

SIMPLE STONE WORK AXES IN LATVIA: TYPOLOGY, CHRONOLOGY AND DISTRIBUTION

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The article examines simple stone work axes with a shaft-hole, which constitute a category of mass finds from the Bronze Age. Museums in Latvia store or have information on about 1630 axes, the majority (92%) of which are stray finds lacking archaeological context. Compared with battle-axes, the simple stone axes have been given relatively little research attention. They are divided according to form into pentagonal, Augšzeme-type and almond-shaped axes, the last of which are the most numerous, making up 82% of all work axes. The pentagonal and the Augšzeme-type axes were used throughout the Bronze Age; and the almond-shaped axes are more characteristic of the Late Bronze and Pre-Roman Iron Age. The axes are unevenly distributed across present-day Latvia. The largest concentrations occur in particular areas of Augšzeme, along the River Daugava, in the Lielupe basin and in certain parts of western Latvia. Few of these axes have been found in the northern part of Latvia, which can be explained by differences in the farm model, where agrarian farming was less important than livestock farming.

Keywords: simple stone shaft-hole work axes, present-day Latvia, Bronze Age, typology, chronology, distribution.

INTRODUCTION

Stone axes made from volcanic (magmatic, metamorphic, effusive) rocks with a drilled shaft-hole have a prominent place among archaeological finds from Latvia. Several typological

groups may be distinguished: boat-axes, straight-backed axes, double-axes as well as simple axes, the last of which are examined in detail in the present article. The aim of the article is to develop the typology of these axes, to try to find out their chronology and to characterize the distribution of axes in the territory of Latvia.

In contrast to the boat-axes of the Late Neolithic, the simple work axes represent a find category characteristic of the Bronze Age in Latvia. As is the case with axes belonging to the other groups, most of the simple axes are stray finds lacking archaeological context, on account of which it is rather problematic to establish a precise chronology. Only a small proportion of the axes, in most cases fragmentary, have been found on living sites, and they are virtually absent from burials. For the latter, in the territory of Latvia, excavations have taken place in more than 30 Bronze and Pre-Roman Iron Age barrow and flat cemeteries (the most extensive excavations were carried out in Pukuļi, Ķivutkalns, Reznēs, Kalnieši and Buļļumuiža cemetery), where about 800 burials were studied. The grave inventory in these burials was very scarce, with a total of about 120 units (bone pins, rare amber pendant, small bronze object or flint tool) or none at all. The only exception was Reznēs cemetery, where between the finds on the barrow 2 there was one double-axe and one simple work axe¹ (Fig. 2: 1).

However, the study of simple stone axes is important for a better understanding of lifeways, economic activities and the settlement pattern in the Bronze Age of present-day Latvia. Currently, the author has records of about 1630 such simple axes found in Latvia, including actual artefacts as well as archive reports of finds. The greatest number are held at the National History Museum of Latvia, but they are also to be found at regional museums in Jēkabpils, Liepāja, Bauska, Ventspils and elsewhere.

They were first named “simple axes” by Eduards Šturms, who remarked on their formal diversity and dated them to the

end of the Neolithic and the Bronze Age.² He separated Augšzeme-type axes from the rest of the work axes, dating these to the final phase of the Stone Age.³ The work axes have also been examined by Jānis Graudonis, who dated them to the Late Bronze and Earliest Iron Age, i.e. the 1st millennium BC.⁴ Stone axes with a shaft-hole have likewise been studied by Lithuanian and Estonian researchers. The axes from present-day Lithuania are covered in a separate chapter of Vol. 1 of the 1974 archaeological atlas of the Lithuanian SSR, authored by Ona Bagušienė and Rimutė Rimantienė.⁵ The axes found in Southwest Lithuania in 2002 were characterized by Vigandas Jodagalvis (*Vygas Juodagalvis*).⁶ A brief overview of simple axes has been given by Algirdas Girininkas in 2013.⁷ The shaft-hole stone axes found in Estonia are considered in the collective monograph *Prehistory of Estonia*, which appeared in 1982,⁸ and in the 2007 book by Valter Lang on the Bronze and Early Iron Age in Estonia.⁹ The shaft-hole axes of the Late Neolithic and Bronze Age are discussed in a separate article by Kristiina Johanson.¹⁰ Simple stone shaft-hole axes are also found in other Baltic Sea basin countries.¹¹

TYPOLGY

Battle-axes and their typology were subject to study already in the first half of the 20th century. One of the first to examine the battle-axes of Northern Europe was Swedish researcher Nils Åberg, in 1915.¹² During the 1930s and 1940s, they were the subject of study by Finnish archaeologist Aarne Äyräpää¹³ and Danish archaeologist Peter Glob.¹⁴ In Russia, the battle-axes of Eastern Europe were studied by Aleksandr Brjusov and Maija Zimina,¹⁵ Dmitri Krainov¹⁶ and many others. The battle- or boat-axes from Latvia were first analysed in 1936 by Eduards Šturms, who distinguished six subgroups. He included straight-backed axes and double-axes as separate groups of battle-axes.

Šturms does not cover the simple work axes in this treatment, except for the Augšzeme type.¹⁷ Compared with battle-axes, the simple axes have received much less attention, even though they outnumber the former many times over (about 90 boat-axes and derived forms have been found in Latvia, along with some 40 straight-backed and 25 double-axes, thus together numbering about 153 finds, as against 1630 simple work axes). One of the reasons why researchers have held back from analysis of simple axes is their wide formal diversity along with characteristics due simply to chance, on account of which the creation of an all-encompassing typology is problematic. Thus, when Jānis Graudonis attempted a typology, he was left with a whole set of axes that he could not include in any subgroup.¹⁸

The simple stone axes are smaller than the boat-axes: they are generally 8–12 cm in length, although shorter as well as longer examples also occur (longer examples being represented particularly within the subgroup of Augšzeme-type axes). In contrast to the battle-axes, the shaft-hole is in most cases located closer to the butt. The work axes have a shaft-hole diameter varying from 1.8 to 2.7 cm, but in most cases it falls in the range 2.1–2.5 cm. In general, the shaft-hole has been bored conically, the diameter at the back of the axe being a couple of millimetres greater than at the front – evidently intended to prevent the axe from flying off the haft when in use.

