Finnic *litna 'town, castle', a possible alternative origin

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Etymologin för det urfinska ordet *litna, som har betydelserna 'stad' och/eller 'borg', är omstridd. Bara en etymologi har föreslagits, nämligen ett lån från urformen för sv. fläck, dvs. $\leftarrow +flikna$ - el. hellre *flekna-. Här bedöms det förslagets gångbarhet och vägs mot en ny möjlig etymologi, nämligen ett lån från urformen för svenskans klippa, dvs. $\leftarrow *klibn$ -.

1. The Finnic data and the Proto-Finnic reconstruction

Words with the meanings 'town, borough' or/and 'castle, fortification' occur in all branches of Finnic. The ancestor is reconstructed as Late Proto-Finnic (LPF) *litna. The cognates that have the meaning 'town' occur in all daughters except Livonian and modern Finnish, while the cognates with the meaning 'castle' occur only in Finnish, Karelian and Livonian (EES, LägLoS, SKES). The aim here is to advance the discussion on the origin of this etymon.

Finnish	linna	'castle, fortification'	
Karelian	linna	'castle, etc.'; 'town, etc.'	
Ingrian	linna	'town, borough'	
Lydic	l'inn, lidn(e)	'town, borough'	
Veps	ľidn	'town, borough'	
Votic	lidna (dial.: linna)	'town, borough'	
Estonian	linn	'town, borough'	
Livonian†	nīn	'castle, fortification'	
South-Estonian	liin	'town, borough'	

Table 1: Formally equivalent cognate lexemes meaning 'town' or 'castle'. † At least the initial nasal in Livonian is phonologically irregular.

The Livonian form $n\bar{n}n$ is not phonologically expected, but considering that a similar sporadic remote assimilation to another nasal occurs in $n\bar{i}$ 'em' 'cow' (cf. LPF *lehmä) the word must be considered inherited, and as such admissible

testimony of its semantics. Finnish and Karelian are diachronically close mutual relatives while Livonian is more remote (Kallio 2014), and not one with much direct contact with Finnish. Hence, unless we accept that the same semantic drift has occurred twice, the meanings 'castle etc.' and 'town etc.' will both have to be reconstructed in early dialects of Late Proto-Finnic.

For the purpose of reconstructing the medial sequence *-tn- there are not many parallel cases to rely on. Sequences with an obstruent followed by a resonant do not occur at all in Pre-Finnic Uralic etymologies. Accordingly, such words with known etymologies are all loanwords, typically from Proto-Germanic (PGm) or Proto-Baltic (PBlt). A few examples include:

- 1) Fi. neula 'needle' < *nekla ← PGm *nēþla- > Sw. nål (LägLoS)
- 2) Fi. sauna 'sauna' < *sakna ← PGm *stagna- > Sw. stack (Kallio 2008)
- 3) Fi. teeri 'capercaillie' < *tetri ← PBlt *tetr- > Latvian teteris (SSA)
- 4) Fi. vuona 'lamb' (cf. Ingr. voonna) < *vootna ← PBlt *ōgna-s (SSA)

In addition to **vootna* above there is yet another example with the sequence *-*tn*- (or *- δn -) with a wide distribution in Finnic, as illustrated in Table 2.

Proto-Finnic	*litna	*vatnas (*vaŏnas)	'coulter' (prow)
Finnish	linna	vannas, vaana, vaarnas	'coulter'; 'prow'
Karelian	linna	vannas, voarnas	'coulter'
Ingrian	linna	vaarnas	'coulter'
Lydic	l'inn, lidn(e)	vannaz (vadnaz)	'coulter'
Veps	ľidn	vadnaz	'coulter'
Votic	lidna (dial.: linna)	-vadnaz (dial.: vaarna-)	'coulter'
Estonian	linn	vannas (vadnas, varnas)	'prow'; 'coulter'
Livonian	nīn	va'dmõl (derived form)	'prow'
South-Estonian	liin	_	

Table 2: Comparison of etymons to support the reconstruction of *-tn-.

