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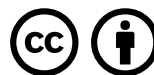
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THE EARLIEST METAL ARTEFACTS IN LITHUANIA: CONTEXTUAL ANALYSIS AND INTERPRETATION

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This article examines 22 metal artefacts from Lithuania dated to the Bronze and Pre-Roman Iron Ages (2nd–1st millennium BC). Most were found either accidentally or through metal detecting, while some were uncovered during archaeological investigations. Additionally, archaeological excavations were conducted at three sites where Early Bronze Age axes have previously been found. This article presents the results of these investigations, alongside an analysis of the typology, chronology, and distribution of the newly discovered Bronze Age artefacts. Additionally, a comprehensive contextual analysis was carried out on all 368 metal artefacts that date from this period in Lithuania. The analysis draws on data concerning find contexts, surrounding environmental features, archival records, and associations with other contemporary archaeological sites. The study proposes the hypothesis that some stray bronze artefacts may be interpreted as hoards, either as votive deposits or as intentionally concealed items.

Keywords: bronze artefacts, contextual analysis, stray finds, Lithuania, Early Metal Period, landscape.

Straipsnyje analizuojami bronzos ir ankstyvojo geležies amžiaus (2–1 tūkst. pr. Kr.) metaliniai dirbiniai. Per pastaruosius dešimtmečius Lietuvoje rasti 22 iki tol nežinoti bronziniai dirbiniai. Dauguma jų aptikti atsitiktinai arba ieškant metalo ieškikliais, kai kurie rasti archeologinių tyrimų metu. Trijose ankstyvojo bronzos amžiaus kirvių radimvietėse atlikti archeologiniai tyrimai. Darbe pateikti šių tyrimų rezultatai, naujai aptiktų dirbinių tipologija, chronologija, paplitimas. Atlikta visų iki šiol Lietuvoje rastų metalinių dirbinių (368) kontekstinė analizė: išanalizuoti radimviečių artimiausios gamtinės aplinkos elementai, archyviniai duomenys, santykis su kitais šio laikotarpio objektais aplinkoje. Iškelta hipotezė, kad dalis pavienių bronzinių dirbinių gali būti siejami su aukojamaisiais arba slepiamaisiais lobiais.

Reikšminiai žodžiai: bronziniai dirbiniai, pavieniai radiniai, kontekstinė analizė, Lietuva, ankstyvasis metalų laikotarpis, kraštovaizdis.

INTRODUCTION

The initial appearance of metal artefacts in the East Baltic region, alongside their subsequent use and production, undoubtedly influenced the lifestyles of prehistoric humans. This development potentially affected various aspects of daily life, as exchange networks were expanded to acquire these artefacts or raw materials and to learn and establish their

manufacturing processes. It has been determined that during the Bronze Age (BA) in Europe, copper and tin resources primarily came from the Alpine and Carpathian regions, the Iberian Peninsula, and the British Isles (Ling *et al.* 2013; Ling *et al.* 2014; Čivilytė *et al.* 2015; Sperling 2016; Comendador *et al.* 2017; Melheim *et al.* 2018; Radivojević 2019; Čivilytė *et al.* 2023; Jaeger *et al.* 2023; Vandkilde *et al.* 2024). The majority of metal artefacts made from copper alloys

were found in areas with sources of non-ferrous ores, with fewer artefacts present in regions more distant from these sources.

In Lithuania and the broader East Baltic region, bronze artefacts are very rare in the Early Metal Period (EMP). This scarcity can primarily be attributed to the absence of local sources of non-ferrous ore, leading to the necessity of importing all raw materials or finished items. During this period, objects made from stone, bone, antler, or wood remained predominant. In Lithuania, a total of 346 metal objects dated to the Bronze and Pre-Roman Iron Ages have been documented (based on Merkevičius 2011a); approximately 300 artefacts have been attributed to the same period in Latvia (Vasks 2024, 14, att. 1); while a 1999 article attributed 179 metal artefacts from Estonia to the EMP (Luchtanas, Sidrys 1999, 43, 50, 55). However, many more objects have been discovered in the years since, as new find locations continue to be documented in various sources – for example, in articles published in *Archaeological Fieldwork in Estonia* (Kurisoo *et al.* 2021; 2022; 2023; 2024). Therefore, today, the total number of metal artefacts known from the Bronze and Pre-Roman Iron Age periods in Estonia is certainly higher than 179.

Within the Southeastern Baltic region, the Sambia Peninsula (Kaliningrad region) and northeastern Poland stand out, as nearly 1,000 metal artefacts dated to the 1st millennium BC are known to have been found here (Hoffmann 1999, 2000). Based on pre-1945 collections, 1,457 BA metal objects have also been documented from the area formerly known as East Prussia (Stöckmann *et al.* 2021, 11). Today, these artefacts are distributed across western Lithuania, northeastern Poland, and the Kaliningrad region.

The relatively small quantity of imported metal artefacts suggests that the region was somewhat peripheral to the main trade routes of the time. Notably, in the East Baltic region, metal artefacts dated to the period in question were predominantly concentrated in its western and southwestern areas (Hoffmann

2000, ryc. 55; Merkevičius 2011a, žem. 1; Vasks 2024, att. 9), with a significant number also found around the Daugava River (Vasks 2021).

Due to their rarity in this region, metal artefacts are often regarded as exceptional items signifying a particular individual's social status, accessible only to few within a community (Luchtanas, Sidrys 1999, 36; Merkevičius 2005, 48–49, Lang 2007, 41). However, bronze artefacts are typically discovered not in graves or settlements, but in locations lacking clear context, making their significance to contemporaneous communities challenging to interpret. These stray artefacts are often described as random, lost items, or their discovery locations are termed “secondary contexts”. Nonetheless, the substantial number of such artefacts from this period raise doubts about the interpretation of all stray metal artefacts as mere accidental losses.

An analysis of stray bronze artefacts found in Estonia indicated that 70% were located near bodies of water, primarily rivers. Based on this data, Paavel (2017, 39) hypothesises that these artefacts should be associated with intentional deposition rather than random loss. It is noteworthy that this phenomenon was widespread across a broader European region. A number of other studies reveal the complexity of both individual artefacts and accumulations thereof, with the occasional inclusion of several hundred or even a thousand objects potentially indicating intentional deposition practices (Bradley 1989, 1996; Harding 1996, 219; Kristiansen 1998, 73–85; Fontijn 2002; Melheim, Horn 2014; Skoglund *et al.* 2024).

Throughout the extensive literature on this topic, there remains ongoing debate regarding the reasons behind deposition practices, the landscape contexts chosen for the deposition of artefacts, as well as the interpretations and terminology used to refer to such objects (hoards, votive offerings, deposits, or depositions) (Harding 2000, 362–363; Bradley 2017; Frost 2013; Autenrieth 2022; Frost, Refshauge Beck 2024; Kristiansen 2025).

In Lithuania, a comprehensive analysis of all EMP metal artefact findspots and their archaeological contexts has yet to be conducted. It is also noteworthy that, a little more than a decade since the publication of the last EMP metal artefacts catalogue (Merkevičius 2011a), numerous new bronze artefacts have been discovered. Some of these artefacts were discovered during archaeological excavations, while others were found accidentally or with metal detectors. Since most of these artefacts have not yet been published, the study presents their chronological framework, typology, and distribution. In most cases, the individuals who discovered these objects provided precise location data, offering the opportunity for the more detailed analysis of the contexts and environments in which these bronze artefacts were found, and for future archaeological investigations at these sites.

Based on data from these discoveries, the analysis of old maps enabled the reconstruction of natural landscapes and waterways that were substantially altered during nation-wide drainage works in the 20th century. Paired with LiDAR data, this facilitated the search for common features linking the contexts of these artefacts. Additionally, it is important to assess the spatial and chronological relationships between metal artefact findspots and known settlements, burial sites, or other relevant cultural features from the same period.

The aim of this study is to analyse the contexts of all EMP metal artefacts in the territory of contemporary Lithuania, providing interpretations regarding the significance of stray bronze finds within the broader archaeological framework of the period.

The dating of bronze artefacts is based on Montelius' six-period system, complemented by radiocarbon and dendrochronological dating methods to refine the chronological framework. The chronological framework is divided into the Early Bronze Age (EBA) (covering periods I–III) and the Late Bronze Age (LBA) (covering periods IV–VI).

The classification system devised by Montelius (Montelius' period – hereafter MP) comprises: Period I MP, which spans around 1800/1700–1500 BC; II MP, 1500–1300 BC; III MP, 1300–1100 BC; IV MP, 1100–950/920 BC; V MP, 950/920–800 BC; and VI MP, 800–530/520 BC (Montelius 1986, 14; Olsen *et al.* 2011; Ling *et al.* 2014). Objects discovered during archaeological excavations are dated not only through typological analysis, but also based on radiocarbon dates obtained from specific cultural layer contexts. Artefacts from the Pre-Roman Iron Age (PRIA) (530/520 BC–10 AD) are generally not assigned to specific periods.

NEW BRONZE AGE ARTEFACTS: CHRONOLOGY, TYPOLOGY, AND DISTRIBUTION

In just over a decade, the list of the earliest metal objects has been expanded to include 22 new bronze artefacts (Table 1, Fig. 1). Of these, 8 were discovered during archaeological surveys or excavations (Kliaugaitė *et al.* 2012; Podėnas 2018; Žemantauskaitė, Fediajevas 2018; Gaižauskas *et al.* 2022; Vasiliauskas 2023; Kraniauskas *et al.* 2024), 1 during an event held by a metal detecting club (Petukauskas 2023), and 13 mostly accidentally or during individual metal detector surveys (Vaitkevičius 2017; Petrauskas *et al.* 2019; Pranckėnaitė, Muradian 2022; Muradian 2023; Muradian, Pranckėnaitė 2024).

During the period in question, axes were the most common group of metal objects; they also dominate among the group of newly discovered artefacts. They may have had various functions during the BA and PRIA. The Nortycken-type axe is most often interpreted as a battle axe, but flanged or socketed axes may have had a dual purpose, used both for warfare and everyday tasks. For example, it has been established that at the Luokesai 1 settlement, wooden piles and other wooden structures were worked using both stone and bronze axes (Jennings 2008). In addition to

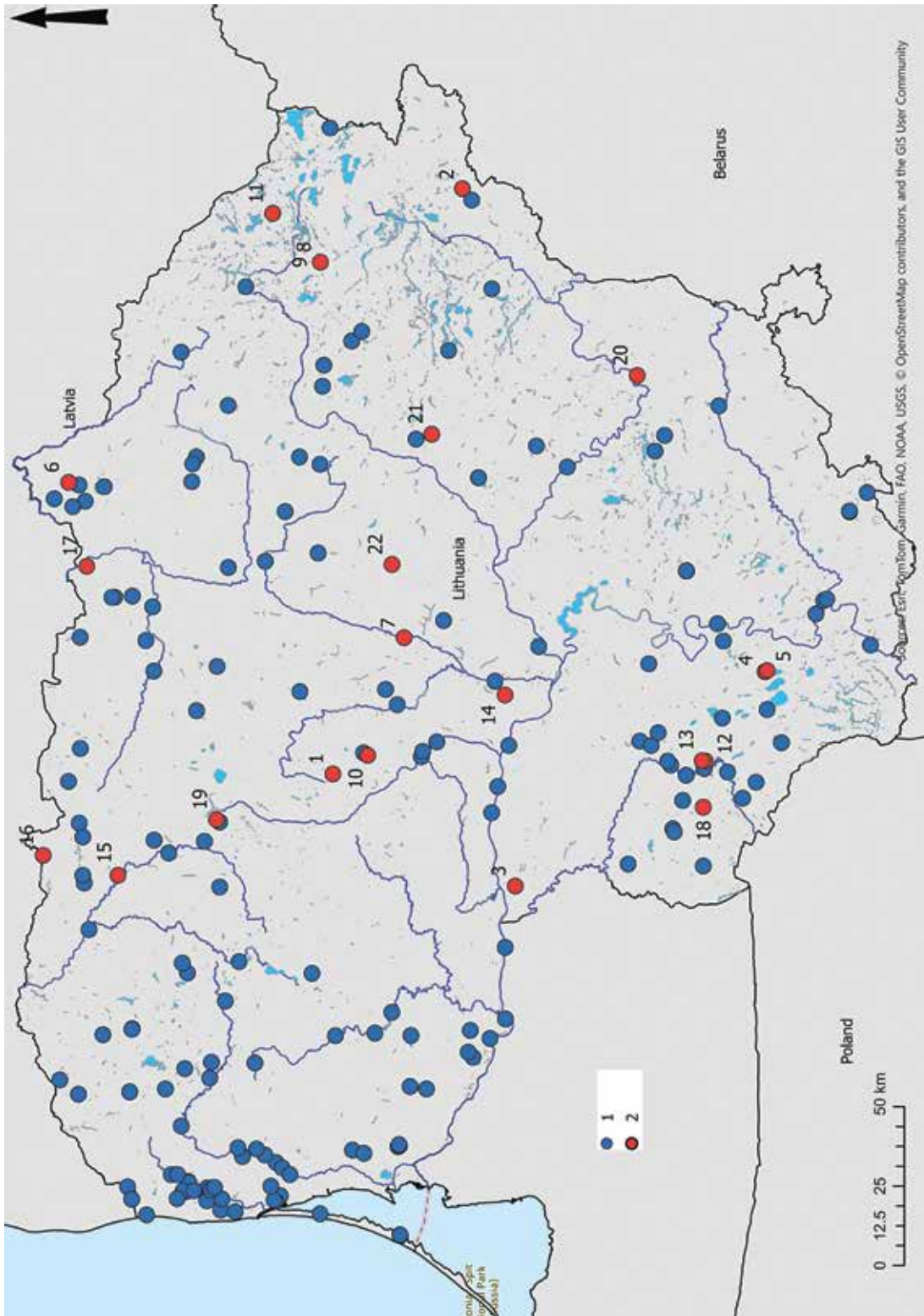


Fig. 1. The distribution of metal artefacts dated to the 2nd–1st millennium BC in Lithuania. 1 – Artefacts discovered before 2010 (according to Merkevičius 2011a); 2 – Artefacts discovered since 2011 (numbering corresponds to Table 1) (created with ArcGISpro, base: WorldTopographicMap). Compiled by L. Muradian
 1 pav. Metalinių dirbinių, datuojamų II–I tūkstm. pr. Kr., paplitimas Lietuvoje. 1 – iki 2010 m. rasti dirbiniai (pagal Merkevičius 2011a); 2 – nuo 2011 m. aptikti dirbiniai (numeracija sutampa su 1 lent. esančiais numeriais) (sukurta naudojant ArcGISpro ir WorldTopographicMap). L. Muradian brėž.

axes, recent finds include five spearheads, one chisel, and several smaller items: two small plates with oval holes at the edges, a spiral, and a pin, which were found at the Garniai I and Mineikiškės hillforts and the Lake Bėlis island settlement.

In recent years, a significant number of the metal artefacts discovered have consisted of particularly early objects, with as many as 10 dating to the EBA. However, accurately dating some artefacts without contextual information remains challenging. In some cases, they can only be broadly assigned to time spans of 500–800 years, or even longer intervals.

Typology and Terminology. In this work, the classification of newly discovered bronze axes and spearheads is based on the work of Elena Grigalavičienė, who classified and dated all bronze artefacts found in Lithuania into distinct types (Grigalavičienė 1974; Григалавичене, Мяркявичюс 1980; Grigalavičienė 1995). Her typology is based on the works of Engel (1935), Šturms (1936), and Dąbrowski (1968), so the terminology used corresponds to that in these scholars' works. In this article, the following terms for flanged axes are used: the term *Eastern type* (Lith. *Rytinis*) corresponds to *Norddeutsch* or *Ostisch* (Ger.) axes in the works of Engel and Šturms, while *Eastern-Baltic-Region type* (Lith. *Rytų Pabaltijo*) corresponds to *Ostbaltisch* (Ger.) axes. Palstave axes were also classified as a type of flanged axe by Grigalavičienė (1995, 148, 151–152).

Since the bronze artefacts found in Lithuania are characteristic of the wider Baltic region and these classification systems were later modified by other researchers, typological classification also includes terminology from their typological schemes (Szpunar 1987; Vandkilde 1996; Gedl 2004, 2009).

FLANGED AND PALSTAVE AXES

A total of 137 axes of various types have been discovered in Lithuania, of which 50 belong to the group of flanged axes, including different types such

as Eastern, Eastern-Baltic-region, and Klaipėda-type (Grigalavičienė 1995, 148–150; Merkevičius 2011a, with recently found axes). Nine axes can be attributed to palstaves (Grigalavičienė 1995, 151–152; Merkevičius 2011a, with recently found axes), while one axe belongs to the low-flanged axe group. Among these axes, nine were found between 2016 and 2024. The earliest axe found so far was discovered in the *Padauguva* forest (Kaunas municipality) in 2022, and is likely the earliest metal axe discovered in Lithuania to date (Fig. 2:1). This axe had very low flanges, which have largely not survived due to chipping at the edges. The tool itself is very small, with a slightly flared and convex cutting edge. Prior to this find, the earliest axes were considered to be those found in Kašėtos, Alksna, and Trakai (Grigalavičienė 1995, 148–149), with a somewhat earlier artefact also discovered in Guzeliai (Vilkaviškis municipality) (Merkevičius 2011a, 59–60). All are dated to I MP, but unlike the axe from *Padauguva*, these examples feature more developed flanges.

No analogue to the *Padauguva* axe has been found in Lithuania (Merkevičius 2011a). Typically, low-flanged axes are transitional types, positioned between flat and flanged axes, and are characterized by their broad distribution across the British Isles as well as Central and Northern Europe (Hachmann 1957, 184, 198, taf. 4, 33; Vandkilde 1996, 66–70; Grif-fiths 2023). Based on Vandkilde's typological system, this axe could be attributed to primitive low-flanged axes subgroup A1: a Trapezoidal Flanged axe of the Emmen type (Vandkilde 1996, 69–70). A significant number of this type of low-flanged axes found in the Netherlands are dated to the I MP (Butler 1995, 159–243, fig. 14a). Some of these axes were discovered in graves or hoards, which provides additional chronological information. A similar axe was found at the Czyczkowy settlement in Poland, located west of the Vistula River (Šturms 1936, 86). This artefact is a small axe with low flanges, and was dated to the I MP by Šturms (1936 86, taf. 2:a).



Fig. 2. Early Bronze Age flanged axes: 1. Padauguva (Kaunas District Municipality) (LNM AR 1035:1, photo by G. Trečiokas); 2. Viekvėdžiai (Šiauliai District Municipality) (LNM AR 1032:1, photo by A. Baltėnas); 3. Cigoniškiai (Alytus District Municipality) (LNM, CIG17–47, photos by A. Baltėnas and L. Muradian); 4. Žeguniai (Kėdainiai District Municipality) (KKM, inv. no. 2486, photo by L. Muradian); 5. Netičkampis (Marijampolė Municipality) (LNM AR 1028:1, photo by G. Trečiokas).

2 pav. Ankstyvojo bronzos amžiaus atkraštiniai kirviai: 1. Padauguva (Kauno r. sav.) (LNM AR 1035:1, G. Trečioko nuotr.); 2. Viekvėdžiai (Šiaulių r. sav.) (LNM AR 1032:1, A. Baltėno nuotr.); 3. Cigoniškiai (Alytaus r. sav.) (LNM, CIG17–47, A. Baltėno ir L. Muradian nuotr.); 4. Žeguniai (Kėdainių r. sav.) (KKM, inv. Nr. 2486, L. Muradian nuotr.); 5. Netičkampis (Marijampolės sav.) (LNM AR 1028:1, G. Trečioko nuotr.).

In the area immediately surrounding Padauguva, no settlements or burial sites are known from the EBA. Therefore, it is currently not possible to associate this axe with any chronologically contemporaneous artefact found nearby. Some metal artefacts have been found approximately 5 km from the Padauguva forest. These include two axes from the Babtai region, which are considerably later. One of these axes is attributed to the II or III MP, and the other to the VI MP (Григалавичене, Мяркявичюс 1980, 67; Čivilytė, Mödlinger 2010, 148).

Another flanged axe was discovered in 2023 in the village of *Viekvedžiai*, Šiauliai municipality, approximately 150 meters northeast of a small unnamed stream flowing into the Bubiai Reservoir (Muradian, Pranckėnaitė 2024). To the southeast of the findspot lies the Skaudviliai marsh and the Dubysa River, while to the northeast is the Bubiai Reservoir. The site is located in a low-lying area along the stream bank. The person who found it reported that this bronze flanged axe was uncovered using a metal detector, and a human skull was found in the same field two years prior. The objects were found approximately 60 meters apart; however, the fields had been ploughed, suggesting that these objects may not have been found in their original locations.

The bronze flanged axe found at *Viekvedžiai* features a flat haft and a flared and convex cutting edge (Fig. 2:2). On one of the flanged edges, the central area displays four shallow incisions. This axe can be attributed to the Eastern type (based on Grigalavičienė's typological system), and can be dated to the II MP. Overall, 15 axes of this type have been identified in Lithuania (Merkevičius 2011a, 59–60, 63–64, 66–67, 71–72, 82–83, 114, 131–132, 139–140, 144, with newly found axes). Similar axes are widely distributed across the East Baltic region, northern Europe, southern Scandinavia (Denmark), Poland, and Kaliningrad (Hachmann 1957, 183, taf. 27:14; Grigalavičienė 1995, 148–149, pav. 84; Vandkilde 1996, fig. 93; Stöckmann *et al.* 2021, 40–44). After

Vandkilde's typological system, this axe can be attributed to class C: a High flanged axe of the Underåre type (Vandkilde 1996, 110–113). In Lithuania, a very similar axe, also dating to the II MP, was discovered in *Staičiūnai* (Григалавичене, Мяркявичюс 1980, 79).

Near *Viekvedžiai*, one bronze flanged axe dating the same period (II MP) is known. This artefact was found in the nearby village of *Bulėnai* (Merkevičius 2011a, 26–27), separated from *Viekvedžiai* only by a drainage canal. Other artefacts from the EMP are later in date and located much further from *Viekvedžiai*. For instance, a neck ring dated to the PRIA was found in *Noliškiai*, approximately 8 km northwest of *Viekvedžiai* (Merkevičius 2011a, 90).