Examining the axes in frontal view, it is possible to distinguish pentagonal (Fig. 1: 1–7), Augšzeme-type (Fig. 2: 2, 4, 7) and almond-shaped axes (Fig. 2: 1, 3, 5, 6). There are also intermediate or hybrid forms, which cannot readily be included in any of the above-mentioned subgroups. In the production of the axes attention has been given primarily to the artefact's functionality as a tool, the form being of secondary importance.¹⁹ The three subgroups mentioned above are distinguished on the basis of the experience of the author and other

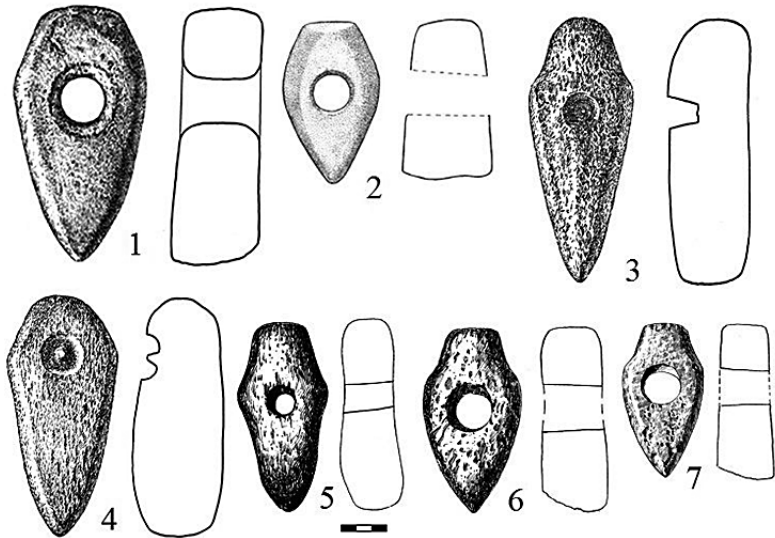


Fig. 1. Stone pentagonal work axes: 1 – Lazdona, A 8693; 2 – Skrundas Spaliņi, A 8844; 3 – Alsunga, A 11693; 4 – Basu Šmidri, A 9641; 5 – Rolava bog, A 8186; 6 – Viļāni, Madona museum, 739; 7 – Kivti settlement, LNVN VI 37: 295 After Ianis Graudonis (1967). *Latvija v epokhu pozdnei bronzi i rannego zheleza*. Riga: Zinatne, table 1, 4.

researchers in the typologisation of the simple axes. In the case of almond-shaped axes, the criteria for distinguishing them might be open to debate. However, considering that most of these axes are stray finds and so are not precisely dateable, further subdivision of this subtype into variants would be purely formal, without the possibility of verification.

Pentagonal axes. These have a flattened butt, separated from the sides of the axe by more or less pronounced angles; and there are distinct shoulders at the sides, opposite the shaft-hole, with more or less pronounced shoulder angles. Depending on the shape of the butt, two variants can be distinguished: 1) the sides above the shoulders are straight (Fig. 1: 1, 2), 2) the sides above the shoulders are concave; in the latter case, like the boat

axes, the cross section is oval or round (Fig. 1: 3–7). The front of the axe, namely the face oriented towards the haft, is usually somewhat oblique in relation to the back of the axe, thus giving a broadened blade, although in many cases the two faces are parallel. The shaft-hole may be closer to the butt or in the middle of the axe. The cross-section of the axe at the level of the shaft-hole is close to the square. Out of 850 axes whose form can be determined, only 61 (7% of all work axes) can be identified as pentagonal axes. They are more characteristic of western Latvia, although they do also occur in the River Daugava basin (Fig. 3). Such axes are widespread in Scandinavia, where they are classified into rectangular and diamond-shaped axes²⁰. Some of the pentagonal axes are hard to distinguish from derived forms of battle-axes; thus, it is possible that the latter influenced the development of the pentagonal axes, i.e. they represent a further degree of degradation of the derived forms of battle-axes. Among such pieces is an axe found on the Early Bronze Age settlement site of Lagaža,²¹ as is the one found in settlement of Kivti (Fig. 1: 7). Lithuanian researchers include them among Baltic boat-axes of local origin.²²

Augšzeme axes. Axes belonging to the Augšzeme type (totalling 97, or 11% of all work axes) are characterised by parallel front, back and side faces, giving them a rectangular cross section. They are known in Lithuanian archaeology as axes with parallel angles.²³ The shaft-hole of Augšzeme axes is always located close to the butt. The butt may be rounded (Fig. 2: 7, 4) or trapezoidal (Fig. 2: 2) in frontal view. On the basis of this feature, Šturms distinguishes two variants of Augšzeme-type axes.²⁴ These axes are long and slender – generally from 12–13 cm up to 15–16 cm in length; there is even one piece 19 cm long. The length of the axes depended on the amount of use: the more intensively the axe was utilised, the more frequently the blade had to be resharpened by grinding, thus reducing the length of the axe. An obvious example is the axe shown in Figure 2: 4,

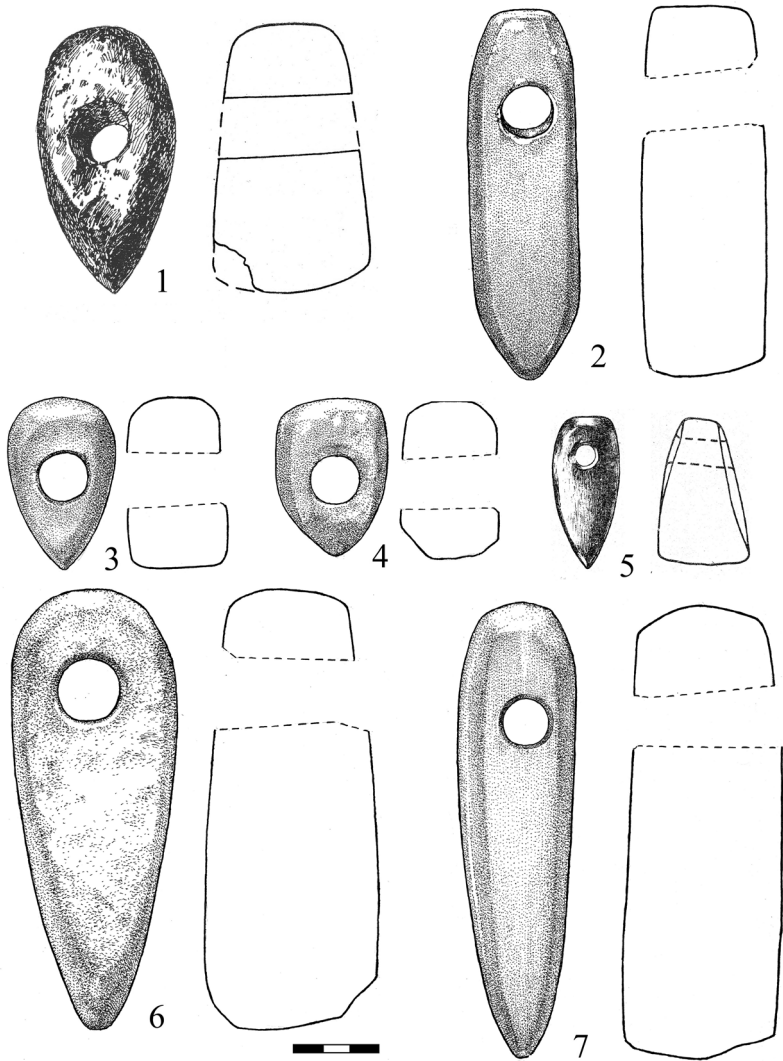


Fig. 2. Stone work axes: Augšzeme type (2, 4, 7) and almond-shaped (1, 3, 5, 6) forms. 1 – Reznes cemetery, barrow 2, A 8372; 5; 2 – Krāslavas Aišpuri, A 10656; 3 – Īslīces Bērziņi, A 12753: 1; 4 – Pabažu Stūriši, A 12193; 5 – Ķivutkalns hill-fort, LNVM VI 9: 2078; 6 – Sātiņu Lazdu kalns, A 8026; 7 – Pilskalne, RLB 21. Drawing: Aiga Ivbule.