For the purpose of reconstructing vowel length there is a potential issue involved, with secondary pre-cluster lengthening in the word *vatnas/vaðnas in some northern daughters and in the word *litna in the southernmost daughters. Neither of these distributions of length matches the descendants of the word

*vootna, which has a long vowel in a wide-ranging distribution, the only exceptions being secondary pre-cluster shortening in Veps and Votic as well as a data gap in South Estonian, where the word is not attested (EES: s.v. voon). The difference is best explained by a substitution of a long vowel in the loan original of *vootna, namely PBlt *ōgna-s.\frac{1}{2}

So, considering the data, the reconstruction *litna is solid enough and its two meanings are conceivably both ancient. Not least owing to the phonotactic structure of the medial sequence *-tn-, we know that the noun should be a loanword. The same conclusion is supported by the occurrence of -i- in the initial syllable when occurring in a back-vocalic stem (Häkkinen 2019:34f). The wide distribution of the etymon indicates a quite ancient LPF borrowing. The same is suggested by the fact that no transparent loan original is available in latish Iron Age Proto-Norse or Proto-Slavic. Accordingly, the only loan original proposed so far is of greater age. It has sparked controversy, as discussed in the next section.

2. The merits of assuming a borrowing from PGm +flikna-2

The loan original that has been proposed is a supposed PGm +flikna- with descendants in Sw. fläck 'spot, fleck; stain', in German fleck 'spot, fleck; stain; place' and in the other Scandinavian and continental West Germanic languages. The proposal goes back to T.E. Karsten (1915, 1943–1944) but is quite explicitly rejected in AEW (s.v. flekkr) and LägLoS (s.v. linna). It is however argued anew by Jorma Koivulehto (1999:121) in his review of LägLoS.

2.1. The semantics of the assumed loan original

As for the semantics Koivulehto (1999:121) points out that the cognates in many Germanic languages have a meaning of 'place' whereas *vleck(e)* in Middle High German also meant 'marketplace' (cf. derived German *flecken* 'borough'). A meaning of 'village' has developed in Dutch *vlek*. Also, in Old High German

¹ In addition to these etymons there is the verb *vatno-dak where the reconstruction of the cluster relies on a possible Sámi cognate vuordnut (Koivulehto 1999:121). Note that the validity of the Sámi testimony would be no less if the word had been borrowed early enough from Proto-Finnic. Apart from the Sámi word, there are no attestations in Finnic itself to the presence of a cluster in Proto-Finnic. This could be explained by greater age, if the earlier cluster had developed into *-nn- before a reintroduction of a LPF cluster *-tn- through later loanwords. I owe this observation to Petri Kallio (personal communication), who has also contributed with some other useful comments, for which I express my gratitude.

² Together these are the reasons why in this paper the reconstruction +flikna- is prefixed with a '+'-sign to indicate that it is here understood to be erroneous.

a meaning of 'village' is reported in AEW (s.v. *flekkr*). A chain of development 'spot' > 'place' > 'marketplace' > 'village' or 'town' must be deemed probable against this background.

Nevertheless, while the conclusion may be drawn from this data that a semantic development from 'spot' to 'town' in general could take place, and indeed that it has taken place in some continental West Germanic daughters neighbouring each other, it is not verified that it had done so already in early Proto-Germanic. Certainly, the meaning of 'town' is absent in the North Germanic cognates, for example Old Swedish (OSw) *flæcker*, Old Norse (ON) *flækkr*, Old Danish *flæk*, Övdalian *flækk* etc. And indeed, based on the medial cluster, which developed into *-kk*- already in Proto-Germanic, it is at the PGm level where the assumed loan original of this etymon must be sought.

In conclusion the chain of semantic changes assumed for the loan original is longish and hypothetical but not impossible. For the etymology to work, however, all these changes should have been concluded already in early Proto-Germanic, for which the argument is based on conjecture.

2.2. The phonology of the assumed loan original

To recall again, the form that must be reconstructed in Late Proto-Finnic is **litna*. Matching this form with a reconstruction of the assumed loan original raises a couple of problems. These are invoked in LägLoS (s.v. *linna*) to underpin a rejection of the etymology.