In the immediate vicinity (within a 2 km radius) of *Viekvedžiai*, no known settlements or burial sites from the EBA have been identified. However, when considering a broader spatial perspective, two relevant sites can be mentioned: the settlement at *Beržynė* (also referred to as *Kalneliai*), and the *Sauginiai* hillfort (Šiauliai municipality). Both sites are located slightly away from *Viekvedžiai*: the *Beržynė* settlement is approximately 9 km southwest of the *Viekvedžiai* bronze axe findspot, while the *Sauginiai* hillfort is around 3 km southwest. The *Beržynė* settlement might have belonged to the PRIA, as eight hearths were found beneath a Roman Iron Age (RIA) burial site; however, their precise dating remains uncertain (Salatkienė 1984). The *Sauginiai* hillfort was investigated in 1973, during which layers from different periods were uncovered; according to researchers, it should be dated to the late 1st millennium BC–early 1st millennium AD (Daugudis, Stankus 1974). Therefore, these EMP sites are chronologically later than the bronze axe found at *Viekvedžiai*. The only potential connection might be with another axe discovered in *Bulėnai* (Merkevičius 2011a, 26–27).

Another artefact dating to the II MP was discovered in *Netičkapis*, Marijampolė municipality. Notably, a socketed axe was also found nearby. These two axes, originating from different periods, were both

uncovered in 2022 in fields worked by an agricultural company. The axes were located approximately 1 km apart, positioned around 1.5–2 km northeast of the confluence of the Šešupė and Dovinė rivers. Chronologically, they were separated by at least a 1000-year interval.

The EBA flanged axe from Netičkampis is classified as Eastern-type (after Grigalavičienė's typology). It features a straight, flat haft and a flared cutting edge, with diagonal cut marks visible on both flanges (Fig. 2:5). Such axes are also found in other places in the Baltic region. These types of axes have been found west of the Vistula River (Szpunar 1987, taf. 35:B), and examples have been recorded in northeastern Poland and Kaliningrad (Stöckmann *et al.* 2021, 39–41, taf. 3:37). An analogous axe was discovered in the former territory of East Prussia, in the area historically known as Koddien (near Gvardeisk in present-day Kaliningrad; Stöckmann *et al.* 2021, 260, taf. 3:37). This axe is attributed by researchers to the Ubiedrze type (based on Szpunar's typology; see Szpunar 1987, 49–51), which is distinguished by its larger size, broader cutting edge, and more pronounced, higher flanges compared to Łuszczewo-type axes. The find from Koddien and the entire group are associated with the Unette culture of the EBA (Stöckmann *et al.* 2021, 41). However, the precise dating of these axes remains uncertain, as they mostly appear as stray finds, but generally they are dated to the end of the I MP–II MP (Szpunar 1987, 50–51). Similar axes attributed to the high-flanged Underåre axe type (group C) were found in Denmark (Vandkilde 1996, 109–113, fig. 94:353–355). Most were dated by Vandkilde to Period IB, which is the end of the I MP (Vandkilde 1996, 140, 435, 438, 439, fig. 134). A very similar axe was found in northern Lithuania in Linkuva (Biržai municipality), dated to the II MP (Григалавичене, Мяркявичюс 1980, 74).

Two typologically and chronologically distinct BA finds were discovered in *Cigoniškiai* (Alytus

municipality) during an archaeological survey in 2017 (Žemantauskaitė, Fediajevas 2018). These include a BA palstave axe and a socketed chisel. They were found near the Peršėkė River and Lake Obelija. The cutting edge of the palstave is broken, and the haft is concave and oval in shape (Fig. 2:3). Although the cutting edge is missing, based on the dating of other palstave axes found in Lithuania (Grigalavičienė 1995, 152), this artefact can generally be dated to the III or IV MP.

Three flanged axes covered with a dark brown patina that is almost black in some areas have been discovered in recent years. All three belong to the second half of the EBA. Research indicates that this patina coloration forms due to natural corrosion processes that occur in an anaerobic environment, where bronze artefacts have been submerged in water, marshes, or other damp conditions for an extended period (Berger 2015). In 2016, one of these axes was found in *Virksčiai* (Ukmergė municipality); in 2021, another was recovered from *Daukniškiai* (Biržai municipality); and in 2024, the third was identified in the Nevėžis River, between *Sirutiškis* and *Galkantai* (Kėdainiai municipality) (Fig. 3).

The axe from *Virksčiai* was found on ploughed land (Dakanis, Vitkūnas 2018, 530–532). The findspot is located near the Siesartis River, approximately 300 meters to the south, in an area that rises southward from 80.9 m a.s.l. to 99.6 m a.s.l. In May 2024, the findspot was visited by one of the authors of this article with the person who found it in order to pinpoint the location and its surroundings. Adjacent to the findspot is a small elevated area, a hillock, and around 200 meters to the north is a small island. A small unnamed stream flows to the west of the findspot, while a drainage canal runs to the east.

Part of the hafted end of the *Virksčiai* axe was already broken at the time of discovery, with a cutting edge that widens towards the edge and is convex in the central area; the casting seams had not been cleaned. Based on the nature of its haft, the axe can be

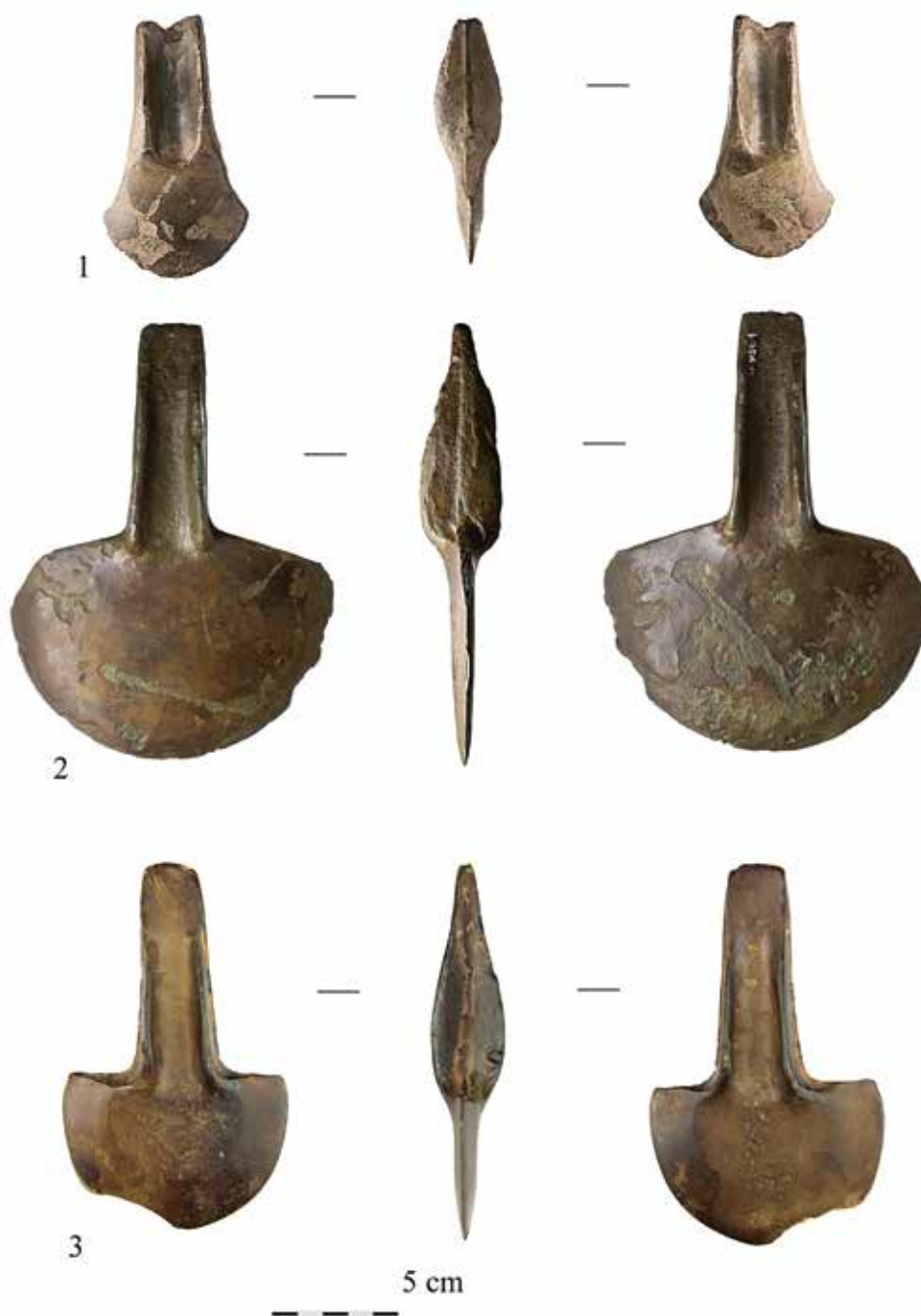


Fig. 3. Early Bronze Age (II–III MP) flanged axes covered with a brown patina: 1. Virkščiai (Ukmergė District Municipality) (LNM AR 1041:1, *photo by G. Trečiokas*); 2. Daukniškiai (Biržai District Municipality) (LNM AR 1024:1, *photo by G. Trečiokas*); 3. Galkantai (Sirutiškis) (Kėdainiai District Municipality) (LNM AR 1048:1, *photo by L. Muradian*).

3 pav. Ankstyvojo bronzos amžiaus (II–III MP) atkraštiniai kirviai, pasidengę rudos spalvos patina: 1. Virkščiai (Ukmergės r. sav.) (LNM AR 1041:1, *G. Trečioko nuotr.*); 2. Daukniškiai (Biržų r. sav.) (LNM AR 1024:1, *G. Trečioko nuotr.*); 3. Galkantai (Sirutiškis) (Kėdainių r. sav.) (LNM AR 1048:1, *L. Muradian nuotr.*)

attributed to the palstave type, but it should be noted that this axe has some features of the so-called North German (Ger. *Norddeutscher*) classification which was used by earlier scholars (Stöckmann *et al.* 2021, 39–41). For example, a very similar axe attributed to this group was found in the area formerly known as Schleszehlen (in former East Prussia, present-day Kaliningrad) (Stöckmann *et al.* 2021, 210, taf. 2:19). It is noteworthy that palstave axes are known in Lithuania, but not of a form analogous to the Virkščiai axe, as its hafted end is slightly bulging and rounded (Fig. 3:1). Based on its characteristics, the Virkščiai axe could date to the II–III MP; narrowing this range would require contextual information, but no settlement or burial sites from the EBA are known in the immediate vicinity of its findspot. Around 4 km northwest, in Žemaitkiemis, another flanged axe was found, dated to the III or even IV MP (Grigalavičienė 1995, 150–151).

The axe from *Daukniškiai* was also discovered in cultivated fields with a metal detector. It is important to note that the artefact was discovered as a stray find, at a depth of around 30 cm, with no other BA finds nearby. This flanged axe was found near the Užušilė canal, approximately 3 km south of the Aukštoji Gervė River and around 3 km north of the Rovėja River (Pranckėnaitė, Muradian 2022).

The *Daukniškiai* axe is covered with a brown patina, with one corner of the cutting edge broken, and features an obscured haft groove. The cutting edge is flared and semi-spherical in shape, with the casting seams smoothed (Fig. 3:2). This axe belongs to the Eastern-Baltic-region type. In total, 29 such axes have been identified within the territory of Lithuania (Merkevičius 2011a, 16–19, 25–30, 67, 72–73, 80–81, 84, 91–92, 101, 110, 112, 115–116, 119–120, 122, 129, 141, 143, 151, including axes of this type from this study). After Szpunar's typology, this axe could be attributed to the flanged axes of Dębowiec type A (Szpunar 1987, 71–72). In Poland, this type of axe dates from the end of II MP to III MP, sometimes to the IV MP (Szpunar 1987, 73), and they have been

found in north and northeastern Poland, Kaliningrad, Lithuania, and Latvia (Граудонис 1967, 93–103, tab. XXIII:6, 9, XXIV:13; Szpunar 1987, taf. 37; Grigalavičienė 1995, 149–151, pav. 82; Stöckmann *et al.* 2021, 168, 187, 208, 218). Typologically, the Lithuanian finds that most closely resemble this axe was discovered in 1985 in the village of Ožkabalai II (Vilkaviškis municipality); both axes are very similar in form and size (Merkevičius 2011a, 91–92). Based on the form of the *Daukniškiai* axe and the dating of similar axes from this region, it can be attributed to the III MP.

In northern Lithuania, near Biržai, there are no known BA settlements or burial sites. However, five BA axes have been discovered at different locations. Eastern-type flanged axes were found in Kirkilai and Peikšteniai, and another flanged axe of the Eastern-Baltic-region type was found in the Biržai vicinity, although its exact location is unknown (Merkevičius 2011a, 71–72, 116). Additionally, in the Biržai area, socketed BA axes have been found (Merkevičius 2011a, 25–26). These areas are located approximately 3 to 8 kilometres from the findspot of the axe discovered in *Daukniškiai*.

The third axe with a brown patina was found in the Nevėžis River itself, near a ford, between the villages of *Galkantai* and *Sirutiškis*. To the northwest of the specified findspot, a small stream flows into the Nevėžis River, which is today a drainage canal. On the post-war topographic map (1950, M 1:25,000), this area is marked as a damp, marshy place extending north and south along the left bank of the Nevėžis.

The axe from *Galkantai* (*Sirutiškis*) features a long, concave hafted end with prominent flanges. The casting seams on the sides are uncleaned, and next to one of them is a 4-mm-long notch. The blade is rounded, with a small portion of the edge broken off (Fig. 3:3). The axe can be attributed to the Eastern-Baltic type and should be dated to the LBA, specifically the III MP. After Szpunar's typology, this artefact, as with the axe from *Daukniškiai*, can be attributed to Dębowiec type A (Szpunar 1987, 71–72).

The area immediately surrounding Galkantai or Sirutiškis has yielded no other BA metal artefacts; the nearest findspots are more than 10 km away from this location. Additionally, in this part of Lithuania, no burial sites, settlements, or hillforts dating to the period are currently known.

A cutting edge from another flanged bronze axe was discovered in *Žeguniai* (Kėdainiai municipality), approximately 20 km east of Galkantai, during an event for metal detector enthusiasts organized by the local metal detecting club (Fig. 2:4). It was found in ploughed fields with a flat elevation profile, near the left bank of the now-drained Juodupis River (Petukauskas 2023). The cutting edge of a flanged axe was also discovered in northern Lithuania at *Šakarniai*

(Pasvalys municipality) during an archaeological survey in 2022, on the left side of a stream, close to a homestead (Vasiliauskas 2023).

THE NORTYCKEN-TYPE AXE

In 2021, an exceptional EBA artefact was discovered in Antaniškiai (Kelmė municipality): a Nortycken-type axe, with three vertical grooves on each face – near the cutting edge and toward the butt (Fig. 4). The cutting edge bears signs of use, and the central area shows slight chipping. The person who found the axe reported that it was discovered with a metal detector, and at the time of discovery the artefact was broken in half at the socket hole. The axe



Fig. 4. Nortycken-type axe from Antaniškiai (Kelmė District Municipality) (ŠAM, photo by L. Muradian)
4 pav. Nortikėnų tipo kirvis iš Antaniškių (Kelmės r. sav.) (ŠAM, L. Muradian nuotr.)

and the fracture area are covered with a green patina, indicating that the break is not recent. Moreover, this break is characteristic of Nortycken-type axes, as the metal around the socket hole is thinner. The artefact was found at a shallow depth of around 30–40 cm in sandy soil, with no other objects, ceramic sherds, or charcoal pieces observed nearby.

The Nortycken-type axe was found approximately 1 km southeast of Lake Pėžai, around 6 meters north of the road (No. 3434) connecting Antaniškiai and Akmenė, in the area of a former smithy that was demolished between 2005 and 2009. Old topographic maps (e.g., from 1943) mark nearby wetlands around the findspot. It is likely that the small Lake Pėžai that exists today previously covered a larger area. The Šiluva peat bog extends to the west of the location, and the elevation at the find site is 142.9 m a.s.l. The site features a strip running northwest-southeast that is roughly 3 km long, containing hillocks with elevations ranging from 142.8 to 158.72 m a.s.l. No known EBA settlements or burial sites are located near the axe findspot, and the closest EBA metal artefact findspots are more than 10 km away.

The Nortycken-type axe, also known as a Baltic battle axe, is dated to the III MP. Compared to flanged or socketed bronze axes, this represents a significantly rarer artefact type in Lithuania. Including the axe found at Antaniškiai, only 10 such axes are currently known in the country (Merkevičius 2011a, 16, 55, 90, 91, 95, 99, 101, 102, 111, 121). All Nortycken-type axes found in Lithuania have been discovered accidentally. The literature notes that a considerable proportion of these axes found across the Baltic region have been uncovered in wetlands or water bodies (Čivilytė 2014, 95–96, 155–160). Consequently, they are often interpreted as ritual depositions or offerings. One such deposit discovered in Lithuania comprised two spearheads and a Nortycken-type axe from Gedminai (Šturms 1936, 60, 99, taf. 19:c, 20:k). All items were covered with a uniform, dark brown patina. The context of other Nortycken-type axes found in

Lithuania remains unknown. It is hypothesized that one such axe may originate from the barrow at Pietariiai (Marijampolė municipality), where local residents mentioned mounds, ceramics, and ash (Merkevičius 2014, 123–125). However, this site has not been excavated and has been disturbed by earthworks, so the existence of barrows there is not proven.

SOCKETED AXES AND A CHISEL

In recent years, slightly fewer socketed bronze axes have been discovered in Lithuania. However, the total number of such axes found in the country remains fairly substantial, with 61 having been discovered including the most recent finds (Merkevičius 2011a).

In 2022, a bronze socketed axe with a side loop was found in *Netičkampis* (Marijampolė municipality), approximately 1 km northeast of a previously recorded flanged axe. One side of the axe is slightly deformed and pressed inward, and the axe is covered with a green and blackish patina (Fig. 5:1). Above the socket, two cast ribs are visible, likely for securing the axe in a handle. This axe is attributed to the Ilischen type, which features a bevelled upper edge, with the side loop positioned below the slightly flared cutting edge. Such axes are known from the area west of the Šešupė River, around the Prieglius River and the Sambia Peninsula, as well as in Lithuania (Grigalavičienė 1995, 157–158; Stöckmann *et al.* 2021, 53–54). These axes are dated to the VI MP.

The Netičkampis socketed axe contains rare organic remains – fragments of wood from the handle. To date, only one well-preserved bronze axe handle has been found in Lithuania, in the Luokesai I settlement (Pranckėnaitė 2012, 96–97). Microscopic analysis of the handle from the Netičkampis axe revealed that it was made from hazel (*Corylus avellana*) (studies conducted by Dr. Kęstutis Peseckas). According to other studies of bronze axe handles from the LBA in the East Baltic region, different wood species were



Fig. 5. Bronze socketed axes: 1. Netičkampis (Marijampolė Municipality) (LNM AR 1028:2, photo by G. Trečiokas); 2. Suginčiai (Akmenė District Municipality) (LNM AR 1051:1, photo by L. Muradian); 3. Chisel from Cigoniškiai (Alytus District Municipality) (LNM AR CIG17–47, photos by A. Baltėnas and L. Muradian)

5 pav. Bronziniai įmoviniai kirviai: 1. Netičkampis (Marijampolės sav.) (LNM AR 1028:2, G. Trečioko nuotr.); 2. Suginčiai (Akmenės r. sav.) (LNM AR 1051:1, L. Muradian nuotr.); 3. Kaltas iš Cigoniškių (Alytaus r. sav.) (LNM AR CIG17–47, A. Baltėno ir L. Muradian nuotr.)

used, including ash (*Fraxinus*) (bronze socketed axes, C-14 dates: 510–371 cal BC and 998–838 cal BC), juniper (*Juniperus*), and spruce (*Picea*) (bronze socketed axe, C-14 date: 918–811 cal BC) (Paavel *et al.* 2019). Additionally, oak (*Quercus sp.*) was used for a simple shaft-hole stone axe handle that was C-14 dated to 780–540 cal BC (Nordqvist, Macāne 2024).

The artefact from Netičkampis supplements the extensive database of BA artefacts from the Šešupė River region (Fig. 1). Approximately 2 km west of the findspot, another socketed axe was found in Liudvinavas, again dating to the VI MP (Григалавичене, Мярквявичюс 1980, 74–75). However, there is limited information about settlements or burial sites from this period in the area. Approximately 4 km to the north, at the Meškučiai settlement, a hillfort and possibly

a burial site have been identified, where scattered cremated bones were discovered dating to the late PRIA and later periods (Merkevičius, Nemickienė 2007; Merkevičius *et al.* 2008; Merkevičius, Kanarskas 2009a; 2009b). These sites are later than the BA artefact recently found at Netičkampis.

Around 2014, the cutting edge of a bronze socketed axe was discovered in cultivated fields near *Suginčiai* (Akmenė municipality) (Petrauskas *et al.* 2019). The find was located approximately 660 meters northeast of the drained Kūlupis stream. The upper part of the axe is broken, one side has been compressed, and the lower part of the cutting edge is flattened on both sides. Shallow casting seams are visible on the sides, and the cutting edge is flared and curved (Fig. 5:2). Due to the fragmentary nature of the find,

it is impossible to precisely determine its type; thus, it is broadly dated to the IV–VI MP. No other EMP metal artefacts, burial sites, or settlements are known in the vicinity of this find.

A distinctive object was found in *Cigoniškiai* (Alytus municipality) around 700 meters northwest of the flanged axe described earlier (see chapter “flanged and palstave axes”). It is most likely a chisel, characterized by a cutting edge that narrows toward the tip rather than widens, which is more typical of bronze chisels than axes (Fig. 5:3). Only one chisel has been found so far in Lithuania, originating from an unknown location (Merkevičius 2011a, 152). Precise dating of the find from *Cigoniškiai* is difficult because its upper part is missing. Most chisels from Poland, Germany, or Scandinavia are dated to the LBA, although earlier examples associated with the II MP are also known (Gedl 2004, 85–101; Stöckmann *et al.* 2021, 64). In Latvia, a socketed chisel was found in the Staldzene hoard, dated to the V MP (Vasks, Vijups 2004, 28). In the literature classifying chisels into types, attention is paid to their size; therefore, the one found in *Cigoniškiai* could be assigned to the group of small chisels according to Gedl’s typological scheme (Gedl 2004, 88–91). Larger chisels (over 10 cm in length) are more characteristic of the EBA, whereas chisels 5–9 cm in length are most often dated to the IV or V MP, though they were also used for a longer time – up until the PRIA (Gedl 2004, 91). Although the upper part of the chisel found in *Cigoniškiai* has not survived, it could not have been longer than 9 cm, and the width of the cutting edge is similar to the dimensions of other artefacts assigned to the group of small chisels (Gedl 2004, 88). It is likely that the chisel from *Cigoniškiai* could also belong to the LBA, probably the IV or V MP.