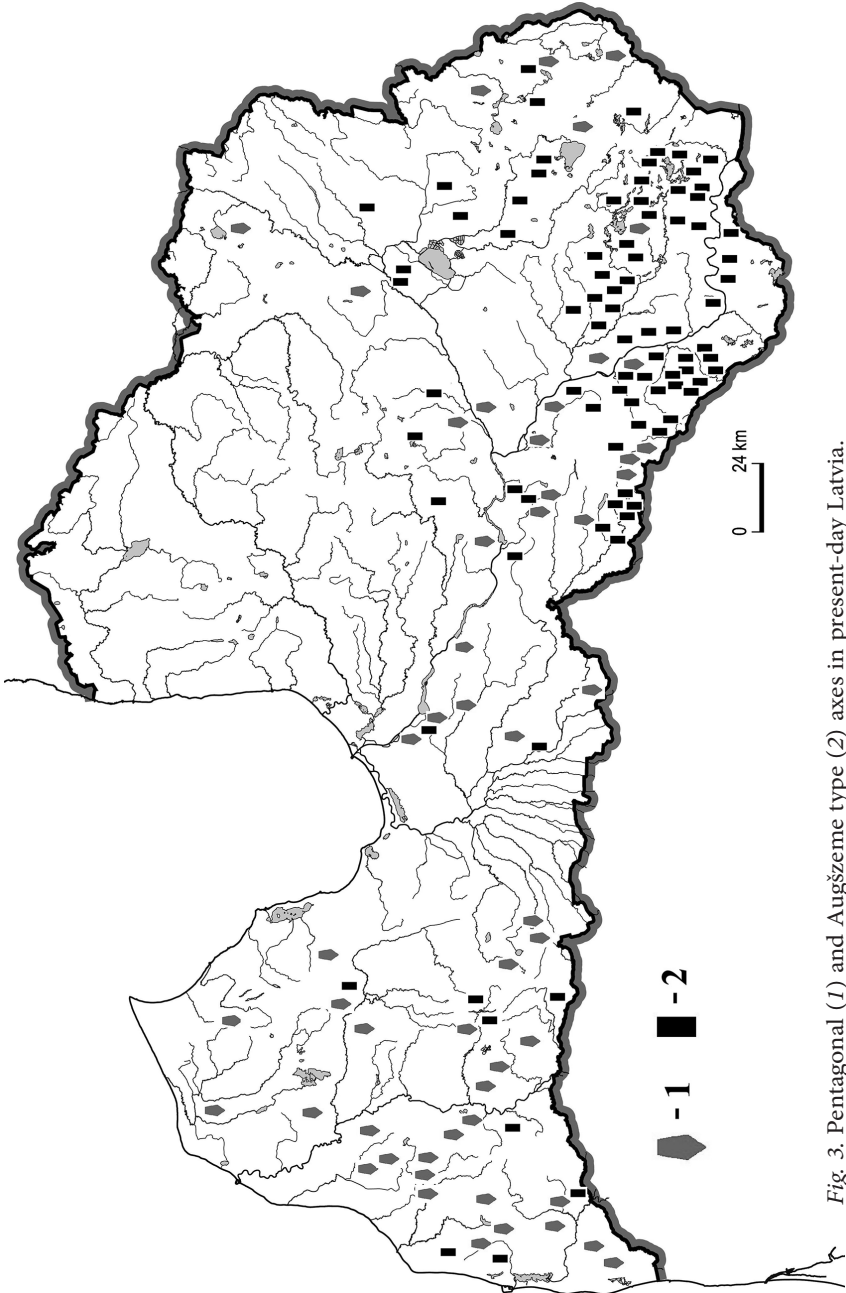


Fig. 3. Pentagonal (1) and Augšzeme type (2) axes in present-day Latvia.

reduced in length to as little as 6 cm through repeated sharpening. Such axes occur in greatest number in the Augšzeme region – hence the name. However, there are also many from the southern part of Latgale. Few have been found further to the north. Some axes of this type have also been discovered in the western part of Latvia (Fig. 3). Many such axes occur in Lithuania, especially in the north-eastern part of the country, and in Belarus.

Almond-shaped axes. Most numerous are the almond-shaped axes, totalling 692, or 82% of all work axes. In the majority of cases the front and back faces are somewhat obliquely oriented to one another, resulting in a broadened blade (for example, Fig. 2: 1). It is also characteristic that the front and back faces of the axe meet the lateral faces at a distinct angle – thus, the axes are rectangular in cross section. The shaft-hole is closer to the butt. In all cases the axe-head was angled at less than 90° to the haft. A miniature axe found at Ķivutkalns, only 5 cm long, with a shaft-hole 0.9 cm in diameter, corresponds to a classic almond-shaped axe (Fig. 2: 5). In some cases the shaft-hole is located in the middle of the axe (e.g., Fig. 2: 3), but this may be due in large measure to regular resharpening of the axe by grinding, whereby the axe was reduced in length and the shaft-hole “shifted” to the centre. The almond-shaped axes are not distinguished by a carefully shaped body; in many cases they are asymmetrical and carelessly made. These axes show a wide range of forms and sizes, evidently reflecting the prevalence of practical considerations, in terms of use and effectiveness as a tool, over the aesthetics of the artefact’s form. This kind of purely utilitarian approach is likewise a feature of the production of bone and antler artefacts in the Bronze Age, especially in its second half.

CHRONOLOGY

Tracing a detailed chronology of simple axes in the Bronze Age is problematic, since 92% of the axes are stray finds with no archaeological context, and only about 8%, or 131 pieces, have been recovered in the course of archaeological excavation or as stray finds on Bronze Age settlement sites. Moreover, a large proportion of these 131 axes are fragmentary, the morphological features not being determinable.

