

MAARJA OLLI

From individuality to regionality
in the distribution area
of *tarand* cemeteries
in the Roman Iron Age



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- V Kivirüüt, A & Olli, M. 2016. Archaeological research on Aakre Kivivare *tarand*-grave. – AVE 2015, 59–70.
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FROM INDIVIDUALITY TO REGIONALITY IN THE DISTRIBUTION AREA OF *TARAND* CEMETERIES IN THE ROMAN IRON AGE

1. INTRODUCTION

Thinking about how past people viewed themselves and others is quite fascinating, especially when considering how they defined and expressed self and social affiliation. It is also fascinating to consider the kind of connections that must have existed between past people and their personal items. Especially as it is human nature to identify oneself and to then compare this notion of self to others, a phenomenon that is often bound to the current social context and system. The concepts of individual and collective that we understand today are very likely to be different than they were *ca* 2000 years ago. Therefore, when studying the social affiliations of past people, it is wise to have a broader perspective. We must carefully consider what it meant to be a person at this time, affiliated to a group (or groups) and subsequently reflect on their relationship with the evidence we find in the archaeological record, such as the material items recovered from the earth and the ancient places in the landscape that were important to them.

This dissertation focuses on the people that used the burial places called *tarand* cemeteries – communal, monumental, stone burial sites dating to the Roman Iron Age. In these cemeteries, the bones and related personal items are severely commingled, and thus useful stratifiable contexts are rare. These *tarand* cemeteries are distributed across Estonia, but they also stretch as far as Ingria (within the Russian Federation), to the coastal areas of Finland and to northern Latvia (Salo 1968, 183–190; LA 1974, fig 37; Keskitalo 1979; Lang 2007, 191, fig. 116; Yushkova 2016, 144, fig. 1). The Roman Iron Age, for these distribution areas, roughly encompasses the first four centuries AD. More specifically in Estonia it is AD 50–450, in Latvia and Finland AD 1–400 and in Ingria AD 70–370 (Kivikoski 1961, 104; Lang & Kriiska 2001, 102; Vasks 2001, 187; Юшкова 2010). Different aspects related to the *tarand* cemeteries of the Roman Iron Age are often discussed in a wider eastern Baltic context, which is considered to be a region covering the Balt areas in Latvia, Lithuania and the Sambian Peninsula, some parts of Masuria in north-west Poland and the Finno-Ugric areas (see chapter 4). It also includes the Vistula River delta, an area that associates more with the Germanic cultures of central Europe (see chapter 4).

This dissertation aims to better define the expressions of individual, communal and regional affiliation of the peoples who lived in these *tarand* cemetery areas and who were subsequently buried in them. Firstly, it ascertains whether individuals can be identified in the *tarand* cemeteries and if so how they could have been perceived in death and how the mortuary practice shaped ideas about identity and personhood. Secondly, communal aspects surrounding the relation-

ship between the living and the deceased are discussed, with a focus on the nature of the social groups (or community) that buried their dead in the *tarand* cemeteries. It is particularly important to better understand how the personal ornaments placed into the cemeteries connected to the living community and how the spatial arrangement of the cemetery expressed practices that could have maintained a collective identity. This thesis goes on to discuss which types of ornaments, or their related characteristics held a regional dimension and subsequently what were the active factors behind this phenomenon. Furthermore, could the movement of these items have taken place on an intraregional level and which long-distant connections existed between north-east Estonia, on the one hand, and south-east Estonia / north Latvia, on the other, and how did these connections influence the local culture. The source materials used in the creation of this thesis are mainly personal ornaments found in burial contexts. Therefore the distribution of items within the cemeteries themselves is also studied.

The regional focus of this thesis is on south-east Estonia, north Latvia, and north-east Estonia. These areas were defined based on the artefact distribution patterns presented in articles 1–3 and therefore the relationship between these areas were studied in more depth. One of the main tools to study the artefacts is typology, which is closely connected to relative and absolute chronology. This typological method is combined with compositional analyses, together with osteological and statistical methods, and network analysis.

This dissertation is a continuation of my BA and MA dissertations (2010 and 2013 respectively). In my BA dissertation, I compared the decoration of ornaments from five *tarand* cemeteries from south-east Estonia and five from north-east Estonia. The main motifs were identified and their possible meanings were discussed. The motifs were mainly connected to the particular ornament types preferred in different regions. In my MA dissertation, I added further regions from Estonia and also compared the decoration of the Pre-Roman Iron Age and Migration Period to that used on ornaments from the Roman Iron Age. According to the results of the dissertation, the decoration was predominantly connected to particular ornament types and did not hold a regional dimension. However, significant differences were present in the ornaments recovered from various regions. Some similarities were also present between the ornamentation on Roman Iron Age objects and those from the Pre-Roman Iron Age. It was concluded that the ornamentation present on Migration Period objects was quite similar to that found on Roman Iron Age objects but utterly different from the Pre-Viking and Viking Age ones. This suggested that there could have been changes in society, which were subsequently reflected in the material culture.

With this PhD dissertation, I wanted to study these regional differences further based on a considered selection of items, and applying several different analytical methods. From this study I aimed to provide new hypotheses regarding the reasons behind these differences. Concentrating on specific items allowed for a more in depth study regarding the different layers of possible meaning held by these items. I also wanted to go into more detail and study the

objects from an individual and community perspective – whether the individuals buried in the cemeteries are observable and if so can any ornaments be associated with them. Also, can we observe the community behind a *tarand* cemetery, when all aspects of the cemetery (grave goods, treatments of the bones, spatial arrangements) are taken into account.

This thesis is based on five articles, which are referred to numerically in the text:

- 1) The first article “Regions and communication in south-east Estonia and north Latvia in the third and fourth centuries based on local ornaments” explores intraregional interactions, main communication routes and the presence of sub-regions, based on local ornaments of the third and fourth centuries in south-east Estonia and north Latvia. Methods from network science are adopted to study these topics, resulting in a revision in the typology and chronology of items that have previously been considered local. The results of the paper suggest the existence of sub-regions within the research area where certain types of local ornaments were preferred. These local preferences could suggest a certain uniformity for a sub-region, one that differentiates it from other sub-regions. The locations of central areas were determined by the location of the bigger rivers, which were the main communication routes of the time, connecting distant areas and maintaining unity within the sub-regions as well as the region as a whole.
- 2) The second article “Eyes to the North: a multi-element analysis of copper-alloy eye brooches in the eastern Baltic, produced during the Roman Iron Age” focuses on the origin of eye series brooches found from Estonia and northern Latvia. Their typology was re-evaluated and based on combined typology and compositional approach, it can be argued that the eye brooches of the main and Prussian series were imported to the *tarand* cemeteries areas from the south. Based on these imports, the people on the shores of north-east Estonia created their own versions of the eye brooches, the Estonian series (with four subgroups), which were adapted and used over centuries.
- 3) The third article “Disc brooches of the Roman Iron Age from the *tarand* cemeteries of Estonia and north Latvia” discusses the regional differences in the disc brooches found in the *tarand* cemetery areas. New typological groups for the brooches were created and a compositional analysis was made. The distribution of these different groups, as well as their decoration, including surface treatments, suggested a degree of directionality in contact with other areas. A difference between north-east Estonia and south-east Estonia and northern Latvia came to fore. Based on this new evidence, the presence of two cultural groups was proposed: 1) north-east Estonia, and 2) south-east Estonia / north Latvia.
- 4) The fourth article “Individual and collective burial places: an analysis of the Viimsi *tarand* graves of northern Estonia” is a case study of a previously excavated *tarand* cemetery. This was conducted to take another look at the excavated cemetery, specifically to find out more about the identity of the deceased and the community who buried their dead there. Four bone clusters

associated with grave goods were identified. It could be argued therefore that some level of individuality was present in the funeral practices of that community.

- 5) The fifth article “Archaeological research on Aakre Kivivare tarand-grave” presents the results of the excavations undertaken by the authors at the Aakre Kivivare *tarand* cemetery in 2014 and 2015. The aim of these excavations was driven by my PhD research project, where I wanted to determine whether new excavation techniques (such as marking the exact find locations of the bones and artefacts via total station, 3D models of the excavated area created by photogrammetry, on site osteological expertise) can give new knowledge about the burial customs. The methods employed gave a better understanding of how the artefacts were placed into the cemetery and subsequently more knowledge of the burial customs employed.

The next chapter is the introductory part of this dissertation. It provides a general overview of *tarand* cemeteries – including their main characteristics, the distribution area, their origins in earlier *tarand* cemeteries and the time period in use. In the third chapter, the history of research into Roman Iron Age *tarand* cemeteries is provided. In the fourth chapter, the cultural and chronological divisions in the eastern Baltic region are introduced to set the wider framework for the era. Then the methods used to study the objects and the associated cemeteries are introduced. Next comes the theoretical part, where the concepts used to interpret material culture are presented. After that the results of this dissertation are presented, hypotheses regarding the individual in death and the community that placed them in the cemetery are formulated. This dissertation finishes by discussing regionality and the long-distant connections people of north-east Estonia and south-east Estonia / north Latvia had.

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his personal archive, and Andreijs Vasks (University of Latvia) also provided me with information about Latvian *tarand* cemeteries. Päivi Pihlanjärvi (Jantunen) was also very helpful in answering my questions about *tarand* cemeteries in Finland. Tom Brughmans (University of Barcelona) and Kaarel Sikk (University of Luxembourg) advised me about the network analysis and statistical methods. Maria Smirnova (Estonian National Heritage Board) helped to translate Russian texts, and Kristiina Johanson (University of Tartu) gave me useful feedback about the theoretical part of this dissertation. Anti Lillak (Estonian National Museum) helped me to assess the ceramics from Aakre cemetery. Drafts of some of the articles included in the dissertation were discussed in doctoral seminars at the University of Tartu and the feedback from Ester Oras, Ragnar Saage, Pikne Kama, Kirstiina Paavel and Andres Kimber was constructive. Riina Rammo (University of Tartu) was always there when I had a quick question or needed a coffee break. Kaarel Piip (Estonian Military Academy) helped me with proofreading. Anu Lillak, Anti Lillak and Pikne Kama also assisted with parts of the Estonian summary. I would also like to thank all the collection managers at the museums and research institutions in Estonia and Latvia for letting me use the collections and helping me find the items I was looking for. I would also like to thank all my friends from the National Defence League for occasionally helping me to clear my mind from the thesis. I would also like to thank my colleagues at the Estonian Ministry of Education and Research for being supportive of my studies. My biggest supporters were my partner Margus Lillak and my family.

2. TARAND CEMETERIES

Tarand cemeteries (also called *tarand* graves) are the most visible burial places dating to the Roman Iron Age, in modern day Estonia and its neighbouring areas. It is quite remarkable that these cemeteries, located over such a large area (see below), are so uniform in their main characteristics, which are presented as follows.

- **Monumentality** – this feature is mostly based on their permanent building material and grand scale (Lang 2007, 192). They consist of joint rectangular enclosures (*tarands*) on the ground, the walls of which are constructed of stones and inside is filled with smaller stones; the enclosures are attached by adding three walls to an existing one (Moora 1938, 3, 4; Vassar 1943, 11). There can be from one to over a dozen enclosures in total, making the most significant cemeteries around 100 meters in length and 30 meters wide, their height is around one meter from the ground (Moora 1938, 2; Lang 2007, 192). Usually, these cemeteries are orientated in the east-west direction, less often in a north-west, or south-east direction (*ibid*).
- **Landscape domination** – in most cases, these cemeteries are situated on higher ground or prominent places in the landscape (Vassar 1943, 141; Lang 1993, 6; Jonuks 2009, 217). As the cemeteries themselves are big, they are quite conspicuous, meaning that they are visible in the landscape. In many areas, these cemeteries are in groups, usually between two to four.
- **Communal burial place** – the bones of many individuals have been found in *tarand* cemeteries and sometimes even from just one enclosure. Also, the bones of people of all age groups and both sexes have been found in them (Kalling 1993, 67; Mägi-Lõugas 1996, 430, 431; 1997, 36; Yushkova, Kulešov 2011, 107; Articles 4 and 5).
- **Fragmentations of burials** – intact burials are usually absent or when present only some partially preserved skeletons are found (Spreckelsen 1907, 389, 390; Vassar 1943, 18; Шмидехельм 1955, 90, 91; Lang 1993, 12). Typically many cremated and uncremated individual bones have been found (Moora 1938, 11; Kalling 1993, 67; Mägi-Lõugas 1996, 430, 431; 1997, 36; Lang 2007, 203; Yushkova 2016, 146, 148; Article 5). The fragmentation of the bodies took place in cremation fires, and then the fragmentation of the bones took place, perhaps when the remains of the pyre were quickly cooled with water (McKinley 1989; Kalman 2000c, 438; Kivirüüt 2014, 41). Also the subsequent handling of bones (including excavation and post-excavation practices) can contribute further to the fragmentation process (Allmäe 2013, 22). Uncremated bones could also have been broken prior to putting into the grave, making them visually similar to the cremated ones. Therefore the practices surrounding the burial customs themselves could have had a role in these fragmentation processes

(*ibid*, 22, 23). Taphonomic factors could have also contributed to the fragmentation of the bones.

- **Commingled nature** – as a rule, the grave goods and the bones of the deceased are commingled in the cemetery, and closed complexes are rare or absent (Lang 2007, 206; Article 5).
- **Specific grave goods** – the main group of finds are shards of pottery, personal ornaments, and small tools; weapons in most regions are quite rare (Moora 1938, 12; Lang 2007, 206). However, in different regions, the proportion of those groups can vary (Lang 2007, 206). The personal ornaments found in many of the cemeteries are quite elaborate and often found in large numbers. Many types of earliest personal ornaments are also present in northern Europe and south-eastern coast of the Baltic Sea (for example, the eye brooches of the main and Prussian series). Local variations were subsequently developed based on some of these ornaments (Moora 1923; 1938, 606–612; Lang 2007, 206; Articles 1–3).

The *tarand* cemeteries of the Roman Iron Age spread across most of mainland Estonia (in central, northern coastal area, southern and eastern part of inland Estonia) and on the island of Saaremaa (Lang 2007, 191, fig. 116). They are also known in Latvia where they are distributed in the central and northern part of Vidzeme, in north and central Latgale and the northern part of Courland (Moora 1938, 16; LA 1974, fig. 37). *Tarand* cemeteries are also present on the south-western and western shore of Finland (Kivikoski 1961, 104–144; Salo 1968, 183–190; Keskitalo 1979; Jantunen 2014). Groups of *tarand* cemeteries have also been found from Ingria, on the western slope of the Izhora plateau, in present day Russia (Moora 1938, 18; Mikhaylova 2016; Yushkova 2016). There were also some other cemeteries found outside of these areas where the structure and/or finds of which resemble those of the *tarand* cemeteries: this includes Vybuty cemetery in the Lower Velikaya River region and Solonitsko cemetery in the western Lake Ilmen area in Russia (Yushkova 2016, 154 and the cited literature). Therefore it is possible that the *tarand* cemetery area stretches further to the east and/or that there were smaller groups of people who migrated from the central area of *tarand* cemetery use to eastern areas and maintained their mortuary customs there.

Thus, the *tarand* cemeteries of the Roman Iron Age are spread over a large area (see Article 3, 40, fig. 1) but some regional differences occur in their building material, construction, and size. The cemeteries in Estonia and most of north Latvia have a so-called typical *tarand* construction, meaning that the rectangular enclosures are attached to each other by the longer side forming a row (Fig. 1; Article 2, 602, fig. 1) (Lang 2007, 191, 192). These typical *tarand* cemeteries usually consist of more than one enclosure when completed, but then some cemeteries in north-west Estonia and south-western shore of Finland were only built to contain one enclosure (Fig. 2), and they are subsequently called “single *tarand* cemeteries” (Lang 1987). Some cemeteries in Latvia do not have a typical *tarand* structure, they have other types of internal structure and can

have round stone enclosures (Šnore 1935; Moora 1938, 3–8; Vasks 2006). However, they could still be a part of the same sphere of burial culture (Laul 2001, 195) because they are distributed in the same area as the *tarand* cemeteries. The character of grave goods is very similar, and both have a comingled nature in terms of items and bones. Many of them were excavated in the 19th century when the stone structures of those cemeteries were often misinterpreted; also many of them were severely damaged due to agricultural works, and their structure was not well defined, so most of them could well have been typical *tarand* cemeteries (Moora 1938, 4–5). The *tarand* cemeteries in Finland (excluding single *tarand* cemeteries) and on the western slope of the Izhora plateau also sometimes have different stone constructions (stone circles, small stone enclosures) in addition to more regular rectangular *tarands* (Salo 1968, 13–83; Yushkova 2016). In Finland, they mostly date to the early Roman Iron Age, but on the western slope of the Izhora plateau later artefacts have been found as well (*ibid*).

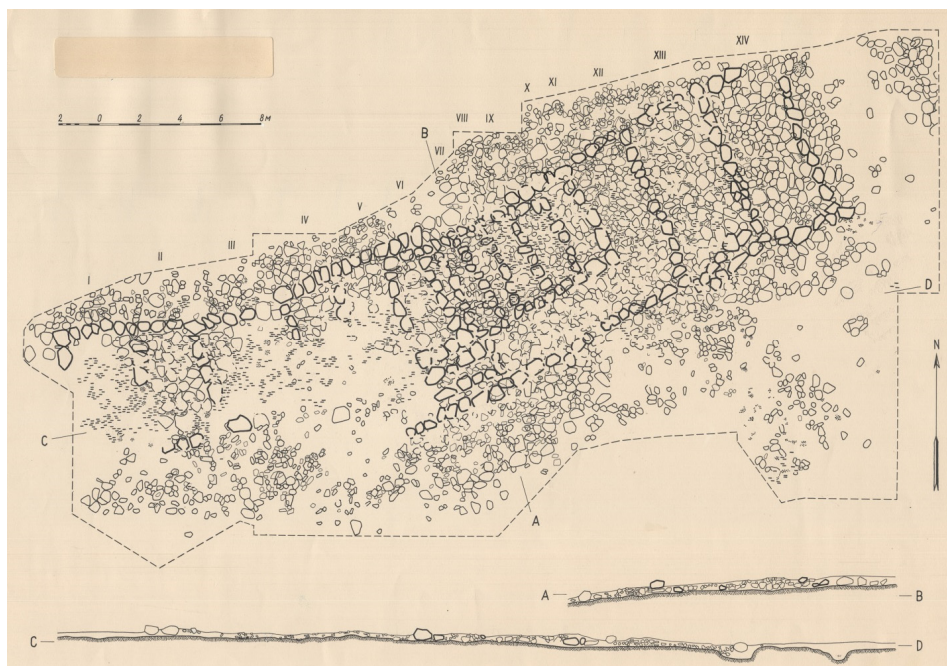


Figure 1. Virunuka IV *tarand* cemetery (drawing in the Archaeological Archive of the Archaeological Research Collection of Tallinn University, AI 4-1-47-10-37)

The cemeteries in north Estonia, on the western slope of the Izhora plateau and the island of Saaremaa are constructed of limestone and granite. The walls are stacked using big flat limestone slabs, in some cases granite is also used, and

the infill consists of smaller granite stones or pieces of limestone (Fig. 2) (Vassar 1943, 23; Шмидехельм 1955, plates III–XII; Deemant 1993, 24; Lang 1993, 15; Mägi-Lõugas 1996, 30; fig. 2; Yushkova 2016, 146, 148). The cemeteries in Finland are constructed of granite, bigger stones are used for walls, then smaller ones used for the filling (Jantunen 2014). In central and southern Estonia, cemeteries were built of granite (Fig. 3), bigger and flatter stones were usually placed as walls and the filling consists of bigger stones in one layer and then smaller ones placed between them in several layers (Vassar 1943, 10, 152; Moora, T. 1967, 281; Laul 2001, 46, 69, 70, 80, 85; Article 5). Sometimes the cemeteries in south-east Estonia also have a double wall (Laul 2001, 62, 68, 70). Furthermore, Latvian *tarand* cemeteries are constructed similarly to the south Estonian ones (Laul 2001, 196).



Figure 2. Proosa single *tarand* cemetery (negative of the photo in the photo collection of the Tallinn City Museum, TLM Fn 8998). Photo P. Kaasik.

The type of stone used in construction is mostly dependent on the local rock type available in the area. Limestone is found in north and west Estonia and on the islands, as well as in Ingria (Raukas 1997). Therefore the type of stone does not seem to be important, rather the fact that the cemetery has to be constructed of stone, which is a durable, monumental material, and that the walls must be more or less straight. However, in central Estonia, where limestone is readily available, the cemeteries were still constructed of granite (Vassar 1943, 10, 152; Moora, T. 1967, 281). The reason could be pragmatic – no limestone quarries could have been present at this time.

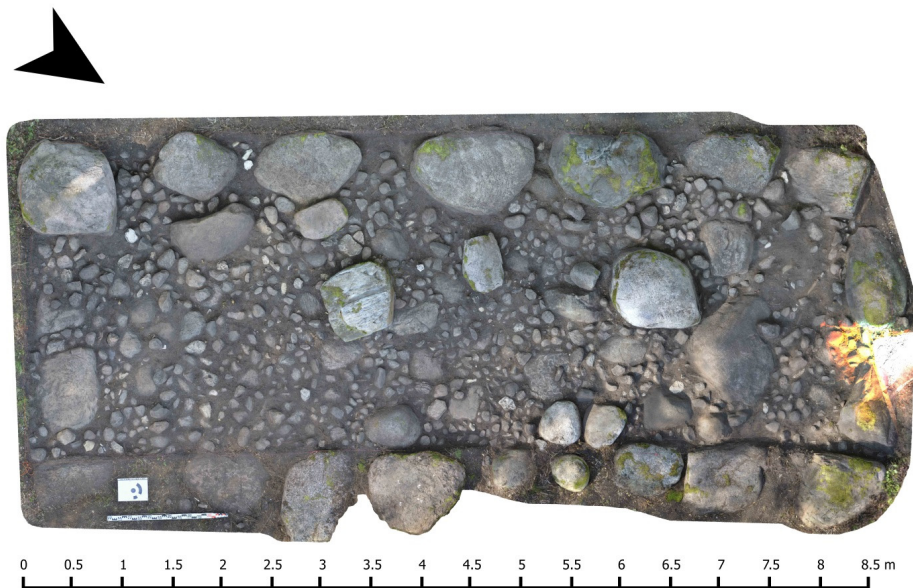


Figure 3. Cleaned top layer of *tarand* B, at the Aakre Kivivare *tarand* cemetery. Figure Edgar Laksa.

The origins of burying the dead in raised stone cemeteries goes back to the late Bronze Age. This is when several different stone grave types were used such as cist, ship and cairn graves (Lang 2007, 147). Early *tarand* cemeteries also emerged at the end of the Bronze Age and were used during the Pre-Roman Iron Age on the islands and the coastal area of north and west Estonia, also south-west and west Finland, central-eastern Sweden, north Latvia and on the western slope of the Izhora plateau (Feldt 2002; Vasks 2006; Lang 2007, 190; 2018, 169, fig. 5.7; Mikhaylova 2016, 182–185; Yushkova 2016, 148). The similarity between cemeteries, burial customs, and grave goods infers close contacts between people living in those areas and sharing similar religious and ideological concepts and symbolical approach to landscape (Lang 2018, 172). Another direction of contact was the Dnieper River area and Volga and Oka river region, judging by similar cemeteries in those areas, which by contrast

were constructed of wood (*ibid*, 172–174). The early *tarand* cemeteries in Estonia are very diverse, and many subtypes exist: the Kurevere type is a *tarand* structure that is built around a stone-cist grave and the *tarands* include cist-like constructions; in the Kõmsi type, *tarands* are arranged irregularly, sometimes in combination with cists; the Poanse type is characterised by small, similarly shaped and sized *tarands*, which are in a single row, cists are sometimes present; there are also early single *tarand* cemeteries, consisting of only one enclosure (Lang 2007, 170–178). The grave goods and some ¹⁴C dates suggest that the oldest are cemeteries which include cists in *tarand* structures such as Kõmsi and Kurevere type cemeteries (Lang 2007, 189). Poanse type cemeteries date mostly from the middle and late Pre-Roman Iron Age and single early *tarand* cemeteries date to the late Pre-Roman Iron Age (*ibid*). Both inhumation and cremation practices occur in early *tarand* cemeteries, inhumation being earliest and most common while cremation became more popular in the late Pre-Roman Iron Age (*ibid*, 178). Undisturbed inhumation burials are rare (due to secondary burials, later disturbances and poor skeletal preservation), cremation burials mainly occur in unurned bone deposits, but many are also scattered over the cemetery area (*ibid*, 179, 180).

The predecessors of typical *tarand* cemeteries are thought to be the Poanse type of early *tarand* cemeteries, based on their construction method (Lang 2007, 191, 192). It is thought that the earliest typical *tarand* cemeteries first developed in north-east Estonia, where some cemeteries represent a transitional form between the early and typical *tarand* cemeteries; the transitional phase ended in the second century (Шмидехельм 1955, 195; Lang 2007, 203). Similar processes are observable on the western slope of the Izhora plateau, where Pre-Roman Iron Age stone cemeteries, probably early *tarand* cemeteries, are present (Рябинин 1987; Mikhaylova 2016, 18; Yushkova 2016, 149). They were followed by rich Roman Iron Age *tarand* cemeteries, which resemble some characteristics of the north-eastern Estonian ones. But they also seem to be influenced by the eastern regions, judging by the presence of plaques imported from there among the grave goods (Yushkova 2016, 154). Contacts with Finland are also visible, based on the weapons found in the Roman Iron Age *tarand* cemeteries and the similarity of early *tarand* cemeteries in both regions (Salo 1968, 130–153; Yushkova 2016, 153, 154; Lang 2018, 177). It is also probable that the *tarand* cemeteries phenomenon was already present on the western slope of the Izhora plateau in the late Pre-Roman Iron Age and they simultaneously developed there in the first centuries AD, alongside those in north-east Estonia and coastal Finland.

The construction of typical *tarand* cemeteries spread across central Estonia during the first centuries AD and there are visible influences in the material culture of connections with north-east Estonia (Vassar 1943, 192, 193; Шмидехельм 1955, 198, 200; Lang 2018, 223). In north-west Estonia, the earliest typical *tarand* cemeteries date to the beginning of the third century and single *tarand* cemeteries appear there in the early fourth century, at the same time as they appear in south-east Finland (Lang 1987; 1996, 321, 323). The start of

these *tarand* cemeteries in north Latvia and south Estonia is dated to the second and third centuries. It is thought that the tradition spread to the northern areas of south Estonia from central Estonia around the year 200 and to the southern areas of south Estonia from north Latvia ca 50 years earlier (Laul 2001, 205, 206; Lang 2018, 223). However, based on a reassessment of the date of the earliest ornaments in the region¹, the emergence of *tarand* cemeteries could date a bit earlier (to the first two centuries AD). In Latvia, the beginning of some typical *tarand* cemeteries has been reassigned to the first century (Ciglis 2013a, 115). Early stone cemeteries were also present in north Latvia (Šnore 1935; 1936; Vasks 2006), and the transition could have been quicker in those areas.

Marika Mägi connects the early *tarand* cemeteries in Saaremaa with the so-called Stone Circle Grave culture². This is based on some similarities in the construction of the cemeteries and their grave goods. She also proposes that these connections lasted up to the Roman Iron Age and, based on the similarity of some grave goods (such as bucket-shaped and amber pendants), Saaremaa belonged to the same cultural sphere as the Stone Circle Grave culture during the Pre-Roman and Roman Iron Ages (Mägi-Lõugas 1995, 429; Mägi 2005b, 19, 20). The similarities in construction between stone circle graves and early *tarand* cemeteries have also been noticed by other researchers. However, the burial customs were different (inhumation burials in closed complexes vs comingled burials and open complexes respectively), and the similarities are probably a result of interaction and communication (see Banytė-Rowell & Bitner-Wroblewska 2005, 109) and cannot be interpreted as belonging to one cultural sphere. Also, besides the bucket-shaped and amber pendants, no other Roman Iron Age grave goods, typical for west Lithuania, have been found from Saaremaa. Furthermore, the date of the stone circle graves does not precede the Roman Iron Age (Banytė-Rowell 2015).

