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A FIGURALLY SCULPTED BONE KNIFE FROM THE RIVER UŽAVA (WESTERN LATVIA) AND THE INVISIBLE LAMPREYS OF PREHISTORY*

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A sculpted Stone Age bone knife, found in the River Užava at Sise in western Latvia, is interpreted as a schematic representation of a lamprey. The river lamprey (*Lampetra fluviatilis* L.) is a migratory species distributed in a wide region of Europe, but commercial fishing continues today only in the region around the northern and eastern shores of the Baltic Sea. Lamprey may have been an important food resource in prehistory as well; however, the species is not represented among faunal remains because its skeleton is cartilaginous and does not preserve archaeologically. The keratinous teeth do survive under special conditions, and these could in future provide direct evidence of prehistoric lamprey exploitation.

Keywords: lamprey, Stone Age, fishing, art, bone artefacts.

INTRODUCTION

The River Užava rises in the hills of western Kurzeme (the westernmost region of Latvia) and enters the open Baltic Sea 18 km south of the town of Ventspils. In its lower course, it traverses a broad coastal flatland, rich in Stone Age archaeological sites and stray finds. These relate primarily to Mesolithic–

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Neolithic habitation associated with the former Bay of Ventspils, which existed during the *Ancylus* and *Littorina* Sea stages of the Baltic Sea Basin.

A large number of Stone Age artefacts have been recovered from the bed of the Užava itself, and indeed most of these come from one particular stretch of the river's course: where it flows through the hamlet of Sise (present-day Ziras Parish of Ventspils Municipality; see Fig. 3: b for location). Two objects were discovered here already before the Second World War, and a greater number were found in the 1960s. In response to the report of artefact finds, this location was initially visited by archaeologist Ieva Cimermane in 1963.¹ The following year, Stone Age specialist Ilze Loze conducted a more detailed investigation of the find circumstances and brought back to Riga a larger set of artefacts.²

As documented by Loze, many of the objects were found by a local youth named Agris Legzdiņš.³ Almost 50 years later, in 2012, an archaeological team conducting a renewed investigation of the Sise site met Legzdiņš, who recounted how the first bone and antler artefacts had been discovered on the riverbed. This particular stretch of the Užava's course was a very favourable location for fishing river lamprey (*Lampetra fluviatilis* L.). The village boys would catch by hand lampreys that had attached themselves with their sucker-like mouths to rocks under the water. So as to get a clearer view of the lampreys underwater, they would use a home-made viewer in the form of a bowl or bucket fitted with a glass bottom. According to Legzdiņš, it was in this way that they spotted the first artefacts lying on the riverbed.⁴

For many decades there was no more news of finds from the Užava at Sise, but archaeological and geological fieldwork recommenced in 2010 with a survey of the riverbed in conjunction with an investigation of the stratigraphy along the banks of the river, conducted by a Latvian/German research team together with experienced divers.⁵ On this occasion they met another local resident, Aivars Priedoliņš, who had likewise brought up antler and bone objects from the riverbed and who engaged henceforth in an intensive search of this reach of the river, recov-

ering a considerable number of Stone Age artefacts along with unworked antler and bone, as well as metal weapons and jewellery relating to Late Iron Age Couronian cremation graves. Wading in the river, Priedoliņš scanned the riverbed using an underwater scope, in the form of a glass-bottomed plastic bowl.

Subsequent archaeological excavation and geological survey on the left bank of the river in 2012 uncovered evidence of Mesolithic and Neolithic occupation at several locations and revealed an extremely complex natural sequence of organic deposits and sands, reflecting the landscape changes caused by fluctuations in the water level during the Ancylus Lake and Littorina Sea stages of the Baltic Sea Basin.⁶ However, it has so far proved impossible to identify the layer from which the bone and antler objects have been eroded.

This article examines just one of Priedoliņš's many finds from the bed of the River Užava: a figurally carved bone knife. It was brought up near the right bank of the river in Sise village, where the river flows between the Mazrušķi and Duļi farms, at a location where a wooden bridge once stood (N 57°7'27" / E 21°32'57"). Along with the rest of Priedoliņš's collection, it is nowadays kept in Ventspils Museum.⁷

THE FIND AND INTERPRETATION OF THE IMAGERY

The bone knife (Fig. 1: 1–4; Fig. 2: 1), 22.5 cm long with a maximum width of 1.8 cm and a maximum thickness of 0.8 cm, has been fashioned from a flat splinter of long bone (species indeterminate), carefully shaped and finished. Dark brown in colour, it is nearly symmetrical along its long axis, with a rounded tip, and a butt of spatulate form separated from the rest of the piece by a 1.5 cm long constriction placed 2 cm from the butt end. The object is flat, being biconvex in cross section along most of its length.

A distinctive feature is the occurrence of short notches around the margin of the spatulate butt, with similar notches along both

edges of the blade, close to the constriction: seven notches along one edge and nine along the other (Fig. 1: 3–4). Three small notches occur on one edge further towards the tip of the knife.

