

## Northern European Prehistory, from above

RIHO GRÜNTHAL & PETRI KALLIO (eds): *A linguistic map of prehistoric Northern Europe*. Suomalais-Ugrilaisen Seuran Toimituksia 266. Helsinki: Suomalais-Ugrilainen Seura 2012.

The present volume, which contains a series of articles synthesizing linguistic and archaeological results on the prehistory of North-eastern Europe and is based on a symposium with the same title as the book held in Rakvere, Estonia, in 2008, is the latest in a series of such works, for example Fogelberg 1999 and Carpelan, Parpola and Koskikallio 2001. This latest addition is very welcome indeed, as the past decade has seen great developments in the prehistory of Uralic languages and peoples. Whereas throughout the 1980s and 1990s, comparatively great time depths for the presence of Uralic languages around the Baltic were in vogue, Petri Kallio (2006) has argued for a much later dating for the Uralic proto-language. Arguments such as the clear presence of Indo-Iranian loans in Proto-Uralic mean that it significantly postdates Proto-Indo-European, and Proto-Uralic is connected by Kallio to the Sejma-Turbino phenomenon, an archaeo-

logical culture thought to represent a network of armed traders around 2000 BC. Ante Aikio (2004, this volume) has convincingly demonstrated the presence of a substratum of unknown origin in the Saami languages, signifying a language shift towards Saami in the far north in comparatively recent times – perhaps around halfway through the first millennium AD. Jaakko Häkkinen (2009) has argued that the Ugric languages should be grouped with Samoyedic into a primary East Uralic branch, which means that the old bifurcation between Proto-Finno-Ugric and Proto-Samoyedic needs to be abandoned. In their focus on detailed linguistic argumentation, shallow rather than very large time depths, and in some cases the rehabilitation of old ideas such as Wiklund’s notion of a language shift among the Saami, these developments represent what Janhunen (2001) dubs the ‘counterrevolutionary’ paradigm in Uralistics coming into maturity. Many of the articles in this volume base themselves specifically on these new results.

In the *Introduction* (XI–XXVIII), Riho Grünthal sets out the scope of this volume, focusing as it does on

the area around the Baltic Sea (XV) and on the Early Metal and Iron Age (XVIII); introduces the individual articles (XX–XXIII) and describes some of the problems that haunt attempts to synthesize archaeological and linguistic results, such as those that arise when trying to correlate archaeological cultures and linguistic areas (XIV–XV) and the opposition of models which are predicated on such notions as continuity and diffusion versus those based on migration and discontinuity (XIX–XX). Grünthal covers a lot of ground in the introductory chapter, but the style of writing is sometimes overly concise and a bit gnomic. Thus, for example, the statement that “Our perception of time is, in principle, clockwise, whereas the description of prehistoric processes demands an anticlockwise perspective” (XVIII) is not really explained or expanded upon.

On the problem of correlating archaeological cultures and ethnolinguistic entities, it should be noted that, while criticism towards correlating ethnolinguistic and archaeological entities is expressed in this volume by Charlotte Damm, and it has elsewhere has been subjected to a detailed methodological critique by Saarikivi and Lavento (2012), many of the articles in this volume, particularly Asko Parpola's, are based on a very traditional

one-to-one correspondence between archaeological cultures and ethnolinguistic entities, and this is explicitly defended by Kallio in a footnote (225). I find this acceptable, at least when the archaeological cultures are well-defined and based on a conglomeration of artefact types, technological features, etc. – suggesting social cohesion and thereby the use of a specific language, or perhaps a *lingua franca* used for intergroup communication in the case of multilingual speech communities. This said, in the face of the critique of authors such as Saarikivi and Lavento (2012), a more detailed theoretical and methodological defence of such correlations would have been welcome.

