# *PŪRVĀPARAPRAJÑĀBHINANDANAM*
# EAST AND WEST, PAST AND PRESENT

## Indological and Other Essays
## in Honour of Klaus Karttunen

EDITED BY

BERTIL TIKKANEN & ALBION M. BUTTERS

# Studia Orientalia 110

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# NASAL REDUCTION IN LATE LUWIAN

*Petri Pohjanlehto*

## 1. INTRODUCTION

Although not in the strict province of the highly esteemed jubilant, Professor Klaus Karttunen, the historical phonetics of the ancient Anatolian languages nevertheless belong to his discipline as part and province of comparative Indo-European studies. Therefore I venture to submit this short paper as a small contribution and hope that it will not prove worthless for Anatolian linguistics in general.

It is a well-known fact that in Hieroglyphic Luwian no nasal consonants are written preceding stops, whereas in the Hittite and Cuneiform Luwian texts these nasals are always present (Payne 2004: §2.3,3). Accordingly, one finds such correspondences as Ht. *antan* (wr. an·da·an) 'in, inside' (Hoffner & Melchert 2008: §20.15; Kloekhorst 2007: 222) = CL *antan* (wr. an·da·an) 'inside' (Melchert 1993: 18) = HL *atan* 'in' (wr. *á·ta·na*, only used as a prefix, Payne 2004: §3.4.1.3 c); Ht. *-anzi* (wr. -an·zi), present tense ending for the third person plural "they" (Hoffner & Melchert 2008: §11.6) = CL *-anti* (wr. -an·ti) = HL *-a·ti* (wr. -a·ti, Payne 2004: §3.4.2.2, with a "normalized" form *-nti*); and so on. The usual explanation for this phenomenon has been that the Hieroglyphic writing, for some reason or another, lacks the means of indicating this nasal phoneme preceding a stop, whereas the more fully developed Cuneiform writing is able to show it. The purpose of this paper is to show that the omission of the nasal may be due to a phonetic process, with the nasal reduction occurring in later Luwian, and not to orthographic peculiarities only.

## 2. NASAL REDUCTION AS A PHONETIC PROCESS

It may be useful to look at this process in another language, the phonetic system of which is clearer and better understood than that of the Anatolian languages (which, despite the enormous progress made in the past fifty years, still present formidable barriers for an understanding of their phonetic structure). I am here

referring to the (early) Irish language, which underwent a similar change in a pre-literary phase of its development.

According to Thurneysen (1946: §208),

> The stages of this development were probably as follows. First *k* and *t* were intensified [...] The nasal then coalesced with the preceding vowel into a nasal vowel [...] After these nasal vowels the geminates became voiced (*gg, dd*). Subsequently *i̯, o̧,* and *u̯* lost their nasal quality and became *i, o, u,* while *a̧* and *ȩ* fell together as the nasal vowel *ȩ.* The latter was lengthened, perhaps only when stressed, and later changed into purely oral *ē* [...] If *Andros* (Pliny) and *Αδρου ἐρημος* (Ptolemy) correspond to later **Benn Étair** "Hill of Howth" [...] they may be regarded as representing the pronunciation *a̧dr-* (< *antr-*).

Thus we have in Old Irish *sét* /ʃeːd/ 'way' < *séntus (to Bret. *hent* 'road, street'), *cét* /kēːd/ '100' < *kn̥tóm (to W. *cant* '100'), as given in Thurneysen (1946: §208).

The seemingly orthographic loss of nasals before stops in Hieroglyphic Luwian can be interpreted as a similar process: first the nasal was gradually weakened, causing the following consonant to become voiced, and then it merged with the preceding short vowel, the result perhaps being a kind of nasal vowel which was then lengthened, whether in an (originally) stressed or unstressed syllable. Thus sequences like *anka, *anta, *ampa gradually became *āga, āda,* and *āba,* respectively.