Based on the examples of Finnic *vootna 'lamb', *vatnas 'coulter (prow)' and *vatno-dak 'to swear' Koivulehto has, contrary to the doubt expressed in LägLoS, argued well that a substitution of Finnic *-tn- for *-gn- (or *-g w n-, or by implication *-kn-) could have happened, given that the borrowing occurred early, before Finnic *-kn- had become phonotactically permitted. His argument is valid, but indeed it requires a quite early date of borrowing: the etymology would have to be older than that of sauna < *sakna in example 2 above, which in itself is a remarkably early Germanic borrowing owing to the substitution of word-initial *s- (instead of *t-) for PGm *st-.

Once this problem has been cleared there is another one, which proves to be more difficult, namely the reconstruction of a high vowel in +flikna- (or +fligna-). The high vowel relies on one fatal and one dubious assumption.

First and foremost, a fatal problem for the suggested reconstruction follow from the Germanic data, where all descendants display a non-high vowel -e- or -æ-. The viability of the reconstruction is preconditioned on the hypothesis that a lowering umlaut would have occurred in all branches. Yet this is not supported by a check of sub-minimal pairs in Scandinavian, in which the same high vowel consistently remains non-lowered in phonological environments where equally

active triggers for the lowering umlaut are present, such as in Sw. *sticka* 'splinter, sliver; knitting needle' with its Scandinavian cognates, each without any lowering from < **stikkōn-*.³

Secondly, the etymology invoked to account for the high vowel is at best uncertain. It would be a zero-grade cognate of ON f. flik(a) 'rag' (EWDS: s.v. flekk, flecken) < PreGm *plei-g- 'torn off piece' (SEO: s.v. flik), in eastern Scandinavian also meaning 'patch; flap, tab'. This possibility is explicitly dismissed in SEO (s.v. fläck) and no longer even discussed for example in AEW (s.v. flekkr) or DEO (s.v. flæk). Koivulehto (1999:121) addresses this problem with a reference to EWDS: "Das schon traditionell angesetzte urgerm. -i- (vgl. Streitberg [...] Pokorny [...]) ist auch heute durchaus vertretbar (siehe Kluge – Seebold s.v. flekk, flecken)". However, Koivulehto's source itself (EWDS:ibid.), only presents this etymology as its secondary option and by a quite cautious and conditional formulation. A preferred etymology, being semantically superior, is a full-grade (or "e-grade") cognate of English flake < PGm *flaka- (SEO:ibid.). The latter requires a reconstruction with the ablauting mid-vowel, as in *flekna- and is thus best compatible with the etymological discussion in EDPG (s.v. *flaka).

Finally, no one has suggested yet that *-i- in *litna could have been substituted for *-e- in *flekna-. It goes without saying that in this particular case, where also the semantics are difficult, there should be no compelling reasons to resort to this remote and quite unparalleled possibility.

³ There are numerous other examples, but many might be borrowed from Low German like Sw. *vicka* 'to wiggle, jiggle' ← ... < *wignan- (or *wikkan-) and other may equally well be intensive or iterative derivatives, the formation of which are difficult to prove earlier than the lowering umlaut, such as Sw. *vricka* 'to sprain, twist' < *wrikkan- or *wrignan-. Since no parallels for lowering exist an *ad hoc* auxiliary assumption would be called for, such as the Nordic word being a borrowing from West Germanic.

⁴ There is no coherent treatment of Grimm's law in either Koivulehto (1999:121) or in LägLoS. Koivulehto denotes Indo-European *pliknó, which renders a PGm *-g- and makes the etymology incompatible with the very explanation in EWDS (s.v. fleck, flecken) that he invokes for the vowel. LägLoS (s.v. litna) on the other hand denotes "frühurg. *flign-> urgerm. *flikna-" with -g- retained after the operation of Grimm's law on the initial f-, thus apparently displaying an internal chronology of the different stages of Grimm's law and representing a different consonant than Koivulehto.

