

Faculty of Arts
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FINNIC ANTHROPONYMY IN THE MIDDLE AGES: PERSPECTIVES ON PRE-CHRISTIAN AND EARLY CHRISTIAN PERSONAL NAMES

Jaakko Raunamaa

DOCTORAL DISSERTATION

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Supervisors:

Terhi Ainiala
Georg Haggrén
Ritva Liisa Pitkänen

Reviewers:

Unni Leino
Anna Makarova

Opponent:

Unni Leino

Finnic anthroponymy in the Middle Ages: Perspectives on pre-Christian and early Christian personal names

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Department of Finnish, Finno-Ugrian and Scandinavian Studies
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ABSTRACT

This dissertation investigates personal names attested among Baltic-Finns during the Middle Ages (c. 1200–1550 AD). The focus is on pre-Christian anthroponymy, but foreign names, mainly Christian ones, are addressed as well. The names studied are analysed from perspectives of morphology and semantics. The analysis also includes name origins, expansion, decline and distribution in the northern Baltic Sea region. Multidisciplinary approach together with multiple methods and sources are used not only to study the features of Finnic names, but also to shed light on the past of Finnic languages and tribes.

For a long time already, Finnic personal names have been of interest to several scholars involved in the history of Finnic cultures and languages. Onomastics, however, has often been only a secondary subject and accordingly, the use of personal names as a source material has been limited and small-scale. Furthermore, authors usually focus their studies on regions they themselves are from. The latest comprehensive study of pre-Christian Finnic personal names was published more than half a century ago.

Much of the sources used in the study derive from editions of medieval documents that vary in their purpose from taxation censuses to personal letters. They cover areas of contemporary Estonia, Finland and Northwest Russia and are written in multiple languages. The study is conducted mainly by searching personal names with Finnic elements in the source materials and placing them on a map. Furthermore, modern digital methods are used as tools for gathering and analysing the data.

The present study demonstrates that names used among Finnic populace during the Middle Ages consisted of various kinds of name elements and forms. Although regional and temporal differences are significant, the general trend in the Finnic naming conventions is obvious: pre-Christian names being superseded by the Christian ones. This applies especially to pre-Christian female names, which are almost completely absent from the sources.

Structurally, medieval Finnic personal names may have been composed in many ways. They could consist of one name lexeme (e.g. *Lempi*), one lexeme together with personal name suffix (*Lempoi*) or of two name lexemes (*Kaukolempi*). The most common lexical elements attested within pre-Christian Finnic personal names are *Iha*, *Lempi*, *Toivo* and *Vilja*. Finnic personal name suffixes attested in pre-Christian names like *-oi*, *-kkV* and *-nen* continued to be used with Christian names as well.

Many of the pre-Christian Finnic names were originally descriptive and consisted of attributes that were connected to the hopes and wishes of the name givers. Family traditions had significant impact on the name bestowing

as well. The most common name elements attested in pre-Christian Finnic personal names have semantic meanings like hope, enjoyment, favourite, kindness, love, loveliness and rich(ness). Despite the obvious Germanic and Scandinavian (and to some extent Baltic and Slavic as well) influence on the development of Finnic languages, Finnic names seem to be based mostly on different ideologies than those of neighbouring Indo-European peoples.

The study illustrates how widely pre-Christian Finnic personal names were used in the medieval northeastern Baltic Sea area: from the coast of Latvia to the shores of the Gulf of Bothnia. Based on medieval sources, the use of Finnic names has been especially evident in following regions: northern, southern, and western Estonia, southwestern Finland, western Latvia and Ingria. If sources from the early modern period are included, the picture expands. Now the names can be found all over Estonia and in eastern Finland, Karelia, and Lake Onega region. At the end of 16th century, Finnic personal names were also common among Sámi people in the north.

The distribution of pre-Christian Finnic personal names indicates where Finnic cultural influences had spread before the end of the Middle Ages. Areas like southwestern Finland, northern Estonia and the Karelian Isthmus, all of which were densely inhabited at the end of the Iron Age, were regional centres from which settlers and cultural features together with naming conventions spread to more remote areas.

The present work sheds light on the history of Finnic languages and tribes by comparing name related research results with archaeological and historical information. Studied personal names indicate, for example, how ethnically and linguistically diverse the area of Ingria was at the end of 15th century. This puts previous perceptions regarding the past of Izhorian and Votic languages and ethnicities into question. On the other hand, this work also indicates that personal names were not an integral part of the identity of Baltic-Finns, since they could change more easily than, for example, language or livelihood. The rapid and almost complete disappearance of pre-Christian Finnic personal names during the Middle Ages and simultaneous adoption of Christian names is a good indication of this.

TIIVISTELMÄ

Tämä tutkimus käsittelee itämerensuomalaisten kansojen parissa keskiajalla käytettyjä henkilönnimiä keskittyen erityisesti esikristillisiin nimiin. Nimiä analysoidaan morfologian, semantiikan, alkuperän, kehittymisen ja leviämisen näkökulmista. Monitieteinen ja useisiin metodeihin perustuva tutkimus ei keskity vain henkilönnimiin, vaan valaisee myös itämerensuomalaisten kansojen ja kielten menneisyyttä.

Itämerensuomalaisia henkilönnimiä on aiemmin tutkittu vähänlaisesti, ja monessa tapauksessa nimet ovat olleet toissijaisena tutkimuskohteena. Nimiin keskittyneet työt ovat vuorostaan usein alueellisesti rajoittuneita vain pieneen osaan itämerensuomalaisten nimien käyttöpiiristä. Viimeisin kattava itämerensuomalaisiin henkilönnimiin keskittyvä tutkimus on 1960-luvulta.

Tässä työssä on käytetty tutkimusaineistoina pääasiassa keskiajalta (n. 1200–1550) peräisin olevia materiaaleja. Kirjoitusten alkuperä vaihtelee henkilökohtaisista kirjeistä veroluetteloihin. Alueellisesti lähdemateriaalit kattavat nykyisten Luoteis-Venäjän, Suomen ja Viron alueita. Kirjoitukset edustavat erilaisia kirjuritraditioita ja ovat tehtyjä monilla eri kielillä. Lähdemateriaaleista on etsitty itämerensuomalaisia henkilönnimielementtejä. Digitaalisia metodeja on käytetty apuna nimien keräämiseen sekä analysoimiseen.

Tutkimus osoittaa, että keskiajan itämerensuomalaisten henkilönnimikäytännöt ovat olleet hyvin monipuolisia. Erilaisten nimivarianttien ja lisänimien kirjo on ollut runsas. Esikristillisten henkilönnimien yhteydessä tavattavien suffiksien käyttö on jatkunut myös kristillisten nimien yhteydessä (esim. *Lembuj* <> *Antuj* ja *Ihakka* <> *Pekka*). Yleisimpiä esikristillisiä henkilönnimielementtejä ovat olleet *Iha*, *Lempi*, *Toivo* ja *Vilja*.

Esikristilliset henkilönnimet olivat alun perin käyttäjilleen läpinäkyviä ja olivat yhteydessä nimenantajien toiveisiin, mutta perhe- ja sukutraditioilla oli myös suuri merkitys nimervalintaan. Yleisimmät nimielementit ovat semanttisilta merkityksiltään pääosin rauhanomaisia ja viittaavat sellaisiin attribuutteihin, kuten toivo, nautinto, rakkaus, erityisyys ja runsaus. Itämerensuomalaiset henkilönnimet vaikuttavat edustavan erilaista arvomaailmaa kuin germaanien ja slaavien käyttämät esikristilliset nimet, jotka ovat merkityksiltään enemmän sotaisia, maskuliinisia ja valtaan liittyviä.

Yleisempien itämerensuomalaisten henkilönnimielementtien levikki on ollut laaja keskiajalla. Nimiä on Latvian länsirannikolta Jäämerelle saakka ulottuvalla vyöhykkeellä. Keskiajan asiakirjoissa esiintyvien nimien selkeimmät nimikeskittymät löytyvät Viron etelä-, länsi- ja pohjoisosista, Länsi-Latviasta, Lounais-Suomesta sekä Inkeristä. Otettaessa huomioon

uuden ajan alun materiaalit nimien levikki laajenee lisäksi itäiseen Suomeen, Karjalaan sekä Äänisen alueelle. 1500-luvun lopussa esikristillisiä itämerensuomalaisia henkilönnimiä tavataan myös saamelaisten parissa.

Nimien levikki osoittaa, mihin itämerensuomalaiset kulttuurivaikutteet olivat levinneet rautakauden lopun ja keskiajan alun aikana. Tutkimustulosten yhdistäminen arkeologian ja historian alojen tietoihin tuo esiin monta uutta näkökulmaa itämerensuomalaisten kielten ja kansojen menneisyyteen. Nimet esimerkiksi osoittavat, kuinka etnisesti ja kielellisesti moninainen alue Inkeri on ollut 1400-luvun lopulla. Toisaalta työn perusteella voidaan myös todeta, että henkilönnimet eivät ole olleet kiinteä osa itämerensuomalaisten identiteettiä, ja niiden käytössä on tapahtunut helpommin muutoksia kuin esimerkiksi kielen tai elinkeinojen tapauksissa. Esikristillisten itämerensuomalaisten henkilönnimien nopea väistyminen kristillisten nimien tieltä keskiajalla on tästä hyvä osoitus.

PREFACE

I have studied Finnic personal names because they provide a way to shed light on the darkness surrounding the past of northeastern Baltic Sea area. A relevant question is, what are the benefits of this study? My short answer is: because history is important. In my opinion, one of the main things that distinguish humans from other animals is their memory and their ability to learn from the past. It is obvious that mankind has evolved in many ways over the last millennia. Already the sheer number of living humans proves that humanity has superior attributes compared to other animals. In other words, humans need history for development. Humans are like artificial intelligence: the more they know about the past, the more powerful they become.

Ancient personal names are an excellent way to study the past. They are valuable addition to other research approaches such as archeology and genetics. One must also remember that speaking of the history of the northeastern Baltic Sea area names are often the only way to reach the past of hundreds of years old. Furthermore, personal names have one benefit over all the other history sources: everyone has a name. Thus, personal names provide a view straight into the minds of past humans.

So: how did I become interested in Finnic personal names? Ever since I was a child, history has interested me. I have never cared much about fantasy or sci-fi since the past of mankind has offered me the most fascinating and imaginative stories. Ancient Rome was my first love in the field of history. I read everything related to Roman times I could get my hands on. One of my favorite childhood tv-shows was a documentary series “Keisarit” (*Emperors*) that I often watched on VHS while being sick at home. Afterwards I often used my Legos to relive the battles I had read or heard about.

My first encounter with onomastics was in 2010. At the meeting, in which the upcoming bachelor thesis seminars were introduced to the students, my future supervisor Terhi Ainiala, gave examples of how onomastics had been used to shed light on the history of Finland. I was fascinated to learn that names can provide an excellent approach for solving the unknowns of the past.

My first research interest was my home region. In my bachelor thesis, I investigated the nature names found in the village of Kaukjärvi in Tammela parish. Fields of this village are visible from the second floor of my childhood home. When it was time to write my master's thesis in 2014, I was lucky to be at the right time at the right place. The municipality of Kirkkonummi was keen to give a small scholarship for a student willing to investigate local place names. Although the sum was not big, I felt the need to do the work properly because I knew there were people interested in the outcome of my study. And in my opinion, as modest and subjective as it is, I did a decent job. However, I

was planning to continue my academic career any further. I was supposed to become a teacher. Yet, it turned out to be difficult to get any permanent teaching position, so I was occasionally unemployed. I realized that I could fill these periods with doing something useful. Accordingly, I contacted Terhi, and we started to plan the work, the outcome of which is now before your eyes.

At the beginning, I was thinking to do this project alongside a “real job”. However I was fortunate enough to get the position of University funded doctoral candidate in the Doctoral Programme in Language Studies for three and a half years; and later, I received a small scholarship from the Alfred Kordelin Foundation. I am very grateful for both. Again, I was motivated to give something back to those who were paying my salary. Thus, this work is not only about my personal desires and interests. My goal was to conduct research that interests both academics and ordinary people.

There are more reasons that make me feel fortunate and grateful. During the past five years spent working on my research I have got to know numerous people who have contributed their knowledge and efforts for this work. In the following, I would like to offer my gratitude for those persons. In order to keep the section moderately short, I will not be able to mention every single person who helped me by name but believe me: I appreciate each one of you and am immensely grateful for your help.

I will start in chronological order by thanking my mother and father. My father has been the most important person in my life. My sister has been prestigious too. She also proofread this work, for which I want to thank her. For all kinds of support and friendship, I want to thank my friends, many of whom I have known since childhood. I cherish our camaraderie that really is something special and unique.

When it comes to the academic world, I must first start by yet again repeating how privileged I have been. First and foremost, I am immensely thankful that Terhi Ainiala was my supervisor. I have been fortunate to be able to spend the past decade under the wing of Terhi. She has taught me a lot, and not only about onomastics.

My other supervisors, Georg Haggrén and Ritva Liisa Pitkänen, have been very important for the present work as well. They have helped in various ways without sparing their time or effort. Contacting the living legend of Finnish onomastics, Saulo Kepsu, at the beginning of my PhD journey was a particularly good decision. Despite our age difference of 50 years, we immediately connected, and I received enormous amount of help from Saulo, especially during the early stage of my PhD project.

I spent most of my workdays on the fifth floor of the Main Building of University of Helsinki. There I had a great company of Mikko, Ksenia, Markus and Saila. I would especially like to thank Lasse “backspin” Hämäläinen, with whom I have shared most of this PhD journey. Not only has he been a great helper and a role model for me, but also kept me in shape by running me

around the tennis court. During the latter part of my PhD pursuit, I was lucky to get acquainted with Antti Kanner, who has taught me a lot about digital research methods and has kept answering my never-ending questions regarding my programming works.

I have met a great number of intelligent and helpful academics, who have had a significant contribution to this work. Finnish language has been my home unit for a decade and has always provided me an inspiring learning and working environment. The same praise applies to personnel of Finno-Ugrian Languages and Cultures. I would especially like to thank Riho Grünthal and Janne Saarikivi for being important senior academics, whose wisdom I have drawn. Furthermore, I would thank Jack Michael Rueter for proofreading and editing this work and many of the articles as well.

I am very grateful to the reviewers of this thesis, Unni Leino and Anna Makarova, whose constructive and thorough comments helped in improving the manuscript.

Finally, I would like to thank my dear Kristina. You have very much enabled this work. Ačiū!

For the last, I wish to repeat my gratitude in a language that is the dearest to me: Kiitos kaikille mukana olleille!

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LIST OF ORIGINAL PUBLICATIONS AND A MANUSCRIPT

This thesis is based on the following publications and an approved manuscript:¹

I. Raunamaa, Jaakko 2017. Medieval anthroponyms in the Castle Province of Raseborg: *Study of Finnish village names based on anthroponyms*. In Ainiala, T., & Saarikivi, J. (eds.) *Personal name systems in Finnic and beyond*. Helsinki: Finno-Ugrian Society. 33–82.
<https://journal.fi/uralicahelsingiensia/issue/view/uh12>

II. Raunamaa Jaakko, 2020. *Margareta, Katarina and Kristina: Female names in medieval Finland*. *Studia anthroponymica Scandinavica*, 35. 73–96. <https://kgaabokorder.se/sv-SE/article/4241/studia-anthroponymica-scandinavica-2020>

III. Raunamaa, Jaakko, 2019. Pre-Christian Finnic anthroponyms in Finnish village names. *Onomastica Uralica*, 12. 121–135.
<http://mnytud.arts.unideb.hu/onomural/kotetek/ou12/09.pdf>

IV. Raunamaa, Jaakko, 2020. The distribution of village names based on pre-Christian Finnic personal names in the northern Baltic Sea area. *Finnisch-Ugrische Forschungen*, 65. 98–152. <https://doi.org/10.33339/fuf.82542>

V. Raunamaa, Jaakko & Kanner, Antti (approved manuscript). Clustering Names of Medieval Novgorod: Geographical variation of personal names attested in the census book of Vodskaja pjatina. Approved to be published by *Linguistica Uralica* on September 8, 2021.

In Article V, the author of the present study designed the research and had leading role in the writing process. Antti Kanner developed the automated parser for the raw data and designed the computational analytical workflow.

The articles are referred to in the text by their Roman numerals.

¹ The readers of the paperback edition can find the original articles in appendices. The readers of the electronic version should obtain the publications through the links presented above (accessed on 15th October 2021). The fifth article should be published in 2022. It should be available in <https://kirj.ee/lu/>.

ABBREVIATIONS

Est. = Estonian
Finn. = Finnish
Germ. = German
Russ. = Russian
Swed. = Swedish

1 INTRODUCTION

The present study, which consists of five articles and this summarizing report, examines the topic of medieval Finnic personal names (= anthroponyms) from various perspectives. Pre-Christian Finnic personal names are analysed from the viewpoints of morphology and semantics, medieval distribution, origins, expansion and decline whereas early Christian Finnic personal names are examined from the perspectives of semantics, adaptation, regional differences and spread. The results are discussed in the historical context of Finnic tribes and languages.

The expression *pre-Christian Finnic personal name* refers to those personal names that are not connected to the spread of Christianity and were used among Baltic-Finns during the first centuries of the second millennium AD (e.g. *Kaukolempi*, *Lemmitty* and *Toivo*).² *Early Christian Finnic personal names* are, in contrast, those names that are linked to the expansion of Christianity (e.g. *Jan*, *Johan* and *Ivan*).

The sources examined in the present work are mainly medieval. They span from the 13th century AD to the mid-16th century. Area-wise the work focuses on the northeastern Baltic Sea area, which consist of contemporary Estonia, Finland, and Northwest Russia.

The first part of this work is comprised of eight sections, which provide background for the study. The starting section presents the research questions and objectives, the next one investigates previous research, the third defines the most significant terms and expressions relevant to the topic, the fourth displays the study area and the fifth presents the study area's political and ethnolinguistic history. The sixth section describes the research material and the seventh – problems related to it. The last section presents the main methods used in this study.

The first part is followed by summaries of the five articles. The third part analyses the results from four perspectives, which are: morphology and semantics of Finnic personal names, the geographical distribution of pre-Christian Finnic anthroponyms by the end of the Middle Ages, their origins and expansion and last, the decline of pre-Christian anthroponymy and the adoption of Christian names. The fourth and final part presents the conclusions in two parts: the first part focuses on Finnic personal names and associated naming system and the second part discusses the history of the northeastern Baltic Sea area in light of the results of the present study.

² The way Finnic personal name elements are written in the present study follows traditions of Finnish onomastics mainly, namely Kepsu (2015b: 130) and USNK. In reality, the spelling of the name elements has varied between different Finnic dialects and languages.

1.1 RESEARCH QUESTIONS AND OBJECTIVES

The main aim of the present work is to study features of medieval Finnic personal names and simultaneously shed light on the past of Finnic languages and peoples. This task is fulfilled by searching for answers to the research questions outlined below. Questions concern the key aspects of medieval Finnic personal names and the associated name system, their origins and the reasons behind their expansion. It must be noted that the questions are connected to each other in many ways. For example, the origins of pre-Christian Finnic personal names cannot be discussed without considering the whole name system they are part of. The questions are answered in section 3. Table 1 displays the interconnectedness of the individual articles and the research questions.

1. *How are the names formed in terms of morphology and semantics?*

The question is answered by analysing Finnic personal names and features attested in medieval sources. The focus is on pre-Christian anthroponymy, but Christian names are also considered shortly.

2. *Where were pre-Christian Finnic personal names used during the Middle Ages?*

The answer to this question lies in the medieval sources: recognized and collected pre-Christian Finnic personal names are placed on the map. Thus, the distribution of Finnic personal names and name elements can be analysed from an onomastic perspective, e.g. differences in name usage, as well as from a historical point of view, e.g. comparing the distribution of names to Late Iron Age settlements. Village names based on pre-Christian Finnic personal names are important parts of the collected data since explicit personal name attestations are sporadic in medieval sources.

3. *What is the origin of pre-Christian Finnic personal names attested in medieval sources? What is the origin of the personal name system associated with them? How did the names and system emerge, and how did they spread within the northeastern Baltic Sea area during prehistoric times?*

The first two parts of the question are approached by comparing the medieval Finnic personal names to those of neighbouring peoples, namely Scandinavians and Slavs, and by discussing under what historical circumstances the new names and name system could have emerged. The question of the expansion of pre-Christian Finnic personal names and the related system is also analysed from archaeological and linguistic

perspectives: which prehistoric and historic developments could explain the names and the system being distributed to those areas where they were attested during the Middle Ages (cf. Question 2).

4. *When and how did Christian anthroponymy supersede the pre-Christian Finnic one?*

The question is answered in two parts: first, by using medieval sources to indicate when the personal names based on Pre-Christian Finnic elements were superseded by the Christian ones, and second, by discussing the main factors that led to the disappearance of pre-Christian names and simultaneous adoption of Christian names. The answer is established with example cases concerning the adaption of Christian anthroponymy in contemporary areas of Finland and Northwest Russia.

Table 1. *The five articles (I–V) represented according to the research questions they focus on.*

Question	Article I	Article II	Article III	Article IV	Article V
1	X	X	X		X
2	X		X	X	X
3				X	
4		X			X

1.2 CONTEXT OF WORK

This study falls under the category of onomastics that is a subgroup of linguistics. The work concerns personal names, also known as anthroponyms. Origins of studies considering names are traced to ancient Greece. The Age of Enlightenment, which began at the end of 17th century, played an important role in the birth of modern science and its division into subfields, such as linguistics. Historical linguistics was the most popular field of study within linguistics of the Late Modern Period, and many researchers specialising in this field paid attention to the names as well. (Hajdú 2002; Lifschitz 2012.)³

³ The dot at the end of the reference in parentheses means that the author is referred to in several preceding sentences.

These developments in humanities research quickly reached northern Europe as well. In the 19th century, linguists and historians were already interested in the past of Finno-Ugric tribes and languages and understood the value of onomastics (e.g. Sjögren 1861). Pre-Christian Finnic personal names received attention at the end of 19th century when researchers like Carl Axel Gottlund (1872) and A.V. Forsman (1891) published their studies. Of these, especially the latter one, named *Pakanuuden aikainen nimistö* ('Pagan anthroponymy'), was the most important study of ancient Finnic personal names for a long time. The situation changed in 1964 when D.E. Stoebe published his doctoral dissertation *Die alten ostseefinnischen Personennamen in Rahmen eines urfinnischen Namensystems* ('The old Finnic personal names in the context of a Proto-Finnic name system').

Stoebe's work is still the most comprehensive overview of pre-Christian Finnic personal names. This does not mean that the subject would not have been examined. During the time from Stoebe's dissertation to this day, many highly valued studies on Finnic personal names have been published. None of the later studies, however, have analysed the whole naming system as comprehensively as Stoebe. Researchers have focused on narrower topics, namely on specific regions within the Finnic area or on subgroups of Finnic personal names. For example, studies of Anton Sobolev (Соболев 2017) and Boris Čibisov (Чибисов 2019) focus on Finnic personal names attested in Northwest Russia. Works of Saulo Kepsu (2015b) and Janne Saarikivi (2017), in turn, concentrate on presenting the spread of toponyms based on pre-Christian Finnic personal names.

In conclusion, after Stoebe's dissertation, knowledge of medieval Finnic personal names (including both, pre-Christian and early Christian personal names) has developed significantly, but no one has tried to create a more comprehensive overview of them. A couple of years ago, the same complaint could have been applied to the historical study of Finnic languages and cultures as there was no overview that compiled new information produced in the fields of archaeology, history, genetics and linguistics. While this thesis has been in process, Estonian archaeologist Valter Lang has published his widely praised overview of Finnic ethnohistory. He has put together the newest and most important findings of the above-mentioned study fields (Original Estonian version 2018 and updated Finnish version in 2020). Lang's work, however, considers onomastics only moderately, and there are no references to personal names.

This thesis is the first comprehensive study focused on medieval Finnic personal names since Stoebe's dissertation in 1964. Furthermore, the results of the present study provide new information for researchers of different disciplines interested in archaeology, history, genetics and linguistics of Finnic tribes. This thesis complements and questions many aspects of previous

studies and especially those presented within the afore-mentioned work by Lang.

1.3 TERMINOLOGY AND DEFINITIONS

In this section, the most important terms and expressions used within the framework of this study are defined and explained. As the present work is multidisciplinary, the terminology is also based on various study fields. Expressions and terms that are connected to the disciplines of linguistics and onomastics are defined here. Most important expressions and terms related to archaeology, history and geography are defined in separate sections (1.4. and 1.5. respectively) or in the text when mentioned for the first time.

The definition of **personal name** (= **anthroponym**) is one of the most important for the present study. The basic function of a personal name is identification of a person (Ainiala et al. 2012: 125). Personal names can be further divided into subgroups. **Main names** (~ **individual names** or **given names**) are defined as names that persons were primarily referred to by society (Ainiala et al. 2012: 128–130; Leibring 2016: 200). A group of personal names is called **anthroponymy**.

While analysing personal names occurring in medieval sources, it is often problematic to distinguish **main names** and **byname**s (secondary name(s) of a person such as clan names, patronyms and descriptive bynames). Bynames can be based on pre-Christian Finnic personal name elements as well. As a result, bynames are often addressed within this study as well. Furthermore, any name can have **name variants**: i.e., different formations and spellings of a name originating from the same root.

The term **Finnic** refers to a western branch of Finno-Ugric languages and peoples located in the northeastern Baltic Sea area (Yurayong 2020: 17). Expressions **Baltic-Finnic** and **Balto-Finnic** are sometimes used as synonyms of Finnic, whereas **Baltic-Finn** refers to individual representatives of Finnic ethnicity. In contemporary linguistic research, Sámi languages are not considered Finnic (Lehtinen 2007: 82) and accordingly, names attested among Sámi are mainly excluded from this study. It must be noted that the term *Finnic* is a rather modern creation as the mutual kinship of Finnic languages was recognized only in the 19th century (Lang 2020: 20).