In approaching the chronology of stone work axes the author followed two criteria: finds on Neolithic/Early Bronze Age settlement sites and finds from Late Bronze Age living sites, primarily hill-forts. To some extent, analogies with stone axe finds in neighbouring countries – Germany, Poland, Denmark and Sweden – have also been taken into account.

As indicated by finds on some Late Neolithic sites (e.g., Abora I), the simple axes appeared already at the end of the Neolithic and beginning of the Bronze Age,²⁵ while finds from hill-forts (e.g., Ķivutkalns) show that they were still in use in the Pre-Roman Iron Age. Certain typological features of battle-axes that occur on some of the simple axes (e.g., parallel front and back faces) allow such pieces to be regarded as relatively earlier, dating from the end of the Neolithic and the first half of the Bronze Age (the above-mentioned example of the axe found on the Early Bronze Age settlement site of Lagaža). In this connection, mention should be made of an axe find in the village of Vaibla, near Lake Võrtsjärv in Estonia. In this case, remains of an ash-wood shaft were preserved in the shaft-hole. The object was radiocarbon-dated to 3050 ± 80 BP or 1520–1052 cal BC, i.e. to the first half of the Bronze Age.²⁶ Since the Vaibla axe, like the axe from Lagaža, resembles the pentagonal axes from Latvia, there is reason to believe that the latter, too, are from the first half of the Bronze Age. In turn finding the axe in the lower horizon of Kiviti settlements (Fig. 1: 7), along with the bone and flint tools, indicates that they were also used in the late Bronze

Age.²⁷ In Scandinavia Evert Baudou similar axes attributed to IV–VI period of the Bronze Age.²⁸ These are also found in the fortified settlements of Lusatian culture in northwestern Poland (Biskupin, Slupcza, Jankovo),²⁹ populated between 750 and 400 BC.³⁰

The time when the Augšzeme axes came into use cannot be ascertained with any certainty. In his publication of 1936, Šturms suggested that these axes appeared in the final stage of the Stone Age. Considering the formal symmetry of the Augšzeme axes and the careful workmanship, which are characteristics of Late Neolithic battle-axes, this could indeed be the case. However, on the other hand, individual shaft-hole axes have been recovered on Late Neolithic sites, including fragments of battle-axes, but Augšzeme axes are not represented among these finds. Accordingly, it may be concluded that these axes are a purely Bronze Age phenomenon. As indicated by finds of such axes at Ķivutkalns, Žaunerāni and Stanovišķi hill-fort, they were also used in the Late Bronze Age.

The majority of almond-shaped axes can evidently be regarded as dating from the Late Bronze Age, namely the period which saw more rapid development of agriculture, with an increased need for appropriate tools. However, these axes were also used in the succeeding period, the Pre-Roman Iron Age, or at least in its first half. This is indicated by the stratigraphy of the axe finds in the cultural layers of the hill-forts of the Late Bronze and Earliest Iron Age. It is seen most clearly in the case of Ķivutkalns, which, according to the latest radiocarbon datings, was inhabited from the 7th century BC up to the 1st century AD.³¹ The cultural layer, about 2 m thick, has produced 98 fragments of simple stone axes as well as whole examples. In stratigraphic terms they are distributed rather equally, occurring in the deepest levels of the cultural layer (Late Bronze Age) as well as in the upper levels, which relate to the Pre-Roman Iron Age.³² In contrast to the pentagonal and Augšzeme-type axes,

these late almond-shaped axes feature a broadened blade, evidently serving to increase the tool's efficiency.³³ As indicated by some finds on sites from the end of the Neolithic and the Early Bronze Age by Lake Lubāns, the earliest axes of this form are not characterised by a broadened blade, the back and front faces being parallel, and the shaft-hole tends to be in the central part of the axe, as it is in the case of the boat-axes.

DISTRIBUTION

The axes are not evenly distributed across the area of present-day Latvia. Major concentrations are observed in certain parts of the Augšzeme region, along the River Daugava around Jēkabpils/Krustpils, in the central and eastern parts of the Lielupe basin, and in certain areas of western Latvia. Few of these axes were found in the northern part of Latvia, especially in northern Vidzeme (Fig. 4), so one might think that these areas in the Bronze and Pre-Roman Iron Age were less populated. Of course, one cannot deny the trivial truth that in the north the population will always be less than in the south, but is it the only explanation for the smaller number of axes, that is, the smaller population of northern Latvia and Estonia in the period in question? According to the author, the distribution of axes does not adequately reflect population density.

During this period, in north Vidzeme and Estonia there were typical barrows with stone cists and stone coverings. Over the past few years, more than 45 such cemeteries (previously known about 40) have been discovered in north Vidzeme, the Gauja Basin and the areas north of it using aerial laser scanning (LIDAR) results.³⁴

Therefore, the area of these barrow cemeteries cannot be considered as sparsely populated. The low number of stone axes is most likely explained by the different farming patterns of the inhabitants of this area, namely the smaller or even minimal

