

Antler Mace Heads from Zvejnieki (Latvia) and the Changing World of Hunter-Fisher-Gatherers in the 4th Millennium BCE

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The starting point of this article is three so-called grooved mace heads, made of elk antler beams and found in burial 221 at the Zvejnieki cemetery in Latvia. Their best counterpart – a mace head crafted from a white quartzite pebble – was recovered in burial 1a at the Kukkaroski I cemetery in Finland. Both the Zvejnieki and Kukkaroski mace heads were discovered in distinctive, symbolically charged burials associated with the Typical Comb Ware Culture. Nevertheless, they are the only mace heads found in such burials – or in any hunter-fisher-gatherer graves – in the eastern Baltic Sea area. Like the Typical Comb Ware material culture more broadly, these burials, and with them the mace heads, reflect new ways of engaging with the material world. Thus, curious as the mace heads may be, they are firmly embedded in the cultural transformations that took place during the first half of the 4th millennium BCE and provide compelling evidence of shared traditions in the eastern Baltic Sea area.

Keywords: Grooved Mace Heads, Mortuary Practices, Grave Goods, Hunter-Fisher-Gatherers, Typical Comb Ware Culture, Eastern Baltic Sea Area

Introduction

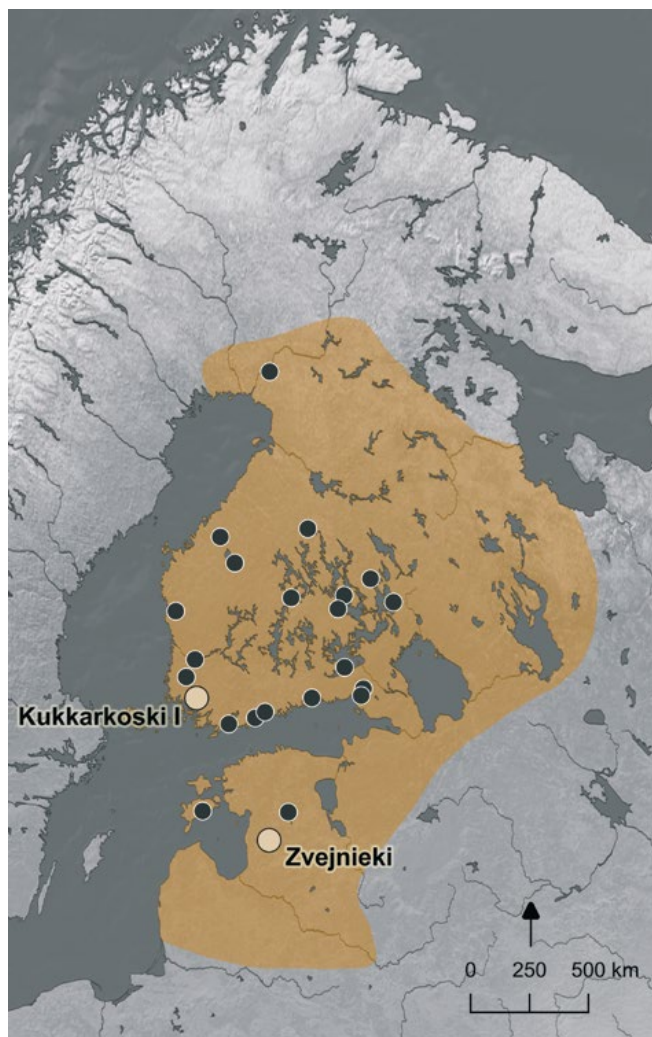
Peculiar grave goods buried with Stone Age individuals are one of the recurring themes in the research of the jubilarian, Professor Adomas Butrimas. It is thus fitting that this paper takes as its starting point a remarkable set of artefacts, namely, three antler mace heads found in burial 221 at the Zvejnieki cemetery in Latvia.¹ These are unique specimens, with no direct parallels in Latvia or the surrounding territories. However, as has been preliminarily pointed out,² the mace heads find counterparts from the early 4th millennium BCE further north, particularly in Finland.

In this article, we first present these artefacts and their closest analogue in terms of morphology, find context, and dating: a grooved quartzite mace head from the Kukkaroski I cemetery in Finland. We then briefly explore the broader category of “grooved mace heads” and conclude with a discussion of how these rare finds from the two burials nevertheless indicate the wider cultural transformations that occurred in the eastern Baltic Sea area during the first half of the 4th millennium BCE.