Secondly, it seems to me that many of the articles in the volume tend towards the migrationist side of the spectrum, which seems to me justified. After all, ancient history is full of recorded migrations, some of which (such as that of the Celts from Central Europe all the way to Asia Minor) seem *a priori* almost implausible. Furthermore, the problem of correlating archaeological cultures and ethnolinguistic groups seems to be compounded in radically “continuist” theories such as Wiik's (2002), wherein the whole of European ethnolinguistic history after the Palaeolithic is cast in terms of interactions between

the Uralic, Indo-European and Vasconic groups, and this combined with an eccentric view on linguistic change. A compromise position, allowing for periods of long-term continuity and linguistic convergence as well as for periods of migration and language spread, has been proposed by Dixon (1997). The downside of Dixon's view is that periods of continuity and convergence are periods which are not within the reach of the comparative method: it would (as Dixon argues it does with Australian languages) simply fail to turn up anything useful. Periods when this equilibrium is 'punctuated', however, by rapidly spreading languages and language families, are periods where the comparative method and its methodologically inbuilt family tree model do apply. As Parpola notes in this volume (127–128, 156), both the Indo-European and the Uralic languages spread quickly – breaking up swiftly into a number of daughter branches rather than diversifying in a slow, binary manner over a very long period of time. This suggests that for Indo-European and Uralic at least, it is the punctuation phase, not the equilibrium phase, that is relevant, and hence a more or less migrationist view is appropriate.

A third, emerging, scientific discipline relevant to prehistory –

namely human population genetics – is not represented in this volume (though results from genetics are referred to by, for instance, Kroonen (241)). This absence is understandable: reconciling archaeological and linguistic results already presents formidable methodological and theoretical challenges. With genetics, there is a further hindrance in that the genetic mode of transmission is individual, whereas that of language and culture is social and collective.

The first two papers of the collection, Mika Lavento's and Charlotte Damm's, deal with purely archaeological issues. Mika Lavento's *Cultivation among hunter-gatherers in Finland – evidence of activated connections?* (1–40) deals with the introduction of agriculture in Finland. Noting that the introduction of agriculture has often been depicted as a revolution, allowing for larger population sizes, greater social stratification, and the emergence of civilizations such as those of the ancient Near East (1), Lavento deconstructs this view when applied to Finland: the introduction of agriculture in Finland is regarded as a piecemeal process, with agriculture being incorporated for a long time into a lifestyle based on hunting and fishing (31–33). The evidence Lavento deploys re-

lies on, for example, dwelling sites and house type (5–6, 10–11), fossil evidence of, for example, pollen and cereals (7–9, 16–17), as well as loanword evidence (18–19). Animal husbandry possibly has its roots in the Battle Axe culture (7), whereas the coastal Kiukainen culture shows clearer evidence for agriculture in terms of fossils and stone tools (7–9), and in the inland, the later Bronze Age brings evidence for crops (11, 17). However, there is a very long term of transition from the first introduction of agriculture to agriculture becoming a dominant way of life, with a long-term degradation of climate conditions from approx. 3000 BC being a possible reason, though hardly the only one (31).

In her article *From entities to interaction: replacing pots and people with networks of transmission* (41–62), Charlotte Damm casts a sceptical look on the whole enterprise of correlating archaeological cultures with ethnolinguistic groups. Damm argues that such a correlation between pottery-based archaeological cultures and presumed ethnolinguistic groups presupposes a migrationist model, in which large-scale cultural change is connected with the migration of a new group of people, bringing along their culture, language,

etc. (44–45). She believes that this neglects the fact that archaeological cultures are not discrete entities: various features may overlap and spread without any concomitant ethnolinguistic diffusion (45). In this light, it is problematic that some of the features traditionally used in defining archaeological cultures, such as decoration patterns, are precisely the ones which may diffuse without any great need for communication and the transmission of knowledge (52). As an alternative, Damm suggests taking up a *chaîne opératoire* approach, in which the whole production process of an artefact type such as pottery is taken into account (46). Some features of this production process, such as the usage of e.g. asbestos in tempering, are dependent on the local availability of resources (49–50). Others, such as firing techniques, require direct transmission of knowledge between potters: unlike decorative patterns, they leave no overt traces which can be “read off” the pot and then imitated (51–52). Features such as these are thus more suggestive of the existence of social networks of communication, and thereby a common language and perhaps a common ethnic identity, than superficial features such as decorative patterns. Damm’s article pinpoints an important intermediary step

that must be made when correlating archaeological cultures and ethnolinguistic groups: it must be made plausible that the archaeological culture in question represents a cohesive network of people communicating with each other.