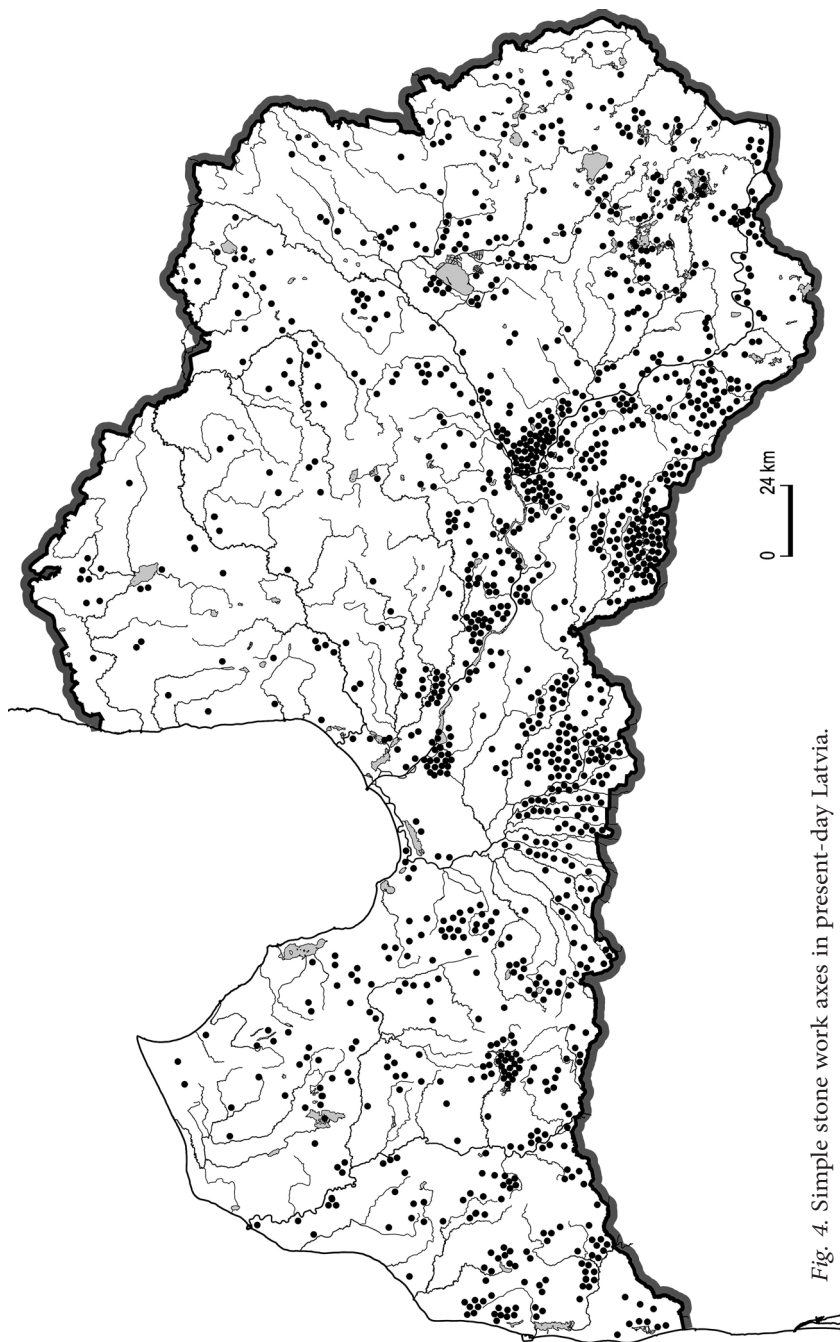


Fig. 4. Simple stone work axes in present-day Latvia.

role of farming, but the greater the role of livestock farming. A more specific picture of the economic activity of the population in the area in question could be provided by surveys of relevant settlement sites, but this is unfortunately not yet the case. The widespread introduction of tillage apparently occurred later when the stone axe was completely replaced by an iron one. For example, in the neighbouring Haanja highlands in south-eastern Estonia, pollen analysis data indicate episodic tillage already in the Bronze Age, but the constant presence of cereal pollen in the samples has been observed only since the first centuries AD.³⁵

Since the work axes have most commonly been discovered in the course of land tillage, the area of agricultural land was compared against the number of axe finds. Where the extent of agricultural land is greater, one would have a higher chance of finding stone axes. However, the comparison showed that there are adjacent municipalities with a similar extent of agricultural land but with very different numbers of axe finds. This shows that in the Bronze Age certain areas were more intensively used than others.³⁶

In order to establish what conditions influenced the utilisation of a particular area for agriculture, we may examine the association between stone axes and particular soil parent materials, which consist primarily of Quaternary deposits, mainly formed as a result of the last glaciation and the action of its meltwaters.

The stone axes are most commonly associated with glacial till: poorly sorted deposits created by the ice sheet, which consist of clay, silt, sand, gravel and pebbles. The till, which is generally also rich in carbonates (limestone), is viewed as a fairly favourable soil parent material. Compared with till, alluvial (river) deposits cover much smaller areas. In Latvia, alluvial soils make up only 2% of all soils,³⁷ most extensively in the valleys of the Rivers Venta, Abava, Vārtāja, Lielupe and, of course,

the Daugava. Mainly as a result of spring floods, alluvial soils, i.e. fertile floodplain soils, have formed on the alluvial deposits. Accordingly, taking into account the limited areas with these soils, the number of axes found here can be seen as noteworthy. In western Latvia fairly large areas are taken up by the glaciolacustrine deposits of the Baltic Ice Lake and the marine deposits of the Littorina Sea, as well as deposits of wind-blown sand. Although these are regarded as poor soil parent materials owing to their impoverished chemical composition, judging by individual finds of axes, they were used for agriculture, particularly on the Coastal Plain. Evidently, although infertile, the sandy soils could be more easily tilled. On the other hand, the glaciolacustrine clays, which are nowadays regarded as good soil parent materials, were not extensively utilised, because such soils are hard to till. Fluvioglacial deposits, which in many cases are very sandy and consist of well-sorted material, are likewise counted among poor soil parent materials for agriculture, since under natural conditions they form infertile soils. Individual finds of axes on bog deposits indicate attempts to utilise wetland soils. However, they have poor physical and chemical properties, are poorly aerated, poorly drained and low in plant nutrients.

Finally, we may pose the question of why so many intact stone axes are found in present-day cultivated fields. It is inconceivable that they could have been lost accidentally while cutting trees and shrubs in the frame of swidden agriculture. Although the production of a shaft-hole stone axe did not require a human lifetime or longer, as was thought in the 18th century, it has been determined experimentally that, depending on the hardness of the rock, an axe would have taken 10–30 hours to make. Accordingly, a stone axe was a sufficiently valuable tool to be recovered in the event that it became detached from its haft.

There is no basis for regarding these stray finds of axes as belonging to the grave inventory of destroyed burials, because at

the find spots, which number in the hundreds, no bones of burials or other objects possibly deriving from the grave inventory have ever been observed. Moreover, as already noted, stone axes are not a characteristic find in the excavated graves from the Bronze Age. In some cases the stone axes may be associated with a possible open settlement, but in the majority of cases (based on field assessment of the stray find locations) there is no evidence of a settlement.

It may be thought that after long-continued use, in the course of which an axe was regularly resharpened by grinding the blade, which had the effect of changing the axe's form and thus also its centre of gravity, symmetry, etc., its efficiency as a tool would gradually have been lost, so that it would eventually have been discarded as useless. But the idea that these are discarded axes is contradicted by the occurrence among the recovered pieces of a considerable proportion of axes in very good condition, without wear. Only one explanation remains: that the axes were intentionally placed in the ancient fields as protective items, talismans or amulets. The fact that in the Bronze Age stone axes no longer occur as grave goods testifies to changes in the ritual symbolism of the axes. Evidently, the simple work axes no longer served to express social status; however, there are indications that they were credited with magical properties. We may consider in this connection the miniature stone axe found on Ķivutkalns hill-fort. It is well ground and shows all the characteristic features of a work axe. Also found here was a 6 cm long ground stone object made from dolomite in the form of an axe, with an incomplete shaft-hole. In the opinion of Graudonis, who directed the Ķivutkalns excavation, the two finds are either children's playthings or objects with some other significance; he suggests that they could be small cult axes related to swidden farming.³⁸ Among the stray finds of axes from Latvia there are some pieces measuring only 6–7 cm in length. It seems doubtful whether axes of such minute dimensions

could have been used for clearance farming; they should rather be counted among miniature artefacts having a special symbolic significance. Presumably, the non-miniature axes made of sandstone (found in Sātiņi Parish; length: 14 cm) or limestone (finds from Grobiņa and from Sabile early town site) and thus unsuitable for cutting trees and bushes, had a similar significance.