Antler Mace Heads from Zvejnieki

The antler mace heads were discovered in burial 221 at the Zvejnieki cemetery in 1971 (excavations by Francis Zagorskis & Ilga Zagorska).³ The Zvejnieki cemetery, located in northern Latvia [Fig. 1], is one of the most substantial Stone Age hunter-fisher-gatherer cemeteries in the Baltic Sea region, containing 330 excavated burials and over 350 individuals dating between the 8th and the 3rd millennium BCE.⁴

- 1 The Zvejnieki cemetery is frequently used by Professor Butrimas as comparative material for the interpretation of Stone Age burial practices in Lithuania; see, e.g., Adomas Butrimas, *Donkarnio ir Spigino mezolito-neolito kapinynai. Seniausi laidojimo paminklai Lietuvoje* (Vilnius: Vilniaus dailės akademijos leidykla, 2012); Adomas Butrimas, *Biržulis. Medžiotojai, žvejai ir senieji žemdirbiai X-II tūkstantmetyje pr. Kr. Paminklų tyrinėjimai* (Vilnius: Vilniaus dailės akademijos leidykla, 2019).
- 2 Aija Macāne, *Stone Age Companions: Humans and Animals in Hunter-Gatherer Burials in North-Eastern Europe* (Gothenburg: University of Gothenburg, 2022), 184.
- 3 Francis Zagorskis, *Zvejnieku akmens laikmeta kapulauks* (Riga: Zinātne, 1987); Francis Zagorskis, *Zvejnieki (Northern Latvia) Stone Age Cemetery*, trans. Valdis Bērziņš (Oxford: Archaeopress, 2004).
- 4 For more information about the site, see Ilga Zagorska, “Radiocarbon Chronology of the Zvejnieki Burials,” in *Back to the Origin: New Research in the Mesolithic-Neolithic Zvejnieki Cemetery and Environment, Northern Latvia*, ed. Lars Larsson and Ilga Zagorska (Stockholm: Almqvist & Wiksell International, 2006); Lars Larsson et al., “New As-



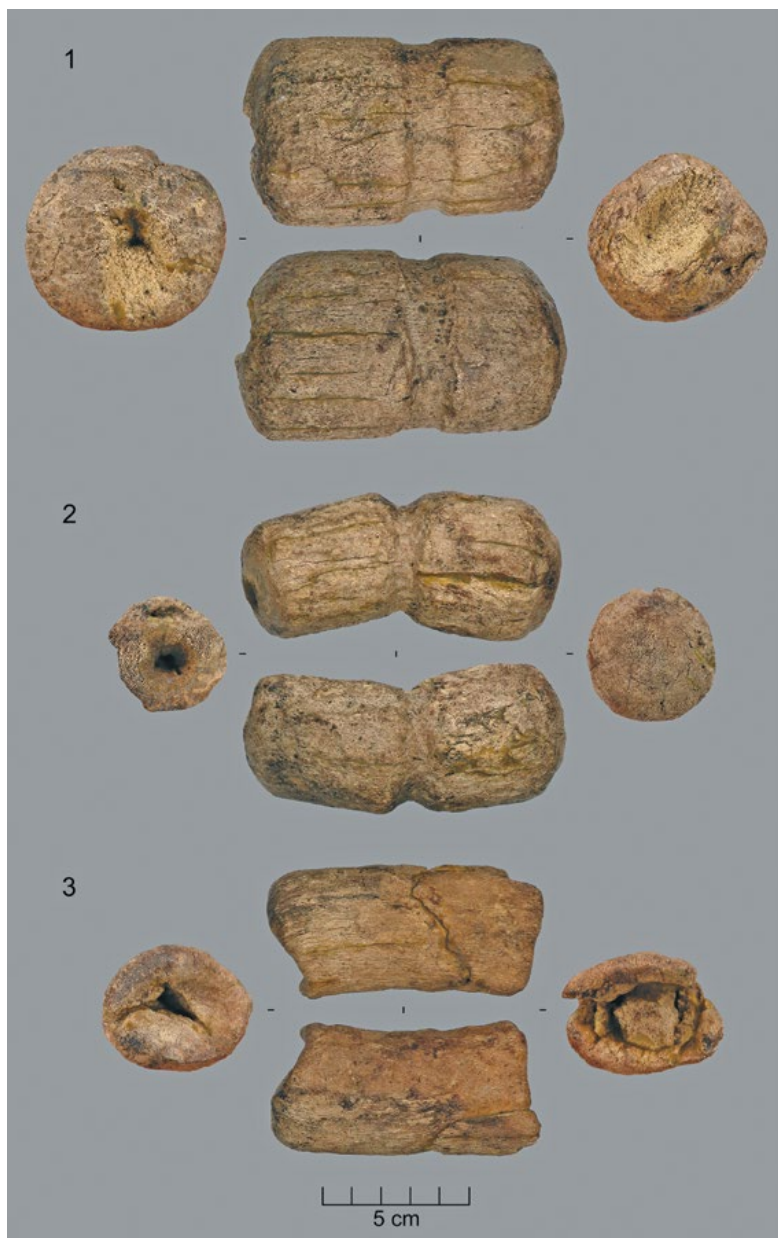
1. Map indicating the locations of the Zvejnieki and Kukkarkoski I sites. The shaded area represents the primary distribution area of Typical Comb Ware (after Nordqvist 2018); black dots denote sites with distinctive Typical Comb Ware burials (after Ahola et al., 2025). Illustration by Kerkko Nordqvist.