Remarkably, this rather uniform cemetery type (*tarand* cemeteries) dominated a large geographic area. Valter Lang has recently proposed that the spread of *tarand* cemeteries (and the specific religious ideology connected with them) was connected to the movement of people in general. This was partially influenced by the movement of the elite, who during took their religious and/or political ideology with them; by moving they gained control over trade and key areas, whilst creating alliances with other local elite (2018, 112, 222, 223). However, the spread of ideas without the actual migration of people could have been an additional factor. The new cultural phenomenon was probably first accepted by a small group of people who found the new funeral ideas appealing enough to adopt them. There could also have been economic benefits, like

¹ In addition the eye brooches of the main and Prussian series (Article 2), first and second century date is also proposed for a strongly profiled brooch from Hannuste cemetery (see for the date Michelbertas 1997, 208, 20), bracelets with knob ends, thin serial bracelets and leg rings (Ciglis 2013a; 2013b).

² Stone Circle Graves culture flourished in the first seven centuries mainly in west Lithuania and had its peripheral area in south-west Latvia (Banytė-Rowell 2001, 44; Bliujiene & Butkus 2017, 425; see chapter 4).

inclusion in trade relations and other important social interactions by belonging to the same cultural sphere as the people who already buried their dead in *tarand* cemeteries. This is supported by the nature of the grave goods, which are quite similar over the wider *tarand* cemetery area. It could mean that the people who belonged to the social sphere where typical *tarand* cemeteries were used, had access to vital trade and interaction routes. Further that they also had access to the long-distance trade system linking various southern areas, including in particular the south-eastern coastal areas of the Baltic Sea (see chapter 9.2).

The osteological analyses (Kalling 1993; Mägi-Lõugas 1996, 430, 431; 1997, 36; Juškova, Kulešov 2011, 107; Articles 4 and 5) and demographic calculations (Lang & Ligi 1991) suggested that not all members of a society were buried in *tarand* cemeteries. The dominant interpretation (also discussed in Article 5, see for more in sub-chapter 8.1) is that the people buried there belonged to the social elite due to the monumental character of the cemeteries and their elaborate grave goods (Ligi 1995, 222, 223; Lang 1996, 471–473; 2011; 110; Jonuks 2009, 236). The question then is how and where other people of a society were buried? One possibility is that they were buried in ways that are not visible in today's archaeological record. The dead must have been disposed of in some other way, e.g. open-air burial, leaving no observable traces (Lang 2011, 121–123) or that cremated bones were scattered into water or to the wind (Mägi 2007b, 9, 10). Another possibility is that cemeteries with buried cremations existed, but there are no visible markers of them in the ground, making them difficult to locate; moreover – the few that have been found lack grave goods that also makes them difficult to date (Vassar 1956, 162; Laul 2001, 188; Lang 2011, 119, 120). However, cremation is a process that takes a lot of time, resources and skill (McKinley 2013). It is questionable whether it was available for those not belonging to the upper strata of society. One Roman Iron Age burial site was discovered in Urvaste (south-east Estonia), which lacked any stone constructions (admittedly they could have been destroyed or removed, however) and it lacked the typical *tarand* cemetery infill (Valk *et al.* 2018, 106). It contained third and fourth century ornaments similar to the ones found from the region's other *tarand* cemeteries (*ibid.*, 102). One suggestion is that it could also be another type of Roman Iron Age burial site, where no monuments were erected (*ibid.*, 106). Maybe it was a burial site for a group (perhaps a family) that did not belong to the users of *tarand* cemeteries, but because the grave goods are very similar, a similar level of wealth could have existed. This could infer a society structure where people of similar wealth buried their dead in different ways, due to some other hierarchical or heterarchical distinction or a combination of both. More research has to be conducted however to further this topic. The question regarding the burial sites and customs of those not buried in *tarand* cemeteries remains open. We can only study the whole society indirectly, but the focus is on those who were buried in *tarand* cemeteries.

The Roman Iron Age is considered to be between AD 50–450 in Estonia, but between AD 1–400 in Finland and Latvia (Kivikoski 1961, 104; Lang & Kriiska

2001, 102; Vasks 2001, 187). Maria Razzak (Juškova) has presented a working chronology for the Izhora Heights (2010), according to which the Roman Period is approximately considered to run from the last third of the first century until the third quarter of the fourth century (*ca* AD 70–370). For Estonia, the beginning of this period is marked by the spread of new types of personal ornaments, especially brooches (i.e., eye brooches of the main and Prussian series), and the emergence of typical *tarand* cemeteries. In central Europe, the Roman Period falls within the start of the first century in absolute chronology and is marked by the B1 phase of the internationally accepted relational chronology³ (Eggers 1955; Godłowski 1970). In the second article of this dissertation and in the paper by Jānis Ciglis (2013a), some ornament types in the distribution area of *tarand* cemeteries are dated earlier than they have been dated before and thus may correspond to the phase B1 (eye brooches of the main series, some bracelets with knob-ends, thin serial bracelets, leg rings). Therefore it can be suggested that the start of the wider Roman Iron Age *tarand* cemeteries area could begin during the first century, but a more systematic study, reassessing the dates of the earliest finds has to be done.

Roman Iron Age *tarand* cemeteries are primarily dated by the grave finds. Unfortunately ¹⁴C samples have rarely been taken, therefore interpretation is problematic, as the cemeteries are open and the burials commingled. However, some ¹⁴C samples have been analysed from the bottom of the cemeteries and some bones. In the case of south-east Estonia's three *tarand* cemeteries (Põlgaste, Tsiistre and Aakre), there is an earlier date of the Pre-Roman Iron Age present, earlier than the finds themselves suggest (Laul 2001, 27, 188; Konsa 2003; Allmäe 2013; Article 5). This leads to the question of whether earlier burial sites were there by chance and if not was there a conscious choice to create new stone cemeteries on top of older ones (Lillak 2006, 30). It is also observable in other areas that *tarand* cemeteries were often built in the vicinity or on top of early ones (Šnore 1935; Шмидехельм 1955, 61 ff.; Mägi 1996, 1997, 1998). Therefore, it can be suggested that older burial sites were reused and redefined.

The end of the Roman Iron Age in Estonia is considered to happen *ca* AD 450 when the construction of *tarand* cemeteries ended and new phenomena in society and culture emerged including new burial practices, weapons appearing as grave goods, increasing numbers of hoards and hill forts and the disappearance of striated and textile impressed pottery (Lang & Kriiska 2001, 102; Tvauri 2012, 18). Also, new burial places containing many grave goods emerged in west Estonia and on the island of Saaremaa, where *tarand* cemeteries were quite rare (Tvauri 2012, 307, 308). In Latvia and Finland, Roman Iron Age ends with AD 400 (Kivikoski 1961, 104; Vasks 2001, 187). The end of the Roman Iron Age in the Izhora plateau area is considered to be AD 370 (Юшкова 2010). In the cross-regional chronology, the Roman Iron

³ A chronological system not used in Estonian archaeology, the absolute chronology of the phases varies slightly in different regions (see chapter 4. and sub-chapter 5.2.).

Age is considered to end with the end of phase C (around AD 350/375) (Godłowski 1970). These dates can be set against the background of the Barbarian Invasions of the Roman Empire, which had already started by the end of the fourth century (AD 350/375), leading to the division of the Empire and the fall of the West in AD 476 (Heather 2006). The earlier date proposed for the end of the Roman Iron Age in the *tarand* cemetery areas could also be possible, but a more systematic study, reassessing the dates of the latest finds has yet to be done.

In conclusion, typical *tarand* cemeteries are a rather uniform cemetery type distributed over a large area, although there are some smaller differences between the regions. It is thought that *tarand* cemeteries were burial places for only a specific part of the society, but the question remains as to how other people in society were buried. This remains unanswered since only a few uncertain discoveries are present. The origins of burials taking place in stone cemeteries go back to the Bronze Age, and the predecessors of Roman Iron Age *tarand* cemeteries are referred to as early *tarand* cemeteries, especially those of Poanse type. The emergence of typical *tarand* cemeteries and their subsequent distribution took place during the first centuries AD and they also covered areas where stone cemeteries were previously unknown. The beginning of the Roman Iron Age is also marked by the spread of new types of ornaments – brooches – that spread to the area through newly emerging close connections with the south-eastern coast of the Baltic Sea. The end of the period is linked to the end of the construction of new *tarand* cemeteries and the emergence of other types of burial places and social phenomena.

3. HISTORY OF RESEARCH OF ROMAN IRON AGE TARAND CEMETERIES

3.1. The Baltic German period

Researchers first became interested in *tarand* cemeteries during the 19th century, primarily due to their monumental features and the often elaborate artefacts found in them. The end of the 19th century, stretching into the first decades of the 20th century is regarded as the Baltic German period (in research history terms). This is a time when the researchers of prehistory in Estonia and Latvia were mostly of Baltic German origin (Lang 2006, 15). Their first priority in studying the Roman Iron Age was excavation. Many *tarand* cemeteries were excavated and their contents studied by professors of the University of Tartu (Dorpat) – Constantin Grewingk (professor in geology), Pavel Viskovatov (professor in Russian Literature and Slavic Philology), Georg Loeschcke (professor in classical archaeology and philology) and Richard Hausmann (professor in History)⁴. Also the history teacher Artur Spreckelsen and medical doctor Adolf Friedenthal excavated several cemeteries in northern Estonia and published their results⁵. There were others, mostly amateur researchers, who also excavated Estonian *tarand* cemeteries⁶. In Latvia, many *tarand* cemeteries were excavated by the Baltic German Count Carl von Sievers but also by Loeschcke, Hausmann, and others⁷. In Finland, *tarand* cemeteries were mainly

⁴ Unipiha (Sb.GEG 1876, 159; 1883, 153–158; 1887, 86; see Laul 2001, 50), Pikkärve (see Laul 2001, 39, 40), Kambja by Grewingk (Sb.GEG 1887, 131–140) and by Hausmann (see Laul 2001, 31, 32); Tatra by Grewingk (Sb.GEG 1880, 184; 1887, 131–140) and Schlüter (Sb.GEG 1908, 66–70; see Laul 2001, 35); Kullaku by Hausmann, Loeschcke and Schroeder (Sb.GEG 1890, 83, 84; see Laul 2001, 32, 33); Jaagupi by Loeschcke and Viskovatov (Loeschcke 1888; see Laul 2001, 44–48); Järve (Hausmann 1896, 3–12; see Шмидехельм 1955, 154–156), Edise (also called Kukruse, see Hausmann 1896, 12–17), Tamsa (Hausmann 1904, 32, 33; see Laul 2001, 49), Raiste (Sb.GEG 1888, 206; 1902, 114; see Laul 2001, 52), Kobratu (see Vassar 1943, 205), Väätsa (Hausmann 1891), Kardla (Sb.GEG 1912–1920, 7, 8; see Laul 2001, 48, 49) and Truuta by Hausmann (Sb.GEG 1891, 69; 1892, 89; see Laul 2001, 79); Tüsamäe by Viskovatov (Wiskowatow 1888; see Шмидехельм 1955, 156–159); Kuude by Hausmann and by von Riekhoffi and Knüpfper (Sb Fell., 1895, 28, 29; see Vassar 1956, 183).

⁵ Lagedi XIII, XIV:C, XV:B, XV:C, Saha D by Spreckelsen (Spreckelsen 1907; 1912; 1927); Kurna I by Friedenthal (Friedenthal 1911).

⁶ For example, Aakre Kivivare by Johann Sitzka (Sb.GEG 1894; see Laul 2001, 58, 59); Sammaste Taru by Jaan Jung and Johan Aspelin (Jung 1880, 50; 1883, 62; see Vassar 1956, 185) and Grewingk (Grewingk 1887, 158–162; see Valk 2000, 50, 52); Vana-Võidu by Otto von Wahl (see Vassar 1956, 183); Nurmsi by Brasche (see Vassar 1941, 8, 9); Essu by Ungern-Steinberg, Schlüter, Hansen (Sb.GEG 1903, 15; 1905, 26; see Шмидехельм 1955, 159) etc. In addition, stone graves of Arkna by Schubert; Eistvere by Schlüter, Hansen, Lichtenstein; and Rõa by Stackelberg were excavated by amateur researchers (see Hausmann 1909).

⁷ Velna Kravanda (Sievers 1877; see Moora 1929, 157–160), Slavēka (Sievers 1877; see Moora 1929, 139–145), Viksnas Kapusils (Sievers 1880, 61, 62; Moora 1929, 161–162), Gailītis (Sievers 1877; see Moora 1929, 46–47), Jauntēvēns (Sievers 1880; Moora 1929,

studied by the archaeologists Alfred Hackman, Arne Äyräpää and some other researchers⁸.

Grewingk first interpreted *tarand* cemeteries as Gotlandic ship-graves built by the Goths, who migrated from the Vistula River delta around AD 200 (Grewingk 1877; see more in Tvauri 2003, 42; Lang 2006, 82). Sievers, however, interpreted them as Viking Age, ship-shaped, stone graves (Sievers 1877; see more in Tvauri 2003, 42), but Grewingk's interpretation was more prominent and fitted into the overall research tradition of the time. This Gothic theory emerged from the era's broader historical tradition, in which the Goths held a prominent position as the most developed tribe at the time; they were thought to be culturally superior and as such were the only tribe that could have built these monumental stone graves (for further reading, see Tvauri 2003). This Gothic theory was revised by Viskovatov and Loeschcke. They inspected and re-excavated some cemeteries, which had previously been thought to be ship-shaped. As they did not see ship-shape constructions, and as the burial practice was different from Scandinavian, ship-shaped, stone graves, they concluded that these stone cemeteries were not Goth burial places, but were for the ancestors of the local people instead. (Wiskowatow 1888; 1890, 132; see for more Tvauri 2003, 46–53) In Finland however, archaeology was more Finnish-oriented and Gothic theory never took root there (Tvauri 2003, 52). Hackman proposed that ancestors of Finns and Estonians, not Goths, were buried in the *tarand* cemeteries, but noted that they had many Germanic influences (Hackman 1905, 348–349, 358; see for more Tvauri 2003, 52). He also proposed that a new people migrated from Estonia to Finland in the Early Roman Iron Age and became the ancestors of the modern day Finns (Hackman 1905, 348–349).

3.2. The emergence of national states

After the First World War and the Estonian and Latvian Wars of Independence, national states emerged. The University of Tartu was re-organized into an Estonian university, and since there were no professional archaeologists in Estonia at that time, Aarne Michaël Tallgren was invited from Finland to become the first professor of archaeology (Lang 2006, 21). He subsequently

153–154), Kaugars I and II (Sievers 1877; Moora 1929, 62–68), Lejaskleperis (see Moora 1929, 68–71), Lejasstrante (Sievers 1880; Moora 1929, 147–149), Mūsina (Sievers 1880; Moora 1929, 84), Strante (see LSV 2001), Strīki by Sievers (see Moora 1929, 149–150); Auciems II by Hausmann, Loeschcke, Schroeder (Sb.GEG 1894, 131; 1889, 108; see Moora 1929, 34, 35); Libritis by Schneider (see Moora 1929, 155, 156); Sējatas by Hueck (see LSV 2001). Loeschcke and Hausmann inspected the structure of the Slavēka cemetery in 1889 (Sb.GEG 1889, 108, 109, see Tvauri 2003, 51).

⁸ Hackman excavated Enbacken, Mankeberg, Visalandshagen, Lillmalmbacken I, Karpinmäki c, Tiikkinummi f, g, h, Högvalla, Ketohaka 2 and Penttala (see Hackman 1905; Salo 1968, 69–77; Keskitalo 1979, 22–32; Jantunen 2014); Ketohaka 3 was excavated by Äyräpää; Vidbergså kern and Nyåkerskullen by Nyberg, Ringbohm and J. Ö. Hackman (see Jantunen 2014).

presented an overview of Estonian prehistory, including the Roman Iron Age, describing the cemeteries, he created a typology and relative chronology for the brooches found there, based on Almgren's work, as well as an overview of other artefacts, and main features of their ornamentation. He proposed that the people living in Estonia in the Roman Iron Age were the ancestors of modern day Estonians (1922, 79–129). Tallgren also supported Hackman's idea of migration taking place from Estonia to Finland (*ibid*, 125, 126). The idea was also supported by other Finnish archaeologists such as Ella Kivikoski and also by Estonian archaeologists (Moora 1926, 124; Vassar 1938; Kivikoski 1939). The excavations of *tarand* cemeteries in Finland continued but to a lesser scale⁹.

Among the first Estonian archaeologists to study the Roman Iron Age and its *tarand* cemeteries were Marta Schmiedehelm, Harri Moora and Artur Vassar, who dedicated several publications to the subject. The emphasis of the earliest studies was on the typology of the brooches. Moora created a typology for the eye brooches found in Estonia and Latvia (1923). Schmiedehelm studied the crossbow and cross ribbed brooches, again from Estonia and Latvia, and created a typology with a broad chronology for them in accordance with Tischler's periodisation (1923). Both relied mostly on Hackman's work (1905), where many parallels for Finland's artefacts were drawn from the wider Baltic area. Soon the research by Moora and Schmiedehelm expanded as they turned their attention on the broader region of the eastern Baltic. They studied the rich collections in the Prussia-Museum in Königsberg, which housed archaeological finds from East Prussia (present-day Kaliningrad Oblast, the western coastal area of Lithuania and north-east Poland). These collections were central to the research in the region, but got severely damaged during the Second World War. After the war, it was thought that almost all the collections were lost. However, a large part of it has been recovered and now is housed in museums in Berlin, Olsztyn, and Kaliningrad, but many artefacts are lacking labels, and the identification of those items is only possible by using the private archives of researchers who studied the collection before the war, one of whom was Schmiedehelm. (Bitner-Wróblewska 2010, 178–180) Therefore, her archive is an essential source of information for the whole eastern Baltic region. Anna Juga-Szymańska is one of the main researchers collecting, sorting and preparing Schmiedehelm's unpublished notes for print. These notes relate to the collections from the Prussia-Museum together with other central European museums and private archives (Juga *et al.* 2003; Juga-Szymańska & Szymański 2003; 2018). Schmiedehelm's dissertation from 1944 was also published thanks to grant money from Poland (Schmiedehelm 2001 [1944]).

Schmiedehelm also supervised the excavation of many *tarand* cemeteries in Estonia, including for example, Jäbara and Pada (see Шмидехельм 1955)

⁹ Etterkilen I by Carl Nordman (see Keskitalo 1979, 21, 22); Pikku Linnanmäki by Anna-Liisa Hirviluoto (see Keskitalo 1979, 11, 12); Kroggårdsmalmen by Nils Cleve (see Salo 1968, 13–14); Koskenhaka by Ella Kivikoski (see Salo 1968, 61–67).

amongst others¹⁰. She also excavated Mūri in Latvia in 1930 (for more see Moora 1938, 696, 697). From the 1920s to the 1940s, many more *tarand* cemeteries were excavated in Estonia, such as at Kobratu, Jaagupi, Nurmsi, amongst others¹¹ and also in Latvia, such as Salenieki, Upmaļi, Gailīši¹².

For the Roman Iron Age, Moora focused his research on Latvia and studied all the artefacts and grave types that were present there. He also compared his research to other areas of the eastern Baltic region and subsequently presented the results in his dissertation (1929; 1938). He emphasised the importance of the sea routes connecting north-east Estonia and the south-eastern coastal areas of the Baltic Sea, Scandinavia, and Finland; the land routes were also emphasised in connection with southern areas, in terms of influences on material culture and the development of local types of ornaments (1938, 627 ff.). He also further developed the idea that the ancestors of modern day Estonians were buried in the *tarand* cemeteries (*ibid*, 656 ff.).

The work by Schmiedehelm and Moora is still valuable today especially in terms of some their ideas, their typological research, and an excellent overview of the regions monuments and excavations.

In studying the *tarand* cemetery phenomenon, Vassar's work cannot be overlooked. During the turbulent politics of the 1940s, he excavated Ülppe (see Vassar 1956, 176–182), Mäletjärve (see Laul 2001, 84–86) and Nurmsi cemeteries and wrote his dissertation based on the latter, which covered broader aspects of the Roman Iron Age as well (1943). He provided an interpretation of the peoples religious beliefs including their mortuary rituals and the symbolic meaning behind the cemetery construction.

3.3. The Soviet occupation

Research of the Roman Iron Age continued after the Second World War when Estonia and Latvia were occupied by the Soviet Union. It was compulsory during the Soviet era for all scientific research had to be interpreted through the prism of Marxism and archaeology was no exception (Lang 2006, 29–33). During the 1950s, ethnicity became a prominent part of social and humanitarian sciences in the Soviet Union and of course, in archaeology as well; this was

¹⁰ Verevi Läätsa (see Aun 1970; Laul 2001, 56), Paali (see Laul 2001, 33, 34), Malla Kelle-raugu, Tamme, Kuura, Toila, Iila (see Шмидехельм 1955).

¹¹ Nurmsi by Moora, Tallgren, Vassar (Tallgren 1922, 84–86; see Vassar 1943, 8); Kobratu by Moora, Vassar and Schmiedehelm (see Vassar 1943, 205); Ojaveski and Purtse-Matka by Friedenthal (see Шмидехельм 1955, 142–146; 151–154); Jaagupi by Moora, Vassar and E. Ariste (see Laul 2001, 44–48); Tõrma by Tallgren and Moora (see Шмидехельм 1955, 146–148).

¹² Upmaļi by Jākobsons (see Moora 1938, 718); Salenieki by R. Šnore and Balodis (Šnore 1935); Gailīši by Riekstiņš (see Moora 1938, 688); Lielpuderi by E. Šnore and Riekstiņš (see Moora 1938, 700); Saulieši (Jaun-Burtnieki) by Ozoliņš (see Moora 1929, 40–43); Blome Pērļu kalns by Ebert (see Moora 1929, 36–37); Braslas and Nauduše by Stepiņš (see LSV 2001, 381, 400).

particularly true of the study of the Roman Iron Age in Estonia (Lang 2006, 32, 33, 88). New ideas on how material culture, ethnicity, and language could have been connected were published in 1956 in a collection of articles where archaeologists, physical anthropologists, linguists, and folklorists presented their research. It was proposed that certain groups distinguished themselves by sharing similar material culture, correlated with the distribution area of modern-day Estonian dialects and thus are evidence of the foundation of several different Estonian tribes (Moora 1956; Schmiedehelm 1956; Vassar 1956). The idea that similar archaeological cultures overlapped different tribes was in line with the general trends existing in the wider study of European prehistory. At the beginning of the 20th century, Gustaf Kossinna and Vere Gordon Childe formulated the idea that archaeological cultures¹³ overlapped ethnic groups (Kossinna 1911; Childe 1925; Brather 2004, 65).

Schmiedehelm continued her excavations in north-east Estonia (Kahula, Toila and Järve, the latter with Erna Ariste), resulting in a monograph (1955), where the overall history of the region from the fifth century BC to the fifth century AD was presented, based on her excavation results, and a detailed overview by typology of the items recovered from them.

Silvia Laul studied *tarand* cemeteries in south-east Estonia from the late 1950s to the 1970s. She led the excavations of many important cemeteries¹⁴, including Virunuka (Laul 1965b). The results of her research led to new additions to the known typologies and a better understanding of the construction of the *tarand* cemeteries of the region. Her results provided many more new insights into the regions' past, especially for the Early Iron Age (see Schmiedehelm & Laul 1970; Laul 1974; 2001;). Based on the geographic distribution of the *tarand* cemeteries and similar ornaments of the third and fourth centuries, she distinguished different tribal areas in south-east Estonia and north Latvia and connected the Estonian ones to particular dialect areas (Laul 1982, 243; 1986).

In addition to those excavations just mentioned, many other Roman Iron Age *tarand* cemeteries were excavated in various locations around Estonia. These include Kõrenduse and Lahepera in east Estonia, Liiva-Putla in Saaremaa, Proosa, Mõigu in north-west Estonia and many others¹⁵.

In the 1980s, Valter Lang started to study Early Iron Age monuments in north-west Estonia. He distinguished single *tarand* cemeteries from the clas-

¹³ Coexistence of certain types of artefacts and sites in a particular time period in a particular area (Lang 2005, 13).

¹⁴ Põlgaste, Sadrametsa, Loosi, Kõnnu (see Laul 2001, 40–43, 61–64, 80, 81, 82–84).

¹⁵ Erna Ariste continued the excavations of Mäletjärve cemetery (see Laul 2001, 84–86); H. Moora excavated Nava (see Lang 2007, 198) and Toovere cemeteries; Kõrenduse and Lahepera cemeteris were excavated by Ain Lavi (Lavi 1978; 1980); Mõigu cemetery by Ülle Tamla (Tamla 1977); Tarbja by Evald Tõnisson and Tanel Moora (Moora, T. 1967); Lehmja-Loo I by Vello Lõugas (Lõugas 1973); Liiva-Putla by Aita Kustin (see Kungla 1967); Alasoo by Mare Aun; Sammaste Kirikumägi by Heiki Valk (see Valk 2000) and Proosa by Kaupo Deemant (Deemant 1993).

sically joined (typical) *tarand* cemeteries, as a different cemetery type. They were not just an unfinished cemetery as previously thought, but a planned monument containing only one enclosure. These single cemeteries were distributed across small areas on the shores of north-west Estonia and south-west Finland. (Lang 1987, 199–204; 1996, 322, 323)

In Finland, research into the Roman Iron Age continued, including the excavation of some *tarand* cemeteries¹⁶, together with the publication of many detailed overviews (for example, Kivikoski 1947; Salo 1968; Keskitalo 1979). The initial idea of immigration from Estonia prevailed in Early Iron Age research (af Hällström 1948, 43; Kivikoski 1961, 128), but towards the end of the 20th century, ideas promoting the continuity of earlier local (indigenous) populations arose (Meinander 1969; Salo 1984). This correlates with the trend in archaeological research at the end of the 19th century and the first half of the 20th century, when migration was the central theory for cultural change in Europe; but later the emphasis was placed more on local factors (Adams *et al.* 1978, 492–494).

Although the main excavation period for *tarand* cemeteries in Latvia was at the end of the 19th and beginning of the 20th centuries, some cemeteries were excavated in the Soviet period as well, such as Kalnapiļas and Kalnaķunči¹⁷. The stone cemeteries of north Latvia were discussed in a small number of articles (for example, Urtāns 1970; Шноре 1970). The most comprehensive overview of the stone cemeteries in Latvia at this time, is in Latvijas PSR Arheoloģija (1974).

3.4. The recognition of independence

Once Latvia and Estonia regained their independence in 1991, the opportunity to gain wider access to western research arose. With this the variety of research topics and theoretical approaches widened considerably (Lang 2006, 101). Lang studied various aspects of the Roman Iron Age and together with Priit Ligi revised the dominant idea that an extended family or a village buried their dead in one *tarand* cemetery (Шмидехельм 1955, 190–191; Laul 1982, 242). This revision was undertaken using demographic calculations. The results suggested that one *tarand* cemetery was used by a community of around ten people which could have been a nuclear family (Lang & Ligi 1991; Lang 1996, 357, 358).

Landscape archaeology was introduced for the first time with Langs' monograph (1996). It focused on north-west Estonia's micro-regions, for which he also created chronological phases; the Roman Iron Age was divided into the phases D1 (AD 50–200), D2 (AD 200–300) and D3 (AD 300–450). The results of these landscape studies concluded that villages had not yet formed in the

¹⁶ Borbacka I by Meinander (see Keskitalo 1979, 24, 25; Jantunen 2014, 22–26); Hästhagen by af Hällström (see Jantunen 2014, 14).

¹⁷ Kalnapiļas by Ozola, Apala, R. Šnore; Kalnaķunči by R. Šnore (see LSV 2001, 390).