## 3. EXAMPLES FROM HIEROGLYPHIC LUWIAN

**3.1.** HL *a·tá* /āda/ 'in, within' (reinforcing the locative case, Payne 2004: §4.5 b) < *n̥-do (Pokorny 1959: 311), related to the preposition *en = Latin and English *in*, in Luwian shows the zero grade (according to Kloekhorst 2007: 222), and an enlargement to form an adverb, with the following development in Anatolian: PIE *n̥do > Proto-Anatolian *anda > Hittite *anta* (Friedrich 1966: 23a; Tischler 2001: 17); > Early Luwian *anta > CL *anta* [written *an·ta*] (Melchert 1993: 18, with the nasal intact) representing /ánta/, but also written *a·a·an·ta,* perhaps already tending towards /ãːⁿda/. However, the Lycian form *ñte,* representing /ᵊnte/, shows loss of the preceding vowel, a factor that prevented the process of its nasalization and the subsequent change of the voiceless stop into a voiced one (unless <ñt> is only a graphical way to express /d/).

The Indo-European cognates usually show *e-* on the first syllable in this word, probably under the influence of the absolute form *en: early Latin *endo* 'into', Greek *ἔνδον* 'in, in the house', but Old Irish *and* 'in it' (inflected form of the preposition *i,* Thurneysen 1946: §437) clearly show the vowel *a-,* which cannot go back either to *e- or *n̥, as these would have yielded *ind (which actually exists

in the sense 'into it', ibid.) or *end in Old Irish. According to Thurneysen (1946: 521), *a-* is the original vowel here, whereas the *e-* in Latin and Greek is taken over from the absolute form *en. But this would mean that the etymology outlined above needs some modification.

**3.2.** The third person plural present tense had the ending *-onti in the Proto-Language. This ending developed in Anatolian as follows: Proto-Anatolian *-anti > Hittite *-anzi* (Hoffner & Melchert 2008: §11.6); Early Luwian *-anti > CL *-anti*, HL *-ādi* (written *-a·ti*, Payne 2004: §3.4.2.2; Woudhuizen 2004: 125). Note that this ending is not affected by rhotacism (Payne 2004: §2.3,3), as that phonetic process only affects an original *t or *d, not *dʰ or the secondary dental from *nt.[1]

**3.3.** A similar case is the formant *-ant- forming adjectives in Indo-European languages: it has the form *-ant-* in Hittite (written *-a·an·ta-*, Hoffner & Melchert 2008: §2.23–27, in the nominative *-anz*), *-anti-* in CL (as in *ap·pa·ra·an·ti·is* 'future', representing /aparántis/, Melchert 1993: 22), and *-ādis* in HL (Payne 2004: §3.1.1.1, 2a; the aforementioned word would be **a·pa·ra·ti·sa* /aparādis/ in HL). A special case of this formant is the suffix *-went-*, which is used in adjectives indicating provision (Payne 2004: §3.1.1.1, 10); it has the following history in Anatolian: Indo-European *-went- (Brugmann 1904: §393), > Proto-Anatolian *-went- > Hittite *-want-* (with nominative in *-wanz*, from the zero grade *-wn̥t- or a Luwism?, Hoffner & Melchert 2008: §2.50); Early Luwian *-wanti- > CL *-wanti-* (as in *a·as·ha·nu·wa·an·ti·is* 'bloodstained', representing /ashanwántis/, Melchert 1993: 45), HL *-wādis* (wr. -wa·ti·sa).

**3.4.** It was stated above that the nasal is always omitted before stops, but this phenomenon is not restricted to that environment only. An examination of nominal plural endings in Luwian reveals that the nasal is omitted (or lost) in front of sibilants, too. The commonest ending of the nominative plural in CL is written *-in·zi*, probably representing /ins(ə)/, deriving from an original accusative plural ending (Brugmann 1904: §480.1b). While this ending is not found in Hittite, it appears written in HL as *-i·zi*, as in *tá·ti·i·zi* 'fathers' (e.g. ᴋᴀʀᴋᴀᴍɪš A11b+c, §8). The relation of these two forms of attestation to each other suggests an interpretation based on the similar feature encountered in the previous examples: the ending /ins(ə)/ in CL has its natural counterpart in HL in /īz(ə)/, so that the plural of "father" would have been pronounced /ta'tīzə/ *vel sim*. This phenomenon follows an identical pattern to the examples above: loss

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1 I hope to treat this problem in another paper in the near future.

of the nasal, resulting in vowel lengthening and voicing of the consonant that originally followed the nasal. It may be observed that already in CL, where the nasal is still written, the sibilant is already given as <z>, instead of an expected <s>. Of course this may be due to other factors as well, but the process outlined here may equally well be responsible for the feature.