Ante Aikio's article, *An essay on Saami ethnolinguistic prehistory* (63–117), is a synthesis on our current knowledge on Saami prehistory, notably involving the traces of a non-Uralic linguistic substrate in Saami. Traditionally, the Saami and Finnic languages have been regarded as forming a distinct node in the Uralic language tree, but recently, this has been regarded as increasingly doubtful. Aikio regards the question as insoluble: the lexical correspondences between Finnic and Saami are an unreliable guide due to the possibility of borrowing; there are some shared morphological innovations, but little in terms of shared phonology (68–69). One could add here shared syntactic features such as the grammaticalization of the Uralic ablative *\*-tA* as an object marker, or similarities in the periphrastic perfect tense of Finnic and Saami. These features, however, would be very much open to contact-induced change.

Aikio reviews the loanword layers of Saami both during its Pre-Saami stage, that is, before a series

of radical vowel changes common to all Saami languages, and during its later Proto-Saami stage. Whereas Pre-Saami sports a number of Proto-Germanic loanwords that are not shared with Finnic, suggesting independent contacts, Proto-Baltic loans are largely shared with Finnic, which Aikio suggests indicates that Pre-Saami was never in direct contact with Baltic and that vocabulary of Baltic origin was transmitted through Finnic (73–74). Proto-Scandinavian loans, importantly, show regional differences in sound substitutions: initial consonants such as *f* are preserved better in the south and west of the Saami linguistic area. This suggests that Proto-Saami was already diversifying into its daughter languages during contacts with Proto-Scandinavian and, with Proto-Scandinavian sound changes datable in an absolute sense due to the presence of runic inscriptions, suggests a *terminus ante quem* for the break-up of Proto-Saami: this must have happened before the end of Proto-Scandinavian around 500–700 AD. (76–79.) The contrast between these rather modest time depths argued for with sound linguistic argumentation, and the prospects of various kinds of Proto-Saami spoken in the far north since the late Palaeolithic advanced in some of the wilder proposals in

the 1990s, is very great and exemplifies the ‘counterrevolutionary’ thrust of the papers in this volume.

The notion that, at some point, part of the ancestors of the Saami shifted from a non-Uralic language (or a different Uralic language, such as Samoyed) to Saami is very old, and goes back to K. B. Wiklund’s notion of *Protolappisch* as the non-Uralic language of these ancestors (81). It is also, as Aikio mentions, very reasonable, as the far north of Scandinavia has indeed been inhabited since the last Ice Age, and Uralic languages cannot have made their appearance until many millennia later. This goes, of course, for other language groups as well. An unknown substrate in western Indo-European languages is later dealt with by Guus Kroonen in this volume, and there have long been attempts to connect Finnic lexical items such as those denoting geographical features and toponyms for large bodies of water to a vanished substrate language as well (Rahkonen 2013: 6–8). The problem has always been, of course, that demonstrating the existence of a substrate is already difficult enough when the presumed substrate language is known: substrates tend to feature most largely in the structural domains of language, where internal and contact-induced change are

most difficult to distinguish, and least in the lexicon. When, furthermore, the presumed substrate language is not known, distinguishing substrate lexical items from inherited items which, through lexical loss, have survived only in a geographically definable subgroup of a language family becomes almost unsurmountable.

Aikio tackles this problem by setting stringent criteria for the identification of an unknown substrate in Saami: for example, a quantitative criterion (is there enough vocabulary of unknown origin?), a structural criterion (does vocabulary of unknown origin exhibit specific phonological or morphological features?), etc. The result is a convincing pattern explanation: possible substrate vocabulary does indeed show phonological results such as vowel combinations not found in native lexical material and a high degree of semantic coherence (denotations for native species of birds, etc.), and is very well represented in toponymy. (83–87.) Importantly, it appears that this substrate, dubbed Palaeo-Laplandic, is contemporaneous with Proto-Scandinavian contacts (87). This would mean that an unknown language, perhaps belonging to an extinct language family, was spoken in the far north past the Roman Iron Age. The signifi-

cance of this result, both in and of itself and in the methodology applied by Aikio to attain it, is hard to overstate. Interestingly, a large part of the vocabulary that was borrowed into Finnish from currently extinct Saami languages of central (Lakeland) Finland may ultimately belong to this substratum as well, leading Aikio to posit the existence of a Palaeo-Lakelandic language in addition to Palaeo-Laplandic (92).