⁵ The appearance of the full-grade in the shape of the PGm vowel */e/ in the PGm ablaut *flaka-/*flekn- excludes all roots with a final laryngeal *h2, as in *pelh2-/pleh2-. This means that none of the Latin and Greek parallels invoked to support the etymology in SEO (s.v. 1.flak) can be accepted. For the same reason the etymon does not compare to the theme discussed in EWDS (s.v. flach, fladen, flur) and VAEO (s.v. flade, flor), nor does it benefit from the Latin and Greek parallels that DEO (s.v. flagre, flæk) invokes in support of its preferred etymology for the Danish cognate flæk.

3. The merits of assuming a borrowing from PGm *klibna

Given the severe problems with the one proposal for an etymology of Late Proto-Finnic *litna, there is scope to seek other possibilities to explain it. A potential original that seems to have escaped attention is the PGm ancestor of Middle Low German klippe 'cliff, rock' (on land or by the sea). The etymon has correlates in Old Danish (DEO: s.v. klippe) and OSw klippa 'rock (off the seashore)' biærgh klippa 'cliff (on land)' and biærgs klippa 'ibid.' (FSLDB: s.v. biärgh, s.v. biärghklippa, s.v. klippa).

Just as German *Klippe* 'cliff, reef, rock (by the sea)' (EWDS: s.v. *Klippe*) and Dutch *klip* 'ibid.' (EWN: s.v. *klip*), the Scandinavian word is thought to be borrowed from Middle Low German (SEO: s.v. *klippa*). In New Norwegian, the word is considered a loan over Bokmål from Danish (BMO-NNO: s.v. *klippe*). The direction of borrowing conforms to the fact that the Scandinavian weak declension must be secondary, since a reconstruction +*klibnōn*-, based on it, would pose a problem since it contains a double reflex of the nasal stem formant. Despite that the oldest occurrence thus must be considered limited to Old Saxon, the supposed PGm etymology **klibn*- still presupposes high age, i.e. that the word existed already in early PGm when *-*bn*- developed into -*pp*-.

3.1. The assumed phonological sound substitution

The etymology discussed here implies a unique sound substitution of *-tn- for *-bn-. At first glance a hypothetical but non-existent Proto-Finnic cluster +-pn- would have been a most faithful candidate to substitute any of the clusters *-bn-*-fn- or *-pn- in a PGm loan original. Against this background a prerequisite for the viability of this etymology is a further assumption that Proto-Finnic phonotactic constraints would have discarded this candidate in favour of *-tn-. This assumption is plausible, considering that for example in Finnish no cluster *-pn-has appeared until modern times, not even on morpheme boundaries. Consider also that precisely *-tn- was a preferred substitute at an early Proto-Finnic time when *-kn- was still discarded by constraints. This is shown by equally early loanwords, as presented with reference to Koivulehto (1999:121) in subsection 2.2 above.⁶ The same may thus well have been the case for a disallowed +-pn-.

⁶ This is not contradicted by the fact that clusters of ascending sonority with the labial followed by a liquid have been introduced through loanwords, exemplified by *-pr- in sepra 'company' ← PBlt *sēbra- (SSA: s.v. seura) and (perhaps only later) *-pl- as in kepla 'bow, prow' ← PGm *skeula- 'shelter' (LägLoS: s.v. keula). A substitution such as in *revna 'edge' ← PBlt *breuna- (SSA: s.v. reuna) is not equivalent either owing to the different sonority contour.

Nonetheless, in no other Finnic word has a sound substitution of *-tn- for *-bn- been identified. This may be an accidental data gap, since the set of borrowed Finnic lexical items is limited, and the clusters *-bn- *-fn- *-pn- are not overly common in early Proto-Germanic anyway. In lack of a direct parallel for this cluster substitution, a piece of evidence could be invoked to testify that the very same phonotactic constraint seems to have operated in a somewhat younger Finnic etymology, where +-pn- was also not used to substitute *-bn- or *-fn-. Thus Early Finnish/Carelian *aineh (perhaps alongside a variant *aun-), which developed into Finnish aine 'substance, material; cause, reason', has been presumed to be a borrowing from Proto-Norse *afnia-/*abnia- > ON efni ~ OSw æmne 'ibid.' (LägLoS: s.v. aine with references). If this cluster was discarded as a valid sound substitution in Early Finnish/Carelian, this must so much more have been the case in the phonotactically more rigid Proto-Finnic, which was contemporary with the Proto-Germanic original.7 Unfortunately, also the sound substitution in this etymology lacks a parallel case to support it, which for the reasons already quoted may again be a gap in the data. In any event, this etymology must be deemed rather uncertain despite the near-perfect semantic match.

