The Anatolian Subgroup of Indo-European
in the Light of the "Minor" Languages

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Almost immediately following Bedřich Hrozný's successful identification of
Hittite as an Indo-European language, there was an early recognition that Hittite
(Nesite) was not the only Indo-European language in Anatolia. Forrer (1919)
already identified Luvian and Palaic as distinct languages among Hattusha texts,
and Cuneiform Luvian was recognized as closely related to Hittite by Hrozný
(1920: 35–39 & 55) and Forrer (1922: 215–223, correcting 1919: 1035). Forrer
(1922: 241–247) tentatively added Palaic as also related.

The affiliation of the language of the "Hittite hieroglyphs" was established by the
early 1930s: see Forrer 1932: 59 and *passim*, Meriggi 1932: 10 and 42–57, and
Hrozný 1933: 77–XX). Lycian and Lydian were shown to be Indo-European with
special affinity with Hittite-Luvian-Palaic by Meriggi (1936a, 1936b), though this
was not universally acknowledged. The concept of an "Anatolian" subgroup of
Indo-European was thus existent before the Second World War, even if that label
would not become standard for many decades.

However, the full impact of the "minor" Anatolian languages on the history of
Hittite and its relationship to the rest of Indo-European was long delayed.
Handbooks on the historical grammar of Hittite published from the 1930s to the
1970s largely explicated Hittite directly from some model of Proto-Indo-
European, treating the other languages very selectively or in appendices: see e.g.
Sturtevant 1933, Sturtevant-Hahn 1951, Kronasser 1956 and 1966, and Oettinger
1979. Hittite still played an outsized role in the more comprehensive treatment of

Kammenhuber 1969. To the extent it was even discussed, "Proto-Anatolian" was effectively a back-projection from Old Hittite, not a serious intermediate reconstructed language on a par with Proto-Indo-Iranian, Proto-Germanic, Proto-Slavic, or the like.

I must emphasize that this Hittite-oriented approach was fully justified, due not only to the restricted evidence for other members of the subgroup, but also to longterm limitations in our understanding of them. Despite the efforts of Forrer, Hrozný, Meriggi and others, the language of the Anatolian hieroglyphs resisted full decipherment—partly due to bad luck. Forrer (1932: 40, 56[1], and 57[3]) recognized the value /ni/ for the sign ⊂, but the logical, indeed unavoidable reanalysis of the sign 𝕝 as /i/ was blocked by its use for the first vowel in the name of Hama(th), leading him to a compromise *e/ä* (1932: 24 and *passim*). And Forrer did not even list /ni/ for ⊂ in his summary of findings (1932: 34)! It is hardly a surprise that the idea was long forgotten. The delay in the full recognition of the correct values lasted until the 1960s and beyond (see Hawkins – Morpurgo Davies – Neumann 1974:151–152 and 157–158 with note 57 for a brief description of their "rediscovery", with credit to the work of Hermann Mittelberger. See also the fuller treatment of the decipherment by Hawkins (2000: 13–17) with further references.

The full textual evidence for the sparsely attested Palaic was published only in Otten 1944. World War II and its aftermath delayed its full exploitation: see *inter alia* Kammenhuber 1959ab and the handbook of Carruba 1970. Significant progress in Cuneiform Luvian was finally achieved in the1950s: see Rosenkranz 1952, Otten 1953ab, and Laroche 1959. The impact of these and other contributions on Anatolian historical and comparative grammar was still limited by the restricted nature of the corpus (see further below).

Advances were likewise achieved in the analysis of Lycian through comparison with Luvian, most notably by Laroche (1958, 1960a, 1967). The results were summarized in Neumann 1969. These fully validated Lycian as an Anatolian language closely related to Luvian. Wider impact on Anatolian grammar was again limited by the nature of texts, which consisted either of reasonably well understood but stereotyped and repetitive tomb inscriptions or of longer compositions that resisted (and after fifty years still largely resist!) reliable interpretation due to problems of vocabulary and difficulty in determining clause boundaries. The Lydian evidence was finally made fully accessible by Gusmani (1964). Its Indo-European status was likewise fully confirmed, but various apparent pecularities vis-à-vis the rest of the Anatolian IE languages retarded analysis and left even its precise historical relationship to the rest of the group seriously debated.

The 1970s and 1980 brought new evidence leading to dramatic progress in our understanding of Luvian and Lycian, with significant implications for Anatolian comparative and historical grammar. First, discovery and publication of the extensive Hieroglyphic-Phoenician bilingual of Karatepe (Bossert 1949–53) had confirmed much of the previous decipherment, as well as Luvian features of the language of the hieroglyphs, but apparent striking differences versus Cuneiform Luvian remained: see Laroche 1960b and Meriggi 1962 and 1966–75, but note the titles of the respective handbooks, three decades after Meriggi's well-argued identification of the language as a form of Luvian!