Asko Parpola's article, *Formation of the Indo-European and Uralic (Finno-Ugric) language families in the light of archaeology: Revised and integrated 'total' correlations* (119–184) is an attempt at a grand synthesis between archaeological cultures and Indo-European and Uralic linguistic stages. These are presented in great detail: in the following, I will report on just some of the correlations advanced by Parpola. Parpola adopts the common position that the earliest stage of Proto-Indo-European is to be identified with the horse-breeding Sredny Stog II culture of the Pontic-Caspian steppes from 4700–3400 BC, and that the ancestral stage of the Anatolian languages represents its first branching (122–124). This Anatolian stage moved into Asia Minor through the Balkans; left behind was Late PIE, which Parpola identifies with the

Late Tripolye culture (4000–3400 BC) rather than with the later Yamnaya Pit Grave culture (3300–2500 BC) (125–127), which in turn allows him to identify the Battle Axe culture (3100–2000 BC) with a North-western Indo-European expansion, which would otherwise run into chronological trouble (130). This north-western branch is ancestral to Germanic, Balto-Slavic, Italic and Celtic: on the Celtic languages, Parpola argues that their earliest branching should be identified with the Bell Beaker culture of the Low Countries (2800–1400 BC), representing an adoption of maritime culture allowing the early Celts to spread through the coastal areas of Western Europe. The later Hallstatt and La Tène cultures would represent an eastward expansion of the Celts. (130.)

As for the Uralic languages, Parpola rejects the various versions of continuity theories advanced in recent decades (148–149). The post-glacial Komsa culture (10000–6000 BC) is obviously of too great a time depth, and must represent some vanished Palaeo-European language (143–144), though Parpola holds it possible that some of the various archaeological waves reaching Finland from 5000 to 1700 BC may represent Proto-, Pre- or Para-Uralic languages (145). However, the correlation Parpola settles

upon is that between West Uralic and the Netted Ware culture of the Upper Volga region from approx. 1900 BC (150), with Proto-Finnic represented in the Akozino-Mälär axe culture (800–500 BC) which spread to Southwest Finland, but also Åland and the Mälardalen region in Central Sweden (153) – an interesting point which raises the question of how old the Sweden-Finnic varieties really are. As for the original expansion of Proto-Uralic, Parpola notes that the virtual identity between PU and its western sub-branch would suggest it happened fast, and, like Kallio, associates it with the Sejma-Turbino network of warrior traders (1900–1600 BC) (156).

Parpola's synthesis thus notably bases itself on the relatively late dating of Proto-Uralic advanced in recent years. By fitting these new results in a big picture of the archaeo-linguistic prehistory of Europe, it is of great importance. This said, a large number of very detailed correlations are made in short succession (the depiction of the Celtic branch, referred to above, takes up a bit over half a page), which leaves the synthesis as a whole open to criticism of the kind advanced by Saarikivi and Lavento (2012): how sure can we really be of all these correlations between successive archaeological

cultures and reconstructed linguistic stages?

Tiit Rein Viitso's *Early metallurgy in language: The history of metal names in Finnic* (185–200) is an overview of the (mostly borrowed) origins of metal names in Finnic and other Western Uralic languages, dealing with, for example, words for 'gold', which have a Germanic origin in Finnic and Saami but an Iranian origin in more central Uralic languages (187), and the Finnic word for 'iron', *rauta*, for which a Germanic origin is restated and Slavic loan etymologies rejected (189) – words denoting iron in the central Uralic languages appear to be, again, Iranian loans (189–190). Viitso rejects proposed Baltic origins for an etymologically enigmatic term for 'copper' in Mari and Permic, *\*iryene*, despite the superficial similarities with a term for 'copper' in Old Prussian (192). On the origin of the widely attested Uralic term for copper *\*wäškä*, Viitso advances the interesting theory that the final element *\*-kä* which is present in Western Uralic but absent elsewhere, is a withered remnant of *\*-kive* 'stone'. The first element would then be an Indo-European or Indo-Iranian borrowing *\*vaša* 'bronze', originally rather 'axe'. (195.) According to Viitso, the absence of *\*kive-* 'stone'