In conclusion, the sound substitution may be argued to be plausible, especially considering that better substitutions may not have been available. The lack of better parallels may be accidental gaps in the data but will nonetheless impede the explanation based on *klibn- from being conclusively ascertained.

3.2. The semantics of the assumed loan original

The descendants of the word *klibn- have two wide-spread meanings, the better known meaning being 'cliff or rock in/by a lake or a sea(shore)'. In West Germanic, this meaning is the only one that has survived. Yet, originally a klip(pe) may well have been on land as stated in EWN (s.v. klip):

Until the 16th century, the word *klip(pe)*, both in Dutch and in Low and High German, could also indicate a rock on land, in particular as a shelter or dwelling place for animals. Nowadays, only rocks in the sea or on the coast are still called *klippen*.⁸

⁷ The substitution would obviously be much younger, because the Proto-Norse cluster must have become composed after the sound law *-bn-/-fn- > *-pp- had ceased to be productive in Proto-Germanic (if not, the modern Scandinavian forms would contain a geminate, such as +eppe).

⁸ Tot in de 16e eeuw kon *klip(pe)*, zowel in het Nederlands als in het Neder- en Hoogduits, ook een rots op het land aanduiden, met name als schuilplaats of woonplaats voor dieren. Tegenwoordig noemt men alleen rotsen in zee of aan de kust nog *klippen*.

In fact, many of the oldest attestations in Swedish has nothing to do with the sea or a lake. In Old Swedish, for example, the compounds *biærghklippa* or *biærgs(-)klippa* occur four times in a medieval version of the book of Judges (FSVLDB: s.v. *biärgh*, s.v. *biärghklippa*) and in all of them the narrative stays firmly on land, for example the mentioning on page 89:

Oc vppa thentidh waro madyans tiæl j dalenom widh ſwdhra ſydhona widh høgha bærgx klippona. – And at that time the Midyanites' tents were in the valley on the south side by the high mountain cliff.

These "terrestrial" meanings are diverse in the richer corpus of literary Swedish of the 16th century. One of them is at times close to 'fortification'. In SAOB under the entry of *klippa* (sbst.) the following meaning is given and exemplified, among others, by the two subsequent examples:

(more or less) standalone, steep, often bare (woodless) cliff in particular when situated in or near water (usually sea or lake); sometimes about such rock under the water surface; in earlier times occasionally approaching the meaning 'rock fortress'; often in comparisons to denote firmness or immobility.⁹

The säya berghomen och clippomen, Faller vthoffuer oss och skyler oss. Upp. 6:16 (NT 1526). – They tell the mountains and the rocks, Fall on us, and shelter us. (Apocal. 6:16, New Testament from 1526)

Han tractade honom efter lif ..., för thet han icke ville late sättie en hop uthaf hans krigsfolk in upå Bahus klippa. RA I. 2:326 (1569). – He wished him dead..., for the sake that he would not let a horde of his troops be allotted to the Bohus castle rock. (Parliam. acts from 1569)

Further, under the entry *klippa* (sbst.) another meaning is given and exemplified, as follows:

(especially in religious style) to designate someone or something as the solid foundation or the reliable support or as a safe haven and a safe shelter for someone or something; especially about God or Christ.10

Herren är mijn klippa och mijn borgh. 2 Sam. 22:2 – The Lord is my rock and my fortress. 2 Sam. 22:2 (Bib. 1541)

⁹ 1) (mer eller mindre) fristående, brant, ofta kal (trädlös) bergmassa; i synnerhet om en sådan i eller vid vatten (vanligen hav eller sjö); stundom om dylik under vattenytan; förr någon gång närmande sig betydelsen: klippfästning; ofta i jämförelser för att beteckna fasthet eller orubblighet.