The terms **personal name system** and **personal naming system** are often used synonymously, for instance in the *Oxford Handbook of Names and Naming* (Hough 2016). The present study follows this tradition, and both terms denote a system that consist of habits, traditions, phonetics, impacts, extra-linguistic factors and such, i.e., of everything that is related to personal names. Name systems consist of many different elements that cannot be determined exactly. It is also sometimes difficult to define precisely where one

name system starts and other one ends. Furthermore, a name system can be divided into various subgroups: e.g. Estonian and Finnish name systems can be considered as subgroups of Finnic system. (cf. Saarelma-Maunumaa 2003: 34–36.)

The main definition of ***pre-Christian Finnic personal name*** is as follows: personal names that were used by the Baltic-Finns before the establishment of Christianity (e.g. Ainiala et al. 2012: 145; Leibring 2016). In principle, pre-Christian names and name elements of foreign origin are included as well, but in practice, the present study focuses on those pre-Christian names that are formed of meaningful Finnic lexical elements. Furthermore, it must be stressed that evaluating whether a name belongs to the pre-Christian era is a very difficult task, since most of the preserved sources concerning northern Europe were compiled when the majority of the local inhabitants were already Christened.

Partly based on Stoebke (1964: 82), the following twofold criteria is used for asserting whether a Finnic personal name or its element can be considered pre-Christian: First, the name element must be found in various areas presumably inhabited by Finnic groups during the Middle Ages. Second, there should be evidence of the name element being used as a main name (~ individual name) when referring to a Finnic person. It is, however, difficult to make the distinction between main names and bynames, and accordingly, the final decision is always case-specific.

Early Christian Finnic personal names include names that can be associated with the spread of Christianity and were used by Baltic-Finns during the first half of the second millennium AD. These names were brought to the western parts of the study area through Catholicism and to the east through Orthodoxy.

The expressions ***(pre-Christian) Finnic personal name element*** and ***(pre-Christian) Finnic naming convention*** are used as well. The first one refers to those elements that are attested in Finnic personal names. This includes both words and names (e.g. *Toivo*, ‘hope’) as well as Finnic personal name suffixes (e.g. *-ttu* in *Toivottu*). The *pre-Christian Finnic personal name element* refers to only those elements that were in use before the arrival of Christianity. The expression ***Finnic personal name lexeme*** is used when referring to the lexical element of a name (e.g. *Toivo* in *Toivottu*) in particular. The *Finnic naming convention* alludes to the naming convention that employs the afore-mentioned *Finnic personal name elements*. The *Finnic naming convention* also includes all beliefs and traditions that are linked to the usage of Finnic personal name elements. If the attribute *pre-Christian* is added in the beginning of this expression, the meaning narrows to only those conventions that are unrelated to Christianity.

Medieval Finnic personal names is a term that is used to describe all the names studied in the present work. The mid-16th century is the end of the

Middle Ages within the framework of this study. The expression includes pre-Christian personal names, early Christian names and of descriptive bynames, those ones that refer to a person's appearance or character.

1.4 RESEARCH AREA

Sources used in this work cover the northeastern Baltic Sea area: contemporary Estonia, Finland, and areas from Northwest Russia. This means that the study area makes up almost one tenth of Europe's total area.

Map 1 displays the approximate regions covered by the materials of this study. The study area is further divided into subregions, which depict the areas that each article focuses on. The interconnectedness of the individual articles with the subregions is illustrated in Table 2. Areas named in Map 1 are the following: Estonia (contemporary one) (marked with letter A), Finland of 1938 (B) and within it the Diocese of Åbo from the mid-16th century (B1) together with one of its subregions, the Castle Province of Raseborg (B1.1), Novgorod's administrative areas (*pjatinas*) as they were at the end of 15th century (C) and within them separately Votic fifth (C1), one of the administrative areas. The thin grey line circles the area of Finland as it was in 1938. The black line represents the current borders of Estonia and the approximate borders of Novgorod whereas the dotted and dashed lines depict the approximate borders of the Diocese of Åbo and *Vodskaja pjatina* ('Votic Fifth') respectively. Within the Diocese of Åbo, the thin dotted line shows the borders of the Castle Province of Raseborg.

Map 1 depicts the areas covered in the materials of the articles. There are Finnic personal names occurrences outside the study area as well, which are often referred to and discussed. The most significant of these are the following: western Latvia, namely the ancient region of the Livonians, northern Latvia, where many Estonians resided still in the Middle Ages and last, northern Fennoscandia, where ancient Finnic anthroponymy has been used among Finnic and Sámi inhabitants.



Map 1 The areas covered in the materials of the articles: A: Estonia (contemporary); B: Finland of 1938; B1: Diocese of Åbo; B1.1: Castle Province of Raseborg; C: Novgorod; C1: Votic Fifth (Vodskaja pjatina). Map drawn by the author (Base map: Stamen Toner Background).

Table 2. *Articles and areas that they focus on. The publications are referred to by their Roman numerals.*

Area	A	B	B1	B1.1	C	C1
Article I				x		
Article II			x			
Article III		x				
Article IV	x		x		x	
Article V						x

1.5 HISTORICAL BACKGROUND OF THE STUDY AREA

This section presents a summary of study area’s past. The historical overview is divided into two parts: first one focuses on the main outlines of political history circa 900–1500 AD and the second one covers ethnic and linguistic aspects of the study area’s past.

1.5.1 POLITICAL HISTORY

The period from 800 to 1100 AD in Northern Europe is called the Viking Age. Scandinavian groups, especially those from Denmark and Sweden, were the most influential powers in the study area at the turn of the millennium. In the east, the influence of Slavic people was increasing as well. During the first centuries of the second millennium, these groups were expanding their spheres and fighting each other to control territories and trade in Northern Fennoscandia. (CHR: 60–221; CHS: 45–210.)

After the Germans had conquered the Slavic tribes inhabiting the shores of contemporary Northeast Germany by the mid-12th century, they became interested in the northeastern parts of the Baltic Sea area as well. The most significant German force was the organization of templar knights known as Teutonic Order, which, by the end of the 15th century, controlled most of the present-day areas of Estonia and Latvia.⁴ The Danish king had been forced to

⁴ The original conquest was conducted by an organization called Livonian Brothers of the Sword, which was merged into the Teutonic Order in 1237.

sell the kingdom's territory in northern Estonia. The Realm of Sweden controlled Western Finland and the southern coastal area all the way to the town of Vyborg on the Karelian Isthmus. The eastern parts of Fennoscandia and Gulf of Finland were ruled by the city-state of Novgorod until the end of 15th century and after that by the Grand Duchy of Moscow. The western powers controlling most of contemporary Estonia and Finland were Catholic states, whereas Novgorod and the Grand Duchy of Moscow were Orthodox. (Christiansen 1997: 72–96, 117–128, 134–138; Raninen and Wessman 2015: 338–359; Schück 2003: 392–410.)

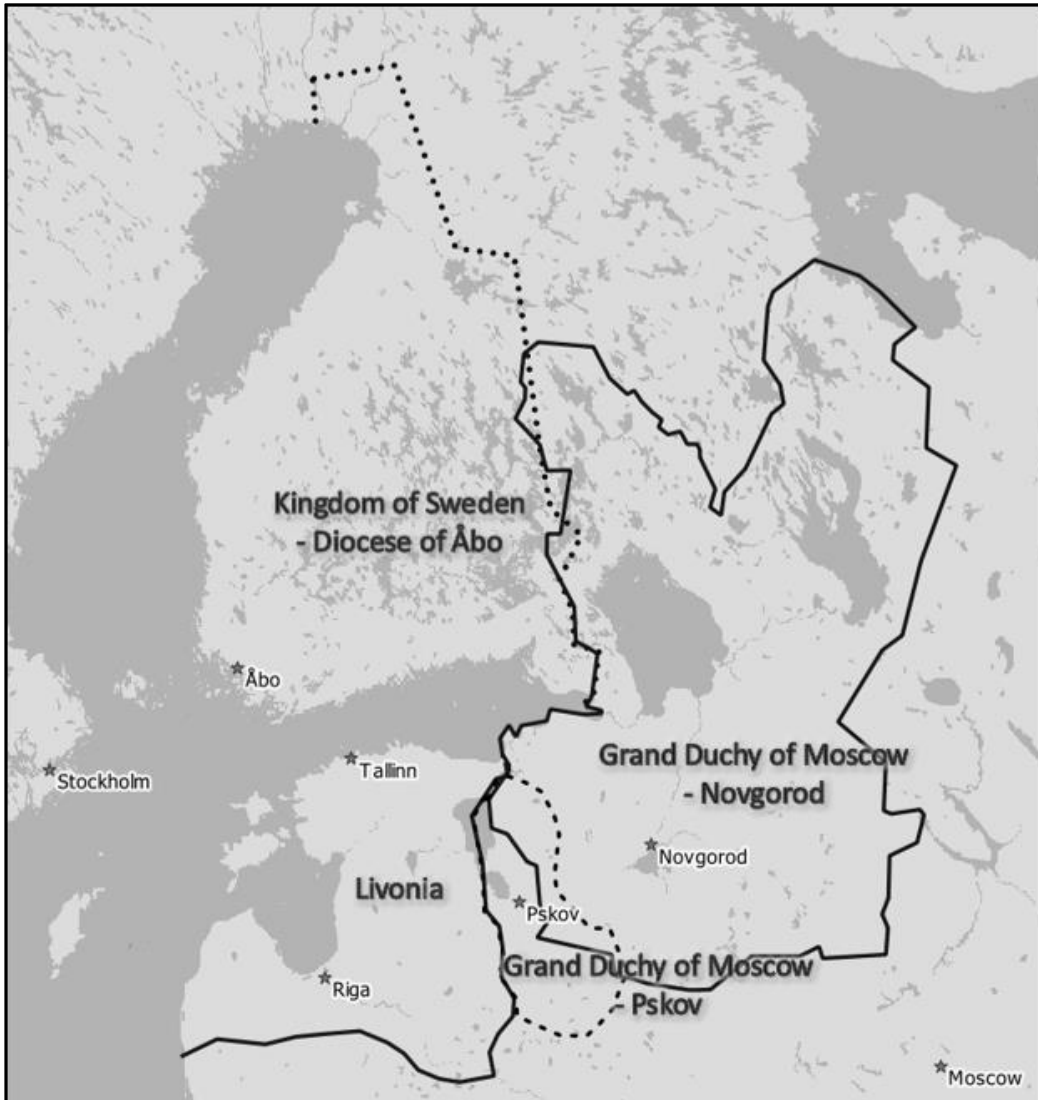
The approximate borders of political spheres at the turn of 15th century are depicted in Map 2 (below). The map itself is an edited version of a map presented in Article IV. It must be emphasised that the borders are only indicative since the divisions between different political powers were constantly changing and often under dispute during the Middle Ages. Especially in sparsely populated regions, the division between different powers remained unclear well into the early modern period (Korpela 2002).

The black dotted line represents the approximate outer borders of the late 15th century Diocese of Åbo, which formed the eastern part of the Realm of Sweden. The northern parts of contemporary Finland were not controlled by any government at that time. The eastern parts of Finland were under the control of Novgorod Republic, which, in turn, was annexed by the Grand Duchy of Moscow by the end of 15th century. On the Karelian Isthmus and in Eastern Finland, the border originates from the Treaty of Nöteborg (1323), where the Realm of Sweden and Novgorod established their border for the first time. Only this southern part of the border remained undisputed between the two nations, whereas the northern border was contested continuously. The border based on the Treaty of Nöteborg remained an official division between Russia and Sweden until 1595.

At the end of the 15th century, the Grand Duchy of Moscow controlled the territories of Novgorod. The thin dotted line depicts borders of the area that was considered a part of Novgorod. The western border of the Russian city-state, beginning from the south, stretched to the city-state of Pskov, Livonia and the Diocese of Åbo. Pskov was a Russian principality, which, in the beginning of the second millennium, was often controlled by Novgorod, later by the Grand Duchy of Lithuania and at the turn of 15th century it became a dependent of Moscow (Martin 2007a). Its approximate territory at the end of 15th century is depicted by a black dashed line (Mänd and Tamm 2020: 3). Furthermore, one can notice that the lines between Novgorod and Sweden overlap. This highlights the ambiguity of borders in medieval northern Fennoscandia.

The black line depicts the borders of Livonia as they were in the mid-16th century. The displayed area approximately corresponds to the territory conquered by German military orders during the 13th century crusades (Mänd

and Tamm 2020: 3). Livonian territory, however, was not uniformly controlled but rather a coalition of many sub-regions governed by different ecclesiastical or secular powers (Zetterberg 2007: 79–129).



Map 2 The most significant political powers in the study area at the end of 15th century. Borders are only approximate. Stars illustrate locations of the most important political and commercial centres. Map drawn by the author (Base map: Mapbox Basic Template v8).

1.5.2 ETHNIC AND LINGUISTIC HISTORY

The definition of *ethnicity* is something that has been debated by the scholars for decades. There are, however, some aspects that researchers agree on. One of the common perceptions is that ethnicity is a socially constructed concept, which cannot be measured by any objective criteria. Basically, this means no one can claim that ethnicity consists of some specific contents, like one fourth of language, one fifth of gender, one fourth of religion and so on. Nevertheless,

scholars do agree that language is a major part of a person's ethnicity and identity. This means that while creating an overview of the study areas' ethnic past, linguistic aspects must be discussed, and the reverse should also be done. Within the framework of the present study, it must also be stressed that ethnicity is culturally defined, whereas a person's biological factors like genes and physical appearance have nothing to do with it. (Fought 2006: xi–xiii, 3–17.)

A list of cultural factors involved in defining ethnicity is nearly endless. Things to consider besides language are, for example, religion, social customs, law, place of residence or belief in common descent (Halsall 2007: 37). All these factors have a significant role in the shaping of an ethnic group but none of them can define ethnicity alone. Within the framework of the present study, the problem is that the lack of research material makes many of the factors nearly insolvable. All the information that is related to the study area's ethnic and linguistic past is based on very sparse and often ambiguous sources. Despite that, there are some general archaeological and linguistic assumptions that can serve as guidelines for describing the ethnic and linguistic situation inside the study area at the turn of the first millennium.

To begin with, the northeastern Baltic Sea area has been a remote and for the most part a sparsely populated place during the premodern period (cf. Haggrén 2015: 423; Kriiska and Tvaauri 2007: 236). Despite the low population density and harsh conditions, inhabitants of the area were not isolated but formed networks with adjacent tribes and cultures. From a modern perspective, these contacts are a very substantial aspect in reconstructing ancient ethnicities since they can be studied through archaeological and linguistics findings. The oldest written sources such as chronicles and sagas are important as well, since they contain information on different ethnicities and tribes at the turn of the first millennium.⁵ From the 15th century onwards, administrative documents, such as different kinds of accounts and census books, start to be useful sources (the present study is a good example of this). Naturally, regional and temporal differences are significant in this regard.

It is problematic to give any time estimations about the beginnings of Finnic culture and language in the northern Baltic Sea area. According to the archaeological evidence, various cultural impacts from the central parts of Russia arrived in northern Europe during the Bronze Age and the Early Iron Age (Lang 2020: 178–199). Based on modern linguistic knowledge, it can be suggested that speakers of Proto-Finnic must have lived in the vicinity of

⁵ Regarding the area of Estonia, one of the most informative chronicles is the Livonian Chronicle of Henry, whereas events from the eastern parts of the study area are discussed in the Novgorod First Chronicle. The Eric Chronicle, in turn, contains information regarding the ancient events in contemporary Finland and in the eastern parts of the Gulf of Finland.

Germanic tribes at the end of Bronze Age (500 BC) at the latest (ibid. 233).⁶ This correspondence between speakers of Germanic and Finno-Ugric languages occurred with all likelihood in the northern Baltic Sea area. Furthermore, it seems that northern Estonia and particularly the northeastern part (Est. Virumaa) became the area where many Finnic cultural and linguistic innovations were produced and imported to adjacent regions during the early Iron Age (500 BC – 400 AD) (ibid. 195–199). It is likely that all the Finnic languages we know (South Estonian could be an exception) have their roots in the southern shores of the Gulf of Finland (ibid.).

There is no possibility to describe the beginnings of each individual Finnic culture but it can be concluded that during the first millennium AD and at the beginning of the second one most of the northeastern Baltic Sea area became Finnic (see e.g. Lang 2020: 200–231). This applies especially to those areas where agriculture was the main source of livelihood (ibid. 105, 185, 195–199; Grünthal 2020: 2). In the other areas, particularly in the northern parts of Finland and Northwest Russia, people followed a nomadic lifestyle. Many of northern hunters, fishermen and such can be linked to Sámi (Rahkonen 2013: 242; Raninen and Wessman 2015: 261–262, 362). It is likely that the most eastern parts of the study area were linguistically Finno-Ugric but not Finnic. Rahkonen (2013) calls these groups *West* and *East Chudians*.

The northeastern Baltic Sea area was also under extensive non-Finno-Ugric influence during the first millennium AD. From the west, came Scandinavian impacts, whereas Slavic influence arrived from the east. Southwestern parts of the study area were influenced by the Baltic tribes as well (Kriiska and Tvauri 2007: 184; Raninen and Wessman 2015: 269–270). Scandinavian influence is evident at the coastal areas of modern Estonia and Finland (Kriiska and Tvauri 2007: 160–187; Raninen and Wessman 2015: 263–269). It also spread all the way to Lake Ilmen and Novgorod. It is, however, difficult to know how much of this influence was based on permanent settlement of Scandinavians or caused by temporary connections such as trading (Frog and Saarikivi 2015: 72, 76, 78; Kriiska and Tvauri 2007: 168–170; Raninen and Wessman 2015: 291–292). There is some evidence of permanent settlement on the western shores of present-day Estonia for example (e.g. Price et al. 2020). In Northwest Russia, Scandinavian impacts seem to have concentrated in market places and fortresses, like Rjurikovo Gorodishche and Staraja Ladoga (Androshchuk 2008). Scandinavian presence did not last long, as it was clearly in decline at the end of the first millennium (Duczko 2004: 253–258; Franklin 2006: 88–89).

It has been assumed that during the Iron Age and before the arrival of Slavic tribes Northwest Russia was mostly populated by Finnic and Finno-

⁶ Proto-Finnic refers to an artificially reconstructed language from which several relative languages presumably originate from.

Ugric groups (e.g. Rahkonen 2013: 241; Рябинин 1997: 236). At approximately the middle of the first millennium AD, Finno-Ugric tribes had the earliest contacts with Slavic culture (Rahkonen 2011: 209).

The exact nature of Slavic expansion to Northwest Russia after the initial contacts, has long been debated (see Tvauri 2007 for discussion). Many Russian scholars have suggested that the pursuit of new cultivated lands by Slavic settlers was the main reason behind the spread of Slavic languages and culture in the north (Рябинин 1997: 9–15). Traditionally, the spread of Slavic settlement has been connected to two kind of burial styles called “long barrows” (=kurgans) and “sopkas” (=burial mounds of slightly different shape than the long barrows) (Седов 1995: 211–213, 234–246). However, it has also been emphasised that the emergence of burial mounds of Slavic origin cannot be connected to the expansion of Slavic settlers only since local Baltic and Finnic tribes were probably adopting these customs as well (ibid. 215–216). This line of thought is further reinforced by the fact that Northern Russians have closer genetic connection with the Baltic and Finnic populations than with the other Slavic groups (Tvauri 2007: 273).

To conclude, the simplified version of the ethnic and linguistic situation in the study area at the end of the first millennium AD is as following: In the west, the presence of Finnic ethnicities is evident in modern Estonia, in western Finland and in parts of modern Latvia. In the east, the two most numerous ethnic groups were Baltic-Finns and Slavs. At the beginning of 11th century, the hypothetical north-south border between Finnic and Slavic ethnicities stretched from Lake Peipus towards the northern parts of River Volkhov. Other Finno-Ugric groups such as Eastern and Western Chudes probably existed within the study area but they were allegedly under a strong Slavic influence (and at some places under Finnic influence as well) (Rahkonen 2013). In the north, Sámi groups inhabited large regions, but Finnic cultural impacts together with settlers were spreading to their lands continuously.

The following chapter presents the different Finnic ethnicities and linguistic groups as they supposedly were at the turn of the first millennium AD. This depiction is based on Frog & Saarikivi 2015 and Lang 2020. Below, Map 3 visualizes Lang’s perception (2020: 226, Kuva 7.12.) of the situation. It must be emphasised that the following description is a simplification of the reality created by contemporary researchers. The actual situation must have been a lot more heterogeneous and dynamic than what the next listing implies.⁷

⁷ Comparison between previous studies (see the discussion in Lehtinen, 2007: 155–163) and modern ones (e.g. Kallio 2014: 163; Lang 2020: 230) displays a good example of how the perception of prehistoric Finnic ethnicities and linguistic groups has changed over the years. One can notice that when the research has progressed, more and more subgroups have emerged in the family tree of Finnic languages. Furthermore, there are still disagreements over the number of modern Finnic languages (e.g. Aikio 2007: 23; Honkola et al. 2019: 162).

Starting from the west, a Finnic group called *Livonians* inhabited areas in modern western Latvia. South Estonian was spoken in southern Estonia and northern Latvia. Northern Estonia was inhabited by many tribes but linguistically they were considered North Estonian. Southern Finland was inhabited by Finnic groups, of which the main ones were Finns proper (in Finnish *varsinaissuomalaiset*), in the southwestern Finland, Tavastians (*hämäläiset*), in Tavastia, and Karelians (*karjalaiset*), in eastern Finland and modern Northwest Russia. Other Finnic groups inhabiting contemporary Russian lands were Votes, east of the River Narva, followed by Izhorians (~Ingrians), near the rivers Izhora and Neva. Karelians and Veps were near the lakes Ladoga and Onega.

Linguistically all these groups belong to the category of Finnic languages, but there were significant differences between them as well. Over time, there have been various perceptions of which Finnic languages are closer than others (see e.g. Kallio 2014: 63). One of the proposed family trees, regarding the subdivision of Finnic, is presented by Kallio (2014) (and further reinforced by Lang, 2020). According to it, the first split of Proto-Finnic language occurred during the first centuries of the Common Era when the language group was divided into Coastal and Inland Finnic. The latter was the predecessor of modern South Estonian. The first language to detach from the Coastal Finnic was the predecessor of Livonian. The rest, called at this phase Gulf of Finland Finnic by Kallio, formed a group that covered most of the study area. Here, the main split created two groups called North Finnic and Central Finnic. The former was the predecessor of the Finnish and Karelian language groups, whereas Votic and North Estonian originate from the latter one. This later split occurred around the midpoint of the first millennium AD.



Map 3 The spread of different Finno-Ugric ethnicities according to Lang (2020: Kuva 7.12.) at the turn of the second millennium AD. The map has been slightly edited: towns and other places of interest are removed for clarity. The dashed line depicts the southern border of those hydronyms that are allegedly of Finnic origin (Rahkonen 2013). Translations of the names presented on the map are as follows: Etelävirolaiset = South Estonians, Hämäläiset = Tavastians, Inkeröiset = Izhorians, Karjalaiset = Karelians, Liiviläiset = Livonians, Pohjoisvirolaiset = Northern Estonians, Saamelaiset = Sámi, Savolaiset = Savonians, Tšuudit = Chudes, Varsinaissuomalaiset = Finns proper, Vätjalaiset = Votes and Vepsäläiset = Veps.

1.6 RESEARCH MATERIAL

This section gives a short description of the sources that are used as research material in the present study. The material mainly consists of medieval documents, only Article III is based on 20th century sources. As the northeastern Baltic Sea area was controlled by various political powers during the Middle Ages, the research materials have their origins in many different sources. The material mostly includes editions of original documents, but primary sources are also sometimes examined.

Most of the original sources, on which the present study is based, are from late 15th or early 16th century. This is mainly due to the local political powers widening their spheres of interest and becoming more systematic in administrative recording at the end of the Middle Ages. Within the Livonian (especially after it came under Swedish rule in the late 16th century) and Swedish territories, the change was conducted by following the German example (Eskola 2020: 72–73). In the east, the change was implemented by

the Grand Duchy of Moscow, which had annexed the territories of Novgorod before the end of 15th century. Leaders of Moscow aimed to create a highly centralized and autocratic system, in which the Grand Duke had supreme powers over his subjects (Martin 2007a: 313). This meant developing fiscal and bureaucratic infrastructure to have control over the lands of the duchy. This approach was somewhat based on the model of the Mongols, who had been ruling the Russian principalities for centuries (ibid. 312–335).

The products of these administrative reforms are examined in Articles I, II, IV and V. In addition to these census and taxation documents, other sources of medieval written material are used as well. In Article I, the village names of the study area are examined through Greta Hausen's publication *Nylands ortnam* ('Place names of Nyland') (1924), which includes medieval entries and name forms from the region of *Nyland* (Finn. Uusimaa).

The research material of Article II consists of various kinds of medieval records, e.g. taxation documents, bills of sales and personal letters that include female personal names. These all have been published as editions by the Finnish and Swedish national archives (e.g. DF and SDHK). Article III is the only one based on newer sources, as village names from the early 20th century Finland are the primary research material of this work.

In Article IV, documents related to modern Finland and Northwest Russia are products of the 15th and 16th century administrative reforms. Census books covering the territories of the late 15th century Novgorod are examined through the 19th and 20th century editions based on the original inscriptions (more details in Article IV). Names from the eastern part of the Swedish Realm (= the Diocese of Åbo) are collected from the book *Suomen asutus 1560-luvulla* ('The settlement in Finland in the 1560s') (SA), which includes names of all the villages mentioned in ecclesial and secular sources during the mid-16th century. In Article IV, names from the area of contemporary Estonia are examined through the place name dictionary *Eesti kohanimeraamat* ('Dictionary of Estonian place names') (KNR), which covers a large portion of the villages mentioned in old documents.