Žemėlapis, kuriame pažymėtos Zvejnieki ir Kukkarkoski I vietovių vietos. Išskirta sritis žymi pirminę tipinės šukinės keramikos paplitimo teritoriją (pagal Nordqvist 2018); juodais taškais pažymėtos vietovės su išskirtiniais tipinės šukinės keramikos palaidojimais (pagal Ahola et al., 2025), iliustracija Kerkko Nordqvist

Burial 221 is part of a multiple burial of six individuals (220–225). Individual 221 is an adult female inhumed in an extended supine position, while the remaining individuals include both adult and subadult males and females. The burial is rich in red ochre, and its fill consists of dark soil; individual 225 was buried with a clay mask covering the face.⁵ In addition to the mace heads, this multiple burial contained a particularly large number

pects of the Mesolithic-Neolithic Cemeteries and Settlement at Zvejnieki, Northern Latvia,” *Acta Archaeologica* 88, no. 1 (2017): 57–91, <https://doi.org/10.1111/j.1600-0390.2017.12177.x>; Macāne, *Stone Age Companions*, 42–52.

5 Zagorskis, *Zvejnieku kapulauks*, 49; Zagorskis, *Zvejnieki*, 38.



2. Elk antler mace heads from burial 221 at Zvejnieki: 1 – VI 93:610, 2 – VI 93:596, 3 – VI 93:609 (National History Museum of Latvia). Photo by Kerkko Nordqvist.

Briedžio rago buožių galvutės iš Zvejnieki kapo 221: 1 - VI 93:610, 2 - VI 93:596, 3 - VI 93:609 (Latvijas nacionālais istorijas muzejs), Kerkko Nordqvist nuotrauka

of grave goods, including 77 amber items (pendants, rings, and discs), two flint bifaces, two other flint tools and over 30 flakes, two slate rings, one whetstone, one clay idol (human/embryo-shaped), one bone figurine (waterfowl), five other bone and antler artefacts, and two bone beads. Most of these grave goods can be attributed to individual 221. Radiocarbon dating of individuals 221 and 225 (both human bone) yielded results of 5180 ± 65 BP (Ua-19813) and 5110 ± 45 BP (OxA-5986), respectively.⁶ However, after adjusting for the substantial reservoir offset, both dates correspond to the first half of the 4th millennium BCE.⁷

The antler mace heads were found near the knees of individual 221 [see Fig. 5]. They are all made of transversely cut elk antler beams, retaining the original shape and round cross-section of the raw material. The largest object (National History Museum of Latvia, VI 93:610) has a nearly straight profile, a length of 103 mm, and a maximum diameter of 58 mm [Fig. 2:1]. The second-largest object (VI 93:596) is curved in profile, measuring 106 mm in length with a maximum diameter of 47 mm [Fig. 2:2]. Both artefacts have truncated, slightly rounded ends, with one end featuring a cavity since the spongy (cancellous) part of the antler has been hollowed out, while the other end is solid (in VI 93:610, concave with a wide groove). The ends of the largest artefact display the clearest impact marks. Both objects have a groove encircling their central part, with a width of 10–15 mm (on VI 93:596) and 15–18 mm (on VI 93:610), and a depth of between 3 and 5 mm.

The smallest artefact (VI 93:609) differs from the other two in that it lacks the groove [Fig. 2:3]. Otherwise, it is similarly made of antler, with a mildly curved profile, a length of 90 mm, and a thickness ranging from 37 to 44 mm. The cut ends are slightly rounded. One end bears a cavity similar

- 6 Ilga Zagorska, "The First Radiocarbon Datings from Zvejnieki Stone Age Burial Ground, Latvia," in *Proceedings of the VII Nordic Conference on the Application of Scientific Methods in Archaeology*, ed. by Högne Jungner and Mika Lavento (Suomen Muinaismuistoyhdistys, 1997), Table 1; Gunilla Eriksson et al., "Stone Age Hunter-Fisher-Gatherers at Zvejnieki, Northern Latvia: Radiocarbon, Stable Isotope and Archaeozoology Data," *Before Farming* 1 (2003): Table 1, <https://doi.org/10.3828/bfarm.2003.1.2>
- 7 John Meadows et al., "Stone-Age Subsistence Strategies at Lake Burtnieks, Latvia," *Journal of Archaeological Science: Reports* 17 (2018): 992–1006, <https://doi.org/10.1016/j.jas-rep.2016.03.042>; Ilga Zagorska et al., "New Dates from Zvejnieki Burial Ground Graves with Anthropomorphic and Zoomorphic Figurines," *Archaeologica Baltica* 25 (2018): 113, Table II, <http://doi.org/10.15181/ab.v25i0.1833>

to the larger items, but the other end has been completely broken off (likely due to impact) and heavily restored with wax and glue. These substances were also used to consolidate the other two artefacts during post-excavation work, thereby covering and obscuring most of the traces of manufacture and use.⁸

Quartzite Mace Head from Kukarkoski I

To our knowledge, the best parallel to the Zvejnieki finds comes from burial 1a at the Kukarkoski I cemetery, discovered in 1975 (excavations by Markku Torvinen).⁹ The Kukarkoski I site is located in southwest Finland [Fig. 1] and contains 13 investigated burials. Most of these belong to the Typical Comb Ware context and date to the early 4th millennium BCE, although at least one burial is associated with the Corded Ware Culture and the 3rd millennium BCE.¹⁰

Burial 1a is the largest and deepest grave at the Kukarkoski I cemetery and is overlain by other burials. As is typical in Finland, no bones were preserved, so no information about the age, sex, or position of the deceased is available. However, the size and shape of the grave pit, the strong red ochre patches observed in it, and the placement of the grave goods have led to the suggestion that burial 1a was a double burial.¹¹ The recovered assemblage was extensive: in addition to the grooved mace head, it included 50 amber items (pendants, beads, rings, and discs, as well as a figurine depicting a human face), six flint bifaces, a fragmentary flint figurine, 17 flint and two quartz flakes, two slate ring fragments, one slate knife, one whetstone, and a small pottery vessel.¹² Unfortunately, the dating of charcoal from the possible decayed grave furnishings – 4890±150 BP (Hel-832)¹³ – provides no more precise age than the typological dating.