^{10 3) ...} a) (i synnerhet i religiös stil) för att beteckna någon eller något såsom den fasta grunden eller det pålitliga stödet eller såsom en trygg tillflykt och ett säkert beskydd för någon eller något; i synnerhet om Gud eller Kristus.

These last meanings in 16th century Swedish are somewhat different from both meanings in the West Germanic daughters, including from the terrestrial meaning of 'rock shelter (for animals)', which has gone extinct. The question is where the meanings of a 'firm and solid foundation', 'safe haven' and 'fortress rock' come from. They appear to defy the general tendency, according to which innovations in 16th century religious Swedish mainly draw on Luther's High German. Could the new meanings really have developed independently of that tendency, spontaneously, in just 150 years after borrowing from 14th century Low German? Or could they reflect an innovative calque of the German word *Fels* 'rock'? Or would the meanings continue a semantic inheritance from Proto-Germanic, more or less invisible in the earlier corpus of Old Saxon? Notwithstanding the uncertainty regarding the more specific meaning of 'fortification', this does not challenge the reconstruction of a slightly more general PGm meaning such as 'rock shelter' or 'safe haven'.

3.3. The assumed semantic development of the loan word

A meaning of 'town' may easily develop from the meaning 'fortification' in a context where villages or towns were protected by fortified safe havens. This is for example the assumption made for the PGm word *burgz and its descendants in SEO (s.v. borg) and VAEO (s.v. borg). EWDS (s.v. burg) argues at length in favour of the reverse direction of semantic development, which must be considered equally possible.

The question here is which direction of development is the one that occurred in the Finnic languages. This is also a matter for archaeology. Koivulehto (1999:121) argues in favour of a semantic development from 'town, borough' to 'fortification' and 'castle' by the argument that the earliest Estonian *litna-communities were no refuge fortifications but protected settlements often situated on promontories or islands. This part of his text comes without references. While there are no immediate reasons to doubt his position, it cannot be evaluated further here.

4. Comparing the merits of the two possible etymologies

For reasons stated in Section 1, the etymology is surely old. In the context of the Early Metal Age a reasonable expectation is that the word *litna, which reflects a settled and partly urbanised society would originate from a southern rather than a northern zone of language contact. Moreover, many words in the field of construction are Proto-Baltic, such as *tilta 'bridge', *talo 'house' and *širte-'log'. Against this background, it may be asked why the etymology should be

Proto-Germanic in the first place. Yet given the alternatives at hand, we have undertaken to weigh two available PGm proposals for etymologies against each other and leave a future quest for a PBlt etymology to others.

At this point, we may state that neither of the etymologies is impossible from a semantic point of view, but both are problematic. There are gaps to be filled in, which makes the reasoning hypothetical. In both cases, the data raise misgivings about reconstructing the required meaning as far back as in Proto-Germanic. Admittedly these gaps seem no less severe for the new etymology based on *klibn-, compared to Koivulehto's etymology based on *flign-/flikn-.

As far as the sound substitution is concerned, both etymologies are relatively vulnerable to criticism. The assumed sound substitution in $*klibn- \rightarrow *litna$ can be argued to be plausible but unlike Koivulehto's etymology it does not benefit from attested parallel cases. In both cases, the reconstruction of the consonant cluster in the loan original is open to controversy, but also in both cases, the required reconstruction is the mainstream majority view. When it comes to the vocalism, the new etymology is far superior, as the reconstruction of a high vowel in +flign-/flikn- goes against the best available etymological and phonological evidence.