SPEARHEADS

In recent years, 4 bronze spearheads have been discovered, and 1 was found earlier (Fig. 6). In 2011,

one spearhead was found during archaeological excavations in Vilnius Old Town, at 7A Klaipėdos Street; in 2016, another was found in Kupsčiai (Raseiniai municipality); in 2019, a spearhead was recovered in Širvydai (Marijampolė municipality); and an additional item was found in a secondary context, within a soil delivery to a homestead – perhaps originally from Bunikiai (?) (Šakiai municipality).

One of the spearheads was discovered not in recent years, but considerably earlier; however, it has remained unpublished until now. The artefact is preserved in the Museum of PSDG, established in 1959 by Genovaitė Putinaitė and Olijardas Vištakis. The exact date and place of discovery are difficult to determine, since the artefact is not listed in the inventory book of the museum. Most of the finds originate from Papilė (Akmenė district), though some derive from neighbouring areas. Accordingly, the findspot of this spearhead is given only provisionally as the Papilė surroundings (?) (Akmenė district), while other nearby settlements in northern Lithuania cannot be ruled out. The museum’s inventory book began in April 1961, but some artefacts are known to have been discovered before systematic inventorying commenced, with 1952 or 1955 sometimes cited as the year of discovery (Papilė 1961). The bronze spearhead may therefore have been unearthed before the 1960s.

Prior to these finds, 20 spearheads dated to the BA were known in Lithuania (Merkevičius 2011a, 13, 25, 30, 31, 55, 57–58, 61, 84–85, 89, 91, 98, 102–103, 106–107, 121, 129, 312), with several other examples mentioned in the literature but not preserved in museums. Pictures and other data are also unknown, leaving their dating and typology uncertain (Merkevičius 2011a, 19, 132). Thus, this group of 5 new spearheads constitutes a significant addition, given the rarity of such artefacts. Bronze socketed spearheads began to be used in the EBA, and although such early examples are rare in Lithuania (Grigalavičienė 1995, 160), many have been discovered across various parts of Europe and the Volga region, with some ornamented



Fig. 6. Bronze spearheads: 1. Kupščiai (Raseiniai District Municipality) (LNM AR 1046:1, photo by A. Baltėnas and L. Muradian); 2. Širvydai (Marijampolė District Municipality) (LNM AR 1008:1, photo by G. Trečiokas); 3. Papilė surroundings (?) (Akmenė District Municipality (PSDG, photo by L. Muradian); 4. Bunikiai (?) (Šakiai District Municipality) (LNM AR 1052:1, photo by A. Baltėnas and L. Muradian); 5. 7A Klaipėdos Str., Vilnius (LNM AR 1047:1, photo by A. Baltėnas and L. Muradian)
6 pav. Bronziniai ietigaliai: 1. Kupščiai (Raseinių r. sav.) (LNM AR 1046:1, A. Baltėno ir L. Muradian nuotr.); 2. Širvydai (Marijampolės r. sav.) (LNM AR 1008:1, G. Trečioko nuotr.); 3. Papilės apylinkės (?) (Akmenės r. sav.) (Akmenės r. Papilės Simono Daukanto gimnazija, L. Muradian nuotr.); 4. Bunikiai (?) (Šakių r. sav.) (LNM AR 1052:1, A. Baltėno ir L. Muradian nuotr.); 5. Vilnius, Klaipėdos g. 7A (LNM AR 1047:1, A. Baltėno ir L. Muradian nuotr.)

(Torbrügge 1959, 64–65; Tackenberg 1971, 63–103; Hansen 1991, 27–58, abb. 6; Hansen 1994, 59–74, abb. 40; Stöckmann *et al.* 2021, 68–70).

During archaeological excavations at 7A *Klaipėdos Street in Vilnius*, near the remains of the Vilnius city wall and at a depth of 1.2 meters, a copper alloy spearhead was recovered from stratified deposits mixed with debris and finds dating to the 16th–17th centuries (Kliaugaitė *et al.* 2012, 560). This spearhead was not found in its primary context, but in later archaeological

layers. Its blade is rhombic and slightly longer than the socket. On one side of the spearhead, three vertical lines have been cast, running from the top of the blade down to the middle part of the socket. The bottom of the socket is chipped. The only similar spearhead found in Lithuania was discovered in Česukai, together with a socketed axe (Merkevičius 2011a, 97–98). Unfortunately, due to extensive chipping of the spearhead, especially in the socket's lower area, it is impossible to determine if it bears the same ornament – a pattern of four small

eye motifs – as the Česukai example. However, both sides of the spearhead feature three narrow, vertical ridges running through the blade, cast in relief. Based on the associated socketed axe, the Česukai spearhead is dated to the VI MP (Григалавичене, Мяркявичюс 1980, 81), and the same dating can be assumed for the find from Klaipėdos Street in Vilnius. Such spearheads from the Sambia Peninsula (Kaliningrad) and Poland are dated to the LBA (VI MP) or the early PRIA (Dąbrowski 1968, 56–59; Stöckmann *et al.* 2021, 68–70).

The spearhead from *Kupsčiai* was discovered in 2016 amidst a survey for traces of the battlefield near the Tautušiai Forest, within sand, at a depth of approximately 20 cm (Vaitkevičius 2017, 30–31). Its shape resembles a laurel leaf, with a gradually broadening, semi-spherical ridge extending along its entire length, transitioning into the socket. The socket widens at the bottom and features two horizontal grooves; it has been broken near the blade. The Luknė River flows around 1.8 km northwest of the findspot, and the Verdeksnė River can be found approximately 4.4 km to the east. The area contains numerous drainage canals, and the markings of a topographic map from 1950 indicate that the vicinity of the find was historically swampy. An archaeological survey in this location has not uncovered further artefacts associated with the spearhead in terms of chronology, but some artefacts dating to the Stone Age are mentioned in the archival material (Vaitkevičius 2017, 31–32). The spearhead from *Kupsčiai* can be attributed to the Lusatian type, which is also associated with spearheads found in the Littausdorf hoard (former East Prussia, present-day Kaliningrad). Based on the dating of the same type of spearheads from other sites, the *Kupsčiai* spearhead is likely to date to the IV MP or beginning of the V MP (Dąbrowski 1968, 57; Stöckmann *et al.* 2021, 69, 183).

Approximately 1.5 km northeast from *Kupsčiai*, a BA flanged axe was found. The axe was found in Tautušiai by Marijonas Gorodeckis in the 1930s, who described the findspot to the State Archaeological Commission (Lith. *Valstybės archeologijos komisija*),

noting that graves and stones were known to exist in or around the area. However, the site had been disturbed by ploughing, and only a few ceramic sherds could be found there (Valstybės... 1926–1938, b. 81, 49). After an archaeological survey at this site, some later artefacts were found – Almgren 133-type fibulae dated to the RIA (B2/C1: 150–200 AD), and iron axes (Vaitkevičius 2017, 35).

The bronze spearhead from Tautušiai is also mentioned in the literature (Merkevičius 2011a, 129–130), where its dating varies: some researchers assign it to the Lusatian culture and date it to the IV MP (Dąbrowski 1968, 109); others to the VI MP (Григалавичене, Мяркявичюс 1980, 80); some associate it with Forchheim-type spearheads from the transition between the I MP and II MP (Čivilytė, Mödlinger 2010, 125); finally, some associate this spearhead with the Littausdorf hoard (IV MP), and date this type of spearhead to the IV–V MP (Szpunar 1987, 73). It should be noted that although the spearhead from Tautušiai is difficult to date, it may still fall within the same chronological framework as the *Kupsčiai* spearhead.

In 2019, a spearhead was found in *Širvydai* using a metal detector. The find was located around 700 meters southwest of the Gulbinas Canal. The artefact was uncovered on a slope where the land rises from south to north. Typologically, this spearhead differs from examples previously found in Lithuania: its blade is elongated and rhombic, smoothly transitioning from the socket, with a relatively flat central area. Similar spearheads are known from Poland, specifically from the Pomeranian region and Silesia, and a single example was found near the Lithuanian border at Geldape in the Warmian-Masurian region, around 70 km from the site of *Širvydai* (Stöckmann *et al.* 2021, 69–70, 210). According to Dąbrowski (1968, 59), such spearheads are very similar in shape to iron spearheads produced in Poland. This suggests that the artefact could be attributed to the end of the LBA or the very beginning of the PRIA, but the lack of contextual information prevents precise dating within

a narrower period. Such spearheads from Poland (Pomerania, Silezia) are dated to the LBA or the IV–VI MP (Gedl 2009, 55). Since no other artefacts that could narrow the dating range are known from the vicinity of Širvydai, the spearhead is broadly attributed to the IV–VI MP. Around Širvydai, several other bronze artefacts are known: two earlier examples (Merkevičius 2011a, 91–92), and one also belonging to the LBA – a socketed axe from Balsupiai, dated to the VI MP (Григалавичене, Мяркявичюс 1980, 67). However, these archaeological sites are quite distant (6.5 km and 10 km, respectively), making a direct connection unlikely. Furthermore, no known EMP settlements or burial sites are present near the location closest to the Širvydai bronze spearhead.

A spearhead found in the surroundings of *Papilė* (?) has a rhombic-shaped blade, with holes on both sides of the lower part of the socket. The artefact is undecorated, but on both sides some incisions, mostly made later, are visible. It is covered with a green patina and the tip is broken, as is the lower part of the socket. Typologically, its closest parallel was found in the vicinity of Juodkrantė, and was dated to VI MP by Grigalavičienė (Григалавичене, Мяркявичюс 1980, 75, No. 91; Grigalavičienė 1995, 161). All other known bronze artefacts were discovered considerably further from Papilė. It is important to note that in the literature, a bronze spearhead found in the Akmenė district is mentioned. Information about this find was first published in 1974, indicating that the former headmaster of the secondary school, P. Tupikas, reported a socketed spearhead discovered in the quarry of the Akmenė cement factory. The artefact itself has not survived (Grigalavičienė 1974, 212; Григалавичене, Мяркявичюс 1980, 66). It is difficult to determine whether this was the same object, as no further information about it is provided in the literature or other sources.

The blade of the spearhead found in *Bunikiiai* (?) is heavily chipped, and the tip itself is broken or snapped off. The socket widens towards the bottom and is

chipped in that area, with a drilled hole on one side. The casting seams have been smoothed. Due to its state of preservation, it is impossible to assign a precise date within a narrow period; however, it can be broadly attributed to the general time frame of bronze spearhead usage, approximately from the II to the VI MP.

OTHER FINDS

During archaeological excavations at the *Garniai I* (Utena municipality) and *Mineikiškės* hillforts (Zarasai municipality), several smaller bronze objects were recovered. In Mineikiškės, a bronze spiral pendant was found, which likely belongs to the period of the hillfort's use, dated to the 8th–4th centuries BC. At Garniai I, two flat, circular plates with two oval holes at their edges were discovered (Podėnas 2024, 182–183). These are interpreted as decorative elements, possibly once attached to tassels, and are dated to the VI MP or the PRIA.

On the island settlement of *Lake Bēlis* (Švenčionys municipality), a copper alloy shepherd's crook pin was found. The chronology of such pins is broad; they saw widespread use in Lithuania during the 1st millennium AD and were made of both iron and copper alloy (Michelbertas 1986, 131–132). However, the earliest finds in various sites across the East Baltic region are dated to the PRIA, and are made of bone (Iru hillfort, Estonia) as well as metal (Grigalavičienė 1995, 190–191; Lang 2007, 133, 145, 155–159; Lang 2022). The pin from the Lake Bēlis island settlement was found in an archaeological layer with radiocarbon dates and associated artefacts (ceramics, stone axes) suggesting that it could belong to the end of the LBA or PRIA (Kraniauskas *et al.* 2024, 74). The radiocarbon dates of the cultural layer containing this pin (found in trench 4) fall within the Hallstatt plateau (Kraniauskas *et al.* 2024; see Table 1, line 8). For this reason, it is very difficult to provide a more precise date for the pin based solely on C-14 dating. According to recent data, pins of this type in Estonia

are mostly dated to the PRIA, with a smaller proportion assigned to the 1st millennium AD (Lang 2022). The pin from the island in Lake Bėlis should likely also be assigned to the PRIA.

CHARACTERISTICS OF THE FINDSPOTS AND CONTEXTUAL ANALYSES

To present a contextual analysis of EMP metal artefacts, 368 objects were classified into four main groups based on their find locations and other available information as follows: 1. Discovered in burial sites or in proximity to human remains; 2. Discovered at settlement sites; 3. Interpreted as hoards¹; 4. Found in unknown contexts (Table 2, Fig. 7).

Only around 5% of all metal artefacts from this period were found in settlements (18 items). The majority of these are small ornaments such as spirals, pendants, bracelets, and pins. However, from the LBA, metal casting-related objects are also encountered in hillforts, including crucibles, scoops, and casting moulds (Čivilytė 2014, 97–125; Podėnas 2022, 208–215, 219–224). At these sites, socketed axes as well as Akozino-Mālar-type axes were cast, although in Lithuania no bronze axe has yet been discovered within a hillfort, nor in any other form of settlement. More metal objects have been found at hillforts in Latvia; most are the remains of bronze casting, but several metal hoards have also been found at the Kivutkalns hillfort (Vasks 2024, 65–69, 165–183).

Approximately 35% of all metal artefacts from this period were found in graves (129 items). The dominant finds are ornaments and adornment items: temple ornaments, bracelets, pins, spirals, pendants, tutuli, and loops. The prevalence of ornaments is characteristic not only of EMP Lithuanian burial sites, but also of the broader Southeast Baltic region. In contrast, axes – the most common bronze artefact – are quite

rare in EMP burial sites, being more of an exception than the norm. It is notable that grave goods are more typical of inhumation graves dating to the EBA or PRIA, and the placement of metal objects within graves becomes very rare with the emergence of cremation practices. Consequently, metal artefacts reliably datable solely to the LBA are almost entirely absent from burial contexts (Muradian 2024).

In certain parts of Europe where so-called urn fields were widespread – northern Italy, Germany, Austria, Hungary, Switzerland, Poland, and the Czech Republic – a notable correlation has been observed between deposited objects (hoards) and graves. The attention of scholars has been drawn to the fact that in regions with a high abundance of grave goods, fewer hoards have been found; conversely, with the emergence of cremation practices and a decline in grave goods, the number of hoards increases significantly (Hansen 1994, 363–390). In the southern Netherlands, it has been noted that BA hoards are often found near barrows, suggesting that certain ritual activities involved the use of the same landscape area (Fontijn 2002).

To assess whether the spread of the cremation custom in BA Lithuania could be linked to an increased incidence of bronze deposits (single artefacts or assemblages), a spatial analysis was conducted (Fig. 8). The focus was on the western part of Lithuania, where the greatest number of metal artefacts and burial sites are known. It is important to note that EBA burials in this region are quite rare, and only 22 are known in total; only in Šlažiai are they dated to the III MP, whereas in other locations, cremation graves are assigned to the LBA–PRIA (Muradian 2024, 34–50). Cremation became the dominant practice during the LBA, while a significant number of metal artefacts are associated with the earlier period: the EBA. In western Lithuania, 23 metal artefacts are dated to the EBA, 34 to the LBA, and 3 to the PRIA (for dating,

¹ In this study, a hoard is defined as a deposition of more than one contemporaneous artefact that is not part of any other archaeological context.

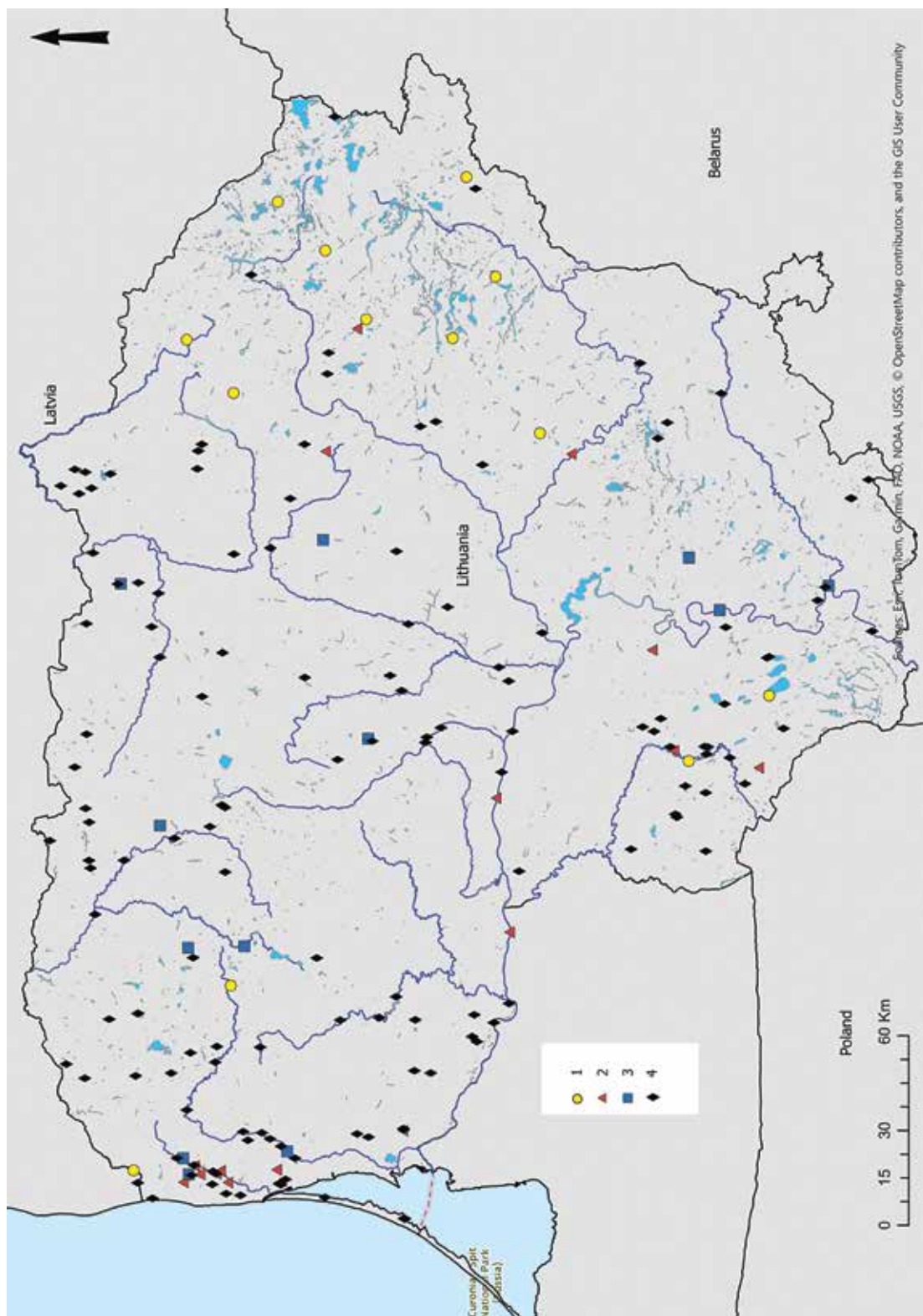


Fig. 7. Distribution of metal artefacts by find context: 1. burial sites or near human remains; 2. settlements; 3. hoards; 4. stray finds. Created with ArcGISpro, base: WorldTopographicMap, compiled by L. Muradian
 7 pav. Metalinių dirbinių pasiskirstymas pagal jų radimo kontekstus: 1. laidojimo vietose ar šalia palaikų; 2. gyvenvietėse; 3. lobiai; 4. pavieniai dirbiniai. Sukurta naudojant ArcGISpro, WorldTopographicMap. L. Muradian brėž.

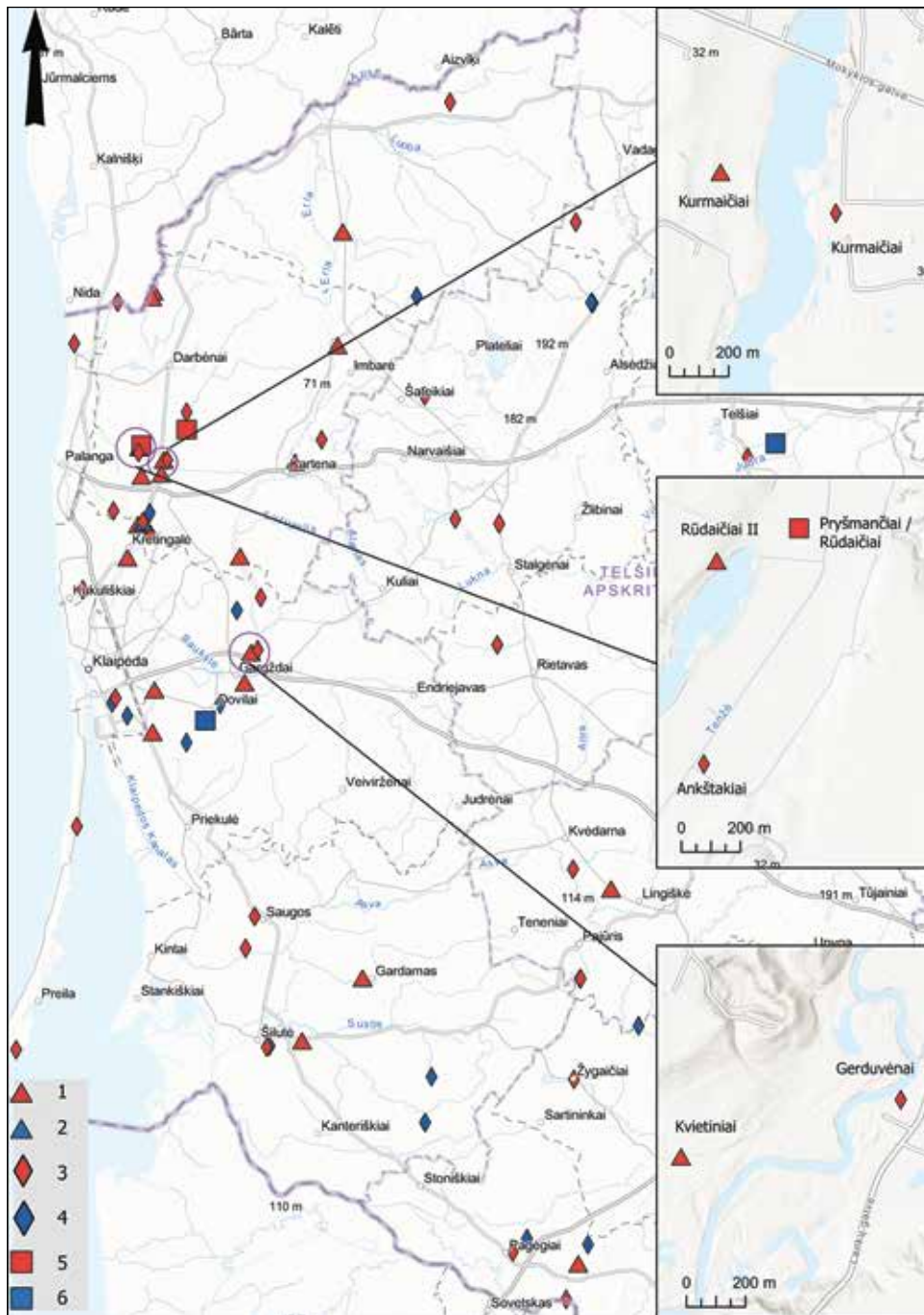


Fig. 8. Distribution of burial sites, hoards, and stray metal artefacts in western Lithuania: 1. Late Bronze and Pre-Roman Iron Age burial sites; 2. Early Bronze Age burial sites; 3. Late Bronze and Pre-Roman Iron Age stray bronze artefacts; 4. Early Bronze Age stray bronze artefacts; 5. Late Bronze and Pre-Roman Iron Age hoards; 6. Early Bronze Age hoards. Created with ArcGISPro, base: WorldTopographicMap, compiled by L. Muradian.

