ūkyje Rytų Pabaltijo pakrančių zonoje ir salose.

ILIUSTRACIJŲ SĄRAŠAS

1 pav. Rytų Pabaltijo akmens amžiaus paminklai su jūros žinduolių kaulais: 1 – Kunda – Lamasmiagi; 2 – Narva Joaoru (I–III); 3 – Narva Riigiküla (I–XIV); 4 – Kudruküla; 5 – Vihasoo III; 6 – Kroodi; 7 – Kaseküla; 8 – Reiu, Lodja, Lemeca, atsitiktiniai radiniai; 9 – Valma; 10 – Siimusaare; 11 – Köpu (I–XVII); 12 – Undva; 13 – Vöhma (I–VII); 14 – Loona; 15 – Naakamäe; 16 – Könnu; 17 – Kõljala; 18 – Rinnukalns; 19 – Zveinieki; 20 – Silinupė; 21 – Sarnatė; 22 – Šventosios paminklai; 23 – Nida.

2 pav. Biomorfologinis pajūrio zonos tarp Kemerio ir Ragaciemso žemėlapis. Parengė Guntis Eberhards.

3 pav. Kaulinių žeberklų galvutės iš Latvijos: 1 – Silinupės gyvenvietės paminklai; 2 – atsitiktinis radinys iš Dubultų, Jūrmala; 3 – Sarnate, „T“ gyvenvietė. Martos Jankalninios piešiniai.

4 pav. Medžiojami žvėrys iš Silinupės gyvenvietės paminklo: 1 – briedis; 2 – kilnasis elnias; 3 – stirna; 4 – pirmykštis jautis; 5 – laukinis arklys; 6 – šernas; 7 – rudasis lokys; 8 – bebras; 9 – delfinas; 10 – ruoniai; 11 – šuo; 12 – kiaunė; 13 – lapė; 14 – vilkas; 15 – kiškis; 16 – vilpišys; 17 – ūdra; 18 – prijaukinti gyvūnai. Arnio Zagorskio kompiuterinė grafika

5 pav. Ruoniai mene: 1 – ruonio statulėlė iš Silinupės gyvenvietės paminklo; 2 – ruonio iltis iš Zveiniekių kapinių, kapas Nr. 226; 2 – ruonio iltis iš Kõljalos kapinių (pagal L. Jaanicą ir kt., 1982); 3–10 – ruonių iltys iš Šventosios gyvenvietės paminklų (pagal R. Rimantiene, 1979; R. Rimantiene, 1996); 11 – akmens graviūra (? Delfinas) iš Buavikos, Šiaurės Norvegija (pagal Ch. Lindkvistą, 1994).

СТРАТЕГИЯ МОРСКОГО ПРОМЫСЛА В ВОСТОЧНОЙ ПРИБАЛТИКЕ

Илга Загорска

Резюме

В Восточной Прибалтике среди материалов каменного века, характеризующих присваивающее хозяйство, значительное место занимают свидетельства о морской охоте. Прежде всего это расположение стоянок (рис. 1, 2), сами археологические находки (рис. 3), остеологический материал, собранный на стоянках Прибалтики (рис. 4), а также искусство и погребальные традиции каменного века, в которых отражается роль морских животных (рис. 5).

Если в среднем мезолите (7 т.л. до н.э. и 1 пол. 6 т.л. до н.э.) находки, связанные с тюленевым промыслом, еще редки, то в период позднего мезо-

лита – раннего неолита (2-ая пол. 6 т.л. до н.э., 5–4 т.л. до н.э.) роль охоты на тюленей в приморской зоне возрастает, а в среднем и позднем неолите (3 т.л. до н.э. и 1-ая пол. 2 т.д. до н.э.) уже появляется специализация, охота только на определенных видов животных, как, например, на гренландского тюленя и на морскую свинью (Накамьяэ на острове Сааремаа, Силиньупе на побережье Рижского залива).

Все это свидетельствует о чрезвычайно важном месте морского промысла в присваивающем хозяйстве в прибрежной зоне и на островах Прибалтики в каменном веке.

СПИСОК ИЛЛЮСТРАЦИЙ

Рис. 1. Памятники каменного века в Восточной Прибалтике с костями морских млекопитающих: 1 – Кунда – Ламасмяги; 2 – Нарва Йоаору (I–III); 3 – Нарва Риигикула (I–XIV); 4 – Кудрикула; 5 – Вихасоо III; 6 – Крооди; 7 – Касекула; 8 – Рейу, Лодья, Леммеца, случайные находка; 9 – Валма; 10 – Симусааре; 11 – Копу (I–XVII); 12 – Ундва; 13 – Вохма (I–VII); 14 – Лоона; 15 – Такамае; 16 – Конну; 17 – Кольяла; 18 – Ринникалнс; 19 – Звейниеки; 20 – Силинупе; 21 – Сарнате; 22 – памятники Швянтойи; 23 – Нида.

Рис. 2. Биоморфологическая карта приморской зоны между Кемери и Рагациемсом. Составил Гунтис Эберхардс.

Рис. 3. Головки костяных гарпунов из Латвии: 1 – памятники поселения Силиньупе; 2 – случайная находка из Дубулту, Юрмала; 3 – Сарнате, поселение "Т". Рисунки Марты Янкальниня.

Рис. 4. Звери, являющиеся объектом охоты, из памятника поселения Силиньупе: 1 – лось; 2 – благородный олень; 3 – косуля; 4 – первобытный бык; 5 – дикая лошадь; 6 – кабан; 7 – бурый медведь; 8 – бобёр; 9 – дельфин; 10 – тюлень; 11 – собака; 12 – куница; 13 – лиса; 14 – волк; 15 – заяц; 16 – рысь; 17 – выдра; 18 – прирученные животные. Компьютерная графика Арниса Загорскиса.

Рис. 5. Тюлени в искусстве: 1 – статуэтка тюленя из памятника поселения Силиньупе; 2 – клык тюленя с места захоронения в Звейниеки, могила № 226; 2 – клык тюленя с места захоронения в Кольяле (по Л. Яниц и др., 1982); 3–10 – клыки тюленей из памятников поселения в Швянтойи (по Р. Римантене, 1979; Р. Римантене, 1996); 11 – каменная гравюра (? Дельфин) из Буавики, Северная Норвегия (по Линдквист, 1994).

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