

II ye/ya kappuwa - (p. 79 ll.)
sarkue -

VI ke/ka lukke - (115 ll.)
206, 223

VII le/la hula (118)
hule²⁰³⁻⁵

VIII ne/na zinni (122)
hurri-

X re/ra sarra- (126)
pappe - 218
222

XI se/sa wasse- (129)
206, 223

XII te/ta pehnde (131)
223 → 225.
uwade
wede 222

siwa (reject) 82, 228

hi - enr

hanna - etc.

Alexander Lehrman

INDO-HITTITE REDUX

Studies in Anatolian and Indo-European
Verb Morphology

PALEOGRAPH

Moscow

Copyright © 1998 by Alexander Lehrman

Lehrman, Alexander

Indo-Hittite Redux. Studies in Anatolian and Indo-European
Verb Morphology.

Paleogrpah, Moscow 1998

ISBN 5-89526-003-9

Printed in Russia

Памяти моего отца
Анатолия Петровича Лермана
24.VIII.1926 – 1.III.1995

FOREWORD

This book reexamines the fundamental theoretical tools of language history and comparison (see especially chapters 1 and 5, excursus I and II), and on that basis demonstrates that the Indo-Hittite theory is no trivial matter—i.e., no mere matter of nomenclature—and that the widely known but largely neglected fundamentals of philological theory, among them particularly the principles of subgrouping and the necessarily *a posteriori* nature of language studies, have substantial implications for the field.

The book is a much expanded and substantially revised version of my doctoral dissertation (Yale, 1985). What has survived of the dissertation is the bulk of the Anatolian data—an annotated collection of attestations of the vocalic verb stems of Old and Middle Hittite, Palaic, Cuneiform Luwian, Hieroglyphic Luwian, Lycian, and Lydian, presented in chapters 2 and 3—although these have been corrected where necessary and supplemented with the new material which has become available since 1985. This applies particularly to the Cuneiform and Hieroglyphic Luwian sections (chapter 3).

The opening chapter of the book discusses the principles and procedures of subgrouping with reference to the Anatolian and Indo-European languages. The theory currently dominant in the field continues stubbornly to insist on subgrouping Anatolian within Indo-European. I see this as a grave error which heaps phenomena belonging to different temporal strata onto the same plane, an error comparable to, e.g., the error of considering Armenian to be an Indo-Iranian language, instead of regarding it as a separate subbranch of the Indo-European family—a “sibling,” not a “daughter,” to Indo-Iranian. Wolfgang Meid’s popular (although not yet universally accepted) revision of the traditional subgrouping schema, in which the proto-language is seen as a river which continues to flow on after a given language “rivulet” flows out, merely confuses the issues. Once a language “flows out” into its own “river-bed,” the old “river” becomes at that point different from what it was before. We may call the old “river” whatever we wish, but the fact that it has changed remains—as does the fact that the new “rivulet” develops its own characteristics, new and different from the old mainstream. In other words, there is no point in Meid’s new “fluvial” rhetoric: the facts remain the same, and

the old “stemmatic” subgrouping schema with its principle of shared innovations as the only valid criterion for subgrouping of languages, manuscripts, or what have you, remains valid, clear, and sound—in other words, the best that there is. And if so, then there can be no alternative to the Indo-Hittite theory, whereby Anatolian and Indo-European are “siblings,” both “daughters” to Proto-Indo-Hittite, an “ancestor” that still awaits its reconstruction.

The consequences of this subgrouping are far-reaching. One of them is the need to place the reconstruction of the “laryngeals” in Anatolian, where there is some evidence for them, while eliminating them from Proto-Indo-European, where there is no evidence for them. This also raises the important question of what constitutes the evidence for reconstructing a sound of a proto-language. Can it be reconstructed on the basis of controversial circumstantial evidence only? In other words, can structural pressures, i.e., structuralist *a priori* notions such as “elegance” and “symmetry,” be allowed to prevail over *prima facie* evidence of presence and absence? These questions are posed and answered in the negative¹ at the end of chapter 1 and especially in Excursus II, which is devoted specifically to the “laryngeals” and some related problems, particularly the notion of the phoneme—an *a priori* functionalist invariant—in explaining language change.