A conviction in the magical capacity of stone axes to ward off evil and cure people as well as livestock persisted in the 19th century and even in the 1920s and 1930s. There are a large number of records indicating that they were popularly referred to as “thunderballs” (Latvian *pērkona lodes*) or, less commonly, as “thunder-arrows” (*pērkona bultas*), indicating the axes’ connection with celestial forces. Such axes were also used by folk healers for curing various ailments. Ideas concerning the protection conferred by such axes and their connection with the sky were widespread in antiquity, not only in Latvia but elsewhere in Europe as well. All of these considerations lend weight to the idea that the Bronze Age inhabitants concealed stone axes on or near their fields in the belief that they would confer protection against famine, drought and suchlike misfortunes.³⁹

CONCLUSIONS

Of all stone shaft-hole axes (1785 units), the largest group consists of simple work axes, making up 91% of the total number of axes. Three subgroups may be distinguished: pentagonal axes, Augšzeme-type axes and almond-shaped axes. Additionally, there are intermediate and hybrid forms – axes that are problematic to assign to any one of these subgroups. With regard to the last subgroup, the almond-shaped axes, it needs to be borne in mind that most of them are stray finds, and so their chronology cannot be precisely ascertained; further subdivision into variants would be purely formal, with no possibility of verification. Determination of the chronology of the simple axes within the

Bronze Age is difficult, because 92% of the axes are stray finds with no archaeological context, and only about 8% have been found in the course of archaeological excavation or as stray finds on Bronze Age habitation sites. Simple axes have so far not been found in graves. In the investigation of axe chronology, the author has followed two criteria: finds on Neolithic/Early Bronze Age settlements, and finds on Late Bronze Age living sites – primarily hill-forts. Pentagonal axes, more characteristic of western Latvia but also occurring in the Daugava basin, may be dated to the first half of the Bronze Age but also used later. Augšzeme-type axes are characteristic of the southern part of the Latgale region and Augšzeme, and may be dated to the Bronze Age. Almond-shaped axes are typical artefacts of the Late Bronze Age and Pre-Roman Iron Age. Axes are not evenly distributed across present-day Latvia. They concentrate more in southern Latvia, with fewer finds in the northern areas of the Kurzeme and Vidzeme regions. For the latter, it is likely to be explained by a different farm model, where farming was less important than livestock farming and therefore less use of stone axes.

As they have most commonly been discovered in the course of tillage in present-day fields, the association of stone axes with different soil parent materials has been examined. Stone axes are most commonly associated with glacial till, regarded as a fairly good soil parent material. Compared with till, alluvial (river) sediments occupy much smaller areas, only 2% of the total, and accordingly the comparatively small number of stone axes found in these areas can nevertheless be regarded as significant. The majority of simple stone axes – intact, undamaged and suitable for use – have been found on present-day fields, which have evidently been used for agriculture already in the Bronze Age. These cannot be regarded as accidentally mislaid objects. Most probably, these axes were placed in the ancient fields intentionally, as protective objects, talismans or amulets, in the belief that they would provide a safeguard against famine, drought and suchlike misfortunes.

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- ¹⁶ Dmitrii Krainov (1972). *Drevneishaia istoriia Volgo-Okskogo mezhdurechia. Fat`ianovskaia kul`tura. II tysiacheletiiā do n.e.* Moskva: Nauka.

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- ¹⁸ Ianis Graudonis (1967). *Latvija v epokhu pozdnei bronzi i rannego zheleza*. Rīga: Zinatne, s. 84.
- ¹⁹ The pointed bone pieces of the Bronze Age present a similar case: these have an intentionally shaped tip and some show additional modification to provide a better grip, whereas the rest of the bone has been left unmodified.
- ²⁰ Evert Baudou (1960). Die regionale und chronologische Einteilung der jüngeren Bronzezeit im Nordischen Kreis. *Acta Universitatis Stockholmiensis. Studies in North-European Archaeology*, 1, Stockholm, karte 28–32.
- ²¹ Ilze Loze (1979). *Pozdnii neolit i raniaia bronza Lubanskoi ravnini*. Rīga: Zinatne, tab. XXII: 4.
- ²² Rimutė Rimantiene (red.) (1974). *Lietuvos TSR archeologijos atlasas. I. Akmens ir žalvario amžiaus paminklai*. Vilnius: Mintis, pp. 94–95.
- ²³ Ibid., pp. 88–89. In his publication of 1930, Šturms also refers to them as Lithuanian (*litauschen*) axes; see: *Katalog der Ausstellung zur konferenz Baltischer archäologen in Riga 1930*. Rīga: Herausgegeben vom organisationkomitee, 1930, s. 13.
- ²⁴ Eduards Šturms (1936). Latvijas akmens laikmeta materiāli. F. Balodis, K. Straubergs (red.). *Latviešu aizvēstures materiāli, II*. Rīga: Latviešu Filologu biedrība, 20. lpp.
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- ³⁴ Jānis Ciglis (2018). Arheoloģisko pieminekļu apzināšana Rietumvidzemē. *Arheologu pētījumi Latvijā 2016.–2017. gadā*. Rīga: NT Klasika, 241.–246. lpp.
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VIENKĀRŠIE AKMENS DARBA CIRVJI LATVIJĀ: TIPOLOĢIJA, HRONOLOĢIJA, IZPLATĪBA

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Zinātniskās intereses: Latvijas aizvēsture, arheoloģija, bronzas un dzelzs laikmets.

Rakstā aplūkoti vienkāršie akmens kātcauruma darba cirvji, kas ir masveidīga bronzas laikmeta atradumu kategorija – Latvijas muzejos glabājas vai ir

ziņas par apmēram 1630 cirvjiem, no kuriem lielākā daļa (92%) ir savrupatradumi bez arheoloģiskā konteksta. Vienkāršie akmens cirvji atšķirībā no kaujas cirvjiem pētnieku uzmanību saistījuši mazāk. Pēc formas tie iedalīti piecstūra, Augšzemes tipa un mandeļveida formas cirvjos. Pēdējo ir visvairāk – 82% no visiem darba cirvjiem. Piecstūra un Augšzemes tipa cirvji lietoti visā bronzas laikmetā, bet mandeļveida formas cirvji vairāk raksturīgi vēlajam bronzas un senākajam dzelzs laikmetam. Cirvju izplatība Latvijas teritorijā nav vienmērīga. Liela to koncentrācija konstatēta atsevišķos Augšzemes apvidos, pie Daugavas, Lielupes baseinā, dažās vietās Rietumlatvijā. Maz šo cirvju atrasts Latvijas ziemeļu daļā, kas izskaidrojams ar atšķirībām saimniecības modelī, kurā zemkopībai bija mazāka nozīme nekā lopkopībai.