**3.5.** All the examples above concern the sequence [nt] becoming /d/ in Hieroglyphic Luwian. For the other combinations of nasal and voiceless stop, we could assume a similar development, [nk] and [mp] thus resulting in /g/ and /b/ respectively. For these cases I have been unable to find any clear correspondences between the Cuneiform and Hieroglyphic Luwian corpora, but already in the Cuneiform Luwian vocabulary there are some words that show an alternation with and without nasal preceding the stop; this phenomenon could perhaps be interpreted as occurring here. For [nk], I cite the CL word *da·ak·ku·ú·i·is* 'dark' (Melchert 1993: 212). This word corresponds to the Hittite adjective *da·an·ku·is* 'black, dark' (Friedrich 1966: 210a; Tischler 2001: 164), which, according to Kloekhorst (2007: 957), goes back to *$d^h\eta g^w$-ei-. This word would presumably have the following development in Anatolian: PIE *$d^h\eta g^w$-ei- (Pokorny 1959: 248) > Early Anatolian *$da\eta k^w\bar{\imath}$- > Hittite /dáŋk$^w$is/ written *da·an·ku·is*; > CL /dáŋk$^w$is/ written *(da)·an·ku·ú·i·is*, but later on /dāg$^w$is/, now written *da·ak·ku·ú·i·is* according to the current colloquial pronunciation. This would have been rendered *ta·ku·i·sa (*vel sim.*) in HL, representing the same pronunciation /dāg$^w$is/.

For the sequence /mp/, the following examples may be cited: the CL word *i·ri·im·pí* for 'cedar', representing a pronunciation /erémbi/, is also written *e·ri·pí* and *i·ri·ip·pí*, reflecting a somewhat later colloquial pronunciation /erēbi/ (Melchert 1993: 103). This would have appeared as *i·ri·pi in HL, mirroring the same pronunciation. Again, the word *lu·um·pa·as·ti·is* 'regret', representing a pronunciation /lumpástis/, is also written *lu·up·pa·as·ti·is*, according to a somewhat later pronunciation /lūbástis/, which would have been rendered *lu·pa·sa·ti·sa in HL (Melchert 1993: 139).

## 4. CONCLUDING REMARKS

I am of course fully aware that the interpretation given here is highly controversial matter. Furthermore, it suffers from one great drawback: it cannot be proven, nor can it be disproved. While this is problematical, it cannot be avoided in a historical discipline that involves reconstructing the phonology of a long forgotten language. Yet the explanation outlined above is not wholly unlikely; such a phonological development is part and parcel of the Irish linguistic history,

as we have seen, and therefore can occur equally well in any other linguistic context. On the other hand, there are also cases of a similar nature that point to a different explanation.

In Old Persian, we encounter a similar feature: nasal stops are suppressed in front of stops, both voiceless and voiced (Kent 1953: §111). But as duly noted by Kent, the presence of the seemingly lost nasal is betrayed by transcriptions to Elamite and Akkadian, or by cognates of the OP words in later Iranian languages. Thus, the name of a Median district, written *ka·pa·da* in OP, is rendered in Elamite as *qa·um·pan·taš*, representing a pronunciation /kampanda/. Similarly, the word for "stone" in OP, written *a·θa·ga*, corresponds to Avestan *asəngo* (Bartholomae 1904: 210), evident in Modern Persian *sang,* and thus points to a pronunciation /aθaŋga/. In the light of such cases, it could be argued that in Luwian as well the seeming loss of nasals is not real, but that nasals are simply not written, despite the fact that they were pronounced as long as Luwian continued to have native speakers.

Granted! As a definite solution between these two possibilities cannot be found, I present this paper as a possible alternative to what is usually found in the handbooks. As the Anatolian languages lack posterity in terms of later languages written with an alphabetic script that would more fully reflect actual pronunciation, the only way to definitively prove one or the other of the two solutions would be to find transcriptions of (late) Luwian words and/or names in other scripts (such as Akkadian, Ugaritic, or Phoenician). This task I leave for other scholars to achieve, if they will.

## ABBREVIATIONS

Bret.    Breton

CL       Cuneiform Luwian

HL       Hieroglyphic Luwian

Ht.      Hittite

OP       Old Persian

PIE      Proto-Indo-European

W.       Welsh

wr.      written

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