Article V focuses on personal names mentioned in the census book of *Vodskaja pjatina* ('Votic fifth'), which was one of the late medieval administrative areas of Novgorod. The original inscription is published in two editions: NPK III (1868) and POKV I, II (1851, 1852). These sources are also included in Article IV.

1.7 SOURCE-CRITICAL ISSUES

In the following, different issues related to the research sources used are discussed. The first part focuses on the quality of the sources: i.e., what kind of temporal and areal factors have to be taken into consideration when

analysing medieval records and editions made of them. The second part concentrates on the role of habits and traditions of medieval scribes in the procedure of recording personal names.

1.7.1 TEMPORAL AND GEOGRAPHICAL ISSUES IN SOURCE MATERIALS

In general, sources studied in the present work are limited in time. The northeastern Baltic Sea area is only very rarely documented in any kind of written record during the prehistoric era. It can be claimed that only when (and partly because) the Catholic and Orthodox Churches cemented their authority, the study area came under the influence of written culture. The time of this change varied depending on the region, but it is safe to say that the most densely populated parts of the study area were incorporated in the ecclesiastical taxation system before the end of 14th century (cf. e.g. Raninen and Wessman 2015: 346).

In practice, all the sources containing Finnic anthroponymy are from the Christian era, the oldest occurrences dating back to 13th century. Consequently, it could be considered problematic that names derived from the sources of the Christian era are regarded as pre-Christian. Explanations and solutions for this issue are presented further in section 1.8.1.

The lack of written culture and documentation is also the main reason why the number of preserved sources from 13th to 14th century is low. It is impossible to give exact numbers but the following example sheds light on the proportions: in *Diplomatarium Fennicum* -database (DF), which contains medieval records concerning the area of modern Finland, the number of sources from the oldest one to the year 1399 is 1147, and from the year 1400 to 1519 the number is 5705.⁸

Furthermore, it must be noted that many of the oldest preserved records do not contain information about ordinary people. In other words, those Finnic persons that are named in the oldest preserved records are often local men of importance. Partly because of this, records almost never contain pre-Christian Finnic female names.

Remoteness of the study area together with many regions being very scarcely populated are further reasons for the low number of preserved records from 13th and 15th centuries. This applies especially to the northern areas of contemporary Finland and Russia, which were either loosely under the jurisdiction of local central powers, namely the Realm of Sweden and the Novgorod Republic or were still considered “no man’s land”.

The number of records increases from the late 15th century onwards, but it does not mean that the written material would contain a lot of pre-Christian

⁸ The oldest entries in DF are sporadic inserts from old chronicles and sagas. The number of entries starts to be frequent only from the end of 13th century onwards.

Finnic personal names or that all the areas with supposed Finnic presence would be sufficiently covered. The latter problem applies to the remote areas in particular, but even some of the more densely populated places, such as southern Estonia, are adequately covered only from the 17th century onwards (KNR). The lack of pre-Christian Finnic personal names, despite the increasing number of preserved materials is, in turn, observed most likely because the usage of pre-Christian Finnic anthroponymy had already declined by the end of the 15th century. Names derived from Finnic name elements are only a minority compared to Christian anthroponymy in sources of the 16th century and later. The other factor for the low number of preserved pre-Christian Finnic names is that medieval written documentation had its peculiarities that affected the way names were recorded. The next section will deal with this topic in more detail.

1.7.2 THE HABITS AND PRACTICES OF PRESENTING PERSONAL NAMES IN MEDIEVAL DOCUMENTATION

The lack of pre-Christian Finnic names and Finnic name forms can be partly explained by the naming conventions used by medieval scribes. Even though they did not have common rules for grammar or spelling practices, the language and the type of record affected the writing style and the orthography of personal names (Blomqvist 2017: 90, 161–162, 216–226).

Furthermore, the orthography of names rarely reflects the way the name was pronounced in vernacular use. Misspellings, analogies, or translations of names occurred often. It is likely that many of the scribes were familiar with the local Finnic dialects (cf. Blomqvist 2017), but, nevertheless, they were following writing traditions developed for foreign languages. Within the framework of the present study, the research material consists of records written in Latin, Low German, Russian and Swedish.⁹ Thus, scribes often adapted the names to such forms that fit with the traditions of local administrative language. A good example of this is found in the Diocese of Åbo where a court document regarding land holdings of Bridgettine abbey in Nådendal (Finn. Naantali) has survived in two copies: as a draft and official version. Interestingly, some of the personal names mentioned in the draft are in Finnish: e.g. *kocko heyki* and *jussi*.¹⁰ The official version has both of these names adapted: *kocko heyki* becomes *hendric* and *jussi* as *jöns* (Blomqvist 2017: 124; DF s.v. 4136).

⁹ These definitions of the languages used in the records are simplifications. For example, the form of Russian language attested in the so-called birchbark letters found in the city of Novgorod and dated between 11th and 16th centuries (Ianin 1997) is different compared to the so-called Russian chancery language, which was used in the census books of Novgorod at the turn of 15th century.

¹⁰ First of the names, *kocko heyki* contains elements *kokko* ('eagle') and *Heikki* ('Henry'), whereas the other one, *jussi*, is derived from the cognate of *John* (Swed. *Jöns*).

Furthermore, it is noteworthy that personal name elements of Finnic origin are only rarely part of the main names (~ given names). They mostly occur in bynames: in patronyms and family names for example. In addition to that, it is often difficult to know if a person's secondary name, as in the case of *Morthen Tojuo* (*Toivo* 'hope') in Tyrvää parish in 1546 (SAYL), refers to a place of residence, parallel main name or family name. Thus, the research data of the present study contain names from all these categories. The connection between personal names and settlement names is explained in more depth in section 1.8.1.

It must be noted that the research material consists mostly of editions that are based on original documents. Many of the sources used in the present study were edited either in the late 19th or early 20th century. It is obvious that the editing processes at the time were not as systematic as they are nowadays. Consequently, there is a possibility that the editors have transcribed some of the material incorrectly. Moreover, many of the preserved medieval records are copies made during the Late Middle Ages or after, and original records cannot be found.

1.8 METHODS

As the articles investigate medieval Finnic personal names from different perspectives, the methods used also vary. There are, however, some methodological tendencies regarding how the studied names were collected and analysed. In following, the first section deals with the principles of data gathering methods and the second outlines the methods of analysis. Both sections also include critical discussion about the limitations of the methods used.

1.8.1 DATA COLLECTION METHODS

To start with, it must be emphasised that medieval Finnic personal names cannot be examined solely through explicit occurrences of main names since their number in medieval sources is too limited. However, Finnic personal names can be found in secondary names as well, such as family names, patronyms and settlement names.

Family names, patronyms and settlement names can all be based on Finnic personal names. Furthermore, it is likely that a family name, patronym or settlement name based on Finnic anthroponym has originally referred to a specific person. This is evident in the case of patronyms: *Kuzemka Novzuev*" ("Куземка Новзுவь", NPK III: 633) is a son of *Novzuj*.¹¹ The village name

¹¹ Russian names are transliterated using Latin letters according to the ISO 9 standard unless they have an established English format.

Novzuevo (“НОВЗУЕВО”) (ibid.), which probably was named after Kuzemka’s father, is an example of a settlement name derived from pre-Christian Finnic personal name.

Village names based on personal names are usually derived from homestead names, which, in turn, were named after their founders or established owners (Kepsu 2015b). Family names and settlement names are often indistinguishable. For example, in the case of *Morthen Tojuo* (**Toivo*) (in Tyrvää parish in 1546, SAYL), it is unclear if the secondary name *Toivo* indicates place of residence or family name (or parallel main name). Despite the uncertainty, it is likely that the name *Toivo* was originally a main name that referred to one specific person.

It must be also noted that a settlement name containing a Finnic personal name does not always indicate that a person or people with the same name would have lived there. The settlement name (as well as family name) could be brought from somewhere else together with new settlers. In other words, a name could be based on a settler’s village or homestead of origin. These kind of names are called transferred names (see e.g. Brink 2016). Obviously, it is often impossible to identify whether a settlement name is transferred or not.

Names are searched and collected from the source materials mainly by examining the material page by page. This applies to all articles, except Article V, where the data were collected by computer. Choosing Finnic personal names from the medieval records is based on recognizing names containing Finnic linguistic elements. In theory, this means compiling etymologies for all the names attested in the source materials. However, in reality, there is no possibility to delve into all the names because there are thousands of them. Thus, earlier research on Finnic personal names has been used to determine if a name could be of Finnic origin or not.

The earlier research that has been used for compiling etymologies for names consists of many publications written by established scholars. Most important of these has been D.E. Stoebke’s dissertation on pre-Christian Finnic personal names (1964). Many of the medieval personal names and toponyms concerning southern Finland as well as Karelia and Ingria are researched by Saulo Kepsu (e.g. 2005; 2010, 2015b, 2018). Sources concerning the current Russian territory are dealt with by scholars like Irma Mullonen (e.g. Муллонен 2008), Olga Karlova (e.g. 2016), Janne Saarikivi (e.g. 2007), Anna Makarova (e.g. Макарова 2018) and Denis Kuzmin (e.g. 2014). In addition to the works of the afore-mentioned scholars, place name and personal name surveys have been useful. Surveys concerning the current area of Finland are: FSN (*Finlandssvenska bebyggelsenamn*, ‘Finland Swedish settlement names’), SPNK (*Suomalainen paikannimikirja*, ‘Finnish place name book’) and USNK (*Uusi suomalainen nimikirja* ‘New Finnish name book’). Place names from the current area of Estonia are well covered in *Eesti kohanimeraamat* (‘Estonian place name book’).

Onomastic literature has been of great help in recognizing Finnic personal names from the source material, but they are not always reliable and do not cover all of the names studied in the present work. One of the most important skills needed by the researcher interested in old names is the knowledge of relevant languages and their past developments. Furthermore, it is important to be familiar with the medieval traditions and customs that influenced the way studied records were compiled.

Most of the studied names are either from the Middle Ages or Early Modern Period (only Article III is based on the 20th century sources), which means that they are attested in records compiled according to the customs of foreign languages and administrations. Accordingly, knowing the basics of these foreign languages, namely those of (Old) Swedish, Russian (chancery language), Low German and Latin, has been essential in being able to recognize personal names from the body text. In Article II, the aim is to study names of those females, who were with all likelihood born in medieval Finland. Thus, it was not enough only to collect the names but all the relevant information regarding their bearers was also needed.

Understanding foreign languages and recording traditions is also necessary for knowing how different phonemes and sound combinations of Finnic origin could be presented in specific scribal traditions. For example, Finnic *h* is often marked with *g* (Russian *r*) in Russian sources (*Iha* > *Iga*) (cf. Saarikivi 2007: 205–206).

Traditions of foreign writing cultures is not the only factor to be considered while searching for Finnic personal names from medieval sources. It is evident that as early as the Middle Ages the Finnic languages were not a heterogenous group but differed in many ways from one another. Names could vary phonetically and morphologically in different parts of the study area. The personal name *Ičjapov* (cf. Finn. *Ikäpäivä*) attested in modern West Ingria at the end of 15th century is an example of Votic specific sound development: palatalization of *k* before front vowels.

Obviously, it is not enough to know only the basics of modern Finnic languages, one must also be acquainted with their past developments. This involves being familiar with the basics of historical-comparative linguistics (see e.g. Campbell 2013) and particularly paying attention to those sound changes that had allegedly occurred in different Finnic languages by the end of Middle Ages (e.g. the case of Votic *Ičjapov*, presented above). These changes are usually well covered in onomastic literature, but other relevant sources have been used as well (e.g. Eesti etümoloogiasõnaraamat (EES), Grünthal 2020; Kallio 2014; Lehtinen 2007).

Since the names examined are centuries old, even with all the available literature and knowledge of the languages and sources, etymologies of several names remain uncertain. To reduce chances of making wrong inferences, a set of criteria has been created to follow when evaluating the probability of an

etymology. The criteria are mostly based on Article I and on principles proposed by scholars Eero Kiviniemi (1984: 320–327), Pauli Rahkonen (2013: 13–17) and Santeri Junntila (2016: 138). I have updated some parts of the criteria based on later experiences. The criteria are:

- 1) Similar naming convention must be used in the vicinity.
- 2) Phonetic substitutions must be confirmed by parallel cases. However, it must be emphasised that anthroponyms and other semantically opaque names do not always follow the same phonological changes as appellatives (Bakken 1997). Moreover, so-called etymological nativisation (Aikio 2007) must be taken into consideration.
- 3) The semantics of the name must correspond to geographic, historical, and linguistic characteristics of the name.
- 4) Of all the different etymologies, the most common is the most likely.

Besides going through the research material page by page, digital methods have been used to facilitate data gathering in Articles IV and V. In the previous one, the research material (the census books of Novgorod) was digitized. After that, different kinds of letter combinations, which could originate from pre-Christian Finnic personal name elements, were used as search words together with approximate string matching (=fuzzy string search). In Article V, research data are essentially acquired digitally. Source material was digitized, and a Python-based program was created to recognize and collect the personal names from the text.

1.8.2 DATA ANALYSIS METHODS

The collected names have been analysed in various ways depending on the article. It must be emphasised that the line between data collection and analysis methods is often blurred. For example, above discussed topic of compiling etymologies for names could belong to the analysis methods as well.

Locating the chosen names in the map is a method that is implemented in each article. The aim of this method is to determine where the name was used. Most of the name bearers are linked to some specific places, e.g. villages or towns. This applies particularly to documents produced for fiscal purposes. Medieval letters and court documents do not always indicate origins of persons mentioned and therefore, more background work must be done to determine, where a name bearer lived or originated from.

Villages and towns where the bearers of collected names resided can often be located with sufficient accuracy based on both old and contemporary maps. Again, onomastic literature, such as those presented above in section 1.8.1., has been helpful in situations where a settlement name searched for does not exist anymore. Most of the locations mentioned in sources concerning modern Estonia, Finland and Karelia can be recognized and placed on a map but

Russian sources contain cases that are more difficult. It follows that some of the locations have remained unresolved despite all efforts. Names with no reference to any location are excluded from the maps.

The distribution of studied names and name elements is further analysed mainly by two comparison methods. The first one is called in onomastics as typological-geographic research, which means analysing the emergence and distribution of names or name elements (Ainiala et al. 2012: 48). In Article I, this method is used to examine if the village names studied have parallel cases outside the study area and accordingly, to indicate those regions that the study area had connections with before and during the Middle Ages. This method is implemented in each article, but in the first four the comparison is qualitative, i.e. assessed visually. In Article V, name data is computationally clustered to determine regional patterns in personal name usage.

The second comparison method involves comparing the distribution of chosen names to the results of other scientific fields such as archaeology and historical linguistics. This way, it is possible to visualize how the distribution of certain pre-Christian Finnic personal names is related to those archaeological finds that are regarded as evidence of Late Iron Age settlement. This method is shortly implemented in Articles I and V, whereas, in Articles III and IV, one of the main focuses is the archaeological aspect.

Morphological and semantical aspects of names are briefly analysed in each paper, but only in Article III they have their own section. Within the scope of the present study, morphological analysis considers three factors: name elements (i.e., personal name lexemes and personal name suffixes); analysis of how these elements were used to form personal names; and analysis of the popularity of specific name elements according to the collected name data. Only pre-Christian names are analysed from the point of view of morphology.

The semantical analysis of the names studied entails the investigation of the meanings of singular personal name lexemes (e.g. *Lempi* 'love, favorite'). The semantic meanings of singular pre-Christian name lexemes are mostly based on definitions presented in onomastic literature. Even with the methods of historical-comparative linguistics, it is impossible to thoroughly determine what the name elements under study meant centuries ago. Furthermore, analysing the perceptions of name bestowers towards the name they gave is an aspect closely linked to semantics as well. This perspective is particularly relevant to foreign names since they were not semantically transparent to Finnic speakers. For example, Article II indicates that most of the popular medieval female names were names of well-known saints and Scandinavian queens. This indicates that the name givers wished their child to have the same qualities as the former bearer(s) had.

Statistical methods are implemented in each article. In papers I–IV, these methods are used to conduct simple statistics of the names studied. The last publication (V) is based on more advanced statistical techniques:

computational methods are utilized to find regional differences in the use of personal names. Measurements are performed by two different distance measuring and clustering procedures: the Jaccard distance metric with the average linkage and the Euclidean distance metric with the ward linkage.

2 ARTICLES AND THEIR MAIN RESULTS

The articles included in this dissertation concentrate on pre-Cristian Finnic personal names and early Christian Finnic names from different perspectives. The most substantial differences are in the areal focus and the sources used. The methods applied vary from article to article and especially in Article V, new ways to study ancient personal names are utilized. Publications are presented in order of completion, since they focus on the same time-period, that is approximately 1200–1550 AD.

Summaries are structured in the following manner. First, an overview of the aim of the study is given together with short descriptions of sources and methods used. Second, the main results of the study are presented. I will also make retrospective remarks on the individual papers where needed.

2.1 MEDIEVAL ANTHROPONYMS IN THE CASTLE PROVINCE OF RASEBORG: STUDY OF FINNISH VILLAGE NAMES BASED ON ANTHROPONYMS

The first article analyses Finnish village names based on personal names in the historical Castle Province of Raseborg (approximately the same as current Western Uusimaa). The article focuses on examining what kind of personal names were used in the province of Raseborg during the first half of the second millennium. It also examines the origins of these personal names and shows where the names have parallels in the Gulf of Finland area. The names were collected from Greta Hausen's study *Nylands ortnam* ('Place names of Nyland') (1924), which contains recorded attestations of village names in the area from the earliest one, approx. 1200 AD, to the end of 16th century. Names based on Finnish personal name elements were recognized in the material following criteria for compiling etymologies presented in section 1.8.1.

The result is that 105 village names are considered Finnish. Of these the most are either Finnish (or Finnic) or Christian origin. In retrospect, I would emphasise that many of the names are descriptive bynames, e.g. *Hullus* (Finnish *hullu* 'crazy') and *Kuritans* (*kurittu* Finn. 'left handed; cursed'). This underlines the significance of bynames in the medieval Finnic naming system. Furthermore, it implies that naming conventions varied depending on the occasion: in official records names could be different than the ones in vernacular use. Accordingly, it can be claimed that village names showcase the versatility of the ancient Finnic naming conventions better than personal names attested in official records.

Similarly, I would like to emphasise that the adaption of foreign names has been mainly based on the pre-Christian Finnic naming conventions. This applies particularly to the use of different personal name suffixes. For example, suffixes like *-kkV*, *-oi/-ui/-öi* and *-ttu* seem to be annexed to both, names of Finnic origin and those of foreign origin: e.g. *Koi-kka-la* (Finnic) vs. *Mai-kka-la* (Christian), *Härk-öi-lä* vs. *Tav-o(i)-la* (< *Daavid* ?) and *Lemmitti* (< *Lemmitteby* 1535, Article I) vs. *Lu-ttu-la* (< *Ludde / Ludwig* ?).¹²

Another significant observation is that most of the villages studied seem to be younger than the ones based on nature names.¹³ This point of view has been often repeated in Finnish onomastics (e.g. Ainiola et al. 2012: 92–93; Alanen 2004: 135; Kepsu 2018: 10). Furthermore, the study shows that Finnish village names of the Castle Province of Raseborg often have parallels in Southwest Finland and mainly in the current municipality of Salo. Northern Estonia has a lot of similar village names as well, which emphasises the cultural connection between both sides of the Gulf of Finland.

2.2 MARGARETA, KATERINA AND KRISTINA: FEMALE NAMES IN MEDIEVAL FINLAND

The second article focuses on female names used in medieval Finland. It aims to shed light on the topic of names given to women in the region of Finland during the Middle Ages. Names are collected from editions of medieval documents that concern the area of modern Finland, such as the series *Finlands medeltidsurkunder* ('Medieval sources of Finland') (FMU). The original records date to 1319–1500. The aim is to include only names of those women who were presumably born in Finland and to exclude multiple listings of the same person.

The outcome is a data table, which contains the names of 541 women mentioned by name in the records studied. The women in the data table bear 51 lexically distinct name types. The most popular of these are Margareta, Katerina, Kristina and Birgitta. Approximately 55 percent of all the women are bearers of one of the four names. The female anthroponymy of medieval Finland resembles that of Sweden. Furthermore, female names are very much like those used in Denmark and Norway.

Presumably, female children were often named after their predecessors. Examples and suggestions of local nobility or clergy were most likely significant factors as well since most of the popular names were names of both well-known saints and Scandinavian royals. In retrospect, it could be added

¹² *-IA* = Finnic locative suffix used in place names.

¹³ *Nature names* are the names of natural places such as a lake or a hill.

that the name givers probably wished their child to have those same qualities that the former bearer(s) (relatives or famous persons) of the name had.

One of the most intriguing results of the study is that no certain pre-Christian Finnish (nor Finnic) female names are found in the sources studied. More compelling is that the records do not contain any Finnish forms of Christian female names. Even the names of women from a completely Finnish speaking regions are always recorded in their foreign form, mostly Swedish.

2.3 PRE-CHRISTIAN FINNIC ANTHROPONYMS IN FINNISH VILLAGE NAMES

The third article examines Finnish village names based on pre-Christian Finnic personal names. It aims to shed light on the use of pre-Christian Finnic personal names and their role in the system of naming villages. Names studied were gathered from book series called *Suomenmaa* ('Land of Finland') where all the villages (9 985) of Finland from the beginning of 20th century are addressed.

Altogether, 158 village names based on pre-Christian Finnic personal names are found in Finland and the ceded area of Karelia. Special emphasis is put on studying morphological features of the names. The analysis shows that pre-Christian personal names attested in village names mostly occur as simplex names (*Kauko-la*) or as simplex names with suffixes (*Lemme-tty-lä*). Only a couple of two-part names (e.g. *Iha-lempiä-lä*) are attested in the research material.

The most common pre-Christian Finnic personal name elements are *Kauko* ('tall, long') (32 instances), *Lempi* ('love, favorite') (19) and *Iha* (e.g. 'lovely, delightful, charming') (17). The most popular locative suffix used in the studied village names is *-la* (e.g. *Lempiä-lä*). Interestingly, the suffix *-nen* appears mostly in names located in Western Finland. This is contrary to the common thought that surnames ending with *-nen* are from the eastern parts of Finland (cf. USNK). In retrospect, it would have been useful to ponder more thoroughly how the names with suffix *-nen* had emerged in Western Finland. Obviously, many of them were originally in genitive: e.g. *Auvainen* < *Auvais(en)* (1542 *affuais*, SPNK s.v. *Auvainen*).

Furthermore, the third article examines the geographical distribution of the names studied. The names are mostly located in southern Finland. The distribution of the names under study is compared to the locations of Iron Age settlements in Finland. The results indicate that the names are mostly found in areas of dense Late Iron Age settlement.

2.4 THE DISTRIBUTION OF VILLAGE NAMES BASED ON PRE-CHRISTIAN FINNIC PERSONAL NAMES IN THE BALTIC SEA AREA

The fourth article continues the topic of pre-Christian Finnic personal names and their distribution. It concentrates on names that were in use before the end of the Middle Ages (approx. 1550 AD). The study area of Article IV covers the northeastern Baltic Sea area (except the Finnic regions within modern Latvia). The aim is to examine how pre-Christian Finnic personal names had spread into new areas and determine the reasons behind their spread. The study is conducted by analysing village names based on 20 chosen pre-Christian Finnic personal name lexemes, which are following ones: *Auva*, *Heimo*, *Hyvä*, *Iha*, *Ikä*, *Ilma*, *Jou(t)si*, *Kaikki*, *Kauk(k)a*, *Kirja*, *Kyllä*, *Lempi*, *Meeli*, *Neuvo*, *Päivä*, *Toivo*, *Un(n)i*, *Unta*, *Valta*, *Viha*, *Vihta* and *Vilja*. The result is compared to archaeological and linguistic information related to the study area's past. Research material mainly consists of editions of various administrative records from the 15th and 16th centuries. The name data are compiled by studying the material page by page. Due to the vast amount of material, digital methods are facilitated to reduce the possibility of missing a name.

In all, 302 village names based on the pre-Christian Finnic personal names were collected. The most popular of the personal lexemes are Kauko (44 instances), Lempi (42), Iha (28), Vilja (24), Toivo (20) and Kirja (19). In hindsight, it should be noted that the most common name lexemes are the same as within the village names of Article III, whereas, in the late 15th century Vodskaja pjatina (Article V), *Iha* and *Lempi* are the most common ones. However, it is worth emphasizing that the 20 name lexemes chosen to search for are only a portion of all the possible elements that could be included in the category of pre-Christian Finnic anthroponymy.

The village names based on pre-Christian Finnic personal names are most densely located in Finland Proper, Tavastia, northern and eastern Estonia, southern Karelia, the northwestern coast of Lake Ladoga, the southern Karelian Isthmus and eastern and northern Ingria. The connection between the distribution of names and Late Iron Age settlements is two-fold: The first six regions were densely populated in the Iron Age. The two latter ones are, in turn, located in areas where Late Iron Age activity has been meagre. Accordingly, one of the conclusions is that the use of the investigated pre-Christian Finnic name elements seems to have started initially in the western regions and spread later eastwards. This assumption is in line with the results of other studies regarding the study area's past. During the last centuries of the first millennium AD, Estonia and Western Finland were both fast developing economically and culturally. These two areas became centres of innovation that spread cultural and linguistic innovations, such as personal

names into new areas, especially to the east. The spread of pre-Christian Finnic personal names is further discussed in the present work in section 3.3.

