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Introduction: an interdisciplinary perspective on prehistoric Northern Europe

There were no roads. Vehicles with wheels could hardly have been used, if there were any. Animal husbandry took its early steps, just as the cultivation of land did. Geographical distances that could be traversed by foot or via water routes played a much bigger role than borders that appeared at the dawn of modern cartography and are visible in political divisions on modern maps. There were people speaking their own languages, with their own beliefs and practices. They lived in much smaller societies than most of us do today. However, they were in contact with other people, learned from them, and adopted new skills. These people had different means of mobility, communication, and networking. They had learned to live in the northern latitudes with snow and ice in the winter, and long days and short nights in the summer. The framework and many details of this story can be reconstructed by means of subtle archaeological and linguistic analysis and a progressive interdisciplinary dialogue.

Human life in prehistoric conditions was possible and so is research into this life in terms of modern methods and data. This is the starting point of the current book consisting of contributions of specialists of the archaeology and languages of Northern Europe. Before embarking on the points of individual articles and the almost endless array of issues emerging from more detailed approaches to prehistory, it is necessary to outline the empirical and methodological framework in the dialogue between archaeology and linguistics, the main tandem pair in this and many other volumes.

The options are very broad, as numerous aspects must be refined to arrive at a satisfactory answer within a time-depth of several thousand years. It is extremely difficult, for instance, to show the geographical nucleus, core, and periphery in prehistoric language change processes that would be comparable one-to-one with the geographical centres, peripheries, and diffusion in archaeology. Presumably, the centres and peripheries altered over time. However, the point in bridging archaeology and language in areas that lack literary documentation is that despite the need to be careful and avoiding comparisons, which are too abductive, it is reasonable to search for traces of prehistoric languages in areas that were inhabited and had structured forms of social life.

Empirical evidence

There are no written documents that would adequately report on life, social contacts, and economic routes in the northern Baltic Sea area before the 13th century. What happened there at the time of the Roman Empire and the centuries and millennia before the Common Era, is merely a reconstruction based on what is known from the following centuries and the empirical evidence of archaeology and linguistics. However, the assumptions of prehistoric settlements, their size and dynamics, can be plausible and based on methodological consistency. The reconstruction of prehistory emerges from various archaeological and linguistic data that, in a successful combination of conclusions and implications, outline the past. (For a critical appraisal of the interdisciplinary dialogue between archaeology and linguistics, see Saarikivi & Lavento (2012).)

Archaeology is a discipline that exclusively focuses on the past of material finds, objects that prehistoric people once had held in their hands. In the North, archaeology often lacks the parallel evidence of texts and contemporary documents that foster a versatile perspective on ancient times in the Mediterranean area, for instance. The verbal heritage of texts originates only in the Middle Ages, and the first ones have a very weak connection with concrete geographical areas before the first exact descriptions appear, most notably the *Chronicle of Henry of Livonia* from the 13th century that describes the German conquest of Latvia and Estonia in a very detailed manner.

Nevertheless, the evidence of archaeology is invaluable because it constitutes the chronology of bits and pieces, organic remnants that people once handled. Archaeology outlines the frame in which other disciplines contribute with their own data. The interpretations made by archaeologists characterize groups of people, societies and contacts between them. The questions and conclusions raising from the dialogue between past and present are based on an inherent interdisciplinary perspective. The birthplaces of innovations and diffusion of techniques and materials draw the routes and borders on geographical areas that can be identified on modern maps. One of the key questions for the analysis of cultural change is whether it also indicates the migration of people. Is it representative of the mobility of just a few individuals or entire groups (Carpelan 1998, Halinen & al. 2008: 421–429).

Language, in turn, inseparably evolves in everyday life, is manifested in new forms, and is in a constant state of change. Language change is evidenced by changes in lexicon, grammar, place names, and interaction; the prehistoric predecessors of modern languages have left their traces in those varieties we use today in our everyday communication both in an oral and literary context. The identification of language change takes place through a careful analysis of words, morphemes, phrases, and speech acts. Ultimately, the list of individual changes that can be identified in the development of the Uralic languages of the northern Baltic Sea area, for instance, is a result of several generations worth of change.