Roman Iron Age, instead there could have been many single farms, which frequently interacted with each other. (Lang 1996, 447, 471)

Lang has, in many of his works, reviewed the concept of archaeological cultures and their association with spoken languages (Lang 2005; 2013; 2018). It was thought before that the emergence of modern-day Estonian dialects already took place in the Roman Iron Age. This is because the areas where certain ornaments were preferred were associated with certain dialect areas (see above). Lang demonstrated that according to the distribution of various contemporary artefact types (including pottery, but also burial types, settlement patterns, economic and social relations), it is possible to distinguish between many different regions that have dissimilar borders; these differences however might have been based on multi-level relationships, formed by trade, personal contacts, or production and may not have any direct connection to spoken languages (Lang 2005; 2018, 224, 225). In his most recent work Lang combined linguistic, archaeo-genetic, and archaeological data in order to discuss the formation, development, and dispersal of the common Proto-Finnic culture and language (2018). He associated the spread of the late Proto-Finnic language from north Estonia with the spread of typical *tarand* cemeteries and the material culture associated with them. Also as the spread of *tarand* cemeteries in the southern part of Estonia could have come from north Latvia, the spoken language in north Latvia and south Estonia could have been different from that in northern Estonia, i.e. that it developed from earlier middle Proto-Finnic (*ibid*, 219–225).

Not many *tarand* cemeteries have been excavated in Estonia since the 1990s: the cemeteries at Viimsi were fully excavated by Lang in 1990 (Lang 1993) and parts of Tsiistre (Konsa 2003), Ala-Pika (Valk 1995; 1997) and Aakre (Article 5) cemeteries were also studied. Mägi excavated Tõnija *tarand* cemetery on the island of Saaremaa and presented a new interpretation for the construction of *tarand* cemeteries based on them (Mägi-Lõugas 1996; 1997; Mägi 1998). She proposed that for some *tarand* cemeteries there may have been a timber building on top of a stone foundation and that the timber has entirely disappeared over time (Mägi 2005a, 102; 2005b, 20–23). This interpretation is interesting, but archaeological proof of it has yet to be found. Mägi also interpreted the lack of weapons in *tarand* cemeteries as a reflection of a society where there was no stratum of warriors and the social prestige was expressed through ornaments and monumental cemeteries (2007, 265).

Little information was available on the *tarand* cemeteries of the Izhora plateau (Moora 1938, 18) until the last few decades, when a lot of new field research was undertaken on Pre-Roman and Roman Iron Age monuments. The early *tarand* cemetery of Udosolova was excavated by Elena Mikhaylova and the Roman Iron Age *tarand* cemeteries of Kerstovo I and Malli by M. Razzak (Yushkova & Kulešov 2011; Mikhaylova 2016; Yushkova 2016). *Tarand* structures were also present in the Valgovitsy and Velikino cemeteries, which were excavated in the 1980s, and could date to the Pre-Roman Iron Age (Yushkova 2016, 149). The latest results suggest that the first stone cemeteries

in the region were the early *tarand* cemeteries of the Poanse type, followed by the *tarand* cemeteries created at the beginning of the Roman Iron Age, their construction and finds greatly resembling north-eastern Estonian ones, but containing more weapons (Yushkova & Kulešov 2011; Mikhaylova 2016).

Also, few *tarand* cemeteries have been excavated in Latvia since the 1990s, the damaged Skripsti *tarand* cemetery was excavated by Anda Vilka (Vilka 1995). Jānis Ciglis has revised the dates of the earliest artefacts recovered from Latvian *tarand* cemeteries, by comparing them to similar ones from the eastern Baltic (2013a, 2013b). Andrejs Vasks has re-evaluated material from the Curonian stone cemeteries, some of which were also used during the Roman Iron Age (2006). Baiba Vaska has studied the decoration on ornaments from Latvia in her dissertation (2012), including Roman Iron Age items, mainly with openwork decoration. She also studied disc brooches from the *tarand* cemeteries and created chronological groups for them and related the ornamentation to the symbolism of solar cults (2013). The new overview of Latvian archaeology also contains information about the Roman Iron Age, including its finds and monuments (LSV 2001).

The Roman Iron Age *tarand* cemeteries in Finland have mainly been discussed within broader topics, such as settlement and landscape archaeology, since the 1990s (Forsén & Moisanen 1995; Jansson 2011). It was proposed that the inhabitants of Finland adopted new burial customs in the form of *tarand* cemeteries from Estonia, at a time when other social changes were occurring (Forsén & Moisanen 1995). A new analysis of single *tarand* cemeteries from both countries was conducted by Päivi Pihlajärvi (Jantunen) (2014). She concluded that although there were many differences, the cemeteries are still very similar in ways that cannot be accidental, that the Finnish cemeteries must have been significantly influenced from contact with Estonia: the Gulf of Finland therefore was a connector, not a separator.

Several new topics recently emerged in connection with the Roman Iron Age. Tõnno Jonuks who studied Estonian prehistoric religion proposed the existence of a collective ancestral soul, based on the commingled nature of *tarand* cemeteries, where individuality in death had an insignificant role (2009, 215 ff). He also interpreted ornamentation depicting solar symbolism as prestigious in nature, rather than connected with religious beliefs (*ibid*, 238). The osteological investigations of the bones from *tarand* cemeteries also have started to take place (Kalling 1993; Mägi-Lõugas 1996; 1997; Yushkova & Kulešov 2011; Allmäe 2013; Article 4 and 5). The osteological analysis of bones, where the minimum number of individuals has been recorded, along with the pathologies and their distribution between different enclosures, has provided new results. It can be suggested that rituals connected to the manipulation of bones were present in some regions (Kivirüüt 2014). A new approach also includes the compositional analysis of items through which different aspects of production are discussed (Koovit & Kiudsoo 2016; Articles 2 and 3). One of them concerns the nature of Roman coins in Estonia which have been interpreted as metal supply, based on the similar composition of coins from the Varudi-Vanaküla

hoard (north-east Estonia) and the ornaments from that hoard (Koovit & Kiudsoo 2016). The typologies of Roman Iron Age ornaments have also been revised. In addition to articles 1–3, Mari-Liis Rohtla has also revised the typology, chronology, distribution, and meaning of crossbow brooches found in Estonia (2005).

Research into the *tarand* cemeteries of the Roman Iron Age has changed considerably since the 19th century. One of the main questions throughout has been who were the people buried in them. In the 19th century, it was proposed that they were built by migrating Goths; however, in Finland, Hackman saw the local Estonian background. The Gothic idea has been rejected since the late 1880s, and the continuity of local peoples took precedent. This approach was still the prominent viewpoint during the Soviet occupation as it is today. The regaining of independence in the 1990s saw a spread of different western archaeological methods and theories, as well as some new approaches and research questions. Much new information has been gained about the items, cemeteries, people, and society of the Roman Iron Age. The results of the excavations have provided new interpretations of the spatial arrangement of *tarand* cemeteries. Osteological analysis has given new information about the mortuary practices, compositional analyses of the artefacts provided new information about their production, allowing new assessments of the items (typologies, decoration, distribution) and about their possible meaning in a specific context and area, as well as about contacts with other areas. A combination of linguistic, archaeo-genetic and archaeological data has also given valuable insights into the development of Proto-Finnic languages.

4. CULTURAL AND CHRONOLOGICAL DIVISIONS IN THE EASTERN BALTIC REGION

In the archaeological literature for the Roman Iron Age, the eastern Baltic region is divided into areas that are considered to have been connected to larger ethnic regions. The distribution area of the *tarand* cemeteries is considered to have been populated by speakers of the Finnic languages, south Latvia, Lithuania and north-east Poland by Baltic people and the southern shore of the Baltic Sea, stretching into central Europe, by Germanic people (Vasks 1997; Banytė-Rowell & Bitner-Wróblewska 2005; Bliujienė 2013, 78–89; Lang 2018, 219–226; for further reading about the Baltic and Germanic peoples see references in Andrzejowski 2010; Bitner-Wróblewska 2010; Kokowski 2010). However, it is likely that people settling on the amber coast of the Vistula lagoon were poly-ethnic, consisting of Baltic, Germanic, and perhaps Finnic groups (Bitner-Wróblewska & Wróblewski 2015). Similar tendencies were probably also present in other areas in the eastern Baltic because people interacted, moved, and influenced each other on many different levels. It has been proposed that a significant factor in unifying people was the sharing of the same territory and that people did not have to speak the same language to be a part of that unity (Bitner-Wróblewska & Rzeszotarska-Nowakiewicz 2018, 259).

Divisions between the Baltic and Germanic peoples have been made based on written sources, which were subsequently compared to the archaeological record (see for more Bitner-Wróblewska 2010, 141–145). Earlier research traditions concluded that the Balt and Germanic areas were divided into archaeological cultures (Fig. 4). The divisions were made based on comparisons between the common attributes of a particular area and the similarities in material culture, together with the burial rite, the latter one being the most important criteria (Bitner-Wróblewska 2010, 145; Kaczanowski 2010). Archaeological cultures, however, are mostly research abstractions used to systematise archaeological material (Lang 2005). There are many archaeological cultures for the Roman Period in the areas just mentioned because along with the change in burial customs and characteristic complexes of items, new archaeological cultures have been introduced by the archaeologists. Each has its own chronological phasing and diagnostic artefacts, which characterise that culture and a particular phase in it.

The West Balt cultural sphere¹⁸ is distinguished by the following archaeological cultures in north-east Poland, Lithuania, and south Latvia, during the Roman and Early Migration Period: The Dollkeim-Kovrovo culture (Sambian Peninsula and the Old Prussian Lowland to the south), Bogaczewo and Sudovian cultures (north-east Poland, also covering Masurian Lakeland), the

¹⁸ Such culture division was first introduced by Engel in 1933 who divided the eastern Baltic and Vistula delta area to several cultural groups, mainly based on similar burials and also grave goods.

Lower Nemunas culture, West Lithuanian Stone Circle Graves culture (west Lithuania and the cultures' peripheral area in south-western Latvia), Central Lithuanian group, Letto-Lithuanian Barrow culture (Žemaitija/Samogita, north Lithuania, south Latvia)¹⁹, south-eastern Lithuanian burial sites, and burial grounds of Užnemune; the latter two are considered closely connected to the Sudovian and Bogaczewo cultures (for further reading see Michelbertas 1986, 237–241; Nowakowski 1996; Vasks 2001 in LSV, 214; Andrzejowski 2010; Bitner-Wróblewska 2010; Kokowski 2010; Bliujienė 2013, 79, fig. 24). The East Balt cultural sphere includes the Late Striated Pottery culture (south-east Latvia, east Lithuania, west Belarus) which in east Lithuania and in a small part of north-west Belarus is followed by the East Lithuanian Barrow culture, from the late second century (Медведев 1994; Vaitkevičius 2007; Kurila 2016). The Germanic areas in the central European region are distinguished by two big culture areas: the Przeworsk and Wielbark cultures (Andrzejowski 2010; Kokowski 2010). The latter emerged in north Poland in the first centuries AD and with time expanded rapidly to the south-east; the end of this culture is considered to happen around the fourth century (for additional references see Kokowski 2010). The Przeworsk culture covered a large area of central and southern Poland and some neighbouring areas during different time phases; this culture started during the Late Pre-Roman Period and lasted until the middle of the fifth century (for additional references see Andrzejowski 2010).

Archaeological cultures have historically been connected to various ethnic groups (see Lang 2005). Archaeological cultures, however, were created by researchers to help systemise archaeological materials that coexisted in spatial and temporal terms; they were not in fact historical entities and cannot be equated to other entities such as ethnic groups (see Shennan 1989; Lang 2005). It has been argued in various studies that ethnic groups are not fixed entities when thinking about the past. They are somewhat fluid, dynamic and contested, embedded in economic and political relations and largely self-defined. There is no correlation therefore between cultural similarities and ethnic boundaries. (see Jones 2007) Archaeological cultures in current research, therefore, are not connected to smaller ethnic groups, they are rather used as tools to distinguish similar complexes of items.

¹⁹ Sometimes included into the East Balt sphere.

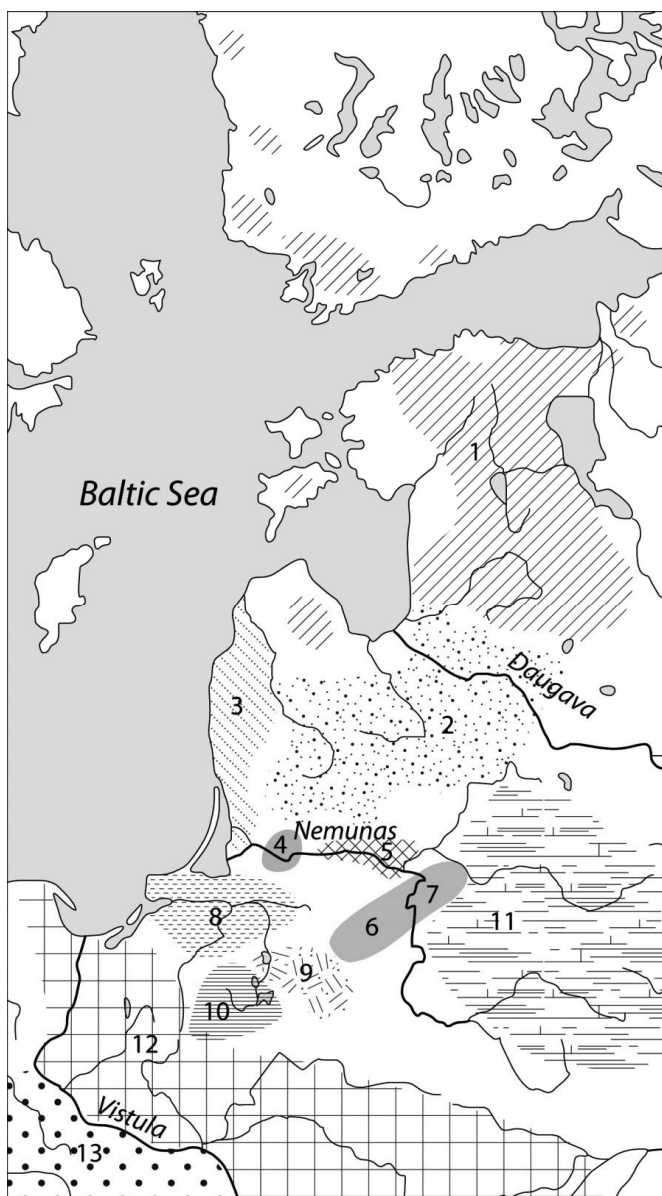


Figure 4. Archaeological cultures and distribution areas of different grave groups during the Roman Period, in the eastern Baltic and central Europe. 1 *tarand* cemetery area, 2 Letto-Lithuanian Barrow culture, 3 West Lithuanian Stone Circle Graves culture, 4 Lower Nemunas culture, 5 Central Lithuanian group, 6 burial grounds of Užnemune, 7 south-eastern Lithuanian burial sites, 8 Dollkeim-Kovrovo culture, 9 Sudovian culture, 10 Bogaczewo culture, 11 Late Striated Pottery culture (followed by East Lithuanian Barrow culture), 12 Wielbark culture, 13 Przeworsk culture (after: Vasks 2001, 215, fig 157; Andrzejowski 2010, 20, fig 19; Bitner-Wróblewska 2010, 147, fig. 5; Kokowski 2010, 6, map 4; Bliujienė 2013, 79, fig. 24; Lang 2018, 175, fig. 5.10; with additions by the author).

Relative chronology can be defined as “a chronology that determines the age of a feature or event relative to the age of other features or events” (A Dictionary of Environment and Conservation 2007). It is widely used in the research of the Roman Iron Age in central Europe and the eastern Baltic region, but not however in the *tarand* cemetery areas. Otto Tischler (a prehistorian based in Königsberg) laid the foundation for a relative chronology of the Roman Period, based on closed grave complexes in the Sambian Peninsula and west Lithuania (Tischler 1879; 1880; Tischler & Kemke 1902) at the end of the 19th century (see Bitner-Wróblewska 2010, 141, 155, 156). It was further developed by Erich Blume (1912; 1915), Hans Jürgen Eggers (1955) and Kazimierz Godłowski (1970). The latter synchronised the Late Roman chronological divisions for the Przeworsk and Mazovian²⁰ cultures, the culture of the West Balts, West Pomerania, the Elbian Circle, Bohemia, Slovakia and Moravia. This was based on an “observation of correlations between different diagnostic types within closed finds, and then the sorting out of certain groups of types constantly occurring together, and finally their synchronization” (Godłowski 1970, 7). Godłowski also created a general and fluid, absolute chronology for these periods following Eggers work (1955) where objects from closed find complexes with a precise production date (*terra sigillata* and Roman coins) were compared with objects from relative chronology phases (Godłowski 1970, 8). There were later additions to his work, but the basis of the chronology has remained the same (e.g. Michelbertas 1986; Nowakowski 1996; 2013; for further reading about the Przeworsk culture see Andrzejowski 2010; for the West Balt cultures see Bitner-Wróblewska 2010 and about Wielbark culture see Kokowski 2010). Depending on the area and archaeological culture, the absolute dates can vary, and phases can have different sub-phases.

The periodisation for Lithuania²¹ and the Dollkeim-Kovrovo culture in the Sambian Peninsula are presented in Table 1. These are the areas that people from the *tarand* cemetery areas are thought to have had many connections with (see sub-chapter 9.2.).

A similar relative chronology, as used in other parts in the eastern Baltic and central Europe is not widely used for the *tarand* cemetery area (see for more in sub-chapter 5.2.). This is mainly because of the lack of closed complexes which makes the study of co-occurring artefacts challenging to study.

²⁰ Now considered as the Wielbark culture.

²¹ Same periodisation is used for all archaeological cultures in Lithuania (see Bliujienė 2013, 485–490).

Table 1. The chronological phases of Lithuania and Dollkeim-Kovrovo culture in the Sambian Peninsula (after Michelbertas 1986; 2006; Nowakowski 1996, table XVII; 1998, 14–16; Bliujienė 2013, 26, fig. 5).

Period	Lithuania		Dollkeim-Kovrovo Culture	
Early Roman Period	B1a	10–40		
	B1b	40–70		
	B2	70–150	B2a	70–100
			B2b	100–150
Transition period	B2/C1	150–200	B2/C1	150–200
Late Roman Period	C1a	150–220	C1a	180–220
	C1b	220–260	C1b	220–250
	C2	250–300	C2	250–300
	C3	300–350/375	C3	300–370

5. METHODOLOGY FRAMEWORK

Various methods and combinations thereof have been used in the articles included in this dissertation. One of the principle and most important tools in the study of Roman Iron Age artefacts has been typological classification, a tool that is employed in all of the articles. Typology is closely connected to relative and absolute chronology, which for certain artefact groups was revised in the first, second, and third articles included here. Network analysis was employed in the first article to study the similarities between cemeteries with typologically determined, contemporaneous items. Typological and compositional characteristics were combined in the second and third articles. Typological and osteological analyses were combined in the fourth and fifth articles, statistical methods were also used in the fifth article.

5.1. Typological method and its background

Typology in an archaeological context was inspired by examples from the natural sciences. Its use in biology was especially influential, from which it was initially adopted by physical anthropology (Klejn 1982, 38 ff.). The idea of typology as an application in archaeology, was adopted and refined by Oscar Montelius at the end of the 1870s. He had an evolutionist stand point from which he studied the development of objects, in order to better pursue their chronology, he emphasised the connection between earlier and later type forms (Montelius 1885). Since Montelius there have been many researchers who have redefined typological groups and refined typological methods (Klejn 1982, 44–50). Typologies were used to place items in time and space, in order to reconstruct culture history and distinguish between different “cultures” that used some group of items or other, during a particular time period (Adams & Adams 1991, 310, 311). In America, typological concepts did not come to use until the 1920s and 1930s when more than half of the typologies used today were created (*ibid*, 265). This period set the stage for the typological debate – the ongoing theoretical dispute about how typologies should be consistent with currently prevailing theoretical paradigms (Dunnell 1986; Adams & Adams 1991, 265 ff.). Theoretical concepts were developed further, but typological practice stood still and could not be adapted to new purposes rising from new theoretical concepts (Adams & Adams 1991, 311). Therefore, it has to be kept in mind however that typologies are tools that cannot be used to constitute theory; for every research purpose, the usefulness of a particular typology has to be assessed (*ibid*, 312).

Typologies were (and still are) very useful in sorting large amounts of archaeological finds. There are many guidelines and principles now on how and why objects should be sorted (see for more Klejn 1982; Dunnell 1986; Adams & Adams 1991; Read 2007). In my opinion, the most comprehensive discussion on the topic is presented by Adams & Adams (1991). According to them, typology

logy is a classification system for sorting entities into categorical groups (types); the basis for sorting has to be very clear and the types, when specified, have to be comprehensive and mutually exclusive (Adams & Adams 1991, 47). It is important that typologies are created for a specific purpose and based on this principle, the variables chosen must fit that purpose (*ibid*, 47, 52). The benefit of typology comes through its effective use; it has to be suitable for the purpose it was created (*ibid*, 312). The purpose, creation, and use of typology have to be well thought through and sufficiently explained in order not to be methodologically vulnerable.

Criticism of the typological approach has centred around the argument that historically speaking, typologies constrain ideological interpretations; therefore they have to be used very critically (Gnecco & Langebaek 2014). When using typologies created from an evolutionist point of view, or created to distinguish different cultures, it is essential not to adopt a similar point of departure, typology has to be used critically, ensuring that it is in line with current research purposes. It is also essential to remember that typologies are created by archaeologists. They do not represent the meaning and context of the people who created those items (Stig Sørensen 1997). The objects underwent changes in their use and meaning, while being part of networks of relationships and existing in different situations (*ibid*).

Typology has been one of the main approaches for the cataloguing and studying of Roman Iron Age artefacts, which are often found in large numbers. One of the most influential works concerning the typology of brooches from northern Europe is by Oscar Almgren (1897). Although many discoveries have been made since his typology was created (see Kunow (ed.) 1998), the basics have stayed the same, and his typology is still widely used today. Over time, typologies have been created for almost all Roman Iron Age artefacts in central Europe – belt fittings (e.g. Raddatz 1957; Madyda-Legutko 1978; 2011), weapons (e.g. Jahn 1916; Ilkæjer 1990a; 1990b; Kaczanowski 1995), horse harness (e.g. Ørsnes 1993; Lau 2009), ornaments (e.g. B. Beckmann 1969; Ch. Beckmann 1969; Tempelmann-Maczyńska 1985; Rzeszotarska-Nowakiewicz 2010, Juga-Szymańska 2014), etc.

The typologies used in this dissertation are previously established and have already been used in Estonia and other parts of the Baltic Sea region (such as Almgren's original typology and its subsequent updates; Moora 1923; 1938; Schmiedehelm 1923; Шмидехельм 1955; B. Beckmann 1969; Ch. Beckmann 1969; Michelbertas 1986; Banytė-Rowell 2001; Laul 2001; Simniškytė 2002; Bliujienė 2009). The benefit of using previously recognised typologies is that they are accepted over a large area. They are also familiar to researchers of similar topics, and therefore more widely accessible, the results can facilitate comparisons on a broader scale. Typologies have often been connected to particular archaeological cultures, which is customary when they were created, or an evolutionist approach has been followed. Now they are frequently used as tools to study the chronology of different phases (see above), but also new applications have emerged. As stressed above, the use of a particular typology has to

be assessed against the research purpose. In most of the papers included here, I have used existing typologies. This is because I found them suitable for the research purpose in hand. However, in some cases I have adjusted the existing typological classifications so their use can be combined with other methods (see below). Additionally, in the third article, I created a new classification for disc brooches based on earlier published classification. They were mainly created according to the morphological features of disc brooches – style, size, and decoration. These characteristics were chosen for the purpose of the paper, which was to study regional differences and to identify local and non-local influences within disc brooch styles.

5.2. Combining the typological method with other methods

Many Roman Iron Age artefacts have a clear position within existing typologies. This is because typological methodology has been an established tool since the 19th century. The research topics of today have moved on, and different aspects of prehistoric life are now studied. Not all previously established typologies can be used for this because they were created for other purposes and from another theoretical perspective. Therefore, the efficiency of a particular typology has to be assessed against its research purpose and perhaps modified if necessary to fit the questions asked of it.

Typology is generally used in combination with other techniques. One such technique is statistical analysis, mainly seriation, the basis for chronological ordering (e.g. Nowakowski 1996; Rau 2010), and also compositional analysis (e.g. Bayley & Butcher 2004; Bitner-Wróblewska & Stawiarska 2009; Nowakiewicz (ed.) 2016; Roxburgh *et al.* 2016; 2017; 2018), in creating horizontal stratigraphy of some monuments or areas (e.g. Kokowski 1995; Nowakowski 1996; Rau 2010) and radiocarbon dating (Szymański 2013; Kurila 2015). These combined techniques have all produced interesting new results across various research topics. Employing a combination of methods in this way provides a wider perspective from which to study prehistory. I combined typology with network science, compositional analysis (conducted by Marcus Roxburgh), osteological analysis (conducted by Anu Lillak) and statistics.

5.2.1. Network science

Network science “denotes a diverse set of methods, models, and approaches concerning the study of, management, representation, and analysis of network data” (Collar *et al.* 2015, 6). It has its roots in graph theory (Barnes & Harary 1983) and various techniques for “identifying, examining and visualizing patterns of relationships” are adopted from it (Brughmans 2010, 277). The network paradigm is relevant across many disciplines, such as physics, biology, eco-

nomics and it has very firmly rooted in social psychology, sociology, and anthropology (Brandes *et al.* 2013, 2–3). This is especially true in sociology where social network analysis (SNA) has been developed (Wasserman & Faust 1994). Network approaches help define relationships between individuals, groups and material culture (Collar *et al.* 2015, 6). In order to use network concepts, the phenomenon under study has to be abstracted using network concepts, and then specific conceptual representations have to be formulated into network data (Brandes *et al.* 2013, 3–4; Collar *et al.* 2015, 4–5). The data has then to be presented as nodes and connections between them as edges linking the nodes together (Fig 5; Collar *et al.* 2015, 4).

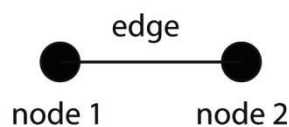


Figure 5. Nodes and their connection by an edge.

Some analytical methods from network science were adopted by archaeological researchers in the 1970s, but they have become widely used in the last 20 years (Brughmans 2013, 624). Several techniques and models were first adopted from other disciplines, mostly from social network analysis and social physics, but more recently it has been argued that careful consideration of the metrics (which mostly were not designed for archaeological data), must take place before using network analyses in archaeology, a careful choice of the data must also be undertaken (Brughmans 2013, 624; 2014; Brughmans *et al.* 2016, 10–11; Peeples *et al.* 2016, 59). The challenges are not insurmountable, when suitable methods for a particular research question are applied to equally suitable data, the connections in a given network can be defined, in terms of what they do or do not represent (Peeples *et al.* 2016, 78, 79). Network science has been applied in archaeological research to study various topics, such as the movement and migration of people (Mills 2011; Mills *et al.* 2013a, b; Mills *et al.* 2015), the diffusion of technology (Östborn & Gerding 2015), and the investigation of communication routes (Sindbæk 2007; 2013), etc. Subsequently many articles have been devoted to the subject of network analysis in archaeology (Knappet (ed.) 2013; Östborn & Gerding 2014; Collar *et al.* (eds.) 2015; Brughmans *et al.* (eds.) 2016). But network methods have not been widely used in Baltic archaeology as yet, and this dissertation is an attempt to fill this gap.

To study the intraregional communication patterns and main communication routes of the third and fourth centuries, methods derived from network science were used in the first article of the dissertation to explore the similarities between local ornaments in the cemeteries of south-east Estonia and north Latvia. For this I adjusted the existing typology so that it could be used with

network analysis. The typology for cross ribbed brooches was generalised according to certain stylistic features, which were considered essential markers in the dataset. A too detailed a typology is not suitable for network analysis as not all features hold the same importance and too many variations may change the outcome of the analysis (Östborn & Gerding 2014, 83, 84; Habiba *et al.* 2018, 67). The most important markers have to be assessed beforehand according to the aims of the research.