2.5 CLUSTERING NAMES OF MEDIEVAL NOVGOROD: GEOGRAPHICAL VARIATION OF PERSONAL NAMES ATTESTED IN THE CENSUS BOOK OF VODSKAJA PJATINA

The fifth article dives deeper into the personal names of Vodskaja pjatina ('Votic fifth'), which, as an administrative area of late 15th century Novgorod, is one of the regions included in Article IV. Whereas the previous article focuses on village names, the fifth one concentrates on explicit personal names mentioned in the census book of Vodskaja pjatina. Original documents were compiled in 1499/1500 and editions based on them were published in the 19th century. The aim of the study is not only to examine Finnic personal names but to study differences in naming conventions in relation to the location.

In this study, most likely for the first time ever, digital methods are utilized to compile and cluster personal names for the purpose of examining medieval naming conventions. Research data are compiled by digitizing the editions of the original documents with OCR-program and creating a Python-based program to recognize and collect the personal names from the text. OCR-errors are searched for and corrected by using the data wrangling program OpenRefine. Two different workflows are used to measure regional differences in the occurrences of personal names and creating clusters from the results: the Jaccard distance metric with the average linkage and the Euclidean distance metric with the ward linkage. The clustering is performed using a hierarchical agglomerative clustering method.

As a result, an area-by-name frequency table was created. It contains 35,726 name tokens and 2748 individual name types. The majority of the most common names are of Christian origin. Names containing Finnic personal name elements are, in turn, only a minority, approximately two percent of all. Distance calculations and clustering procedures turned out to be useful for studying ancient naming conventions. The results seem to be reliable and informative especially at the fine-grained level. It will also be noted that on a larger scale, the results of both clustering workflows (Jaccard and Euclidean) agree with the previous studies of the study area's history: southern areas seem to form a cohesive naming culture that is probably a consequence of this region being deeply Slavicized by the end of the 15th century. The north was, in turn, inhabited by Finnic, Slavic and other ethnicities and consequently, naming conventions were more heterogeneous than in the south.

In hindsight, it should be noted that the differences between northern and southern naming conventions can be explained with other reasons as well. It is evident, for example, that the northern areas were less influenced by secular

and ecclesiastical powers such as land-owning nobles and monasteries, and thus, northern peoples probably lived more freely and independently than the ones in the south. Another retrospective remark can be made about the chosen clustering method, that is, hierarchical clustering. It probably was not the best choice for data consisting of personal names as the regional differences in the use of names are more gradual than discrete. The outcome is that some of the clusters are artificial and distort the picture of reality.

One of the most interesting outcomes of this study is that clustering results seem to correlate with the supposed distribution of different ethnicities of medieval Northwest Russia, even though singular name types can be only rarely connected to specific groups of people. This especially applies to the northernmost part of study area, namely the county of Korela (Finnish *Karjala*), which, according to the clustering results, has formed a separate closely-knit group, despite the fact, that Finnic personal name elements are rare in the area.

3 RESULTS AND DISCUSSION

3.1 MORPHOLOGY AND SEMANTICS OF FINNIC PERSONAL NAMES

This section gives overviews of morphological and semantical aspects of Finnic personal names. The focus is on pre-Christian names, but Christian anthroponymy is also scrutinized shortly. It must be emphasised that due to the lack of preserved records and them being products of foreign administrations, it is difficult to make definite claims about morphology or semantics of Finnic names. Furthermore, only Article III focuses on morphology and semantics, whereas in other papers they are secondary topics. It is good to note also that the semantics of names can be investigated from a nowadays perspective only and accordingly, it is difficult to know what kind meanings the names held for their ancient users.

3.1.1 MORPHOLOGY

Names collected for the present study indicate that Pre-Christian Finnic personal names were composed in the following manner: names either contained one (single part names or simplex names) or two (two-part names or complex names) name lexemes (e.g. *Kauko*, *Lempo*, *Mieli*, *Kaukomieli*). Names with one lexeme could have personal name suffixes at the end as well (e.g. *Lemp-oi*, *Mieli-tty*, *Iha-kka*, *Iha-ma(s)*). This line of thought is in agreement with the one presented by Stoebke (1964: 109–135).

Although regional differences are substantial, it can be claimed that most of the pre-Christian names attested in the sources of the present study contain one lexeme together with personal name suffix.¹⁴ This applies particularly to explicit personal names, whereas village names based on anthroponyms contain less signs of Finnic personal name suffixes. This difference is probably due to the fact that settlement names often have locative suffixes (e.g. Finn. *-la*, *-nen* and *-sto*), which have caused a reduction of personal name suffixes for easier pronunciation.

Phonological issues are also partly responsible for the scarcity of two-part names in village names. As personal names, their prevalence seems to vary by region. The sources of Article V, which cover the northwestern part of medieval

¹⁴ It is difficult to estimate exactly how popular different types of pre-Christian Finnic names were. This is mostly due to the fact medieval orthography is often ambiguous. Of the 883 explicit personal name occurrences presented in Map 5 in section 3.2.2, approx. 40–50 percent are single part names with suffix, 20–30 percent two-part names and the rest (20–30 percent) single part names. However, regional differences are apparent as indicated below in this section.

Novgorod, contain only five possible two-part names. By contrast, the 15th century records concerning the modern border area between Estonia and Latvia indicate that nearly half of the attested pre-Christian Finnic personal names consist of two parts (Johansen 1937). It is also noteworthy that Finnic personal name lexemes do not seem to occur with elements of obvious foreign origin. In other words, one cannot find such compound names where the other part would be a pre-Christian Finnic name lexeme and the other, for example, Christian name. On the other hand, there are cases when it is difficult to distinguish between the two-part (= complex) names and two-name combinations. Medieval orthography is not always reliable. For example, in the case of *kocko heyki*, which is presented in section 1.6.2., it is possible that the name was in fact a compound name: **Kokkoheikki*.

Scholars have had differing opinions about the origins of pre-Christian Finnic two-part names. Stoebe (1964: 147) considers two-part names the results of original Finnic development (“ostseefinnischen Entwicklung”), whereas Nissilä (1965: 87), in contrast, suggests the two-part names are based on the model set by Germanic names. Nissilä’s assertion is partly based on the above-mentioned observation: most of the two-part names occur among the western Finnic tribes. It is also true, as Nissilä claims, that western Finnic languages were linguistically influenced by Germanic (= Scandinavian) groups during the early Iron Age. Furthermore, Nissilä (84) opposes Stoebe’s suggestion of two-part names being “self-developed”. Nissilä bases his claim on the observation that two-part names were not in use among eastern Finno-Ugric groups. From this it follows, according to Nissilä, that two-part name type emerged only after the diversification of Finnic languages and groups.

As a side note, it seems that no one ever compared pre-Christian Finnic personal names to those that were used among Baltic tribes before they adapted Christianity. Names of early Latgalian and Lithuanian leaders are often two-part names and have, at least in some occasions, lexical similarities with pre-Christian Finnic personal names, of which possible examples are: *Visvaldis* (Latin *Vissewaldis* < Modern Latvian *visi* ‘all’ + Germanic or Scandinavian *vald(r)* ‘to rule, ruler’ (Mugurēvičs 1993: VII, note 16) compared to Finnic *Kaikevalde* attested in the same chronicle (*kaikki* ‘all’ + *vald(r)* ‘to rule, ruler’) and *Mindaugas* (Latin e.g. *Mindowe* < Lithuanian *minti*, *mintis* ‘to remember, a thought’ + *daug* ‘a lot, much’) compared to Finnic *Mielivilja* or *Viljamieli* (*mieli* ‘mind, intellect’ + *vilja* ‘(‘grain; plenty, much’) (Stoebe 1964: 136–144). Needless to say, these two examples are arbitrary. Having a look at the names of other Lithuanian men of importance reveals that there are many differences compared to Finnic names as well.

Present study indicates that there were various ways of attaching Finnic personal name suffixes to simplex forms of pre-Christian Finnic names. For instance, within the personal names collected for Article V, name element *Iha* (‘lovely, delightful, charming’) is attested with suffixes such as *-ttV* (e.g.

Igatuev / Игатуев), *-ma(s)* (*Igamas* / Игамас), *-kka* (*Igakin* / Игакин ?) and *-Vi* (*Igamuj* / Игамуй)¹⁵. It is likely that the suffix added to the end of person's name could vary. For instance, in a document from 1330's Wierland (Est. Virumaa), it seems that the same individual was first referred to as *Melitu* (**Mieli-ttu*) and after as *Melye* (**Mieli* / *Miel-ui*) (Johansen 1928: 151).

In the scope of the present study, it is difficult to make definitive claims about the regional differences regarding the use of suffixes but there are some indications of this. For instance, *-ma(s)*-endings seem to be concentrated in modern Estonia and Northwest Russia, whereas in Finland they are rare. The suffix *-Vi*, in turn, seems to be more popular in Finland and Northwest Russia but it is rarely attested in Estonia.

Regional differences in the use of suffixes as well as in the spelling of name lexemes are partly explained by differences between Finnic languages and dialects. Over the centuries, Finnic languages developed into their own directions. For instance, the personal name *Ičäpov* (Ичяпов, cf. Finn. *Ikäpäivä*) (NPK III: 509) reflects a sound change that is specific to the Votic language: note the palatalization of *k* before front vowels. Needless to say, it is often difficult to determine whether the differences in the orthographies of names are due to the habits of medieval scribes or local linguistic factors.

An intriguing observation is that the same suffixes that were attached to pre-Christian personal names are also attested in the endings of Christian (and other foreign) names. In Articles IV and V, the materials examined contain many instances of this. For example, village names from the materials of Article IV: *Jukkala* (< Swed. *Johan* + *-kka* + locative suffix *-la*) and *Perttula* (Swed. *Bertil* + *-ttu* + *-la*). In addition, personal names from Article V: e.g. *Antuj* (Антуй < Russ. *Andrej* + *-uj*), *Ermuj* (Ермуй < Russ. *Ermolaj* + *-uj*) and *Mikkuev* (Миккуевы < Russ. *Mikita* + *-kkV* (+ *-uj*) + *ev*).¹⁶ However, the use of suffixes seems to be different in Estonia: although personal name suffixes are common among the occurrences of pre-Christian names in medieval Estonia, they seem rare in village names and personal names of Christian origin.

Origins of pre-Christian Finnic personal name suffixes is an interesting question that falls outside the scope of the present study. It is, however, evident that similar suffixes are attested within the names of adjacent language groups, namely Germans, Scandinavians and Slavs. For instance, the suffix *-la* is considered to be an old Slavic personal name suffix (Saarikivi 2007: 207), but a similar ending can be attested in the endings of some Finnic personal names as well, e.g. *Ihala* (Игала, Article V) (cf. Rintala 2008; Saarikivi 2007:

¹⁵ Each example is derived from Article V.

¹⁶ The connection between names with the ending *-uj* in Russian sources and the Finnish personal name suffix *-oi* is discussed for example by Mullonen (Муллонен 2008: 185).

230).¹⁷ The Russian diminutive suffix *-ka/-ko* often occurs among the personal names of Article V. The Finnic personal name suffix *-kkV* resembles the Russian one. There are situations when it is difficult to determine whether a suffix should be considered Finnic or Slavic. This is especially true when the name element is of Finnic origin: e.g. *Igalka* (Игалка). Furthermore, names with endings *-kkV* in Estonia and Finland can be compared to names originating from Northern Germany: e.g. *Vitikka-la* < Low German *Witicha* (Article I) and *Tilga* < 1627 *Tilcka Jack* < Low German *Tilcke* (KNR s.v. *Tilga*⁴).

Based on the names collected for the present study, rough estimations can be given about the most common personal name lexemes occurring in pre-Christian Finnic names. In Article III, which focuses on Finnish village names derived from pre-Christian Finnic anthroponyms, the most popular name elements are *Kauko*, *Lempi*, *Iha*, *Toivo* and *Auvo*. Article IV, in turn, concentrates on medieval village names from Estonia, Finland and Northwest Russia based on the same name elements. Of these, the most common are: *Kauko*, *Lempi*, *Vilja*, *Iha* and *Kirja*. In Article V, research data consist of personal names collected from the late 15th century Russian census book, which covers the area of Vodskaja pjatina, one of the administrative areas in late medieval Novgorod. There, the most common pre-Christian Finnic name elements are: *Iha*, *Uska*, *Lempi*, *Toivo*, *Vilja*, *Nousia* and *Vihto*. Names derived from elements *Uska* and *Nousia* are not included in Articles III and IV.

Given the above, the four most popular pre-Christian Finnic name lexemes are: *Iha*, *Lempi*, *Toivo* and *Vilja*. The result is in line with Stoebke's study (1964, see section 3.2.2.). The most obvious difference is the name element *Mieli*, which is represented a lot more often in Stoebke's listing than in the present study. The difference is due at least partly to the fact that Stoebke was concentrating on Livonian sources (modern Estonia and Latvia), whereas this work focuses on sources dealing with contemporary Finland and Northwest Russia. It is possible that *Mieli*-names were more popular in Livonia than elsewhere in the northeastern Baltic Sea area, but it is also evident that Stoebke has included many dubious name variants on his list. For example, names starting with *Mel-* could derive from Christian name *Melchior* (e.g. KNR s.v. *Meelva*) or from Latvian personal name elements *Mel(n)s* or *Mēļš* (cf. Blese 1929: 86).

¹⁷ *-IA* is also a common Finnic locative suffix as one can notice within the examples presented above. However, in this specific instance, it seems very unlikely that the ending *-la* would be anyhow connected to the locative suffix. As the personal name *Ihala* seems to occur only in eastern parts of the study area (Rintala 2008: 86), it is possible that it would have been borrowed from the Slavs.

3.1.2 SEMANTICS

It seems that all the examined pre-Christian Finnic name lexemes (in Articles III – V) have been semantically descriptive and transparent. Accordingly, it is possible that these attributes were motivated by the hopes and wishes of the name givers. The other option is that the name bestowing was based on the customs of ancestors and relatives. It is well known that, in the early modern Europe, family traditions played a major role in choosing a name for a child (Ainiala et al. 2012: 127; Leibring 2016: 205–207). For example, in 16th century Finland, a common custom was to name the first-born boy after the grandfather (Article IV). Sámi people had similar traditions: the first son was named after his father's father and the second one after his mother's father (Valtonen 2017: 306–307).

Nevertheless, there are not enough preserved sources to find out what kind of naming principles were followed among the Baltic-Finns during those first centuries of the second millennium when pre-Christian name elements were still in use. We do not know, for example, whether Finnic people used different names for different occasions as some Russian nobles did in the 17th century (Ronimus 1906: 135). Similarly, there is only little information regarding the name giving ceremonies. One of the few things known is that according to the 16th century archbishop of Novgorod, Macarius (Макарий), Izhorians, Votes and Chudes (Estonians or Votes) had pagan shamans (Finn. *arpoja*) in their communities who held special name giving ceremonies (Ronimus 1906: 134; Чибисов 2019: 151–152).

Despite these issues, we can analyse the semantics of individual name lexemes that are attested within the pre-Christian Finnic personal names and compare them to those of Germanic, Scandinavian and Slavic anthroponyms. First of all, having taken a look at the most common Finnic name lexemes (presented in section 3.1.1.), we may notice that they are all rather peaceful in their meaning. This becomes evident when the meanings of the four most common elements are translated: *Iha* (e.g. 'lovely, delightful, charming'), *Lempi*, ('love, favorite'), *Toivo* ('hope, wish') and *Vilja* ('plenty, much') (Saarikivi 2007; Stoebke 1964).

Germanic pre-Christian personal names, in contrast, often contain attributes whose semantic meaning is aggressive and warlike (Ainiala et al. 2012: 147; Leibring 2016: 200). The same applies to the most frequent name lexemes attested in Scandinavian runestones (c. 800–1100) (Peterson 2007: 272) and Slavic personal names (Vydrina 1997; Зализняк 2004). From another perspective, the most frequent name lexemes attested in the birch bark inscriptions of Novgorod (c. 1000–1400) (Vydrina 1997; Зализняк 2004: 834–839) indicate that Slavic names were not as masculine and aggressive as those of Scandinavians but were often linked to peaceful attributes: e.g. *Domazir* ('house' + 'wealth', Домажир) and *Miloslav* ('dear;

merciful' + 'glory', Милослав). However, when comparing these two sources it should be noted that the runestones were erected for soldiers and long-distance travellers, mostly representatives of higher social classes, whereas people named in the birch bark inscriptions represent more comprehensively all the different classes of society (Зализняк 2004).

In conclusion, it seems that the semantics of pre-Christian Finnic personal names differ from those of Germanic tribes, Scandinavians and Slavs. The difference is particularly evident in the case of Germanic and Scandinavian names, as the scholars Nissilä (1965: 83) and Stoebke (1964: 147) have already noticed. Lexical elements used within pre-Christian Finnic names seem to have similarities with Slavic anthroponymy but despite this, there are obvious differences as well. Accordingly, it appears that examples set by the adjacent tribes did not affect the semantics of pre-Christian Finnic personal names.

It must be emphasised that the above discussion only concerns those 20 to 30 name elements that are studied in Articles III–V. Outside this group, there are probably hundreds of possible pre-Christian Finnic personal name elements. It follows that above presented notes and remarks regarding the semantics of Finnic personal names are only rough generalizations. Regional differences must have been significant. It seems, for instance, that personal names based on zoonyms (= names of animals) were more popular in the eastern parts of the study area than what they were in the west.

Finally, after Christian names had superseded the pre-Christian ones, Baltic-Finns were in a situation where they used names that were semantically opaque and undescriptive. As presented in section 3.4., this change was rather fast (at least in some regions), which means that, in a relatively short time, Finnic people abandoned their semantically meaningful names for opaque names of foreign origin. However, imported foreign names were not without semantic meaning. Ordinary people were familiar with the former bearers of a name, such as well-known saints or royals. As indicated in Article II, the majority of the most common female names in medieval Finland were names of both famous saints and of Scandinavian queens. Thus, the name givers probably intended that the attributes connected to the former bearer of a chosen name would transfer to the new-born.

The ascent of Christian anthroponymy did not mean that pre-Christian naming system or singular pre-Christian names would have vanished completely. In Western Ingria, for example, some of the locals were named in medieval documents with three names, e.g. “Лука Ювятъ Игамасовъ” (NPK III: 523), where the second name was often a Finnic one (“Ювятъ” < Finn. *Hyvätty*). It is evident based on the results of Article I, that descriptive bynames were widely used in medieval southern Finland just like they probably were also during the pre-Christian era. These are, however, semantically different from the above-discussed pre-Christian personal names, since the former were used as main names and usually bestowed

according to the local customs (e.g. by parents or by local pagan priest), whereas the descriptive bynames were often given by other people living within the same community.

3.2 THE DISTRIBUTION OF PRE-CHRISTIAN FINNIC PERSONAL NAMES DURING THE MIDDLE AGES

This section displays three overviews of where pre-Christian Finnic personal names had spread by the end of Middle Ages. The first map (Map 4), which is based on the materials of Article IV, presents an overall distribution of village names derived from pre-Christian Finnic personal names. The most important observations related to the map are analysed and discussed. The second map (Map 5) shows the distribution of explicit attestations of pre-Christian Finnic personal names. These are mainly collected from the study of Stoebke (1964: 15–81) as well as from the Russian sources used in Articles IV and V. Finally, Map 5 combines the two earlier cartographic visualisations and presents all the attestations of explicit pre-Christian Finnic personal names together with village names based on the same elements (with three exceptions).

3.2.1 THE DISTRIBUTION OF VILLAGE NAMES BASED ON PRE-CHRISTIAN FINNIC PERSONAL NAMES IN THE NORTHEASTERN BALTIC SEA AREA

The exact process of collecting names for Map 4, below, is explained in Article IV. To summarize, names are collected from records related to medieval entities of Livonia, the Realm of Sweden and Novgorod (being then annexed to the Grand Duchy of Moscow). The documents studied thus represent different traditions of recording, and, furthermore, they have been compiled in different time periods, the oldest ones being from the 13th century and the latest from the beginning of the 17th century.

Another matter to bear in mind is that a village name based on a pre-Christian personal name does not always mean that a person or persons with the same name would have lived there. So-called transferred names (Brink 2016) could have affected the spread of the Finnic village names as well. In other words, a name could be based on a settler's village or homestead of origin. In spite of whether the name is transferred or not, the distribution of the village names displayed in Map 4 still depicts a certain name giving culture.

For Map 4, the following personal name lexemes are chosen from the name data collected for Article IV: *Auvo*, *Hyvä*, *Iha*, *Ika/ikä*, *Ilma*, *Kauka*, *Kirja*, *Kyllä*, *Lempi*, *Mieli*, *Neuvo*, *Päivä*, *Toivo*, *Unni*, *Unta*, *Valta*, *Viha*, *Vihta* and *Vilja*. Altogether, there are 302 names collected. More than half of them (169) are from the area of the Diocese of Åbo. A total of 68 names come from Russian

sources and the rest (65) from Estonia. The most frequently used name element is *Kauko*, with 43 occurrences. In addition, the name elements *Lempi* (40), *Iha* (28), *Vilja* (24), *Toivo* (21) and *Kirja* (19) are common.



Map 4 The geographical distribution of village names based on pre-Christian Finnic personal name elements. Round dots present the locations of the villages. The black dotted line represents the approximate eastern border of the late 15th-century Diocese of Åbo (part of the Swedish Realm). The present-day territory of Estonia is drawn south of it. Areas of late 15th century Novgorod are in the east. More details about the map are found in Article IV. Map drawn by the author. Base map: Stamen Toner Background.

Most of the names in Map 4 are located close to the Gulf of Finland. The name elements studied occur most densely in southwestern Finland and in the eastern end of the Gulf of Finland, near present-day Saint Petersburg. In addition, many names occur in the old province of Häme (Swedish Tavastland), particularly in the vicinity of the lake Vanajavesi. Furthermore,

there are many names near the present-day Finnish-Russian border south of the lake Saimaa. The names on the Karelian Isthmus can be seen as a continuum of the ones in Eastern Finland (or vice-versa). There are also many occurrences in Estonia, especially in the northern parts and in the southeastern part.

Due to the low number of names collected, it is difficult to study regional differences in the distribution of certain names. Besides the high number of *Kauko*-names in southern Finland, no significant differences are noticed. The result is as expected, since the 19 name elements that were searched for in the study materials were chosen based on having a wide distribution in the northeastern Baltic Sea area.

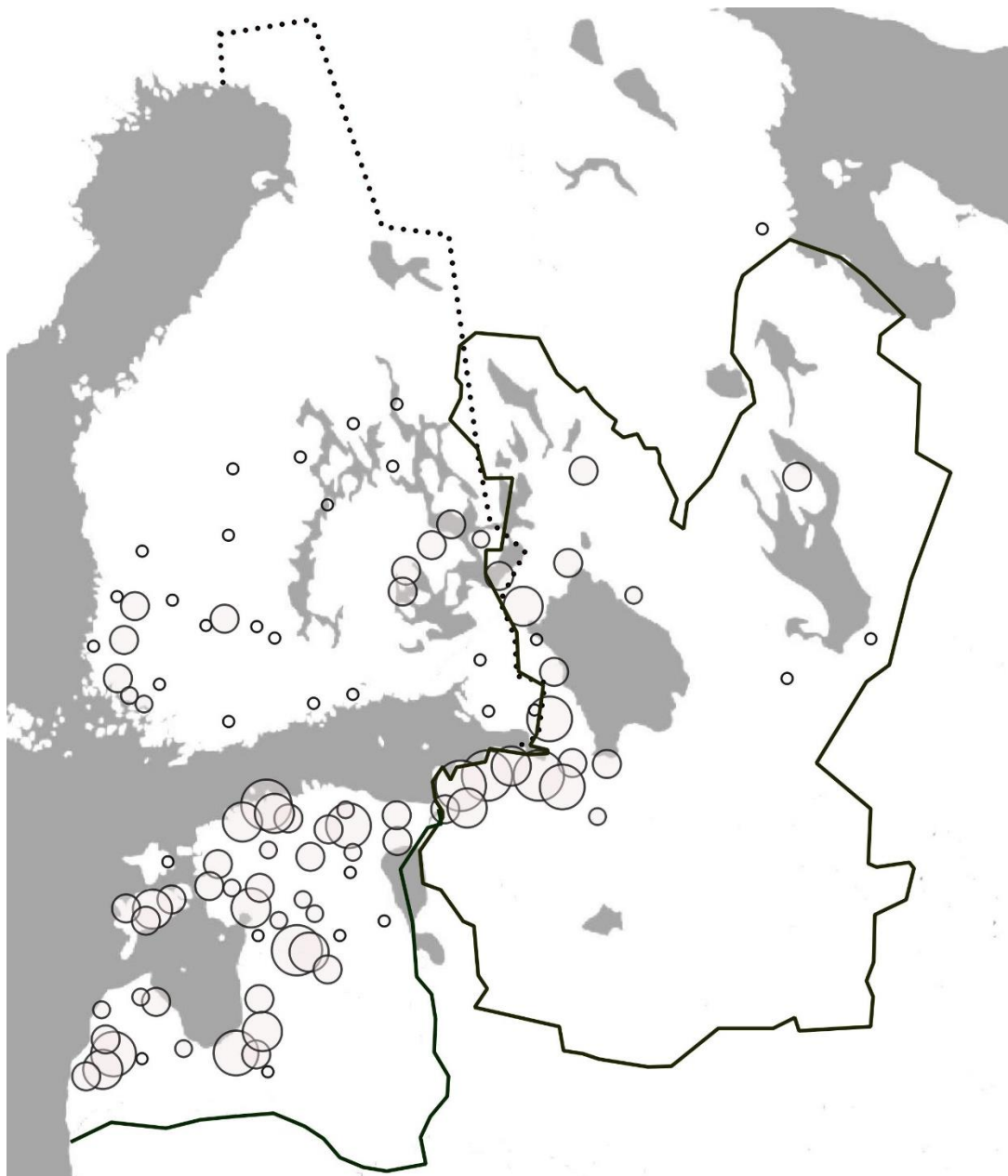
Map 4 has a few intriguing parts that should be taken under further investigation. Prior to that, however, we must observe Map 5 since it answers some of these questions.