Atslēgas vārdi: vienkāršie akmens kātcauruma darba cirvji, Latvijas teritorija, bronzas laikmets, tipoloģija, hronoloģija, izplatība.

Kopsavilkums

Redzamu vietu Latvijas arheoloģiskajā materiālā ieņem akmens cirvji ar izurbtu kātcaurumu. Izšķiramas vairākas šo cirvju tipoloģiskās grupas: laivas cirvji, taisnmuguras cirvji, divasmeņu cirvji un šajā rakstā sīkāk aplūkoti vienkāršie cirvji. Atšķirībā no vēlā neolīta laivas cirvjiem vienkāršie darba cirvji ir Latvijas bronzas laikmetam raksturīga atradumu kategorija. Tāpat kā pārējo grupu cirvji, arī vienkāršo cirvju vairums ir savrupatradumi bez arheoloģiskā konteksta, kas ievērojami apgrūtina to precīzākas hronoloģijas noteikšanu. Tikai neliela daļa cirvju, pārsvarā fragmentāru, ir atrasta dzīvesvietās, bet apbedījumos tie tikpat kā nav sastopami. Šobrīd autora uzskaitē ir ap 1630 šādu Latvijā atrastu vienkāršo cirvju – gan paši priekšmeti, gan arhīvu ziņas par cirvju atradumiem. To lielākā daļa glabājas Latvijas Nacionālajā vēstures muzejā, taču tādi ir arī novadu muzejos.

Kaujas cirvjiem un to tipoloģijai pētnieki pievērsās jau 20. gs. pirmajā pusē. Salīdzinot ar kaujas cirvjiem, vienkāršajiem cirvjiem tikusi veltīta krietni mazāka uzmanība, kaut arī to skaits daudzkārt pārsniedz kaujas cirvju skaitu. Viens no iemesliem šāda atturībai vienkāršo cirvju analizē acīmredzot ir šo cirvju formu lielā daudzveidība, respektīvi, nejaušība, kas apgrūtina visaptverošas tipoloģijas izstrādi. Tā Jānis Graudonis, mēģinot šos cirvjus tipoloģizēt, atzina, ka veselu virkni cirvju neizdodas iekļaut nevienā apakšgrupā.

Vienkāršie akmens cirvji ir mazāki par laivas cirvjiem. To garums parasti ir 8–12 cm, tomēr sastopami gan īsāki, gan arī garāki (it īpaši Augšzemes tipa cirvju apakšgrupā) eksemplāri. Atšķirībā no kaujas cirvjiem kātcaurums vairumā gadījumu tiem atrodas tuvāk pietam. Aplūkojot

cirvi pretskatā, izšķirami piecstūra formas (1. att.), Augšzemes tipa (2. att.: 2, 4, 7) un mandeļveida formas cirvji (2. att.: 1, 3, 5, 6). Ir arī cirvju starpformas vai hibrīdformas, tāpēc tās grūti pieskaitīt kādai no minētajām apakšgrupām. Galvenā uzmanība cirvju izgatavošanā acimredzot tikusi pievērsta rīka funkcionalitātei, kur formai bija sekundāra nozīme.

Piecstūra formas cirvjiem ir noplacināts piets, respektīvi, izveidota pieta sega, kas ar cirvja sāniem veido vairāk vai mazāk asas šķautnes, bet sānos iepretim kātcaurumam izcelti pleci ar vairāk vai mazāk izteiktām plecu šķautnēm. Atkarībā no pieta formas izšķirami divi varianti: 1) pieta sāni virs pleciem ir taisni (1. att.: 1, 2), 2) pieta sāni virs pleciem ir konkāvi; pēdējā gadījumā, līdzīgi kā laivas cirvjiem, pieta šķērsgriezums ir ovāls vai apaļš (1. att.: 3–7). Cirvja priekša, proti, plakne, kas vērsta cirvja kāta virzienā, ar muguru parasti atrodas zināmā leņķī, veidojot paplašinātu asmeni, tomēr bieži abas puses ir paralēlas. Kātcaurums var būt izurbts tuvāk pietam vai arī cirvja vidusdaļā. Cirvja šķērsgriezums kātcauruma līmenī ir tuvs četrstūrim. No 850 cirvjiem, kuriem varēja noteikt formu, tikai 61 (7% no visiem darba cirvjiem) pieskaitāms piecstūra cirvjiem. Tie vairāk raksturīgi Latvijas rietumu daļai, taču sastopami arī Daugavas baseinā (3. att.).

Augšzemes tipa cirvjiem (pavisam 97, kas ir 11% no visiem darba cirvjiem) raksturīgas paralēlas priekšas, muguras un sānu plaknes, tāpēc šķērsgriezums tiem četrstūrainis. Kātcaurums Augšzemes cirvjiem vienmēr urbts tuvu pietam. Pretskatā piets var būt noapaļots (2. att.: 4, 7) vai trapecveida (2. att.: 2). Šie cirvji ir slaidi un gari – parasti no 12–13 cm līdz 15–16 cm, kāds eksemplārs bija pat 19 cm garš. Cirvju garums bija atkarīgs arī no lietošanas intensitātes – jo tā bija lielāka, jo biežāk nācās asmeni asināt, to slīpējot, tādā veidā padarot cirvi isāku. Uzskatāms piemērs ir 2: 4 attēlā redzamais cirvis – tā garums pēc regulāras asināšanas ir vairs tikai 6 cm. Visvairāk šādi cirvji sastopami Augšzemē – no tā arī cirvja nosaukums –, taču daudz to arī Dienvidlatgalē. Daži šī tipa cirvji atrasti arī Latvijas rietumu daļā (3. att.). Daudz šādu cirvju ir Lietuvā, īpaši tās ziemeļaustrumos, kā arī Baltkrievijā.

Visvairāk ir mandeļveida formas cirvju – pavisam 692, kas ir 82% no visiem darba cirvjiem. Lielākajai daļai šo cirvju priekšas un muguras plakne viena pret otru atrodas noteiktā leņķī, veidojot paplašinātu asmeni. Tāpat raksturīgi, ka cirvju priekša un mugura ar sānu plaknēm veido asas šķautnes, respektīvi, cirvjiem ir četrstūra šķērsgriezums. Kātcaurums atrodas tuvāk pietam. Tipisku mandeļveida cirvja paraugu atspoguļo Ķivutkalnā atrastais miniatūrais cirvītis – tas tikai 5 cm garš, bet kātcauruma diametrs 0,9 cm (2. att.: 5). Dažkārt kātcaurums atrodas

cirvja vidusdaļā (piemēram, 2. att.: 3), taču te sava nozīme varēja būt asmens regulārai asināšanai, to slīpējot un tā samazinot cirvja garumu. Mandeļveida formas cirvji neizceļas ar rūpīgi veidotu korpusu, bieži vien tie ir nesimetriski un pavirši darināti. Šiem cirvjiem raksturīga liela formu un izmēru dažādība, ko acīmredzot noteica šāda darbarīka praktiskās lietderības un efektivitātes pārsvars pār izstrādājuma formas estētiku.