8 pav. Laidojimo vietų ir bronzinių dirbinių lobių bei pavienių dirbinių paplitimas vakarinėje Lietuvos dalyje: 1. vėlyvojo bronzos ir ankstyvojo geležies amžiaus laidojimo vietos; 2. ankstyvojo bronzos amžiaus laidojimo vietos; 3. vėlyvojo bronzos ir ankstyvojo geležies amžiaus pavieniai metaliniai dirbiniai; 4. ankstyvojo bronzos amžiaus pavieniai metaliniai dirbiniai; 5. vėlyvojo bronzos ir ankstyvojo geležies amžiaus metalinių dirbinių lobiai; 6. ankstyvojo bronzos amžiaus metalinių dirbinių lobiai. Sukurta naudojant ArcGISPro, WorldTopographicMap. L. Muradian brėž.

see Table 2). Thus, in most cases, the dating of metal artefacts and cremation graves differs. However, in three instances, relatively small distances were established between burial sites and stray bronze artefacts or their deposits. These are at the sites of Kurmaičiai, Rūdaičiai, and Kvietiniai.

In Kurmaičiai, on the left bank of the Akmena River, a fragment of a bronze socketed axe with a side loop was found. Its dating corresponds with a burial mound located on the opposite side of the river, where cremation graves have been uncovered. The cremation graves are dated to the 8th–5th centuries BC, and the axe belongs to the V–VI MP (Григалавичене, Мяркявичюс 1980, 74; Muradian 2022). Only few grave goods were found in the Kurmaičiai barrows (Kulikauskas 1968, 12–56). It is also noteworthy that the Kurmaičiai hillfort can be found in the north of this of this microregion, which partly chronologically overlaps with the barrow mounds (Podėnas 2022, 107–108).

At the Rūdaičiai burial site, a cremation grave in an urn was found containing iron artefacts, some of which had been melted. The grave is dated to the end of PRIA (Michelbertas 1968). It is possible that somewhere in Rūdaičiai a socketed spearhead and a spiral-head pin were also found. However, their exact discovery locations remain uncertain, as museum inventory books also mention Pryšmančiai (Merkevičius 2011a, 106–107), located around 5 km south of Rūdaičiai. The aforementioned artefacts were found in 1934 in peatland, at a depth of 1.5 m, near the Patenžė or Rešketa stream. Moreover, in Ankštakiai, south of the Rūdaičiai burial site, a pin with a decorated spiral head was discovered (Merkevičius 2011a, 14). It is recorded that this artefact was also found in peatland, at a depth of 1.5 m, in Patenžė. All three artefacts are dated to the LBA, specifically the V–VI MP, or even the PRIA (Григалавичене, Мяркявичюс 1980, 66, 78). The cremation grave found at Rūdaičiai may be slightly later. Nevertheless, the microregion warrants detailed chronological and spatial analyses, and radiocarbon dating of the cremation grave is also needed.

Another example is known from an archaeological site near the Minija River. On the left bank of the Minija, in Gerduvėnai, a bronze spearhead was found and dated to the VI MP (Григалавичене, Мяркявичюс 1980, 87). On the right bank of the Minija is the Kvietiniai burial site, dating to the LBA–early PRIA (8th–4th centuries BC). Grave goods were found only in a few cremation graves here, mainly comprising ceramic sherds, but animal bones, a flint blade, and a fragment of an iron artefact were also found (Vengalis *et al.* 2020, 17–20). The dating of the spearhead from Gerduvėnai aligns with the chronological framework of this burial site, although its exact findspot remains unknown; it was preliminarily determined based on museum documentation indicating that it was found approximately 1 km from the hillfort, in cultivated fields (Merkevičius 2011a, 57).

Since it is only possible to discuss the contemporaneity of burial sites and metal artefacts found in their environments in three cases, it is currently not justified to hypothesize that the emergence of cremation practices could be linked to the increased presence of single bronze artefacts or their deposits (hoards). Primarily, there is no significant difference in the number of metal artefacts dating from the EBA and those from the LBA–PRIA. The quantity of metal items attributed to the EBA period is very similar to that from the LBA period, when cremation became dominant as a burial practice. Additionally, of the 22 burial sites known from this period, in only three were metal artefacts from a similar period found nearby. For these reasons, it is currently impossible to establish a clear connection between the change of the burial customs and the increase in the number of hoards or single artefacts.

In total, hoards could account for approximately 10% of all EMP artefacts (38). Hoards are characterized more by axes and spearheads, with several daggers also present, and ornaments begin to appear among their contents at the end of the period (e.g., in Baudėjos and Pabalijai) (Fig. 9). During the BA,

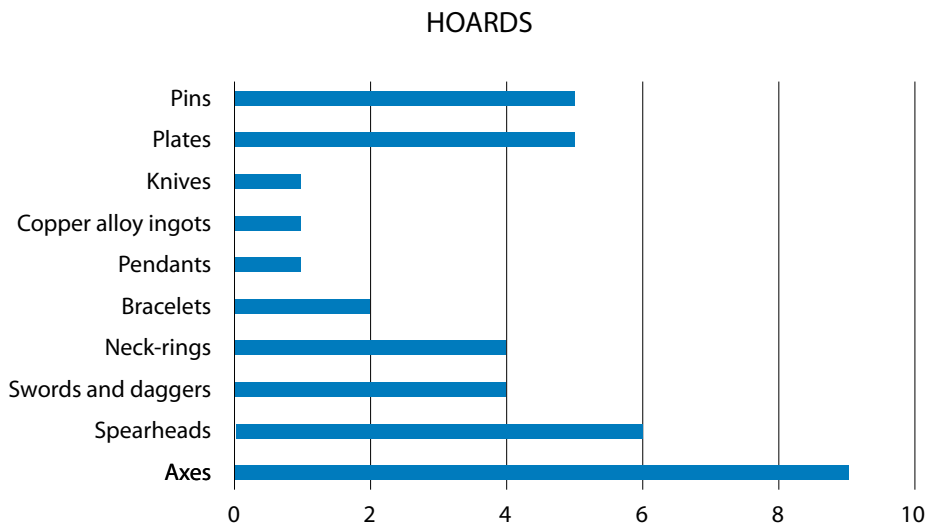


Fig. 9. Bar chart of the composition of EMP hoards (*L. Muradian*)

9 pav. Ankstyvojo metalų laikotarpio lobų sudėties stulpelinė diagrama (*L. Muradian*)

large metal hoards emerged across Europe, serving as an important source for understanding the social processes of the time. Although the number of hoards is lower in the East Baltic region compared to areas nearer to raw material sources such as Britain, Central Europe, and the Iberian Peninsula, the increased deposition of metal objects is especially evident in the LBA (Bradley 2013; Radivojević *et al.* 2019, 217; Pare 2025, 217, fig. 55). Some of these hoards are associated with traders or craftsmen, others with ritual offerings. Even though hoards are usually defined as assemblages of numerous intentionally placed artefacts, it is also possible that a single artefact found in a certain location (e.g., in water bodies, beneath stones) could be the result of intentional deposition (Levy 1982, 4, 13; Harding 2000, 361; Čivilytė 2009).

Nearly 49% (182 artefacts) of all EMP metal finds lack contextual information; most are single artefacts found in various locations. Similarly to hoards, the artefacts most commonly found are axes, representing 70% (127) of EMP metal finds that lack context. Recent finds, along with detailed information about the circumstances of their discovery, enable the analysis of surrounding environments and the identification

of dominant landscape contexts. Based on this data, certain patterns related to findspots can be established.

For this analysis, only artefacts with precise find locations suitable for identifying key landscape elements were selected. In total, 57 findspots and the surrounding natural environments were analysed (Table 3). Over half of the bronze artefacts discovered were found near or within rivers (56%). Finds from recent years also include one artefact recovered from a river (Nevėžis), and several objects found near existing or former lakes, wetlands, and peat bogs (Fig. 10).

The axes found in Ažuoliniai/Zailiai, multiple locations around Biržai, Cigoniškiai, Dabikinė, Daukniškiai, Galkantai (Sirutiškis), Gulbiškiai, Inkūnai, Kadaičiai, Kurmaičiai, Pagėgiai, Paįstrys, Virkščiai, Žadeikiai, and Žemaičių Kalvarija are covered with a brown patina. A similar patina has been observed on several spearheads – one found in Didvyčiai (Jazdaičiai), and another in Vokė. This suggests that these artefacts have been in a wet environment (marsh or wetland) at least for some time.

Some artefacts were found beneath boulders or among stones. Several such finds in western Lithuania may be associated with burial sites, because during

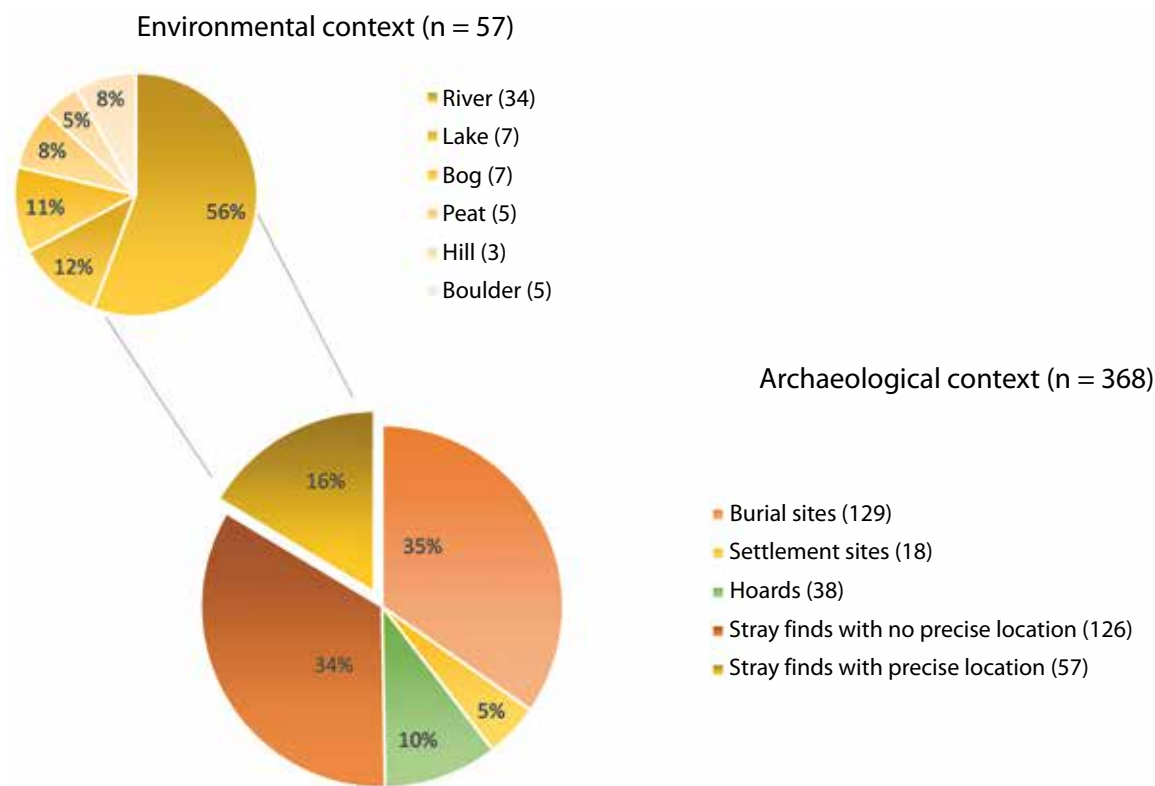


Fig. 10. A contextual diagram for EMP bronze artefacts (*E. Pranckėnaitė*)

10 pav. Ankstyvojo metalų laikotarpio bronzinių dirbinių kontekstų procentinė diagrama (*E. Pranckėnaitė*)

this period large numbers of stones were sometimes used for the construction of barrows. However, the intentional deposition of a single artefact beneath or close to a number of stones without the presence of human remains cannot be ruled out. According to the person who discovered it, a socketed axe from Žadeikiai was found in a “building” made of stones (Merkevičius 2011a, 137–138).

Artefacts found near water bodies (existing or former) can be interpreted threefold:

1) as single deposited objects;

2) as locations associated with disturbed settlements or graves. Most settlements are found near rivers or lakes, and may have flooded or dried up with changing water levels during the period under question. Due to fluctuating water levels, it is difficult to determine exactly when these objects entered the water;

3) as lost items, which may also suggest that the findspot was not the primary location of the artefact.

Even if it is difficult to establish whether a particular artefact was intentionally deposited or simply lost, important data should be taken into account. In waterscape sites, axes and spearheads predominate, and they are also frequently found in hoards (intentionally concealed depositions of items). Meanwhile, no axes or spearheads were found in settlement sites. Pietariai is the only example of an axe as a potential grave good, so the axe or spearhead is clearly not common in graves either (Fig. 11). This pattern of different types of artefacts shows that viewing all stray axes and spearheads as lost items would be incorrect. It is plausible that axes and spearheads were among the metal objects most selectively deposited, whether individually or as part of an assemblage – perhaps with a ritual purpose.

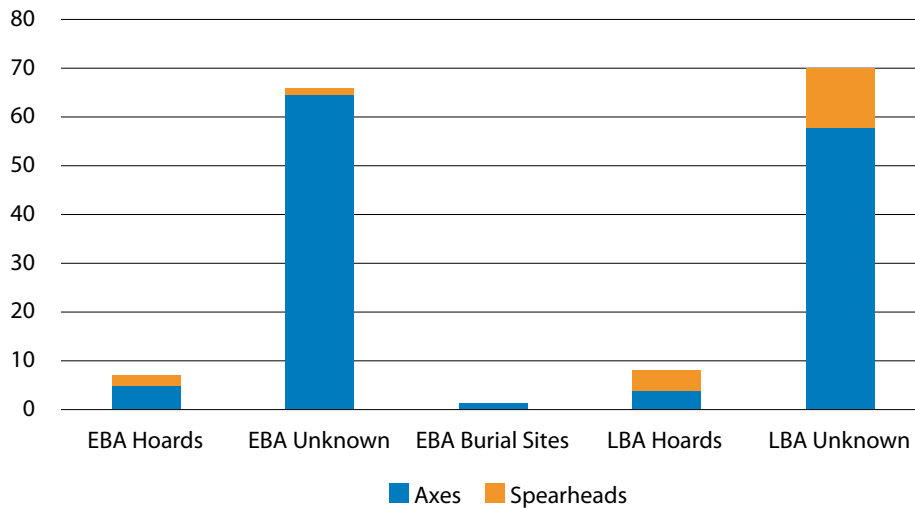


Fig. 11. Bar chart of the find contexts of all bronze axes and spearheads found in Lithuania (*L. Muradian*)
 11 pav. Visų bronzinių kirvių ir ietigalių radimviečių kontekstai (*L. Muradian*)

The analysis of metal items reveals a diverse range of contexts in which they were found and allows for the identification of certain patterns: in graves, ornaments predominate; in settlements, metal casting tools and small metal objects are common; while hoards and stray finds are characterized mainly by axes and spearheads. Although the spread of cremation practices is associated with a reduced number of grave goods, and in some parts of Europe with an increase in the overall number of artefacts deposited, current data from western Lithuania do not show a clear relationship between changing burial customs (adoption of cremation), and depositions of metal artefacts. The abundance of stray finds and their distribution in natural environments, especially near water bodies, suggests deliberate deposition practices. These data indicate that some stray artefacts may be the result of intentional deposition related to BA rituals, may have social significance, or may relate to symbolic landscape features.

ARCHAEOLOGICAL EXCAVATIONS: SEARCHING FOR CONTEXT

Recent bronze artefact finds, along with knowledge of the precise locations of their discovery, provide valuable opportunities to collect additional data through archaeological excavation. Even small-scale investigations in these areas are purposeful, both for informing future research strategies and for gathering contextual information on single bronze items. Between 2021 and 2023, fieldwork was conducted at three sites: 1) Daukniškiai (Biržai municipality); 2) Antaniškiai (Kelmė municipality); and 3) Viekvežiai (Šiauliai municipality) (Pranckėnaitė, Muradian 2022; Muradian 2023; Muradian, Pranckėnaitė 2024) (Fig. 12).

The site of Daukniškiai was selected for archaeological investigation not only because a bronze flanged axe was found in cultivated fields there, but also because numerous individual bronze objects are known in northern Lithuania – particularly in the Biržai region (see Fig. 1). However, so far, no settlements or burial sites dating to the BA have been identified in this area.

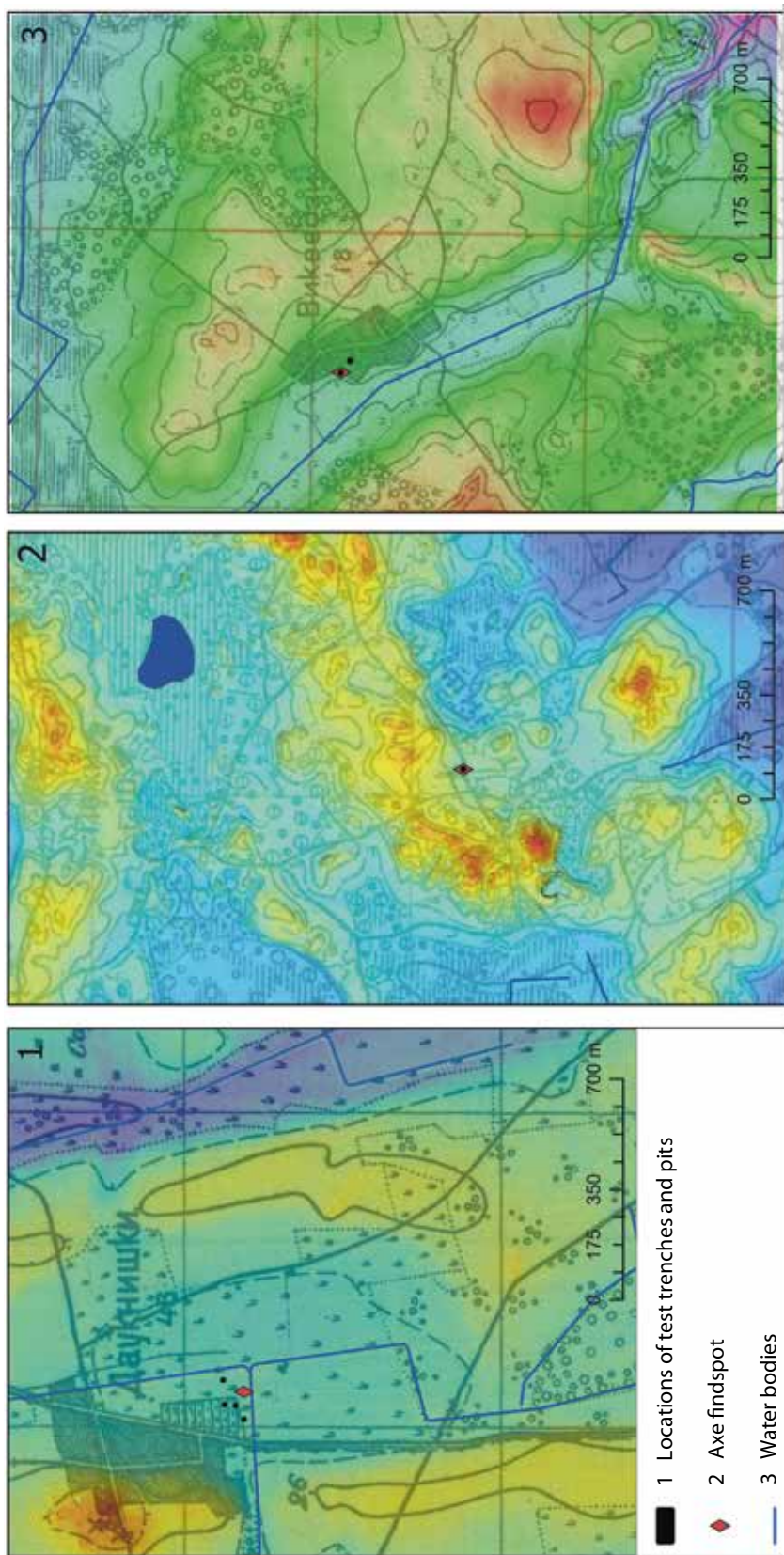


Fig. 12. Plans of archaeological investigation sites: 1. 2021 excavations in Daukniškiai (Biržai District Municipality), at the findspot of a bronze flanged axe. Legend: 1. Locations of test trenches and pits; 2. 2022 excavations in Antaniškiai (Kelmė District Municipality), at the findspot of a Nortycken-type axe; 3. 2023 excavations in Viekšniai (Šiauliai District Municipality), at the findspots of a bronze flanged axe and human remains. The relief base was created based on LiDAR data (Lidar_DR_LT © National Land Service under the Ministry of Environment, 2019–2022) and excerpts from topographic maps of the Russian Empire (1:42000) compiled in 1894–1896. *Compiled by E. Pranckėnaitė.*

12 pav. Archeologinių tyrimų situacijos planai: 1. 2021 m. tyrimai Daukniškiuose (Biržų r. sav.), bronzinio atkraštinio kirvio vietoje; 2. 2022 m. tyrimai Antaniškiuose (Kelmės r. sav.), Nortikenų tipo kirvio vietoje; 3. 2023 m. tyrimai Viekšniuose (Šiaulių r. sav.), bronzinio atkraštinio kirvio ir kaulėlių vietoje. Reljefo pagrindas sukurtas pagal LiDAR duomenis (Lidar_DR_LT © Nacionalinė žemės tarnyba prie Aplinkos ministerijos, 2019–2022 m.) ir carinės Rusijos imperijos topografinių žemėlapių (1:42000), sudarytų 1894–1896 m., iškarpas. *E. Pranckėnaitės brėž.*

In 2021, archaeological excavations and an archaeological survey using a metal detector were carried out. The survey was performed along continuous lines running east–west, with a spacing of 10–15 m and 25–30 m. During these surveys, various metal objects dating to the 20th and 21st centuries were found, including metal fragments, agricultural tool fragments, and ammunition and objects related to the First World War.