On first inspection, the object seemed like a schematic representation of a snake. Indeed, a number of snake representations in bone and antler are known from the Stone Age of the eastern Baltic region.⁸ However, subsequent detailed examination indicated a more convincing resemblance to a rather different animal: the river lamprey, a cartilaginous fish species that inhabits the River Užava today and, as described above, was the object of the fishing activity that had led to the discovery of Stone Age artefacts on the riverbed.

If the spatulate butt of the knife is taken to represent the lamprey's head, then particularly significant for identification are the closely-spaced notches along the edges of the knife near the constriction: these may be equated with the very distinctive row of seven gill openings that occur on either side of the river lamprey's body just behind the head, a feature peculiar to this animal, and one that has given rise to various traditional names for the lamprey. Thus, in some country areas of England lampreys were known by the name "nine eyes" or "nine holes", and the common name in German is *Neunauge* ("nine eyes"), all of these names apparently referring to the seven gill openings together with the paired eyes.⁹

In addition, the spatulate shape of the butt is reminiscent of the outline of the lamprey's sucker-like mouth (suctorial disc) when the parasitic animal has attached itself to the body of a fish or to a rock. In this context the notches around the periphery of the spatula can be taken to represent the folds of skin around the margin of the mouth funnel and/or the teeth inside the mouth.

Admittedly, the sculpted piece is overly schematic to permit unequivocal identification. It may be noted that no other representations of lampreys seem to have been identified so far in the Stone Age artefactual material from Northern Europe, but this is unsurprising, since lampreys have generally not been considered in the context of Stone Age subsistence or artistic representation.



Fig. 1. 1, 2 – Bone knife, River Užava at Sise, VVM 31460: 1; 3, 4 – enlarged view of the butt end; 5 – river lamprey (*Lampetra fluviatilis* L.)

As regards the practical function of this artefact, a knife of this form could potentially have served a range of different needs. However, the occurrence of fine striations perpendicular to the line of the blade indicates that it was employed with a transverse scraping motion, for example as when scaling fish. Such a knife could conceivably also have been used for removing the mucus from lamprey before processing for consumption. The constriction near the butt may have served for attaching a cord or for keeping the knife tucked behind one's belt.

Since the rather delicate object is intact and in fairly fresh condition, with no significant damage and only minor evidence of rolling, it may be thought to have been lost in the water (rather than discarded as rubbish) and deposited in the mud of the bed, and was evidently eroded from this stratum by the river not very long prior to its discovery, before abrasion in the current could do much damage.

The object itself has not been radiocarbon dated (sampling was considered overly destructive for this relatively small and quite unique piece), but antler artefacts recovered from the bed of the Užava at Sise have given dates in the range c. 6000–4000 cal BC,¹⁰ a time interval that corresponds to the Late Mesolithic and Early Neolithic in Latvia.

STYLISTIC PARALLELS

While the form of the object is quite unique, stylistic parallels can be identified in Latvia. There is a distinct similarity with a bone knife from a Middle Neolithic layer on the Zvidze site in the Lubāns Lowlands of eastern Latvia, which likewise has a figurally carved grip and notching along the edges (Fig. 2: 2).¹¹ Also similar in terms of the style of ornamentation is the widely-known anthropomorphic figure on a bone plate from the Zvejnietki Mesolithic–Neolithic cemetery at Lake Burtnieks in northern Latvia (Fig. 2: 3).¹² Recovered from a disturbed grave (no. 172), it is thought to date from the Early Neolithic. The main resemblance is in the notches carved around the margin of the