8 Unfortunately, this is also the case with most other osseous artefacts in the Zvejnieki collection, which limits the possibilities for conducting technological, use-wear and other analyses.

9 For more information about the site, see Markku Torvinen, "Liedon Kukarkosken kivikautinen kalmisto," *Suomen Museo* 85 (1979): 37–80; Marja Ahola, "Tracing Neolithic Funerary Practices from Finnish Ochre Graves – a Case Study from Kukarkoski Comb Ware Burial Ground," *Thanatos* 4, no. 2 (2015): 23–41.

10 Torvinen, "Kukarkosken kalmisto," 74–77.

11 Ahola, "Funerary Practices," 34.

12 Torvinen, "Kukarkosken kalmisto," 42–46; Ahola, "Funerary Practices," Table 1.

13 Torvinen, "Kukarkosken kalmisto," 75.



3. Quartzite mace head from burial 1a at Kukkarkoski I (KM 19727:136, National Museum of Finland/Finnish Heritage Agency). Photo by Kerkko Nordqvist.

Kvarcito buožės galvutė iš Kukkarkoski I palaidojimo 1a (KM 19727:136, Suomijos nacionalinis muziejus/Suomijos paveldo agentūra), Kerkko Nordqvist nuotrauka

The grooved mace head (National Museum of Finland, KM 18727:136) was found on the western side of the grave pit, in its central part. However, since no skeletal remains are present, it is not possible to determine its relationship to the body more precisely. The artefact measures about $79 \times 62 \times 55$ mm and weighs approximately 375 g [Fig. 3]. Made of a white quartzite pebble, it has a round cross-section but is oval in profile. A pecked groove, 15–20 mm wide and 3–4 mm deep, encircles its central part. The surface of the artefact is even and covered by a matte pebble cortex, but both ends are slightly broken and show signs of impact.

Grooved Mace Heads in the Baltic Sea Area

Maces and clubs are possibly among the earliest tools used by humans, appearing in various cultural contexts across the world at different times. They can either be one-piece artefacts made of a single raw material or composite implements consisting of a head and a shaft. The grooved



4. Examples of grooved stone mace heads from southern (1) and northern (2–4) Finland:

1 – Vantaa Maarinkunnas (settlement site find, 4th millennium BCE; KM 30464:14146), 2 – Kuhmo Kuhmonniemi (stray find, undated, HM 4:1), 3 – Enontekiö Lampi (stray find, undated, KM 23281:1), 4 – Utsjoki Niemelä (settlement site find, 1st millennium BCE; KM 14958).

Photos by the National Museum of Finland/Finish Heritage Agency (1, 3), Tampere Historical Museums (2), and Kerkko Nordqvist (4).

Akmeninių buožių galvučių su grioveliais pavyzdžiai iš pietų (1) ir šiaurės (2–4) Suomijos: 1 – Vantaa Maarinkunnas (gyvenvietės radinys, IV tūkstantmetis pr. Kr.; KM 30464:14146), 2 – Kuhmo Kuhmonniemi (pavienis radinys, nedatuotas, HM 4: 1), 3 – Enontekiö Lampi (pavienis radinys, nedatuotas, KM 23281:1), 4 – Utsjoki Niemelä (gyvenvietės radinys, I tūkstantmetis pr. Kr.; KM 14958), Suomijos nacionalinio muziejaus/Suomijos paveldo agentūros (1, 3), Tampere istorinių muziejų (2) ir Kerkko Nordqvist (4) nuotraukos

variants are primarily characterized by a groove encircling the head – presumably intended for hafting or binding – but otherwise, they do not constitute a homogeneous group of artefacts [Fig. 4]. Instead, there is considerable variation in shape, symmetry, dimensions, and the raw materials used, as well as in how the groove (partial or full) is made and where it is positioned on the object.

Perhaps due to their simple appearance, grooved mace heads and clubs are often given marginal attention in North European archaeology, mentioned only in short paragraphs.¹⁴ An exception is the work of Richard Indreko, *Steingeräte mit Rille* (1956), which offers a special study of grooved stone artefacts (clubs and axes) from Sweden.¹⁵ In this work, he distinguishes eight types of grooved mace heads (A–H, with partially overlapping sub-types). Of these, type F bears the closest resemblance to the artefacts discussed in the present paper: rounded or oval symmetrical objects with a pecked groove running around the middle of the artefact, often (but not always) with crushed ends.