More than two decades passed after Bossert's *editio princeps* of Karatepe until Hawkins – Morpurgo Davies – Neumann (1974) combined new evidence of Altıntepe pithoi and the cumulative facts from the Karatepe Bilingual and elsewhere—plus previous findings of Mittelberger, Bossert and others—to establish strikingly new readings for some basic syllabic signs. Previous Ω $a > i$,

previous ⎕ *ā* > *ya*, previous ↑ *i* > *zi*, previous ↥ *ī* > *za* (and several *Ca* signs > *Ci*). The startling result of these quite dramatic redefinitions of the values of some of the most frequently used phonetic signs, including in *grammatical endings*, was that the language of the hieroglyphs now suddenly differed from Cuneiform Luvian only in details.

Various limitations of the hieroglyphic syllabary (only V and CV signs, no VC, widespread use of a single CV sign for *Ca* and *Ci*, etc.) still complicated analysis, but the far more varied content of HLuvian texts greatly expanded knowledge of Luvian grammar, with major implications for the history of Anatolian. I cite just two examples here: Morpurgo Davies (1979) demonstrated that Luvian had reflexes of the (in)famous and historically problematic "*ḫi*-conjugation" of Hittite (at the same time eliminating alleged traces of a Luvian "subjunctive"). Morpurgo Davies (1982–83) definitively confirmed based on Luvian and Lycian evidence the "lenition" rules of Eichner (1973: 79–83 and 100[86] *et alibi*) by which voiceless stops and the second "laryngeal" $*h_2$ were weakened (or voiced) after accented long vowel & between unaccented vowel *in Proto-Anatolian*.

The discovery in 1973 and publication of the extensive Lycian-Greek bilingual of the Létôon text (also with an Aramaic version) led to a great advance in our understanding of Lycian grammar: see the *editio princeps* in Laroche 1979. The new evidence predictably confirmed many previous analyses, but modified or refuted others. Finally, Starke (1985) showed that the vast majority of Cuneiform Luvian texts consisted of duplicates and variants of a mere *handful* of ritual compositions, leading to many new insights into the morphophonology and lexicon of both forms of Luvian and of Lycian (Starke 1990).

I have spent nearly half of my generous allotted speaking time summarizing the history of the study of the "minor" ancient Indo-European languages of Anatolia and adjacent areas through the mid-1980s. I have done so because I think it is salutary repeatedly to remind ourselves and others that scholarship in any field is

a cumulative and collaborative exercise. We should frequently acknowledge with due gratitude the great debt that we owe to those who preceded us: to use the frequent metaphor, those on whose shoulders we stand. The accelerated and still accelerating progress in Anatolian comparative and historical grammar over the past thirty-plus years has *only* been possible because those of us active in the field were able to build upon the foundations laid by those mentioned above and others I have not named. It was the preceding developments that led to serious inclusion of the "minor" languages in reconstructing Proto- Anatolian: see e.g. Eichner 1986: 12–13 and more extensively 1988, followed by Melchert 1994. Inadequate treatment of the languages beyond Hittite and skepticism about their relevance lingered: see the review of Puhvel 1984 by Melchert (1986: 569a) and the retort in Puhvel 1991: v. However, this was a merely a minor bump on the road to progress, and even a cursory inspection of Puhvel 2011 (see among many the entries for *pašku(wai)-* and *paštar(iya)-*) affirms that a pan-Anatolian perspective has now become standard, if not universal in Anatolian comparative and historical grammar.

The pace of study of the "minor" Anatolian languages has continued to accelerate and expand over the past quarter-century. One crucial factor has been continued new discoveries and much enhanced text corpora. Major new texts include Hieroglyphic Luvian inscriptions from the Hittite Empire of the late second millennium BCE: Yalburt (*editio princeps* Poetto 1993) and Südburg (Hattusha, *editio princeps* Hawkins 1995). Empire orthography leaves their interpretation controversial up to present, but both nevertheless have contributed to further new readings of certain signs, to the lexicon, and to our evolving conception of Luvian dialects in the second millennium. Further exciting new Hieroglyphic Luvian texts from the Iron Age also continue to be found: ALEPPO 6 (*editio princeps* Hawkins 2011: 40–45) and ARSUZ 1 and 2 (*editio princeps* Dinçol *et al.* 2015).