Traditionally, etymology, sound changes, and the influence of language contacts have formed the nucleus of research into the history of the Uralic languages. During the past two decades the empirical basis has been extended considerably. The analysis of onomastic data, though not represented in this volume, applies similar methods with etymology but is more tightly bound to locality, topographic facts, and geographical environment. Grammar, the basis of modern comparative linguistic typology, has not yet been adequately exploited in the discussion of prehistoric language change in Northern Europe.

The point in relying on the evidence of the Indo-European and Uralic languages, both consisting of several subgroups, is that they are not randomly chosen language families. Various Indo-European and Uralic languages are still spoken in many areas where presumably their predecessors were once spoken in the prehistoric era. The Balto-Slavic and Germanic languages have systematic sound correspondences, a common grammatical and lexical basis, which makes them comparable both mutually and with documented language forms. The same is true of the Saamic and Finnic languages, as well as Mordvinic spoken in Central Russia. The correspondences between languages are not random coincidences, but can be accounted for by means of regularity in language change. If these facts can be put in a chronological order and related with a certain geographical area, they can be related to cultural phenomena in space and time.

The evidence of contacts between Finno-Ugric and Indo-European languages for multicultural development during prehistoric time is invaluable, as the loanwords and contact-induced changes attested in Finno-Ugric languages often conserve the characteristics of a certain stage that later has changed in the Indo-European side and typically has taken a different shape in modern Germanic and Baltic languages (Aikio 2006, Kaisa Häkkinen 1996: 149–162, Kallio 1998, 2008, Koivulehto 1997a, 1999 [1979]: 133–160, LÄGLOS, Thomsen 1890). The continuity of contacts extends to relatively recent contacts between individual branches of Indo-European, such as Baltic (Latvian), Germanic (Scandinavian, German), and Slavic (Old Slavic, Russian), and branches of Finno-Ugric languages, such as Finnic (including Finnish and Estonian) and Saamic. These contacts can be identified on the basis of a detailed analysis of lexicon and grammar (Bentlin 2008, Hinderling 1981, Kallio 2006, Must 2000, Söderman 1996, Vaba 1997a, 1997b). Compared to the newer layers, it is not always easy, not even possible to determine the exact Indo-European origin of a given Finno-Ugric word, as both a Baltic and Germanic origin may, in principle, come into question. Considering the age of some typical sound changes shows that there are words originating, for instance, from Indo-European sources that reflect the Proto-Finnic sound changes, such as **ti* > **si* and **š* > **h* (Koivulehto 1984, 1999 [1979]: 133–160).

Generally speaking, the most notable progress in the recent study of the linguistic prehistory of Northern Europe was made in the field of language contact research especially as evidenced in early loanwords. However, it appears that discovering the origins of Finnish and Estonian vocabulary has predominantly

been the starting point in the research of the Finno-Ugric (Uralic) languages, although other Finno-Ugric languages, such as Saamic, Mordvinic, and Permic languages, enrich the framework of questions considerably (Aikio 2001, 2004, Grünthal 2002 (cf. also this volume), Kallio 2009, Sammallahti 1999, 2001).

The potential of a broader understanding of the linguistic map of prehistoric Northern Europe has gained a lot of attention during the past decade, as traditional methods have been applied to the research into the Saamic languages, for instance. The shift of language areas, most notably the diffusion of the Finnic languages into Saamic areas was already noticed by previous generations (T. I. Itkonen 1948, 1: 97–109, Wiklund 1911–1912), but more recently, a considerable amount of new analysed data have been presented (Aikio 2007, 2009, Räsänen 1995, 2003, 205, Saarikivi 2004b, 2007; cf. Aikio's article in this volume). Furthermore, the concept of language contacts has been extended to onomastic and substrate studies in the analysis of data that have not been adequately extracted in previous research (Aikio 2007, 2009 Grünthal 1997, 1999, Koivulehto 1997b, Mullenon 2002a, Mullenon 2002b, Pitkänen 1985, Saarikivi 2004a, 2004b, 2007).

The picture of the prehistory of Finno-Ugric-speaking areas becomes more detailed if linguistic data – both identifiable and unidentifiable – are organised by means of relative chronology, and these conclusions are compared with archaeological entities, dating, and diffusion waves. In other words, the time depth needed in the research of prehistoric ethnic relations is achieved by discussing the relationship between the relative chronology of language history and the absolute chronology of prehistoric cultures.