While most grooved artefacts are stray finds, their use in northern Europe is usually associated with the Late Stone Age or the Bronze Age and the Early Iron Age (jointly also called the Early Metal Period), that is, a period from the 3rd to the 1st millennium BCE or later.¹⁶ However, some finds indicate that grooved mace heads were produced earlier. In this regard, the Kukkarkoski specimen is particularly noteworthy, as it is the only grooved stone mace head found in a closed Stone Age burial context in the eastern Baltic area. Additionally, a few finds from settlement layers suggest that the artefact type dates back to the 4th millennium BCE [Fig. 4:1].¹⁷

Many of the grooved stone artefacts have been found in northern Scandinavia, but they are also common in the southern part of the

- 14 E.g., Guttorm Gjessing, *Yngre steinalder i Nord-Norge* (Oslo: Aschehoug, 1942), 71–72; C.F. Meinander, *Die Kiukaikskultur* (Helsinki: Suomen Muinaismuistoyhdistys, 1954), 107–108; Ingela Bergman, *Från Döudden till Varghalsen: En studie av kontinuitet och förändring inom ett fångstsamhälle i övre Norrlands inland, 5200 f. Kr – 400 e. Kr.* (Umeå: Umeå universitet, 1995), 57–59.
- 15 Richard Indreko, *Steingeräte mit Rille* (Stockholm: Almqvist & Wiksell, 1956).
- 16 Otto Rydbeck, “Slutna mark- och mossfynd från stenåldern i Lunds universitets historiska museum: deras tidsställning och samband med religiösa föreställningar,” *Lunds universitets årsskrift* 15, no. 1 (1918): 41–43; Aarne Europaeus, “Förvärv till Nationalmuseum åren 1918 och 1919,” *Finskt Museum* 27–28 (1922): 34; Meinander, *Kiukaikskultur*, 107; Indreko, *Steingeräte*, 70; Нина Н. Гурина, “Рыболовство и морской промысел на Кольском полуострове.” In *Рыболовство и морской промысел в эпоху мезолит-раннего металла в лесной и лесостепной зоне Восточной Европы*, ed. Нина Н. Гурина (Наука, 1991), 170; Bergman, *Döudden*, 59.
- 17 E.g., Aarne Europaeus, “Kivikauden tutkimuksia Rauman seudulla,” *Suomen Museo* 18 (1911): 76; Meinander, *Kiukaikskultur*, 108; Indreko, *Steingeräte*, 36; Sirpa Leskinen and Petro Pesonen, *Vantaan esihistoria* (Vantaa: Vantaan kaupunki, 2008), 107.

Scandinavian Peninsula.¹⁸ In Finland, their distribution is most pronounced in the northern and western parts of the country, while fewer finds are made in the inland lake region.¹⁹ In the Baltic States, grooved stone artefacts are generally associated with the Bronze Age or later settings.²⁰ Only a few grooved stone items are published from the Stone Age, of which only one or two potentially correspond to the artefact type discussed here.²¹ Further east, in the boreal zone, stone mace heads with pecked or abraded (polished) grooves are occasionally reported from Stone Age contexts.²² By contrast, similar antler mace heads, like those found at Zvejnieki, are not known in northern Europe or the Baltic Sea area.

As already suggested, the grooved mace heads are a heterogeneous group of items used for varying purposes, which also explains their wide spatial and temporal distribution. Their resemblance may be coincidental, attributable to the simple manufacturing technology (pecking), the natural shape of the blanks (stones) used, and their comparable functions. Based on their morphology and other properties (e.g., with/without crushed ends), as well as find contexts, numerous different uses for grooved mace

18 Gjessing, *Yngre steinalder*, 71; Indreko, *Steingeräte*; Bergman, *Döudden*, 58.

19 Europaëus, “Förvärv,” 34; Meinander, *Kiukaikultur*, 108.

20 E.g., Янитс, *Поселения*, 268; Anatolijs Bīrons et al., eds., *Latvijas PSR arheoloģija* (Rīga: Zinātne, 1974): 81; Uwe Sperling, *Aspekte des Wandels in der Bronzezeit im Ostbaltikum: Die Siedlungen der Asva-Gruppe in Estland* (Tallinn: Estonian Academy Publishers, 2014), 321.

21 Indreko, *Steingeräte*, 36; Лембит Ю. Янитс, *Поселения эпохи неолита и раннего металла в приустье п. Эмайыги (Эстонская ССР)* (Академии наук Эстонской ССР, 1959), 268; In addition to these finds from Lommi and Akali, a heavily weathered small artefact, resembling a grooved mace head (a weight stone? – pers. comm. Aivar Kriiska, 25 Sep 2024), was also discovered at the Comb Ware settlement site of Sindi-Lodja III in south-west Estonia. The find is unpublished and is only displayed on an information board set up at the site.