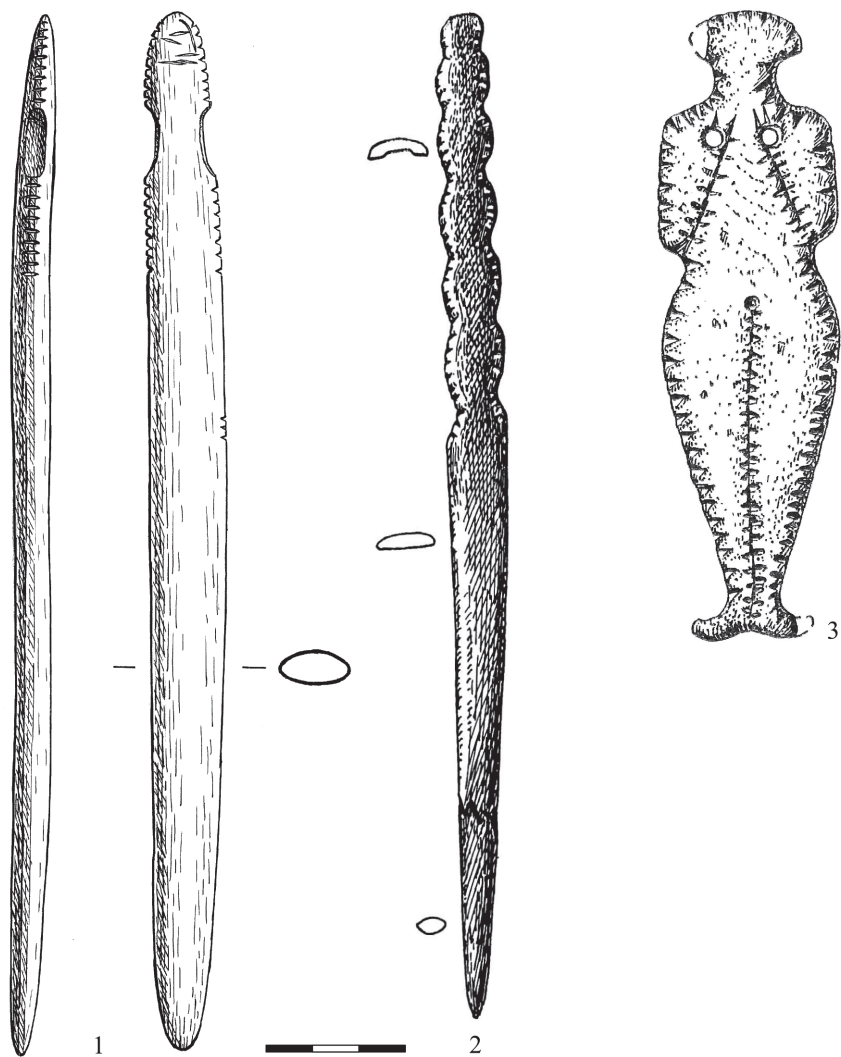


Fig. 2. 1 – Bone knife, River Užava at Sise, VVM 31460: 1 (drawing: A. Bērziņa); 2 – bone knife, Zvidze site, VI 188: 2834 (Ilze Loze (1988). *Poseleniia kamennogo veka Lubanskoi niziny. Mezolit, rannii i srednii neolit*. Riga: Zinatne, p. 137, Plate. XVII: 9); 3 – anthropomorphic bone figurine, burial 172, Zvejnieki cemetery (Francis Zagorskis (2004). *Zvejnieki (Northern Latvia) Stone Age Cemetery*. Oxford: Archaeopress. (BAR International Series 1292), Fig. 25)

plate and along the lines marking the arms and legs. In the case of this figure, it seems the notches might, at least in part, indicate decoration along the seams of the dress. A fragmentary bone artefact with similarly notched edges has been found on the Neolithic site of Tamula in southern Estonia.¹³

Considering these stylistic parallels from dated sites, the Sise knife could indeed be Late Mesolithic or Neolithic, like the dated artefacts of the Sise collection.

Also paralleling the piece from Sise are several round-tipped knives and daggers made from flat bone plates, which have been recovered as stray finds from the exposed bed of Lake Lubāns in eastern Latvia.¹⁴ Two of these have figurally shaped butts representing birds;¹⁵ another has notching on the grip.¹⁶

There is also a resemblance to certain of the flat bone knives from the Late Mesolithic (c. 7000–6000 cal BC) in the Upper Volga region of Russia. Thus, the Zamostje 2 site has yielded knives with notched or wavy edges and figurally carved butt ends,¹⁷ and there are further finds from Ozerki 5.¹⁸

THE RIVER LAMPREY AND ITS POTENTIAL SIGNIFICANCE AS A PREHISTORIC FOOD SOURCE

The Sise find certainly does provide occasion to address the question of lamprey fishing in prehistory. The river lamprey is a migratory (anadromous) species: as in the case of many other fishes, the adult lampreys live in the sea and enter rivers to spawn. Hitherto in the study of Stone Age fisheries in Latvia attention has been focused primarily on freshwater fish, since the bones of these species have been found much more commonly and in greater numbers, whereas remains of fishes that migrate between the sea and freshwater are relatively sparse and have in Latvia received little research attention, even though in historical times certain of the species in this group, including the river lamprey, have been immensely important economically. Lampreys have not been considered at all in the archaeological literature from the region, evidently because of the absence of recovered

remains: the lamprey has a cartilaginous skeleton, with no bone that might preserve archaeologically. Hence, we have no direct evidence of prehistoric lamprey fishing.

Lampreys are sometimes grouped together with hagfishes as cyclostomes or round-mouthed vertebrates, being the only living vertebrates without the usual hinged vertebrate jaws. Instead, the small round mouth is surrounded by a circular disc or sucker, the inner surface of which is studded with an array of small horny teeth, helping it to grip its prey – usually a fish – and frustrate its efforts to escape. The sucker is also a great asset for an animal living in fast-flowing water, enabling it to anchor to rocks on the streambed and rest motionless with the least expenditure of energy. On the top of the head, instead of the usual paired nasal openings, there is only a distinctive single nostril. The lamprey's body has no hard bony tissues, in place of which there is the more flexible gristle or cartilage. Even their teeth are without the usual vertebrate hard material of dentine or enamel, but are made up of the horny protein keratin. In place of a jointed spine, lampreys and hagfishes have a gelatinous rod, the notochord, which extends almost the entire length of the animal.¹⁹

After spending a large part of its life (4–5 years) in a larval stage with a diet of detritus, the river lamprey metamorphoses to the adult stage and migrates to the sea, where it adopts a parasitic feeding life, subsisting mainly on small fish such as sprat, herring and smelt. Usually after 1–2 years, when the mature lamprey has reached a length of 17–49 cm, with a weight of 20–195 g, it begins its upriver migration to the spawning area.²⁰ It ceases to feed before starting the upstream migration, and because fat stores are at their peak at the start of the migration, it is usually the first catches that have been most highly valued as food.²¹ The migration occurs at night; during the daytime the migrants spend much of their time resting under rocks and overhanging banks or lying on the bottom of deeper pools.²²