During archaeological investigations, five 1 x 1 m test pits were excavated in the southern part of the plot specified as the flanged axe findspot, and approximately 50–80 m to the west, northwest, and northeast of it. The test pits revealed clayey and humus-rich layers without any artefacts or archaeological layers. In the test pit which was excavated at the flanged axe findspot, a late-20th-century drainage pipe was documented.

The investigations at Antaniškiai in 2022 focused on the site where a Nortycken-type axe was discovered. Approximately 250 m southeast of the findspot, a site known as the Rinkšėliai Stone, also called Aukuras or the Great Stone, is preserved. An archaeological survey conducted in 1967 (led by Adolfas Tautavičius) recorded the presence of this stone, a carved stone around 200 m from it, and the “Aukuras burial” – a mound built on a high hill with a diameter of 6 m and a height of approximately 1.5 m. The report states that in this area bronze or brass artefacts were found (though the artefact types are unspecified) and mentions the disturbed Rinkšėliai burial site (further south). However, no traces of burial mounds were identified during the archaeological survey (Tautavičius 1967, 74–75). In 2022, one trench (2 x 3 m) was excavated at the Nortycken-type axe findspot, revealing only natural sandy layers and no archaeological artefacts.

In 2023, archaeological investigations were conducted at Viekvėdžiai. Both a bronze axe and a human skull were found in a cultivated field. Initially, an archaeological survey using metal detectors covering approximately 2.5 hectares was carried out,

resulting in the discovery of metal artefacts dating to the 19th–20th centuries. Additionally, two trenches were excavated, both located in the northern part of the surveyed area, where the bronze axe and human skull were found. In these trenches, only artefacts dating to 19th–20th centuries were found. Radiocarbon dating of the skull fragment indicates that the individual likely lived in the 17th–20th centuries (1667 AD to the present – 95.4%) (149±28 BP) (FTMC–IT59–1).

In the archaeological investigations described above, no BA archaeological layers, graves, or other finds were identified. This suggests that the archaeological layer may have been destroyed – possibly due to ploughing or other land use. Several alternative interpretations can be considered regarding the EBA axes found at Antaniškiai, Daukniškiai, and Viekvėdžiai. These artefacts might have been deposited by accident; however, given their status as distinctive and relatively rare objects likely imported from distant regions of Europe and bearing in mind that stray artefacts comprise nearly half of all metal artefacts from the EMP, it seems unlikely that such a large number would simply be lost. For this reason, another plausible interpretation involves the ritual practice of depositing objects, which is widespread around Europe. When supported solely by archaeological data, is difficult to confirm this conclusively. In this case, analyzing the natural environment of the findspots – such as by considering nearby water bodies, streams, or lakes – is essential.

The most definitive way to address this question would be through geological investigations. Additionally, valuable insights can be gleaned from: historical maps from the 19th–20th centuries which depict peatlands, wetlands, and river courses before drainage; a map of bogs provided by the Lithuanian Geological Survey; and digital LiDAR survey point data. By integrating these sources, it has been established that the sites where the EBA axes were found correspond to specific natural environments that can be reconstructed.

South of Daukniškiai, towards the Rovėja River, boggy areas are documented (Fig. 12:1). Maps from the 19th century show that prior to drainage, the site where the axe was found was lower-lying in topographic terms, and was marked as a marsh or wet meadow. The canal crossing this plain was constructed between 1943 and 1950, based on the analysis of older maps. The 1943 map indicates a small, unnamed stream – a tributary of the Aukštoji Gervė River – which terminates near the central part of the plot where the axe was discovered. While the axe is covered with a dark brown patina, earlier maps do not show the presence of larger water bodies at the findspot; however, 19th-century maps mark the area as a wetland. It might be that the environment in the BA was different to what it is today, and earlier maps also confirm this; therefore, the axe could have been deposited in a water body. Currently, the immediate vicinity of the find is relatively flat, with an elevation ranging from 51.9 to 52.4 meters a.s.l.

At Antaniškiai, where a Nortycken-type axe was discovered, the landscape has been substantially altered (Fig. 12:2). To the west of the findspot lie higher and lower peatlands – reclaimed wetlands collectively known as the Šiluva wetland. In the past, this area may have hosted a lake surrounded by higher ground. To the north of the site, the small Pėžai Lake remains, which, based on the topography and the surrounding undefined marshland, likely formed a larger water body in the past. To the south, there is one small, partially drained stream – Luknė – and several drainage canals. The axe itself was found on the slope of a hill, where the terrain rises further to the north; this elevated area is approximately 300 m wide and stretches for around 2 km. To the south, several smaller hills are present, on one of which remains a large stone measuring roughly 5.5 x 5 m and reaching up to 1.5 m high, known as Aukuras or the Great Stone (preserved as the Rinkšelių Stone). Therefore, the environmental context of the Nortycken-type axe indicates that it was found on the slope

of a hill surrounded by lakes, suggesting a landscape characterized by water bodies and elevated terrain.

At the site of Viekvedžiai (Šiauliai municipality), where the landscape has been significantly transformed by drainage works – specifically, the excavation of a drainage canal – topographic maps record a marshy/wetland depression (Fig. 12:3). Based on data analysis, the findspot of the axe was most likely situated on the slope of a hillock, near the later drainage canal.

Following at least the preliminary reconstruction of the environment based on topographical maps created before large-scale drainage works and LiDAR data, the findspots of these bronze axes are traceable to wetland areas or to hill slopes adjacent to historically documented marshy areas marked on 19th-century maps. Unfortunately, without comprehensive geological investigations, it remains unclear whether such environmental conditions persisted during the period under study – that is, during the EBA.

CONCLUSIONS

1. In just over a decade, the list of the earliest metal objects found in Lithuania has been supplemented with 22 new bronze artefacts. Of these, 8 were discovered during archaeological excavations, 1 during a survey by a metal detecting club, and 13 as accidental finds or while searching with metal detectors. Among the newly found bronze artefacts, axes predominate, along with several spearheads and other types of objects. Based on their typology and dating: 10 artefacts are attributed to the EBA, 7 to the LBA, 3 to the transitional period between LBA and the PRIA, 1 to the PRIA, and the precise dating of 1 artefact remains uncertain.

2. The analysis of the contexts of all EMP metal objects (a total number of 368) reveals distinct distribution patterns: the largest portion – 49% – were found in unknown contexts; around one-third (35%) were located in graves; approximately 10% could be

interpreted as hoards; and the remaining 5% were discovered within archaeological layers in settlements. Each group exhibits characteristic features: settlement finds mainly include small ornaments or copper alloy artefacts and items related to bronze casting, such as casting moulds and crucibles; burials predominantly include ornaments; while hoards are mostly distinguished by weapons – axes and spearheads, which are often also found as stray finds near or within current or former rivers and lakes. Only during the LBA do more ornaments appear in hoards.

3. Large hoards of bronze artefacts appeared in Europe during the BA: some were found in water bodies, while others were located beneath stones or in specially prepared sites. Typically, hoards consist of several dozen objects, which are interpreted as deposits of sacrificed or hidden artefacts. It is also plausible that single artefacts could be regarded as hoards, having been deliberately deposited or concealed. Confirming such an interpretation is challenging, as there always remains the possibility that these are lost items or artefacts from previously destroyed settlements and burial sites. However, it is not possible to attribute all stray finds from Lithuania (comprising approximately half of all EMP metal artefacts) to the group of lost items or destroyed archaeological sites, as the types of artefacts found in different contexts and their characteristic natural environments are clearly distinguishable. This study shows that in Lithuania, some stray artefacts, especially axes and spearheads, may be interpreted as having been intentionally concealed near or within water bodies.

4. The spatial analysis of sites in western Lithuania did not confirm a direct relationship between the change of funeral customs and an increased number of hoards or single finds in the surrounding area. Although some metal artefacts have been discovered near burial sites, existing data are too fragmentary to establish clear patterns or trends.

5. In the future, it is advisable to focus on analyses of microregions and conduct detailed archaeological

and paleoenvironmental studies of individual cases. Such an approach could facilitate a deeper understanding of each specific context and enable the formulation of interpretations tailored to small-scale areas. This might allow for the identification of local variations and changes over time, as well as insights into the depositional phenomena of artefacts and their variability across different microregions.

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ABBREVIATIONS:

- a.s.l. – above sea level
 BA – Bronze Age
 EBA – Early Bronze Age
 EMP – Early Metal Period
 KKM – Kėdainiai Regional Museum
 LBA – Late Bronze Age
 LIIR – Manuscript archive of Lithuanian Institute of History
 LNM – National Museum of Lithuania
 LNMPASA – National Museum of Lithuania Pre-historic archaeology Department archive
 MP – Montelius period
 NM – Nalšia Museum
 PAK – Museum of Pasvalys Region
 PRIA – Pre-Roman Iron Age
 PSDG – Papilė Simonas Daukantas Gymnasium (Akmenė district)
 RIA – Roman Iron Age
 ŠAM – Šiauliai “Aušros” Museum

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Tables

No.	Location	Municipality	Artefact	Type	Description	Inv. No	References
1	Antaniškiiai	Kelmė	Axe	Nortyczen	Length – 17 cm, butt width – 2.6 cm, thickness – 1.2 cm, cutting edge width – 3.5 cm, shaft-hole inner diameter – 1.9 cm	ŠAM	This study
2	Bėlis	Švenčionys	Pin	Shepherd's crook	Length – 9 cm, head diameter – 1.4 cm, shaft diameter – 2.5 mm.	NM	Kraniauskas <i>et al.</i> 2024
3	Bunikiiai (?)	Šakiai	Spearhead	Socketed	Partial. Length – 8.1 cm, blade length – 3.6 cm, width – 1.8 cm, socket diameter – 2.0 cm, weight – 31.1 g	LNM, AR 1052:1	This study
4	Cigoniškiiai	Alytus	Chisel	Socketed	Partial. Length – 6.9 cm, cutting edge width – 1.7 cm, socket diameter – 2.2x1.5 cm; weight – 58.7 g	LNM	Žemantauskaitė, Fedajjevas 2018
5	Cigoniškiiai	Alytus	Axe	Palstave	Partial. Length – 7.5 cm, width (haft) – 2.5 cm, width (cutting edge) – 3.7 cm, flange length – 3.3 cm, height – 0.5 cm; weight – 182.2 g	LNM	This study
6	Daukniškiiai	Biržai	Axe	Flanged, Eastern Baltic region type	Length – 15.1 cm, cutting edge width – 10.8 cm, cutting edge length – 7.5 cm, haft length – 8.0 cm, haft width – 2.2 cm, flange height – 0.9–1 cm, thickness – 0.6 cm, weight – 47.3 g.	LNM, AR 1024:1	Pranckėnaitė, Muradian 2022
7	Galkantiai (Sirutiškis)	Kėdainiai	Axe	Flanged, Eastern Baltic region type	Length – 13.8 cm; cutting edge width – 8.6 cm, length – 6.3 cm, thickness – 0.8 cm; flange length – 5.7 cm, height – 0.8 cm, thickness – 0.5 cm, weight – 420.9 g.	LNM, AR 1048:1	This study
8	Garniai I	Utena	Plate with two oval holes along edges		Diameter – 30x32 mm, weight – 5.1 g	LNM	Gaižauskas <i>et al.</i> 2022
9	Garniai I	Utena	Plate fragment		Diameter – 22x29 mm, weight – 2.7 g		
10	Kupščiai	Raseiniai	Spearhead	Socketed, Lusatian type	Length – 15.8 cm, blade length – 9.0 cm, socket diameter – 2.2 cm, weight – 89.99 g	LNM, AR 1046:1	This study
11	Mineikiškės	Zarasai	Spiral		Diameter – 1.2–1.3 cm, thickness – 0.3 cm, weight – 1 g	LNM, AR 1045:15	Podėnas 2018
12	Netičkampis	Marijampolė	Axe	Flanged, Eastern type	Length – 13.2 cm, cutting edge width – 7.2 cm, flange length – 7.4 cm, flange height – 0.4 cm, haft width – 2.2 cm, weight – 251.25 g	LNM, AR 1028:1	This study
13	Netičkampis	Marijampolė	Axe	Socketed, Illischen type	Length – 11.6 cm, cutting edge width – 5.0 cm, side loop length – 2.7 cm, side loop diameter – 1 cm, socket diameter – 3.3 cm	LNM, AR 1028:2	This study

No.	Location	Municipality	Artefact	Type	Description	Inv. No	References
14	Padauguva	Kaunas	Axe	Flanged	Length – 8.81 cm; cutting edge width – 3.9 cm, weight – 88 g	LNM, AR 1035:1	This study
15	Papilė surroundings (?)	Akmenė	Spearhead	Socketed	Length – 12 cm, blade length – 6.2 cm, socket diameter – 2.0x2.3 cm, weight – 76.2 g	PSDG	This study
16	Suginčiai	Akmenė	Axe	Socketed	Partial. Length – 4.5 cm, cutting edge width – 4.9 cm, weight – 82.4 g	LNM, AR 1051:1	Petrauskas <i>et al.</i> 2019
17	Šakarniai	Pasvalys	Axe	Flanged	Partial. Length – 6 cm, width – 4.8 cm, thickness – 8 mm, weight – 90.06 g	PAK	Vasiliauskas 2023
18	Širvydai	Marijampolė	Spearhead	Socketed	Length – 13 cm, blade width – 3.0 cm, socket diameter – 1.9 cm	LNM, AR 1008:1	This study
19	Viekvedžiai	Šiauliai	Axe	Flanged, Eastern type	Length – 10.8 cm, cutting edge width – 6 cm, flange length – 6.7 cm, flange height – 0.5 cm, flange thickness – 0.5 cm, haft width – 2.1 cm, weight – 192.96 g	LNM, AR 1032:1	Muradian, Pranckėnaite 2023
20	Vilnius, Klaipešos str. 7A	Vilnius city	Spearhead	Socketed	Length – 7.5 cm, blade length – 4.6 cm, socket diameter – 1.7 cm, weight – 20.9 g	LNM, AR 1047:1	Kliaugaitė <i>et al.</i> 2012
21	Virksčiai	Ukmergė	Axe	Palstave	Partial. Length – 8.96 cm, cutting edge width – 4.97 cm, flange height – 0.5 cm, flange thickness – 0.7 cm, haft width – 2.3 cm, weight – 200 g	LNM, AR 1041:1	Dakanis, Vitkūnas 2018
22	Žeguniai	Kėdainiai	Axe	Flanged	Partial. Width – 37–43 mm, length – 42.5 mm, thickness – 6–9 mm, weight – 78.49 g	KKM, No. 2486	Petukauskas 2023

Table 1. Bronze artefacts found in Lithuania from 2011 to 2024. I lentelė. 2011–2024 m. Lietuvoje rasti bronziniai dirbiniai.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
1.	Akmenė	Akmenė	Unknown	Socketed spearhead	BA? ³	Merkevičius 2011a, 13, No 1
2.	Alytus	Alytus	Hoard?	Socketed spearhead	V MP ⁴	Merkevičius 2011a, 13, No 2; Čivilytė <i>et al.</i> 2023, 630, Table 1, No 22
3.	Alytus	Alytus	Hoard?	Knife	LBA	Grigalavičienė 1995, 162; Merkevičius 2011a, 13–14, No 3
4.	Ankštakiai	Kretinga	Unknown	Spiral-head pin	VI MP–PRIA	Григалавичене, Мяркявичюс 1980, 66, No 6; Merkevičius 2011a, 14, No 4
5.	Antalgė	Utena	Burial site?	Temple ornament	VI MP	Григалавичене, Мяркявичюс 1980, 66, No 7; Merkevičius 2011a, 14–15, No 5
6.	Antalgė	Utena	Burial site?	Temple ornament	VI MP	Григалавичене, Мяркявичюс 1980, 66, No 8; Merkevičius 2011a, 15, No 6
7.	Antaniškiai	Kelmė	Unknown	Nortycken-type axe	III MP	This study
8.	Apuolė	Skuodas	Unknown	Axe	BA? ⁵	Merkevičius 2011a, 16, No 7
9.	Ariogala	Raseiniai	Unknown	Nortycken-type axe	III MP	Merkevičius 2011a, 16, No 8
10.	Ažuoliniai / Žailiai	Alytus	Unknown	Flanged axe	III MP	Merkevičius 2008, 100; Merkevičius 2011a, 16–17, No 9
11.	Babtai surroundings	Kaunas	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 67, No 11; Čivilytė, Mödlinger 2010, 148, No. 12; Merkevičius 2011a, 17–18, No 10
12.	Babtai surroundings	Kaunas	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 67, No 12; Merkevičius 2011a, 18, No 11
13.	Baisogala	Radviliskis	Unknown	Flanged axe	III MP	Merkevičius 2011a, 19, No 12
14.	Bajorai	Kretinga	Unknown	Bracelet	III MP	Merkevičius 2011a, 19, No 13; Stöckmann <i>et al.</i> 2021, 231, No 373.1
15.	Bajorai	Kretinga	Unknown	Bracelet	III MP	Merkevičius 2011a, 19–20, No 14; Stöckmann <i>et al.</i> 2021, 231, No 373.2
16.	Bajorai	Kretinga	Unknown	Pin with a swan's neck-shaped head	EBA–LBA	Merkevičius 2011a, 20, No 15; Stöckmann <i>et al.</i> 2021, 231, No 373.3

² The references mostly include catalogue (published in 2011) and works on which the proposed dating of the artefact is based.

³ The dating is unclear, as the literature only mentions that the artefact was found at the Akmenė Cement Factory, without providing further details or any illustrations (see Grigalavičienė 1974, 212, No. 1; Григалавичене, Мяркявичюс 1980, 66, No. 1).

⁴ In previously published literature also dated to the VI MP (Grigalavičienė 1995, 162; Čivilytė 2009, 617, No 3014).

⁵ One of the earliest mentions of this axe appears in Petras Tarasenkās 1928 book, which states that a bronze axe was found at the hillfort (1928, 96). However, no illustration or additional details were provided. Moreover, the location of the artefact's storage (museum) is unknown. For this reason, the dating of the artefact remains uncertain.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
17.	Vajoriškaiai	Panevėžys	Unknown	Neck-ring, hoof-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 67, No 16; Merkevičius 2011a, 20, No 16
18.	Balsupiai	Marijampolė	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 67, No 17; Merkevičius 2011a, 21, No 17
19.	Bandužiai	Klaipėda city	Unknown	Sword (partial)	III MP	Merkevičius 2011a, 21, No 18; Čivilytė 2009, 617, No 3015
20.	Baudėjos	Prienai	Hoard	Spiral bracelet	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 18; Merkevičius 2011a, 21, No 20
21.	Baudėjos	Prienai	Hoard	Spiral bracelet	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 19; Merkevičius 2011a, 22, No 21
22.	Baudėjos	Prienai	Hoard	Pendant	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 25; Merkevičius 2011a, 22, No 27
23.	Baudėjos	Prienai	Hoard	Copper alloy ingot	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 68, No 27; Merkevičius 2011a, 22, No 28
24.	Baudėjos	Prienai	Hoard	Plate	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 21; Merkevičius 2011a, 22–23, No 22
25.	Baudėjos	Prienai	Hoard	Plate	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 22; Merkevičius 2011a, 23, No 23
26.	Baudėjos	Prienai	Hoard	Plate	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 23; Merkevičius 2011a, 23, No 24
27.	Baudėjos	Prienai	Hoard	Plate	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 24; Merkevičius 2011a, 23, No 25
28.	Baudėjos	Prienai	Hoard	Plate	VI MP – the beginning PRIA	Григалавичене, Мяркявичюс 1980, 68, No 26; Merkevičius 2011a, 24, No 26

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
29.	Baudėjos	Prienai	Hoard	Spiral-head pin	VI MP - the beginning PRIA	Григалавичене, Мяркявичюс 1980, 67, No 18; Merkevičius 2011a, 24, No 19
30.	Benaičiai	Kretinga	Settlement	Spiral	LBA- PRIA	Merkevičius 2011a, 25, No 29
31.	Bėlis	Švenčionys	Settlement	Shepherd's crook pin	PRIA	Krajauskas <i>et al.</i> 2024, 68, 74
32.	Bilioniai	Šilalė	Unknown	Socketed spearhead	VI MP	Григалавичене, Мяркявичюс 1980, 68, No 29; Čivilytė 2009, 617, No 3016; Merkevičius 2011a, 25, No 30
33.	Biržai surroundings	Biržai	Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 68, No 30; Merkevičius 2011a, 25–26, No 31
34.	Brakšiai	Biržai	Unknown	Socketed axe	LBA; ⁶	Merkevičius 2011a, 26, No 32
35.	Bulėnai	Šiauliai	Unknown	Flanged axe	II MP	Григалавичене, Мяркявичюс 1980, 68, No 32; Merkevičius 2011a, 26–27, No 33
36.	Bumikiai (?)	Šakiai	Unknown	Socketed spearhead	II–VI MP	This study
37.	Butniūnai	Joniškis	Unknown	Axe, Palstave	II MP	Григалавичене, Мяркявичюс 1980, 68, No 33; Merkevičius 2011a, 27, No 34
38.	Cigoniškiai	Alytus	Unknown	Chisel	IV–V MP	Žemantauskaitė, Fedajevas 2018, 596
39.	Cigoniškiai	Alytus	Unknown	Axe, Palstave	III–IV MP	This study
40.	Čekonys or Meldučiai	Anykščiai	Unknown	Dagger	I–II MP	Merkevičius 2011a, 27, No 35; Merkevičius 2011b, 158–162
41.	Čepukai	Ignalina	Unknown	Axe, Palstave	II MP	Merkevičius 2011a, 28, No 36
42.	Dabikinė	Akmenė	Unknown	Flanged axe	III MP	Merkevičius 2011a, 28–29, No 37
43.	Daugirdai	Raseiniai	Unknown	Socketed axe	V or VI MP	Григалавичене, Мяркявичюс 1980, 68, No 50; Merkevičius 2011a, 29, No 38; Čivilytė <i>et al.</i> 2023, 630, table 1, No 9
44.	Daukniškiai	Biržai	Unknown	Flanged axe	III MP	Pranckėnaitė, Muradian 2022
45.	Didkiemis	Šilalė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 68, No 52; Čivilytė, Mödinger 2010, 147, No 8; Merkevičius 2011a, 29–30, No 39
46.	Didvyčiai (Jazdaičiai)	Plungė	Unknown	Socketed spearhead (part)	VI MP	Čivilytė 2009, 617, No 3018; Merkevičius 2011a, 30–31, No 40
47.	Dovilai	Klaipėda	Unknown	Casting mould	II–III MP	Čivilytė 2004; Merkevičius 2011a, 31, No 41