in Saami would suggest that the Saami cognate is a borrowing from Finnic. I am not sure this supposition is really necessary. It is possible for words to survive only in compounds, for example the first element of English *werewolf*, Dutch *weerwolf*, though here, of course, *were* for ‘man’ is attested in older literary stages of Germanic. For Saami, the presence of *\*kive-* in other compounds would, of course, strengthen this possibility.

In his paper *Phonological innovations of the Southern Finnic languages* (201–224), Karl Pajusalu deals with the phonological features that characterize the South Finnic languages Livonian, North and South Estonian, and Votic. These are, for example, the development of long geminates in Livonian and Estonian (204), tonal distinctions in the same pair of languages, which Pajusalu argues might be related to Scandinavian influence (205–206), foot isochrony – that is, the phenomenon where the longer the first syllable, the shorter the second – in Estonian, Livonian, and to some extent in Votic (206–207), and grade alternation, which, despite its absence in Livonian (as well as in Veps), Pajusalu argues to have a Proto-Finnic origin. Notably, there are traces of grade alternation in Salats Livonian (207–208). Some

of the features Pajusalu deals with have contact-induced origins, such as the palatalization of consonants in (particularly South) Estonian and Livonian with Baltic and Slavic influence (210–211), and the presence of affricates, which are an archaism in S. Estonian but a recent development in Votic (*\*k-* > *č-* for front vowels): both these retentions and innovations may have been conditioned by influence from Baltic and Slavic (211–212). Interestingly, Pajusalu argues that for some of the South Finnic phonological isoglosses, influence from extinct West Uralic languages such as Merya and Muroma should also be taken into consideration; notably, there are some features shared by South Finnic and Mordvin which distinguish South Finnic from North Finnic (219–220).

Petri Kallio’s article *The Prehistoric Germanic Loanword Strata in Finnic* (225–238) is a state-of-the-art report on the loanword layer in question. As Kallio reports, there were already contacts between some Pre-Finnic language and the north-western Indo-European language associated with the Corded Ware/Battle Axe culture, as testified by such archaic Indo-European loans such as *lehti* ‘leaf’ (227). Kallio considers it possible that these loans were transmitted indirectly

through some Uralic or Para-Uralic language of the East Baltic, as the linguistic ancestor of Finnic was still located in the Volga area at that time (228). More intense contacts occurred in the Baltic between an early Palaeo-Germanic language, still retaining an archaic  $\bar{a}$  which shifted to  $\bar{o}$  in Proto-Germanic, and an ancestral stage common to Finnic and Saami during the Nordic Bronze Age (1800–500 BC) (229). For Proto-Germanic loanwords proper, Kallio distinguishes a Middle Proto-Finnic preceding Late Proto-Finnic, as the latter (400–800 AD on the basis of shared Christian terminology) is not contemporary with the former (500–0 BC) (230). These contacts place both Proto-Germanic and Proto-Finnic in Scandinavia and the Baltics during the Bronze Age. Notably, onomastic material of Germanic origin from north of the Gulf of Finland indicates that these contacts took place on both sides of that Gulf (234).

In his article *Non Indo-European root nouns in Germanic: evidence in support of the Agricultural Substrate Hypothesis* (239–260), which is one of two linguistic articles in the volume without a Uralic connection (Willem Vermeer's being the other), Guus Kroonen presents a number of possible substrate lexical items