There are many different methods available to calculate and visualise similarities between nodes, and the exact method has to be chosen according to the aim of the research (see Östborn & Gerding 2014; Habiba *et al.* 2018). I chose the chi-square similarity metric to visualise the similarities between the cemeteries and a degree centrality value was calculated in order to explore the characteristics of the network; the Chi-squared similarity metric is defined as:

$$x_{jk} = \sqrt{\sum \frac{1}{c_j} (x_j - y_j)^2}$$

where k = all categories; c_j = j^{th} element of the average row profile; x_j and y_j = j^{th} elements of the row profiles for any two sites under comparison (see Peeples 2017).

The Chi-squared metric compares the selected categories present in each archaeological site and takes into account the numbers of items present, stressing the rareness of some categories when defining distances between sites (similar sites are closer to each other on the graph) (Peeples 2017). The data was organised so that cemeteries are represented as nodes and edges represent the types of items that the nodes have in common. The weight of the edge is the value of the chi-squared metric. The results were visualised as binary networks (the edges between cemeteries are present when they share more than 68% commonality, and then on only one graph one isolated node was present). Degree centrality (the sum of weights for a node's ties to every other node) was calculated from weighted values (for calculations, see Peeples & Roberts 2013, 3002 ff.; Opsahl *et al.* 2010). Nodes with high degree centrality have a high number of possible direct connections with other similar nodes and thus may be the most important nodes in the area (Collar *et al.* 2015, 20).

5.2.2. Compositional analysis of copper alloy artefacts

A combined typological and compositional approach has been used widely in the past to study the production and origin of copper alloy items, and this is especially true of Roman brooches (Smythe 1938; Craddock 1988; Unglick 1991; Dungworth 1997; Bayley & Butcher 2004; Roxburgh *et al.* 2016; 2017; 2018). The composition of some copper alloy items from the Baltic Sea region (including many Roman Iron Age artefacts) was first studied in 1842, by Fr.

Göbel, Professor in Chemistry and Pharmacy at the University of Tartu (Dorpat), where changes in alloy use over time and space were identified (see for more in Pollard 2018, 16–17)²². Since then only a few studies have been devoted to the composition of Roman Iron Age artefacts that includes items from *tarand* cemeteries (Черных *et al.* 1969; Koovit & Kiudsoo 2015).

A combined typological and compositional approach was used in the second and third articles, in order to see whether it was possible to identify any standardised alloy choices, or surface treatments, for the different types or sub-types of brooches. An established eye brooch typology (Almgren's typology for main and Prussian series brooches and Moora's typology for Estonian series brooches) and a new classification for disc brooches were employed.

A handheld portable X-ray fluorescence spectrometer (HHXRF) was used to study the composition of copper alloy brooches. It has the advantage of being easily transportable to different archaeological collections and allows a non-destructive approach, because the measurements are taken from the outer surface area. A Bruker tracer IIIsd machine was used, housed in the laboratory of the Department of Archaeology, at the University of Tartu. Marcus Roxburgh prepared the machine (including fitting the appropriate filter and choosing a suitable calibration) for taking measurements from copper alloy items. One measurement per brooch was made for each 60 seconds exposure (see Article 2 and 3). For eye brooches the measurements were taken from the centre of the bow, or a flat surface on the front of the head, or foot when the bow was missing. For disc brooches the measurements were taken from a front area when available, or a flat edge section. Roxburgh normalised the dataset using Microsoft Excel™ and interpreted the data in line with the method presented in his article in the journal *Archeometry* (Roxburgh *et al.* 2018). The results were also classified by him, in line with the scheme published by Bayley and Butcher and subsequently visualised using ternary diagrams to display the ratios of lead, tin, and zinc in the measured items (2004, 24).

5.2.3. Osteological and statistical methods

Osteological assessment of both human and animal bones is widely used in archaeology throughout the world, and it gives valuable information about ancient peoples and their lifestyle (Cox & Mays (eds.) 2006 [2000]). In Estonian archaeology, osteological methods were already in use since the beginning of the 20th century; for example, Friedenthal's assessment of skeletons from stone-cist graves (1932). From the mid-20th century, osteological methods became widely used (Heapost 2007, 673). Human bones from Roman Iron Age *tarand* cemeteries, however, have not been widely studied. Ken Kalling assessed bones from Viimsi I cemetery (1993), Raili Allmäe has studied bones from Põlgaste cemetery (2013) and Tõnija cemetery. Liina Maldre has also

²² I would like to thank Marcus Roxburgh for introducing me to this work.

studied animal bones from there (Mägi-Lõugas 1996; 1997). Anu Lillak re-evaluated the human bones from Viimsi I cemetery (Kivirüüt 2011; 2014; Article 4) and studied the bones from Aakre Kivivare cemetery (Article 5)²³. Where possible she determined the age and sex of the individuals using standard methods (using works by Lovejoy 1985, Ubelaker 1989, Scheuer & Black 2004, Cardoso and Severino 2010). The minimum number of individuals was also assessed. The physical characteristics of the bones were monitored (in line with the standards published by Brickley & McKinley 2004) to better understand the cremation techniques and taphonomic processes involved. In addition, when studying bones from the Aakre cemetery, an ATR FT-IR analysis was also conducted (the results were interpreted according to Ellingham *et al.* 2015) to identify the cremation temperature of some bones.

The human bones and artefacts from Viimsi I cemetery were first categorized and then connected to their find contexts. The spatial arrangement of the cemetery was studied using statistical methods: several chi-square and Kruskal-Wallis statistical tests were conducted in IBM SPSS 20 (see for more about the tests in Shennan 2008). The aim was to understand whether the clustering of the bones and artefacts in the cemetery area was random or not, and whether this could be seen statistically (Article 5)²⁴.

In Aakre, the position of bones and artefacts was also studied to see whether there were any patterns in their placement in the cemetery (Article 4). The position of the finds and bones (which were not found in the sieve) were recorded with a total station, and after the excavations, their locations were marked on orthophotos, made from the excavated area. Finds recovered from the sieve were recorded by the precision of the square (ca 1 x 1 m), and were counted for each square. The same number of randomly dispersed dots was created on the surface of each square.

²³ Human bones from early *tarand* cemeteries have also been studied: bones from Võhma Tandemäe, Poanse, Uusküla II, Tõugu II by Johnatan Kalman (2000a–d), bones from Võhma Tandemäe were reassessed by Anu Lillak (2014).

²⁴ The bone weight and body part distribution did not show any statistically significant differences across Viimsi I cemetery, there was also no statistical significance in the distribution of items, their categories and their number in the *tarands* and the area outside of the *tarands* in Viimsi I and Viimsi II cemeteries (see Article 5 for more).

5.3. Chronology of items from the *tarand* cemetery area

Relative chronology has rarely been employed on Roman Iron Age artefacts found in *tarand* cemeteries. It was used somewhat in research at the beginning of the 20th century, when Tischler's broad periodisation was used (Tallgren 1922; Schmiedehelm 1923; Moora 1938), but since then, newer periodisations have not been widely applied. Ciglis used relative phasing when dealing with early artefacts from Latvian *tarand* cemeteries (2013a; 2013b), but no phases, especially for the *tarand* cemeteries area has been created. This is mainly due to the characteristics of the find complexes. Most of the items from the Roman Iron Age *tarand* cemeteries have been found from burial contexts. Due to the commingled nature of these burials there are no closed complexes and therefore the co-occurrence of items is difficult to study. Absolute chronology has been the most popular approach. Also the co-occurrence of items from the same enclosures (*tarands*) has been studied, but no relative chronology has been made. M. Schmiedehelm distinguished six phases, based on the co-occurrence of items from the same enclosures, these were based on the example of the dates of the imported items found from north-east Estonian *tarand* cemeteries and also from wealth deposits (Шмидехельм 1955, 199, fig. 55). Those phases correspond to absolute chronology, each one covering one or two centuries, but there is no reference to phasing used in other eastern Baltic areas or central Europe; so, they cannot be compared to any cultural phenomenon from other areas. As an exception however, preliminary working relative chronological phases were created, in accordance to absolute chronology, for the *tarand* cemeteries on the west slope of the Izhora plateau (Юшкова 2010). These were based on north-eastern Estonia's phases created by Schmiedehelm and general phasing used in central Europe and West Balt areas (*ibid*). However, this approach has met some criticism because those phases are rather short (five phases for four centuries) and do not take into account the commingled nature of the finds, also they are too heavily based on West Balt and central European phases (Шапов 2013).

The absolute chronology of some brooch types (Rohtla 2005; Articles 1–3) and the early items from the stone cemeteries in Latvia (Ciglis 2013a; 2013b) has been revised lately. In the first, second and third articles, it is explained how personal ornaments from the *tarand* cemetery area are dated based on the dates of the items found from the south-eastern coastal area of the Baltic Sea. The eastern Baltic area was connected through various aspects of life; the *tarand* cemeteries area was not a periphery, it had strong communication links leading through *Barbaricum* (Banytė-Rowell & Bitner-Wróblewska 2005, 116). The earliest items from the Roman Iron Age in the *tarand* cemeteries area (e.g. eye brooches, neck-rings with trumpet ends, bracelets with knob ends) are the same types as distributed over a vast region within *Barbaricum*, including the eastern Baltic (Schmiedehelm 1931b, 399; Rzeszotarska-Nowakiewicz 2010; Heeren & van der Feijst 2017, 380 fig. 8.11). Many types of ornaments present over a large area can be dated similarly and without a notable delay (Ciglis 2013a,

104). The local versions of some of these items (for example, eye brooches of the Estonian series) are more difficult to date due to the commingled nature of their find contexts. The earliest examples, still mostly resembling imports, should not be dated too far apart from the originals. The living adopt the fashion of the living so to speak, and similar items should not be dated to more than *ca* 50 years (Banytė-Rowell 2011, 85–86) or less, in most cases, i.e. the duration of one or two generations. When the style of the earliest locally made brooches evolved further, their period of use becomes more difficult to determine. In this case their typological development has to first be studied (construction, decoration, alloy composition) and then comparison to associated finds from closed complexes (such as wealth deposits) can suggest their relative date and broad period of use.

When reassessing the date of items studied in the articles of this dissertation, the corrections were not made based on the comparison of items from closed find complexes but rather on the comparison of the same or similar types of items from eastern Baltic and beyond; and based on typological developments of the technological and constructional elements. Corrections of dates of some disc brooch groups from Estonia and north Latvia and pendants from south-east Estonia and north Latvia were made based on the comparison of similar items distributed in other eastern Baltic areas and eastern European zone (covering in addition to *tarand* cemetery area also Masuria, Lithuania, upper Oka, upper and middle Dnieper and the basin of Desna) (mainly compared to: Michelbertas 1986; Banytė-Rowell 2001; Simniškytė 2002; Bitner-Wróblewska 2010, 176; Vaska 2013; see Articles 1 and 3). Correction of the dates of the eye brooches, mainly found from north-east Estonia, was made in the second article of the dissertation. Date of the eye brooches of the main and Prussian series were aligned with the date of those brooches in central, Europe and around the south-eastern coast of the Baltic Sea (Michelbertas 1986, 110; Dąbrowska 1997, 115; Pfeiffer-Frohnert 1998; Mączyńska 2004, 213, 214; Nowakowski 2013, 132–135; Chilińska-Früboes 2017; 2018). Eye brooches of the Estonian series were dated based on observations made by other authors (Moora 1923; 1938, 59, 60; Vassar 1943; Шмидехельм 1955, 64).

6. THEORETICAL APPROACHES

There is a combination of theories that can make up our concept of how to interpret material remains. They include identity, personhood, practice theory, agency, and hybridisation. Through them, the interpretation of the human remains and material culture is conducted. This allows ideas to be formulated around differering identities, including self and group affiliations that are represented in material culture, especially in personal ornaments and in decoration. The cemetery itself, where both the deceased and their associated items are deposited is important in this study. It enables discussions to take place around changes in identity, between notions of individual and collective, for those who buried their dead in *tarand* cemeteries. Several outside influences in material culture have also been distinguished in the *tarand* cemetery area during the Roman Iron Age (see sub-chapter 9.2.), and therefore it is also essential to discuss how foreign elements can influence local culture.

6.1. Practicing identity and personhood

It has been argued that all archaeology is a search for identity (Gardner 2011, 12), and identifying past people and cultures has been one of its central ongoing topics (for the overviews of the archaeology of identities see: Jones 1997; Stig Sørensen 2000; Meskell & Preucel (eds.) 2004; Casella & Fowler (eds.) 2005; Diaz-Andreu *et al.* (eds.) 2005; Nelson (ed.) 2006; Insoll (ed.) 2007).

Between the end of the 19th and beginning of the 20th century, the cultural-historical approach was prevalent. Uniform cultural entities were correlated with ethnic groups, tribes, etc., which was the main idea proposed by Kossina and Childe. This was also a common approach in the eastern Baltic during this period (see chapters 3 and 4). The cultural-historical approach was based on the idea that culture is made up of a set of shared ideas that were maintained by regular interactions within the group (Jones 2007, 45). During this period, the individual was seen as a passive part of a group (Diaz-Andreu & Lucy 2005, 4). In processual archaeology (emerging in the 1960s), the meaning of culture was redefined, especially regarding identity, it shifted its focus onto notions of status, with research based around quantitative methods (see Binford 1972). Further discussions arose about the individual in the late 1970s and early 1980s, when sociological and anthropological concepts surrounding the individual and the society were adapted to archaeology by post-processualists (Diaz-Andreu & Lucy 2005, 5). Archaeologies of practice then became the prevailing theory in the understanding of identities (between group and individual) (*ibid*, 6). The use of this theory in archaeology has its roots in Bourdieu's (1977) and Giddens's practice theory (1979), where it was proposed that society is constituted and maintained through people's actions and practices and meaning is created through practice. Another look at ethnic identity was also taken, with the

association between archaeological culture and ethnic groups coming under criticism (see Hodder 1982; Renfrew 1987).

Discussions by archaeologists about the differering aspects of identity have broadened considerably over the decades, being somewhat connected to occurring debates (Insoll 2007, 5). Various concepts about identity are still widely discussed in archaeology, often in combination with anthropology and sociology (Díaz-Andreu & Lucy 2005, 5).

A sociological approach to identity and identification was adopted for the purpose of this dissertation. This forms the basic framework on which more specific concepts are layered onto. Identities are expressed through social relationships, and it is crucial to take into consideration all those relationships in order to see the intersection of identities (Díaz-Andreu & Lucy 2005, 9). According to sociologist Richard Jenkins (2008, 5), social identity can be defined as knowing who is who and who you are yourself; it is the classification of the human world and the people in it. A person and a group have to identify themselves because identification, according to Jenkins, is “the basic cognitive mechanism that humans use to sort out themselves and their fellows, individually and collectively” (*ibid*, 13). Individual identification emphasises differences between people and group identification the similarities; notions of the individual and the collective are entangled, and the identities formed come into being through social interaction (*ibid*, 37–38). Identification is ubiquitous in human society and is a strategic concept, helping to understand the relationship between individuality and collectivity (*ibid*, 200). Identities are not static, they are part of an ongoing process through which they are determined, maintained and reproduced. Also, identities are not only produced by interaction between people, they are also produced between people and things, within the context of social, cultural and political interaction (Fowler 2010, 359, 360).

One way of displaying identification could be through the relationship with material items. Material remains do not merely reflect past identities, they are rather “the remains of media that people manipulated in the processes and strategies by which they negotiated their identities within specific contexts” (Fowler 2010, 362). Therefore, it can be stated that material culture may be used to conduct identity in a particular context. Since personal ornaments are one of the focal points of this dissertation, their connection to the identities of people wearing them is discussed. The wearing of adornments in daily life can generate “shared identities marking out individuals as members of groups” (DeMarrais & Robb 2013, 11). It is argued that “the nature of personal ornaments is directly related to, represents, structures and is structured by, the ideas, values and cultural norms of the wearers” (Swift 2000, 8). Therefore, adornments and their decoration may have held many different layered meanings and not just the one simply connected to identification, but also to fashion, aesthetics, etc. The primary meaning could have been dependent on the situation and context they were worn in, for example, this could have been the case for the ornaments and decoration preferred in a specific area of the *tarand* cemetery area (see sub-chapter 9.1.). Their possible meaning, such as the

expression of regional affiliation, could have come into being when interacting with groups from other regions. This could be achieved by displaying unity through a similarity with others from a particular area (as group identification is based on similarities) and conversely dissimilarity with the peoples from outside the area.

Another dimension relating to the discussion about past identities and the burial context is the concept of personhood (Fowler 2004; 2010; 2013). Personhood is one aspect of identity, and it is argued that employing this concept widens the dimensions of research (Fowler 2010, 383, 384). Identity consists of many facets such as gender, class, ethnicity and other social phenomena; in this respect, personhood stands in the same relation to identity with them (Fowler 2010, 365). The study of personhood concentrates on “how persons emerge from specific ways of being in the world” and what it is to be a person can be discussed through the concept of personhood (*ibid*, 352 ff.). Personhood is defined as the state of being a person; a person is constituted of the ongoing attainment of personhood through constructing, deconstructing, maintaining and altering it through life and death. It involves constant transformations and change. A person is composed of the temporary associations between aspects such as mind, spirit or soul, as well as the physical body, which has a form of agency. (Fowler 2004, 4) They emerge from social relationships that can also involve material things (Fowler 2010, 370). Modes of personhood include the logic behind being a person in any social context and the practices employed, which support that logic. Individuality can be described as uniqueness present in all persons and indivisibility is a state of unitary indivisible person. Dividuals and dividuality is the state of being when a person is composite, comprised of features such as mind, soul and body from different origins. Death transforms a person, mainly through the effects of mortuary practices. These practices can affect not only the personhood of the dead, but also the living participants as well. (Fowler 2004, 4, 5, 43, 54; 2013) The concept of personhood is employed in this dissertation to discuss the mortuary practices that may have taken place in connection with the bodies of the deceased and their subsequent burial in *tarand* cemeteries. Besides the handling of the bones, the deconstructing and reconstructing of a person involve both the shaping of its social identities and also its state of being. For example, the fragmentation and possible deposition of remains into multiple locations could imply a composite state of being in death (see sub-chapter 7.1.).

The body of the deceased is important; various practices and the role of those practices in social communication can be studied through it (Gramsch 2013, 460). Actions that transform the body of the deceased communicate identities, relations, and their transformation (*ibid*, 461). Identities are produced and reproduced not only in life but also in mortuary practices through interaction. Repeated mortuary practices should therefore leave recognisable patterns in mortuary features (Nilsson Stutz 2010, 36). Furthermore, structured, reproduced and repeated patterns have to be identified to see the non-negotiable practices employed at death (*ibid*). Repeated patterns connected to *tarand*

cemeteries could have been similar (see sub-chapter 8.3.). These could include cremation, fragmentation of the body, placement of the dead and associated grave goods into a standard area of the cemetery (everything had its fixed place), also the placement of similar items (e.g. high preference for ornaments over weapons) over a particular time period. Any similarity in treating the dead could refer to a collective identity, structured by shared mortuary practices (Nilsson Stutz 2010, 36). Variation in structured practices, perhaps in the context of the “proper” burial procedure, could reflect ways of creating boundaries between people within and between groups (*ibid*). In the case of burials in the *tarand* cemeteries, any repeated patterns, distinguishable in these comingled burial places, is crucial in recognising a collective approach towards death, and through it the creation and maintenance of relationships between the living.

6.2. Agency and the meaning of items

Agency as an archaeological tool has been widely discussed as a method for studying material culture (for overviews see Dobres & Robb (eds.) 2000; Gardner (ed.) 2004; Robb 2010). It has been frequently used as way to interpret the actions of prehistoric people, why people did something and in what framework.

Agency is a concept closely connected to practice theory (Bourdieu 1977; Giddens 1979) where it is understood as a person’s ability to act and through it engage with social and institutional structures and thus transform the world about them. On a general level, meaning is created through practice, and by action. Rethinking agency in archaeology has led to a broader understanding of what could influence the actions made by humans. According to John Robb, agency is “a quality of the relationships in which humans act” rather than the ability for a meaningful action. Placing relationships in the centre of agency makes the elements forming relationships unregulated. It opens the door for thoughts about multiple agencies, collective agencies and non-human agencies. (Robb 2010, 515)

Individuals have agency and can participate in many of its distinct forms. The possibility of a collective agency has been met with caution as the individual might be neglected and become docile or just act as “servants” of the society. However, the context of acting determines the social acts, in some cases, the collectivity is acting through the individual actions. The collective agency could be considered as “the capacity for the action of the relationship, forming individuals into a group.” People act in the consciousness of a situation and form their actions accordingly; it follows how people construct their agency within a situation, according to their understanding of their relationships with other entities (whether they are individuals or groups). The actions of a person constitute a collective intention to some extent. (Robb 2010, 503, ff.) For example, when people participate in the burial practices held at *tarand*

cemeteries, such as communication and gift exchange, between the living community and the dead (see sub-chapter 8.3.), they act in the consciousness of the situation, for example, according to the relationships they want to maintain with the dead. At the same time they act in a manner befitting the customs related to those practices, which also have a collective dimension, as they are accepted and repeated practices used by the living.

Agency in archaeology was at first human-centred and synonymous with human action, however, as agency theory widened, there came the understanding that objects, decoration, materials and the natural world can also influence (human) behaviour and thus have agency (Gell 1998; Bradley 2000; Ingold 2011; Hodder 2012). In mortuary practices, a lot of emphasis has been put on the actions of the living and the patterns behind those actions (see above), but the agency held by the cadaver has not been the focus. Depending on the context, the agency of the dead might manifest itself *via* the mourners and the mortuary practices, and in doing so could affect the living (Williams 2004; see sub-chapter 7.2.). Recognising that, a wide scale of non-human agencies allows researchers to attempt to capture “as many aspects as possible of the whole causal dynamic involved in the lives of humans” (Johannsen 2012, 340).

Items also actively engage in social processes, and it depends on both the items and humans to determine which are held important. This includes which items are used in mortuary practices, and which are considered prestigious. The thingness of things – the role of things in tying the society, drawing people together but also bringing changes (Hodder 2012, 165) – emphasises the significance of items in the society and their connections to humans.

One of the main focuses of this dissertation are the material remains from the *tarand* cemeteries and their connection to persons and groups. When discussing the meaning of material culture in archaeology, it is important to recognise that there was a variety of reasons why humans acted in the way they did, what influenced, motivated them and in what framework they acted in. Those actions could have been on the level of individual or collective, which, depending on the context they acted in may have not been very different. Items themselves can affect a society as well, but they can also be connected to human intentionality, by carrying the meaning people gave to those items.

The Roman Iron Age was a time when many foreign influences reached the *tarand* cemetery area and many new items were introduced there. Local versions were subsequently developed based on some selected items (see for more in Articles 1–3). In general, trade and the overall contact between different areas can be very complicated, but all participating sides would likely have gained something from the interaction and also something new could have emerged based on those contacts (Stein 2002). The movement of items from one context to another in time and space can distort their meanings, and in a new place, new meanings can be formed dependent on the situation they were used in (Appadurai 1986). The creation of local forms based on foreign ones can be considered as a fusing together of local meaning and foreign object, which for some reason suited the local context. It is possible in this event that some elements of

its original meaning also remain present. The concept of hybridisation has been used in archaeology when discussing how foreign elements were integrated into the local culture; it is the amalgamation of elements which have formerly been separated but their synthesis could create something unique (Bhabha 1994; Ekengren 2009, 157; Verstegen 2012, 87). For example, local versions were created of certain imported ornaments in the *tarand* cemetery area (see the sub-chapter 9.2.). These imports could have influenced the local culture to the extent that new meanings could have been constructed which perhaps also restructured social relations. The thingness of those items and their connections to human intentionality probably affected the local culture and social relationships. Also, the nature of the contact with other areas was probably an important factor in determining what new items, skills, materials, and ideas, etc. spread to the *tarand* cemetery area.

When discussing the meaning of items placed into these cemeteries, several aspects have to be considered – were they intentional, how were they placed into the burial area and also the physical properties of the items, bearing in mind that one item may have held several interchangeable meanings (Ekengren 2009, 45–47; 2013, 181–183). Many items in the *tarand* cemetery could have held meanings directly related to the mortuary process and its norms – for example, they could have been specially made for and used in the mortuary processes. Many items were likely used in everyday life as well, but in the funerary process, they could have obtained different meaning(s).

Determining the exact meaning, however, is almost impossible. In interpreting rock art, Robert Layton wrote: “We will never resolve the overwhelming ambiguity of the figures’ meaning. Purely referential meaning leaves the analyst with an ‘empty’ system of signification. The desire to fill the empty signs with meaning almost invariably leads the analyst to create a surrogate discourse” (2003, 34). This is very important to keep in mind, especially when dealing with archaeological material and as long ago as Roman Iron Age. The mechanism of how meanings may have been created and then transmitted is more important than determining the exact meaning. It is essential to recognise that the archaeological evidence we have today was created by someone who acted according to their social and cultural norms. But at the same time they had their own free will, or they acted by the influence of some other person, group, thing, etc. Animals, objects and even cadavers could have affected the actions of persons and groups. Every item, structure, and practice had its relational and contextual meaning, but what these meanings were exactly remains somewhat elusive. Archaeological evidence can be described as the result of the actions of people (Barrett 2000). Accordingly the material culture and the remains of those actions, allow representations of different fields of meanings to be considered, but the complex world, its social roles, wishes, and hopes of the people cannot be determined.

7. INDIVIDUAL IN DEATH

It has been stated in previous research that individuality was absent in *tarand* cemeteries due to the commingled nature of bones and artefacts (Vassar 1943, 18–31; Jonuks 2009, 235). Based on that, the presence of a collective ancestral soul has been proposed, one that may have held some individual features as well (Jonuks 2009, 235). This concept has been given another look in this dissertation. Can hints of the individual in death be found in these cemeteries and if so, how was it manifested? How could the individual be perceived in death and what identities or modes of personhood could the deceased have had? The features pertaining to individuality in death are discussed in the fourth and fifth articles, based on two case studies. Also some comparisons of other cemeteries are brought in to discuss the topic on a wider scale. The mortuary rituals that possibly took place for the individual, from the time of death until the deposition of the bones into the cemetery, are also discussed. This allows for hints to be gleaned of the nature of the individual person and individual burial episodes in death, during the Roman Iron Age.

7.1. Individuals in Viimsi I and Aakre Kivivare *tarand* cemeteries

Generally, there were many similarities between the broader features of the Viimsi I and Aakre Kivivare *tarand* cemeteries (Articles 4 and 5). As mentioned in the second chapter, the Roman Iron Age *tarand* cemeteries shared many of the same characteristics, including the fragmentation of burials, their commingled nature, and elaborate grave goods. However, when we go into detail about the individual features of the burials, the differences between the two cemeteries come forth.

In the fourth article, both the individual and collective features in Viimsi I *tarand* cemetery were studied. This cemetery is a typical *tarand* cemetery, located in north Estonia, dating to the end of the Roman Iron Age and to the Migration Period (AD 350–550) (Lang 1993, 54–55). The cemetery was disturbed before the archaeological excavation however, the top 30–50 cm of the cemetery had been removed, as well as its mid-section, but luckily the bottom layer remained intact (Lang 1993, 7). Items, bones and their location and characteristics were restudied in the fourth article, bones were restudied by Anu Lillak (having been previously studied by Ken Kalling, see 1993). According to Lillak, at least 42 individuals were buried in the cemetery, and individual features of at least seven of them were observable.