3.2.2 THE COMBINED DISTRIBUTION OF VILLAGE NAMES AND PERSONAL NAMES BASED ON THE PRE-CHRISTIAN FINNIC PERSONAL NAMES IN THE NORTHEASTERN BALTIC SEA AREA

Map 5 depicts the distribution of explicit personal names based on the following elements: *Auvo*, *Hyvä*, *Iha*, *Ika/Ikä*, *Ilma*, *Kaipa*, *Kauka*, *Kirja*, *Kyllä*, *Lempi*, *Mieli*, *Päivä*, *Toivo*, *Unni*, *Unta*, *Uska*, *Valta*, *Viha*, *Vihta* and *Vilja*. In other words, Map 5 presents the same names as Map 4 but excludes names based on the lexeme *Neuvo* and includes the elements *Kaipa* and *Uska*. Names have been collected from Russian census books (Articles IV and V) and Stoebke's dissertation. Some additional occurrences have been added from the sources Stoebke has used. Only names recorded before 1570s are included.

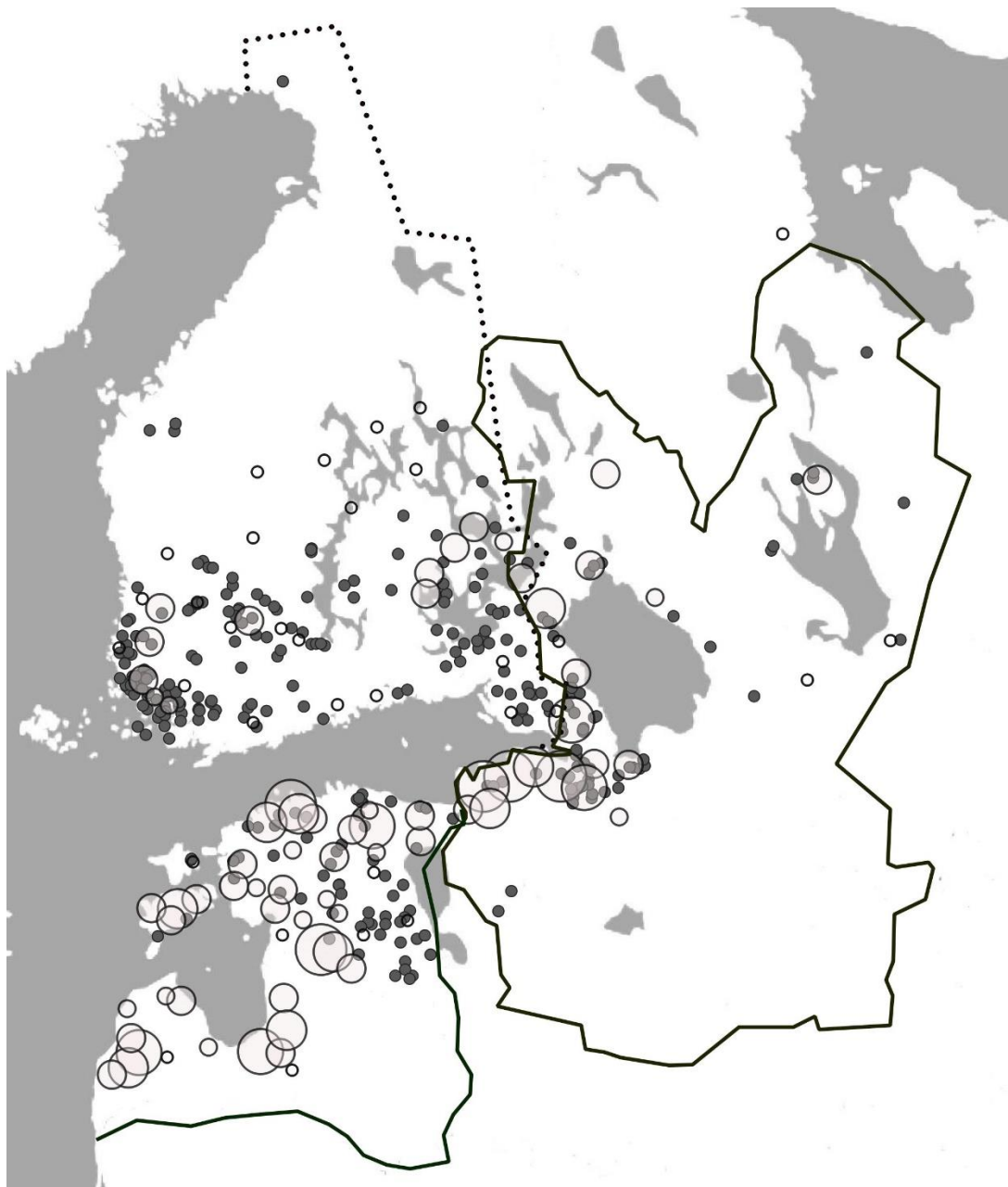
A total of 883 names are displayed in Map 5, of which the five most common are: *Lempi*, *Iha*, *Mieli*, *Toivo* and *Vilja*. Compared to the names presented in Map 4, the only difference is that the element *Kirja* has now been replaced by *Mieli*.¹⁸ Instances that could not be located on the map with sufficient accuracy are excluded, e.g. named person's parish of residence is not mentioned or it cannot be situated on the modern map anymore. A person with his or her name is included only once, but it is often difficult to verify this. The rule of thumb is that if the same name has occurred two times in the same place, the other one is excluded unless five or more years have passed between the occurrences. Name density within an area is displayed by the size of the circle: the bigger the circle the more names in the area.

¹⁸ The problem is that, in the sphere of Orthodox names, the element *Kirja* cannot be distinguished from common Russian name *Kiril* and its different variants. *Mieli*-names are also problematic (see section 3.1.1. for more details).



Map 5 The distribution and density of pre-Christian Finnic personal names based on names collected by Stoebke 1964 and by the author for the purposes of Article IV and V. The size of the circle corresponds with the number of names in the area. Approximate medieval borders of the Diocese of Åbo (part of the Swedish Realm), Livonia and Novgorod are presented as well. Map drawn by the author. Base map: Stamen Toner Background.

Next, Map 4 and 5 are compiled together and the outcome is presented in Map 6. Village names from Map 4 are presented separately as dark grey dots. Otherwise, the principles are the same as in the previous visualizations. One must remember that village names located in contemporary Latvia are neither included in Article IV nor Maps 4–6.



Map 6 Names presented in Map 4 and 5 compiled together. Dark grey circles depict locations of Finnic village names. White circles display the distribution and density of explicit pre-Christian Finnic personal name occurrences. The size of the circle corresponds with the number of names in the area. Approximate medieval borders of the Diocese of Åbo (part of the Swedish Realm), Livonia and Novgorod are presented as well. Map drawn by the author. Base map: Stamen Toner Background.

All in all, Map 6 displays an overview of where pre-Christian Finnic personal names were used during the Middle Ages. Although this does not mean that the names would have been part of local anthroponymy throughout the Middle Ages, it is likely that pre-Christian Finnic personal names were used in the locations depicted in Map 6 at least at some point between the 13th and 16th centuries. Similarly, it is certain that the map does not indicate all the areas

where Finnic naming conventions were followed. This is partly due to the quality and number of preserved records but it is also due to the scope of the present study. Only those names are depicted in Map 6 which were recorded before 1570's (some southern Estonian names are exceptions, see Article IV for more details) and were within the territory that the present study and Stoebke's dissertation focused on.

Owing to these limitations, there are some regions, for example in Northwest Russia, that most likely would have been within the sphere of pre-Christian Finnic personal name conventions but are excluded, since they are located outside the study area. At the end of 16th century pre-Christian Finnic personal name elements were common among the people living in the northern parts of Finland and Norway (Itkonen 1942). These names are not included either, as their attestations are outside the time scope of the present study, as well as they mostly concern predecessors of Sámi people, who are not considered ethnically nor linguistically Finnic.

Despite the issues, Map 6 presents a thorough overview of pre-Christian Finnic personal names and their locations in the Middle Ages. The map combines personal name information from two different sources: explicit pre-Christian Finnic personal names and village names based on the same names. The two complement each other: the explicit attestations of pre-Christian Finnic personal names are numerous but reasonably random, whereas medieval village names are regionally and temporally more comprehensive but fewer in number.

Map 6 indicates that in most cases an area with many explicit personal name occurrences also has multiple village names based on the same personal name lexemes. There are, however, some exceptions when this relation appears to be the opposite. One of them is located at the south-eastern coast of the Gulf of Finland, that is the northern part of Vodskaja pjatina, modern Western Ingria. This is an area where, according to the results of Articles IV and V, many pre-Christian Finnic anthroponyms occur but the number of village names based on these same names is unexpectedly low. Another similar location is in the border zone between Estonia and Latvia. There the high number of explicit pre-Christian Finnic personal names is explained by the preservation of 15th century cadastres.

There are many possible reasons for the lack of Finnic village names in above mentioned locations, but the main conclusion is clear: personal names do not always end up as village names. It seems that villages were few in number in Western Ingria but consisted of dozens of homesteads. This being the situation, it is no surprise that villages were only rarely named after singular persons.

Based on Map 6, one may notice that pre-Christian Finnic personal names are attested everywhere around the Gulf of Finland apart from the northern side of the Gulf of Finland, more specifically the regions of Kymenlaakso

(Swedish Kymmenedalen) and Uusimaa (Nyland). The reasons for the lack of pre-Christian Finnic personal names in these regions are presumably two-fold. Although more and more archaeological finds dated to the Iron Age are found in Kymenlaakso (e.g. Jäppinen 2014) and Uusimaa (e.g. Wessman 2016), it is evident that the northern coast of the Gulf of Finland was not as densely inhabited as its neighbouring regions such as Finland Proper or Tavastia (cf. Raninen and Wessman 2015).

The spread of Swedish settlers to Kymenlaakso and Uusimaa from the 13th century onwards is another reason for the lack of Finnic personal names. Areas that were sparsely populated by Finns were probably quickly merged or superseded by the newcomers and, accordingly, the majority of the settlement names mentioned in the 16th century are Swedish (cf. FSNB). It is also evident that both regions have many old villages of Finnish origin, but only a few of them derive from pre-Christian Finnic personal names (cf. Kepsu 2005, FSNB, Article I). This could imply that Finnish settlements in the regions of Kymenlaakso and Uusimaa were rather new as well.

The western coast of Latvia is another interesting area. First of all, it must be emphasised that in Article IV, in which the village names are investigated, modern Latvia is excluded. Medieval inhabitants of Western Latvia, namely Livonians, were clearly using pre-Christian Finnic anthroponyms in the 14th century as indicated in Stoebke's work (1964). Thus, one can claim that the Livonians were following similar naming conventions as the northern Finnic tribes. As a side note, one of the key sources concerning pre-Christian Finnic personal names in the 14th century Livonia, *Die Wartgutsteuerliste der Komturei Goldingen* ('The tax list of the Commandery of Goldingen') (Bauer 1933), does not seem to contain many village names that could be of Finnic origin and even less village names that could originate from pre-Christian Finnic personal names.¹⁹

3.3 THE ORIGINS AND SPREAD OF PRE-CHRISTIAN FINNIC PERSONAL NAMES

The following section is an updated summarization of the discussion of Article IV regarding the origins and spread of pre-Christian Finnic personal names, and the name system associated with them. The aim is to explain how the studied pre-Christian Finnic personal name elements emerged in the study area and how they spread to those locations where they are attested in Maps 4, 5 and 6.

¹⁹ The following village names could be derived from pre-Christian Finnic personal names: *Pewen* (< *Päivä* ?), *Ylmaen* (< *Ilma* ?) and *Villegalen* (*Viljakka* ?).

To start with, it must be emphasised that in the scope of the present work investigating the development of pre-Christian Finnic personal names actually means focusing on those 20–30 Finnic personal name elements that are studied in Articles III–V. This group of name elements covers only a minor portion of all the possible variants that could be included in the category of pre-Christian Finnic anthroponyms.

One must also notice that determining the origins of the pre-Christian Finnic personal names is a nearly impossible task due to the lack of sources. It is similarly difficult to analyse the beginnings of the whole pre-Christian Finnic personal name system. Only limited and rough estimations can be made about the factors that impacted the emergence of prehistorical Finnic personal names and the associated name system based on overall knowledge of other anthroponymic systems and general history of Finnic tribes.

3.3.1 THE ORIGINS OF PRE-CHRISTIAN FINNIC PERSONAL NAMES AND NAME SYSTEM

In Article IV, the Bronze Age (c. 1500–500 BC) is suggested as the *terminus post quem* for the emerge of pre-Christian Finnic personal names and the associated name system as it is thought to be that period when Finno-Ugric languages supposedly arrived in the Baltic Sea area (Lang 2018: 263). Furthermore, it is also proposed that the spread of pre-Christian Finnic personal names and name system would be connected to those Iron Age developments that Valter Lang (2018) considers crucial for the spread of Finnic languages and culture. In retrospective, it must be admitted that these generalisations need refining.

To start with, it must be emphasised that investigating the origins of those pre-Christian Finnic personal names analysed in the present study and the origins of the associated personal name system are two different topics although closely linked to each other. The answer to both issues, however, is the same: the origins cannot be solved on the basis of source material preserved. Another common issue is that one should be cautious when trying to determine the age of pre-Christian personal names or the related name system. This critique can be applied to the work of D.E. Stoebe (1964), for example. According to him (82–108), a wide distribution throughout the Finnic area is one of the main arguments for determining whether a name element is Proto-Finnic or not. Following this criterion Stoebe (*ibid.*) claims that there are 27 personal name lexemes that can be considered Proto-Finnic. Many contemporary linguists (e.g. Heikkilä 2014; Kallio 2014; Schalin 2018) maintain that the diversification of Proto-Finnic occurred at the beginning of the Common Era.

Following Stoebe's argumentation presented above and considering that most of the name lexemes analysed in the present work are widespread (see

section 3.2.) one could suggest that the end of the Proto-Finnic period is the *terminus ante quem* for the emerge of the studied pre-Christian Finnic personal names. This would mean that pre-Christian Finnic personal names and the associated system were around thousand-year-old when they started to be recorded in medieval documents at the beginning of the second millennium AD. Such an extended age-estimation seems credible when considering the examples of Germanic anthroponymy. Attestations of pre-Christian Germanic personal names (Förstemann 1856) imply that many features of the Germanic personal name system were preserved for a whole millennium (e.g. two-part names and many of the name lexemes).

The important question is: should we take it for granted that the wide distribution of names indicates their Proto-Finnic origin? This argumentation is often indisputable while talking of lexicon or grammar. Names, however, are not ordinary nouns, as is well-known in onomastics (see e.g. Nyström 2016; Van Langendonck and Van de Velde 2016). As mentioned, personal names are loaned more easily than appellatives (Ainiala et al. 2012: 136; Van Hout and Muysken 1994: 60). It is evident that personal names can spread without significant ethnic or linguistic changes occurring simultaneously. The spread of Christian anthroponymy throughout the northeastern Baltic Sea area is a good example of this.

Furthermore, there are possible examples of certain vocabulary spreading throughout the northeastern Baltic Sea area after the diversification of Proto-Finnic. The Christian terminology of Slavic origin has a wide distribution within the Finnic languages. These words were borrowed from Slavs around the eight century AD at the earliest, which has led researchers to assume that Finnic languages formed a close-knit group up until then (e.g. Kallio 2014: 164; Lang 2020: 199). Grünthal (2020: 16), in contrast, suggests that the borrowing of Slavic based Christian terminology could not have taken place before Christianity had cemented its authority in the northeastern Baltic Sea area, which happened during the first centuries of the second millennium. According to Grünthal (*ibid.*), borrowed Christian vocabulary of Slavic origin indicates “diffusion of a cultural innovation rather than proving the split of a proto-language”.

Grünthal’s suggestion can be further reinforced by the fact that words most prone to be borrowed belong to the category of “religion and belief” (Haspelmath and Tadmor 2009: 64). In connection to this, it is widely known that in many cultures personal names are connected with local religion(s) (see e.g. Ainiala et al. 2012: 124–126). Thus, one can assume that Pre-Christian personal names resemble nouns related to religion.

All in all, there are good reasons to be cautious with the idea of pre-Christian Finnic personal names being developed before or during the diversification of Proto-Finnic. Considering the many changes that Finnic languages have allegedly gone through during the Iron Age (see e.g. Kallio

2014; Lehtinen 2007), it seems inevitable that the pre-Christian Finnic anthroponymy as well as the name system associated with it had experienced multiple transformations. Furthermore, there is evidence that considerable changes in anthroponymic systems and naming conventions coincided with the most tremendous political and social changes in the surrounding society (cf. Salway 1994). It is evident that the northeastern Baltic Sea area has undergone various critical cultural and social developments during the first millennium AD and earlier (see e.g. Kriiska and Tvauri 2007; Raninen and Wessman 2015; Рябинин 1997).

Being cautious towards the idea that pre-Christian Finnic personal names were developed before the diversification of Proto-Finnic does not mean that one should be as cautious when discussing the origins of the whole personal name system. It is possible that many key features of pre-Christian Finnic personal name system (e.g. formation of two-part names and some personal name suffixes) derived from the Proto-Finnic times. It can be assumed that name systems are resilient against drastic changes since they are a more integral part of language than singular names.

Despite all the issues presented above, pre-Christian Finnic personal names or the associated name system did not emerge from nowhere. It is logical to start studying the history of these names and the related system by having a look at names attested among neighbouring groups and tribes. As mentioned in section 1.5., the area that Finnic peoples were supposedly inhabiting at the beginning of the second millennium, was heavily influenced by the adjacent ethnicities and tribes, in short by Scandinavians and Slavs (and to some extent by Balts). Accordingly, there exists a possibility that these contacts would have affected pre-Christian Finnic anthroponymy and the associated system.

The connection between pre-Christian Finnic personal names and names attested among adjacent tribes, mainly Scandinavians and Slavs, is a difficult topic as there are both: factors that support the idea of these relations being strong, and factors that disagree with this presumption. Based on morphologic features (see section 3.1.1.), Finnic names resemble those of neighbouring Indo-Europeans (e.g. two-part names and personal name suffixes) but semantically they differ (see section 3.1.2). Considering how easily personal names are borrowed from one language to another, one would expect the outcome being completely opposite. Of those 21 name lexemes presented in the distribution maps in section 3.2., *Valta* is the only one that is very likely to be of Germanic or Scandinavian origin (cf. Peterson 2007: 245).²⁰

²⁰ Other Finnic name lexemes have been considered Germanic or Scandinavian as well. For example, in USNK, Germanic origin is suggested for names like *Auvo*, *Himo* and *Lempi*. The problem with these etymologies is that the parallel looking Germanic name lexemes are attested mostly in continental Europe and rarely in pre-Christian Scandinavian anthroponymy. Considering the supposed history of Finnic tribes (see section 1.5.2.), it is reasonable to assume that the so-called Germanic names

As already noted, pre-Christian Finnic personal name system as a whole has been more robust against drastic changes than singular names. Expanding this line of thought further, it can be assumed that many features of the name system are derived from times before the diversification of Proto-Finnic. Two-part names are one of those features that can originate from the beginning of the Common Era or even earlier. There are good reasons to believe that this formation of names was adopted following the Germanic (or rather Scandinavian) examples before the diversification of Finnic languages. As mentioned in section 3.1.1., two-part names seem to concentrate in the western parts of the northeastern Baltic Sea area. Furthermore, results of loanword studies (Schalin 2018: 147) indicate that during the 6th–8th centuries the number of new Scandinavian loanwords in Finnic declined rapidly. Thus, one can assume that if the Baltic-Finns adopted the formation of two-part names through Germanic or Scandinavian impacts, this would have occurred before the 6th century AD.

All in all, the origins and the earliest developments of pre-Christian Finnic anthroponymy and the system associated with it are and probably will remain unclear. Adjacent cultures probably had an impact, but it is difficult to say to what extent. It is possible that some of the name lexemes and features of the Finnic name system are derived from Proto-Finnic period (~ from the beginning of the Common Era) but there are also good reasons to believe that Finnic anthroponymy went through various changes during those centuries that preceded the first recorded attestations of pre-Christian names (~ the 13th century). Although the possibilities to study developments of pre-Christian Finnic personal names are meagre, the question of how they spread to the localities where they were attested during and right after the Middle Ages (see Map 4, 5 and 6) can be discussed and thus, it will be addressed next.

3.3.2 THE EXPANSION OF PRE-CHRISTIAN FINNIC PERSONAL NAMES AND NAMING CONVENTIONS: REASONS AND CHARACTERISTICS

In Article IV, it is argued that there are several factors that could be linked to the spread of Finnic naming conventions. Many of these are other indications of Finnic culture such as specific types of burials or a distribution of certain words. However, the article fails to answer to questions why and how the spread of pre-Christian Finnic personal names can be compared to the diffusion of other manifestations of Finnic cultures and languages. Furthermore, Article IV does not deal with the reasons behind the spread of pre-Christian Finnic personal names either. In this section, these unanswered

would have been distributed to Baltic-Finns by the Scandinavians. Section 3.4. addressed this topic as well.

questions are addressed before moving to next part and analysing the spread of pre-Christian personal names.

First of all, we can assume that the spread of pre-Christian Finnic personal names was caused by many different reasons. We can also be fairly confident that the names spread because the local population wanted to use them and not because some higher power forced them to do it. This argument is supported by the fact that pre-Christian Baltic-Finns lived in tribal society (cf. Kriiska and Tvaauri 2007: 205–206; Raninen and Wessman 2015: 275). It follows that there was no single authority or power which could have introduced inhabitants of the northeastern Baltic Sea area to pre-Christian Finnic personal names.

It can be argued that the main factor for the wide and long term spread of Finnic naming conventions was the social prestige of ancient Finnic culture. This allowed pre-Christian Finnic personal names to supersede most of the earlier anthroponyms and helped to preserve the newly acquired system against foreign influence. The influence of prestigious cultures on names and naming conventions is a well-known fact in onomastics. The best example of this is the spread of Christian anthroponymy all over Europe and later, for instance, to North America and Africa. A more modern example is found in the fact that names of famous North Americans are used in non-English speaking European countries (Leibring 2016: 210–212).

A relevant question regarding the spread of pre-Christian Finnic personal names is whether we should consider them more an element of a linguistic or a cultural nature. It is indisputable that names are part of language. What is equally clear is that pre-Christian Finnic names have originally consisted of semantically transparent lexical elements.

On the other hand, names resemble typical cultural artefacts such as religious objects, embroidery and ornaments in many ways. Both of them take part in forming a personal identity. In addition, they both can be considered as external factors of one's identity since they can be changed. Names also reflect an individual's connection to surrounding society similarly as, for example, the styles used in pottery. It is also obvious that changes in naming conventions are often manifested simultaneously in introduction of new cultural artefacts. A modern example of this is that Europe's affinity with North American culture is reflected in a wide variety of artefacts and phenomena (popular culture, products, fashion etc.) (De Grazia 2005) but also in personal names: names of famous North Americans are popular in non-English speaking European countries (Leibring 2016: 210–212).

It is obvious, nevertheless, that different manifestations of material culture do not always implicate what kind of personal names locals have been using. For example, a future archaeologist investigating the Soviet and post-Soviet times of the Baltics might find the material culture of Estonia, Latvia and Lithuania very similar. However, the anthroponymy in these three countries

has been significantly different at least after the collapse of the Soviet Union.²¹ Needless to say, a related issue is to what extent Finnic culture can be recognized and identified on the basis of archaeological artefacts (for more details, see discussions in Lang 2020: 77–93 and Saarikivi and Lavento 2012). Furthermore, due to the lack of available research material the prehistory of the northeastern Baltic Sea area is in many ways obscure.

Despite the above-presented problems, it is clear that archaeology and linguistics provide the best available means to study the prehistory of the northeastern Baltic Sea area. Although changes in anthroponymy are not always visible in archaeological or linguistic materials, it is obvious that naming principles are connected to general trends. For example, within the above-discussed Baltic countries, the majority of the most common personal names are of Christian origin. Thus, the spread of pre-Christian Finnic personal names and the associated system can be discussed by relying on generally accepted archaeological and linguistic facts.

3.3.3 THE SPREAD OF PRE-CHRISTIAN FINNIC PERSONAL NAMES AND THE NAME SYSTEM IN THE LIGHT OF ARCHAEOLOGICAL AND LINGUISTIC EVIDENCE

In the present section, the spread of pre-Christian Finnic personal names is analysed in the light of archaeological and linguistic factors. The aim is to depict those prehistoric developments that can explain how the studied name elements spread to the locations that are presented in Map 6. For the sake of clarity, much of the content of section 1.5.2. (study area's ethnic and linguistic history) is repeated. The focus is on outlining the main directions of those prehistoric waves of influence that can be connected to the spread of Finnic culture and accordingly, to the spread of Finnic anthroponymy. As noticed in previous section, there are many insecurities in investigating the spread of pre-Christian name and naming systems. Thus, the arguments made in this section should be treated with caution.

Traditionally, the first centuries of the Common Era have been considered in Estonian and Finnish archaeology as a period when local settlements started to show signs of development after the previous recession (Kriiska and Tvaauri 2007: 118-119; Raninen and Wessman 2015: 241). Although modern researchers have downplayed the severity of this downturn (*ibid.*), it is nevertheless obvious that contemporary areas of Estonia and Finland experienced culturally significant changes during this period.