⁶ The dating of the artefact is unclear, as it is not preserved in museum and no publications provide photographs or detailed descriptions of it.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
48.	Drobūškiai	Šilalė	Unknown	Socketed spearhead	V-VI MP	Григалавичене, Мяркявичюс 1980, 68, No 53; Čivilytė 2009, 617, No 3019; Merkevicius 2011a, 31, No 42
49.	Druskinkai	Druskinkai	Unknown	Arrowhead	IV-VI MP	Merkevicius 2011a, 31-32, No 43
50.	Dusia	Lazdijai	Settlement	Spiral	EBA	Merkevicius 2011a, 32, No 44; Juodagalvis 2018, 814
51.	Ėgliškiai	Klaipėda	Burial site	Temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 192; Merkevicius 2011a, 32, No 45
52.	Ėgliškiai	Klaipėda	Burial site	Pin, ring-shape head	PRIA	Merkevicius 2011a, 32-33, No 46
53.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 197-227; Merkevicius 2011a, 33-34, No 47
54.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 234; Merkevicius 2011a, 34, No 48
55.	Ėgliškiai	Klaipėda	Burial site	Unidentified	PRIA	Merkevicius 2011a, 34, No 49
56.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 194; Merkevicius 2011a, 35, No 50
57.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 195; Merkevicius 2011a, 35, No 51
58.	Ėgliškiai	Klaipėda	Burial site	Neck-ring, tapered terminals	PRIA	Григалавичене, Мяркявичюс 1980, 84, No. 232; Merkevicius 2011a, 35, No 52
59.	Ėgliškiai	Klaipėda	Burial site	Spiral ring	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 235; Merkevicius 2011a, 35-36, No 53
60.	Ėgliškiai	Klaipėda	Burial site	Spiral bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 228; Merkevicius 2011a, 36, No 54
61.	Ėgliškiai	Klaipėda	Burial site	Spiral bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 84-85, No 233; Merkevicius 2011a, 36-37, No 55
62.	Ėgliškiai	Klaipėda	Burial site	Disc temple ornament	PRIA	Merkevicius 2011a, 37, No 56
63.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 237; Merkevicius 2011a, 37, No 57
64.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 239; Merkevicius 2011a, 37-38, No 58
65.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 38, No 59
66.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 38-39, No 60
67.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Merkevicius 2011a, 39, No 61
68.	Ėgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 241; Merkevicius 2011a, 39, No 62

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
69.	Ėgliškiai	Klaipėda	Burial site	Raw material (?), small stick shape	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 241; Merkevicius 2011a, 39–40, No 63
70.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 40, No 64
71.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 40–41, No 65
72.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 41, No 66
73.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 41, No 67
74.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 41–42, No 68
75.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 42, No 69
76.	Ėgliškiai	Klaipėda	Burial site	Unidentified	PRIA	Merkevicius 2011a, 42, No 70
77.	Ėgliškiai	Klaipėda	Burial site	Pin	PRIA	Григалавичене, Мяркявичюс 1980, 85, No 245; Merkevicius 2011a, 42–43, No 71
78.	Ėgliškiai	Klaipėda	Burial site	Spiral bracelet	PRIA	Григалавичене, Мяркявичюс 1980, 85–86, No 250; Merkevicius 2011a, 43, No 72
79.	Ėgliškiai	Klaipėda	Burial site	Neck-ring, hoof-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 86, No 251; Merkevicius 2011a, 44, No 73
80.	Ėgliškiai	Klaipėda	Burial site	Unidentified	PRIA	Григалавичене, Мяркявичюс 1980, 86, No 252; Merkevicius 2011a, 44, No 74
81.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 44–45, No 75
82.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 45, No 76
83.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 45–46, No 77
84.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 46, No 78
85.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 46, No 79
86.	Ėgliškiai	Klaipėda	Burial site	Disc temple ornament	PRIA	Merkevicius 2011a, 47, No 80
87.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 47, No 81
88.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 47–48, No 82
89.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 48, No 83
90.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 48–49, No 84
91.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 49, No 85
92.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 49, No 86
93.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevicius 2011a, 50, No 87
94.	Ėgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 86, No 266; Merkevicius 2011a, 50, No 88

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
95.	Ēgliškiai	Klaipėda	Burial site	Spiral temple ornament	PRIA	Merkevičius 2011a, 50–51, No 89
96.	Ēgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Merkevičius 2011a, 51, No 90
97.	Ēgliškiai	Klaipėda	Burial site	Neck-ring	PRIA	Григалавичене, Мяркявичюс 1980, 86, No 268; Merkevičius 2011a, 51, No 91
98.	Ēgliškiai	Klaipėda	Burial site	Spiral-head pin	PRIA	Григалавичене, Мяркявичюс 1980, 87, No 269; Merkevičius 2011a, 52, No 92
99.	Ēgliškiai	Klaipėda	Burial site	Knife	PRIA	Merkevičius 2011a, 52, No 93
100.	Ēgliškiai	Klaipėda	Burial site	Unidentified	PRIA?	Merkevičius 2011a, 52–53, No 94
101.	Ēgliškiai	Klaipėda	Burial site	Brooch (crossbow type)	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 229; Merkevičius 2011a, 53, No 95
102.	Ēgliškiai	Klaipėda	Burial site	Brooch (crossbow type)	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 230; Merkevičius 2011a, 53, No 96
103.	Ēgliškiai	Klaipėda	Burial site	Shepherd's crook pin	PRIA	Григалавичене, Мяркявичюс 1980, 84, No 231; Merkevičius 2011a, 53, No 97
104.	Ēgliškiai	Klaipėda	Burial site	Bracelet	PRIA	Merkevičius 2011a, 53–54, No 98
105.	Gailūnai	Šiauliai	Unknown	Axe, Palstave	III or IV MP	Григалавичене, Мяркявичюс 1980, 69, No 40; Merkevičius 2011a, 54, No 99; Čivilytė <i>et al.</i> 2023, 630, table 1, No 17
106.	Gailūnai / Gataučiai	Šiauliai/Ioniškis	Unknown	Axe, Palstave	III or IV MP	Григалавичене, Мяркявичюс 1980, 69, No 43; Merkevičius 2011a, 54–55, No 100; Čivilytė <i>et al.</i> 2023, 630, table 1, No 11
107.	Galkantai / Sirutiškis	Kėdainiai	Unknown	Flanged axe	III MP	This study
108.	Gargzdai surroundings	Klaipėda	Unknown	Axe	BA?	Merkevičius 2011a, 55, No 101
109.	Garniai I	Utena	Settlement	Plate with two oval holes on edges	VI MP	Podėnas 2024, 182–183
110.	Garniai I	Utena	Settlement	Plate with two oval holes on edges	VI MP	
111.	Gedminai	Klaipėda	Hoard	Socketed spearhead	III MP	Григалавичене, Мяркявичюс 1980, 70, No 44; Merkevičius 2011a, 55, No 102
112.	Gedminai	Klaipėda	Hoard	Socketed spearhead	III MP	Григалавичене, Мяркявичюс 1980, 70, No 45; Merkevičius 2011a, 55, No 103

⁷ Earlier literature mentions that a BA axe was found in the surroundings of Gargzdai. However, its chronology is unclear, as the storage location (museum) is unknown and no detailed information or illustrations have been published (Grigalavičienė 1974, No 26).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
113.	Gedminai	Klaipėda	Hoard	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 70, No 46; Merkevičius 2011a, 55–56, No 104
114.	Gembūtės	Akmenė	Unknown	Sickle	V MP	Григалавичене, Мяркявичюс 1980, 70, No 47; Merkevičius 2011a, 56, No 105
115.	Genčiai	Kretinga	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 70, No 48; Merkevičius 2011a, 56–57, No 106
116.	Gerduvėnai	Klaipėda	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 87, No 280; Merkevičius 2011a, 57, No 107
117.	Grabiai ⁸	Klaipėda	Unknown	Spiral-head pin	VI MP	Merkevičius 2011a, 57, No 108
118.	Gribžiniai	Klaipėda	Unknown	Socketed spearhead	I MP ⁹	Merkevičius 2011a, 57–58, No 109
119.	Gulbiškiai	Šilalė	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 58, No 110
120.	Gulbiškiai	Šilalė	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 58, No 111
121.	Guzeliai	Vilkaviškis	Unknown	Flanged axe	I–II MP	Merkevičius 2011a, 59–60, No 112
122.	Inkūnai / Veiteliai	Biržai / Skuodas	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 71, 72, No 59; Merkevičius 2011a, 60, No 113
123.	Jomantoniai	Pakruojis	Unknown	Socketed axe	LBA? ¹⁰	Merkevičius 2011a, 60, No 114
124.	Juodkrantė surroundings	Neringa	Unknown	Socketed spearhead	VI MP	Григалавичене, Мяркявичюс 1980, 75, No 91; Čivilytė 2009, 618, No 3022; Merkevičius 2011a, 61, No 115
125.	Kadaičiai	Plungės	Unknown	Socketed axe	V–VI MP	Merkevičius 2011a, 61, No 116
126.	Kalbutiškės	Zarasai	Unknown	Axe, Akozino-Málar-type	V MP	Merkevičius 2011a, 61–62, No 117; Čivilytė <i>et al.</i> 2024
127.	Kalgraužiai	Kretinga	Unknown	Socketed axe	IV MP	Merkevičius 2011a, 62, No 118
128.	Kalniškiai (II?)	Raseiniai	Unknown	Bracelet	V MP	Merkevičius 2011a, 63, No 119; Čivilytė <i>et al.</i> 2023, 630, table 1, No 26
129.	Kalotė	Klaipėda	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 72, 66; Merkevičius 2011a, 63, No 120

⁸ Recent research notes a spiral-head pin from Grebietensche Palwe (former East Prussia, present-day Kaliningrad) (Stöckmann *et al.* 2021, 176, No. 77). It matches the drawing of the Grabiai pin (see Merkevičius 2011a, pav. 92; Stöckmann *et al.* 2021, taf. 58:469). This drawing was used by Bezzenberger (1904, taf. 55), and later by Gaerte (1929, taf. 73-a). This suggests the pin was discovered not in Grabiai (Klaipėda municipality), but in Grebietensche Palwe, Kr. Fischhausen. For this reason, this artefact was not included in contextual analysis.

⁹ In previous literature the spearhead was dated to the II MP (Čivilytė *et al.* 2023, 629, table 1, No 1) or III MP (Григалавичене, Мяркявичюс 1980, 70, No 49; Čivilytė 2009, 617, 618, No 3021). This artefact belongs to the Sejma-Turbino cultural tradition, and on the basis of new ¹⁴C dates from several cemeteries belonging to this culture (see Chernykh *et al.* 2017), the spearhead should be considered earlier than previously thought, and belong to the I MP.

¹⁰ Due to the lack of data (the artefact has not been preserved, and there are no drawings or photographs), its dating is uncertain.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
130.	Kalviškiai	Šiauliai	Hoard	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 72, No 63; Čivilytė, Mödinger 2010, 146, No 3; Merkevičius 2011a, 63–64, No 121
131.	Kalviškiai	Šiauliai	Hoard	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 72, No 64; Čivilytė, Mödinger 2010, 146, No 4; Merkevičius 2011a, 64, No 122
132.	Karužai	Lazdijai	Unknown	Bracelet	PRIA	Merkevičius 1987; Merkevičius 2011a, 65, No 123
133.	Kašėtos	Varėna	Unknown	Flanged axe	I MP	Григалавичене, Мяркявичюс 1980, 72, 73; No 67; Merkevičius 2011a, 66, No 124
134.	Kašėtos	Varėna	Unknown	Flanged axe	I MP	Григалавичене, Мяркявичюс 1980, 73, No 68; Merkevičius 2011a, 66, No 125
135.	Kašėtos	Varėna	Unknown	Flanged axe	I MP	Merkevičius 2011a, 66–67, No 126
136.	Kazliškiai	Marijampolė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 72, No 61; Čivilytė, Mödinger 2010, 147, No 9; Merkevičius 2011a, 67, No 127; Čivilytė <i>et al.</i> 2023, 630, Table 1, No 18
137.	Kereliai	Kupiškis	Settlement	Double spiral pendant	end of LBA – PRIA	Grigalavičienė 1992, 91; Merkevičius 2011a, 154, No 344
138.	Kereliai	Kupiškis	Settlement	Bracelet	PRIA – RIA ¹¹	Grigalavičienė 1992, 94; Merkevičius 2011a, 154, No 345
139.	Kereliai	Kupiškis	Settlement	Bracelet (?)	PRIA – RIA ¹¹	Grigalavičienė 1992, 94; Merkevičius 2011a, 154–155, No 346
140.	Kernavė (Mitkiškiai)	Širvintai	Burial site (?)	Unidentified ¹²	end of LBA – PRIA	Merkevičius 2011a, 67–68, No 128
141.	Kernavė (Mitkiškiai)	Širvintai	Burial site (?)	Ring	end of LBA – PRIA	Merkevičius 2011a, 68, No 129
142.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Spiral temple ornament	end of LBA – PRIA ¹³	Luchtanas 1992, 106; Merkevičius 2011a, 68, No 130

¹¹ The bracelets may be dated to a broader period, not only to the PRIA, but also to the RIA, since they were found in the layer together with artefacts characteristic of the RIA (Grigalavičienė 1992, 92–97).

¹² Only a very small piece has been preserved (2.5 cm in length). According to some literature, it could be attributed as an axe cutting edge (?) (Merkevičius 2011a, 67–68, No 128)

¹³ The dating of this cemetery is also based on a C-14 date from a cremation grave in an urn (Piličiauskas 2012, 13).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
143.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Spiral-head pin	end of LBA – PRIA	Luchtanas 1992, 106; Merkevičius 2011a, 69, No 131
144.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Spiral	end of LBA – PRIA	Luchtanas 1990, 194; Merkevičius 2011a, 69, No 132
145.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Loops	end of LBA – PRIA	Luchtanas 1992, 106; Merkevičius 2011a, 69–70, No 133
146.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Loop	PRIA	Luchtanas 1992, 106; Merkevičius 2011a, 70, No 134
147.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Spiral temple ornament	end of LBA – PRIA	Luchtanas 1994, 159; Merkevičius 2011a, 70–71, No 135
148.	Kernavė (Mitkiškiai)	Širvintai	Burial site	Loops	end of LBA – PRIA	Luchtanas 1994, 159; Merkevičius 2011a, 71, No 136
149.	Kirkilai	Biržai	Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 73, No 69; Merkevičius 2011a, 71–72, No 137
150.	Klaipėda	Klaipėda city	Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 73, No 70; Merkevičius 2011a, 72, No 138
151.	Klaipėda	Klaipėda city	Unknown	Socketed axe	LBA? ¹⁴	Merkevičius 2011a, 72, No 139
152.	Krakės	Kėdainiai	Unknown	Flanged axe	II MP	Merkevičius 2011a, 72–73, No 140
153.	Kreivoji	Kalvarija	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 73, No 72; Merkevičius 2011a, 73, No 141
154.	Kretingalė	Klaipėda	Burial site?	Ring	BA? ¹⁵	Merkevičius 2011a, 73–74, No 142
155.	Kriaušiskiai	Pasvalys	Unknown	Socketed axe	LBA	Григалавичене, Мяркявичюс 1980, 73, No 73; Merkevičius 2011a, 74, No 143
156.	Kukorai	Šilutė	Unknown	Socketed spearhead	V MP ¹⁶	Григалавичене, Мяркявичюс 1980, 73, No 74; Merkevičius 2011a, 74, No 144; Stöckmann <i>et al.</i> 2021, 217, No 299
157.	Kupščiai	Raseiniai	Unknown	Socketed spearhead	IV–V MP	This study

¹⁴ The axe or drawings, a detailed description, and any other information has not been preserved, making it difficult to date.

¹⁵ The data are insufficient for precise dating.

¹⁶ In some literature this is also dated to the II MP (Čivilytė 2014, 39, table 1, No 40).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
158.	Kurmaičiai	Kretinga	Unknown	Socketed axe	V-VIMP	Пригалавичене, Мяркявичюс 1980, 74, No 81; Merkevičius 2011a, 74–75, No 145
159.	Kurmaičiai	Kretinga	Burial site	Spiral	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 78; Merkevičius 2011a, 75, No 146
160.	Kurmaičiai	Kretinga	Burial site	Spiral	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 79; Merkevičius 2011a, 75, No 147
161.	Kurmaičiai	Kretinga	Burial site	Spiral temple ornament	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 80; Merkevičius 2011a, 76, No 148
162.	Kurmaičiai	Kretinga	Burial site	Spiral temple ornament	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 77; Merkevičius 2011a, 76, No 149
163.	Kurmaičiai	Kretinga	Burial site	Spiral temple ornament	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 75; Merkevičius 2011a, 76–77, No 150
164.	Kurmaičiai	Kretinga	Burial site	Spiral temple ornament	PRIA	Пригалавичене, Мяркявичюс 1980, 74, No 76; Merkevičius 2011a, 77, No 151
165.	Kveciai	Kretinga	Burial site	Melted fragment of a bronze artefact	LBA–PRIA ¹⁷	Merkevičius 2011a, 79, No 162
166.	Kveciai	Kretinga	Burial site	Spiral (?)	LBA–PRIA ¹⁷	Merkevičius 2011a, 77–78, No 152
167.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 78, No 153
168.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 78, No 154
169.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 78, No 155
170.	Kveciai	Kretinga	Burial site	Needle	LBA–PRIA ¹⁷	Merkevičius 2011a, 78, No 156
171.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 78, No 157
172.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 79, No 159
173.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 79, No 158
174.	Kveciai	Kretinga	Burial site	Unidentified	LBA–PRIA ¹⁷	Merkevičius 2011a, 79, No 160

¹⁷ The dating of the melted pieces of the unidentified artefact(s) is based on the C-14 analysis of cremated bones and the general chronological framework of the Kveciai barrow site (Muradian 2024, 41–42). However, it should be noted that some of the melted objects may belong to a later period, as at least one burial dating to the 11th–13th centuries was identified in barrow 2 (Muradian 2022).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
175.	Kveciai	Kretinga	Burial site	Unidentified	LBA– PRIA ¹⁷	Merkevičius 2011a, 79, No 161
176.	Laborai	Pakruojis	Unknown	Flanged axe	II–III MP	Merkevičius 2011a, 80, No 164
177.	Laborai / Telšionys	Pakruojis	Unknown	Flanged axe	II–III MP	Merkevičius 2011a, 80, No 163
178.	Laugaliai	Šilutė	Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 74, No 82; Merkevičius 2011a, 81, No 165
179.	Laumėnai	Akmenė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 74, No 83; Čivilytė, Mödlinger 2010, 148, No 13; Merkevičius 2011a, 81, No 166; Čivilytė <i>et al.</i> 2023, 630, table 1, No 16
180.	Liepynė	Kretinga	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 74, No 84; Merkevičius 2011a, 81–82, No 167
181.	Linkuva	Pakruojis	Unknown	Flanged axe	II MP	Григалавичене, Мяркявичюс 1980, 74, No 85; Merkevičius 2011a, 82, No 168
182.	Liudvinavas	Marijampolė	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 74, 75, No 86; Merkevičius 2011a, 83, No 169
183.	Luokesai	Molėtai	Settlement	Double spiral pendant	700–600 BC	Merkevičius 2011a, 83, No 170; Prancėnaitė 2014
184.	Margiai	Varėna	Unknown	Knife	LBA	Григалавичене, Мяркявичюс 1980, 75, No 87; Merkevičius 2011a, 83, No 171
185.	Merkinė	Varėna	Unknown	Arrowhead	LBA	Merkevičius 2011a, 84, No 172
186.	Meškučiai	Marijampolė	Settlement	Bracelet	PRIA– RIA ¹⁸	Merkevičius 2011a, 84, No 173
187.	Miklusėnai	Alytus	Unknown	Flanged axe	EBA? ¹⁹	Григалавичене, Мяркявичюс 1980, 75, No 88; Merkevičius 2011a, 84, No 174
188.	Milašaičiai	Plungė	Unknown	Socketed spearhead	V MP	Григалавичене, Мяркявичюс 1980, 75, No 89; Čivilytė 2009, 618, No 3023; Merkevičius 2011a, 84–85, No 175
189.	Mineikiškės	Zarasai	Settlement	Spiral	800–400 BC	Podėnas 2024, 182–183
190.	Mišėtkiai, Mižeikiai (Kiškėnai)	Klaipėda	Burial site	Pin with a swan's neck- shaped head (?)	V–VI MP	Merkevičius 2011a, 85, No 176

¹⁸ In this settlement, artefacts from a broad chronological range were found. Some, such as ceramics, a blue glass bead, and an iron awl, date to the RIA (Merkevičius *et al.* 2008, 94–96), which suggests that the bracelet may also belong to a later period.