At the present day, the river lamprey occurs in a wide region of Western and Northern Europe, from Ireland and the coasts of Spain and France in the west to Lakes Ladoga and Onega and the

Bay of Bothnia in the north-east (Fig. 3: a). However, major commercial fishing for lamprey nowadays occurs only in the region surrounding the northern and eastern parts of the Baltic Sea, namely in Finland, part of north-western Russia, Estonia, and Latvia,²³ these being the countries where the fish has retained a significant place in the culinary tradition. Here, the lamprey's annual mass migration from the sea into the rivers to reach the spawning sites – in the period from late summer up to early spring – provides the main opportunity for catches. Compared with neighbouring countries, the largest-scale commercial lamprey fishing is nowadays in Latvia,²⁴ and indeed in this country at the present day lamprey catches account for the largest proportion of commercial fish catches in inland waters: in the years 2003–2015, the annual lamprey catch varied in the range of 39–113 tonnes, constituting 17–37% of the total fish catch in inland waters.²⁵ The oldest information in Latvia concerning the size of lamprey catches is from the turn of the 20th century, when the landing in the River Daugava is estimated as at least 25 tonnes in one spawning season.²⁶

Traditional instructions for processing lamprey usually stress the importance of scouring off the slimy mucus, the rationale for which may be the presence of biologically active substances in the skin secretions.²⁷ This can be achieved by placing the fish in salt, strong brine or boiling water, and then scraping off the mucus. An alternative method is to keep them in charcoal, which presumably absorbs the toxins.²⁸ At the present day, lampreys are consumed cold-smoked, warm-smoked, grilled, pan-fried, boiled or as an ingredient in soup.²⁹

Lampreys are extremely energy-rich, fatty fish. Nutritional data were only found for smoked lamprey: 100 g is calculated as providing 1464 kJ of energy, with 80% fat and 20% protein (for comparison, 100 g of warm smoked salmon provides 1047 kJ, with 65% fat and 35% protein).³⁰ Accordingly, just a couple of these relatively small fish are enough to provide a hearty meal; moreover, since bones are absent, the entire body can be consumed. It may be noted that other lamprey species also occur in

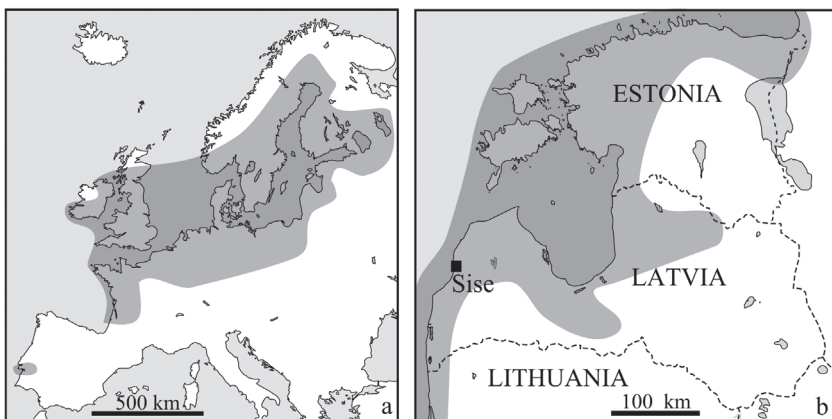


Fig. 3. a – Present-day distribution of river lamprey, *Lampetra fluviatilis* L., in Europe (after: The IUCN Red List of Threatened Species, available at: <http://maps.iucnredlist.org/map.html?id=11206>, accessed 17.12.2017); b – present-day distribution of river lamprey in the eastern Baltic (after: Māris Pliškšs, Ēriks Aleksejevs (1998). *Latvijas daba. Zivis*. Rīga: Gandrs, 38. lpp.; Evald Ojaveer, Ervin Pihu, Toomas Saat (2003). *Fishes of Estonia*. Tallinn: Estonian Academy Publishers, Fig. 8)

Northern Europe. Present in the eastern Baltic region is the brook lamprey (*Lampetra planeri* Bloch), which is considered too small to utilize as food.³¹ A rare immigrant in the Baltic Sea is the sea lamprey (*Petromyzon marinus* L.), which grows much larger than the river lamprey and was once widely consumed in Britain and other countries of Western Europe.³²

The river lamprey is a cold-water fish; accordingly, palaeozoologist Lembi Lõugas includes it among the species that could have entered the waters of this region already during the Late Glacial.³³ Indeed, the low genetic diversity of river lamprey and brook lamprey in Central and Northern Europe suggests a rapid postglacial colonisation of the region.³⁴ Hence, lamprey could potentially have been a food source for the very earliest human settlers. In view of the lamprey's major role as a food source in historical times, we must consider the theoretical possibility that lamprey had a significant role as a subsistence resource in prehistory as well, starting from the Stone Age.