Four unurned bone clusters in the Viimsi I cemetery were distinguished, three were cremations and one was an inhumation. In addition, at least four crossbow brooches were associated with the bones of male individuals (including bone clusters I and III, see Article 4, 281, fig. 3). Those brooches could

have been personal items, worn to fasten clothes, but they could also have been worn to communicate the wearer's identity, perhaps showing the presence of a sub-group of (male) individuals within the community of those who buried their dead in *tarand* cemeteries (see the sub-chapter 8.2). The most interesting was the male inhumation burial (cluster III), which was accompanied by several distinctive grave goods, some of which could have been personal items (a finger-ring, crossbow brooch, stud, and bracelets), and a small fragmented neck-ring, that could have held ritual or symbolic meaning, as it was too small for the adult person. The fragmented neck-ring could relate to activities during the mortuary ritual, in which the ring might have been deliberately broken. Neck rings in general could have held a special meaning in prehistory, both in southern Scandinavia and northern Europe, as well as in Roman Iron Age Estonia where they could have been used by ritual leaders (Jonuks 2009, 232–236). Bone cluster IV in Viimsi I cemetery was particularly interesting as it contained the bones of cremated child and inhumed adolescent, who was accompanied by a small spearhead. This is remarkable as weapons in general were quite rare in *tarand* cemeteries. Bone cluster II contained three bracelets – not spectacular items individually, but their significant number in one place is remarkable. They could have been the personal items of the deceased, deposited with the bones, or they could have been later offerings, perhaps by the mourners, to accompany the deceased person: the memory of a person could have remained where they were buried, and therefore aspects of individuality remained in the memory of the living. The items accompanying the bone clusters could have been the personal items of the deceased and connected to the social identities they had when they were alive. However, when they were used in ritual practices, they could have obtained new additional meanings.

The evidence for individuality in the Aakre Kivivare cemetery was studied in the fifth article. This typical *tarand* cemetery is located in south-east Estonia, and excavations were carried out in 2014 and 2015 by the author and Anu Lillak. This was to study the placement of bones and artefacts in one enclosure of the cemetery, in order to see whether bone clusters could be distinguishable. Also, the date of the cemetery was identified with ^{14}C and AMS dating, together with a typological analysis of the items. The enclosure was used for burial mainly between the second and the fourth centuries²⁵, based on the dates for the brooches. The ^{14}C and AMS dates²⁶ taken from the bottom layer of the cemetery, which was free from human bones and metal finds, suggested that it was previously a dwelling site, but an earlier burial site or indeed other interpretations cannot be completely ruled out. It was hoped that traces of individuality could be better identified by using a total station, together with 3D modelling of the excavated area and having osteological expertise on the site. Subsequently the severely fragmented cremated and inhumed bones of at least 14 individuals

²⁵ The earliest were the head shield and early cross ribbed brooches and the latest the enameled disc brooch (dates based on Bitner-Wróblewska 2010, 176; Articles 1 and 5).

²⁶ BC 703–199 and BC 351–60 (Article 5, 65, table 3).

were recovered. No closed complexes of items, bones or bone clusters were identified in the enclosure. However, a trend in how the bones and other items were located in the enclosure did become visible (Article 5, 67, fig. 6). The metal finds which were mostly personal ornaments, were mainly concentrated at the centre of the enclosure and pottery to the sides. Bones were scattered all over the enclosure, but were also concentrated more towards the central area. This may indicate that the central area was the main burial place where cremated and fragmented inhumed bones were placed together with personal ornaments. Offerings (food for example) inside ceramic vessels were placed to the sides. Personal ornaments could have belonged to the deceased or placed in the cemetery during some later mourning event.

Based on the results of these two case studies, it can be suggested that individual features were exceptionally present in some *tarand* cemeteries, and in others, the deceased were fused within the community of the dead. The reasons behind that might depend on various factors. First, the differences between Viimsi and Aakre could be time-dependent. Viimsi cemetery dates quite narrowly to the end of the Roman Iron Age and the Migration period (Lang 1993, 54–55) and Aakre dates from the second century to the fourth century. But the peak in its use could have covered a narrower time period. It is possible that there were bone clusters, but if the cemetery was in use for a long time period, the bones became mixed during later burial rituals and other activities. The bone clusters therefore, which originally could have been small when placed into a small area between the stones, could have been disturbed and traces of them are no longer visible.

Another reason for the differences seen in the expression of individuality at Viimsi and Aakre could be connected to regional variation in burial customs. In Viimsi, there were some unurned bone clusters present. In Aakre, no clusters were present, but the central part of the excavated enclosure was the area where most of the personal ornaments and bones were found. Another possibility to explain the differences could be related to the disturbance of the Viimsi cemetery before the excavation. The exact system of how bone clusters, loose bones and other items were deposited was not visible anymore. In Aakre, it is unclear if the deceased were initially placed in the cemetery as bone clusters and then over time, with ongoing burials in the same area, became comingled. Or that the bones were primarily scattered in the central area of the enclosure. However, it is clear that the bones and personal ornaments had to be located in the central area and ceramic vessels (perhaps with offerings?) on the sides (similar trends are also observable in other *tarand* cemeteries in south-east Estonia, for more see sub-chapter 8.3.). Selected items were deposited to selected areas of the enclosure therefore, in relation to the remains of the deceased.

7.2. Individuals in *tarand* cemeteries and practices associated with them

Viimsi I and Aakre cemeteries only represent the burial traditions in two cemeteries and from two separate areas. For a better understanding, other cemeteries have to be considered too in the search for repeating patterns of mortuary practice in Roman Iron Age *tarand* cemeteries. There are some hints of individuals in other *tarand* cemeteries, but they have not been studied separately. Information about them is available however, in some unpublished excavation reports, as well as in several publications about other *tarand* cemeteries. The presence of reoccurring patterns in mortuary practice can provide insights into the nature of past customs when dealing with individuals in death. The main trends in mortuary practice discussed in this sub-chapter are based on evidence from south-east Estonian *tarand* cemeteries because it is the focus area of this dissertation, and in order to place the mortuary practices of the Aakre Kivivare *tarand* cemetery into a broader context, examples from other regions need to be considered.

Based on excavation reports and other published material from the south-east Estonian *tarand* cemeteries, many regular trends are present in their spatial arrangement; some of which could be observed in the Aakre cemetery as well. The presence of unurned bone clusters has been noted in the majority of *tarand* cemeteries, excavated in south-east Estonia²⁷, but based on those reports, most of the bones were placed loosely in a particular area in the cemetery. Also, bone clusters have been noted in some cemeteries in other parts of Estonia²⁸. Sometimes the bone clusters in south-east Estonia also contained items (both burned and unburned) and occasionally charcoal. For example, in the Loosi I cemetery, there was one bone cluster associated with a cross ribbed brooch and another with a head shield brooch, the cluster was surrounded by small stones and covered with a bigger one (Laul 1966, 3; 1993, 3; 2001, 81); in Jaagupi cemetery, one cluster was associated with charcoal, a spiral tube, and the fragment of a ring, another contained long bones with a bracelet; two clusters were also in the same area as the shards from some ceramic vessels (Moora 1933, 3; Ariste 1939, 3; Vassar 1945, 2). In Tsiistre, one cluster contained a melted copper alloy object (Konsa 2003, 7), and in Virunuka I, one cluster contained beads and again the shards of ceramic vessels (Laul 1957, 3). In Virunuka IV, a cluster found between two stones contained beads, a finger-ring, a bracelet and a melted copper alloy object, perhaps a brooch? (Laul 1961, 6). Unfortunately

²⁷ Jaagupi (Moora 1933, 2, 3; Vassar 1935, 2; Ariste 1939, 3), Loosi (Laul 1966, 3; 1993, 3), Kõnnu (Schmiedehelm & Laul 1970, 157); Mäletjärve (Ariste 1948, 2), Verevi Läätsa (Schmiedehelm 1931a, 2), Tsiistre (Konsa 2002, 7), Virunuka (Laul 1957, 3; 1958, 4; 1961, 6).

²⁸ Viimsi cemeteries (see Article 5); Proosa cemetery in north Estonia (Deemant 1933, 26); Nurmsi and Tarbja cemeteries in central Estonia (Vassar 1943, 18; Moora, T. 1967, 282); disturbed inhumations in Jäbara E cemetery in north-east Estonia (Schmiedehelm 1927, 3); bone clusters and inhumations in Pada cemetery in north-east Estonia (Schmiedehelm 1928, 2, 3; 1929, 6, 8, 10, 11).

other bone clusters found in the south-east Estonian *tarand* cemeteries cannot easily be associated with particular items.

It is not known whether the bone clusters contained the remains of one or more individuals in these cemeteries because they were not osteologically studied²⁹. The bones of two individuals were identified one bone cluster in the Viimsi I cemetery. It has been suggested that it was not important to emphasise individuals in death and it was more important to place them together and that is why some bone clusters contained the remains of multiple individuals (Jonuks 2009, 221). Even though bone clusters could have contained several individuals, a spatial distinction between the deceased and others buried in the cemetery, whose bones were not deposited in clusters, can be seen. It is probable that at least some of the dead were placed in the cemeteries in unurned bone clusters (both with and without items), from which some aspects of spatial distinction can be seen. The use of the same enclosure for burying the dead, possibly over many decades, may have allowed for follow-up rituals or activities to take place. During some important ritual practices, the content of the enclosure may have become even more commingled than it originally may have been. Also, the clusters may have been quite small and close together in certain areas, and therefore they would be difficult to distinguish from the collective dead and therefore challenging for archaeologists to identify. Moora proposed that the remains of individuals were initially placed between bigger stones in a compact area and then subsequently scattered there in that small area (1934, 4). Therefore, when a particular area in the cemetery was in use during a particular time, the clusters could have combined and overlapped. Perhaps it was not important to keep the spatial distinction between bone clusters in the cemeteries.

As mentioned in the fifth article, the minimum number of individuals buried in one enclosure in Aakre was 14 and the weight of the bones was only around 2 kg. It is evident that not all the bones of the deceased were deposited into one *tarand* (an average adult individual weighs around 1–2.5 kg after the cremation, see Gonçalves *et al.* 2013). In the case of a cremation, there also remains the possibility that not all the remains were collected from the pyre. As the cemeteries were not closed, different processes (frost, stone pressure, activities of small animals) could have also affected the preservation of the bones. However, the small amount of bones can also be explained in the changed personhood of the deceased. It is possible that during the stages of the mortuary rituals, during which the identity and the personhood of the individual was reshaped, this final phase formed the personhood completely and the deceased was divided between several *tarands*. Perhaps also some of the remains could have been deposited elsewhere – at some other ritually important location. The home of the deceased perhaps, or land owned by the deceased or their family, etc. In general, the fragmentation of the body is considered to contribute towards the maintenance of connections between people, objects and places within social relationships by

²⁹ However, in early *tarand* cemetery in Uusküla (north-east Estonia), bone clusters contained remains of several individuals (Kalman 2000c, 438).

sharing the parts of fragmented items and bodies (Rebay-Salisbury 2015, 34). The act of dividing the remains of the deceased between different places, facilitated the shaping of dividual personhood and enchaind connections between different places.

Another way to differentiate individuals (or groups) spatially could have been achieved by depositing the remains either inside or outside the *tarands*. This spatial distinction could have been connected to different phases of the burial practice. Also, it could have been a group distinction, discussed in the next chapter. Regardless, whatever stage of the burial process the body was at, each stage held certain individual features that contributed to the process of change to the deceased personhood. It is also possible that it was connected to the change in burial customs at the end of the Roman Iron Age when inhumations began to occur outside of the enclosure walls at north-east Estonian *tarand* cemeteries (Шмидехельм 1955, 206). The date of Viimsi I bone cluster III (an inhumation outside of the enclosure walls), also correlates to the end of the Roman Iron Age (Lang 1993, 54–55). There are some burials that were possible inhumation burials considered to date later as cremations that have also been found from Nurmsi *tarand* cemetery in central Estonia (Vassar 1943, 18). Also, some larger unburned long bones have been found outside of the *tarand* walls in south-east Estonian *tarand* cemeteries, which could suggest inhumation burials (Laul 2001, 196). Burying the dead outside of the *tarand* walls is generally considered to be a later development in south-east Estonia (Schmiedehelm & Laul 1970, 155). The transformation of these burial customs could reflect changes in beliefs about the afterlife, perhaps a gradual shift towards individuality in death? These new mortuary practices are possibly a more individual perception of the deceased in death, to the participants involved.

The items accompanying the bone clusters were quite varied. They were mostly ornaments, but also included some shards of ceramic vessels as well. These items may have held many meanings in the funerary context. More distinctive grave goods could have distinguished certain individuals from others because of their social status, traditions, etc. As proposed in the previous chapter, these items could have been the personal belongings of the deceased, which could have obtained new or additional meaning during the mortuary practice. During the lifetime of an individual, these items could have communicated several different social identities. Particularly in terms of the individual and the group they belonged to, during any particular context. The meaning of these items could have shifted in death, as they could have been used to embody the new personhood of the deceased and its new role and position in society. Another possibility is that some items were offerings to the deceased by the living. Personal connections could have been emphasised this way and the relationship between the dead and the living assured by giving something from the living to the dead. Those connections maintained the memory of the deceased and helped to create new relationships with the dead. Most items could not be associated with particular clusters, and therefore it is possible that they were not dedicated to any particular individual, but to the

collective dead, for similar reasons as stated above. Also, some items could have been especially reserved for the funeral, with meanings directly connected to it (for example, some ceramic vessels in which bones of the deceased, grave goods or offerings to the deceased could have been put to the cemetery). But the meaning behind the items accompanying certain individuals could also have shifted in time. Also, as the deceased became united with the others buried in the cemetery, the items may also have been connected to the collective dead.

The identity of the individuals buried in the cemeteries is also difficult to determine, but it is thought that these people belonged to the higher strata of society (Lang 1996, 472; Rohtla 2005, 139; Jonuks 2009, 236, see sub-chapter 8.1.). That said, it is difficult to make further assumptions about the identity of those individuals buried there. Some could have belonged to the elite of the elite (Ligi 1995, 223; Article 4), who somehow differed from others among that group. Making any assumptions about identity based on the accompanying grave goods can be very problematic and could lead to surrogate discourse. An object's meaning was probably dependent on the context it was used in and might not have been directly connected to the deceased person or their identity (Ekengren 2013). Also, the function and meaning of items used in funerary contexts were dependent on tradition, and they were also formed during the mortuary practices by the participants and bystanders (*ibid*, 183). It is not impossible that the items found in *tarand* cemeteries were personal items, reflecting the social identity of the deceased had during their lifetime, but using these items in a funerary context may have changed some of their original meaning.

The transformation and the different modes of personhood in death can be discussed in relation to the location, characteristics and management of the bones. Even when some of the remains were present as bone clusters in the cemetery, not all the bones were present. It can be assumed therefore that keeping the remains intact was not important. Death is considered to be one of the most rapid changes of personhood (Fowler 2013). The deceased were transformed with the help of the living into a new state of being, possibly through several mortuary practices, which is visible today in the commingled cemeteries. This new state of being may not have held many individual features. The bone clusters in Viimsi I cemetery were still in the communal burial area, having some spatial distinction from the others, but simultaneously these individuals were part of the other deceased as well. The same is true for the grave goods. Their meaning could have transformed by being brought to the cemetery to accompany a deceased person. The grave goods could eventually have belonged to all of the deceased buried there. Both during and after the mortuary practices, the experience of seeing the dead body undergoing several changes, may have affected the memory of the living witnesses (Williams 2004). The remains could have had different forms of agency at different stages of the mortuary rituals, impacting on the memory left with the living. The different rituals could have been very spectacular, and in the case of cremation, it cannot be underestimated just how much the process, including the burning corpse,

could have affected the mourners and their remembrance. The collection of the bones and the placing of them into the cemetery was also an experience for the living. It can be argued that the deceased affected the living and perhaps also directed their actions during different funerary practices, possibly through differing traditions and/or the last wishes of the deceased.

The unurned bone clusters found in *tarand* cemeteries are interpreted as individual burial episodes – as evidenced by their deliberate placement in clusters to the cemetery. The spatial distinction between the clusters and the otherwise severely commingled bones, sometimes with the presence of accompanying items, distinguishes these deceased from the others buried there. At the same time, the individuals became a part of the community of the dead, gaining a new identity during the mortuary practices, and the shift in personhood could have become individual when the remains had been divided between different places.

8. COMMUNITY

As mentioned in the previous chapter, the mortuary practices connected with the burials shaped the personhood and identity of the deceased individuals, who eventually through many transitional stages became part of the community of the dead. A community is defined by the people who buried their dead into a one, or a group of closely located cemeteries. This includes people who did not bury their dead in *tarand* cemeteries, but belonged to the same society and participated in practices connected to the cemeteries. The communal aspects of the relationship between the deceased and the living and the expressions of this relationship are discussed in this chapter. Who belonged to the community that buried their dead into *tarand* cemeteries? How could personal ornaments be connected with collectiveness and how could the spatial arrangement of the cemetery express a possible collective identity? The collective aspects of the society who buried their dead in *tarand* cemeteries are discussed in the first, fourth and fifth articles.

8.1. The elite

It has been proposed that only a small part of the society (the elite) buried their dead in *tarand* cemeteries during the Roman Iron Age. This is based on the monumentality of the structures and their domination in the landscape, together with the sometimes abundance and elaborateness of the grave goods; also on the complex and time-consuming mortuary practices and demographic calculations (see the second chapter; Lang & Ligi 1991, 25; Ligi 1995, 222, 223; Lang 1996, 471–473; 2011, 110; Jonuks 2009, 236; Article 4).

The osteological analysis revealed that both sexes and all age groups were represented at Aakre, Viimsi, Tõnija and Kerstovo (Kalling 1993; Mägi-Lõugas 1996, 430, 431; 1997, 36; Yushkova & Kulešov 2011; Articles 4 and 5). This could have also been the case in other Roman Iron Age *tarand* cemeteries. Considering the minimum number of individuals buried in excavated cemeteries (Kalling 1993; Mägi-Lõugas 1996, 430, 431; 1997, 36; Yushkova & Kulešov 2011, 107; Articles 4 and 5) and the demographic calculations, a community of about ten people buried their dead there over a period of time; these communities are thought to have been nuclear families belonging to the higher strata of society, living in single farms (Lang & Ligi 1991, 25; Lang 1996, 365; 2007, 224, 225; 2011, 115). There have been many interpretations for why new enclosures were built. Lang proposed that a new enclosure was built for a new generation (1999, 76). Ligi suggested that building a new enclosure to the cemetery symbolised the growth of the land owned by the family buried there, thus legitimising their growing wealth and economic power through a larger cemetery (1995, 223). Another idea is that a *tarand* cemetery was used by an extended family, initially formed by the main family line with each subsequent

enclosure being created for a branching nuclear family (Шмидехельм 1955, 190; Laul 1965b, 349).

The people who buried their dead in *tarand* cemeteries have been portrayed as wealthy landowners who also controlled trade relationships, having short and long-distance connections to different areas and managed the distribution of those imported goods and probably others in the society were in some way dependent on them (Ligi 1995, 223, 224; Lang 1996, 471). Besides, they could have been ritual leaders, controlling social and communal rituals (Jonuks 2009, 236) directed to a broader audience, including the ones not belonging to the higher strata of the society (Ligi 1995, 223; Jonuks 2009, 236). Those rituals, which also could have included the ones not buried to *tarand* cemeteries could have been used for intertwined purposes, which could have contained the manifestation of their power (Jonuks 2009, 236).

As stated in the previous chapter, the ways in which the remains were handled (the mortuary process) were very complex, and possibly underwent many stages, including inhumation and/or cremation and fragmentation. Therefore they must have been very time-consuming. In addition to time, these practices required many resources and specialised skills. Cremation for example needs a lot of time and effort, such as the maintaining of a consistent temperature and oxygen supply for many hours (McKinley 2013, 158). Considerable effort went into these mortuary practices, and it can be argued that only the people belonging to the higher strata of the society received this kind of treatment after death.

The meaning associated with the grave goods, some of which were quite elaborate, could be interpreted in many ways. Only a few items can be associated with particular bone clusters (see previous chapter). It is not sure how or even if other items were connected to particular individuals, groups of people or practices. From the nature of the grave goods, which in general were not very differentiated (only a few could be considered very exceptional, such as the enameled ornaments and rare imports, etc.), it is assumed that the deceased were treated as a collective, with some egalitarian features, but with no specific individuals standing out (Lang 1996, 472; Rohtla 2005, 137; Jonuks 2009, 236). Accordingly, there was no particular distinction in death for the elite. However, the concept of the existence of an elite of the elite has been proposed by P. Ligi (1995, 223) and discussed in the fifth article. Specific individuals (see sub-chapter 7.1) or groups of individuals (see sub-chapter 8.2 for more) could have been distinguishable by their more elaborate grave goods (Articles 1 and 5).

Kristina Jennbert stated: „The grave is a kind of montage of lifestyle attributes, and ritualization of the dead within the scenery of nearby farms and villages” (2006, 136). The monumental features of the cemetery could have correlated with the „monumentality“ of the people buried there. Burial at a *tarand* cemetery has been considered as the legitimisation of the power of the elite, by showing it to a wider audience (Ligi 1995, 223). It is possible that the elite maintained the importance they had in life after their death, being signi-

ficant in another form, by continuing to influence the world of the living and having agency.

8.2. Expressions of the community in ornaments

The collectiveness of a community could also have been emphasised through the possession of similar ornaments. Wearing specific personal ornaments within a particular social group could have maintained and communicated the belonging to that group. The function of these ornaments depended on the context in which they were used (in different contexts/events during the lifetime of the wearers, but also in the mortuary context).

One of the main types of personal ornaments studied here are brooches. Their association with different regional groups has mainly been stated, but in the first and fifth articles, their connection to different social groups is also proposed.

Different brooches are believed to connect with the identity of different groups in the Roman Period and earlier in some regions. It has been argued that the brooches in Britain from the Early and Middle Iron Age (fifth to second century BC), were connected to groups bearing different identities and were not used to increase a person's individuality; they standardised people or placed them into certain identity groups (Adams 2017). Using brooches to emphasise the social status of the wearers is also known from the Roman world as specific groups wore specific brooches (Stout 2001; Swift 2009; Ivleva 2016). For example, plate and disc brooches were worn by men as a part of their military costume, according to the depictions on first to third century tombstones and sculptural reliefs (Hoss 2016a; Ivleva 2016). Depictions of fourth century high-ranking military and civilian officials show them having their cloaks pinned with large crossbow brooches (Ivleva 2016). The wearing of some brooch types has also been associated with communicating the position and affinity of the wearers in society, or the projecting of particular ideas (Crummy 2007; Ivleva 2011; 2016, 122). In addition to brooches, other costume elements were also connected to social groups. Roman soldiers for example wore fashions that marked their belonging to their social group, in accordance with their own personal view and that of the outside world; this common dress code consolidated their collective identity (Hoss 2016b, 118). In general, the wearing of specific personal ornaments and dress in the Roman Empire depended on the social affiliation of the wearers (Stout 2001). Also, some ornaments were believed to have magical qualities as well (Swift 2009, 183).

Some regularity in the furnishing of burials outside of the Roman Empire has also been noticed, along with associations to possible social groups. The burials of some "barbarian" elite (both male and female) in central Europe and Scandinavia have been called princely graves; distinguished by the monumentality of the grave, an inhumation burial, and abundant grave goods, which among other elaborate items include Roman imports and sometimes weapons

(Cieśliński 2016, 194, 197). Different grave goods for men and women have been distinguished in the Przeworsk and Wielbark cultures (Andrzejowski 2010; 70–74; Cieśliński 2016, 220, 221). In addition to brooches and other personal ornaments in the graves of women in the Przeworsk culture area, keys to chests and small caskets, spindle-whorls, spindle-hooks, needles and knives for leatherworking have also been found (Andrzejowski 2010; 70–74). Weapons, personal ornaments and belt fittings stand out in the male graves (*ibid*).

In contrast to the male graves of the Przeworsk culture, the male graves of the Wielbark culture do not contain weapons or tools, except for those interpreted as warrior-horsemen (Cieśliński 2016, 220, 221). Women's grave goods included numerous different costume accessories, many of which are made of precious metal (*ibid*). It has been proposed that a distinctive social group was present among the Balts, namely armed horsemen with their own hierarchy, which is generally suggested by the graves and the grave goods within (see for more Bliujienė & Butkus 2007). The presence of elite families is also proposed in west Lithuania, based on the arrangement of the burial grounds and grave goods (Kačkutė 2015). The differentiation between male and female grave goods is also emphasised (*ibid*). In general, it seems that segregation in society existed in the Germanic and the Balt areas, which to some extent was expressed in the grave goods of the deceased. The different meanings of those grave goods may not fully reflect the identity of the deceased during their lifetime however. The identity presented in the mortuary context could have been created specifically for the afterlife, for travelling to the afterlife or perhaps instead connecting to the memory of the deceased by the living, and reflecting some connection with the identity of the person during their life.

It is difficult to speculate whether various social groups held notions of unity that were associated with the wearing of particular brooches or other types of personal ornaments. Some preliminary assumptions can be made, however, based on the Viimsi I cemetery. In this cemetery, the bones of male individuals were associated with crossbow brooches (Article 5). It has been proposed that more elaborate sub-types of these brooches could have been worn by the ones belonging to the higher strata of the society (Rohtla 2005, 135). Also, crossbow brooches frequently occur in richly furnished graves in the Balt areas (Vaitkuns-kienė 1995, 105; Bliujienė 2002, 149). As stated above, crossbow brooches are thought to be associated with Roman legionnaires; the more decorated the brooch was, the higher rank the legionnaire had (Stout 2001, 80; Swift 2009, 159–163). Crossbow brooches in Viimsi could have been worn by a certain sub-group within the ones who used *tarand* cemeteries, which might have consisted of certain (male) individuals, who by visibly wearing these brooches manifested their status or identity during their lifetime (Article 5). This association could have been maintained somewhat in death. It is not sure what kind of sub-group they might have formed, but this kind of connection could refer to a group within the ones who used *tarand* cemeteries, which points to a particular collective shared identity.

There is a possibility that specific ornaments could have generally been associated with certain groups of people. This could indicate stratification, or the presence of different social groups, within those who were buried into the *tarand* cemeteries. Connections between certain groups and certain personal ornaments might have remained present to a degree in the mortuary context.

8.3. The spatial arrangement of the cemeteries and the practices at the cemeteries

The communal aspects of the funeral practices at *tarand* cemeteries were probably expressed in the commingled nature of the burials, where most of the individuals were blended into the collective of the dead. This is supported by the arrangement of items and bones, which could also relate to a collective identity. The layout of the cemeteries and mortuary practices associated with them discussed in this sub-chapter are mainly based on the Aakre Kivivare cemetery (because the layout of one enclosure was thoroughly studied in the fifth article) and other south-east Estonian *tarand* cemeteries (based on excavation reports and other published material), but comparisons from other regions were considered as well.

As stated in sub-chapter 7.1., the ornaments and bones in Aakre Kivivare cemetery were concentrated in the central area of the *tarand* and the pottery to the sides (Article 5, fig. 6). Similarities to this arrangement were also present in some other *tarand* cemeteries in south-east Estonia³⁰. The stones outside the *tarand* walls (Est. *äärevare*) were also used in burial rituals, as mainly shards of ceramic vessels have been found there³¹, occasionally charcoal too³². However, charcoal was frequently found with the bones of the deceased inside the cemetery (Schmiedehelm 1931a, 2; Moora 1934, 4; Laul & Lõugas 1960, 3, 4). Observations from other cemeteries in the region suggest that some enclosures were reserved for particular purposes, or there were different regularities there for the placement of bones and other items into the cemetery. For example, in Virunuka IV cemetery, the XII enclosure contained many bones and only few items (Laul 1962, 4). No items were found in the eastern part of Hannuste cemetery (Laid 1931, 3). The easternmost enclosure of Jaagupi cemetery was empty of bones and items (Moora 1933, 3). In Mäletjärve cemetery, the concentration of bones was particularly high near a big stone in the enclosure (Ariste 1947, 6). In Loosi I cemetery the bones concentrated mostly to one

³⁰ Jaagupi (Moora 1933, 2, 3; 1934, 4), Sadrametsa (Laul 1959, 5), Virunuka (Laul & Lõugas 1960, 4; Laul 2001, fig. 21, fig. 23), Tsiistre (Konsa 2002, 7).

³¹ Virunuka (Laul 1958, 4, 5; 1959, 2, 3; Laul & Lõugas 1960, 4, 5; Laul 1961, 5, 6), Sadrametsa (Laul 1959, 5), in Jaagupi they were scattered in the cemetery and in the outside area as well (Moora 1934, 4).