Chapter 4 presents a detailed historical and comparative overview of the material laid out in Chapters 2 and 3, including the evidence of word-formational *Aktionsart* distinctions in Anatolian (such as Hittite

¹Evidence must not be tampered with for structural, i.e., cosmetic, reasons. For instance, if all the witnesses we have point to the protoform **mowā-* (full grade) ‘move precipitously’ (Hitt. *mau-š-* ‘fall’, Lat. *mou-ēre* ‘move’, etc.) : **mū-* (zero grade), we must not make a ***mewH-* out of it, even if ***mewH-* rids us of the discomfort of an *o*-grade root, to say nothing of the *shwa*. The reason for not doctoring the reconstructed form is a matter of principle: I am interested in reconstructing historical truth, however untidy it may look, rather than in forcing my reconstructions to conform to a set of *a priori* postulates. *Systemzwang*, whose results include analogic leveling and folk etymology, is constantly at work among language speakers—but it should not determine explanations worked out by language historians. Language data are given me through direct experience independent of any system of postulates—i.e., *a posteriori*—rather than through a system of postulates independent of any experience, i.e., *a priori*.

hatt- ‘to strike (once)’ : *hazzye-* ‘to strike repeatedly’, ‘play a musical instrument’), which prefigure, while being very different from, the Indo-European paradigmatic aspectual distinctions such as present stems vs. aorist stems. The carefully analyzed data show, just as my 1985 dissertation did, that the Anatolian languages have no trace of any inherited simple thematic present class, whether full-grade or zero-grade, contrary to the claims of Oettinger’s 1979 study accepted in bulk by the *communis opinio*. The Proto-Indo-European morpholexical class of full-grade simple thematic presents thus constitutes yet another significant innovation—together with the feminine gender (on which see also chapter 1), the paradigmatic contrast of present and aorist, and the perfect tense, *inter alia*—shared by the (extra-Anatolian) Indo-European languages.

Chapter 5 reaffirms, through close empirical exploration, the importance of reconstructing whole words rather than disjointed suffixes and endings, if a morphological reconstruction is to make any claims to historical accuracy, and proposes a theory of the development of the full-grade simple thematic class in Proto-Indo-European.²

Excursus I analyzes J. H. Jasanoff’s 1988 study of Hitt. *ga-ne-eš-zi* ‘recognizes’ as a prime example of how the laryngeal theory in its standard form creates factual and theoretical problems. Excursus II, as explained above, sketches out a theory of the laryngeals in Proto-Indo-Hittite and discusses some related issues. Excursus III reconsiders the Hittite *-hhi* conjugation and sketches out some new possibilities for understanding it and its relation to its completely remodeled successor, the Indo-European perfect.

I am well aware that the views presented in this book are outside of today’s mainstream. Yet, paradoxically, it is the mainstream, seduced by the quasi-mathematical “scientific” models fashionable at the close

²Chapter 5 is based on a close examination of the six relevant verbs attested both in Anatolian and in Indo-European. Only one of the six (PIH **Hwes-* ‘live’) was remodeled into a full-grade simple thematic stem within Proto-Indo-European, while three others are post-Proto-Indo-European innovations and the remaining two comprise an *i*-suffixed *-hhi-* conjugation verb, with no possibility of any connection to the PIE simple thematic stem whose root it shares, and a *-hhi-* conjugation athematic root stem remodeled in Proto-Indo-Iranian.

of the *belle époque* that has strayed from the sound historical and comparative principles as developed and practiced by Karl Brugmann and others. (The main reasons for and the implications of this change of scholarly fashion are also briefly discussed in Excursus II.) While I entertain no hopes of breaking the hold of structuralist models on the conformist mainstream, I do hope that my book will at least start a discussion of some important methodological and theoretical issues. It will also be useful to anyone who wants to have a reference guide to the Anatolian verb, which, within its domain, improves on and supplements N. Oettinger's superb *Die Stammbildung des hethitischen Verbums* (1979).