As described above, lampreys can be caught by hand, but the traditional methods of lamprey fishing on a more ambitious scale rely on traps of various kinds, which may be placed individually on the riverbed, strung on a long line across the river or set in weirs. Lamprey-fishing gear, which is designed to suit the specific conditions of water level, flow and substrate along the particular stretch of the river, has recently been examined in detail by Swedish biologist Kjell Sjöberg, focusing on present-day methods employed in the countries around the northern shores of the Baltic Sea, where lamprey is still being caught, either on a commercial or non-commercial basis, namely Sweden, Finland, and the Baltic states.³⁵ The methods used in former times in Latvia are described in works by Saulvedis Cimermanis,³⁶ while Ilmari Manninen³⁷ has examined traditional lamprey fishing in Estonia. There are also ethnohistorical accounts of lamprey-fishing practices of earlier times in the former East Prussia³⁸ and Russia.³⁹ The traditional kinds of traps include such simple gear as logs that have been split in two, hollowed out and fitted back together, as well as different kinds of basket traps woven of willow or juniper stems, and conical traps of wooden laths. The traps are fitted with a funnel at the mouth that has a small opening through which the lamprey may enter but which it cannot find to escape.

Lamprey traps are constructed on the same principles as other fish traps, but modified for the size and shape of the lamprey, and for the conditions in the river where it is to be caught. The general practice is to place the traps with the mouth facing downstream to intercept the lampreys as they ascend the river. If the fishermen have restricted the passage around the fishing gear, then lampreys will enter the trap, seeking an easier way upstream.⁴⁰ In the case of wide-mouthed baskets, lampreys are attracted into the basket by the eddy created by the wide entrance section.⁴¹ Cone traps, as still used in the River Narva in Estonia, function according to a different principle, namely that they attract the lampreys as a dark place of shelter during the daytime, when they interrupt their upstream migration.⁴² Depending on the characteristics of the watercourse, lamprey-catching gear may

be placed on the bed individually, attached to a trestle structure weighted down with stones or to a weir supported on poles driven into the bed, or strung onto a line stretched across the river.

Remains of fish traps made of laths, withies or netting are represented among Neolithic wetland finds from the Baltic States, and there are remains of weirs that had traps installed in them.⁴³ It is clear that the technical knowledge needed to build lamprey-catching gear was available in the region in the Stone Age, at least by the Neolithic and probably much earlier – thus, from the Sise site itself, there is evidence of a pile structure dating from the early part of the Mesolithic.⁴⁴

Even though we have no direct evidence of lamprey fishing in prehistory, it may be suggested hypothetically that at least some of the Stone Age sites located along the banks of rivers were established at places advantageous for lamprey fishing. Quite possibly, fishing for lamprey was one of the activities undertaken by the Mesolithic and Neolithic population along the lower course of the River Užava and at the Sise site itself, where the presumed lamprey representation was found, and which is a good lamprey-fishing location at the present day.

There is potentially a chance of obtaining direct evidence of lamprey fishing in prehistory, because, as already mentioned, this boneless animal does possess keratinous teeth and tooth plates. Animal parts consisting of keratin (such as horn, hoof, tortoise shell) preserve only in exceptional conditions, preservation being largely dependent on the inhibition of biodeterioration in environments unfavourable to aerobic fungal activity (e.g. lack of oxygen, low temperatures, limiting pH, very low relative humidity), the presence of biocides, or a combination of the two.⁴⁵ And even with the right soil conditions, because of the small size of the teeth, they could only be recovered by wet-sieving through a screen with a fine mesh. Indeed, some lamprey teeth have been discovered at later-period sites where preservation conditions are favourable, as at the Roman site of Lafelt in Flanders,⁴⁶ the medieval Dundrennan Abbey in Scotland,⁴⁷ and the town of York, England.⁴⁸

CONCLUSIONS

That lampreys have generally been passed over as a potentially significant food resource in prehistory is evidently due to two factors. In the first place, because of the absence of bony structures, they are all but “invisible” archaeologically, and the lack of hard evidence restricts us to hypothetical statements (as is the case with certain kinds of plant foods, etc.). Secondly, lampreys are not a regular part of the present-day diet in most of Europe, constituting – in most countries – more of a curiosity or local delicacy, and hence, at the level of personal experience, will be rather unfamiliar to a large part of the archaeological research community.

However, lamprey exploitation does merit consideration, even if only at a hypothetical level, especially since lampreys, like other anadromous fishes, constitute a seasonal resource offering the potential of mass catches along particular watercourses. Accordingly, intensive lamprey fishing may have been a significant factor connected with sedentism, territoriality, storage and delayed consumption among human communities in early prehistory.

Viewed from this perspective, we might indeed expect that the Stone Age mobiliary art of the eastern Baltic, prominently featuring artistic representations of food animals, should also include sculptural forms depicting the distinctive features of the lamprey. It is to be hoped that future zooarchaeological research will yield actual lamprey tooth remains from Stone Age sites, thus providing an empirical basis for discussing lampreys as a food source of ancient hunter-fishers in Europe.