³² Mäletjärve (Ariste 1948, 2), Virunuka (Laul 1958, 3; 1959, 2), Sadrametsa (Laul 1959, 3), Loosi (Laul 1965a, 3). In Jaagupi most of the charcoal was found inside the cemetery walls but some from outside the walls as well (Moora 1934, 3).

enclosure and also the south-eastern part, outside of the cemetery, was also reserved for bones, found together with shards of ceramic vessels (Laul 2001, 81).

Several trends were present in other regions of Estonia. Ornaments and bones tended to be located in the middle part of the cemetery and shards of ceramic vessels in the peripheral area at Nurmsi cemetery, in central Estonia (Vassar 1943, 18, 29). Ornaments were also concentrated in the central areas of the enclosures and the ceramics outside of the walls in the cemetery at Tarbja in the same region, one of the enclosures was especially rich in ornaments (Moora, T. 1967, 282). In Mõigu cemetery in north-west Estonia, one enclosure was used for cremating the dead which is quite rare in *tarand* cemeteries (Tamla 1977) because, in most other cemeteries, the deceased have been cremated elsewhere³³. In Viimsi I cemetery, the osteological and spatial analysis suggested that some areas of the cemetery were reserved for specific individuals, namely adolescents and cremated children were found at the southern end of the cemetery (Article 5). Due to the partial disturbance of the cemetery, however, it cannot be fully proven. The bones and other items were also concentrated in the middle of the enclosure in Proosa cemetery (Deemant 1993, 25). These strict spatial arrangements did not seem to be present in north-east Estonia (see Шмидехельм 1955, plates 3, 4, 7, fig. 21). However, in some cemeteries there seemed to be areas where bones and items were concentrated as well (for example in Pada cemetery, see Шмидехельм 1955, plate 19 and Kohtla-Järve II cemetery where the bones and items were concentrated in specific locations within the enclosures, whilst some enclosures were quite empty, see Schmiedehelm 1948). In Ülpre cemetery in south-west Estonia, bones were only found in two of the four enclosures (Vassar 1956; Lang 2007, 201, 202). In the Tõnija cemetery on the island of Saaremaa, one enclosure was rather empty, another one mostly contained animal bones, and only two contained numerous burials (Mägi-Lõugas 1996, 430, 431; Mägi 2005a, 100–102).

Several explanations have been put forward in the past. Empty enclosures (where almost no items or bones have been found) are sometimes interpreted as enclosures that were built but never used, that the cemetery went out of use before new burials could take place (Moora 1933, 3; Laul 2001, 193). This could be plausible when the enclosures are the last ones built, but in Ülpre cemetery, the empty enclosures were built first (Vassar 1956, 179; Lang 2007, 201, 202). It has been suggested that *tarand* cemeteries were primarily cult sites where different practices took place and burial sites after that (Mägi 2005a; Lang 2007, 202). Probably the two were intertwined, and the cemetery was indeed more than a place where the dead were just deposited. It was certainly a place where different practices connected with the dead were carried out, and probably not always strictly connected to burial. It has been proposed that the Tõnija cemetery was built from the start as a two-room structure where enclosures were reserved for different purposes, perhaps one enclosure for

³³ One such possible place has been found from Rakke in north Estonia (Moora 1970).

burials and the other for rituals (Mägi 2005a, 102). The idea that certain areas were reserved for specific activities could be applied to other cemeteries as well, based on the spatial arrangement of the bones and other items. They were probably not scattered over the cemetery at random, everything seems to have had its place.

It can be seen from the spatial arrangement that the bones of the deceased were deposited in a specific area in the south-east Estonian cemeteries. Sometimes this happened in the central area of the cemeteries or a particular area of the enclosures. Personal ornaments are often found in the same areas as the bones. Some of which are fragmented (including traces of fire damage) and others are not (for example, in Aakre Kivivare, see Article 5 and Jaagupi, see Moora 1934). As suggested in the previous chapter, these items were possibly connected to the deceased in different ways (such as personal belongings obtaining new meanings in the mortuary context, or offerings from the living, etc.) and placed to the cemetery along with the remains.

The peripheral area of the cemetery, where shards of ceramic vessels have mostly been found, (and sometimes also charcoal, and to a lesser degree other items including bones)³⁴, can be interpreted as an area that was not actively used for burial but where supportive practices took place. The shards could have been remains of the vessels in which the bones of the deceased were transported and after depositing them, were left at the cemetery; also, it cannot be ruled out that the bones were brought to the cemetery in cloth or in a vessel of some other material (Laul 2001, 166; Article 4). It has been proposed that the vessels were broken at the cemetery, as shards of the same vessel have been found some distance from each other (Moora 1933, 3). In contrast, at other cemeteries it is probable that intact vessels were left behind (Laul & Lõugas 1960, 5; Laul 1965b, 342, 343). The peripheral area of the cemeteries could have also been the place where mortuary feasts took place, or where offerings for the deceased were brought in ceramic vessels (Vassar 1943, 129; Laul 2001, 166). It is possible that vessels used for different purposes were treated differently, or that there were even specific vessels for different purposes. For example, many different shapes and types of pottery have been found in the cemeteries in south-east Estonia. They include: fine-grained, coarse-grained, textile-impressed, striated, nail-incised, burnished and carinated ware (Laul 2001, 166–180; Article 5), however, the actual distribution of specific pottery types in a cemetery has yet to be studied.

Shards from ceramic vessels, animal bones and charcoal (perhaps the remains of fire making?) have also been considered as remnants of rituals that took place at the peripheral areas of the cemeteries, between burial events (Vassar 1943, 29, 128, 129; Jonuks 2009, 219, 239). It has been proposed that the aim of these rituals was to make contact with the deceased and the cemetery was the place where that communication could take place; this is because it was

³⁴ They have not been osteologically assessed but some unburned human bones have been recognised (Laul 2001, 196).

the place where the collective soul was thought to be located (Jonuks 2009, 239). The practices in between the burials probably included most of the society, including those who did not bury their dead there. Items brought to the cemeteries could have been items bound up in gift exchanges with the community of the dead (Parker Pearson 2003 [1999], 85). The living give a symbolic part of themselves to someone else (in the community of the dead), and by doing so their state of being could have connected with the deceased (Fowler 2004, 34). Gift exchange confirms the ties constructed between the community of the living and the dead, whereby the latter could still have been seen as active members of the society (Article 4). The agency of the living manifested itself through items brought to the cemetery. The agency of the deceased was manifested through the belief that the deceased could influence the world of the living.

The fixed spatial arrangement of the cemeteries implies a fixed set of different practices going on the cemetery (mortuary, remembrance, etc.). Everything had its place, and the arrangement was reconfirmed through practice and was maintained in tradition by the community over many centuries. Burying the deceased at *tarand* cemeteries was probably a part of the collective identity of the whole community, and it was accepted that some of its members were buried there. The rest of the society was also a part of this community, and possibly engaged in some of the practices at the cemeteries. Importantly, rather than speculating about the exact content of these practices, it should be recognised that doing something the same way over a long period of time consolidates society. The shared knowledge of death and its subsequent handling provided stability and a mutual understanding of how the world was structured. It can be proposed therefore that by repeating the same activities over centuries, the burial customs were established patterns of practice recognised by the whole community.

9. REGIONALITY

The preference for specific personal ornaments in different *tarand* cemetery areas has been noted in many studies (Vassar 1943; Шмидехельм 1955, 200–205; Moora 1956, Vassar 1956; Laul 1982 in EE, 225–232; Olli 2013). The area incorporating modern day Estonia and north Latvia, was previously divided into three cultural areas based on the material culture: north Estonia (containing north and central Estonia), a south Estonia (containing south Estonia and north Latvia) and west Estonia (west Estonia and island of Saaremaa), which in turn were split into smaller sub-areas that have been considered tribal in nature, sharing similar dialects (Moora 1956; Schmiedehelm 1956; Vassar 1956; Laul 1982 in EE, 243–248; Laul 1986). Regional preferences for some personal ornaments and the possible reasons behind those preferences were re-evaluated in the first, second and third articles. The main topic under discussion was which brooches and pendants were preferred in which regions. In addition, long-distance, multidirectional contacts were identified (from outside of the *tarand* cemetery area), based on variations in imported and local (eye, disc, cross ribbed) brooches and pendants. The influence of these contacts on local culture could then be discussed. Also, intraregional communication patterns in south-east Estonia and north Latvia were studied to identify the main communication routes. This was undertaken by studying local third and fourth century brooches of south-east Estonia and north Latvia to identify main communication routes *via* which the movement of items could have taken place to see if there were central areas sharing similar material culture through lively communication.

9.1. Regionality and intraregional communication

Regional preferences for certain personal ornaments stood out, regardless of geographical size. Specifically these ornaments were distributed in north-east Estonia, south-east Estonia, and north Latvia (Article 1–3). A connection with waterways in terms of intraregional communication in south-east Estonia and north Latvia was subsequently discovered (Article 1). The other areas within the *tarand* cemeteries region were not specifically studied in these articles, but their connection (from the ornaments) with north-east Estonia, south-east Estonia, and north Latvia are presented in this section.

Regionality and intraregional communication patterns for south-east Estonia and north Latvia were studied in the first article. This was attempted using methods from network science, based on local third and fourth century ornaments (cross ribbed, late profile and disc brooches and pendants)³⁵. Based on plotted networks and degree values of local cross ribbed and disc brooches, certain areas stood out where preferences for certain sub-types were identified.

³⁵ Local pendants and late profile brooches were not included in the network analysis due to their insufficient numbers (Article 1).

This was based on plotted networks and degree values for local disc and cross ribbed brooches. The Latvian variant of cross ribbed brooches (Table 2: 1) mostly occurred in Latvia and the southernmost tip of south-east Estonia. The south Estonian variant (Table 2: 2) occurred in the northern part of south-east Estonia, and the three-pronged foot variant (Table 2: 3) was mainly distributed in Latvia and the southern tip of south-east Estonia (Article 1, 84, fig. 3). There was also a so-called mediator area where most types were present. The network and degree values for disc brooches showed similar tendencies, although there were more areas in which similar groups concentrated. Group one disc brooches (Table 2: 4) were inherent to the southern part of south-east Estonia / central Vidzeme and north / central Latgale; group two (Table 2: 5) were mainly found in the northern part of south-east Estonia and disc brooches of group five (Table 2: 8) were common in central Vidzeme and north / central Latgale (Latvia) (Article 1, 86, fig. 4).

When other local ornaments (late profile brooches and pendants) were taken into account, it became apparent that the overall style of the personal ornaments of south-east Estonia and north Latvia was fairly uniform. Similar motifs and other decorative elements were used on different ornaments. Although there were differences in the distribution of some local ornaments (as stated above), the uniformity of smaller parts of the study area in article 1, stands out. These include: 1) the northern tip of south-east Estonia, 2) the southern tip of south-east Estonia, the central Vidzeme, north and central Latgale in Latvia, 3) some areas in central Vidzeme in Latvia. This uniformity in the smaller areas can be explained by their physical closeness, as it is easier for geographically closer areas to interact with each other. The similarity present across a larger area could be based on some other phenomenon. Choosing to bury their dead into *tarand* cemeteries, as well as wearing and depositing similar personal ornaments into these cemeteries could have maintained that uniformity.

The degree values and the plotted network of cross-ribbed and disc brooches do not show significant distribution differences like there was when they were studied separately (Article 1, 85 ff., table 1, fig. 5). However, the places with higher degree values could be considered more central, and these areas could have provided the main route of close and regular interaction, which formed and maintained the overall similarity. This main communication route stretched from the northern part of south-east Estonia, to central Vidzeme and central Latgale. The areas that were not on that route, or in its immediate contact zone, could have been content to focus on local scale communications. The areas considered to be central were located near water routes, which were the main way of communication and transport at that time. These areas were situated in logistically favourable places, which could have played an important part in their position in intraregional communication, which helped to maintain the unity of those areas. It is possible that those areas near larger waterways, through which it was possible to more easily reach distant areas, also played an essential role in long-distant communication.

The ornament types discussed above are inherent to south-east Estonia and north Latvia. Those ornaments have been found in quite low numbers in other *tarand* cemetery areas, but some contacts with central Estonia are visible based on similar pendants and south Estonian cross ribbed brooches (see Olli 2013), a few have also been found in north and central Estonia (Spreckelsen 1907; Vassar 1943, 69, 70; Tamla 1977; Laul 2001, 184). In addition, quite a number of cross ribbed brooches of the Latvian variant and a cross ribbed brooch variant with a three-pronged foot have been found in Finland (Moora 1938, 88, 89, 93; Keskitalo 1979, 186–189; Laul 2001, 184). Cross ribbed brooches of the Latvian variant and those with three-pronged foot were inherent to Latvian *tarand* cemeteries (Laul 2001, 184; Article 1). Contact between north Latvia and Finland also seems to have existed. A combination of river and sea routes is the most likely scenario with access to the Baltic Sea *via* the Gauja River and *via* that the shores of Finland. The Finnish three-pronged foot cross ribbed brooches are bigger, flatter and not as finely crafted as the Latvian ones and it seems therefore that they were crafted in Finland based on Latvian examples (Laul 2001, 184). Contact must not only have existed with the southern shore of the Baltic Sea (see sub-chapter 9.2.2.) but with northern areas as well.

The local third and fourth century ornaments discussed in the first article have not been found in the *tarand* cemeteries of south-west Estonia (Vassar 1956; Viljat 2012) and north-west Vidzeme³⁶. The latter (for example, Saulieši, Auciems, Strīķi and Ivaši) had similar ornaments to other central Vidzeme cemeteries but none mentioned in article 1 were found there. Even though they were close geographical neighbours with central Vidzeme, many factors could have been behind the lack of these ornaments. The main period of use could have been earlier (for example, Auciems, Strīķi?, Ivaši?) or later (Saulieši?). As they were separated by the Gauja River from central Vidzeme, they might not have the same feel of unity. The same could have been the case for south-west Estonia, where personal ornaments seem to occur earlier (see Vassar 1956; Viljat 2012) than the ones studied in article 1. It might be that south-west Estonia and north-west Latvia had some connections in the early Roman Iron Age, but the early items could have also arrived there from other places, as they are not so inherent to specific areas as are the local third and fourth century ornaments in article 1.

In the third article, disc brooches from the *tarand* cemeteries in Estonia and north Latvia were studied with a focus on regionality. The aim was to identify any regional preferences in typological groups, decorations, or alloys, together with non-local influences in style and production. Regional preferences between different disc brooch groups were identified in relation to their decoration. Subsequently two larger areas stood out: 1) north-east Estonia, and 2) south-east Estonia with north Latvia. According to the results of the HHXRF compositional analysis, disc brooches do not share a similar alloy composition, and for

³⁶ Based on the work at the archaeological collections at the University of Tartu and National History Museum of Latvia and the personal archive of Jānis Ciglis.

many it was not determinable because they were surface treated. The surfaces of many disc brooches from south-east Estonia and north Latvia were tinned, but in north-east Estonia the bronze-like colour of locally produced disc brooches dominated, meaning that there was a separate preference in the colour of disc brooches between these two areas. According to the disc brooch distribution presented in article 2 (56, fig. 7), group three brooches (Table 2: 6) concentrated on the north-east Estonian coast. Group two brooches (Table 2: 5) dominated in south-east Estonia. The first, fourth and fifth group brooches (Table 2: 4, 7, 8) were distributed across north Latvia and south-east Estonia. Some disc brooches decorated with enamel were distributed in both regions, however, the decorative motifs had a regional dimension whereby a four-circle motif (also presented on group three brooches) was inherent to north-east Estonia (Table 2: 10) and a rhombus (also on groups two and four) to south-east Estonia and north Latvia (Table 2: 9).

The production of eye brooches (the main, Prussian and Estonian series) found in Estonia and north Latvia was studied in the second article and the results demonstrated how imported specimens (the main and Prussian series) influenced the development of local eye brooches (the Estonian series). Also see sub-chapter 9.2.1 for more about their production and foreign influences. The local Estonian series (Table 2: 11) were mostly distributed in north-east Estonia, where they were likely developed from the imported eye brooches of the main series (the earliest eye brooches of the Estonian series and eye brooches of the main series look very similar); a few have also been found from outside the *tarand* cemetery area (Moora 1938, 61; Шмидехельм 1955, 64–65; Article 2). The eye brooches of the Estonian series have been found within some parts of the *tarand* cemetery area as well as but to a much lesser extent, from Ingria and central Estonia; there are also a few finds from south-east, south-west and north-east Estonia, north Latvia and Finland (Moora 1923; 1938, 59–61; Vassar 1943, 62; Шмидехельм 1955, 64–65; Keskitalo 1979, 144, 145; Laul 2001, 184; Viljat 2012; Yushkova 2016; Article 2). It is not surprising that Estonian series brooches found outside of north-east Estonia were mostly from Ingria and central Estonia, as they are the closest neighbouring regions geographically. The connections to Ingria were probably already present during the Pre-Roman Iron Age, when early *tarand* cemeteries were used in both regions. The nature of the finds and the structure of early Roman Iron Age *tarand* cemeteries in south-west Finland was also very similar to the Ingrian and north-east Estonian ones. Also central Estonia is considered to be the area where typical *tarand* cemeteries were introduced from north-east Estonia in early Roman Iron Age (see chapter 2). The connection between north-east Estonia, Ingria and the south-eastern shore of Finland seems to have been maintained by the Gulf of Finland, across which it was probably easier to travel.

The local style of Estonian series eye brooches was unique and very recognisable, therefore it may have held specific meanings among the community. One of the meanings may be bound to regionality, because their con-

centration area is somewhat limited to north-east Estonia. However, this may not have been their primary meaning (see below).

Based on the three articles, regional preferences for some brooch types or sub-groups stood out across various sized regions of the *tarand* cemeteries area. Eye brooches, especially the Estonian series, were intrinsic to north-east Estonia, as were the group three disc brooches and the enameled disc brooches with four-circle motif. Those brooches are rather rare in other regions and therefore could have reflected regional affiliation. In south-east Estonia and north Latvia some types or subgroups of brooches concentrated in smaller areas and others to larger regions. The broad distribution area of some brooches could refer to their production in larger numbers thus having an increased availability for considerably more people (for example, Latvian and south-east Estonian variants of cross ribbed brooches and group two disc brooches). Types or subgroups of brooches with very small distribution areas could have been specially reserved for only a small amount of people living there (the elite of the elite, or people with special social status among the elite, etc.), and/or were custom made according to the wishes of the customer. This could have been the case for more elaborate disc brooches, as many are very elaborate and finely crafted (Article 1). Also for the more elaborate Estonian series group three and four eye brooches in north-east Estonia.

The use of a particular brooch type or subgroup (or any other ornament for that matter) could have also been dependent on the customs and regulations of the community. This would have determined who wore what kind of ornaments and what they signalled in a particular context. It also has to be kept in mind that the majority of these brooches have been found in cemeteries and therefore mostly reflects the deposition custom at these particular cemeteries. Still, it can be assumed that these items were the same as those used during a person's lifetime (Article 1). If general custom dictated that personal ornaments were used as grave goods, it can be assumed that the ones inherent to the region were used for that purpose. At the same time, the movement of people between different areas and the subsequent communication cannot be overlooked when discussing brooch distribution. Communication was undoubtedly dependent on many factors, including tradition, access to waterways and other trade routes, as well as geographical proximity, etc. Areas that interacted more probably shared a similar material culture in terms of overall style and preference of ornaments. Items moved with people and *via* trade centres and routes. That is why some items belonging to certain regions can be found outside of their regular distribution area.

Table 2. Examples of cross ribbed, disc and eye brooches distributed in north-east Estonia, south-east Estonia and north Latvia.

No	Artefact; find location	Photo	No	Artefact; find location	Photo
1	Latvian cross ribbed brooch (AI 1194: 27); Velna Kravanda (north Latvia)		2	South Estonian cross ribbed brooch (AI 1702: 4); Jaagupi (south-east Estonia)	
3	Three-pronged foot cross ribbed brooch (AI 1195: 132); Slavēka (north Latvia)		4	Group one disc brooch (AI 4252: 27); Sadrametsa (south-east Estonia)	
5	Group two disc brooch (AI 1995: 43); Kullaku (south-east Estonia)		6	Group three disc brooch (AI 2012: I: 13); Tüksamäe (north-east Estonia)	
7	Group four disc brooch (AI 1702: 33); Jaagupi (south-east Estonia)		8	Group five disc brooch (AI 1195: 124); Slavēka (north Latvia)	
9	Group six disc brooch (AI 1194: 39); Velna Kravanda (north Latvia)		10	Group six disc brooch (AI 2655: 179); Pada (north-east Estonia)	
11	Eye brooch of the Estonian series (AI 3990: 21); Kahula (north-east Estonia)				

The regionality of certain ornaments is also known from the Roman provinces. Female dress accessories in the fourth century consisted of ornaments that were found throughout the western Empire (such as many varieties of glass beads and many different types of bracelets), which had a high degree of spatial variability (Swift 2000, 228 ff.). This has been interpreted as having “Roman” connotations on one side, but indicating cultural preferences on the other to an extent when being chosen by the wearers in a particular area and used to differentiate themselves from other groups; regional variation of bracelet styles can be interpreted as an expression of regional identity, consciously or subconsciously (*ibid.*, 11, 230). For example, a specific brooch type (a strongly profiled hinged brooch) has been proposed as an indicator of regional identity in western Reatia (Blasinger & Grabherr 2016).

Regional variation in the preference for certain personal ornaments was also present in the Germanic and Baltic areas during the Roman Iron Age (for more see Almgren 1897; B. Beckmann 1969; Ch. Beckmann 1969; Michelbertas 1986; Nowakowski 1996; 1998; Hauptmann 1998; Banytė-Rowell 2001; Andrzejowski 2010; Lund Hansen & Przybła 2010; Juga-Szymańska 2014; Cieśliński 2016). There are many types of ornaments considered to be inherent for different regions. Cross ribbed brooches of the Masurian type in both the Sambian Peninsula and Masuria, dating to the end of the second century, for example (Nowakowski 1996, 57). There are second century bracelets with snake head terminals of the Pomeranian type, bracelets with a sinuous hoop and round, box-like fastenings in the Wielbark culture areas (Cieśliński 2016, 245), also type A.133 brooches, dated to the first half and middle of the second century in Masuria (Nowakowski 1995; Banytė-Rowell & Bitner-Wróblewska 2005, 114), rosette *tutulus* pins and brooches in west Lithuania in the late Roman Iron Age (Banytė-Rowell 2009), round openwork pendants with cross motif that date to the end of the second to the first half of the third century in the area between the rivers Nemunas and Daugava (Bliujienė 2009, 250), and many more. In some of these areas the presence of regional variations in dress accessories has sometimes been argued to have expressed ethnic affiliation (Nowakowski 1995; Banytė-Rowell & Bitner-Wróblewska 2005, 110; Andrzejowski & Cieśliński 2007).

It is evident that different types of local ornaments were preferred in different regions, and their meaning could therefore have been connected to regional identity, as group identification emphasises similarity (see sub-chapter 6.1.). However, it is not certain whether expressing similarity with a particular area and disparity with other areas was the primary idea behind the wearing of these ornaments, but they likely attained such meaning when coming into contact with other groups, as it is also proposed for some ornaments in the Roman West (Swift 2000, 230; Article 1). Also, they could have had other social or religious meanings, which were probably created when using them in different contexts. Therefore, the context for which they were used dictated their meaning (see sub-chapter 6.1.). Some ornaments, which were similar in all regions and did

not therefore hold a regional dimension, could represent the overall fashion of the era.

Variation in brooch preference was also noticeable in the different sized regions within the *tarand* cemetery area, as shown in the first three articles of the dissertation. When all the variables (e.g. brooch types, subgroups, decoration, alloys, geographic distribution, similarity of sites) are taken into account, two larger areas with a uniform style do stand out: firstly, north-east Estonia, and secondly, south-east Estonia with north Latvia (Articles 1–3). In addition to these previously mentioned variables, the differences between the two areas have also been identified based on other preferred personal ornaments (Olli 2013, 108–110), ceramic styles, and possibly a different language for north Latvia and south Estonia, from that spoken in other *tarand* cemetery areas (Lang 2018, 219–225, 242–243). Also the direction of long-distance contacts must be considered (see the next section).

9.2. Long-distance contacts

The following discussion regarding long-distance connections was based on a typological and compositional study of disc and eye brooches (Articles 2 and 3) and also on the typological study of pendants found in south-east Estonia (Article 1). Long-distance relations are mainly discussed regarding how connections with areas outside of the *tarand* cemetery area affected the local culture. Influences from different directions, both far and near are observable in the material culture. Three main directions of contact were identified: 1) maritime routes between north-east Estonia and the south-eastern shore of the Baltic Sea, 2) river and land routes between south-east Estonia / north Latvia and the other eastern Baltic areas, 3) routes between the enameling centres of Eastern Europe.

The “Barbarian” peoples of northern Europe were not shielded from the influence of the Roman Empire, there were multiple interrelationships in many walks of life, also on a cultural and social level (Todd 2001, 447). The south-eastern coast of the Baltic Sea became connected with the Mediterranean about the middle of the first century AD, when the amber trade started to flourish in the lower Vistula region (Bliujienė 2011, 194; Nowakowski 1996, 107). Amber is found along most of the south-eastern coastlines of the Baltic Sea and to a lesser extent from the shores of the North Sea, it is also found from inland sites in Poland, western Belarus and south-western Ukraine. The largest deposits of amber in the world are found on the Sambian Peninsula, which was also the main amber source during the Roman Period; amber was also collected in Masuria and drift amber was available in the Lithuanian and south-western coast of Latvia. The Vistula delta region was also very rich in amber. (Bliujienė 2011, 5 ff.) Based on both written and archaeological records, the Romans were very interested in amber and it was highly desired (Gimbutas 1963, 118 ff.; Bliujienė 2011, 40, 82, 202). The Baltic people used very little amber them-

selves during the first centuries, but consumption slowly increased over time as attested by amber from this period found in graves (Bliujienė 2011, 68–82, 92).

The Lower Vistula region became the northern point of the Amber Route, which sustained regional and inter-regional trade (Bliujienė 2011, 202). The sea routes along the coasts of the Baltic Sea were also very important for communication between the coastal areas (*ibid*, 201). It is proposed, for example, that the Sambian Peninsula maintained long-distance contacts with various areas (including Scandinavia and the Roman Empire) and can be treated as a port of trade for the region, which spread new innovations and items to other eastern Baltic lands and beyond (Nowakowski 1996, 79 ff.; Bitner-Wróblewska 2010, 147 ff.). West Lithuania was also an important centre in the Baltic Sea region, with contacts around the Baltic, including Scandinavia, and southern Germanic areas (Banytė-Rowell *et al.* 2016). In general, contact between the Baltic areas and these Germanic cultures and also the Roman Empire significantly influenced their economy, their material and spiritual culture and the development of the social structure (Bliujienė 2011, 202).

9.2.1. North-east Estonia

The contacts north-east Estonia had in the first centuries AD seemed to concentrate to the south and south-eastern coasts of the Baltic Sea, but during the third century, connections with eastern areas also developed (Articles 2 and 3).