The Carian-Greek Kaunos Bilingual (discovery 1996, *editio princeps* Frei-Marek 1997) validated the radically "new" readings of many letters of the Carian alphabet and finally confirmed Carian as an Indo-European language closely related to Luvian and Lycian (summary of the research history and then current results in Adiego 2007). Our knowledge of the grammar is still limited, and the broader impact of Carian remains modest, but the presence of three voiceless coronal sibilants has interesting implications (cf. Melchert 2012a with references). By far the broadest impact in terms of textual evidence we indisputably owe to the masterful edition by Hawkins (2000) of all Iron Age Hieroglyphic Luvian inscriptions known to date, making the corpus at last accessible to a wide range of scholars, not just the handful prepared to retransliterate themselves with the correct values all the previous editions prior to the mid-seventies.

The result has been a veritable torrent of published research reassessing virtually every aspect of the synchronic grammar of the "minor" languages and the implications for Anatolian historical grammar *and* the relationship of the subgroup (NB not just Hittite!) to Indo-European. This has reached its culmination in eDiAna: Digital Philological-Etymological Dictionary of the Minor Ancient Anatolian Corpus Languages, an ongoing joint research project of Ludwigs-Maxmillian-Universität München and Philipps- Universität Marburg (see https://www.ediana.gwi.uni-muenchen.de/index.php). This project combines original in-depth philological analyses with a highly productive exploitation of the known close interconnections of the lesser languages *among themselves*: many of the articles cited below stem from members of the project team. These same qualities also mark the Luwili Project: Luwian Religious Discourse Between Anatolia and Syria (see https://luwili.wordpress.com/), which in particular seeks to elucidate the religious incantations that comprise most Luwian cuneiform texts by comparison "with similar compositions in other languages coming from the same areas". Building on the pioneering work of Starke 1985, this reexamination

of the many textual fragments has led to further dramatic new insights into the true interrelationships of the extant ritual compositions and their variants and promises to revolutionize our conception of Luvian dialects of the Empire period. The published paper by the principal investigators (Mouton – Yakubovich 2019) is merely a sample of what is to come.

I close with a *highly* selective and eclectic list of representative examples of recent research on minor corpus languages having pan-Anatolian implications (and beyond), grouped according to area of most impact. The composition of the list unavoidably reflects personal priorities and prejudices of mine, and others would choose differently, but I am confident that there would be much overlapping.

Phonology:

1. Rieken (2008) demonstrated that the Hieroglyphic Luvian signs <ta> and <tá> continue "unlenited" voiceless *t* versus the sign <tà> reflecting "lenited" *t* or voiced *d(h)*, enormously increasing the Luvian evidence for the Proto-Anatolian "lenition" rules (see the reference above to Eichner 1973), with myriad implications.

2. Goedegebuure (2010a) proved that Cuneiform Luvian *zanta* means 'down' and is cognate with Hittite *katta* 'down' < $*ḱ\mathring{m}ta/ō$, requiring a major revision in the analysis of the three-way contrast in Luvo-Lycian reflexes of PIE dorsal stops (see Melchert 2012b and cp. Lipp in this volume).

3. Goedegebuure (2010b) presented a heavily revised analysis of the oblique cases of Luvian demonstrative pronouns, leading to recognition that "Čop's Law" (the change $*\acute{e}.C_1V > aC_1.C_1V$ in Luvian) is common Luvo-Lycian and must be redefined as $*\acute{e}.C_1V > *\acute{e}C_1.C_1V$ (Kloekhorst 2014: 571–574). Equation of Hieroglyphic Luvian *ānni* 'with, for, against' with the Lydian preverb *ẽn-* < *éni* (Yakubovich apud Goedegebuure 2010a: 313, Boroday – Yakubovich 2018: 18) argues that this prehistoric change further includes Lydian.

4. Oettinger (forthcoming) presents new arguments for preservation of the PIE "laryngeals" $*h_2$ and $*h_3$ as k in word-initial position before vowel in Lydian. This renews the question of the phonetics of the PIE "laryngeals": compare Weiss 2016 versus Kloekhorst 2018.

Morphology

5. Goedegebuure (2007) established the pronominal ablative-instrumental ending *-in* for Hieroglyphic Luvian demonstratives and the variant *-atīn* for Cuneiform Luvian. This finding validated the much doubted claim by Dunkel (1997) following Delbrück of a PIE ablative-instrumental case ending *-(i)m*. See further possible implications for Anatolian and PIE case syntax in Melchert – Oettinger 2009.