from the Western Indo-European languages. This substratum is identified on the basis of some apparently non-IE phonological features, such as the appearance of an unexplained alternation between  $a$ - and  $\emptyset$ - in anlaut (239–241). According to Kroonen, the origin of the substratum lies in the language of Neolithic Europe prior to the arrival of the Indo-Europeans. Neolithic Europe is argued to have been linguistically and culturally homogenous (241). Whereas the supposition of intrusive Indo-Europeans seems sound enough – as Kroonen mentions, the genetic differences between European Neolithic farmers and Modern Europeans suggests migration rather than mere cultural/linguistic diffusion – that of a linguistically homogenous Neolithic Europe seems very risky indeed. It would be virtually incredible for such a vast area to have remained linguistically homogenous in the absence of roads, and, for most of its history, wheeled vehicles, until the arrival of the Indo-Europeans – and features such as  $a$ -prefigation are widespread in Celtic, Germanic and Latin (241). One could even argue that the wide spread of  $a$ -prefigation in Western Indo-European speaks *against* a common substrate origin, rather than for it.

The lexical items Kroonen examines are so-called root nouns:

nouns which have a root and an ending, but no intervening suffix. This type of nouns is widespread in languages such as Greek, Latin and Sanskrit but archaic and restricted in Germanic, which makes it an appropriate place to look for substrate vocabulary (242). The items under examination are *\*arwīt* ‘pea’ and cognates in Greek, Latin, possibly Celtic; *\*gait-* ‘goat’ and its single Latin cognate; *\*hnit-* ‘nit’ and its cognates in European IE languages; *\*hnut-* ‘nut’ and its cognates in Western IE languages; the Germanic item *\*edis, dīsi* ‘lady’; and *\*wisund-* ‘bison’ (242–252). The latter is especially interesting: it is connected with Balto-Slavic items such as *wissamb*s in Old Prussian, *stumbras* in Lithuanian and *sumbrs* in Latvian. Kroonen reconstructs a form *\*tsombr* underlying the Balto-Slavic forms, but *\*widzombr* for Old Prussian, and *\*witsond* for Germanic, and argues these are shared substrate items sporting a prefix *wi-*. This seems speculative, as the only thing the three reconstructed items have in common are the dental consonant cluster *ts/dz*, and a notion that Kroonen rejects, namely that the Old Prussian is a contamination between Germanic and Baltic words for ‘bison’ does strongly suggest itself. Kroonen, however, adduces two circumstances which support his

case. For the first, a possible *w-* prefix occurs with another etymon, namely that for ‘boar’: *eofor* in Old English, Dutch *ever-zwijn*, but Latvian *vepris*. Furthermore, Kroonen adds supporting examples for alternation between the labial consonant cluster *mb* and dental *nd*. This makes the suggestion for the Germanic and Balto-Slavic forms to have its roots in a common substrate item convincing, although we are dealing with etymology on the edge of a knife here!

Santeri Junttila, in *The prehistoric context of the oldest contacts between Baltic and Finnic languages* (261–296) provides a detailed presentation of Baltic loanwords in Finnic. As for the archaeological context of those loans, Junttila contrasts the traditional migration theory, according to which the Finnic languages would have arrived to the Baltic in the Iron Age, with the recently popular continuity theory which places Uralic languages around the Baltic with the Comb Ceramic culture (4000–2000 BC), which would come into contact with an intrusive Battle Axe culture (261–263). Junttila argues for a middle way in the shape of Bronze Age contacts between Finnic and Baltic, a model which he reconciles with Kallio’s proposal that the expansion of Uralic languages is to be

identified with the Sejma-Turbino phenomenon (264–265). According to Junttila, Baltic loanwords in Saami not represented in Finnic are very few, and lexical loss on the Finnic side may well have occurred here (266), which is compatible with Aikio's view that Baltic loanwords in Saami were transmitted indirectly through Finnic. Finally, Junttila provides a detailed treatment of 73 proposed Baltic etymologies grouped according to semantics (e. g. hunting, fishing, etc.) (268–). The etymologies themselves are classified as 'relatively clear', 'dubious' and 'erroneous'.