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- ³⁴ Rute Espanhol, Pedro R. Almeida, Judite Alves (2007). Evolutionary history of lamprey paired species *Lampetra fluviatilis* (L.) and *Lampetra planeri* (Bloch) as inferred from mitochondrial DNA variation. *Molecular Ecology*, 16, pp. 1909–1924.
- ³⁵ Kjell Sjöberg (2013). Fishing gear used for river lamprey *Lampetra fluviatilis* (L.) catches. Documenting rivers that flow into the Baltic Sea. Part I, Sweden. *Journal of Northern Studies*, 7 (1), pp. 49–85; Kjell Sjöberg (2013). Fishing gear used for river lamprey *Lampetra fluviatilis* (L.) catches. Documenting rivers that flow into the Baltic Sea. Part II, Finland, Latvia and Estonia. *Journal of Northern Studies*, 7 (2), pp. 7–74.
- ³⁶ Saulvedis Cimermanis (1963). Saldūdeņu zveja Vidzemē 19. un 20. gs. *Arheoloģija un etnogrāfija*, 5, 77.–114. lpp., here 89., 101. lpp.; Saulvedis Cimermanis (1964). Nēģu zveja Carnikavā 19. gs. otrajā pusē un 20. gs. *Arheoloģija un etnogrāfija*, 6, 161.–180. lpp.; Saulvedis Cimermanis (1970). Fischsperrren in Vidzeme und Latgale (Lettische SSR) am Ende des 19. und zu Beginn des 20. Jahrhunderts. *Jahrbuch der Museums für Völkerkunde zu Leipzig*, 25. Berlin: Akademie-Verlag, S. 99–133.
- ³⁷ Ilmari Manninen (1931). *Die Sachkultur Estlands*, I. Tartu: Õpetatud Eesti Selts, S. 226–228, 240–244.
- ³⁸ Berthold Benecke (1881). *Fische, Fischerei und Fischzucht in Ost- und Westpreussen*. Königsberg: Hartungsche Verlagsdruckerei, S. 388–389, 397–399.
- ³⁹ L. P. Sabaneev (2008 [1892]). *Ryby Rossii. Zhizn' i lovlya (uzhev'e) nashikh presnovodnykh ryb*. Moskva: AST, pp. 626–637.
- ⁴⁰ Sjöberg. Fishing gear used for river lamprey *Lampetra fluviatilis* (L.) catches. Documenting rivers that flow into the Baltic Sea. Part I, Sweden, pp. 57–58.
- ⁴¹ Hardisty. *Lampreys. Life without Jaws*, p. 256.
- ⁴² Sjöberg. Fishing gear used for river lamprey *Lampetra fluviatilis* (L.) catches. Documenting rivers that flow into the Baltic Sea. Part II, Finland, Latvia and Estonia, p. 62. Broom-like gear attached to a line, used formerly in the River Venta, Latvia, evidently functioned in a similar way. See Saulvedis Cimermanis (1998). *Zveja un zvejnieki Latvijā 19. gadsimtā*. Rīga: Latvijas Zinātņu Akadēmijas Vēstis, 21. att.
- ⁴³ Ilze Loze (1988). Stone Age wooden tools and devices from the multilayer habitation site of Zvidze (Latvia). *Archeologické rozhledy*, 40, pp. 361–377, 473–476, here pp. 365–366; Ilze Loze (2000). Stone Age settlements in the Lake Lubāns wetland in Latvia, and subsistence strategies of the population. *Latvijas Zinātņu Akadēmijas Vēstis A*, 54 (3/4), 109.–122. lpp., here 117. lpp., 11., 12. att.; Rimutė Rimantienė (2005). *Die Steinzeitfischer an der Ostseelagune in Litauen. Forschungen in Šventoji und Būtingė*. Vilnius: Litauisches Nationalmuseum, pp. 71–72. It should be noted that certain of the items made of wooden laths, originally identified as fish traps, for example those

from Sārnate in Latvia, have now been re-interpreted as remains of screens used to construct fish fences. See Valdis Bērziņš (2008). *Sārnate: Living by a Coastal Lake During the East Baltic Neolithic*. Oulu: Oulu University Press (Acta Universitatis Ouluensis B86), pp. 241–250.

⁴⁴ Bērziņš et al. Recurrent Mesolithic–Neolithic occupation at Sise (western Latvia) and shoreline displacement in the Baltic Sea Basin, p. 1323.

⁴⁵ Sonia O'Connor, Caroline Solazzo, Matthew Collins (2015). Advances in identifying archaeological traces of horn and other keratinous hard tissues. *Studies in Conservation*, 60 (6), pp. 393–417, here pp. 395–396.

⁴⁶ Wim Van Neer, Anton Ervynk (2010). Defining “natural” fish communities for fishery management purposes: biological, historical and archaeological approaches. In: Scott G. Bruce (ed.). *Ecologies and Economies in Medieval and Early Modern Europe*. Leiden: Brill, pp. 193–223, here p. 214.