Based on the archaeological findings, northern Estonia was the most developed and prosperous region in the northeastern Baltic Sea area in the

²¹ This information is based on official statistics for each Baltic state. Estonia: https://www.stat.ee/nimed/TOP_AASTAD. Latvia: <https://tools.csb.gov.lv/names/lv>. Lithuania: <http://vardai.vlkk.lt/> (July 20th, 2021).

beginning of the Common Era (Lang 2020: 193–195). It was the place from where so called typical tarand graves started to spread to surrounding Estonian areas (Kriiska and Tvauri 2007: 135). Northern Estonia also significantly influenced the southern and western parts of Finland at the beginning of the Common Era (Lang 2020: 169). Furthermore, in contemporary linguistics, all the Finnic languages (South Estonian might be an exception) are thought to originate from northern Estonia (ibid. 195–199).

If the pre-Christian Finnic personal name system was already taking its early shape in the beginning of the Common Era, northern Estonia is the most likely region where this could have happened. It is likely that due to the close links between northern Estonia and southwestern Finland, naming conventions travelled over the Gulf of Finland as well.

At the mid-first millennium AD, the northern, south-eastern and western part of Estonia together with western Finland were the most culturally advanced and prosperous areas in the northeastern Baltic Sea area. Close links with neighbouring tribes such as Balts and Scandinavians were probably an important factor in this development (Kriiska and Tvauri 2007: 165–187; Raninen and Wessman 2015: 316). After the mid-first millennium AD developing areas in Estonia and western Finland started to spread their influence into other regions. At first, the main direction for these impacts was from west to east. It is possible that this phenomenon can be connected to the increased Scandinavian activity at the eastern part of the Gulf of Finland from the 8th century onwards at the latest (Noonan 1986: 330; Raninen and Wessman 2015: 290).

Regardless of the role of Scandinavians, based on archaeological data, it is evident that developed areas in western and northern Estonia and in western Finland had significant impact on the development of eastern and southern parts of the northeastern Baltic Sea area. Northern Estonia had close connections, for example, with Western Ingria (Frog and Saarikivi 2015: 87; Црацюк 2013), whereas Saaremaa and the western coast of Latvia, particularly Courland, were linked together (Mägi 2005). Archaeological finds in Karelia and Eastern Finland show influence from the western parts of Finland, most likely from Finland Proper and Tavastia (Hiekkanen 2003: 486; Uino 2003: 349–353).

At the turn of the second millennium, the Karelian ethnos was becoming archaeologically distinct. The southeast coast of Ladoga had become a centre from which Karelian culture started to spread (Saksa et al. 2003: 385). At the beginning of the second millennium, Karelian influences spread towards Eastern Finland (Raninen and Wessman 2015: 358), to the eastern shores of the Gulf of Bothnia (Vahtola 1980: 315–391) and towards predecessors of the Veps to the east (Lang 2020: 227–229). Ancient Karelian culture was also present in the western parts of the Karelian Isthmus and on the eastern shores of the lake Saimaa (Hiekkanen 2003: 485–486). Furthermore, Karelian

influence was evident in the eastern and northern parts of Ingria (Frog and Saarikivi 2015: 89). Votes and the Votic language, which allegedly were found in the western part of Ingria, had, in turn, contacts with Estonians (Lang 2020: 221–224; Article V).

The role of agriculture is an intriguing aspect in the spread of pre-Christian Finnic personal names. It is evident that pre-Christian anthroponymy is mostly found in locations where permanent agriculture has a long history (Grünthal 2020: 2; Lang 2020: 105, 185, 195–199). This applies especially to the western parts of the study area and to Karelia. However, one cannot claim that the use of pre-Christian Finnic personal names was connected to specific livelihood. Within the northeastern Baltic Sea area, methods of cultivation and animal husbandry varied from region to region (see e.g. Kriiska and Tvauri 2007: 195–199; Raninen and Wessman 2015: 274–275). It can even be suggested that the distribution of pre-Christian Finnic personal names correlates with the population size. Densely populated areas, in turn, had a long tradition of agricultural activities.

Based on the above information, it seems likely that the so-called innovation centres had significant impact in the expansion of pre-Christian Finnic names and name system (cf. Fagyal et al. 2010). Ancient innovation centres had strong economics and military power and had developed trading networks with adjacent areas as well as remote places. Northern Estonia was one of the most important innovation centres, but many similar places existed as well: e.g. the modern Tartu region and island of Saaremaa. In modern Finland, such places were found in Finland Proper and Tavastia, whereas in Northwest Russia innovation centres were found in the northern Karelian Isthmus and Lake Beloye together with towns established along the trade route *Austrvegr* ('east road', the trade way of Norsemen), Novgorod and Staraja Ladoga for example. All the afore-mentioned places and regions had their significance in the spread of Finnic personal names and consequently, pre-Christian Finnic personal names were common in all these locations except the most southeastern ones.

It must be stressed that the above-described developments provide only a simplified depiction of the complex history of the Iron Age in the northeastern Baltic Sea area. For example, impacts from western Finland did not only travel towards east and north: Iron Age ornaments originating from the western parts of Finland are found in Northern Estonia (Kriiska and Tvauri 2007: 266), and among the Livonians in western Latvia (Spirģis 2006). It is also clear that many aspects of the history of Baltic-Finns are uncertain due to the lack of archaeological finds and historical sources. The scarcity of reliable research materials leaves room for speculation in historical research of the northeastern Baltic Sea area (see the discussion in Lang 2020: 16–77).

To conclude, the spread of pre-Christian Finnic personal names is, at least to some extent, connected with the developments of the Iron Age Finnic

culture. This does not mean, however, that pre-Christian Finnic personal names attested in medieval sources originate from the beginning of the Common Era. It is possible that some parts of the name system date back two millennia, however, it is also likely that many features of pre-Christian Finnic personal names were created after the diversification of Proto-Finnic culture and language (see section 3.3.1. for more details).

3.4 THE DECLINE OF PRE-CHRISTIAN FINNIC PERSONAL NAMES

This section describes the ending of the use of pre-Christian Finnic personal names and reasons behind it. It must be emphasised that the pre-Christian Finnic naming system did not vanish when Christian anthroponymy superseded the pre-Christian one. Loaned names of foreign origin were adapted to the vernacular speech according to the traditions that were already existing within the pre-Christian naming conventions. The most obvious examples of this are the suffixes that were attached to the end of the names of Christian origin. Articles I, III and V demonstrate that the same personal name suffixes (e.g. *-Vi*, *-kkA* and *-ttu*) used among the pre-Christian names were attached to the end of Christian ones as well (at least in Finland and Northwest Russia).

The importance of social prestige was already demonstrated in section 3.3.2. Following this line of thought, it is logical to assume that the decline of pre-Christian personal names can be explained by a situation, in which foreign anthroponymy, i.e., mainly the Christian names distributed by Germans, Scandinavians and Slavs (Articles II and V), started to be esteemed over the Finnic ones.

It has been proposed that “the old Finnish anthroponymic system” would have already been in decline before Christian names consolidated their status in Finland. This suggestion is based on the assumption that the ancient Finns had so many foreign, mainly Germanic, personal names in use before the arrival of Christianity (Ainiola et al. 2012: 160). Despite the small number of relevant sources, there is enough evidence to disagree with the previous argument. First, we can be certain that the whole pre-Christian Finnic personal name system was not disappearing. Morphologically, Christian names shared many of the features of pre-Christian anthroponymy as already pointed out.

Second, the argument of ancient Finns using Germanic personal names is a little exaggerated. It is true that some of the modern surnames of Finns, as well as some Finnish village names, are thought to be derived from Germanic personal names (cf. SPNK; USNK). However, many of these etymologies are

uncertain and have received criticism (Article I; Kepsu 2017; Koivulehto 2007). Even though we would accept most of the suggested etymologies, according to which many surnames or village names derive from pre-Christian Germanic personal names, they still would not exceed the number of those names that allegedly originate from pre-Christian Finnic personal names (cf. Article I; Kepsu 2017; SPNK; USNK). Considering the area of modern Finland, the list containing names that are presumably of Germanic origin would be more numerous if Scandinavian names were added to it, since their presence is undisputed especially in Finland Proper (cf. SPNK). It is, however, unclear how many of these Scandinavian names were connected to individual immigrants, who settled in Finland from Sweden or Denmark during the Middle Ages (see Article II for more details). In addition to that, names of Scandinavian origin that were certainly used by Finns and whose spread does not seem to be connected to Christianity (e.g. *Bertil* and *Sven*), were, with all likelihood, only introduced in Finland when the Swedish Realm, together with the Catholic Church, had consolidated their power in the southern parts of Finland c. 1200 AD (Raninen and Wessman 2015: 346). Furthermore, there are almost no signs of “Germanic” anthroponyms within the eastern parts of the study area. (cf. Kepsu 2010, 2018). Scandinavian names are rare in the east as well; only a few are attested in Karelia (*ibid.*).

In view of the above, we can come to two conclusions. First, the pre-Christian Finnish anthroponymic system (probably the same applies to the Finnic one) had not disappeared before Christianity consolidated its status during the first centuries of the second millennium. Second, there are good reasons that it was mostly pre-Christian Finnic personal names that were superseded by Christian names.

The exact nature of the process of replacing pre-Christian names with Christian ones varied depending on the region. Most of the personal names within the 16th century records from contemporary Finland and Northwest Russia are of Christian origin (Articles II and V), whereas, at the same time, many pre-Christian names and elements are attested among the Sámi (Itkonen 1942). Furthermore, as already explained in section 1.7.2., the habits and practices of medieval scribes had substantial influence on how the names were recorded. The results of Articles I, III and IV indicate that pre-Christian name elements were used a lot more often and longer than the records suggest. However, the present study also suggests that the usage of pre-Christian Finnic personal names was, in fact, in decline at the end of Middle Ages and the beginning of the early modern period. One example of this is presented in Articles III and IV: villages in Central and Eastern Finland that were established during the 16th and 17th centuries were only rarely given names that were based on pre-Christian Finnic personal names. Village names based on Christian anthroponyms are much more prevalent.

All in all, it is difficult to give any exact estimation of the decade or century when pre-Christian Finnic personal names disappeared. Areal and temporal differences must have been considerable. It is noteworthy that the transition from pre-Christian Finnic personal names to Christian ones was not an ordinary change. It is, by far, the most significant development that the Finnic naming conventions have faced in the last millennium. Medieval documents from the area of contemporary Estonia indicate that in the 14th and 15th centuries still more than half of the personal names attested in the records can be considered pre-Christian, whereas documents from the first half of the 16th century indicate that the percentage had dropped to 20–25 (Roos 1976: 106). In view of this, the first assumption is that the use of pre-Christian Finnic personal names was in decline during the 15th and 16th centuries. The second conclusion is that the change seems to have occurred rather quickly: within one century. These lines of thought could be applied to the southern more densely inhabited areas in medieval Finland and Northwest Russia, whereas in the more remote and sparsely populated regions changes probably occurred a bit later and more slowly. It is also good to remember that the adaptation of Christian anthroponymy did not mean that the names or the associated name system would have become stagnant. Anthroponymic systems are constantly changing as is known in onomastics (Ainiala et al. 2012: 136; Bramwell 2016).

Another relevant question is why Christian names superseded the pre-Christian Finnic ones. In light of above, the question could be refined to how Christian anthroponymy gained prestige over the pre-Christian one. The change that the Finnic personal name system went through during the Middle Ages was of such a magnitude that it would not have happened without significant changes in the extralinguistic environment (cf. Salway 1994: 144; see also section 3.3.1.). Next, I present a summary of different factors that helped Christian names to supersede the pre-Christian Finnic ones. This summary is mainly based on Article II that discusses the reasons for the disappearance of pre-Christian Finnic female names.

First of all, it must be emphasised that the decline of pre-Christian Finnic female names is not completely comparable to the one of male names. As demonstrated in Article II, medieval records contain only a few names that can be considered pre-Christian Finnic female names. Thus, the disappearance of female names seems to have been a lot more complete and faster than the decline of pre-Christian male names. There are several factors that can explain the difference. One of them is that pre-Christian name elements mostly occur in bynames, patronyms, family names and settlement names, which were almost always based on male names.

Despite the differences in the decline of male and female names, the same key factors were responsible for changes in naming conventions. First of all, pre-Christian names were being superseded by Christian ones outside the area of the Finnic tribes as well. It was a universal phenomenon in Europe during

the Middle Ages (Ainiala et al. 2012: 148–151; Dahlbäck 1997; Dybdahl 2008). The leaders of tribes adjacent to Finnic groups, namely Scandinavians and northern Slavs, had accepted Christianity as their major religion in the form of Catholicism in the West, and Orthodoxy in the East (Franklin 2006; Krag 2003; Lindkvist 2003; Shepard 2006; Skovgaard-Petersen 2003). By the end of 11th century many of the leading nobles in Russia (= Kievan Rus') already had Christian names (Dimnik 2006; Franklin 2006). In medieval Sweden, pre-Christian names lasted longer, but some Christian names are also attested among the leading local nobles before the end of 12th century (e.g. *Filip* and *Johan*) (Lindkvist 2003). Interestingly, in both, East and West, names of female nobles seem to have changed rather quickly from pre-Christian to Christian ones (the above-mentioned sources). Southern parts of the study area, namely modern Estonia, were under the rule of different ecclesial or secular powers, most of which were of German origin (Zetterberg 2007: 79–129). Most of the knights and priests, who took part in the conquest of Livonia during the 12th and 13th centuries had names of non-Christian origin (Livonian Chronicle of Henry = Kahlos et al. 2003; Selart 2015).

The number of preserved records from 12th to 14th century is so low that nothing certain can be said on how Christian names entered and became established in the study area. We can, however, assume that the common people of the northeastern Baltic Sea area were not likely to have adopted Christian names before two factors occurred: first, the local ecclesial structures gained a strong foothold, and second, the local nobility had shown an example by adopting Christian names to their own use. It is known that in continental Europe, the nobility and bourgeoisie were the first to adapt new naming conventions (Ainiala et al. 2012: 151). Related to this, it has been assumed that in Sweden the local nobility was the first to adopt Christianity, after which their practices spread downwards in society (Nilsson 1996; Sanmark 2004).

Although regional differences were significant it can be assumed that Christianity did not establish its position anywhere in the northeastern Baltic Sea area before the turn of the second millennium. This assertion can be verified through historical and archaeological sources. For example, the remains of the oldest church of Finland are dated to late 12th century, whereas the first supposed bishop of Finland, Henry, died according to the legend in 1156. The first bishop of Estonia was appointed in 1165, but it is likely that he never even visited Estonia (Kurisoo and Jonuks 2013: 90).

Local chiefs, elders and priests were probably trend-setters in the northeastern Baltic Sea area as well. There is, however, one major difference in the role of these persons of importance between the study area and adjacent regions, for example, central Sweden. In Sweden and in Kievan Rus' the conversion to Christianity was a result of a more internal development (Franklin 2006; Nilsson 1996: 433–437; Shepard 2006), whereas most of the Finnic tribes were converted with the help of foreign forces and influences

(Southern Finland: Raninen and Wessman 2015: 338–359; Estonia: Selart 2015: 61–126). It seems that the Christianization of eastern Finnic tribes such as Izhorians, Karelians, Veps and Votes was more gradual than of those located in the West (cf. Shepherd 2005: regarding the Christianization in Karelia). On the other hand, Russian Chronicles show many indications of Russian principalities attacking the areas of above-mentioned Finnic tribes and forcing them to accept Christianity (e.g. Novgorod First Chronicle: Forbes and Michell 1914). Furthermore, it is evident that eastern Finnic tribes embraced Orthodoxy in its East Slavic form and followed the same customs and principles that were in use within the lands of contemporary Kievan Rus'. This is seen in the personal names of the late 15th century Finnic inhabitants of Novgorod, of which the majority are Russian, as indicated in Article V. In western Finland, most of the Christian personal names were adopted in vernacular use through their Swedish forms (e.g. *Johan* > *Juhani*; *Mikael* > *Mikko* (USNK s.v. Juhani, Mikko)).

There is little information regarding the role of Church and clergy in the adaptation of Christian anthroponymy in the northeastern Baltic Sea area. Needless to say, as the new names were mostly connected to Christianity, it is very likely that local ecclesial institutions had a major influence on this transition. At least in medieval Finland, the Church seemed to have influenced the naming conventions as the majority of the most popular Christian female names were also names of saints well-known in Scandinavia. Furthermore, the Swedish Church was keen to promote local saints (e.g. Saint Birgitta), which probably had significant influence on the popularity of names (see Article II). Also the Archdiocese of Turku (~ Åbo, subordinate to the Swedish Church) promoted its own saint, Bishop Henry, and accordingly, 16th century documentation indicates that names derived from the same root as *Henry* (e.g. *Henrik*, *Hinza* etc.) were popular in the eastern part of the Swedish Realm (~ western Finland) (Fredriksson 1974).

In conclusion, all the most densely populated places within the study area not only became part of Christianity but were simultaneously subjugated by the adjacent foreign powers, namely by the Danes, Germans, Russians, and Swedes. By the end of the 14th century, most of the study area was basically under the rule of either the Catholic or Orthodox Churches, which, in turn, were supported by foreign powers and, more importantly, often by local nobility of foreign origin. In addition to this, both ecclesiastical and secular administrations were conducted in foreign languages. Finnic languages continued to be spoken in lower social classes.

As a result, Finnic societies must have been in serious turmoil from the 12th to 14th century, which affected the local traditions and customs. Personal names were one of the aspects of Finnic culture that were open to new influence. It is unsurprising that pre-Christian Finnic personal names lost their prestige and were rather quickly and thoroughly superseded by Christian

names as the main items used for referring to an individual. In other words, during the first centuries after the turn of the millennium, Finnic regions were fertile ground for the pan-European development of replacing pre-Christian names with Christian ones.

3.4.1 EARLY CHRISTIAN ANTHROPONYMY OF FINNIC PEOPLES

Christian anthroponymy among the medieval Finnic speakers is a topic addressed shortly in Article I, and more thoroughly in Articles II and V. Of the latter two, the first one focuses on female names, and mostly on those that are found in sources dealing with the western parts of Finland, whereas the second one deals with names that are attested in late 15th century Russian census records. Based on these publications, the following chapters provide an analysis of Christian names of medieval Baltic-Finns.

The main difference in the distribution of Christian names among the Finnic was caused by religion: Catholicism and Orthodoxy. Within the same subbranch of Christianity, regional differences were meagre. The amount of variation continues to decrease when different areas belonging to the same political entity are compared to one another. For example, in the Realm of Sweden, the same Christian name elements (here expression *same ones* referring to names that originate from a common root, e.g. *John, Johan Jöns, Jussi* etc.) were popular in both Finland and Sweden in the mid-16th century (Fredriksson 1974). Similarities are even more evident when medieval female names from the areas of Finland and Sweden are compared with each other (Article II). In contrast, belonging to different political entities seems to have produced differences in the use of Christian names. This is evident when comparing the most popular medieval female names from Finland and Estonia to each other. The names within the top ten listings of Finland and Estonia are essentially the same, but there are differences in their popularity (Article II).

Regional variation in the distribution of personal names is, nonetheless, a topic that has not really been studied from a perspective of medieval personal names. Thus, Article V, where digital methods are utilized for investigating regional differences in medieval naming conventions, provides completely new information on this subject. More precisely, Article V focuses on studying regional differences in the use of personal names attested in the census book of Vodskaja pjatina, one of the five administrative areas of late 15th century Novgorod. The majority of the collected names are of Christian (~ Orthodox) origin. Finnic names make up approximately two per cent of all the names. Nevertheless, the results obtained imply that the study area can be divided into different groups based on personal name usage. One such group is located in the Karelian Isthmus and along the shores of Lake Ladoga. It is likely that this region was mostly inhabited by Karelians. The outcome is interesting since the area contains only a few dozen pre-Christian Finnic personal names, which could have had only a meagre influence on the results. In other words, the

clustering results indicate that Karelians used Christian names differently than the other inhabitants of Vodskaja pjatina.

Article V also indicates that the naming conventions followed by villagers were less heterogeneous than those of town-dwellers. This implies that towns had an important role in introducing new names for a wider audience and supports the assertion presented in section 3.3.3, according to which so-called innovation centres had significant impact in the expansion of pre-Christian Finnic names and name system.

The semantics and morphological features of the Christian names used by Baltic-Finns are shortly discussed in section 3.1.1. and 3.1.2. The question of how Finnic speakers adapted Christian names morphologically into their personal name system is difficult to answer because medieval records were written in non-Finnic languages. As discussed in section 1.6.2., medieval scribes were adapting the vernacular forms of Finnic personal names to fit with their traditions. Thus, medieval records only rarely are suitable for studying Finnic features in Christian names. This applies especially to female names, and as claimed in Article II, there are no signs of Finnish (nor Finnic) forms of female names within the studied medieval records.

Despite the problems, records compiled by foreign administrations are not worthless in studying the morphology of Christian names. Medieval documents indicate, as already noticed in section 3.1.1., that the same suffixes were attached to Christian names that were used in the endings of pre-Christian names: e.g. *Tavoi-la* < Swed. *Staffan* + *-oi*, *Jukkala* < Swed. *Johan* + *-kka* and *Ermuj* (Ермуј) < Russ. *Ermolaj* + *-uj* (*-oi*). Furthermore, recorded village names often reflect the actual spelling of a name. This is evident in Article I, where the results indicate in how many ways Christian names were used in vernacular Finnish.

4 CONCLUSIONS

This study has presented various observations, arguments and conclusions regarding personal names used by Baltic-Finns during the Middle Ages. The following section summarizes the results in two parts. The first part presents the conclusions on Finnic personal names and naming system. The second part discusses the history of the northeastern Baltic Sea area in light of the results of the present study.

4.1 CONCLUSIONS ON PERSONAL NAMES OF MEDIEVAL BALTIC-FINNS

The present study confirms many of the results and assumptions that D.E. Stoebke made in his dissertation regarding Finnic personal names but also sheds light on many aspects that were not previously investigated. While Stoebke's study focuses on the supposed pre-Christian personal names attested in the western half of the medieval Finnic sphere, namely Estonia, Livonia and western Finland, this work additionally includes the names of the eastern half (eastern Finland, Karelia, Ingria and other areas in contemporary Northwest Russia). Furthermore, unlike Stoebke, the present work focuses on the sociohistorical reasons behind the spread and disappearance of pre-Christian Finnic personal names and the emergence of Christian names.

The distribution of the names investigated in this study depicts how huge the sphere of pre-Christian Finnic personal names had been: from the western coastal areas of Latvia to the shores of the White Sea as seen in Maps 4, 5 and 6. They occur mostly in coastal areas of the Gulf of Finland and in contemporary Western Estonia and Western Latvia.

Of the 20–30 pre-Christian name lexemes that the present work has focused on, the most popular are *Iha*, *Kirja*, *Lempi*, *Mieli*, *Toivo* and *Vilja*. *Iha* and *Lempi* are clearly the top two whereas the others are closer to each other in popularity. These six name elements do not have significant differences in distribution but there are others like *Kauko*, the usage of which was seemingly concentrated in southwestern Finland and *Nousia*, which is found only in Finland and Northwest Russia.

It is good to remember that the present study is focused merely on those name lexemes that were popular and had a wide distribution. Outside these 20–30 elements, there might be hundreds of names that could be considered pre-Christian Finnic. Their thorough investigation might indicate that different corners of the medieval Finnic sphere had quite a diversity in the use pre-Christian names.

It is also evident that naming conventions differed locally among the Baltic-Finns in the Middle Ages. In vernacular use, official main names had various variants formed by different suffixes and phonetic features: e.g. names attested in old documents like *Henrik* and *Hinza* had in vernacular Finnish forms such as *Heikki*, *Henri*, *Henttu*, *Hinkka* and *Hintta*. Moreover, the use of bynames was abundant and diverse. These secondary names were used for referring to a person's father (*Ywanpoijke* 'son of Ivan'), place of origin (*Fedko Mikiforik Serdovoleč*, a person from Serdovol, Finn. Sortavala), current location of residence (*Cecilia de Sarkola* 'Cecilia from Sarkola'), clan or family (e.g. *Suurpää*) or ethnic group (*Ižerjanin*, 'Izhorian'). Bynames referring to physical appearance (e.g. *Suurpää* Finn. 'big head') or characteristics (e.g. *Hullu* Finn. 'crazy') were also popular.

It can be concluded that the main purposes of Finnic personal names were identification and grouping. In the Middle Ages, name variants and bynames were often needed to differentiate persons from one another, since locally many shared the same main names. For example, the four most popular female names in medieval Finland covered approximately 55 percent of all the women named in sources.

It is also evident that the use of name variants and bynames depended on the situation. For example, Russian scribes used diminutive forms of names (e.g. *Ivaško* and *Lembitko*) to denote a person's lower social class. In local usage, it was enough to call a person by his or her main name but in wider circles bynames were needed for identification. Given names were usually bestowed by the parents whereas the descriptive bynames were often given by other people living within the same community.

On the other hand, this study indicates that the Finnic personal names were not used only for identification, but they also had a social function. Names provided people with a social identity and indicated which group they belonged to. A name could refer to many social groups simultaneously. Pre-Christian Finnic personal names, for example, indicate their users' being part of the Finnic cultural sphere. The above-mentioned *Lembitko* implies that the person is a Baltic-Finn and from a lower social class as the name is presented in diminutive form. Names related to Catholicism or Orthodoxy implied to which religious group their bearers belonged.