The eye brooches of the main and Prussian series are among the first brooch types to spread into the *tarand* cemetery area, with their main distribution being in north-east Estonia; eye brooches of the Estonian series are considered to be local to the *tarand* cemetery area, and in particular to north-east Estonia as they are mostly found in this small area (Moora 1923, 116; 1938, 60, 61; Шмидехельм 1955, 200, fig. 56; Lang 2007, 206). The distribution area of the main series³⁷ is vast. It stretches between the Rhine and the Vistula rivers, but they have also been found across southern Scandinavia, south-east Britain and in the eastern Baltic; in the Balt lands, however, their numbers are quite scarce (Kunow 1998, 96, fig 1; Schmiedehelm [1944] 2011, map IV; Heeren & van der Feijst 2017, 381, fig. 8.12; Chylińska-Früboes 2018). The results of the compositional analyses with HHXRF (Article 2) are in line with general trends for other Roman Period brooches from other parts of Europe, as it showed that the main series brooches were made in brass. This correlates with the composition of eye brooches from the Netherlands and Germany, near the Roman frontier (Riederer 1993; Rehren 2002; Roxburgh *et al.* 2017, 2018; Article 2). Brass was

³⁷ Main series brooches from the *tarand* cemetery area have been previously dated to the second century (Moora 1923, 116; 1938, 57; Laul 2001, 90). However, based on the date of those brooches in other areas (Michelbertas 1986, 110; Pfeiffer-Frohnert 1998; Maczyńska 2004, 213, 214; Nowakowski 2013, 132; Chylińska-Früboes 2018) earlier date from the late first century is also possible which does not rule out their use a bit later, during the first half of the second century too (Article 2).

a typical alloy in early Roman brooch production (including eye brooches), which was used widely until the end of the first century; it is suggested that it was also used by Germanic craftsmen (Dungworth 1996, 1997, Rehren 2002; Droberjar & Frána 2004; Roxburgh *et al.* 2017; Voß 2016). Based on that, it is probable that the eye brooches found in Estonia and Latvia had a Roman or Germanic origin (Article 2).

The eye brooches of the Prussian series found in Estonia and Latvia³⁸ were made from brass (A61) and gunmetal (A60) (Article 2). Based on these results, the A61 variant is better suited to a first century context and the A60 variant to the second century. A production centre for eye brooches of the Prussian series has been found at Augsburg, in the Roman province of *Raetia* (Voß 2008). This is quite far away from their main distribution area which incorporates Poland, the Sambian Peninsula, southern Scandinavia and the Baltic areas, but with the main concentration being on the Sambian Peninsula and Masuria (Pfeiffer-Frohner 1998, 127, 1; Heeren & van der Feijst 2017, 380, fig. 8.11). They may have been produced in Augsburg for export, or for Germanic soldiers in the Roman army who took items back home (Voß 2008; Heeren & van der Feijst 2017, 76). It leads to an interpretation that the brass A61 Prussian series brooches found in the *tarand* cemetery area could have originated from the Roman centres, but the gunmetal ones (A60) could have come from another production area, perhaps somewhere nearer to their northern find locations.

The composition of the earliest eye brooches of the Estonian series (group 1) shows a large proportion of brooches are made in brass in addition to gunmetal (Article 2). The former can be related to recycling old brass items of foreign origin (eye brooches of the main series? to which they also visually resemble), and the latter to some addition of bronze containing tin. Later developments of the Estonian series show wider number of alloy choices, which can be associated to recycling scrap metal. The bigger specimens with high lead content (groups 3 and 4) could be evidence of a deliberate choice to improve the casting properties. Eye brooches of the Estonian series were developed further over the centuries by bringing in adaptations to their composition, technological and stylistic features³⁹. Their continued use in the *tarand* cemetery area, when eye brooches were long out of use in other parts of Europe also infers their local origin.

³⁸ Likewise eye brooches of the main series, the A60 and A61 brooches were formerly dated to the second century in *tarand* cemetery area (Moora 1938, 62, 63). In the Baltic and Germanic areas A60 and A61 brooches cover broadly the first and second centuries (Michébertas 1986, 110; Dąbrowska 1997, 115; Mączyńska 2004, 213; Nowakowski 2013, 134–135; Chylińska-Frühboes 2017, 54) and the earlier first century date for some specimens found from Estonia is also possible (Article 2).

³⁹ See Moora 1923; 1938, 59, 60 and Article 2 for the grouping of Estonian series eye brooches. Due to the commingled nature of burials in *tarand* cemeteries, the broad date for AD 50–200/300 for groups 1 and 2 and AD 200/300–600 for groups 3 and 4 is proposed (Moora 1923; 1938, 59, 60; Vassar 1943; Шмидехельм 1955, 64; Article 2).

According to both the composition and the regional distribution of eye brooches, it is thought that the earliest ones (the main series) were introduced to north-east Estonia by sea from the Vistula delta where they (although scarce in the Baltic lands) were very numerous (Moora 1938, 59). This is where the amber trade began in the first century, which correlates with the date of the earliest brooches appearing in the *tarand* cemetery area (see above). Contacts with the Sambian Peninsula could be proposed based on the eye brooches of the Prussian series. This is because the distribution of these brooches concentrates to these areas and Sambia was also an important port of trade in the region (see above). Contact with the Sambian Peninsula is also visible based the presence of two rosette-shaped *tutulus* brooches that belong to the so-called Samland-style, dating to the first and early second centuries (Banytė-Rowell 2009). It is interesting that such items have not been found in either Lithuania or Latvia (*ibid*), suggesting direct contact between the Sambian Peninsula and north-east Estonia (Banytė-Rowell & Bitner-Wróblewska 2005, 112–113).

When local disc brooches are added to the discussion, a regional concentration of group 3 brooches to north-east Estonia is visible (see the sub-chapter 6.1). Based on their decoration, a direction for outside influence can be proposed (Article 3). North-east Estonian brooches (group 3), dating to the third century, were decorated with different rotating motifs and other stylistic elements (triskele, four circles, sparse knobs on the rims) which have visible influences from the first to third century Roman disc and plate brooches (Exner 1939, plate 15, 13; Hattatt 1989, 345, 357; Riha 1994, plate 51, type 3.15; Bayley & Butcher 2004, 173; Heeren & van der Feijst 2017, 155). Group three disc brooches differ in style from other disc brooches in the *tarand* cemeteries area and also those of other eastern Baltic lands. Therefore, it can be proposed that marine contacts existed between north-east Estonia and the Germanic peoples (or even Roman traders), perhaps at some trading centres on the south-east coast of the Baltic Sea.

It is likely that trade routes existed between north-east Estonia and the south-eastern coast of the Baltic Sea during the first centuries AD. New trade and exchange relations were probably created when the Amber Route started to flourish in the Vistula delta. It is easier to travel *via* seagoing routes than land and river routes to the south-eastern coast of the Baltic Sea and that is why sea routes were preferred. The connections could have been between two areas based on eye and disc brooches during the first to third centuries. The first area is the Vistula delta where the earliest main series brooches are found. This contact may have lasted quite a long time, based on the stylistic influences of the group three disc brooches from the third century. Secondly, another route was probably between north-east Estonia and the Sambian Peninsula, based on rosette-shaped *tutulus* brooches and perhaps on eye brooches of the Prussian series of the first centuries. It is likely that this rich port of trade offered many possibilities for people to trade and interact. People from north-east Estonia used this opportunity to trade, create relationships and exchange experiences and knowledge. The lack of amber in north-east Estonia (although abundant in

the Vistula delta region and Sambian Peninsula) could be connected with the preferences for other trade articles than amber.

Connections between north-east Estonia and the Vistula delta area have also been suggested elsewhere, based on the eye brooches of the main series, knob ended bracelets and some belt parts (Schmiedehelm 1931b; Шмидехельм 1955, 211). Direct connections have also been proposed by Moora (1938, 608). He speculates that some connections existed with Scandinavia as well, based on some tools (e.g., shaft hole axes) which could have had their origin there in the Pre-Roman Iron Age (*ibid*). Scandinavian connections have also been proposed by Agata Chylińska-Früboes again based on the eye brooches of the main series (2018). However the Vistula river delta area seems more likely due to its importance at the beginning of the Roman Period, although some Scandinavian connections cannot be ruled out. There are other Early Roman Period (second century – beginning of the third century) brooch types as well which were adopted by the local culture and modified according to local taste (for example, cross ribbed brooches, head shield brooches) that have their earliest forms in other eastern Baltic areas (Moora 1938, 70–76; 86–87). In addition, some types of bracelets, typical to Balt areas are also known in north-east Estonia; for example, bracelets with a ribbon-shaped cross-section and round ends, which are often found together with Prussian series eye brooches. In Lithuania they are dated to the end of the period B2 and to B2/C1 (AD 70–200) and perhaps to C1b–C2 (third century) (Michelbertas 1986, 138; 1997, 209).

It has been argued that the Amber Route lost its importance at the beginning of the Late Roman Period, which subsequently influenced trade in the whole eastern Baltic area (Nowakowski 1996, 107; Bliujienė 2011, 91). Although it could have interrupted the supply of metal from the south (Article 2), the local craftsmen continued to produce and develop further local variants of some brooch types inherent to the region (for example, eye brooches of the Estonian series). Also, connections with other areas around the Baltic Sea could have remained when the Vistula river delta area trade activities had dwindled. The sea routes linking different areas around south-east coast of the Baltic Sea are thought to have continued in the Late Roman Period, based on some similarity in ornament types (e.g. crossbow brooches which became very popular in north Estonia, see Rohtla 2005; rosette pins, typical for west Lithuania, see Michelbertas 1986, 13; Шмидехельм 1955, 77; also see Moora 1938, 628, 630). New opportunities appeared when connections with the eastern parts of Europe appeared *via* the “Eastern Route”⁴⁰ (Bliujienė 2011, 91). This is evidenced by the third century enameled artefacts in north-east Estonia (see section 9.2.3), also an Estonian eye brooch has been found near Kiev (Шмидехельм 1955, 65) and in addition, bracelets with thickening ends (also found from north-east Estonia), dated to *ca* fifth century are very numerous in eastern areas (Шмидехельм 1955, 134; Левада 2010, 575, fig. 15, 585).

⁴⁰ Route connecting the northern shores of the Black Sea to the northern Europe along the Dnieper River (Bliujienė 2011, 91, 176).

9.2.2. South-east Estonia and north Latvia

Connections with southern Baltic areas became visible in the Roman Iron Age, based on the cross ribbed brooches, pendants, and some stylistic elements of disc brooches from south-east Estonia and north Latvia (Articles 1 and 2).

Early cross ribbed brooches came into use during the second half of the second, or beginning of the third century and are one of the most numerous types of early brooches in the area (Moora 1938, 86–87). Cross ribbed brooches were common across the entire eastern Baltic region with various regional forms being used in phases B2/C1 – C1a and C1 (Hauptmann 1998; Banytė-Rowell 2001, 44; Bitner-Wróblewska 2010, 157). Amongst them, local forms called 1) the south Estonian variant, 2) the Latvian variant and 3) the cross ribbed brooches with triangular head and three-pronged foot, which were developed in south-east Estonia and north Latvia, during the third and fourth-centuries (Laul 2001, 103; Article 1). It is clear therefore that this popular brooch form had its roots in brooches from the southern areas.

Many types of pendants dating to the third and beginning of the fourth century, found in south-east Estonia were very popular in the areas of the Balts in Latvia and Lithuania (Article 1). Lunula, triangular and double spiral pendants were very popular there for example (Moora 1938, 243, 256; Simniškytė 2002) and the ones found in both south-east Estonia, and north Latvia are considered to have originated from Balt areas (Laul 2001, 141; Article 1). Small rhombus pendants from south-east Estonia are very similar to the ones found in a north Lithuanian barrow cemetery in Pakalniškiai (Sawicka & Grižas 2007), which could infer connections between the two regions. It is likely that round pendants with an openwork rhombus decoration, inherent to south-east Estonia, take their inspiration from round openwork pendants with cross and knob decorations, typical for the area between the Nemunas and Daugava rivers (Bliujienė 2009, 250), some have also been found in north Latvia.

One of the main decorative motifs used to adorn third century disc brooches from south-east Estonia is the rhombus⁴¹, mainly found on group 2 disc brooches (Articles 1 and 2). In general, the rhombus was a very popular motif and used widely to adorn various types of ornaments, especially in south-east Estonia (Olli 2013, 110; Article 3). It was also a popular motif in Latvia and Lithuania throughout the Roman Period, where it was used to adorn several ornament types, but not so much disc brooches (Vaska 2013, 102–104). Some first century disc brooches in the Sambian Peninsula were adorned with openwork rhombus decorations (Khomiakova 2015, 25) and the rhombus was also a popular motif in the Roman Empire, adorning first century disc brooches (Feugère 1985, plate 147; Riha 1994, 154; Bayley & Butcher 2004, 155, fig. 121). It was also used to decorate Eastern European enameled disc brooches in

⁴¹ Disc brooches in south-east Estonia were formerly dated to the fourth and fifth centuries (Laul 2001, 114). However, in the first article of the dissertation, their dating was reassessed and third and fourth century date proposed.

various areas (Корзухина 1978). It can be concluded therefore that the rhombus was a popular motif over a large area, fashionable and to some extent cosmopolitan and probably this is why people wanted to wear it. The influences on the south-east Estonian style, particularly in the use of the rhombus motif, could have come from connections with various areas, but regardless the motif was subsequently adapted to the local context.

Fifth group disc brooches of the, dating to the third and fourth centuries are mainly found in the *tarand* cemetery area of north Latvia. They were decorated with baluster, whirlpool and wheel motifs, which are all present in other ornaments in the Baltic cultures in Latvia, Lithuania and the Sambian Peninsula; this is especially true of the disc brooches from west Lithuania, where the stylistic influences could have come from Roman items, where similar motifs were also present (Michelbertas 1986, 122; Banytė-Rowell 2001, annex II, figs 70–72; Banytė-Rowell & Bitner-Wróblewska 2005, 110; Bitner-Wróblewska 2009, 385–399; Vaska 2013, 105–107; Article 3). Due to the stylistic similarities, the direction of influence for north Latvia could have been to the south, mostly in west Lithuania (Banytė-Rowell & Bitner-Wróblewska 2005, 110; Vaska 2013, 105–107; Article 3).

Influences from the Balt areas as well as from Eastern Europe are visible in these selected items. The earliest first and second century items (eye brooches of the main and Prussian series, bracelets with knob ends, etc., see Ciglis 2013a) are more numerous in north Latvian *tarand* cemeteries and could have reached there by contact with their southern neighbours *via* the Gauja River (Laul 2001, 182). This river was one of the main communication routes in the area maintaining both internal and external links (Bliujienė 2011, 35). As the Balts were the direct southern neighbours of the people living in the *tarand* cemetery area of north Latvia, many connections, influences and mutual relations must have existed. Contacts between the Balts and south-east Estonia and north Latvia in general probably took place *via* land and river routes (Article 3) and/or in combination with sea routes. There are several rivers that connect different areas within this *tarand* cemeteries area (Article 1, 77, fig. 1) and perhaps *via* the Gauja and Aiviekste Rivers access to Daugava River was gained. Then through the Daugava River many other areas became reachable including the Baltic Sea and its sea routes, which in turn connected with different areas in the eastern Baltic and the “Eastern Route.”

Based on the material culture, those connections remained active throughout the Roman Iron Age and from the end of the second and the beginning of the third century local types of ornaments emerged, based on similar ones popular in other parts of the eastern Baltic (for example some cross ribbed and disc brooch types, see sub-chapter 9.1; also Laul 2001, 183). These connections are also visible on ornaments from the Balt areas, for example, different pendants (see above), pins (Laul 2001, 131) and rosette pin/brooches (Banytė-Rowell & Bitner-Wróblewska 2005, 110). In addition to the influences of personal ornaments and their similar styles, connections are also visible in ceramics. For example, Salenieki-style pottery (which is fine ware, modelling paste contains

sand and/or fine stone rubble, the vessels typically have a flat bottom, and sometimes also have a bottom ridge; they are typically carinate in shape or with a concave upper section) was common in north Latvia and south-east Estonia from where it probably spread to central Estonia (but no further) and it has been proposed that the influences that triggered the adoption of this type of ceramic came from the south-eastern coast of the Baltic Sea and the Masuria Lakeland (Moora 1938, 561; Laul 2001, 175, 180; Lang 2007, 135, 136).

The decline of the amber route at the beginning of the Late Roman Period did not seem to affect the nature of relations that much. This is perhaps due to the fact that no direct contacts with the Vistula delta area existed and the connections were concentrated nearer to the Baltic areas and/or were established through many mediators.

It is possible that people from south-east Estonia and north Latvia also had connections with west Lithuania, either direct or through mediators. West-Lithuania is considered as being a bridge between the sea and the hinterland, having many connections around the Baltic and beyond (Banytė-Rowell *et al.* 2016). Reaching west Lithuania could have been desirable in order to trade, obtain new skills and network with people from far and wide. It is also possible that people from that area also came to the *tarand* cemetery area to trade.

Influences from Eastern Europe – the Oka region and the middle course of the Dnieper River – also appear in north-east Estonia from the third century. This influence is present through a number of imported items and some stylistic elements on certain disc brooches, including enameled variants (Laul 2001, 183; see the next sub-chapter). Those connections with the “Eastern Route” were also probably maintained *via* river and land routes.

At the end of the period, some new types of items (such as crossbow brooches) emerge but in very few numbers (Laul 2001, 184), which could mean that connections with southern areas weakened for some reason or that they were not desirable enough trade items.

9.2.3. Enameling centres of Eastern Europe

Connections between the *tarand* cemetery area with enameling centres in Eastern Europe are evident, based on the finds of enameled disc brooches and other artefacts (Шмидехельм 1955, 218–219; Корзухина 1978; Bitner-Wróblewska & Stawiarska 2009; Bitner-Wróblewska 2009; 2010; Левада 2010; Article 3). These centres were active in central and eastern Europe, concentrating in Masuria, central and east Lithuania, the upper and middle Dnieper, the Desna basin, the upper Oka and *tarand* cemetery area (Bitner-Wróblewska & Stawiarska 2009; Bitner-Wróblewska 2010, 176). The emergence of those centres was possibly connected to the rise of the “Eastern Route.”

The emergence of enamel production was probably influenced by specialised provincial Roman workshops. The earliest “barbarian” enameled ornaments in Eastern Europe date to the second century but they flourished in the third and

fourth centuries⁴². Lively contacts between enamel centres must have existed based on the distribution of enameled objects decorated in the *champlevé* technique. No technological dissimilarities between Baltic and Dnieper enamels were present according to a compositional analysis, but there were differences in the level of skill. Based on this, two forms of production were proposed. Firstly, static workshops could have existed producing basic forms. Secondly, itinerant craftsmen moved around manufacturing more sophisticated forms. The existence of itinerant craftsmen could be the way how stylistic and technological elements were communicated over the whole of Eastern Europe. Enameled objects were somewhat similar across this region, but, identical enameled objects are extremely rare (Bitner-Wróblewska & Stawiarska 2009; Bitner-Wróblewska 2010, 176–178).

It is possible that itinerant craftsmen made enameled ornaments based on the preferences of the customer (which in turn were influenced by their local culture), but their own “signature” in terms of stylistic suggestions including fashionable elements from other regions, could have also been included. For example, disc brooches in the *tarand* cemetery area are decorated with a four circle motif, or a swastika, baluster, lace, etc. which were also used on disc brooches and other enameled ornaments from the Kiev culture area but only a few⁴³ are very similar to ones found in the Kiev culture area (Обломский (ed.) 2007, 302–303, 314, fig. 150.7, 151.3, 162.1; Левада 2010, 583, fig. 22; Поболь & Харимонович 2016, 163, 179, fig. 3 and 17). It is also probable that the craftsmen took some items with them on their travels and introduced their work through them and perhaps sold them in other regions and this is how enameled ornaments considered typical for some enameling centres could have travelled to other areas⁴⁴. In addition to contacts with Kiev culture, contacts with *tarand* cemetery areas and the enameling centres in other eastern Baltic areas have been distinguishable, as influences from both sides are visible (Bitner-Wróblewska 2009, 422 ff.).

Local and foreign stylistic elements probably fused together in enameled disc brooches and new decorative elements were used as well as the decorative motifs inherent to the region (i.e. four circles in north-east Estonia, rhombus in south-east Estonia). In addition to enameled disc brooches, many other enameled ornaments were distributed in the *tarand* cemetery area of which some are local variants of ornaments which have wider distribution (e.g. penannular brooches, also see Корзухина 1978). This includes other ornaments with non-local origin from Kiev culture and other areas of the eastern Baltic (Шмидехельм 1955, 218–219; Laul 2001, 121, 144, fig. 57: 5; Bitner-Wróblewska 2009, 424). Based on the disc brooches, however, most influences and

⁴² Enameled disc brooches from *tarand* cemeteries were dated to the fourth and fifth centuries (Article 1; 2); however, most of them could correlate with the third and fourth century context of Eastern European enameled ornaments.

⁴³ Two with four swastikas (RDM I 2746, AI 5101: CVIII: 1) and one with a single lug construction (A 92:5) (Article 2).

⁴⁴ Based on discussion with Anna Bitner-Wróblewska on the second of April 2019.

connections can be seen to have existed with the Kiev culture area, and contact could have taken place along the “Eastern Route” *via* the Dnieper River to the northern areas where the sea routes became available through the Daugava or Nemunas Rivers and also river routes.

9.2.4. Influences of the long-distance contacts to the local culture

It is evident that since the first century, contacts with the eastern and south-eastern areas of the Baltic Sea and Eastern Europe greatly influenced the culture in the *tarand* cemetery area (see above). Several long-distance connections are identifiable (in a number of directions), based on their impact on local material culture, observed through similarities between the ornaments (Articles 1–3). The influences can mostly be observed in the stylistic and technological features of certain ornament types.

It is known from other “barbarian” areas that selected Roman forms, materials and techniques were reworked to suit the local context and sometimes it was required to combine foreign elements with local ones, thus creating new objects with new meanings (Voß 2008; Hakenbeck 2011, 54; Ekengren 2009). Contact between different cultures can be very complex, and it cannot be assumed that influences were unilinear from active core areas to passive recipient areas⁴⁵ (Stein 2002). Based on the items presented in the articles, it can be seen that the people from the *tarand* cemetery area adapted many Roman, Eastern European and Baltic items’ forms, stylistic elements and adopted new techniques.

The eye brooches of the Estonian series were probably based on examples of main series eye brooches as the earliest Estonian ones greatly resemble them (Article 2). The people of north-east Estonia therefore considered them valuable enough to copy them. The importance of Estonian series brooches in the local culture is also evident because they continued in use until the fifth/sixth century and during this time became bigger and more refined (Moora 1938, 59, 60; Vassar 1943; Шмидехельм 1955, 64). Their connection to regionality was proposed in section 9.1., in addition to other meanings they may have held in different contexts. Foreign stylistic influences are also observable on disc brooches and some pendants. These stylistic elements (including their forms, decorative motifs, and technological elements) were adopted to a local context and were developed further based on local preferences. Not all foreign elements were accepted however and it seems that only certain elements which suited the local culture were adopted and other elements which did not hold a significant meaning were left aside (for example, pectoral ornaments or rosette forms which were very popular among different Balt cultures were not widely used in

⁴⁵ As it is proposed in world systems model and acculturation model (see for more Stein 2002).

the *tarand* cemetery area, see Moora 1938, 222 ff.; Banytė-Rowell 2001; Bitner-Wróblewska 2009, 387 ff.).

In addition to the stylistic influences, some technological influences are observable as well. They are seen in the manufacture of local copper alloy objects based on foreign examples, more specifically by the adoption of their form and functioning mechanisms (e.g. bow brooches) and developing them further (e.g. Estonian series eye brooches). Also, the surface treatment of some ornaments (tinning) could have been an outside influence as it was known in both the Roman and “barbarian” world (Meeks 1986, 134; Volkaitė-Kulikauskienė & Jankauskas 1992; Bitner-Wróblewska & Stawiarska 2009). Eye brooches of the Estonian series and many groups of disc brooches are proposed to have been locally manufactured. This is because they represent typological groups that were largely distributed locally and based on compositional analysis could have been made of locally available scrap metal. This means that their production was not standardised to the extent that a particular alloy type was reserved to a specific brooch type (Articles 2 and 3). In addition, regional variations in material culture have been associated with the existence of workshop groups and the local distribution of their produce (Swift 2000, 8). The regularities in alloy composition of certain types of items can infer the presence of large-scale manufacture (for Aucissa brooches, see Bayley & Butcher 2004, 213). Variation in the alloy of the same types of items can refer to many small workshops that produced their own versions of fashionable brooches (Bayley & Butcher 2004, 214). Also more important than the specification of the alloy, there could have been other important properties such as the colour or texture which could have held symbolic meanings (Dungworth 1997), etc. This can be seen in the *tarand* cemetery area in the preference of different coloured disc brooches in different regions (Article 3).

Based on the previously mentioned examples, it can be seen that the people of the *tarand* cemetery area were actively engaged in short and long-distance trade. The first wave of influences could be associated with the beginning of the amber trade in the first century, when imported items reached the *tarand* cemetery area. New skills and materials also spread to the area which was adapted into the local culture along with selected new items. The directionality of those connections is difficult to define however. Direct contacts have been proposed between north-east Estonia and the Vistula delta area and the Sambian Peninsula (see above), but did people from distant areas reach the *tarand* cemetery area or was it *vice versa*? Interaction between the coastal areas of the Baltic Sea has been seen as very diverse (Sidrys 2001; Bitner-Wróblewska & Banytė-Rowell 2005; Bitner-Wróblewska 2011, 147, 148; Bliujienė 2011, 201; Banytė-Rowell *et al.* 2016) and during the first centuries, the spread of new ornaments from south to north is visible but it is difficult to tell who held the initiative, probably all sides to some extent. In addition to direct contacts, north-east Estonia may have had indirect contacts through mediators as well, and similar items could have been obtained from other directions, too. However, over time a number of contacts around the eastern coast of the Baltic Sea were probably

created, and fixed relations between certain groups could also have been maintained (Article 3). The needs of the local market were probably well established, and for the *tarand* cemetery area it probably included fresh and scrap metal supplies (due to the lack of a local source) and the skills to apply different techniques. Upholding these long-distance relationships probably played an essential part in sustaining these needs. Bitner-Wróblewska and Banytė-Rowell (2005) have also suggested that people living on the eastern coast of the Baltic Sea were connected in different aspects of life and that the local ornaments and Roman imports in the *tarand* cemetery area refer to the strong communication lines existing throughout *Barbaricum*.

The emergence of connections with Eastern European enameling centres started in both regions from the third century and probably through those connections, new skills, fashions and personal items spread, along with people (see above). Based on these relationships and the idea of itinerant craftsmen (craftsmen from the *tarand* cemetery area could have also travelled to some other enameling centre and *vice versa*) in addition to local workshops, multi-directional connections can be proposed through which not only enameled ornaments but other items as well (for example, bracelets with thickening ends) could have spread throughout the Late Roman Iron Age.

10. CONCLUSIONS

This dissertation is a multi-layered study of the affiliations held by people who lived in the distribution area of *tarand* cemeteries and were subsequently buried in those cemeteries during the Roman Iron Age (*ca* first four centuries AD). It starts with the individual, by discussing how they were represented in the commingled context of the *tarand* cemeteries. The community is discussed next in terms of what kind of community buried their dead there and what communal aspects could be determined from the grave goods and the spatial arrangement of the cemeteries. Discussions about affiliation at a regional level explore how the regional dimension was embodied in certain personal ornaments and how long-distant connections influenced the local culture. The regional emphasis is on south-east Estonia, north Latvia, and north-east Estonia, based on the distribution of the artefacts studied in articles 1–3.

Tarand cemeteries are communal burial places that are monumental in structure and dominate the landscape around them. The dead buried there are accompanied by many grave goods. But as the burials are fragmented and commingled, identifying closed complexes is difficult. Since ornaments are central to this dissertation, the main tools to study them were typology and classification. In order to learn more about these items and people who used them, typology and classification was combined with network analysis, compositional studies, statistics, and osteological analysis. In order to interpret the material culture and human remains, theoretical concepts about identity, practice theory, agency, and hybridisation were applied. The changing contextual and relational meaning of identity, items, practices and structures was emphasised. The importance of recognising that material remains were also meaningful, being created by someone who acted according to their social and cultural norms, at the same time as maintaining his or her own free will. Items carried certain meaning that people in a particular context gave them and the items could also have affected a society with their agency.