¹⁹ The data are insufficient for precise dating. The axe has not been preserved.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
191.	Moškėnai	Rokiškis	Settlement	Pin with open-work head	400–300 BC	Grigalavičienė 1995, 190; Merkevičius 2011a, 85–86, No 177
192.	Narkūnai	Utena	Settlement	Pin with mushroom-shape head	II–III MP	Volkaitė–Kulikauskienė 1986, 32–33; Merkevičius 2011a, 86, No 178
193.	Narkūnai	Utena	Settlement	Bracelet	LBA – PRIA	Volkaitė–Kulikauskienė 1986, 33; Merkevičius 2011a, 86–87, No 179
194.	Narkūnai	Utena	Settlement	Bracelet	LBA – PRIA	Volkaitė–Kulikauskienė 1986, 33; Merkevičius 2011a, 87, No 180
195.	Naudvaris	Jurbarkas	Burial site	Spiral temple ornament	PRIA	Šiaulinskas 2005, 130–131; Merkevičius 2011a, 87, No 181
196.	Naudvaris	Jurbarkas	Burial site	Spiral temple ornament	PRIA	Šiaulinskas 2005, 130–131; Merkevičius 2011a, 87–88, No 182
197.	Naujienėlė	Kalvarija	Unknown	Spiral-head pin	VI MP	Merkevičius 2011a, 88, No 183
198.	Nausodis	Plungė	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 75, No 90; Merkevičius 2011a, 88–89, No 184
199.	Netickampis	Marijampolė	Unknown	Flanged axe	II MP	This study
200.	Netickampis	Marijampolė	Unknown	Socketed axe	VI MP	This study
201.	Nida surroundings	Neringa	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 89, No 185; Stöckmann <i>et al.</i> 2021, 231, No 377
202.	Nida surroundings	Neringa	Unknown	Axe	BA? ²⁰	Merkevičius 2011a, 89, No 186
203.	Nida surroundings	Neringa	Unknown	Spearhead	BA? ²¹	Merkevičius 2011a, 89, No 187
204.	Nodiejiškiai	Kupiškis	Unknown	Axe	BA? ²¹	Merkevičius 2011a, 89–90, No 188
205.	Noliškiai	Šiauliai	Unknown	Neck-ring, hoof-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 76, No 97; Merkevičius 2011a, 90, No 189
206.	Notėnai	Skuodas	Unknown	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 76, No 98; Merkevičius 2011a, 90–91, No 190
207.	Notėnai	Skuodas	Unknown	Socketed spearhead	BA? ²¹	Merkevičius 2011a, 91, No 191
208.	Ožkabaliai	Vilkaviškis	Unknown	Flanged axe	EBA? ²¹	Merkevičius 2011a, 91, No 192
209.	Ožkabaliai II	Vilkaviškis	Unknown	Axe, Eastern-Baltic-region type	III MP	Merkevičius 2011a, 91–92, No 193

²⁰ The data are insufficient for precise dating. The artefacts have not been preserved.

²¹ The data are insufficient for precise dating. The artefact has not been preserved.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
210.	Pabaliai	Panevėžys	Hoard	Neck-ring	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 106; Merkevičius 2011a, 92, No 194
211.	Pabaliai	Panevėžys	Hoard	Neck-ring	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 105; Merkevičius 2011a, 92, No 195
212.	Pabaliai	Panevėžys	Hoard	Neck-ring	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 104; Merkevičius 2011a, 92–93, No 196
213.	Pabaliai	Panevėžys	Hoard	Neck-ring	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 103; Merkevičius 2011a, 93, No 197
214.	Pabaliai	Panevėžys	Hoard	Spiral-head pin	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 102; Merkevičius 2011a, 94, No 198
215.	Pabaliai	Panevėžys	Hoard	Spiral-head pin	end of LBA–PRIA	Григалавичене, Мяркявичюс 1980, 76, No 101; Merkevičius 2011a, 94, No 199
216.	Padaugava	Kaunas	Unknown	Flanged axe	I MP	This study
217.	Pagėgiai surroundings	Pagėgiai	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 94–95, No 200
218.	Pagėgiai surroundings	Pagėgiai	Unknown	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 77, No 109; Merkevičius 2011a, 95, No 201
219.	Pajstrys surroundings	Panevėžys	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 96, No 202
220.	Pajuostis	Panevėžys	Burial site?	Spiral	PRIA	Merkevičius 2011a, 96, No 203
221.	Pakapė	Anykščiai	Unknown	Axe, Palstave	II MP	Merkevičius 2011a, 97, No 204
222.	Pamerkinė / Česukai	Varėna	Hoard	Socketed spearhead	VI MP	Григалавичене, Мяркявичюс 1980, 81, No 150; Сивилутė 2009, 617, No 3017; Merkevičius 2011a, 97, No 205
223.	Pamerkinė / Česukai	Varėna	Hoard	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 81, No 149; Merkevičius 2011a, 98, No 206
224.	Panevėžys surroundings	Panevėžys	Unknown	Dagger	I MP	Григалавичене, Мяркявичюс 1980, 77, No 111; Merkevičius 2011a, 98, No 207
225.	Papilė surroundings (?)	Akmenė	Unknown	Socketed spearhead	VI MP	This study
226.	Paplienija	Telšiai	Settlement	Spiral	PRIA	Григалавичене, Мяркявичюс 1980, 77, No 112; Merkevičius 2011a, 98–99, No 208

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
227.	Patiltis	Telšiai	Hoard? Burial site?	Axe, Nortysken-type	III MP	Merkevičius 2011a, 99, No 209; Čivilytė <i>et al.</i> 2023, 630, table 1, No 10
228.	Patiltis	Telšiai	Hoard? Burial site?	Spiral-head pin	III MP	Merkevičius 2011a, 100, No 210
229.	Pavakakščiai / Žadeikiai	Akmenė / Mažeikiai	Unknown	Socketed axe	V MP	Григалавичене, Мяркявичюс 1980, 76, No 108; Merkevičius 2011a, 100, No 211
230.	Pavandenė	Molėtai	Settlement	Double spiral pendant	PRIA	Григалавичене, Мяркявичюс 1980, 76, No 107; Merkevičius 2011a, 101, No 212
231.	Peikšteniai	Biržai	Unknown	Flanged axe	EBA ²²	Григалавичене, Мяркявичюс 1980, 77, No 116; Merkevičius 2011a, 101, No 213
232.	Petreliai	Šilutė	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 78, No 128; Merkevičius 2011a, 101, No 214
233.	Pietariai	Marijampolė	Burial site?	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 77, No 117; Merkevičius 2011a, 101-102, No 215; Čivilytė <i>et al.</i> 2023, 630, table 1, No 20
234.	Plembergas	Raseiniai	Unknown	Socketed spearhead	V or VI MP	Григалавичене, Мяркявичюс 1980, 77, 78, No 118; Merkevičius 2011a, 102, No 216; Čivilytė <i>et al.</i> 2023, 630, table 1, No 7
235.	Plepai	Telšiai	Unknown	Socketed spearhead	VI MP	Merkevičius 2011a, 103, No 217
236.	Prienlaukys	Prienai	Burial site?	Bracelet	PRIA	Merkevičius 2011a, 103, No 218
237.	Prienlaukys	Prienai	Burial site?	Bracelet	PRIA	Merkevičius 2011a, 104, No 219
238.	Prienlaukys	Prienai	Burial site?	Pendant	PRIA- RIA ²³	Merkevičius 2011a, 104, No 220
239.	Prienlaukys	Prienai	Burial site?	Pendant	PRIA- RIA ²³	Merkevičius 2011a, 104, No 221
240.	Prienlaukys	Prienai	Burial site?	Pendant	PRIA- RIA ²³	Merkevičius 2011a, 104-105, No 222
241.	Prienlaukys	Prienai	Burial site?	Pendant	PRIA- RIA ²³	Merkevičius 2011a, 105, No 223
242.	Prienlaukys	Prienai	Burial site?	Pendant	PRIA- RIA ²³	Merkevičius 2011a, 105, No 224
243.	Prienlaukys	Prienai	Burial site?	Spiral	PRIA- RIA ²³	Merkevičius 2011a, 105, No 225

²² The data are insufficient for precise dating. The artefact has not been preserved.

²³ The chronology of artefacts found in Prienlaukys may be broader; one of the items – an openwork, enamelled strap divider – is dated to the 3rd–4th centuries AD (Michelbertas 2004, 62–65; Michelbertas 2016, 26–27).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
244.	Prienlaukys	Prienai	Burial site?	Spirals joint with loop	PRIA–RIA ²³	Merkevičius 2011a, 105–106, No 226
245.	Prienlaukys	Kretinga	Burial site?	Openwork strap divider	PRIA–RIA ²³	Merkevičius 2011a, 106, No 227
246.	Pryšmančiai / Rūdaičiai	Kretinga	Hoard	Socketed spearhead	V–VI MP ²⁴	Григалавичене, Мяркявичюс 1980, 78, No 126; Čivilytė 2009, 618, No 3026; Merkevičius 2011a, 106–107, No 228
247.	Pryšmančiai / Rūdaičiai	Kretinga	Hoard	Spiral-head pin	V–VI MP	Григалавичене, Мяркявичюс 1980, 78, No 127; Merkevičius 2011a, 107, No 229
248.	Puskeliniai	Marijampolė	Unknown	Socketed axe	V MP	Merkevičius 2011a, 108, No 230
249.	Radikiai	Kaunas	Unknown	Socketed axe	V–VI MP	Григалавичене, Мяркявичюс 1980, 78, 79, No 129; Merkevičius 2011a, 108–109, No 231; Čivilytė <i>et al.</i> 2023, 630, table 1, No 21
250.	Rambynas	Pagėgiai	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 109, No 232; Stöckmann <i>et al.</i> 2021, 244, No 435
251.	Rambynas	Pagėgiai	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 109, No. 233; Stöckmann <i>et al.</i> 2021, 244, No 434
252.	Raudonėnai	Jurbarkas	Burial site	Spiral temple ornament	PRIA	Merkevičius 2011a, 110–111, No 234
253.	Raudonėnai	Jurbarkas	Burial site	Spiral temple ornament	PRIA	Merkevičius 2011a, 110, No 235
254.	Ringuvėnai	Šiauliai	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 79, No 132; Merkevičius 2011a, 110, No 236; Čivilytė, Mödinger 2010, 147, No 7; Čivilytė <i>et al.</i> 2023, 630, table 1, No 17
255.	Rudnia	Varėna	Unknown	Knife	LBA?	Grigalavičienė 1995, 162; Merkevičius 2011a, 111, No 237
256.	Rūdaičiai	Kretinga	Burial site	Needle	PRIA	Michelbertas 1968, 57; Merkevičius 2011a, 111, No 238
257.	Rūdaičiai	Kretinga	Burial site	Bracelet	PRIA	Michelbertas 1968, 57; Merkevičius 2011a, 111, No 239
258.	Rūdaičiai	Kretinga	Burial site	Bracelet	PRIA	Michelbertas 1968, 57; Merkevičius 2011a, 111, No 240
259.	Salamiestis	Kupiškis	Unknown	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 79, No 134; Merkevičius 2011a, 111, No 241
260.	Sasnavą surroundings	Marijampolė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 79, No 134; Čivilytė, Mödinger 2010, 148, No 11; Merkevičius 2011a, 111, No 242
261.	Sauseriai	Kretinga	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 112, No 243
262.	Senieji Trakai	Trakai	Unknown	Socketed axe	V–VI MP	Merkevičius 2011a, 112–113, No 244

²⁴ In some literature it is dated to the IV MP (Čivilytė *et al.* 2023, 629, table 1, No 3).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
263.	Skroblis	Rietavas	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 79, No 136; Merkevičius 2011a, 113, No 245
264.	Staciūnai surroundings	Pakruojis	Unknown	Flanged axe	II MP	Григалавичене, Мяркявичюс 1980, 79, No 137; Merkevičius 2011a, 114, No 246
265.	Steponava	Anykščiai	Unknown	Temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 79, 80, No 138; Merkevičius 2011a, 114–115, No 247
266.	Stremeniai	Šilutė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 80, No 140; Merkevičius 2011a, 115, No 248; Civiūtė <i>et al.</i> 2023, 630, table 1, No 25
267.	Suginčiai	Akmėnė	Unknown	Socketed axe	IV–VI MP	Petrauskas <i>et al.</i> 2019, 503
268.	Suostas surroundings	Biržai	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 116, No 249
269.	Sutkūnai	Kėdainiai	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 80, No 140; Merkevičius 2011a, 117, No 250
270.	Šakarniai	Pasvalys	Unknown	Flanged axe	I–II MP	Vasiliauskas 2023
271.	Šereitlaukis	Pagėgiai	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 117–118, No 251
272.	Šernai	Klaipėda	Unknown	Anthropomorphic figurine	III MP	Merkevičius 2011a, 118, No 252; Stöckmann <i>et al.</i> 2021, 231–232, No 379
273.	Šilainiai	Kėdainiai	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс, 1980, 81, 82, No 154; Merkevičius 2011a, 119, No 253
274.	Šilinė (Sodenai)	Pagėgiai	Unknown	Flanged axe	II – III / IV MP	Григалавичене, Мяркявичюс 1980, 82, No 155; Merkevičius 2011a, 119–120, No 254; Stöckmann <i>et al.</i> 2021, 244, No 436
275.	Šilsodis	Vilkaviškis	Unknown	Socketed axe	VI MP	Merkevičius 2011a, 120, No 255
276.	Šilutė surroundings	Šilutė	Burial site?	Spiral temple ornament	PRIA	Григалавичене, Мяркявичюс 1980, 82, No 156; Merkevičius 2011a, 121, No 256
277.	Šilutė surroundings	Šilutė	Unknown	Socketed spearhead	VI MP	Григалавичене, Мяркявичюс 1980, 82, No 157; Merkevičius 2011a, 121, No 257; Civiūtė 2014, 39, No 28
278.	Šilutė surroundings	Šilutė	Unknown	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 82, No 158; Merkevičius 2011a, 121, No 258
279.	Šilutė surroundings	Šilutė	Unknown	Axe, Nortysken-type	III MP	Григалавичене, Мяркявичюс 1980, 82, No 159; Merkevičius 2011a, 121, No 259
280.	Šilutė surroundings	Šilutė	Unknown	Neck-ring, cone-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 82, No 160; Merkevičius 2011a, 121, No 260

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
281.	Šilutė surroundings	Šilutė	Unknown	Neck-ring, cone-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 82, No 161; Merkevičius 2011a, 121, No 261
282.	Šilutė surroundings	Šilutė	Unknown	Neck-ring, hoof-shaped terminals	PRIA	Григалавичене, Мяркявичюс 1980, 82, No 162; Merkevičius 2011a, 122, No 262
283.	Šilutė surroundings	Šilutė	Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 82, No 163; Merkevičius 2011a, 122, No 263
284.	Šilutė surroundings	Šilutė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 82, No 165; Civiūtė, Mödinger 2010, 148, No 14; Merkevičius 2011a, 122–123, No 264
285.	Šilutė surroundings	Šilutė	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 82, No 164; Civiūtė, Mödinger 2010, 148, No 14; Merkevičius 2011a, 123, No 265
286.	Širvydai	Marijampolė	Unknown	Socketed spearhead	IV–VI MP	This study
287.	Šlažiai	Kretinga	Burial site	Spiral-head pin	III MP	Григалавичене, Мяркявичюс 1980, 84, No 188; Merkevičius 2011a, 124, No 266
288.	Šlažiai	Kretinga	Burial site	Tutulus	III MP	Григалавичене, Мяркявичюс 1980, 83, No 186; Merkevičius 2011a, 124, No 267
289.	Šlažiai	Kretinga	Burial site	Spiral	III MP	Григалавичене, Мяркявичюс 1980, 83, No 187; Merkevičius 2011a, 124, No 268
290.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 174; Merkevičius 2011a, 124–125, No 269
291.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 175; Merkevičius 2011a, 125, No 270
292.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 177; Merkevičius 2011a, 125, No 271
293.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 176; Merkevičius 2011a, 125, No 272
294.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 178; Merkevičius 2011a, 125, No 273
295.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 166; Merkevičius 2011a, 125, No 274
296.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 167; Merkevičius 2011a, 125, No 275
297.	Šlažiai	Kretinga	Burial site	Neck-ring, hoof-shaped terminals	III MP	Григалавичене, Мяркявичюс 1980, 84, No 189; Merkevičius 2011a, 126, No 276
298.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 168; Merkevičius 2011a, 126, No 277

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
299.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 172; Merkevicius 2011a, 126, No 278
300.	Šlažiai	Kretinga	Burial site	Neck-ring	III MP	Григалавичене, Мяркявичюс 1980, 83, No 181; Merkevicius 2011a, 126, No 279
301.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 180; Merkevicius 2011a, 126, No 280
302.	Šlažiai	Kretinga	Burial site	Unidentified	BA	Merkevicius 2011a, 126, No 281
303.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс, 1980, 83, No 173; Merkevicius 2011a, 126, No 282
304.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 169; Merkevicius 2011a, 127, No 283
305.	Šlažiai	Kretinga	Burial site	Bracelet	III MP	Григалавичене, Мяркявичюс 1980, 83, No 179; Merkevicius 2011a, 127, No 284
306.	Šlažiai	Kretinga	Burial site	Ring	III MP	Григалавичене, Мяркявичюс 1980, 83, No 185; Merkevicius 2011a, 127, No 285
307.	Šlažiai	Kretinga	Burial site	Ring	III MP	Григалавичене, Мяркявичюс 1980, 83, No 184; Merkevicius 2011a, 127, No 286
308.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 170; Merkevicius 2011a, 127, No 287
309.	Šlažiai	Kretinga	Burial site	Eyelet pin	III MP	Григалавичене, Мяркявичюс 1980, 83, No 171; Merkevicius 2011a, 127, No 288
310.	Šlažiai	Kretinga	Burial site	Ring	III MP	Григалавичене, Мяркявичюс 1980, 83, No 182; Merkevicius 2011a, 127, No 289
311.	Šlažiai	Kretinga	Burial site	Ring	III MP	Григалавичене, Мяркявичюс 1980, 83, No 183; Merkevicius 2011a, 128, No 290
312.	Šlažiai	Kretinga	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 84, No 190; Merkevicius 2011a, 128, No 291
313.	Švenčionys surroundings	Švenčionys	Unknown	Socketed axe	LBA? ²⁵	Merkevicius 2011a, 128, No 292
314.	Šventoji	Palanga	Unknown	Sickle	V MP	Григалавичене, Мяркявичюс 1980, 77, No 110; Merkevicius 2011a, 128, No 293
315.	Švobiškis	Pasvalys	Unknown	Flanged axe	II-III MP?	Григалавичене, Мяркявичюс 1980, 81, No 152; Merkevicius 2011a, 129, No 294

²⁵ The data are insufficient for precise dating. The artefact has not been preserved.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
316.	Tautušiai	Raseiniai	Hoard	Socketed spearhead	II MP ²⁶	Merkevičius 2011a, 129–130, No 296; Čivilytė <i>et al.</i> 2023, 630, table 1, No 8
317.	Tautušiai	Raseiniai	Hoard	Flanged axe	II MP ²⁶	Merkevičius 2011a, 129, No 295; Čivilytė <i>et al.</i> 2023, 630, table 1, No 12
318.	Telšiai / Raseiniai district	Telšiai / Raseiniai	Hoard	Dagger	III MP	Григалавичене, Мяркявичюс 1980, 80, No 143; Merkevičius 2011a, 130, No 297
319.	Telšiai / Raseiniai district	Telšiai / Raseiniai	Hoard	Sword	III MP	Григалавичене, Мяркявичюс 1980, 80, No 144; Merkevičius 2011a, 130, No 298
320.	Telšiai / Raseiniai district	Telšiai / Raseiniai	Hoard	Sword	II or III MP	Григалавичене, Мяркявичюс 1980, 80, No 145; Merkevičius 2011a, 131, No 299; Čivilytė 2009, 619–620, No 3035
321.	Trakai district	Trakai	Unknown	Flanged axe	I MP	Григалавичене, Мяркявичюс, 1980, 80, 81, No 146; Merkevičius 2011a, 131–132, No 300
322.	Turlojiškė	Kalvarija	Sacrifice/Burial	Pendant	V–VI MP ²⁷	Merkevičius 2011a, 132, No 301
323.	Tūbausiai	Kretinga	Hoard?	Socketed axe	V–VI MP	Григалавичене, Мяркявичюс 1980, 81, No 147; Čivilytė 2009, 618–619, No 3029; Merkevičius 2011a, 132, No 302; Čivilytė <i>et al.</i> 2023, 630, table 1, No 28
324.	Unknown (Lithuania)		Unknown	Pin with disc-shape head	V–VI MP	Merkevičius 2011a, 144, No 324
325.	Unknown (Lithuania)		Unknown	Flanged axe	II MP	Григалавичене, Мяркявичюс 1980, 87, No 270; Merkevičius 2011a, 144, No 325
326.	Unknown (Lithuania)		Unknown	Socketed axe	VI MP	Merkevičius 2011a, 144–145, No 326
327.	Unknown (Lithuania)		Unknown	Axe, Akozino-Mālar-type	V MP	Merkevičius 2011a, 145, No 327; Čivilytė <i>et al.</i> 2024
328.	Unknown (Lithuania)		Unknown	Knife	LBA	Merkevičius 2011a, 145–146, No 328
329.	Unknown (Lithuania)		Unknown	Knife	LBA	Merkevičius 2011a, 146, No 329
330.	Unknown (Lithuania)		Unknown	Knife	LBA	Merkevičius 2011a, 147, No 330

²⁶ The artefacts are dated differently in the literature. Further details and discussion is provided in the section “New Bronze Age Artefacts...”

²⁷ The pendant was found in Turlojiškės grave/sacrifice No. 3, radiocarbon dated to 901–836 cal BC (Piličiauskas 2018, 169).