⁴⁷ Ruby Céron Carrasco. Fish and crustaceans 2001. In: Ewart, G. (ed.). *Dundrennan Abbey: Archaeological investigation within the south range of a Cistercian house in Kirkcudbrightshire (Dumfries & Galloway), Scotland*. (Scottish Archaeological Internet Report 1), pp. 75–76, here p. 76. Available at: <http://www.sair.org.uk> (accessed 18.12.2017).

⁴⁸ Andrew K. G. Jones (1988). Provisional remarks on fish remains from archaeological deposits at York. In: Peter Murphy, Charles French (eds.). *The Exploitation of Wetlands*. Oxford: Archaeopress (British Archaeological Reports British Series, 186), pp. 113–127, here p. 117.

FIGURĀLI VEIDOTS KAULA NAZIS NO UŽAVAS UPES (RIETUMLATVIJĀ) UN AIZVĒSTURES NEREDZAMIE NĒĢI

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Skulpturāli veidots akmens laikmeta kaula nazis, kas atrasts Rietumlatvijā, Užavas upē pie Sises, interpretēts kā shematisks nēģa attēlojums. Upes nēģis (*Lampetra fluviatilis* L.) ir ceļotājzivju suga, kas izplatīta plašā Eiropas reģionā, tomēr nēģu komerciāla zveja mūsdienās turpinās tikai Baltijas jūras ziemeļu un austrumu krastos. Iespējams, ka nēģis bija nozīmīgs pārtikas resurss arī senatnē, bet nav pārstāvēts starp dzīvnieku kaulu paliekām, jo tā skelets ir skrimšļains un arheoloģiski nesaglabājas. Īpašos apstākļos var sagla-

bāties nēga zobīņi, kas sastāv no raga, un šādi atradumi nākotnē varētu sniegt tiešu liecību par nēgu zveju senatnē.

Atslēgas vārdi: nēģis, akmens laikmets, zveja, māksla, kaula rīki.

Kopsavilkums

Raksts veltīts vienam no daudzajiem akmens laikmeta priekšmetiem, kas atrasti Užavas upē tās tecējuma posmā caur Sises ciemu (Ventspils novada Ziru pagastā). Figurāli veidoto kaula nazi (1. att.: 1–4; 2. att.: 1), kas glabājas Ventspils muzejā, veicot sistemātisku upes gultnes apsekošanu, līdz ar citām akmens laikmeta un dzelzs laikmeta senlietām atradis vietējais iedzīvotājs Aivars Priedoliņš. Nazis ir 22,5 cm garš, plakans, rūpīgi apstrādāts, ar noapaļotu galu un lāpstiņas veida roktura noslēgumu, kuru no pārējās daļas atdala iežmauga.

Kaut gan priekšmets sākotnēji atgādināja čūskas atveidu, tuvāk to apskatot, izrādījās, ka pārliecinošāka līdzība ir ar citu dzīvnieku, proti, ar nēģi. Ja naža roktura noslēgumu pieņemam par nēga galvu, tad ļoti zīmīgi ir cieši kopā izvietotie robiņi gar naža malām pie iežmaugas – septiņi gar vienu malu, deviņi gar otru. Tos var atpazīt kā žaunu atveres, kas izvietotas abpus nēga ķermenim tieši aiz galvas. Lāpstiņas veida roktura noslēgums atgādina nēga mutes piltuvi, arī tā malas rotātas ar robiņiem, kas varētu būt ādas krokas ap nēga mutes piltuvi vai arī piltuvē izvietotie zobīņi. Skulpturālais veidojums gan ir pārāk shematisks, lai to viennozīmīgi identificētu. Jāatzīmē, ka Ziemeļeiropas akmens laikmeta senlietu materiālā līdz šim nav zināms neviens cits nēga atveids, bet tas nepārsteidz, jo par nēģiem netiek runāts arī akmens laikmeta iztikas kontekstā.

Šāds nazis varēja kalpot dažādām vajadzībām, bet sīkās švīkas perpendikulāri asmens līnijai liecina, ka tas izmantots, skrāpējot šādā virzienā – piemēram, atzviņojot zivis. Vēl tas varētu būt lietots nēģu gļotu notīrīšanai pirms apstrādes. Iežmauga pie roktura gala varēja kalpot auklas piesiešanai vai naža aizspraušanai aiz jostas.

Tā kā samērā trauslais priekšmets atrasts vesels, bez bojājumiem, domājams, ka tas nozaudēts ūdenī, nonācis upes gultnes dūņās un no šī slāņa izskalots, neilgi pirms tas tika atrasts.

Konkrētais priekšmets nav datēts ar radioaktīvā oglekļa metodi, toties līdz šim datēti ir četri Užavas gultnē atrasti priekšmeti. Tie attiecināmi uz laikposmu ap 6000.–4000. g. pr. Kr., kas atbilst vēlajam mezolītam/agrajam neolītam.