Notions of individuality were discussed based on the *tarand* cemeteries at Viimsi (north-west Estonia) and Aakre (south-east Estonia), comparisons with other excavated cemeteries in south-east Estonia was also used. In some cemeteries (including Viimsi but not in Aakre), unurned bone clusters were identified (both with and without items). It is probable that at least some of the deceased were placed into the cemeteries in a spatially distinctive way. The presence of bone clusters in the context of otherwise severely commingled bones and artefacts could refer to individual episodes of burial, which distinguished them from others buried in the cemetery. Their identity and state of being was rapidly changed during the mortuary practices, they gained a new identity by becoming a part of the community of the dead. By the severe fragmentation of the body, their state of being was also shaped and could have become individual, as the bones of the deceased could have been deposited in multiple places and become mixed with the remains of the others buried in the

tarand cemetery. Items in the cemeteries could have had different meanings connected to the mortuary context they were used in: they could have been the personal belongings of the deceased, offerings to the dead or connected with mortuary practices, etc.

On the communal level, the people buried in *tarand* cemeteries could have belonged to higher strata of the society, and burying them in these monumental cemeteries could have been a way to maintain the importance they had in life, after death. The notion of subgroups existing within the community arose based on the Viimsi I cemetery, where a correlation between male individuals and crossbow brooches was present. It is possible that some groups could have worn specific ornaments, which also may have continued to some extent in the mortuary context, maintaining the connection with a specific social group.

When analysing the spatial arrangement of the bones and other items in the *tarand* cemeteries, Aakre cemetery was compared to other sites across south-east Estonia. A fixed spatial arrangement was distinguished in many cemeteries, i.e. the bones of the deceased and most of the personal ornaments were often deposited into a particular area in the cemetery. Many shards of ceramic vessels have been found around the peripheral areas of the cemetery, sometimes with charcoal, other items or even some bones. This could be interpreted as an area used for supportive practices. The fixed spatial arrangement refers to established patterns of practice connected to the cemeteries, which were maintained over centuries. Those practices consolidated the community and provided stability by creating and maintaining social relations that bound the community together.

On a regional level, some ornaments were distinguished that were common to specific areas. This was based on their type, group, decoration, and surface treatment. The wearing of ornaments preferred in a specific area could have been connected to wanting to differ from other regional groups. It was probably not the primary reason behind wearing these ornaments however: they could also have held different social meanings, which probably came into being when used in a specific context. A study of brooch distribution combined with their typological characteristics revealed the presence of two larger areas where a degree of uniformity was present: 1) north-east Estonia, and 2) south-east Estonia, north Latvia. The differences between the two areas were also identified based on the direction of long-distance contacts.

Direct relationships probably existed between the Vistula delta area and north-east Estonia – this can be suggested based on the distribution of main and Prussian series brooches in both regions. In addition, there were also some other items that could have been obtained from that region. There probably were connections with the Sambian Peninsula as well – this can be argued based on the presence of rosette-shaped *tutulus* brooches and perhaps on eye brooches of the Prussian series found in both regions. The connections with the south-eastern coastal area of the Baltic Sea probably continued over the following centuries when locally made items in north-east Estonia were influenced by foreign items imported from the south-east Baltic areas. Contacts with the

eastern part of Europe arose during the third century, as evidenced by a similarity in enameled artefacts found in certain areas of Eastern Europe (in addition to the *tarand* cemetery area, this includes Masuria, Lithuania, the upper Oka, the upper and middle Dnieper and the Desna basin).

The earliest items in south-east Estonia and north Latvia also show long-distance contact with southern areas. This is especially the case for north Latvia. These connections were maintained throughout the Roman Iron Age, and from the second/third centuries onwards, local types of ornaments were created. They were influenced by examples of popular ornaments from other areas of the eastern Baltic, e.g. local cross ribbed and disc brooches. Many similarities exist in the material culture with west Lithuania, which was a popular trading place in the Roman Iron Age, where people from different areas met, traded, obtained new skills and social networks. Connections with Eastern Europe are also evident based on some imported items and stylistic elements of certain disc brooches, including the enameled ones.

It is probable that the enameling centres of Eastern Europe had many connections based on the stylistic elements of the items. Enameled items could well have travelled, probably together with craftsmen, who also reached the *tarand* cemetery areas where a local enameling tradition could have developed (as suggested by the disc and penannular brooches).

Long-distance connections significantly influenced the local culture of the *tarand* cemetery area. Selected new forms of ornaments were adopted by the local culture and local versions were created and developed further according to local context. It cannot be underestimated as to what extent new items, skills, and connections shaped local spiritual and material culture.

Further research of *tarand* cemeteries and the Roman Iron Age has much potential and there are many possible directions for it to take. Studying the spatial arrangement of *tarand* cemeteries should be continued to better understand the nature of the practices that took place there. A combination of spatial, osteological and typological analysis can give new insights as to how the cemetery area was used. In terms of artefact studies, compositional studies of the copper alloy objects could provide more information about their production. Typological studies of the artefacts must also be continued to update the typologies of all artefact types, including local ones. Finds from the *tarand* cemetery area need to be analysed in the context of the chronological system used in other parts of the eastern Baltic and central Europe, in order to compare the processes and trends in material culture studies in a wider spatial context.

ABBREVIATIONS

AB	Archaeologia Baltica
AI	Ajaloo Instituut / Institute of History 1947–2015; Tallinna Ülikooli arheoloogia teaduskogu / Archaeological Research Collection of the Tallinn University 2015 – ...
AL	Archaeologia Lituana
AVE	Arheoloogilised välitööd Eestis / Archaeological Fieldwork in Estonia
EA	Estonian Archaeology
EJA	Estonian Journal of Archaeology
Jb. Fell.	Jahresbericht der Felliner litterarischen Gesellschaft für die Jahre 1882–1917. Fellin 1889–1918.
JAS	Journal of Archaeological Science
LA	Lietuvos archeologija
MT	Muinasaja teadus
Sb.GEG	Sitzungsberichte der Gelehrten Estnischen Gesellschaft, 1861–1923
TATÜ	Eesti NSV Teaduste Akadeemia Toimetised, 1952–1955; Ühiskonnateaduste seeria, 1956–1966; Ühiskonnateadused, 1967–1989; Eesti Teaduste Akadeemia Toimetised. Ühiskonnateadused, 1990–1991 / Proceedings of the Estonian Academy of Sciences. Social Sciences; Humanitaar- ja sotsiaalteadused / Humanities and Social Sciences, 1992–1996. Tallinn.
TLM	Tallinna Linnamuuseum / Tallinn City Museum
Verh.GEG	Verhandlungen der Gelehrten Estnischen Gesellschaft zu Dorpat, 1840–1943

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SUMMARY IN ESTONIAN

Individuaalsusest regionaalsuseni tarandkalmete levikualas rooma rauaajal

Käesolev väitekiri on uurib rooma rauaajal (umbes esimesed neli sajandit pKr) tarandkalmete levikualas elanud ja nendesse kalmetesse matnud inimeste kuuluvust ja selle väljendamisest individuaalsel, kogukondlikul ja regionaalsel tasandil. Püütakse välja selgitada, kuidas ja kuidas on individuaalsus esindatud tarandkalmete segatud matuste kontekstis. Millised kogukonnad matsid oma surnuid tarandkalmetesse ning mis laadi kogukondlikud aspektid on esindatud hauapanustes ja nende paiknemises kalmetes? Kuidas on regionaalsed eripärad väljendunud konkreetsetes ehetes ning kuidas on kaugsidemed mõjutanud kohalikku kultuuri?

Töö keskendub rooma rauaajale, mille alguseks loetakse uue ehteliigi – sõlgede – ilmumist ning tüüpiliste tarandkalmete kasutuselevõttu ligikaudu esimese sajandi keskpaigas pKr. Rooma rauaaja lõpp on viienda sajandi keskel, kui hakati matma uut tüüpi kalmetesse, muutus kalmeinventar, võeti kasutusele rohkem linnuseid ning Euroopa lõunaosas toimusid protsessid, mis lõpuks viisid Lääne-Rooma keisririigi kokkuvarisemiseni. Tarandkalmete levikuala hõlmab Eestit (Kesk-, Kagu-, osad alad Edela-Eestis, põhjarannik ning Saaremaa), Põhja-Läti (Põhja- ja Kesk-Vidzeme, Põhja- ja Kesk-Latgale, Põhja-Kuramaa), Vene Föderatsiooni kuuluvat Ingerimaad (Isuri platoo lääneosa) ning Edela- ja Lääne-Soome rannikut. Käesoleva töö geograafilised piirid on aga Kagu-Eesti, Põhja-Läti ja Kirde-Eesti, mis joonistusid välja kolmes artiklis (1–3) käsitletud esemete levikualade põhjal.

Väitekirja peamine allikmaterjal on tarandkalmetest leitud ehted: silmiksõled (artikkel 2), ketassõled (artiklid 1 ja 3), Kagu-Eestile ja Põhja-Lätile omaseks peetud ja sealt leitud kolmanda ja neljanda sajandi ehted⁴⁶ (artikkel 1). Lisaks võeti analüüsimisel arvesse ka leiukonteksti (kalmed ise ja esemete ning luude paiknemine kalmetes) (artiklid 4 ja 5).

Tarandkalmed on maapealsed monumentaalsed ehitised, mis koosnevad nelinurksetest taranditest. Tarandite müürid on tehtud suurematest kividest ja sisemus täidetud väiksemate kividega. Tarandid on ehitatud üksteise külge, lisades juba olemasoleva nelinurga pikema müüri külge kolm uut müüri. Üks kalme võib koosneda ühest kuni tosinast tarandist ning suurimad on ligi 100 m pikad ja 30 m laiad. Surnud sängitati sinna koos hauapanustega. Tarandkalmed olid kogukondlikud matmispaigad, kus matused on fragmentaarsed, esineb nii põlenud kui ka põletamata luid ja kus luud ja esemed on omavahel segatud. See teeb suletud komplekside tuvastamise keeruliseks.

Rooma rauaageid tarandkalmeid on uuritud juba alates 19. sajandist, kui peamiselt baltisaksa päritolu uurijad kaevasid mitmeid tarandkalmed nii Eestis

⁴⁶ Lõuna- ja läti variandi kärbissõled, ketassõled, kolmeharulise jalaga kärbissõled, hilised profileeritud sõled, kolmnurk-, rist-, romb- ja ümarripatsid.

kui ka Lätis. Esialgu peeti tarandkalmeid laevkalmeteks, mille ehitasid ja kuhu matsid goodid. See teooria lükati 19. sajandi lõpus ümber ja neid hakati pidama kohaliku rahva matmispaikadeks. Soomes aga gooti teooria ei juurdunud ning seal peeti tarandkalmetesse matjateks läänemeresoomlaste esivanemaid, mis on tunnustatud vaade tänapäevani. Pärast Esimest maailmasõda ja Vabadussõda jätkus tarandkalmete uurimine. Eestis uurisid rooma rauaajaga ja tarandkalmeid peamiselt Marta Schmiedehelm ja Harri Moora, kes mõlemad töötasid ka Preisi muuseumi rikkalike kogudega. Nõgukogude Liidu okupatsiooni ajal kaevati paljusid tarandkalmeid ning ühe teemana tõusis esile rooma rauaajal elanud inimeste etniline kuuluvus. Eestis ja Põhja-Lätis eristati sarnase materiaalse kultuuri põhjal mitmeid hõimualasid ning neid seostati erinevate murrete aladega. Alates 1990ndatest levisid arheoloogias uued suunad, tõstatati uusi küsimusi ning levisid uued teoreetilised kontseptsioonid ja meetodid. Näiteks hakati tegelema ornamentika, religiooni- ja maatikuarheoloogia ning etnogeneesiga. Täiendusi on tehtud olemasolevatesse rooma rauaaja esemete tüpoloogiatesse ning on kasutatud uusi meetodeid tarandkalmete, selle leiuvahendi ja luude uurimisel.

Töös vaadeldakse tarandkalmete levikupiirkonda laiemas kultuurilises ja geograafilises kontekstis. Võrdlusi tuuakse ka Läänemere ida- ja kagukalda piirkondadest – Läti lõuna- ja lääneosa, Leedu, Sambija poolsaar ja Masuuria järvede ala Kirde-Poolas –, mida loetakse peamiselt baltlaste asualadeks. Visla suudmeala kuulus piirkonda, mida asustasid germaani rahvad. Sealses arheoloogias on balti ja germaani rahvaste alad traditsiooniliselt jaotatud arheoloogilisteks kultuurideks, mis on eristatud mingi piirkonna materiaalse kultuuri sarnaste tunnuste ja kalmete ning matmiskombestiku põhjal. Neid on seostatud ka etniliste gruppidega, kuid kuna arheoloogilised kultuurid on eristatud teadlaste poolt süstematiseerimaks arheoloogilist materjali, on need olemuselt abstraktsioonid ning sellist jaotust ei saa võrdsustada reaalselt eksisteerinud nähtustega. Seetõttu on arheoloogiliste kultuuride kasutamine eelmainitud piirkondade leiuvahendse kirjeldamiseks pigem meetodiline: igal kultuuril on oma kronoloogiline süsteem koos diagnostiliste esemetega, mis iseloomustavad teatud kultuuri ja selle faasi.

Baltikumis (va tarandkalmete puhul) ja Kesk-Euroopas on rooma rauaaja esemete uurimisel väga levinud tüpoloogilis-kronoloogiline meetod, mida on alates 19. sajandi lõpust pidevalt edasi arendatud ja täiustatud. Praeguseks on juba peaaegu iga eseme jaoks oma tüpoloogia ja teatud sarnase piirkonna jaoks oma kronoloogia. Kasutatakse relatiivset kronoloogiat, kus varane rooma rauaajaga on määratletud faasiga B (B1 u 10–70; B2 u 70–150), üleminekuperiood varaselt hilisele rooma rauaajale faasiga B2/C1 (u 150–200), hiline rooma rauaajaga faasiga C (C1 u 150–260, C2 u 250–300, C3 u 300–350/370) (absoluutse kronoloogia näited Leedu periodiseerigu põhjal, vt peatükk 4). Iga piirkonna ja arheoloogilise kultuuri dateeringud erinevad mõnevõrra üksteisest. Eestis on relatiivse kronoloogia kasutamine komplitseeritud, kuna tarandkalmetes ei ole suletud komplekse ning esemete koospaiknemist on keeruline uurida. Siiski saab tarandkalmetest leitud esemeid, mis on sarnased Läänemere

kagu- ja idaranniku ning Ida-Euroopa omadele sarnaselt dateerida. Kohalikke esemeid ajastades peab arvesse võtma nende tüpoloogilisi tunnuseid ning tehnoloogilisi ja stiililisi elemente. Käesolevas väitekirjas käsitletud ehte peamiseks uurimisviisideks olid tüpoloogiad ja klassifitseerimine. Töös on allikmaterjali iseloomustamiseks kasutatud juba olemasolevaid tüpoloogiaid, aga vastavalt leiuainese iseloomule loodi olemasolevates tüpoloogiates uusi klassifikatsioone (ketassõlgede tüübi sees erinevad grupe). Saamaks esemete ja neid kasutanud inimeste kohta rohkem informatsiooni, kombineeriti töös tüpoloogilist meetodit võrgustikuanalüüsi, metallesemete sulamite koostise uurimise, statistilise ja osteoloogilise analüüsiga.

Materiaalse kultuuri ja inimjäänuste tõlgendamiseks kombineeriti omavahel teoreetilised kontseptsioonid identiteedist, praktikate teooriatest, agentsusest ja hübriidisatsioonist. Töös on rõhutatud identiteetide, esemete, praktikate ja sotsiaalsete struktuuride muutuvat kontekstuaalset ja suhestuvat tähendust. Oluline on ka mees pidada, et materiaalsed säilmed kannavad tähendust, kuna nad on loodud inimeste poolt, kes tegutsesid vastavalt oma sotsiaalsetele ja kultuurilistele normidele, omades samal ajal ka iseseisvat otsustusvõimet. Esemed kandsid neid tähendusi, mida neile konkreetsetes olukorras omistati, ning võisid ka kultuuriliste vahendajatena ise ühiskonda mõjutada.

Individuaalsus

Individuaalseid jooni käsitleti peamiselt Viimsi (Loode-Eesti; artikkel 4) ja Aakre (Kagu-Eesti; artikkel 5) tarandkalmete materjali põhjal. Võrdlusena kasutati peamiselt teisi Kagu-Eesti arheoloogiliselt uuritud tarandkalmeid ja vähem ülejäänud Eesti kalmeid. Viimsi I kalmes tuvastati neli luupesa, lisaks sai nelja ambsõlge seostada meessoost indiviidide luudega (sh luupesades I ja III). Luupesades oli ka mitmeid esemeid. Seevastu Aakre kalme kaevatud tarandis ei leitud ühtegi luupesa. Fragmentaarsed põlenud ja põletamata luud olid segamini panustega. Võrreldes Viimsi I ja Aakre kalmeid teiste tarandkalmetega, ilmnes, et nii mitmeski arheoloogiliselt uuritud Kagu-Eesti kalmes (aga ka mõnes teises Eesti tarandkalmes) esines luupesi, nii esemetega kui ilma. Luupesade esinemine tavaliselt väga segatud luude ja esemete seas võib viidata konkreetsetele/individuaalsetele etappidele surnu matmisel järgitud tavades, mis eristasid neid (sh ruumiliselt) teistest kalmesse maetutest.

Surnu identiteet ja staatus tegid matmisrituaalide käigus läbi drastilise muutuse; lahkunu omandas surnute kogukonna osaks saades uue identiteedi. Surnukeha fragmenteerimisega – indiviidi luude võimalikul paigutamisel mitmesse erinevasse asukohta ja segamisel teiste tarandkalmesse maetud luudega – võidi surnu olek (*personhood*) jagada mitmete eri kohtade vahel. Näiteks ühte tarandisse Aakre kalmes maeti vähemalt 14 indiviidi, ent nende luude kaal oli kokku vaid 2 kg. Keskmiselt kaalub üks kremeeritud indiviid u 1–2,5 kg ja seega ei maetud kõiki indiviidi osi ühte tarandisse.

Luupesadest leitud esemed võisid olla surnu isiklikud asjad, mis viitasid tema sotsiaalsele identiteedile eluajal. Need võisid matuserituaali käigus omandada ka uusi tähendusi, mis olid seotud just matuserituaali, surnu uue identiteedi ja ühiskondliku positsiooniga. Tegemist sai olla ka esemetega, mis anti surnutele elavate poolt, et seeläbi kinnistada nende suhteid. Tõenäoliselt sõltus esemete tähendus nende kasutuskontekstist ja inimeste antud tähendustest.

Kogukond

Inimesed, kes kasutasid tarandkalmeid, kuulusid arvatavasti ühiskonna eliidi hulka, kuna nad maeti monumentaalsesse kivikonstruktsioonidesse tihti rohket ja uhket hauapanustega. Samuti oli tõenäoliselt tegemist keeruliste ja aeganõudvate ning võimalik, et mitmeetapiliste matuserituaalidega. Tarandkalmetesse matmine võis olla üks võimalus, kuidas oma eluajal omandatud staatust säilitati osaliselt ka pärast surma. Küsimus tarandkalmete kasutajate seas olevatest erinevatest gruppidest on tõstatatud Viimsi I kalme põhjal, kus ilmnes korrelatsioon meessoost indiviidide ja ambsõlgede vahel. On võimalik, et mõne sotsiaalse rühma esindajad kandsid grupiomaseid ehteid, mis võis mingil määral edasi kanduda ka matusekonteksti. Seega võivad vastavad leiud viidata erinevate sotsiaalsete gruppide olemasolule tarandkalmete kasutajate seas. Sama tendents oli nii Rooma keisririigis kui ka aladel sellest väljaspool, kus on matustes tuvastatud seoseid teatud esemete ja sotsiaalsete gruppide vahel. Tegemist ei pruukinud olla surnute eluajal olnud identiteedi peegeldusega, vaid identiteediga, mis loodi matuserituaali jaoks või oli see seotud mälestusega surnust. Sellel võis siiski olla side ka identiteediga, mis oli surnul tema eluajal.

Töös uuriti veel luude ja esemete ruumilist suhet tarandkalmetes. Sealhulgas võrreldi Aakre kalmet teiste Kagu-Eesti, vähemal määral teiste Eesti tarandkalmetega. Aakres olid ehted ja luud koondunud kaevatud tarandi keskossa, keraamikakillud seevastu tarandi äärtesse. Erinevate leidude kindel ruumiline paiknemine oli nähtav ka mitmes teises kalmes. Tihti leidsid surnute luud ja ehted kalmes samal kohas, mis võis olla peamine matuseala. Kalmete perifeerises piirkonnas – tarandite servaalad ja äärevarred – esines palju keraamikakilde ja samuti sütt, ehteid ja isegi luid. Neid piirkondi võib tõlgendada kui erinevate rituaalide (mis ei olnud otseselt matmisega seotud) läbiviimise kohti. Ruumiliselt eristuvad alad kalmetes viitavad väljakujunenud praktikate olemasolule – kõigil oli kalmes oma kindel koht ja samu matmistraditsioone järgiti läbi sajandite. Matmine tarandkalmetesse oli tõenäoliselt osa kogukonna kollektiivsest identiteedist ja ühiskonna poolt oli aktsepteeritud, et ainult osa selle liikmeid (eliit?) maeti sinna. Need praktikad ühendasid inimesi, lõid ning säilitasid sotsiaalseid suhteid, pakkudes stabiilsust ja konsolideerides kogukonda.

Regionaalsus

Allikmaterjali käsitlemisel regionaalsel tasandil ilmnes, et teatud piirkondades eelistati kindlaid ehteid. Analüüsi käigus eristati Kirde-, Kagu-Eestis ja Põhja-Lätis uuritud ehteid tüüpide, gruppide, kaunistuste ja pinnatöötluse põhjal. Silmiksõled olid väga omased Kirde-Eestile, eriti Eesti seeria silmiksõled. Seal olid iseloomulikud ka kolmanda grupi ketassõled ja emailitud ketassõled nelikringi motiiviga. Teistest piirkondadest neid esemeid eriti leitud ei ole. Kagu-Eestis ja Põhja-Lätis oli osa sõlegrupe levinud väiksemates, teised suuremates piirkondades. Mõne tüübi või grupi suurem levikuala võis olla seotud selle arvukama valmistamisega ja seega olid need kättesaadavamad suuremale hulgale inimestele (näiteks läti ja lõunaeesti variandi kärbissõled ja teise grupi ketassõled). Väikeste levikualadega sõletüübid või -rühmad võisid olla reserveeritud kitsamale hulgale inimestele selles piirkonnas (nt eliidi eliit, eliidi hulgas erilise sotsiaalse staatusega inimesed) ja/või olid need valmistatud vastavalt kliendi soovile. Sellised ehted võisid olla nii keerukamad ketassõled kui ka kolmanda ja neljanda grupi Eesti seeria silmiksõled, kuna paljud neist on väga uhked ja peenelt viimistletud. Teatud ehte eelistamine mingites piirkondades võib seostuda sooviga eristuda teistest piirkondadest ja nende elanikkonnast ning väljendada piirkonna ühtekuuluvust ja regionaalset identiteeti. Samas polnud see tõenäoliselt nende ehte kandmise peamine põhjus. Arvatavasti oli ehetel ka teisi tähendusi, mis tõusid esile vastavates sotsiaalsetes situatsioonides.

Tarandkalmete levikualal on selgelt eristavad piirkonnad, kus eelistati mingit tüüpi või tegumoega sõlgi. Kaks enim omanäolise stiiliga piirkonda on: 1) Kirde-Eesti ning 2) Lõuna-Eesti ja Põhja-Läti. Kummalgi piirkonnal olid ka erisuunalised kaugkontaktid, mis mõjutasid kohalikku kultuuri. Omaks võeti valitud uued ehtevormid, millest loodi lokaalseid erimeid, mis arenesid edasi juba kohalikus kontekstis.

Kirde-Eesti ning Visla suudme alal võisid esimestel sajanditel olla otsekontaktid, mida tõendavad eriti pea- aga ka Preisi seeria silmiksõlgede levik mõlemas piirkonnas (peaseeria silmiksõlgi on baltlaste aladelt leitud küllaltki vähe). Rosettsõled ja küllap ka Preisi seeria silmiksõled annavad tunnistust Kirde-Eesti otsesidemetest Sambija poolsaarega. Suhted Läänemere kagurannikuga püsisid tõenäoliselt ka järgmistel sajanditel, mida näitavad kohalikud Kirde-Eestis tehtud ehted, mille eeskujud on nimetatud piirkonnas. Tõenäoliselt hoiti kontakte üleval mereteid kaudu mööda Läänemere idarannikut.

Varaseimad rooma rauaaja esemed Kagu-Eestis ja Põhja-Lätis, eeskätt viimases, näitavad pikamaasidemeid lõunapoolsete aladega. Suhted sellel suunal püsisid kogu rooma rauaaja vältel ning alates 2. või 3. sajandist hakati Kagu-Eestis ja Põhja-Lätis tegema baltlaste aladel levinud ehte põhjal kohalikke esemeid (näiteks lõunaeesti ja läti variandi kärbissõled, kolmeharulise jalaga kärbissõled). Lõunapoolsetelt balti aladelt on tõenäoliselt pärit ka enamik ripatseid. Lääne-Leeduga leidub samuti mitmeid sarnasusi esemelises materjalis. Tegemist oli alaga, millel oli juurdepääs erinevatele veeteedele ning tänu

oma soodsale asukohale ja tõenäolisele vahendajarollile tulid sinna eri paigust pärit inimesed kaupleva ja võrgustuma. Mitmed Kagu-Eesti ja Põhja-Läti ehete kaunistusmotiivid olid n-ö rahvusvahelised ja neid kasutati nii baltlaste aladel kui ka Rooma keisririigis, aga ka idapoolses Euroopas. Ilmselt käis Kagu-Eesti ja Põhja-Läti suhtlus lõunapoolsete aladega veeteid kaudu. Koiva jõe kaudu oli võimalik pääseda Läänemerele, aga ka lõunapoolsetele jõgedele, näiteks Väina jõe ja sealt edasi juba lõuna ja kagu poole. Seetõttu võis paiknemine soodsa veetee juures anda mingile piirkonnale eelise kaubanduses ja üleüldises suhtlusvõrgustiku loomises.

Kolmandal sajandil tugevnesid nii Kirde- kui ka Kagu-Eesti ja Põhja-Läti sidemed idapoolse Euroopaga, levisid teatud tüüpi emailkaunistustega ehted, mille sarnaseid vorme võib näha mitmes sealses piirkonnas. Esemed, tõenäoliselt koos meistritega, jõudsid tarandkalmete levikualale, kus hoburaud- (Kirde-Eestis) ja ketassõlgede põhjal (Kirde- ja Kagu-Eestis ning Põhja-Lätis) võis kujuneda ka kohalik emailitud esemete valmistamise komme. Ilmselt käis sellisuunaline suhtlus taas veeteid kaudu, peamiselt Dneprit ja sellest põhja pool olevaid jõgesid kasutades.

Tarandkalmete ja rooma rauaaja edasisel uurimisel on palju potentsiaali ning mitmeid võimalikke suundasid. Tarandkalmete osas peaks jätkama nende ruumilise ülesehituse uurimist, et täpsemalt mõista seal toimunud riitusi. Ruumilise, osteoloogilise ja tüpoloogilise uurimistöö kombinatsioon saab anda uut infot matmispaiga ala kasutamise kohta. Esem uurimislikust aspektist tuleb jätkata vasesulamist esemete koostise uuringuid, mis täpsustaks teavet nende tootmise kohta. Vajalikud on edasised esemetüüpide uuringud, et uuendada tarandkalmetest leitud esemete tüpoloogiaid ja viia need vastavusse ülejäänud Baltikumis ja Kesk-Euroopas levinud süsteemidega.

PUBLICATIONS

CURRICULUM VITAE

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Publications connected with the thesis:

Kama, P., Lang, V., Olli, M., Pärn, K., Remm, T. & Smirnova, M. 2019. (in press) Constructing and deconstructing boundaries in cultures of the past. – Eds A. Kannike, K. Kuutma, K. Lindström, A. Riistan, M. Tasa (Approaches to Culture Theory, 8.) University of Tartu Press, Tartu.
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Peamised uurimisvaldkonnad: rooma rauaaeg, tarandkalmed, esemeuurimus, Balti arheoloogia

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