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
331.	Unknown (Lithuania)		Unknown	Socketed axe	V–VI MP	Григалавичене, Мяркявичюс 1980, 87, No 274; Merkevicius 2011a, 147, No 331
332.	Unknown (Lithuania)		Unknown	Dagger	III–IV MP	Merkevicius 2011a, 148, No 332
333.	Unknown (Lithuania)		Unknown	Socketed axe	V–VI MP	Merkevicius 2011a, 148, No 333
334.	Unknown (Lithuania)		Unknown	Axe, Akozino-Mälar-type	V MP	Merkevicius 2011a, 148–149, No 334; Čivilytė et al. 2024
335.	Unknown (Lithuania)		Unknown	Socketed axe	VI MP	Merkevicius 2011a, 149–150, No 335
336.	Unknown (Lithuania)		Unknown	Socketed axe	V–VI MP	Merkevicius 2011a, 150, No 336
337.	Unknown (Lithuania)		Unknown	Socketed axe	VI MP	Merkevicius 2011a, 150, No 337
338.	Unknown (Lithuania)		Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 87, No 272; Merkevicius 2011a, 150–151, No 338
339.	Unknown (Lithuania)		Unknown	Flanged axe	III MP	Григалавичене, Мяркявичюс 1980, 87, No 271; Merkevicius 2011a, 151, No 339
340.	Unknown (Lithuania)		Unknown	Chisel	IV–VI MP	Merkevicius 2011a, 152, No 340
341.	Unknown (Lithuania)		Unknown	Bracelet with spiral terminals	III MP	Григалавичене, Мяркявичюс 1980, 87, No 277; Merkevicius 2011a, 152–153, No 341
342.	Unknown (Lithuania)		Unknown	Bracelet with spiral terminals	III MP	Григалавичене, Мяркявичюс 1980, 87, No 278; Merkevicius 2011a, 153, No 342
343.	Unknown (Lithuania)		Unknown	Anthropomorphic figurine	III MP	Григалавичене, Мяркявичюс 1980, 87, No 279; Merkevicius 2011a, 153, No 343
344.	Unknown (Southern Lithuania)		Unknown	Socketed axe	IV–VI MP	Merkevicius 2011a, 143, No 322
345.	Unknown (Southern Lithuania)		Unknown	Flanged axe	II–III MP	Merkevicius 2011, 143, No 323
346.	Unknown (Southern/Eastern Lithuania)		Unknown	Socketed axe	IV MP	Merkevicius 2011a, 142, No 321
347.	Uosupėlis	Marijampolė	Unknown	Socketed axe	VI or V MP	Григалавичене, Мяркявичюс 1980, 81, No 148; Merkevicius 2011a, 133, No 303; Čivilytė et al. 2023, 630, table 1, No 27

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
348.	Utriai	Klaipėda	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 87–88, No 281; Merkevičius 2011a, 133, No 304
349.	Vaškai	Pasvalys	Hoard	Dagger	IV or V MP	Merkevičius 2006; Čivilytė 2009, 619, No 3030; Merkevičius 2011a, 134, No 305
350.	Vaškai	Pasvalys	Hoard	Axe, Akozino-Mālar-type	V MP ²⁸	Merkevičius 2011a, 134, No 306; Merkevičius 2006
351.	Vaškai	Pasvalys	Hoard	Axe, shaft-hole	end of 2 nd – beginning of 1 st millennium BC ²⁹	Merkevičius 2011a, 135, No 307
352.	Vaškai surroundings	Pasvalys	Unknown	Socketed axe	IV–VI MP? ³⁰	Merkevičius 2011a, 135, No 308
353.	Vėteliai / Inkūnai	Skuodas/Biržai	Unknown	Socketed axe	VI MP	Григалавичене, Мяркявичюс 1980, 69, No 37; Merkevičius 2011a, 135–136, No 309
354.	Veluona surroundings	Jurbarkas	Unknown	Dagger	I MP	Григалавичене, Мяркявичюс 1980, 69, No 38; Merkevičius 2011a, 136, No 310; Čivilytė 2009, 619, No 3031
355.	Viekšniai surroundings	Mažeikiai	Unknown	Axe, Palstave	II MP	Merkevičius 2011a, 136–137, No 311
356.	Viekšvedžiai	Šiauliai	Unknown	Flanged axe	II MP	Muradian, Prancėnaitė 2023
357.	Vilnius, 7 A Klaipėdos Str.	Vilnius	Unknown	Socketed spearhead	VI MP	Kliaugaite <i>et al.</i> 2012, 557–567
358.	Virksčiai	Ukmergė	Unknown	Axe, Palstave	II–III MP	Dakanis, Vitkūnas 2018
359.	Vokė (Baltoji Vokė (?))	Vilnius	Unknown	Socketed spearhead	VI MP	Григалавичене, Мяркявичюс 1980, 69, No 39; Merkevičius 2011a, 137, No 312; Čivilytė 2009, 619, No 3032
360.	Žadeikiai	Joniškis	Unknown	Socketed axe	V or VI MP	Григалавичене, Мяркявичюс 1980, 71, No 54; Merkevičius 2011a, 137, No 313; Čivilytė <i>et al.</i> 2023, 630, table 1, No 5

²⁸ A recent publication raised the possibility that this axe might be a modern replica (Čivilytė 2024, 85). However, we have included the artefact in this study, as further evidence is still required to confirm or reject this hypothesis.

²⁹ The dating of this axe, the circumstances of the hoard's discovery, and the contemporaneity of the items found within it have been subjects of discussion in various publications (see more in Merkevičius 2006; Čivilytė 2014, 159–160). This study follows the chronology established in an article published in 2006.

³⁰ The data are insufficient for precise dating.

No.	Site/Location	Municipality	Context	Artefact	Dating	References ²
361.	Žalioji forestry (Bartkuškis forest)	Širvintai	Settlement	Eyelet pin (?)	end of LBA–PRIA ³¹	Merkevičius 2011a, 138, No 314
362.	Žeguniai	Kėdainiai	Unknown	Flanged axe	I–III MP	Petukauskas 2023
363.	Žemelis surroundings (Pažeimė)	Pakuojis	Unknown	Palstave	III MP	Григалавичене, Мяркявичюс 1980, 71, No 55; Merkevičius 2011a, 138, No 315
364.	Žemaičių Kalvarija surroundings (Alksna)	Plungė	Unknown	Flanged axe	I MP	Григалавичене, Мяркявичюс 1980, 66, No 4; Merkevičius 2011a, 139, No 316
365.	Žemaičių Kalvarija surroundings (Alksna)	Plungė	Unknown	Flanged axe	II MP	Григалавичене, Мяркявичюс 1980, 66, No 5; Merkevičius 2011a, 139–140, No 317; Čivilytė <i>et al.</i> 2023, 630, table 1, No 14
366.	Žemaitkiemis	Ukmergė	Unknown	Flanged axe	III or IV MP	Григалавичене, Мяркявичюс 1980, 71, No 57; Grigalavičienė 1995, 150–151; Merkevičius 2011a, 140–141, No 318
367.	Žemoji Panemunė	Šakiai	Unknown	Flanged axe	II or III MP	Григалавичене, Мяркявичюс 1980, 71, No 58; Čivilytė, Mödinger 2010, 147, No 10; Merkevičius 2011a, 141, No 319; Čivilytė <i>et al.</i> 2023, 630, table 1, No 15
368.	Žygaičiai	Tauragė	Unknown	Socketed axe	V or VI MP	Григалавичене, Мяркявичюс 1980, 71, No 56; Merkevičius 2011a, 142, No 320; Čivilytė <i>et al.</i> 2023, 630, table 1, No 6

Table 2. Early metal artefacts (2nd–1st millennium BC) and the contexts of their findspots. 2 lentelė. Ankstyvieji metaliniai dirbiniai (2–1 tūkstm. pr. Kr.) ir jų radimviečių kontekstas.

³¹ The artefact is melted. It is attributed to this period based on C-14 dates from this settlement (Piličiauskas 2012, 13).

No.	Site/location	Municipality	Artefact	River	Lake	Bog	Peatland	Hill	Boulder	Patina colour
1	Ankštakiai	Kretinga	Spiral-head pin				X			Brown
2	Antaniškiai	Kelmė	Axe, Nortycken-type			X		X		Green
3	Ažuoliniai / Zailiai	Alytus	Axe, flanged, Eastern-Baltic-Region type		X					Brown
4	Baisogala	Radviliškis	Axe, flanged, Eastern-Baltic-Region type			X				Green
5	Bajorai	Kretinga	Bracelet						X	Reddish-green
6	Bajorai	Kretinga	Bracelet						X	Green
7	Bajorai	Kretinga	Pin with a swan's neck-shaped head						X	Dark green
8	Balsupiai	Marijampolė	Socketed axe				X			–
9	Bandužiai	Klaipėda city	Sword	X						Reddish-green
10	Cigoniškiai	Alytus	Chisel	X	X					Green
11	Cigoniškiai	Alytus	Axe, Palstave	X	X					Brown
12	Čepukai	Ignalina	Axe, Palstave		X					Green
13	Dabikinė	Akmenė	Axe, flanged, Eastern-Baltic-Region type	X						Reddish-green
14	Daukniškiai	Biržai	Axe, flanged, Eastern-Baltic-Region type	X		X				Brown
15	Didkiemis	Šilalė	Axe, flanged, Eastern-Baltic-Region type	X						Green
16	Dovilai	Klaipėda	Casting mould	X						Reddish-green
17	Drobūkščiai	Šilalė	Socketed spearhead	X						Green
18	Galkantai / Sirutiškis	Kėdainiai	Axe, flanged, Eastern-Baltic-Region type	X						Brown
19	Gembūtės	Akmenė	Sickle	X						Brown
20	Gerduvėnai	Klaipėda	Socketed axe	X						Green
21	Gulbiškiai	Šilalė	Socketed axe	X						Brown
22	Guzeliai	Vilkaviškis	Axe, flanged, Eastern type	X						Green
23	Kadaičiai	Plungė	Socketed axe	X						Brown
24	Kalgraužiai	Kretinga	Socketed axe	X						Green
25	Kašėtos	Varėna	Axe, flanged, Eastern type	X						Green
26	Kreivoji	Kalvarija	Socketed axe				X			Green
27	Kupsčiai	Raseiniai	Socketed spearhead			X				Green
28	Kurmaičiai	Kretinga	Socketed axe	X						Brown
29	Laborai	Pakruojis	Axe, flanged, Eastern-Baltic-Region type	X						Green
30	Laumėnai	Akmenė	Axe, flanged, Eastern-Baltic-Region type			X				Green
31	Margiai	Varėna	Knife		X			X		–

No.	Site/location	Municipality	Artefact	River	Lake	Bog	Peatland	Hill	Boulder	Patina colour
32	Merkinė	Varėna	Arrowhead	X						-
33	Naujienėlė	Kalvarija	Spiral-head pin		X					-
34	Netičkampis	Marijampolė	Axe, flanged, Eastern type				X			Green
35	Netičkampis	Marijampolė	Socketed axe			X				Reddish-green
36	Notėnai	Skuodas	Axe, Nortycken-type	X						Brown
37	Padauguva	Kaunas	Axe, low-flanged	X						Green
38	Pagėgiai	Pagėgiai	Axe, Nortycken-type			X				-
39	Plebergas	Raseiniai	Socketed spearhead	X						-
40	Ringuvėnai	Šiauliai	Axe, flanged, Eastern-Baltic-Region type	X						Green
41	Sauseriai	Kretinga	Socketed axe	X						Reddish-green
42	Senieji Trakai	Trakai	Socketed axe		X					Green
43	Steponava	Anykščiai	Temple ornament	X						Green
44	Stremeniai	Šilutė	Axe, flanged, Eastern-Baltic-Region type	X						Dark green
45	Suginčiai	Akmenė	Socketed axe	X						Dark green
46	Šakarniai	Pasvalys	Axe, flanged	X						Green
47	Šernai	Klaipėda	Anthropomorphic figurine						X	Blackish
48	Širvydai	Marijampolė	Socketed spearhead	X						Dark green
49	Šventoji	Palanga city	Sickle				X			Green
50	Viekšvedžiai	Šiauliai	Axe, flanged, Eastern type	X						Green
51	Vilnius, Klaipėdos g. 7A	Vilnius	Socketed spearhead	X (?)						Dark green
52	Virkščiai	Ukmergė	Axe, palstave	X						Brown
53	Vokė (Baltoji Vokė?)	Vilnius	Socketed spearhead				X			Brown
54	Žadeikiai	Joniskis	Socketed axe						X	Brown
55	Žegumiai	Kėdainiai	Axe, flanged	X						Green
56	Žeimelis surroundings (Pažeimė)	Pakruojis	Axe, Palstave	X						-
57	Žemaičių Kalvarija surroundings (Alksna)	Plungė	Axe, flanged, Eastern type	X						Brown

Table 3. The surrounding natural environments (including former water bodies) of the findspots of the earliest metal artefacts (2nd–1st millennium BC). 3 lentelė. Ankstyvųjų metalinių dirbinių (2–1 tūkst. pr. Kr.) radimviečių artimiausia gamtinė aplinka (įtraukti ir buvę vandens telkiniai).

ANKSTYVIEJI METALINIAI DIRBINIAI: KONTEKSTINĖ ANALIZĖ IR INTERPRETACIJA

Lijana Muradian, Elena Pranckėnaitė

Santrauka

Bronzos ir ankstyvojo geležies amžiaus metaliniai dirbiniai dėl savo retumo Rytų Baltijos regione įvardijami kaip išskirtiniai, žymintys tam tikrą individo socialinį statusą (buvo prieinami tik tam tikriems asmenims bendruomenėje). Vis dėlto dažniausiai bronzinių dirbinių aptinkama ne laidojimo vietose ar gyvenvietėse, o pavieniui. Trūksta duomenų apie jų kontekstą, todėl labai sudėtinga interpretuoti jų reikšmę to meto bendruomenėms. Šiame darbe išanalizuotos visų ankstyvojo metalų laikotarpio metalinių dirbinių radimo vietos ir kontekstai, pateiktos galimos interpretacijos, metalinių dirbinių ir kitų vienalaikių objektų sąsajos.

Straipsnyje išsamiau aprašomi atsitiktinai ar metalo iešikliais nuo 2011 m. rasti bronziniai dirbiniai (1 pav., 1 lent.). Apie daugumą šių dirbinių detali informacija iki šiol neskelbta. Žinomos radimo aplinkybės ir vieta atveria galimybes detalesnei bronzinių dirbinių kontekstinei analizei bei archeologiniams tyrimams jų radimo vietose. Remiantis šių tyrimų duomenimis, senųjų žemėlapių analize (siekiant nustatyti buvusią gamtinę aplinką, XX a. melioruotų upelių vagas ir kt.), panaudojant LiDAR skenavimo duomenis, galima ieškoti tam tikrų bendrų vardiklių, jungiančių šių dirbinių aplinką, ir pateikti interpretacijas, susijusias su bronzos amžiaus papročiais.

Praejus kiek daugiau nei dešimtmečiui nuo paskutinio apibendrinamojo darbo išleidimo, ankstyviausių metalinių dirbinių sąrašą galima papildyti 22 naujais bronziniais dirbiniais (2–6 pav.). 8 jų rasti archeologinių tyrimų metu, 1 per metalo iešiklių naudotojų klubo sąskrydį, o 13 – atsitiktinai ar ieškant metalo iešikliais. Tarp naujai rastų bronzinių dirbinių vyrauja kirviai, rasti keli ietigaliai ir kiti dirbiniai. 10 dirbinių

datuojami ankstyvuojų bronzos amžiumi, 7 – vėlyvuojų bronzos amžiumi, 3 – pereinamuoju laikotarpiu iš vėlyvojo bronzos amžiaus į ankstyvąjį geležies amžių, 1 – ankstyvuojų geležies amžiumi, o dar vieno dirbinio tikslesnę chronologiją nustatyti sudėtinga.

2021–2023 m. ankstyvojo bronzos amžiaus kirvių radimo vietose atlikti archeologiniai tyrimai: 1) bronzinio atkraštinio kirvio, rasto Daukniškiuose (Biržų r. sav.), vietoje; 2) Nortikėnų tipo kirvio radimvietėje Antaniškiuose (Kelmės r. sav.); 3) bronzinio atkraštinio kirvio ir kaukolės radimvietėse Viekvedžiuose (Šiaulių r. sav.). Trimis išvardytais archeologinių tyrimų atvejais neaptikta bronzos amžiaus archeologinio sluoksnio, kapų ar kitų radinių. Tai rodo, kad galbūt sluoksnis sunaikintas (dvi radimvietės buvo ariamuose laukuose). Neatmestina, kad dirbiniai galėjo būti atsitiktinai pamesti, tačiau vertinant juos kaip išskirtinius ir sunkiai prieinamus, importuojamus iš tolimų Europos sričių, mažai tikėtina, kad tiek daug bronzinių dirbinių (skaičiuojant visus pavienius bronzinius dirbinius, sudarančius beveik pusę visų metalinių radinių) būtų pamesta. Todėl tikėtina, kad dirbiniai gali būti susiję su plačiai Europoje bronzos amžiuje paplitusiu dirbinių aukojimo papročiu. Pagrįsti tokią išvadą remiantis vien archeologiniais duomenimis sudėtinga. Šiuo atveju svarbu vertinti radimviečių gamtinę aplinką. Atlikus preliminarią gamtinės aplinkos rekonstrukciją, remiantis iki masinės melioracijos sudarytais topografiniais planais bei LiDAR duomenimis, bronzinių kirvių radimvietės yra atsekamos šlapynių teritorijose arba aukštumų šlaituose ties XIX a. žemėlapiuose žymimomis drėgnomis pievomis, pelkėtomis vietomis (12 pav.).

Siekiant atlikti visų AML metalinių dirbinių kontekstinę analizę, 368 dirbiniai pagal jų radimo vietas ir turimą informaciją suskirstyti į 4 pagrindines grupes: 1) aptikti laidojimo vietose ar šalia palaikų; 2) aptikti gyvenvietėse; 3) interpretuojami kaip lobiai³²; 4) nežinomuose kontekstuose aptikti dirbiniai (2 lent., 7, 10 pav.).

Gyvenvietėse rasta tik 5 proc. visų metalinių dirbinių (18). Daugumą jų sudaro nedideli papuošalai: įvijos, kabučiai, apyrankės, smeigtukai.

Kapuose rasta 35 proc. visų metalinių dirbinių (129). Vyrauja papuošalai ir aprangos detalės: antsmilkiniai, apyrankės, smeigtukai, įvijos, tutulai, grandelės ir kiti. Papuošalų dominavimas būdingas ne tik Lietuvoje rastiems kapams, bet ir platesniam Pietryčių Baltijos regionui. O kirviai – gausiausias bronzinis dirbinys – yra veikiausiai išimtis nei įprasta įkapė ankstyvojo metalų laikotarpio kapuose. Pažymėtina, kad įkapės labiau būdingos griautiniams kapams, datuojamiems ankstyvuojančios bronzos ar ankstyvuojančio geležies amžiumi, o įsivyravus mirusiųjų deginimo papročiu, dėtos labai retai. Siekiant patikrinti, ar kremacijos išplitimas galėjo būti reikšmingai susijęs su išaugusių kiekiu pavienių dirbinių ar jų sankaupų, atlikta Vakarų Lietuvos erdvinė analizė. Pažymėtina, kad turime labai nedaug duomenų apie ankstyvojo bronzos amžiaus kapus šiame regione. Iš viso žinomos 22 laidojimo vietos, iš kurių tik Šlažiuose rasti kapai ankstyvesni, datuojami III MP, o 21 vietoje rasti degintiniai kapai priskiriami vėlyvajam bronzos amžiui – ankstyvajam geležies amžiui. Metaliniai dirbiniai pasiskirstę kitaip. 23 iš jų datuojami ankstyvuojančios bronzos amžiumi, 34 – vėlyvuojančios bronzos amžiumi, 3 – ankstyvuojančio geležies amžiumi. Kremacija įsitvirtino ir tapo dominuojančiu laidojimo papročiu vėlyvajame bronzos amžiuje, o nemažai metalinių dirbinių yra ankstyvesnio laikotarpio. Vertinant metalinių dirbinių paplitimą ir santykį su žinomais laidojimo paminklais, tik trimis

atvejais netoli kapinyno ar pilkapyno rasta panašios chronologijos metalinių dirbinių: Kurmaičiuose, Rūdaičiuose ir Kvietiniuose (8 pav.). Kol kas aiškiausio ryšio tarp laidojimo papročių pasikeitimo – mirusiųjų kremacijos papročio įsivyravimo bei lobių ar pavienių dirbinių jų aplinkoje išaugimo išvelgti neįmanoma.

Lobiams galėtų būti priskirta 10 proc. visų metalinių dirbinių (38). Kitaip, nei kapuose ar gyvenvietėse, čia vyrauja kirviai, ietigaliai, taip pat rasti keli durklai, o laikotarpio pabaigoje lobių sudėtyje atsirado ir papuošalai (pvz., Baudėjos, Pabalčiai).

Apie daugumą Lietuvoje aptiktų bronzinių dirbinių trūksta kontekstinės informacijos, jie sudaro net 49 proc. (182 dirbiniai) visų metalinių dirbinių, daugiausia tai pavieniai dirbiniai. Panašiai kaip ir lobiuose, kuriuose vyrauja kirvis, tarp pavienių dirbinių daugiausia aptikta būtent kirvių (70 proc.), iš viso 127.

Daugiausia metalinių dirbinių iš nežinomo konteksto su tikslia radimvietės lokalizacija rasta šalia upių ar upėse (56 proc.) (3 lent., 10 pav.). Pastarųjų metų atradimai taip pat parodė, kad vienas dirbinys rastas pačioje upėje – Nevėžyje, keli dirbiniai aptikti šalia esamų ar buvusių ežerų, pelkėse, durpyne. Šalia vandens telkinių (esamų ir buvusių) aptiktus dirbinius galima interpretuoti trejopai: 1) pavieniai sąmoningai deponuoti dirbiniai; 2) su gyvenvietėmis susijusios vietos, kurios aptariamam laikotarpiui kūrėsi tiek prie upių, tiek prie ežerų (keičiantis vandens lygiui teritorijos užlietos ar išsausėjusios); 3) pamesti dirbiniai. Tai, kad kai kurie kirviai ir ietigaliai pasidengę ruda patina, liudija šių dirbinių buvimą vandens telkinyje. Tačiau vandens lygis nuolat keitėsi, tad įrodyti, kada konkrečiai šie dirbiniai pateko į vandenį, ar buvo sąmoningai ten įmesti, ar vis dėlto pamesti, sudėtinga. Vis dėlto svarbu atkreipti dėmesį į tai, kad tokiuose kontekstuose dominuoja būtent kirviai ir ietigaliai, kurių dažnai randama ir lobiuose (9, 11 pav.). Šis bendras bruožas ir jų radimvietes supanti gamtinė

³² Lobiu yra įvardijama deponuotų vienalaikių dirbinių sankaupa (daugiau nei vienas dirbinys), kuri nėra kitų archeologinių objektų dalis.

aplinka rodo, jog traktuoti visus pavienius kirvius ir ietigalius kaip atsitiktinumą būtų klaidinga. Tikėtina, kad būtent kirviai ir ietigaliai buvo vieni iš metalinių

dirbinių, sąmoningai pasirenkami deponuoti. Jie turėtų būti interpretuojami kaip aukojamieji ar slepiamieji lobiai.