22 E.g., И.В. Гаврилова, “Орудия рыболовства древних поселений Костромского Поволжья.” In *Рыболовство и морской промысел в эпоху мезолита–раннего металла в лесной и лесостепной зоне Восточной Европы*, ed. Нина Н. Гурина (Наука, 1991), 162; Валерий В. Никитин, *Медно-каменный век Марийского края: середина III–начало II тысячелетия до н. э.* (Марийское книжное издательство, 1991), 33; Юрий Б. Сериков, “Использование точно-ударной техники обработки камня (пикетажа) на памятниках лесного Зауралья,” *Вестник археологии, антропологии и этнографии* 65, no. 2 (2024): 23, <https://doi.org/10.20874/2071-0437-2024-65-2-2>; Татьяна М. Гусенцова et al. *Памятник эпох неолита и раннего металла Охта 1 в Санкт-Петербурге* (МАЭ РАН, 2024), 87.

heads have been proposed. These include, but are not necessarily limited to, striking and hammering of materials (such as lithics), processing and softening plant foods and hides, or crushing bones to extract marrow. Another common suggestion for the use of grooved stones is their use as sinkers and weight stones related to fishing.²³ Some mace heads are also tentatively associated with early metal production and ore crushing.²⁴ However, much of this remains speculative, as these artefacts have not been sufficiently studied, and no use-wear and residue analyses have been carried out. Similarly, the term “grooved mace head”, as used here, is merely a convention derived from research history and not a direct reference to a specific function.

Curiosities from a Changing World

To sum up, grooved mace heads found in different regions and at various times do not necessarily originate from a single source or serve the same purpose. At the same time, we want to highlight here that the similarities between the antler mace heads from Zvejnieki and the corresponding artefact discovered in a comparable burial context at Kukarkoski I provide compelling evidence of shared traditions and common processes underlying these finds.

Both the Zvejnieki and Kukarkoski mace heads were found in burials that are associated with a particular set of burial customs belonging to the so-called Typical Comb Ware Culture, which we have elsewhere termed

23 Gjessing, *Yngre steinalder*, 72; Meinander, *Kiukaikultuur*, 107; Indreko, *Steingeräte*, 69; Bergman, *Döudden*, 58; Гусенцова et al., *Охма 1*, 87. It is worth noting that within the category of weight stones, grooved specimens are often grouped and treated together with stones – pebbles, discs, natural pieces – that do not have true grooves. Instead, these stones are merely notched on their sides to enhance binding. Basically, all published specimens from the eastern Baltic area (including Latvia, e.g., the sites Zvejnieki II, Sārnatē, and Abora I) fall into this category of notched stones; see Луция В. Ванькина, *Торфяниковая стоянка Сарнатē* (Зинатне, 1970), 94; Карел Л. Янитс, “Рыболовство и морской промысел на территории Эстонской ССР.” In *Рыболовство и морской промысел в эпоху мезолита–раннего металла в лесной и лесостепной зоне Восточной Европы*, ed. Нина Н. Гурина (Наука, 1991), 36; Илга А. Загорска, “Рыболовство и морской промысел в каменном веке на территории Латвии.” In *Рыболовство и морской промысел в эпоху мезолита–раннего металла в лесной и лесостепной зоне Восточной Европы*, ed. Нина Н. Гурина (Наука, 1991), 60; Rimutė Rimantienė, *Akmens amžiaus žvejai prie Pajūrio lagūnos* (Vilnius: Lietuvos nacionalinis muziejus, 2005), 69.

24 Gunborg O. Janzon, *Stenredskap med skafränna – indikation på tidig metallurgi?* (Stockholm: Jernkontorets bergshistoriska utskott, 1984), Никитин, *Медно-каменный век*, 33.



5. In addition to the three antler maces, the female in burial 221 at Zvejnieki was interred with 56 amber pendants and discs, three amber and slate rings, two flint bifaces and several flakes, antler and clay figurines, a whetstone and bone fish hooks. The maces and the majority of the amber were positioned between the pelvis and the knees. Watercolour drawing by Baiba Vaska (Institute of Latvian History, University of Latvia).

Be triju rago buožu, kartu su moters palaidojimu Zvejnieki kape 221 buvo rasta ir kitų įkapių. Buožės galvutės ir daugelis kitų dirbinių buvo padėti tarp dubens ir kelių srities. Baiba Vaska akvarelės piešinys, (Latvijos istorijos institutas, Latvijos universitetas)

as symbolically charged or overloaded.²⁵ The Typical Comb Ware Culture is an archaeologically prominent phenomenon that spread widely between northern Belarus and northern Finland from around 3900–3800 BCE.²⁶ Its most conspicuous phase lasted only a few centuries before it was again superseded by more local trends. The question of its origins remains partially unresolved, but its emergence involved varying degrees of both population movements and adoption of cultural traits in different areas. In the case of Zvejnieki, in addition to the new material culture, there is also evidence of new genetic ancestry emerging in the area at this time,²⁷ likely originating from the north or northeast.