6. Sasseville (2014–15) and (2018a) presented further evidence for secondary *common gender* substantives in $*-eh_2$ referring to *individuals* derived from thematic adjectives (following Hajnal 1994: 166–168 and 2003: 193, *et al.*).

7. Sasseville (2018b: 55–60) provided evidence from "Luvic", especially Lycian, that in Proto-Anatolian denominative factitives in $*-eh_2$ were limited to "conversion" from nominal stems in $*-eh_2$. These include stems in *-iya-* made from verbal nouns in $*-yeh_2$ to verbal stems in $*-ye/o-$ (deradical and denominal), which show a *consistent* stem in *-i-* and must be kept apart from the former (2018b: 109–110): e.g., Luvian *walli-* [tti] 'raise, exalt' → *walliya-* *'raising'; 'exalting' → *walliya-*[tti] 'rise, stand up'.

8. Yakubovich (2019) offered new evidence for Lydian mediopassive endings *-taλ/-daλ* < Proto-Anatolian *-tori/dori*, further cementing the existence of the "r-middle" in Proto-Anatolian and the status of Lydian as a true (i.e., genetic) member of Anatolian subgroup.

Syntax

9. Sideltsev – Yakubovich (2016: 87–107) furnished a fine-grained reanalysis of indefinites in Luvian, Lycian, Lydian and Palaic, distinguishing universal quantifiers, free-choice relatives and non-relatives, negative polarity items, and existential quantifiers.

10. Boroday – Yakubovich (2018), a wide-ranging reanalysis of the system of "local adverbs" in languages outside Hittite, reveals that the putatively archaic Old Hittite system is innovative and paints a very different picture of the situation in Proto-Anatolian, requiring rethinking of its evolution from PIE (see especially their methodological conclusion p. 20).

11. Giusfredi (2020) presents a comprehensive, accessibly formulated minimalist-theoretical survey of Luvian syntax, with important consequences for Hittite and Proto-Anatolian syntax.

12. Sadykova – Yakubovich (2019) demonstrated that *clause-initial pā* in Kizzuwatna Luvian is a modal particle cognate with Lydian *fak*. Examples from other dialects of Cuneiform Luvian argue for an original function of marking result/final clauses, thus cementing cognacy with the Tocharian imperative prefix *pä-*.

Lexicon

13. Sasseville (2019) and Sasseville – Yakubovich (forthcoming) are able to identify on the basis of new joins among the Palaic texts and comparison with Hittite passages reflexes of an unextended PIE root *dekʷ-* 'to show' (the base of *dekʷs-* in Hittite *tekkušše/a-* 'to show' ~ Avestan *daxša-* 'to instruct'), plus Palaic reflexes of PIE *gʷó/éw-* 'bovine' and *ḱwon-* 'dog'.

14. Mouton – Yakubovich (2019) shares their discovery of new words for 'internal' and 'external/peripheral' in Cuneiform Luvian and Lydian, with further implications for the Anatolian lexicon.

15. Rieken – Yakubovich (forthcoming) will show that the alleged isolation of Lydian *aλa-* 'other' in Anatolian is falsified by identification of multiple reflexes of **al-* 'other; foreign; distant; wild' in Luvian and Lycian.

16. Rieken (2019), building on a new analysis of Luvian loanwords into Hittite (*zīla-* 'result of an oracle', *ziladuwa/zilatiya* 'in the future', plus other Luvian) provides a compelling new common origin for an entire set of words with the common denominator 'to (come/bring to an) end' < 'to cease' < PIE **k^wyeh_1-* 'to rest' (Kümmel – Rix 2001: 393–394). These include Hittite *zē(y)a-* 'to be cooked done', *zinni/a-* 'to finish, complete', and *zēna-* 'autumn'.

I began my study of Indo-European linguistics and Hittite more than fifty years ago—having barely even heard of the existence of the languages I have discussed above. I can now in retrospect only characterize the developments in the field of *Anatolian* comparative and historical linguistics of the last thirty-plus years as exciting, immensely gratifying, and more than mildly humbling. What appeared innovative in my expressly pan-Anatolian approach of 1994 now reads more like a retrospective of what had been achieved to that point. Research of the last quarter century and especially of the last decade (and ongoing) has affirmed—far beyond my expectations of 1994—that multiple aspects of Proto-Anatolian phonology, nominal and verbal morphology, and syntax are better preserved in the "minor" Anatolian languages than in Hittite (even Old Hittite). Growing recognition of this fact has led to and will continue to lead to genuine *comparative* reconstruction of Proto-Anatolian and serious reconsideration of the relationship of the *Anatolian* subbranch to the rest of the Indo-European family.

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