These are but a few examples of the current possibilities of the interdisciplinary research of prehistoric Northern Europe. It is hardly necessary to emphasize the importance of empirical evidence, as both archaeology and linguistics heavily rely on the principle that their results should be reproducible. However, the interpretation of data depends on the chosen perspective that may trigger considerably different insights. Language and culture are not uniform phenomena; they never were. It is the diversity of prehistoric languages, cultures, networks, and routes in which we adventure to discover the linguistic map of prehistoric Northern Europe.

The presupposition for a successful dialogue between linguistics and other aspects in the research of prehistory is, in principle, that language data and cultural diffusion and characteristics share some information of the past. The geographical distribution of a certain prehistoric cultural layer, for instance, can be compared with a certain layer of vocabulary and those technical and social innovations that are reflected in the lexicon (Carpelan & Parpola 2001, Hakulinen 1979: 349–382, Kaisa Häkkinen 1999, 2001, Joki 1959, Koivulehto 1999 [1983]: 229–243, Salo 2008: 51–53, 66–67, 83–103). However, it is difficult to demonstrate an unambiguous one-to-one correspondence between cultural and linguistic areas, as the way cultural and linguistic phenomena change and spread are far from uniform. On the contrary, there is ample evidence that cultural zones do not match with linguistic borders (Hodder 1986, Saarikivi & Lavento 2012).

Hence, the situation was probably not different in this respect during prehistoric eras. This explanatory model is under constant revision, and more emphasis should be put on a modern approach to this issue, assuming that the multiplicity of language and cultural change has considerably affected the development of relations in this particular area. Moreover, different linguistic methods, such as place name research and loan word research, may lead to mutually controversial results. And yet, it would be an understatement to downplay the importance of comparing archaeological facts with language history.

Even the most unique empirical data lose their value, if they are not subsumed to a plausible methodological frame. Modern research funding, for instance, dogmatically insists on new visions and up-to-date methods. As a matter of fact, both archaeology and linguistics have successfully brought new tools and aspects to the research kit of prehistory. The similarities and dissimilarities between modern and ancient worlds often need a prolific understanding of the context in which people and societies were observed. The window to the past presents a consistent dialogue between various disciplines, reconsidering the time span of cultural shifts from the Stone Age to the Early Metal Age and later Iron Age, and the adaptation of language change as evidence in various languages of the given area.

Where is the North?

In the current volume the starting point is the geographical area, namely Northern Europe. Linguistically, the northern Baltic Sea area and its surroundings extending towards the east include an extended continuum of Uralic and Indo-European language varieties, both reaching their northwest edge in Northern Scandinavia. It is assumed that prior to the extension of the Uralic and Indo-European languages into Scandinavia and south of the Baltic Sea, other unknown Paleo-European languages were spoken in this area (Aikio 2004, Ariste 1971, 1981: 9–20, Korhonen 1984: 66–70, Saarikivi 2004a, Wiklund 1896: 7–14; cf. Aikio and Kroonen this volume). However, there is only indirect evidence and the hypothesis has to be proved in terms of etymological and onomastic research by excluding alternative interpretations. The assumption of vanished Northern European languages has been mainly based on Saamic and Finnic place names and vocabulary. So far, it has remained a plausible hypothesis without an unequivocal empirical corpus. Moreover, the assumption about vanished unknown languages is not exclusive, as the existence of a substrate does not imply that the predecessors of the attested languages were not spoken at the same time.

As regards written sources, there is only fragmented information about populations and linguistic groups until the late Middle Ages and the rise of the first urban centres with their economic networks and social and political borders. The earliest possible references to Finno-Ugric populations originate from Tacitus' *Germania* (98 AD) as he mentions both *aestiorum gentes*, presumably etymologically comparable with the name *Estonia*, and *fenni*, comparable with

present-day *Finn, Finland*. However, in both cases the early historical reference should not be mechanically compared with those ethnic labels present in the modern world. On the contrary, the former, for instance, refers to a clearly different geographical area, whereas the latter merely identifies some ethnographic and cultural characteristics, a more southern area on the eastern coast of the Baltic Sea with considerable amber resources (Bammesberger & Karaliūnas 1998, Grünthal 1997: 213–240, Karaliūnas 2003) and posits the given people in the framework consisting of other peoples mentioned in the same text (Beck & al. 1998, Lund 1991a, 1991b, Much 1967, Rives 1999, Thomas 2009). The Finno-Ugric area and the indirect evidence of *aestiorum gentes* and *fenni* are located in the northern periphery of Tacitus' historiography. The development of ethnonyms must be connected with a more detailed analysis of the geographical and ethnic context in different eras (Grünthal 1997, 2001 Koivulehto 1997b).