One feature of these new cultural and material developments was the special burial practices that were reserved for a small segment of the population. About 80 distinctive Typical Comb Ware burials are known from approximately two dozen sites, nearly 20 of which are located in Finland [Fig. 1, dots]. Zvejnieki is the most significant and southernmost burial site outside this area. Thus, the presence of mace heads at Zvejnieki and Kukarkoski I is yet another indication of obvious links between present-day Latvia and western and southern Finland in the early 4th millennium BCE.²⁸ Although the grooved mace heads are rare or absent in much of Typical Comb Ware culture's area, in these two cases they were found in completely similar contexts. However, whether the artefacts simply reflect

- 25 Aija Macāne and Kerkko Nordqvist, "Out of Context at Zvejnieki?," in *Kiel Conference VII: Abstract Book*, ed. Franziska Engelbogen, Nicole Taylor and Andrea Ricci (Kiel: University of Kiel, 2023); Marja Ahola et al. "Symbolically Overloaded Burials: Early Fourth-Millennium BC Hunter-Fisher-Gatherer Mortuary Practices from North-Eastern Europe," *European Journal of Archaeology* Published online (2025): 1–19, <https://doi.org/10.1017/ea.2024.54>.
- 26 Kerkko Nordqvist, *The Stone Age of North-Eastern Europe 5500–1800 cal BC: Bridging the Gap Between the East and the West* (Oulu: University of Oulu, 2018); Petro Pesonen, *Continuity and Discontinuity in Early, Middle and Late Neolithic Pottery Types of Eastern Fennoscandia: Reflections from Bayesian Chronologies* (Helsinki: University of Helsinki, 2021), 90–1.
- 27 Eppie R. Jones et al. "The Neolithic Transition in the Baltic was not Driven by Admixture with Early European Farmers," *Current Biology* 27 (2017): 577, <https://doi.org/10.1016/j.cub.2016.12.060>; Iain Mathieson et al. "The Genomic History of Southeastern Europe," *Nature* 555 (2018): 199, <https://doi.org/10.1038/nature25778>.
- 28 Another well-known example of these connections is amber; see Aija Macāne and Kerkko Nordqvist, "Exchange of Amber," in *The Oxford Handbook of Mesolithic Europe*, ed. Liv Nilsson Stutz, Rita Peyroteo Stjerna and Mari Törv (Oxford: Oxford University Press, 2025). <https://doi.org/10.1093/oxfordhb/9780198853657.013.51>.

broader cosmological and ideological tendencies of the era or whether they attest to more direct connection between these two areas at a specific point in time remains a matter of speculation.

The original publications of the Zvejnieki and Kukarkoski burials only briefly mention the mace heads or clubs and describe some of their material properties.²⁹ The artefacts were not revisited in subsequent research either. Perhaps the mace heads were regarded as too “secular artefact[s]”,³⁰ and attention was directed towards more visually striking or “exotic” finds. It is true that the mace heads from Zvejnieki and Kukarkoski I are the only mace heads found in Typical Comb Ware burials – or in any hunter-fisher-gatherer graves – in the area, but this does not make them any less fascinating. On the contrary, it is intriguing why these items, which are not central to the material repertoire of this period, were included in these symbolically charged graves. The examined burials rank among the most abundantly furnished Typical Comb Ware graves in their respective cemeteries in terms of quantity and diversity of grave goods and contain all the main elements of the Typical Comb Ware burial kit: amber ornaments, flint bifaces, slate rings, and whetstones. Interestingly, both burials also feature a human figurine, either in clay (Zvejnieki) or amber (Kukarkoski I), as well as bone and flint figurines. Additionally, both graves contain other visually strong elements, such as abundant red ochre and multiple interments; at Zvejnieki, a clay mask was placed over the face of one individual.

Like Typical Comb Ware material culture in general, these burials reflect new ways of engaging with raw materials and manipulating the material world. Visuality and, more broadly, sensory properties were important, with colours, contrasts, shapes, and their combinations contributing to communication and performance through which social and cultural identities were shaped. Given the increasing mobility and the activation of long-distance communication and exchange networks during this period,³¹

29 Zagorskis, *Zvejnieku kapulauks*, 71; Zagorskis, *Zvejnieki*, 61; Torvinen, “Kukarkosken kalmisto,” 44, 71.

30 Ahola, “Funerary Practices,” 33.

31 Kerkko Nordqvist, “The Late Stone Age (Late Mesolithic and Neolithic) in the Western Forest Zone, 7th–3rd Millennium BCE,” in *Encyclopedia of Archaeology, 2nd Edition*, vol. 4, ed. Thilo Rehren and Efthymia Nikita (Academic Press, 2024), 675–680, <https://doi.org/10.1016/B978-0-323-90799-6.00240-8>.

it is plausible to suggest that origins, material biographies, and other attached qualities played a role in crafting and maintaining relationships between different actors and regions.³²

Grooved mace heads were deemed appropriate for these tasks in at least the two cases discussed in this article. They also offer insight into another attention-engaging aspect of Typical Comb Ware material culture: the fluidity and interchangeability of raw material and form. While the mace heads are broadly similar morphologically, they are made of different raw materials (quartzite and antler). Such variation is common and readily observable, for example, in ornaments, where otherwise similar pendants may be made of amber, stone, or bone, and in rare cases, of native copper. Figurines are likewise produced from a range of materials, including flint, stone, bone, antler, amber, and clay, as exemplified by the two burials. Thus, information was encoded in both the material and the form of these artefacts – perhaps even in their combinations. How this code was read may have depended on the participants, the context of enactment, and the biography of the object.³³

Final remarks

As curious as the mace heads of Zvejnieki and Kukarkoski I may be, they are firmly embedded in and emblematic of the trends that emerged in the eastern Baltic Sea area during the first half of the 4th millennium BCE. Yet, they remain exceptional. No comparable antler or bone objects have been discovered in any burial or settlement site in the eastern Baltic region. There are no known parallels for the stone mace heads in burials, and they are also very rare in other contemporary contexts. Whether the presence of mace heads in these two burials, situated approximately 350 km apart as the crow flies, simply reflects broader trends of the time or suggests closer personal or group connections is a question we cannot currently answer.