Kā liecina atradumi dažās vēlā neolīta apmetnēs (piemēram, Aborā I), vienkāršie cirvji parādījušies jau neolīta beigās – bronzas laikmeta sākumā, savukārt atradumi pilskalnos (piemēram, Ķivutkalnā) liecina, ka tie lietoti vēl senākajā dzelzs laikmetā. Uz dažiem vienkāršajiem cirvjiem piecstūra cirvju grupā sastopamās kaujas cirvju atsevišķas tipoloģiskās pazīmes pieļauj šādus eksemplārus uzskatīt par relatīvi agrākiem un attiecināt uz neolīta beigām un bronzas laikmeta pirmo pusi. Taču šāda cirvja atradums Kivtu apmetnes kultūrslāņa apakšējā horizontā norāda uz to izmantošanu arī vēlajā bronzas laikmetā (1. att.: 7). Augšzemes cirvju parādīšanās laiks nav kaut cik droši nosakāms. Vēlā neolīta apmetnēs ir atrasti atsevišķi kātcauruma cirvju, to skaitā laivas cirvju fragmenti, taču Augšzemes cirvji atradumos nav pārstāvēti. Tāpēc atliek uzskatīt, ka šie cirvji ir tīra bronzas laikmeta parādība. Kā liecina šādu cirvju atradumi Ķivutkalnā, Žaunerānu un Stanovišķu pilskalnā, tie lietoti arī vēlajā bronzas laikmetā. Mandeļveida formas cirvju lielākā daļa acīmredzot attiecināma uz vēlā bronzas laikmetu, proti, uz laiku, kad straujāk izvērsās zemkopība un pieauga vajadzība pēc atbilstošiem darbarīkiem. Tomēr šie cirvji lietoti arī sekojošajā senākajā dzelzs laikmetā (500.–1. g. pr.Kr.), vismaz tā pirmajā pusē. Uz to norāda cirvju atradumu stratigrāfija vēlā bronzas un senākā dzelzs laikmeta pilskalnu kultūrslāņos.

Cirvju kā masveida izstrādājumu izplatība zināmā mērā raksturo Latvijas teritorijas apdzīvotības ainu bronzas laikmetā. To izplatība Latvijas teritorijā nav vienmērīga. Liela to koncentrācija konstatēta atsevišķos Augšzemes apvidos, pie Daugavas ap Jēkabpili, Lielupes baseina centrālajā un austrumu daļā, dažās vietās Rietumlatvijā. Maz šo cirvju atrasts Latvijas ziemeļu daļā, īpaši Ziemeļvidzemē (4. att.), kas visticamāk skaidrojams ar šo teritoriju iedzīvotāju atšķirīgu saimniecības modeli, proti, ar mazāku vai pat minimālu zemkopības, bet lielāku lopkopības lomu. Lai noskaidrotu, kādi apstākļi ietekmēja tā vai cita apvidus izmantošanu zemkopībai, aplūkota akmens cirvju saistība ar augšņu cilmiežiem, kas veidojušies pēdējā apledošanas un tā kušanas rezultātā. Visbiežāk akmens cirvji saistīti ar morēnu, kas parasti ir bagāta arī ar karbonātiem un tiek uzskatīta par samērā labu augsnes cilmiezi. Salīdzinoši daudz cirvju atrasts uz upju piekrastu aluviālo nogulumu auglīgajām augsnēm. Tanī

pašā laikā glaciolimniskie māli izmantoti maz, jo šādas augsnes ir grūti apstrādājamās.

Visbeidzot izvirzās jautājums: kāpēc mūsdienu tīrumos atrod tik daudz veselu akmens cirvju? Nav domājams, ka tie varētu būt nejauši pazaudēti, jo akmens cirvis bija pietiekami vērtīgs rīks, lai to atkal nesaņemklētu. Acīmredzot šie cirvji ar nolūku ir nolikti senajos tīrumos kā aizsargpriekšmeti, kā talismani vai amuleti. Bronzas laikmetā vienkāršie akmens darba cirvji vairs nebija sociālā statusa izteicēji, tomēr dažas pazīmes norāda, ka tiem tika piedēvētas noteiktas maģiskas īpašības. Šajā sakarā uzmanību saista jau iepriekš minētais Ķivutkalna pilskalnā atrastais rūpīgi izveidotais miniatūrais akmens cirvītis. Turpat atrasts arī kāds 6 cm garš cirvja veidā aplīpēts priekšmets no dolomīta ar aizsaktu kātauruma urbumu. Latvijā starp savrupatradumos iegūtajiem cirvjiem ir atsevišķi eksemplāri, kuru garums ir tikai 6–7 cm. Niecīgie izmēri liek šaubīties par šo cirvišu izmantošanu līdumu zemkopībā – drīzāk tie pieskaitāmi miniatūrajām priekšmetiem ar īpašu simbolisku nozīmi. Jādoma, ka līdzīga nozīme bijusi arī tiem neminiatūrajām cirvjiem, kas izgatavoti no smilšakmens vai kaļķakmens un tāpēc nav piemēroti koku un krūmu ciršanai.

ATTĒLU PARAKSTI

1. att. Akmens piecstūra darba cirvji: 1 – Lazdona, A 8693: 1; 2 – Skrundas Spaliņi, A 8844; 3 – Alsunga, A 11693; 4 – Basu Šmidri, A 9641; 5 – Rolavu purvs, A 8186; 6 – Viļāni, Madonas muzejs, 739; 7 – Kivtu apmetne, LNVM VI 37: 295. Pēc: Ianis Graudonis (1967). *Latvija v epokhu pozdnei bronzi i rannego zheleza*. Rīga: Zinatne, 1., 4. tab.
2. att. Akmens darba cirvji: Augšzemes tipa (2, 4, 7) un mandeļveida formas (1, 3, 5, 6). 1 – Reznu kapulauks, 2. uzkalniņš, A 8372: 5; 2 – Krāslavas Aišpuri, A 10656; 3 – Īslīces Bērziņi, A 12753: 1; 4 – Pabažu Stūriši, A 12193; 5 – Ķivutkalna pilskalns, LNVM VI 9: 2078; 6 – Sātiņu Lazdu kalns, A 8026; 7 – Pilskalne, RLB 21. Aigas Ivbules zīmējums
3. att. Piecstūra (1) un Augšzemes tipa (2) cirvji Latvijas teritorijā
4. att. Vienkāršie akmens darba cirvji Latvijas teritorijā