The present work confirms Stoebke's views on the morphology of pre-Christian Finnic personal names. Lexical elements of pre-Christian personal names could stand as a name alone (e.g. *Lempi*), suffixes could be added after them (*Lempoï*) or they could be merged with another name lexeme (*Ihalempi*). It seems that regional differences were substantial in the use of different types of pre-Christian Finnic personal names. For example, in medieval Livonia, two-part names were popular among the Baltic-Finns, whereas, in the eastern parts of the study area, they were almost extinct. Nevertheless, it can be claimed that names with a suffix seem to have been the most prevalent during

the Middle Ages. Interestingly, many of the same suffixes that are attested among pre-Christian names were also used with names of Christian origin (at least among the Baltic-Finns in Finland and Northwest Russia) (e.g. *Antuj* < Russ. *Andrej* + Finnic personal name suffix *-oi/-ui*). This is an indication of a pre-Christian Finnic name system having influence on the adaption of new names.

From a present-day perspective, it is difficult to make conclusions about the semantics of pre-Christian Finnic personal names, but it seems that at least the most common name lexemes referred to rather peaceful virtues: e.g. *Iha* ('lovely, delightful, charming'), *Lempi*, ('love, favorite'), *Toivo* ('hope, wish') and *Vilja* ('plenty, much'). It follows that the pre-Christian Finnic personal names seem to be semantically quite different from the most common pre-Christian names of Germans, Scandinavians and Slavs that are more connected to attributes like power, war and wealth.

Attributes used within pre-Christian Finnic names were connected to the hopes and wishes of the name givers, but family traditions had a significant impact on the name bestowing as well. The exact relation between these two naming motivations will remain unsolved due to the lack of sources. Christian names were probably bestowed on the same basis as the pre-Christian ones. It is obvious that family traditions were still an important factor in name giving. The most significant difference was that the Christian names were semantically opaque to the Baltic-Finns. Despite this, the hopes and wishes of the name givers could affect the choosing of a name. Former bearers of a name were important role models, who had a significant influence on a name's appreciation within the community. For example, in medieval Finland, the most common female names were names of famous saints or royals. It is likely that at least some of the name givers wished that their newly born child would have the same attributes as the famous former bearers of the name.

It is difficult to estimate when pre-Christian Finnic personal names or related naming conventions had emerged. Evidence based on names attested among Germanic tribes (Förstemann 1856) imply that many aspects of the Germanic naming culture were preserved for over a millennium (e.g. certain name lexemes and two-part names). On the other hand, the same Germanic material as well as examples derived from Ancient Roman anthroponymy (Salway 1994) indicate that names and their usage were constantly changing and evolving. As it is known in onomastics, personal names are borrowed more readily than other elements of a language (Ainiala et al. 2012: 136; Van Hout and Muysken 1994: 60). The relatively quick spread of Christian names throughout the northeastern Baltic Sea area is an example of this.

To conclude, there are many reasons to be cautious towards the idea that those pre-Christian Finnic personal names investigated in the present study would derive from the era before the diversification of Proto-Finnic (circa 0–

200 AD). However, this does not mean that singular names could not have been introduced already at the beginning of the Common Era. Furthermore, the previous claim concerns personal names only. It is completely possible that many key features of the pre-Christian Finnic personal name system (e.g. two-part names, personal name suffixes and phonetic adaptation of new names) would derive from Proto-Finnic times. As the name system is a more integral part of the language than singular names or name lexemes, it is likely that it is also more resilient against drastic changes.

In view of the above, it is possible to assume that the spread of a pre-Christian Finnic name system would be linked to the expansion of Finnic culture and languages. Even though this connection were to be seen as fact, origins of pre-Christian Finnic name system would remain obscure as it is difficult to claim anything certain about the origins of Finnic culture and languages. There are, however, some assumptions that can be made based on the current academic knowledge regarding the origins and spread of Finnic cultures and languages (mainly based on Lang 2020).

First of all, there are reasons to believe that northern Estonia was the key location, where many “Finnic” innovations were created and distributed towards the places that allegedly were Finnic before the turn of the second millennium AD. The close connections between northern Estonia and southwestern Finland during the Iron Age could explain how Finnic cultural and linguistic impacts probably together with the pre-Christian Finnic personal name system spread across the Gulf of Finland. Southwestern Finland together with the Tavastia region had, in turn, evident connection with the northern Karelian Isthmus and western coast of Lake Ladoga. The Karelian tribe became a significant power in the eastern Gulf of Finland area by the end of the 11th century. Karelians were active in all directions near their core region, but their influence is obvious even in locations such as the Gulf of Bothnia or the shores of the Bering Sea. The Tavastians were active in the same regions as well. The Karelians, however, spread their influence further into the east and had contacts with the Veps, who were active far in the east, around Lake Beloye, for example. The emergence of Izhorians in the Neva River region is linked to Karelians as well. In the Middle Ages, Izhorians were bordered in the west by Votes, who, in turn, had connections with northern Estonians during the first millennium AD.

Northern Estonia was closely linked with other parts of Estonia and northern Latvia during the first centuries of the Common Era. The best examples of this connection are the so-called typical tarand graves that most likely originated from northern Estonia. Western coast of Latvia, particularly Courland, received its Finnic influence mostly through the island of Saaremaa.

The description above would explain how the pre-Christian personal name system had spread to the regions where it was attested during the Middle Ages. It must be emphasised that this proposal is only speculative as there is not

enough indisputable information regarding the origins of Finnic cultures and languages and even less concerning the origins of the pre-Christian Finnic name system.

Despite the origins of the pre-Christian Finnic personal names (and name system) remaining unsolved, we can assume that the spread of these naming conventions was connected to the prestige they had among the inhabitants of the northeastern Baltic Sea area. It is likely that those societies that spread Finnic naming conventions during the Iron Age had economic advantages and possibly military strength. Thus, Finnic names represented something worth pursuing. Besides the afore-described cultural diffusion, it is obvious that the names and the system related to them spread together with the settlers who had already adapted the Finnic culture. Forced adoption of the new ways among the inhabitants of the northeastern Baltic Sea area cannot be ruled out either. However, this seems unlikely as there were no strong or sufficiently developed political powers within the sphere of prehistoric Baltic-Finns that could have controlled larger areas unanimously.

It should be noted that the medieval distribution of pre-Christian Finnic personal names does not mean that all these regions were ethnically or linguistically completely Finnic nor that they all had adapted the pre-Christian Finnic name system as a whole. It rather signifies which areas belonged to the Finnic cultural sphere during the Middle Ages. 16th century records indicate that Sámi had pre-Christian Finnic personal names although they are not linguistically Finnic and followed an in many ways different lifestyle than their southern neighbours. This example proves that adaptation of new names did not necessarily mean a change of lifestyle. The spread of Christian terminology throughout the Finnic areas at the turn of the second millennium is another relevant example as it indicates that certain linguistic or cultural innovations can affect wider regions without significant archaeological evidence of it.²²

It is obvious that Baltic-Finns had connections with Balts, Scandinavians and Slavs during the Iron Age. One could assume that the Finnic personal name system was influenced by these foreign contacts. It is possible that morphological aspects of pre-Christian Finnic personal names were affected, but semantically Finnic names differ from the names attested among adjacent tribes as already noticed. Scandinavians might have had an impact on the spread of pre-Christian Finnic personal name system from west to east since contacts between western (namely northern Estonia and southwestern Finland) and eastern parts of the study area intensified at the same time when Norsemen started to be active around the Russian river systems.

²² However, one could argue that the coin hoards containing Arabic dirhams from the end of first millennium AD and found in many places around the northeastern Baltic Sea area are significant evidence of contacts from the East that affected many places around the northeastern Baltic Sea area (Talvio 1982).

The era of pre-Christian Finnic personal names came to an end when Christian and other foreign names arrived and superseded the old ones. As noted earlier, the demise of pre-Christian names did not mean that the whole personal name system would have changed. Thus, Baltic-Finns adapted the new names in accordance with their local systems (e.g. used the same suffixes as with pre-Christian names). The transition from old names to new ones varied temporally and geographically and progressed gradually. On the other hand, examples from Estonia imply that the usage of pre-Christian names declined rather quickly in the 15th century. There are many ways to explain why and how Christian names gained popularity. The most logical answer is that foreign naming conventions had prestige over the old ones. The northeastern Baltic Sea area was in turmoil at the beginning of the past millennium. Foreign powers subjugated most of the territory, and old tribal societies began to collapse. Furthermore, at the same time, the dismissal of old pagan names and replacement of them with Christian ones was already a trend in Christianized European countries. In conclusion, Baltic-Finns were in a situation, where their old society was changing rapidly and thus, they were prone to accept new ways of naming when they were introduced by local secular and ecclesiastical leaders.

4.2 CONCLUSIONS ON THE PAST OF BALTIC-FINNS IN THE LIGHT OF MEDIEVAL FINNIC PERSONAL NAMES

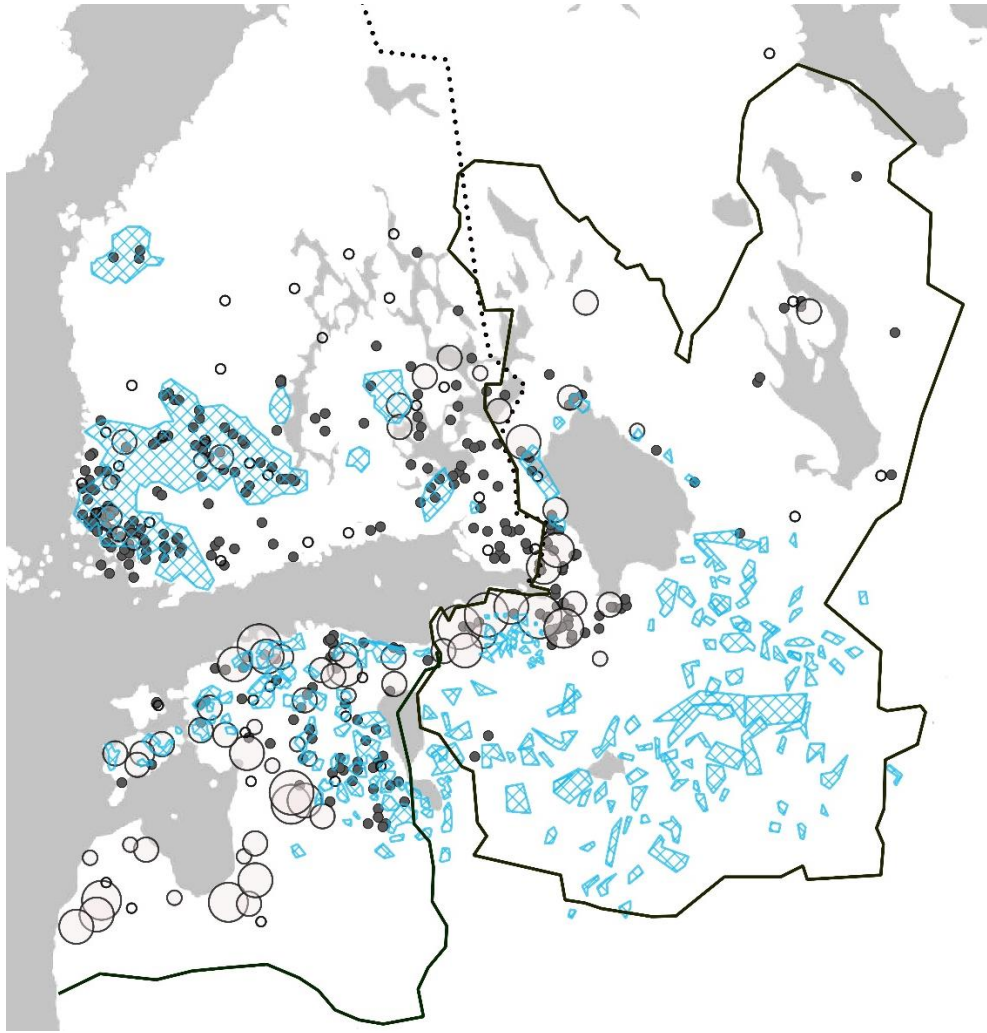
In the present section, the past of Baltic-Finns is analysed in the light of the results of this work. The aim is to answer the two following questions: 1. Are there any aspects in the previous studies regarding the past of Baltic-Finns and Finnic languages that would not be in line with the present publication? 2. What new information does this study provide regarding the past of Baltic-Finns and Finnic languages? The results of the present work are mostly compared with the recently published study by Valter Lang (2020). It is a suitable reference for comparison since it is the most up-to-date research of the history of Baltic-Finns. The value of the comparison is also raised by the fact that the study field of onomastics is almost completely omitted in Lang's study.

To start with, it is notable that pre-Christian Finnic personal names are mostly found in locations, where Late Iron Age settlement (c. 1000 AD) occur. This connection is visualized below (Map 7). The depiction of a settlement is based on the archaeological data collected for Article IV.²³ For the purpose of

²³ The archaeological data collected considers contemporary territories of Estonia, Finland and Northwest Russia. Latvia was excluded.

having the map visually comprehensible, the depiction of the Iron Age settlement is simplified: major settlement areas are shown and singular locations excluded. Sources used to compile the map are described in Article IV in more detail. An exception is the depiction of the settlement in contemporary Finland as it is now derived from Wessman (2010: 32, Fig. 19, map drawn by Wesa Perttola) unlike in Article IV.

The alleged settlement zones are marked by blue diagonal x-bracings. Map 7 also displays the distribution of pre-Christian Finnic personal names based on Maps 4 and 5. Circles with dark grey fill depict the village names based on pre-Christian personal names and those with transparent fill depict the occurrences of explicit personal names. The size of the circle correlates with the number of explicit personal name attestations within the place in question. Furthermore, it must be emphasised that the depiction displayed in Map 7 is only indicative. Compiling archaeological information from such a vast area produces various problems: some areas studied more than others, findings are dated irregularly and so on.



Map 7 Pre-Christian Finnic personal names (as circles: dark grey ones denote village names and white ones personal names) and major settlement concentrations from the Late Iron Age (blue diagonal x-bracings) (Latvia excluded) (map drawn by the author) (Base map: Stamen Toner Background).

It is likely that areas, where pre-Christian personal names and Late Iron Age settlements overlap in Map 7, were ethnically Finnic at the turn of the first millennium. This line of thought is mainly in agreement with Lang's perception of the core areas of Finnic culture (2020: 235–237). Settlements and pre-Christian Finnic personal names are evenly spread around the Gulf of Finland with the exception of three areas. The first of them is located at the northern side of the gulf and consists of regions of Uusimaa and Kymenlaakso. As one may notice, this area is almost empty of both: names and settlements. Reasons for this are pondered in section 3.2.2. but no obvious explanation exists.

The southern Karelian Isthmus and Ingria are other striking areas. Occurrences of pre-Christian Finnic personal names are numerous in both places, but archaeological evidence of the Late Iron Age settlement is weak. Again, it is difficult to claim anything definite about this phenomenon but one

of the possible conclusions is that these two areas became Finnic only after the turn of the millennium. This theory would be in line with Lang's (2020: 227) perception regarding the origins of Izhorians inhabiting the eastern parts of Ingria as he claims that they emerged as their own distinct ethnicity rather late (through Karelian influence). It is likely that in the southern parts of the Karelian Isthmus the development was similar to that in Eastern Ingria.

Lang (221–224) does not suggest that there would have been similar late development in Western Ingria (allegedly inhabited by Votes) despite acknowledging the scarcity of Iron Age archeological evidence. As indicated in Article V, according to the late 15th century Russian census book, many ethnonyms referring to the *Chudes* are attested in the western parts of Ingria. Chudes mentioned in older Russian sources are, in turn, often connected to inhabitants of contemporary Estonia (Grünthal 1997: 150–160). A rather late wave of Estonian influence on Western Ingria could explain the obvious closeness between the Votic and Northern Estonian language variants (Kallio 2014: 162). Needless to say, this topic would need more in-depth research.

The three eastern locations discussed above are not the only areas, where pre-Christian Finnic personal names seem to occur without signs of Late Iron Age settlement. It is likely that many of these areas became ethnically Finnic after the beginning of the second millennium. This applies especially to those more peripheral locations such as southwestern parts of Estonia, Central and Eastern Finland and areas northwest from Ladoga. The spread of Finnic settlements to more remote areas can be explained by population growth as suggested by (Grünthal 2020: 9–11). In the eastern parts of the study area, settlements also expanded because of new developments in slash-and-burn cultivation (*ibid.*)

All in all, the distribution of pre-Christian Finnic personal names indicates where the related naming conventions often together other aspects of Finnic culture had spread before Christian names cemented their position. Obviously, this process varied depending on the location but in the case of southwestern Finland for example it is safe to assume that pre-Christian names were no longer used actively at the end of 14th century. Accordingly, the results of the present study can be used to shed light on ethnic and linguistic developments within specific areas. One can notice for instance that the plateau of Izhora, famous for its good agricultural land (e.g. Toikka-Karvonen 1990: 168), was densely inhabited at the end of the Iron Age but completely without any signs of pre-Christian Finnic personal names. This is a strong argument for the perception, according to which the Izhora plateau was already Slavicized at the turn of the second millennium (e.g. Рябинин 1997: 27, 55). Thus, maps depicting the ethnic situation at the end of the first millennium such as those compiled by Lang (2020: 226) and Frog & Saarikivi (2015: 61) are to be viewed critically since they include Izhora Uplands in the sphere of Baltic-Finns c. 1000 AD.

On the other hand, the present study also indicates that personal names of medieval sources do not always depict people's ethnicity or mother tongue. As noticed in Article II, most popular female names were the same in Finland and in Sweden in the Middle Ages. Article V, in turn, shows that only two per cent of personal names (c. 36 000 names) attested in the census book of Vodskaja pjtina at the end of 15th century originated from the pre-Christian Finnic name lexemes studied. Even in the central and northern regions where the presence of Baltic-Finns was allegedly stronger, these names do not cover more than seven per cent of all the names in any parish (*pogost*). Article V also indicates that, based on the results obtained by clustering procedures, southern (allegedly already Slavic) and northern (allegedly having strong Finnic presence still) parts of Vodskaja had differences in naming conventions. From this, it can be concluded that even when anthroponymy was changed from pre-Christian Finnic to Christian based, regional variation did not cease to exist and on some occasions regional similarities in naming conventions can be connected to the spread of certain Finnic ethnicity.

Names analysed in the present study also shed light on different social aspects of medieval Baltic-Finns and other inhabitants in the northeastern Baltic Sea area. The discussion above showed that names do not always indicate a person's ethnicity. Accordingly, it can be concluded that medieval Baltic-Finns did not consider personal names as the most critical part of their identity. Naming conventions could change while many other aspects of ethnicity and identity such as livelihoods and language remain. The present study also includes some examples of persons having two main names: Christian and pre-Christian ones. It is likely that this kind of situation occurred during the intermediate period when Christian names were being introduced.

Medieval personal names also provide a view into medieval mentalities and ideologies. Article I shows that village names based on personal names from southern Finland contained attributes like *hullu* 'crazy', *karva(inen)* 'hairy', *kurittu* 'left handed; cursed', *kouvo* 'ghost; bear, wolf' and *repo* 'fox'. Since these attributes have ended up in village names, they were commonly used among the local inhabitants. Names that seem "barbaric" from a present-day perspective were not unusual in Europe. Similar bynames were used in medieval Bavaria for example (Kohlheim and Kohlheim 2021).

Personal names of medieval Baltic-Finns can contribute a lot more to the study of an ancient Finnic world view. For example, many of the pre-Christian Finnic personal names are attested in Finnic folklore and mythology (e.g. in the Finnish/Karelian epic poetry *Kalevala*). It is possible that the use of pre-Christian Finnic personal names was motivated not only by the semantic meaning of the name lexeme(s) or family traditions. Another possible motivation for name bestowing was the image of the name bearer in local folklore and mythology.

Furthermore, the present study reveals how manifold and turbulent the history of the northeastern Baltic Sea area has been. For example, personal names and ethnonyms analysed in Article V highlight the multi-ethnic character of medieval Vodskaja pjatina. According to some studies (e.g. Frog and Saarikivi 2015: 89; Lang 2020: 226), the Neva River region has been seen as a transition area between Karelian and Izhorian cultures, but the results of Article V show how naming conventions around the Neva River differed from that of the neighbouring Finnic areas and has a closer resemblance to those found near the city of Novgorod. This outcome reinforces the thought of the areas along the Neva River being settled by reliable noblemen, soldiers and peasants from more central areas of Russia in order to secure the passage to the Baltic Sea (cf. Kepsu 2015a: 15; Martin 2007b).

The results of the present study can also be compared to modern genetic studies. First of all, it is evident that there is no specific gene or gene type that could be characteristic for Baltic-Finns. Better yet, the results are to the contrary: Finnic groups seem to be genetically most similar to their geographical neighbours regardless of their ethnicity (Tambets et al. 2018). Thus, the conclusion must be that the bearers of pre-Christian Finnic personal names did not form a genetically distinct group. This assumption reinforces that line of thought, according to which diffusion of naming conventions can occur without significant migrations.

Based on 20th century language data linguists have assumed that at the turn of the second millennium Izhorian and Votic languages presented different branches of Finnic languages, the first belonging to “Ladoga-group” and being closely related to Karelian, whereas the other being closely related to North Estonian (Lang 2020: 223–226). While this might be true, the fact is that the southern coast of Gulf of Finland has taken part in various historical developments after 1000 AD, which all must have had serious impact on the development of the local languages. Furthermore, archaeological data indicate that Ingria (the northern parts especially) has been sparsely populated at the turn of the millennium and thus, it is possible that many signs of pre-Christian Finnic personal names in the area would be a result of later influences from northern Estonia and Karelia.

There is a lot of evidence of inhabitants in the northeastern Baltic Sea area having changed their personal names, language and ethnicity during the past millennium. Thus, one can claim that while historical linguistics suite for outlining the major developments of Finnic languages and cultures, it is not the most suitable method for analysing the past and developments of Baltic-Finns in more fine-grained level or at certain point in the past centuries. The present study has shown that ancient written sources are suitable for shedding light on many aspects of history. Obviously, medieval documents have their own shortcomings, but nevertheless they provide a view straight into the

Middle Ages without having to consider all the turmoil that happened between the present and the past.

Sources analysed in the present work are only a minor part of all the possible ones that could be used to study past developments occurred in the northeastern Baltic Sea area. Personal names and place names still have plenty to offer for future studies. And not only for onomastics but for historical linguistics as well. Names attested in medieval sources contain valuable information of past languages. Personal name *Ičäpov* (Ичяпов, cf. Finn. *Ikäpäivä*), which is attested in Ingria in 1499/1500, proves that the well-known Votic sound change, that is the palatalization of *k* before front vowels, had already occurred by the end of 15th century. From the same region, one can find unique name forms with the letter *š* (Russian *ш*) together with Finnic personal name suffix *-oi/-ui* like *Lešuj*, *Pešuj* and *Tošuj* (Лешуй, Пешуйко, Тошуй). These names could be indications of other Votic specific sound substitutions.²⁴

Furthermore, it must be emphasised that the present study has focused only on small part of all the possible pre-Christian and Christian Finnic personal names. It would be very useful for future research if various kinds of Finnic personal names (pre-Christian main names, bynames, patronyms etc.) together with their locations could be collected in one database. This would allow for the study of the differences in Finnic naming conventions in more depth. For example, it would be intriguing to find out if Eastern and Western Finns, who are genetically relatively distanced from each other (Kerminen 2021: 32), would also differ in their medieval naming conventions.

In conclusion, this study has shown that names can reveal many new aspects of the Finnic peoples' past. Name related studies are even more important in situations where the number of relevant written sources is very low. Furthermore, the present work proves that sources from the Middle Ages and the Early Modern Period have a lot to offer for various scientific disciplines interested in the history of northern Fennoscandia. Lately, studies focused on contemporary anthroponymy or languages have provided many new perspectives on the past of the northeastern Baltic Sea area (e.g. Honkola et al. 2019; Rahkonen 2013; Syrjänen et al. 2016). Studies based on materials from the Middle Ages instead of modern times would provide more insightful and accurate views into the history of Finnic tribes and languages.

²⁴ It seems that this specific sound change or adaption has only occurred in personal names. Toponyms of the area do not contain signs of similar development.

REFERENCES

Literature

- Aikio, Ante 2007. Etymological Nativization of Loanwords: A case study of Saami and Finnish. In Ida Toivonen & Diane Nelson (eds.), *Saami Linguistics. Current issues in linguistic theory*. 17–52.
- Ainiala, Terhi, Minna Saarelma & Paula Sjöblom 2012. *Names in focus : an introduction to Finnish onomastics*. Helsinki: Finnish Literature Society.
- Alanen, Timo 2004. *Someron ja Tammelan vanhin asutusnimistö. Nimistön vakiintumisen aika*. Somero: Amanita.
- Androschuk, Fjodor 2008. The Vikings in the East. In Stefan; Price Brink, Neil (ed.), *The Viking World*. London: Routledge. 514–542.
- Bakken, Kristin 1997. Form and meaning. The basis for name-specific phonological development. In Kaija Mallat & Ritva Liisa Pitkänen (eds.), *You name it: Perspectives on onomastic research*. Helsinki: Finnish Literature Society. 21–30.
- Bauer, Albert 1933. Die Wartgutsteuerliste der komturei Goldingen. In, *Die Burgsuchungen in Kurland und Livland vom 13.-16. Jahrhundert* (Mitteilungen aus der livländischen Geschichte 25). Riga: Bruhns. 109–194.
- Blese, Ernests 1929. *Latviešu personu vārdu un uzvārdu studijas*. Rīgā: Ģenerālkomisijā pie A. Gulbja.
- Blomqvist, Carl Oliver 2017. *Flerspråkighet eller språkförbistring? : finska segment i svenska medeltidsbrev 1350-1526*. Uppsala: Institutionen för nordiska språk, Uppsala universitet. (Doctoral dissertation).
- Bramwell, Ellen S 2016. Personal names and anthropology. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press.
- Brink, Stefan 2016. Transferred Names and Analogy in Name-formation. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press. 158–166.
- Campbell, Lyle 2013. *Historical linguistics*. Edinburgh: Edinburgh University Press.
- CHR = Maureen Perrie (ed.) 2006. *The Cambridge History of Russia. Volume 1, From Early Rus' to 1689* (The Cambridge History of Russia). Cambridge: Cambridge University Press.
- Christiansen, Eric 1997. *The Northern Crusades*, 2nd, new ed. edn. London: Penguin Books.
- CHS = Knut Helle (ed.) 2003. *The Cambridge history of Scandinavia. Volume 1, Prehistory to 1520*. Cambridge: Cambridge University Press.