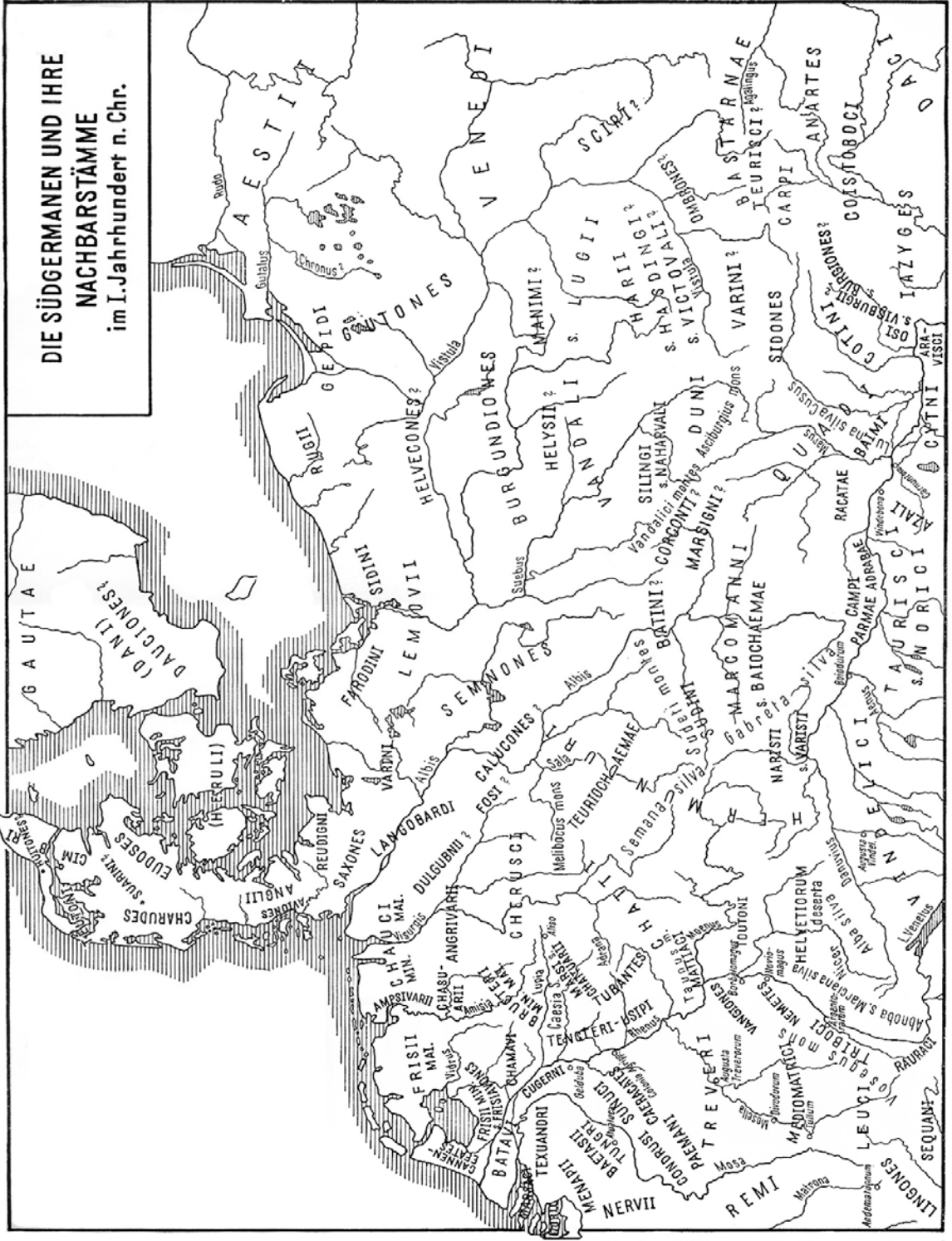
Although travel accounts and secondary reports of the North have a long tradition, no text or map can be fully understood solely from its immediate context, but as a tradition of information of the given area as a whole. The actual meaning of names, random references, and travel accounts often comes from a certain temporal and cultural contexts, whereas the concept of ethnicity may often be misleading or even futile (Valtonen 2008: 25).