32 Vesa-Pekka Herva et al., “Cultivation of Perception and the Emergence of the Neolithic World,” *Norwegian Archaeological Review* 47, no. 2 (2014): 154–156. <https://doi.org/10.1080/00293652.2014.950600>; Керкко Нордквист and Айавр Крийска, “Неолит Северо-Востока Европы в балтийской перспективе,” *Российская Археология* no. 2 (2018): 165–168, <https://doi.org/10.7868/S0869606318020125>.

33 Igor Kopytoff, “The Cultural Biography of Things: Commoditization as Process,” in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai (Cambridge: Cambridge University Press, 1986); Chantal Conneller, *An Archaeology of Materials: Substantial Transformations in Early Prehistoric Europe* (London: Routledge, 2011).

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Santrauka

Raginės buožių galvutės iš Zvejniekų (Latvija) ir besikeičiantis medžiotojų-žvejų-rankiotojų pasaulis IV tūkstantmetyje pr. Kr.

Aija Macāne, Kerkko Nordqvist

Reikšminiai žodžiai: buožės su grioveliais, laidojimo praktikos, įkapės, medžiotojai-žvejai-rankiotojai, tipinė Šukinės-duobelinės keramikos kultūra, rytinis Baltijos jūros regionas.

Šio straipsnio atspirties taškas – trys buožių galvutės su grioveliais, pagamintos iš briedžio rago ašių ir rastos Zvejniekų kapinyne Latvijoje (Latvijos nacionalinis istorijos muziejus, VI 93:596, 609, 610). Briedžio rago buožių galvutės yra unikalūs egzemplioriai, neturintys tiesioginių analogų Latvijoje ar aplinkinėse teritorijose. Artimiausi jų analogai iš IV tūkstantmečio pr. Kr. pradžios yra tik iš šiauriau esančios Suomijos. Geriausias analogas – iš balto kvarcito akmenuko pagaminta buožės galvutė – yra iš Kukarkoski I kapinyno 1a palaidojimo (Suomijos nacionalinis muziejus, KM 18727:136).

Tiek Zvejniekų, tiek Kukarkoskų buožių galvutės buvo rastos palaidojimuose, siejamuose su tipine Šukinės-duobelinės keramikos kultūra – reiškiniu, plačiai paplitusiu tarp šiaurės Baltarusijos ir šiaurės Suomijos maždaug 3900–3800 m. pr. Kr. laikotarpiu. Vienas ryškus šios kultūros kaitos pokyčių bruožas buvo ypatinga laidojimo praktika: iš maždaug dviejų dešimčių vietovių žinoma apie 80 palaidojimų. Vis dėlto Zvejniekų ir Kukarkoski I kapinynuose rastos buožės yra vienintelės aptiktos Šukinės-duobelinės keramikos kultūros kapuose, ir apskritai bet kuriuose medžiotojų-žvejų-rankiotojų kapuose aptariamoje teritorijoje. Tai yra dar vienas Latvijos ir Suomijos ryšių IV tūkstantmečio pr. Kr. pradžioje požymis. Taip pat intriguoja, kodėl šie įrankiai, kurie nėra svarbiausi šio laikotarpio materialinės kultūros elementai, pateko į šiuos simbolinę reikšmę turinčius kapus, kurie abu yra vieni iš „turtiniausių“ Šukinės-duobelinės keramikos kultūros kapų pagal įkapes ir kitus laidojimo bruožus.

Kaip ir tipinė Šukinės-duobelinės keramikos materialinė kultūra, šie palaidojimai atspindi kitokių simbolinės buožių reikšmės suvokimo būdus. Vizualumas ir

jutiminės savybės buvo svarbios, o spalvos, kontrastai, formos ir jų deriniai padėjo kurti socialinę ir kultūrinę tapatybę. Taigi buožių galvutės, kad ir kokios įdomios jos būtų, yra įsiliejusios į IV tūkstantmečio pr. Kr. pirmojoje pusėje rytiniame Baltijos jūros regione susiformavusias tendencijas ir jas simbolizuoja. Kartu jos išlieka ir išskirtinės, nes panašių daiktų neaptikta jokiose kitose laidojimo vietose.

Zvejniekų ir Kukarkoski I kapinynuose, esančiuose 350 km atstumu vienas nuo kito, rastos buožių galvutės liudija apie bendras tradicijas rytiniame Baltijos regione. Šiuo metu negalime atsakyti į klausimą, ar jos tiesiog atspindi platesnes epochos tendencijas, ar liudija glaudesnius asmeninius ar grupinius ryšius tarp šių vietovių.