References

Dictionaries

- AEW (1977) = Jan de Vries: *Altnordisches etymologisches Wörterbuch* (2. verbesserte Aufl [1. ed. from 1957-60]). Leiden: Brill.
- BMO-NNO = *Bokmålsordboka og Nynorskordboka*. Universitetet i Bergen & Språkrådet <ordbok.uib.no> (November 2019).
- DEO (1985) = Niels Åge Nielsen: *Dansk etymologisk ordbog: ordenes historie* (4. opl. [1. ed. from 1966]). København: Gyldendal.
- EDPG (2013) = Guus Kroonen: *Etymological Dictionary of Proto-Germanic*. Leiden: Brill.
- EES (2012) = I. Metsmägi, M. Sedrik, & S.-E. Soosaar (Eds.): *Eesti etümoloogia-sõnaraamat*. <portaal.eki.ee> (November 2019).
- EWDS (2002) = F. Kluge & E. Seebold: *Etymologisches Wörterbuch der deutschen Sprache* (24., durchges. und erw. Aufl). Berlin: de Gruyter.
- EWN (2003–2009) = Philippa, M., F. Debrabandere, A. Quak, T. Schoonheim & N. van der Sijs (Eds.): *Etymologisch woordenboek van het Nederlands*. Amsterdam: Amsterdam University Press.
- FSVLDB = *Fornsvensk lexikalisk databas*. Göteborg: Språkbanken, Göteborgs universitet. <www.spraakbanken.gu.se/fsvldb> (November 2019).

- LägLoS (1991–2012) = A. D. Kylstra, S.-L. Hahmo, T. Hofstra & O. Nikkilä: *Lexikon der älteren germanischen Lehnwörter in den ostseefinnischen Sprachen* (1991st–2012th ed., Vols 1–3). Amsterdam; Atlanta; New York: Rodopi.
- NAOB (2017) = Tor Guttu et.al. (Eds.): *Det Norske Akademis ordbok*. <www. naob.no>
- SAOB = Ordbok över svenska språket, utgiven av Svenska Akademien. <www.saob.se>
- SEO (1980) = Elof Hellquist: *Svensk etymologisk ordbok* (3. korrigerade upplagan [1. ed. from 1922], Vols 1–2). Lund: Liber.
- SKES (1955–1981) = Toivonen, Y. H., E. Itkonen & A. J. Joki (Eds.): *Suomen kielen etymologinen sanakirja I–VII*. Helsinki: Suomalais-ugrilainen seura.
- SSA (1992–2000) = Itkonen, E., & U.-M. Kulonen (Eds.): *Suomen sanojen alkuperä: etymologinen sanakirja* (Vols 1–3). Helsinki: Suomalaisen Kirjallisuuden Seura: Kotimaisten kielten tutkimuskeskus.
- VAOE (2007) = Harald Bjorvand & Fredrik Otto Lindeman: *Våre arveord: etymologisk ordbok* (rev. og utv. utg [1. ed. 2000]). Oslo: Novus forlag.

Other Literature

- Häkkinen, Jaakko (2019): Kantasuomen keskivokaalit: paluu. In: S. Junttila & J. Kuokkala (Eds.): *Petri Kallio rocks : Liber semisaecularis 7.2.2019*. Helsinki: Kallion Etymologiseura, 24–40.
- Kallio, Petri (2008): The Etymology of Finnish sauna 'Sauna'. In C. Dekker, A. A. MacDonald, & H. Niebaum (Eds.): Northern Voices: Essays on Old Germanic and Related Topics, Offered to Professor Tette Hofstra. Germania Latina VI. Leuven, Dudley, Mass: Peeters, 313–320.
- Kallio, Petri (2014): The Diversification of Proto-Finnic. In J. Ahola, Frog, & C. Tolley (Eds.): *Fibula, Fabula, Fact: The Viking Age in Finland*, 155–168. www.doi.org/10.21435/sfh.18> (November 2019).
- Karsten, Torsten Evert (1915): Germanisch-Finnische Lehnwortstudien. Ein Beitrag zu der ältesten Sprach- und Kulturgeschichte der Germanen. <www.archive.org/stream/actasocietatissc45suom#page/n38> (November 2019).
- Karsten, Torsten Evert (1943–1944): Finnar och germaner: Folk- och kulturberöringar från tre årtusenden. *Folkmålsstudier*, IX–X (1943–44).
- Koivulehto, Jorma (1999): Review of LÄGLOS, Bd. II. Kratylos, 44, 119–122.

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