The increase of voyagers and the formation of state borders in Northern Europe in the Middle Ages gradually make the geographical coordinates of individual groups more concrete. Both western descriptions such as the Scandinavian sagas in the second half of the first millennium AD and Henry's Chronicle of Livonia from the 13th century presumably written by a German author, and eastern chronicles, most notably the Primary chronicle, the manuscript originating from early 14th century, are important landmarks in the documentation of the Baltic area and the territories under the rule of Novgorod. They, too, do not report on language and networks as perceived in modern research but more often on power and its implementation (Västriik 2007).

In the West, the Vikings, Christianisation, and the establishment of the Catholic church in Scandinavia in the 11th century connected the North more closely with western societies and traditions. The expanding power of the Vatican finally extended to the northern Germania of Tacitus from the southern Baltic Sea area to more northern territories in transmarine Northern Europe.

In the East, the water routes and trade networks led to the Volga River and the Volga Bolgar Empire, later in the 13th century to the Tatar Khanate and Arab world. The first urban centres along the middle flow of the Volga and its bend were built already in the 7th–8th centuries during the Volga Bolgar Empire. The eastern cities sent their explorers to western areas, though to a more marginal periphery in comparison to the southern cities in the Mediterranean and Steppe area that were the main direction of trade routes.

This is the context in which we discuss the characteristics and development of culture and language in the north. The previous research has reached numerous valuable milestones furnished by absolute chronological details or relative implications.



DIE SÜDGERMANEN UND IHRE NACHBARSTÄMME
im I. Jahrhundert n. Chr.

Map 1. Much's (1967) reconstruction of the geographical distribution of tribes mentioned in Germania by Tacitus in 98 AD.

Karte 1 Die Südgermanen und ihre Nachbarstämme im 1. Jhd. n. Chr.

The time span

In archaeology, the investigated time is mainly determined by findings, which label a cultural layer and are evidenced in scientific laboratory analysis of organic data. The datings of radiocarbon analysis, calibrated chronology and other means of dating determine the age of the investigated objects, which has a large significance for the interpretation of other chronologically-related facts and processes. In principle, language data can be chronologically organised as well, and archaeological and linguistic data together represent the stratification of human life in the flow of time.

The long tradition in the interdisciplinary research of prehistory, however, makes it possible to limit the time span. Our perception of time is, in principle, clockwise, whereas the description of prehistoric processes demands an anticlockwise perspective. This would not be possible without the cumulative information from previous research. Archaeology does not have any considerable constraints with respect to time, because statements and earlier results can always be reconciled in a laboratory analysis. Paleontology, climate history, and the evolution of man demonstrate the extremely long time span of individual remnants. Linguistics, in turn, has much more severe constraints with respect to time, because the earliest literary documents are the only plausible prerequisite.

Mainly due to the constraints of linguistics, the main emphasis in the current volume is on processes that took place during the Early Metal Age and Iron Age. Nevertheless, given the wide geographical area and the continuity of cultural phenomena over time, the scope inevitably extends to the Early Metal Age. From a linguistic viewpoint, the gradual shift from the Neolithic to the Early Metal Age and the increase of populations during the Iron Age provide a chronological continuum against which the development of the vocabulary and grammatical structure of the Finno-Ugric languages, as well as the relative chronology of Indo-European loan words can be projected.

Competing viewpoints: continuity or discontinuity?

The interdisciplinary interpretation of early settlements, cultural types, and language areas has repeatedly yielded the controversy between continuity and discontinuity of habitation, language, and culture. Early Scandinavian records and written sources from the late Middle Ages establish the documentation of language boundaries, ethnic groups, and their environment in Northern Europe. The last millennium includes ample evidence of migration, shifts of borders, restructuring of communities, the rise and fall of centres. On the one hand, the development during the first millennium AD is more difficult to reconstruct, due to the lack of written documents. On the other hand, the considerable increase in population size and more recent traces of habitation often shade the structures and networks of previous centuries and millennia. Linguistically, the

main evidence comes from the attested distribution of various Finno-Ugric and Indo-European-speaking communities in Northern Europe, and the implications of long-term mutual contacts.