Riho Grünthal likewise deals with Baltic loanwords, but this time in Mordvin (*Baltic loanwords in Mordvin*, 297–343). There are more than thirty such loanwords: they testify of contacts that were both less intensive than those between Baltic and Finnic, and separate: the loanwords are, mostly, not shared with Finnic (297). Rejecting the hypothesis that these loanwords were transferred eastwards from Finnic through such extinct, intermediary languages such as Merya, Muroma, etc., Grünthal argues that contacts happened far to the east, at the eastern rim of the prehistorical spread of Baltic languages, that is, in the area of the Oka river, and that they happened very early, beginning

during a Pre-Mordvinic stage that preceded Proto-Mordvinic and succeeded the final linguistic stages that were shared with other Western Uralic languages, such as Finnic (299–305). There do not appear to be any Baltic borrowings in Mari, and of those in Mordvin, about half of the borrowings are not shared at all with Finnic. Of those which do occur on the Finnic side, most show discrepancies in phonology, etc., which suggests separate borrowing (310–311). The individual loanword etymologies are then presented in great detail (312–).

Both of the preceding articles on Baltic loanwords are complete, up-to-date reports on the current state of research. The collection as a whole, however, would have benefited from a treatment of possible syntactic influence from the Baltic languages as well, such as the usage of the partitive case as an object marker (Larsson 1983). The issue of possible Baltic influence on argument case-marking in Finnic and Saami presents some problems which would have been interesting to see dealt with in light of some of the hypotheses advanced here – such as that of lack of direct borrowing between Baltic and Proto-Saami. Notably, Saami shares with Finnic the usage of the original \*-tA ablative as an object marker,

though not partiality-based object marking itself. This is problematic if we hold to both the plausible view that this usage was conditioned by Baltic influence and the plausible view that Baltic and Proto-Saami were not in direct contact.

The final paper in the collection, Willem Vermeer's *Why Baba-Yaga? Substratal phonetics and restoration of velars subject to the Progressive Palatalization in Russian/Belorussian and adjacent areas (appr. 600–900 CE)* (345–370) is the second one not directly related to Uralic. Its starting point is the way in which words such as *Baba-Yaga*, the witch from fairy tales, exemplify what appears to be a reversal of progressive palatalization, e. g. Polish *jędza* 'witch', which is a common Slavic innovation. Unmodified velars, on the other hand, are restricted to the Russian/Belorussian dialect area (345). Progressive palatalization in common Slavic and the controversies surrounding it are described in great detail (347–350), as are, subsequently, the restructuring of paradigms which may involve the extension of both palatals and unmodified velars (350–353) and subsequent palatalizations (355–360). For non-Slavicists, however, this description (and the explanation of the presence of unmodified velars in Russian/Belorussian) is not very

accessible due to the fact that a second sound change, Second Regressive Palatalization, is alluded to, but not defined.

As a whole, the collection represents up-to-date views on the synthesis of archaeological and linguistic evidence in the prehistory of the North, exemplified by Aikio's and Parpola's papers, detailed research on loanword evidence and substratal lexicon (Viitso's, Kallio's, Junttila's, Grünthal's and Kroonen's papers) and interesting case studies in archaeology and historical phonology (Lavento's, Damm's, Pajusalu's and Vermeer's papers). For people who wish to refresh or update their knowledge on the linguistic and archaeological prehistory of northern Europe, this volume, which takes into account some of the most important research results of the last decade, is indispensable. Two points of criticism remain: the first minor, the other, perhaps, medium-sized. Both deal with what is missing from the collection as a whole rather than with the individual articles (which are, uniformly, sound). The first is that a consideration of structural contacts between Baltic and Finnic/Saami, and perhaps also between Germanic and Finnic/Saami, would have been very welcome as, as mentioned before, some of the

hypotheses regarding those contacts made in the research literature appear to conflict with the place and date of borrowing contacts as reported in the articles here. Particularly, the development of the Uralic ablative *\*-tA* into an object marker in Finnic and Saami, and the possibility of Indo-European and specifically Baltic influence on this development, presents chronological problems. The second is that the kinds of correlations between archaeological cultures and ethnolinguistic groups most prominent in Parpola's article but present in others as well, are in need of a theoretical and methodological defence against criticism forwarded by Saarikivi and Lavento (2012) as well as, in this volume, Damm. I should add that I believe such a defense to be possible: the results presented in this volume represent (in contrast to some of the heated discussions on prehistory in the 90s and early 00s) solid progress in the field.

*Merlijn de Smit*

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