Formas ziņā priekšmets ir unikāls, bet stilistiska līdzība ir ar kaula nazi, kas iegūts Lubāna zemienē, Zvidzes apmetnes vidējā neolīta slānī

(2. att.: 2), kā arī ar antropomorfu figūriņu uz kaula plāksnes no Zvejnieku akmens laikmeta kapulauka pie Burtnieku ezera (2. att.: 3). Ņemot vērā minētās paralēles, Sises nazis tiešām varētu būt attiecināms uz vēlo mezolītu vai neolītu, līdzīgi kā Sises kolekcijas datētie priekšmeti. Zināma līdzība ar Sises atradumu ir arī vairākiem no kaula plāksnēm izgatavotiem nažiem un dunčiem Lubāna ezera savrupatradumu kolekcijā. Diviem no tiem roktura daļa noslēdzas ar figurālu veidojumu, kas attēlo putnu, bet vēl vienam ir iegriezumi uz roktura.

Izvērtējot Sises atradumu, nonākam līdz jautājumam par nēģu zveju senatnē. Upes nēģis (*Lampetra fluviatilis* L.) ir ceļotājzivs: pieaugušie indivīdi dzīvo jūrā un ieceļo upēs uz nārstu. Pētījumos par akmens laikmeta zveju Latvijas teritorijā uzmanība gan līdz šim pievērsta galvenokārt saldūdens zivīm, jo to kauli atrasti lielā skaitā, turpretī ceļotājzivju paliekas iegūtas samērā reti, lai arī vēsturiskos laikos dažām ceļotājzivju sugām, t.sk. upes nēģim, bija ļoti liela saimnieciska nozīme. Nēģi vispār nav aplūkoti šī reģiona arheoloģiskajā literatūrā, acimredzot tāpēc, ka nav atrastas to paliekas: nēģa skelets sastāv no skrimšļiem, tam nav kaulu, kas varētu saglabāties arheoloģiskos slāņos. Līdz ar to nav arī tiešu liecību par nēģu zveju senatnē.

Mūsdienās upes nēģis izplatīts plašā Eiropas reģionā – no Īrijas un Spānijas rietumos līdz Lādogas un Ņegas ezeriem un Botnijas līcim ziemeļaustrumos (3. att.). Tomēr komerciāla nēģu zveja turpinās tikai Baltijas jūras ziemeļu un austrumu daļas reģionā – Somijā, Krievijā, Igaunijā un Latvijā. Zveja notiek ikgadējās nēģu migrācijas laikā no jūras uz nārsta vietām upēs, periodā no vasaras beigām līdz agram pavasarim.

Nēģis Ziemeļeiropā izplatījās drīz pēc pēdējā leduslaikmeta beigām, tāpēc to varbūt iztikā izmantojuši jau paši senākie iedzīvotāji. Ņemot vērā nēģu lielo saimniecisko nozīmi vēsturiskos laikos, jāņem vērā iespējamība, ka nēģis varēja būt nozīmīgs pārtikas resurss arī senatnē, sākot jau no akmens laikmeta. Atrastās murdu un zvejas aizsprostu paliekas liecina, ka akmens laikmeta iedzīvotājiem bija vajadzīgās prasmes, lai izgatavotu zvejas aprīkojumu līdzīgu tam, kāds vēsturiskos laikos izmantots nēģu zvejā. Lai arī nav tiešu liecību par nēģu zveju senatnē, hipotētiski varētu pieņemt, ka vismaz daļa upju krastos izvietoto akmens laikmeta apmetņu ierīkotas izdevīgās nēģu zvejas vietās. Tiešas liecības par nēģu izmantošanu uzturā varētu būt, ja izdotos atrast sīkos nēģu zobīņus, kas sastāv no ragaina materiāla un īpašos apstākļos varētu būt saglabājušies. Līdz šim nēģu zobīņi atrasti atsevišķos vēlāka laika pieminekļos Rietumeiropā.

ATTĒLU SARAKSTS

1. att. 1, 2 – kaula nazis, Užavas upe pie Sises, VVM 31460: 1; 3, 4 – roktura daļas noslēgums palielinājumā; 5 – upes nēģis (*Lampetra fluviatilis* L.)
2. att. 1 – kaula nazis, Užavas upe pie Sises, VVM 31460: 1 (A. Bērziņas zīmējums); 2 – kaula nazis, Zvidzes apmetne, VI 188: 2834 (Ilze Loze (1988). *Poseleniia kamennogo veka Lubanskoj niziny. Mezolit, rannii i srednii neolit*. Rīga: Zinatne, s. 137, tabl. XVII: 9); 3 – antropomorfa kaula figūriņa, 172. kaps, Zvejnieku kapulauks (Francis Zagorskis (2004). *Zvejnieki (Northern Latvia) Stone Age Cemetery*. Oxford: Archaeopress. (BAR International Series 1292), Fig. 25)
3. att. a – Upes nēģa, *Lampetra fluviatilis* L., mūsdienu izplatība Eiropā (pēc: The IUCN Red List of Threatened Species. Pieejams: <http://maps.iucnredlist.org/map.html?id=11206>, skatīts 17.12.2017.); b – upes nēģa mūsdienu izplatība Austrumbaltijā (pēc: Māris Plikšs, Ēriks Aleksejevs (1998). *Latvijas daba. Zivis*. Rīga: Gandrs, 38. lpp.; Evald Ojaveer, Ervin Pihu, Toomas Saat (2003). *Fishes of Estonia*. Tallinn: Estonian Academy Publishers, Fig. 8)