The main evidence for continuity is based on the fact that after the beginning of the last Holocene, almost 12 000 years ago, it is possible to follow the gradual rise, diffusion, and disappearance of various cultural phenomena. Since the appearance of the first hunters and gatherers in the aftermath of the climate change during the early Mesolithic about 10 000 years ago, the continuity of archaeological findings demonstrates the presence of man. In the northeastern Baltic Sea area the picture is clearer in the territory of the present-day Baltic countries, Estonia, Latvia, and Lithuania, whereas in Finland and Northern Scandinavia there are periods during which the identification of the presence of man is more difficult. In the research of Finnish prehistory, for instance, the Pre-Roman Iron Age during the last centuries BC was considered as a period of complete population break-down in the first half of the 20th century; an assumption that was shared by contemporary linguists as well (Hackman 1905: 353, Kivikoski 1961, Setälä 1916: 499–500).

Accordingly, multiple alternatives were suggested to explain the migration of the Pre-Finns and the appearance of the Finnish language in Finland. Nevertheless, counterarguments were brought into the limelight by archaeologists and the assumed gap in the population was replaced with a new hypothesis emphasizing cultural continuity in Finland (Carpelan 2000, Huurre 1979, Meinander 1969, 1984, Salo 1984, 2008), as it was also alleged in Estonia (Jaanits & al. 1982, Kriiska 2002, Kriiska & Tvauri 207; Lang 2002, Laul 2001: 216–224, Moora 1956). The Finnish linguists adopted this conclusion and adjusted the reconstruction of language history to areal continuity on both sides of the Gulf of Finland (Kaisa Häkkinen 1996: 85–102, Terho Itkonen 1984, Koivulehto 1983, 1984, 1997a, 1999 [1983]: 229–244, Sammallahti 1977, 1984: 142–145).

Later, this view has been scrutinized as well (Jaakko Häkkinen 2010, Saarikivi 2011). Nevertheless, the reconciliation of the migration hypothesis still requires a more profound comparison of earlier and new arguments and data. The existence of Saamic place names in South Finland, for instance, unambiguously shows the historical distribution of the Saamic-speaking population (Aikio 2007, T. I. Itkonen 1948, 1: 97–109), but it does not exclude the presence of other Finno-Ugric languages and early Indo-European varieties.

Recurrent processes in prehistory and reproduced ideas within the investigated topic have gained less attention in research so far. In the discussion briefly quoted above, the leading motive has often been the replacement of an earlier theory with a new one without an appropriate evaluation of the evidence of different data. This claim is predominantly valid for linguistics as the principal means of identifying ethnic groups, their borders, and case-specific characteristics, as language both connects and disconnects people. This divergence in interpretations concerning prehistoric language areas is often caused by the chosen method. Phonological changes, morphological isoglosses, lexical boundaries, loanword strata, and onomastic types are all invaluable for empirical analysis.

The interpretation of different data inevitably gives different results that, nevertheless, do not always exclude the legacy of other interpretations.

The tagging of long-term continuity in language and language areas is based on different layers that are preserved in the body of modern languages and reflect language change over time. Representatives of different paradigms basically agree on this. The diffusion of language, however, is often considered as a unique process that has a concrete time frame. Especially the supporters of migrant theories have favoured this idea. It is also supported by the fact that in the western tradition, pre-modern societies have been consistently described as unstable and unbounded (Anthony 2001: 11). However, considering the recurrence of cultural diffusion, the mobility and prehistoric networking of any speech community, it is obvious that the dynamics of language change include the recurrence of diffusion routes of languages, as well. As a matter of fact, this is more explicitly manifested in the chronology of the Germanic loanwords in the Finnic languages (LÄGLOS), for instance, than in the development of early Finno-Ugric varieties in the northeastern Baltic Sea area.

There is no prevalent method or theory in this book. The main goal is to fill in the gaps of previous research, revise older explanatory biases, and find empirical evidence for the existence of settlements based on the variance in linguistic continuity in Northern Europe. Furthermore, we allege that, generally speaking, there is long-term linguistic and settlement continuity or, at least, those varieties that are known from documented sources and have areal labels, are the key to understanding ethnic prehistory.