- Dahlbäck, Göran 1997. När blev Upplands bönder kristna? Ett mentalitetsskifte speglat i personnamnsskicket. In, *KVHAA Årsbok*. Stockholm: Kungl. Vitterhets historie och antikvitetsakademien. 166–179.
- De Grazia, Victoria 2005. *Irresistible empire: America's advance through twentieth-century Europe*. Cambridge Mass.: Belknap Press of Harvard University Press.
- Dimnik, Martin 2006. The Rus' principalities (1125–1246). In Maureen Perrie (ed.), *The Cambridge History of Russia: Volume 1: From Early Rus' to 1689* (The Cambridge History of Russia). Cambridge: Cambridge University Press. 98–126.
- Duczko, Wladyslaw 2004. *Viking Rus: studies on the presence of Scandinavians in Eastern Europe*. Brill.
- Dybdahl, Audun 2008. Navneskikken i Trøndelagsregionen i senmiddelalderen. *Maal og Minne*, 100(2).
- Eskola, Seppo 2020. *Archives, Accounting, and Accountability: Cameral Bookkeeping in Mid-Sixteenth-Century Sweden and the Duchy of Johan (1556–1563)*. Helsingin yliopisto. (Doctoral dissertation).
- Fagyal, Zsuzsanna, Samarth Swarup, Anna Maria Escobar, Les Gasser & Kiran Lakkaraju 2010. Centers, peripheries, and popularity: the emergence of norms in simulated networks of linguistic influence. *University of Pennsylvania Working Papers in Linguistics* 15(2). <https://repository.upenn.edu/pwpl/vol15/iss2/10> (accessed 15 March 2021).
- Forbes, Nevill & Robert Michell 1914. *The chronicle of Novgorod 1016-1471*. London: Royal Historical Society.
- Forsman, A. V. 1891. *Pakanuudenaikainen nimistö : johdanto*. Helsinki: Helsingin yliopisto. (Doctoral dissertation).
- Förstemann, Ernst Wilhelm 1856. *Altdeutsches Namenbuch, Erster Band. Personennamen. Vol. 1*. Nordhausen: F. Förstemann.
- Fought, Carmen 2006. *Language and Ethnicity*. Cambridge, UK: Cambridge University Press.
- Franklin, Simon 2006. Kievan Rus' (1015–1125). In Maureen Perrie (ed.), *The Cambridge History of Russia*. Cambridge: Cambridge University Press. 73–97.
- Fredriksson, Ingvar 1974. *Svenskt dopnamnsskick vid 1500-talets slut*. Lund: Institutionen för nordiska språk.
- Frog, Mr & Janne Saarikivi 2015. De situ linguarum fennicarum aetatis ferreae : Pars I. *RMN Newsletter*, 9. 64–115.
- Gottlund, Carl Axel 1872. *Allmogens uti Savolax och Karelen finska familjenamn : betraktade i historiskt och arkeologiskt afseende*. Helsingfors: Finska Litteratur-sällskapet.

- Grünthal, Riho 1997. *Livvistä liiviin : itämerensuomalaiset etnonyymit*. Helsinki: Suomalais-Ugrilainen Seura, Helsingin yliopisto.
- 2020. The spread zones and contacts of medieval Finnic in the Northeastern Baltic Sea area: Implications for the rate of language change. *Journal of Historical Sociolinguistics*, 6(2).
- Haggrén, Georg 2015. Keskiajan arkeologia. In Georg Haggrén, Petri Halinen, Mika Lavento, Sami Raninen & Anna Wessman (eds.), *Muinaisuutemme jäljet - Suomen esi- ja varhaishistoria kivikaudelta keskiajalle*. Viljandi: Gaudeamus & Helsinki University Press. 367–538.
- Hajdú, Mihály 2002. The history of Onomastics. *Onomastica Uralica*, 2. 7–45.
- Halsall, Guy 2007. *Barbarian Migrations and the Roman West, 376–568*. Cambridge: Cambridge University Press.
- Haspelmath, Martin & Uri Tadmor 2009. *Loanwords in the world's languages: a comparative handbook*. Berlin, New York: Walter de Gruyter.
- Hausen, Greta 1924. *Nylands ortnamn*. Helsingfors: Svenska Litteratursällskapet i Finland.
- Heikkilä, Mikko 2014. *Bidrag till Fennoskandiens språkliga förhistoria i tid och rum*. Helsingfors universitet. (Doctoral dissertation).
- Hiekkänen, Markus 2003. Viipurin lääni: rautakaudesta keskiaikaan. In Matti Saarnisto (ed.), *Viipurin läänin historia I: Karjalan synty*. Lappeenranta: Karjalan kirjapaino. 475–504.
- Honkola, Terhi, Jenni Santaharju, Kaj Syrjänen & Karl Pajusalu 2019. Clustering lexical variation of Finnic languages based on Atlas Linguarum Fennicarum. *Linguistica Uralica*, 55(3). 161–184.
- Hough, Carole (ed.) 2016. *The Oxford handbook of names and naming*. Oxford: Oxford University Press.
- Ianin, V. L. 1997. Novgorod Birchbark Letters. *Anthropology & Archeology of Eurasia*, 35(4). 14–41.
- Itkonen, TI 1942. Suomen-, kuolan- ja ruijanlappalaisten vanhat henkilönnimet. *Virittäjä*, 46. 60–113.
- Jäppinen, Jouni 2014. Rautakymi: Harrastajatutkimuksen tuloksia. *SKAS*, 3–4. 44–50.
- Johansen, Paul 1928. Bruchstücke eines Wakkenbuches der bischöflichen Güter in Wierland, um 1330. *Beiträge zur älteren estnischen Agrargeschichte. Beiträge zur Kunde Estlands*, Bd. XIII(H. 5). 144–157.
- 1937. Bruchstücke des Landbuches der Ordensmeister für Rujen und Helmet. *Beiträge zur Kunde Estlands*, 21. 43–61.
- Junttila, Santeri 2016. *Tiedon kumuloituminen ja trendit lainasanatutkimuksessa: kantasuomen balttilaislainojen tutkimushistoria*. Helsingin yliopisto. (Doctoral dissertation).

- Kahlos, Maijastina, Raija Sarasti-Wilenius & Seppo Zetterberg 2003. *Henrikin Liivinmaan kronikka: Heinrici chronicon Livoniae*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Kallio, Petri 2014. The Diversification of Proto-Finnic. In Joonas Ahola, Frog & Clive Tolley (eds.), *Fibula, fabula, fact: The Viking Age in Finland* (Studia Fennica Historica 18). Helsinki: Finnish Literature Society. 155–170.
- Karlova, Olga 2016. Karjalainen ja vepsäläinen ei-kristillinen henkilönnimikantainen paikannimistö. *Финно-угорская мозаика: сборник статей к юбилею Ирмы Ивановны Муллонен* Петрозаводск: Карельский научный центр РАН. 171–187.
- Kepsu, Kasper 2015a. *Moskovan ja Tukholman välissä : venäläiset pajarit Inkerinmaalla 1478–1722*. Helsinki: Otava.
- Kepsu, Saulo 2005. *Uuteen maahan: Helsingin ja Vantaan vanha asutus ja nimistö*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- 2010. *Inkerin pogostat. Vanha nimistö ja asutus*. Manuscript. Kotimaisten kielten tutkimuskeskus.
- 2015b. Esikristilliset henkilönnimet kylännimissä. In Jüvä Sullöv (ed.), *Õdagumeresuumlaisi nimeq : Läänemeresoomlaste nimed* (Võro instituudi toimõndusõq 30). Võro: Võro Instituut. 127–138.
- 2017. *Varsinais-Suomen kylännimet*. Manuscript.
- 2018. *Kannaksen kylät*. Helsinki: Kotimaisten kielten keskus http://scripta.kotus.fi/www/verkkojulkaisut/julk54/Kannaksen_kylat.pdf (accessed 15 March 2021).
- Kerminen, Sini 2021. *Fine-scale genetic structure and polygenic scores in Finland*. University of Helsinki. (Doctoral dissertation).
- Kiviniemi, Eero 1984. Nimistö Suomen esihistorian tutkimuksen aineistona. *Suomen väestön esihistorialliset juuret*. Tvärminne: Societas Scientiarum Fennica. 327–346.
- Kohlheim, Rosa & Volker Kohlheim 2021. Personal naming customs and the reconstruction of medieval mentalities: The example of Southern Germany. *Onoma*, 55. 99–109.
- Koivulehto, Jorma 2007. Kriittisiä havaintoja paikannimitutkimuksesta. *Sata sanan juurta: Satakunnan vanhaa paikannimistöä. Emil Cedercreutzin museo ja kulttuurikeskus 7.–8.4.2006*. Harjavalta: Satakunnan Historiallinen Seura. 66–81.
- Korpela, Jukka 2002. Finland's Eastern Border after the Treaty of Nöteborg: An Ecclesiastical, Political or Cultural Border? *Journal of Baltic Studies*, 33(4). 384–397.
- Krag, Claus 2003. The early unification of Norway. In Knut Helle (ed.), *The Cambridge History of Scandinavia*. Cambridge: Cambridge University Press. 184–201.

- Kriiska, Aivar & Anders Tvauri 2007. *Viron esihistoria*. Helsinki: Suomalaisen kirjallisuuden Seura.
- Kurisoo, Tuuli & Tõnno Jonuks 2013. To Be or Not to Be... a Christian: Some New Perspectives on Understanding the Christianisation of Estonia. *Folklore*, 55. 69–98.
- Kuzmin, Denis 2014. *Vienan Karjalan asutushistoria nimistön valossa*. Helsinki: Helsingin yliopisto. (Doctoral dissertation).
- Lang, Valter 2018. *Läänemeresoome tulemised = Finnic be-comings*. Tartu: Tartu Ülikooli Kirjastus.
- 2020. *Homo Fennicus : itämerensuomalaisten etnohistoria*, E-book edn. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Lehtinen, Tapani 2007. *Kielen vuosituhat : suomen kielen kehitys kanta-uralista varhaisuomeen*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Leibring, Katharina 2016. Given names in European naming systems. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press. 199–213.
- Lifschitz, Avi 2012. *Language and Enlightenment: The Berlin Debates of the Eighteenth Century*. Oxford: Oxford University Press.
- Lindkvist, Thomas 2003. Kings and provinces in Sweden. In Knut Helle (ed.), *The Cambridge History of Scandinavia*. Cambridge: Cambridge University Press. 221–234.
- Mägi, Marika 2005. On the mutual relationship between late prehistoric Saaremaa and the Livonians. In Sari Mäntylä (ed.), *Rituals and Relations: Studies on the Society and Material Culture of the Baltic Finns*. Helsinki: Academia Scientiarum Fennica. 187–206.
- Mänd, Anu & Marek Tamm 2020. Introduction: Actors and networks in the medieval and early modern Baltic Sea region. In, *Making Livonia: Actors and Networks in the Medieval and Early Modern Baltic Sea Region*. New York & Oxon: Routledge. 1–14.
- Martin, Janet 2007a. *Medieval Russia, 980–1584*. Cambridge, UK: Cambridge University Press.
- 2007b. Two Pomeschchiki From the Novgorod Lands: Their Fates and Fortunes During the Livonian War. *Russian History*, 34(1–4). 239–253.
- Mugurēvičs, Ē. (red.) (ed.) 1993. *Indriķa hronika*. Rīga: Zinātne.
- Nilsson, Bertil 1996. The Christianization in Sweden: concluding reflections. In Bertil Nilsson (ed.), *Kristnandet I Sverige: Gamla Källor Och Nya Perspektiv = The Christianization in Sweden*. Uppsala; Lunne: Projektet Sveriges kristnande / Publikationer, 5. 431–441.
- Nissilä, Viljo 1965. Tutkimus itämerensuomalaisesta henkilönnimistöstä. *Virittäjä*, 69(1). 78–89.

- Noonan, Thomas S 1986. Why the Vikings first came to Russia. *Jahrbücher für Geschichte Osteuropas*, 34(3). 321–348.
- Nyström, Staffan 2016. Names and meaning. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press. 39–51.
- Peterson, Lena 2007. *Nordiskt runnamnslexikon*. Uppsala: Institutet för språk och folkminnen, Uppsala.
- Price, T Douglas, Jüri Peets, Raili Allmäe, Liina Maldre & Neil Price 2020. Human remains, context, and place of origin for the Salme, Estonia, boat burials. *Journal of Anthropological Archaeology*, 58. 101–149.
- Rahkonen, Pauli 2011. Finno-Ugrian hydronyms of the river Volkhov and Luga catchment areas. *Suomalais-Ugrilaisen Seuran Aikakauskirja*, 93(3). 205–266.
- 2013. *South-Eastern contact area of Finnic languages in the light of onomastics*. University of Helsinki. (Doctoral dissertation).
- Raninen, Sami & Anna Wessman 2015. Rautakausi. In Georg Haggren, Petri Halinen, Mika Lavento, Sami Raninen & Anna Wessman (eds.), *Muinaisuutemme jäljet: Suomen esi- ja varhaishistoria kivikaudelta keskiajalle*. Viljandi: Gaudeamus & Helsinki University Press. 215–364.
- Rintala, Päivi 2008. *Ihalasta Ihaviljankorpeen: Iha-vartalo Suomen henkilön- ja paikannimissä*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Ronimus, J. V. 1906. *Novgorodin vatjalaisen viidenneksen verokirja v. 1500 ja Karjalan silloinen asutus*. Joensuu. (Doctoral dissertation).
- Roos, Eduard 1976. Inimene ja loodus Eesti muistses antroponüümikas. In Mart Mäger (ed.), *Keel, mida me uurime*. Tallinn: Valgus. 106–119.
- Saarelma-Maunumaa, Minna 2003. *Edhina Ekogidho-names as links: The encounter between African and European anthroponymic systems among the Ambo people in Namibia*. University of Helsinki. (Doctoral dissertation).
- Saarikivi, Janne 2007. Finnic personal names on Novgorod birch bark documents. In Juhani Nuorluoto (ed.), *Topics on the ethnic, linguistic and cultural making of the Russian North* (Slavica Helsingiensia 32). Helsinki: Department of Slavonic and Baltic Languages and Literatures. 196–246.
- 2017. The spread of Finnic pre-Christian anthroponyms in toponyms. In Terhi Ainiala & Janne Saarikivi (eds.), *Personal name systems in Finnic and beyond* (Uralica Helsingiensia 12). Helsinki: Finno-Ugrian Society. 13–31.
- Saarikivi, Janne & Mika Lavento 2012. Linguistics and archaeology: A critical view of an interdisciplinary approach with reference to the prehistory of northern Scandinavia. In Janne Saarikivi & Charlotte Damm (eds.), *Networks, Interaction and Emerging Identities in Fennoscandia and*

- Beyond. Papers from the conference held in Tromsø, Norway, October 13–16 2009* (Publications of the Finno-Ugrian Society 265). Sastamala: Finno-Ugrian Society. 177–217.
- Saksa, Aleksandr, Pirjo Uino & Markus Hiekkänen 2003. Ristiretkiaika 1100–1300 jKr. In Matti Saarnisto (ed.), *Viipurin läänin historia I: Karjalan synty*. Lappeenranta: Karjalan kirjapaino. 383–474.
- Salway, Benet 1994. What's in a Name? A Survey of Roman Onomastic Practice from c. 700 BC to AD 700. *The Journal of Roman Studies*, 84. 124–145.
- Sanmark, Alexandra 2004. *Power and conversion: a comparative study of Christianization in Scandinavia*. Uppsala: Department of archaeology and ancient history, Uppsala University.
- Schalin, Johan 2018. *Preliterary Scandinavian sound change viewed from the east: Umlaut remodelled and language contact revisited*. University of Helsinki. (Doctoral dissertation).
- Schück, Herman 2003. Sweden under the dynasty of the Folkungs. In Knut Helle (ed.), *The Cambridge History of Scandinavia: Volume 1: Prehistory to 1520* (The Cambridge History of Scandinavia). Cambridge: Cambridge University Press. 392–410.
- Selart, Anti 2015. *Livonia, Rus' and the Baltic Crusades in the thirteenth century*. Leiden & Boston: Brill.
- Shepard, Jonathan 2006. The origins of Rus' (c.900–1015). In Maureen Perrie (ed.), *The Cambridge History of Russia: Volume 1: From Early Rus' to 1689* (The Cambridge History of Russia). Cambridge: Cambridge University Press. 45–72.
- Shepherd, Deborah J 2005. A Brief Survey of Views On Christianization in Karelia. *Russian History*, 32(1–4). 491–511.
- Sjögren, Andreas Johan 1861. *Gesammelte Schriften*. Leiptzig: Zentralantiquariat der Deutschen Demokratischen Republik.
- Skovgaard-Petersen, Inge 2003. The making of the Danish kingdom. In Knut Helle (ed.), *The Cambridge History of Scandinavia: Volume 1: Prehistory to 1520* (The Cambridge History of Scandinavia). Cambridge: Cambridge University Press. 168–183.
- Spirģis, Roberts 2006. Chain Ornaments with Tortoise Brooches as a Source for Interpreting the Origin of the Daugava Livonians in the 10th–13th Century. *Muinasaja teadus*, 18. 227–247.
- Stoebke, Detlef-Eckhard 1964. *Die alten ostseefinnischen Personennamen im Rahmen eines urfinnischen Namensystems*. Hamburg: Leibniz-Verlag.
- Syrjänen, Kaj, Terhi Honkola, Jyri Lehtinen, Antti Leino & Outi Vesakoski 2016. Applying Population Genetic Approaches within Languages: Finnish Dialects as Linguistic Populations. *Language Dynamics and Change*, 6(2). 235–283.

- Talvio, Tuukka 1982. Finland's place in Viking-age relations between Sweden and the Eastern Baltic/Northern Russia: The numismatic evidence. *Journal of Baltic Studies*, 13(3). 245–255.
- Tambets, Kristiina, Bayazit Yunusbayev, Georgi Hudjashov, Anne-Mai Ilumäe, Siiri Roots, Terhi Honkola, Outi Vesakoski, Quentin Atkinson, Pontus Skoglund & Alena Kushniarevich 2018. Genes reveal traces of common recent demographic history for most of the Uralic-speaking populations. *Genome biology* 19. <https://genomebiology.biomedcentral.com/articles/10.1186/s13059-018-1522-1> (accessed 15 March 2021).
- Toikka-Karvonen, Annikki 1990. Inkerin tie itsenäisyystaisteluun. In Pekka Laaksonen & Sirkka-Liisa Mettomäki (eds.), *Inkerin teillä* (Kalevalaseuran vuosikirja 69–70). Helsinki: Suomalaisen Kirjallisuuden Seura. 167–183.
- Tvauri, Anders 2007. Migrants or Natives? The Research History of Long Barrows in Russia and Estonia in the 5th–10th Centuries. In Juhani Nuorluoto (ed.), *Topics on the ethnic, linguistic and cultural making of the Russian North* (Slavica Helsingiensia 32). Helsinki: Department of Slavonic and Baltic Languages and Literatures. 247–285.
- Uino, Pirjo 2003. Viikinkiaika n. 800–1100 jKr. In Matti Saarnisto (ed.), *Viipurin läänin historia I: Karjalan synty*. Lappeenranta: Karjalan kirjapaino. 313–382.
- Vahtola, Jouko 1980. *Tornionjoki- ja Kemijokilaakson asutuksen synty: nimistötieteellinen ja historiallinen tutkimus*. Rovaniemi: Pohjois-Suomen historiallinen yhdistys.
- Valtonen, Taarna 2017. Anthroponyms in the Saami languages. In Terhi Ainiala & Janne Saarikivi (eds.), *Personal name systems in Finnic and beyond* (Uralica Helsingiensia 12). Helsinki: Finno-Ugrian Society. 287–324.
- Van Hout, Roeland & Pieter Muysken 1994. Modeling lexical borrowability. *Language variation and change*, 6(1). 39–62.
- Van Langendonck, Willy & Mark Van de Velde 2016. Names and grammar. In Carole Hough (ed.), *The Oxford Handbook of Names and Naming*. Oxford: Oxford University Press. 17–38.
- Vydrina, Predslava 1997. *Russian Personal Names: Name Frequency in the Novgorod Birch-Bark Letters*. <http://s-gabriel.org/names/predslava/bbl/> (accessed 15 March 2021).
- Wessman, Anna 2010. *Death, destruction and commemoration: tracing ritual activities in Finnish Late Iron Age cemeteries (AD 550–1150)*. Helsinki: The Finnish Antiquarian Society.
- 2016. Women along the river banks: New iron age finds from Espoo. In Janne Harjula, Helamaa Maija, Janne Haarala & Visa Immonen (eds.), *Mankby: A deserted medieval village on the coast of southern Finland*

- (*Archaeologia Medii Aevi Finlandiae* 22). Turku: Suomen Keskiajan Arkeologian Seura. 17–29.
- Yurayong, Chingduang 2020. *Postposed demonstratives in Finnic and North Russian dialects*. Helsingin yliopisto. (Doctoral dissertation).
- Zetterberg, Seppo 2007. *Viron historia*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Зализняк, А.А. 2004. *Древненовгородский диалект*. Москва: Языки славянской культуры.
- Макарова, Анна Андреевна 2018. Личные имена прибалтийско-финского населения в топонимии северо-западного Белозерья. *Вопросы ономастики*, 15(3). 154–170.
- Муллонен, Ирма 2008. *Топонимия Заонежья : словарь с историко-культурными комментариями* Петрозаводск: Российская Академия наук. Карельский научный центр. Институт языка, литературы и истории
- Рябинин, Е. А. 1997. *Финно-угорские племена в составе Древней Руси : к истории славяно-финских этнокультурных связей*. Санкт-Петербург: Изд-во С.-Петербург. ун-та.
- Седов, В.В. 1995. *Славяне в раннем средневековье*. Москва: Издательство: Научно-производственное благотворительное общество "Фонд археологии".
- Соболев, А. И. 2017. Антропонимы прибалтийско-финского происхождения в писцовых книгах Юго-Восточного Обонежья XV–XVI вв. *Вопросы ономастики*, 14(1). 7–34.
- Стасюк, И. В. 2013. Новые находки оружия римского времени и эпохи Мерovingов на северо-западе России. *Stratum plus*, 4. 133–146.
- Чибисов, Б.И. 2019. Этнонимические прозвища жителей Водской пятины в конце XV века: этноисторический аспект. *Novogardia*, 2. 145–159.

Databases, dictionaries and editions of ancient texts

- DF = Diplomatarium Fennicum. <http://df.narc.fi/> (accessed 15 March 2021).
- EES = Eesti etümoloogiasõnaraamat. Metsmägi, Iiris & Sedrik, Meeli & Soosaar, Sven-Erik 2012. *Eesti Keele Instituut*. Tallinn: Eesti Keele Sihtasutus
- FMU = Finlands medeltidsurkunder, 1910–1924. Samlade och i tryck utgifna af Finlands statsarkiv genom Reinhold Hausen. Helsingfors: Statsarkivet.
- FSBN = Finlandssvenska bebyggelsenamn. Svenska litteratursällskapet i Finland r.f. Sammanställd av Lars Huldén m.fl. <https://bebyggelsenamn.sls.fi/> (accessed 15 March 2021).
- KNR = Eesti kohanimeraamat. Peter Päll & Marja Kallasmaa (eds.). <https://www.eki.ee/dict/knr/> (accessed 15 March 2021).

- NPK III = Новгородские писцовые книги. Переписная окладная книга Водской пятины 1500(7008) года. Часть 1. Санкт-Петербург: Археографическая Коммиссия. 1868.
- POKVI, II = Переписная окладная книга по Новгороду Вотьской пятины : 7008 года. Москва: Временник Московского общества истории и древностей. 1851, 1852.
- SA = Suomen asutus 1560-luvulla: Kyläluettelot = Bebyggelsen i Finland På 1560-talet: Byförteckningarna. Pohjoismaisen autiotilatutkimuksen Suomen jaosto. Helsinki: Helsingin yliopisto, historian laitos. 1973
- SAYL = Suomen asutuksen yleisluettelo. <http://www.narc.fi/Arkistolaitos/SAY/> (accessed 15 March 2021).
- SDHK = Svenskt diplomatariums huvudkartotek över medeltidsbreven. <https://riksarkivet.se/sdhk> (accessed 15 March 2021).
- SMP = Sveriges medeltida personnamn. <https://filemaker.sprakochfolkminnen.se/fmi/webd> (accessed 15 March 2021).
- SPNK = Suomalainen paikannimikirja. Sirkka Paikkala (ed.). Helsinki: Karttakeskus & Kotimaisten kielten tutkimuskeskus. 2007.
- Suomenmaa = Suomenmaa I-IX. Maantieteellis-taloudellinen ja historiallinen tietokirja. Helsinki-Porvoo, 1919-1931.
- USNK = Uusi suomalainen nimikirja. Huitu, Marketta & Mikkonen, Pirjo & Paikkala, Sirkka & Vilkuna, Kustaa. 1988. Helsinki: Otava.