To the reader of the articles

The articles published in this volume discuss the areal breadth of prehistoric Northern Europe in terms of language change and cultural networks. The more closely examined areas are Russia and a wider Eurasian context, the northeastern Baltic Sea region, and Fennoscandia. These three areas are conceptually divergent but within prehistoric networks with cultural and linguistic diffusion often overlapping with one another. This fact is reflected in several articles, which actually proves the necessity to discuss the prehistoric North without the constraints of modern borders, centres, and populations.

Individual articles are organised so that the geographical and chronological context and the interpretation of cultural entities is discussed in two archaeological papers by Mika Lavento and Charlotte Damm. These are followed by Asko Parpola's outline of a synthesis of prehistoric development and Tiit-Rein Viitso's more detailed account of the history of metal names in the Finno-Ugric languages. The early development of language areas and the role of language contacts in Scandinavia and the Baltic Sea Area are discussed in the articles of Ante Aikio, Karl Pajusalu, Petri Kallio, Guus Kroonen, and Santeri Junttila. Finally, the more eastern perspective, language change and language contacts in Russia are reconciled in the articles of Riho Grünthal and Villem Vermeer.

Mika LAVENTO discusses the emergence and importance of early agriculture in hunter-fisher populations. Both the environment and technique of early cultivation are considered, as well as different geographical and chronological contexts in light of contemporary data. The periods under focus are the Battle Axe culture, the Kiukainen culture – attested in Southwestern Finland – and the Bronze Age, hence, the late Neolithic and Early Metal Age. The evidence of pollen samples taken from the close neighbourhood of the archaeological sites sheds light on local communities and their mobility, as well. Following the main line of Finnish archaeology, two main areas are separated in the analysis, namely 1) the coastal Bronze Age and 2) the Early Metal Age sites in the Finnish inland.

Charlotte DAMM scrutinizes the compatibility between material culture, ethnicity, and language, and claims that the correspondence is not straightforward. She directs her main criticism against a one-to-one relationship between archaeological categories, regardless of their type, and ethnicity and language. Furthermore, she discusses how knowledge is transmitted at the initial introduction to the craft and exchange may take place under different circumstances. She suggests, for instance, that in northern Fennoscandia inter-communal exchange of knowledge of pottery production happens when potters from different communities meet or when they see pots produced elsewhere.

One of the most puzzling issues for several generations trying to sketch the ethnic and linguistic development in Northern Europe is the story of the Saami, the indigenous people of Scandinavia. Ante AIKIO, a native North Saami speaker himself, presents a great synthesis of what can be said about the role and dynamics of Saami-speaking areas with respect to time and change. The perspective is interdisciplinary, while the evidence is drawn from language with special emphasis on lexical and onomastic data.

Asko PARPOLA's article *Disintegration of Proto-Indo-European and Proto-Uralic in light of archaeology* is a revised synthesis of his earlier paper with Christian Carpelan on the relationship between archaeological cultures and language history (Carpelan & Parpola 2001). His main assumption is that given the long-term continuity of contacts between various Indo-European and Uralic languages in Northern Eurasia and the local culture, it is possible to reconstruct the gradual emergence and evolution of local Uralic (= Finno-Ugric) and Indo-European-speaking communities. The development of the Indo-European and Uralic languages is reconstructed as a long continuum of descendants of the earliest proto-languages, and diffusion from an alleged homeland.

The invention of smelting metals and their working techniques triggered a major change in prehistoric societies. The adoption of metal brought more productive tools and more effective weapons. Tiit-Rein VIITSO points out that the appearance of metal as a raw material left concrete traces in the Finno-Ugric languages. The corresponding vocabulary spread in the Finno-Ugric languages and, to a very large extent, was borrowed from the Indo-European languages.

Language change often takes place through endogenous innovations. Their reconstruction takes place by means of the comparison of genetically-related languages and sub-branches of language families. Karl PAJUSALU gives an

overview of certain phonological innovations in the Southern Finnic languages that make this subgroup divergent from other Finnic languages spoken on the northern and eastern side of the Gulf of Finland. This article analyses prosodic changes in speech and sound changes that have affected the phonological inventory. Furthermore, it examines quantitative grade alternation, foot isochrony, and issues of morphophonology in more general terms. So far, this article is the most extensive attempt to reconstruct the rise of southern Finnic isoglosses on the basis of phonology. Ultimately, as the author notes, the existence of the isoglosses has to be contrasted with the influence of language contacts, as well.

Petri KALLIO's article on the Germanic loanword strata in the Finnic languages shows the relative chronology of loanwords of different ages. This particular language contact situation reflects prehistoric networks and, presumably, intensive cultural contacts in the Baltic Sea area. The continuity of language contacts between these two Northern European varieties of the Indo-European and Uralic languages continue until the dawn of documented history and take a more concretely identifiable shape in the Middle Ages. Kallio demonstrates the sound changes that prove the long-term continuity of this particular contact situation that took place in parallel with an extensive cultural change, the spread of agriculture, and an increase in population.

What happened with the languages that became extinct? Are there any substrate strata that reveal something that preceded the documented language situation? Guus KROONEN highlights the hybrid origin of the Germanic languages. It is even maintained that as much as one third of the German lexicon lacks a plausible Indo-European background. This article sheds light on conclusions that can be drawn on the basis of a careful analysis of individual words such as Proto-Germanic (PGm) **arwīt-* 'pea', PGm **gait-* 'goat', PGm **hnit-* 'nit', PGm **hnut-* 'nut', PGm **edis-* ~ **dīsi-* 'lady', PGm **wisund-* 'bison'. These particular words demonstrate that the class of the root nouns was open to loanwords or words with a substrate origin.

Early Baltic influence in the Finnic languages is one of the most classic topics for reconstructing language history and is as important as the evidence of Germanic loanwords for the development of early Finno-Ugric varieties in the northeastern Baltic Sea area. Furthermore, the adoption of loanwords is a part of cultural influence. Loanwords are a special set of *Kulturwörter* that can be approached both from a diachronic and synchronic perspective. This is the classical framework of the etymological corpus of Baltic loanwords in Finnic that Santeri JUNTTILA revisits in his article.

The place and time of the adoption of the Baltic loans has been confined by the fact that the geographical distribution of the Baltic loans in Finno-Ugric extends to the Mordvinic languages. Riho GRÜNTAL reconciles the question of early Baltic loanwords in the Mordvinic languages, a Volgaic group with two distinct variants spoken on the right side of the middle flow of the River Volga that presumably once played an important sociohistorical role in Central Russia. The assumption of direct contacts between Mordvinic and the Baltic languages,

a parallel to the contacts between the Finnic and Baltic languages, was presented already in the 19th century. This article evaluates individual etymologies one by one and concludes that there is unambiguous evidence for direct contacts between the Mordvinic and Baltic languages that took place independently of the more intensive contacts between the Finnic and Baltic languages.

The discussion of the presence and characteristics of the Slavic languages in Northern Europe is gradually added with new information. In his article, Willem VERMEER explains why and how language-internal change took place in Slavic. The development of progressive palatalisation illustrates the gradual rise of borders between genetically-related languages.

Prologue to individual articles

The articles introduced above include several viewpoints about languages, cultures, the sociohistorical and sociolinguistic context of people living in prehistoric Northern Europe. There are several other disciplines such as paleontology, paleozoology, folkloristics, and mythology that are not presented in this volume.

We do not aim at one single authoritative synthesis of how the world and human life developed in early times. On the contrary, as prehistoric decades, centuries, and millennia represent a lengthy continuum of time, so is research into issues related to it. There are arguments and assumptions that are not defensible. Although it is important to make generalisations, it is dangerous to oversimplify the rise and change of language communities, whereas it is important to continue to challenge our understanding of cultural centres and peripheries in the prehistoric era. Very frequently, explicit arguments can be brought against vague claims and generalisations based on single traits or insufficient evidence. Less frequently, overarching syntheses based on a comprehensive analysis of empirical data and careful evaluation of earlier research are presented. There is a constant need to reconcile topics that have been intertwined during several decades.

Research that is directed merely towards presenting the absolutely correct questions and finding the right answer is not always the most fruitful method in researching prehistory. However, it is clear that some conclusions are more plausible than others. They should be based on a rigorous analysis of archaeological or linguistic data and, in the best case, a versatile interdisciplinary discussion between various prehistoric programs. What is plausible and what should be rejected can only be determined by means of up-to-date research and the verification of different hypotheses.

We sincerely believe that with the current volume we promote the analysis of core topics – relevant aspects that foster the interdisciplinary research of prehistoric Northern Europe. Ultimately, we welcome new academic enterprises in this fascinating world in the future.

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