ACKNOWLEDGMENTS

I am deeply grateful to Sergei Starostin for the many fruitful discussions from which the book has certainly profited, as well as for his encouragement and moral support over the three decades of our friendship. The unorthodox theoretical views expressed here are, of course, mine alone.

Gary Beckman gave much invaluable help by answering promptly my numerous queries on the dates of a number of important Hittite texts, by identifying some unattributed Hittite forms used as evidence in the work of some colleagues, and by being unfailingly supportive. Naturally, I alone am to blame for any mistakes, shortcomings, and idiosyncrasies.

Calvert Watkins read an earlier version of the manuscript. I am grateful to him for his comments which not only convinced me of the importance and timeliness of my project but also helped me to order and focus the theoretical points outlined in the Foreword.

Portions of this book (chapter 1 and excursus 1) have appeared in a different form in *Indogermanische Forschungen* 101 and 102. My thanks go to Dr. Brigitte Schöning of Walter de Gruyter & Co. for her kind permission to use those texts here.

My heartfelt gratitude is due to Richard A. Zipser, Chairman of the Department of Foreign Languages and Literatures at the University of Delaware, for his support, and to Mary Richards, Dean of the College of Arts and Sciences, for a generous subvention which made the publication of this typographically challenging book possible.

Susan Amert's scholarly acumen, boundless patience, good humor, encouragement, and common sense helped me in every phase of this long and tortuous project. To her I am grateful beyond all words.

SPECIAL SIGNS AND CONVENTIONS

(See also p. 18 f.)

:	alternating with; used between two grammatical forms.
/	or; separates grammatical or spelling variants.
()	in Hittite transcriptions, the parentheses enclose spelling variants.
[]	1. in Hittite, the brackets enclose restored portions of text. 2. elsewhere, they comprise a phonetic transcription.
<>	in Anatolian, the angular brackets enclose conjectured restorations of text.
+	in Hittite transliterations, a morpheme boundary.
=	1. in Hittite transliterations, any cutoff within a word; 2. elsewhere, 'is' or 'equals'.
-	1. in Hittite transliterations, separates syllabary signs within a word; 2. elsewhere, a morpheme boundary.
CV	in Anatolian transliterations, the dot under a vowel indicates the damaged quality of the given syllabary sign.
*	to the left of a form, marks an unattested form that I regard as reconstructed realistically; to the right of a form, marks an unattested form that is attested in its derivatives.
**	to the left of a form, mark an unrealistic or falsely reconstructed form.
<	regularly (i.e., by regular sound change) developed from.
>	regularly developed into.
←	not regularly (i.e., by a process other than regular sound change) developed from.
→	not regularly developed into.
H	a "laryngeal" of unknown quality.

Bold Italics in Anatolian transcriptions indicate a normalized form; e.g., *wassezzi* is normalized from *wa-aš-še-iz-zi*, *wa-aš-ši-iz-zi*, etc. The normalized writing replaces š with *s*, *ḫ* with *h*, and makes some other, self-explanatory, simplifications.

ABBREVIATIONS

acc.: accusative.

act.: active.

adj.: adjective.

Anat.: Anatolian.

Av.: Avestan.

C: consonant.

CL: Cuneiform Luwian.

c.: common (gender).

dat.: dative.

esp.: especially.

HL: Hieroglyphic Luwian.

GAv.: Gāthic Avestan.

gen.: genitive.

ibid.: ibidem = in the same place.

id.: idem = the same thing.

imp.: imperative.

inf.: infinitive.

ipf.: imperfect.

inst.: instrumental.

med.: mediopassive.

mid.: middle.

LH: Late Hittite.

LMH: a Late Hittite copy of a Middle Hittite text.

LOH: a Late Hittite copy of an Old Hittite text.

MH: Middle Hittite.

MOH: a Middle Hittite copy of an Old Hittite text.

neut.: neuter.

nom.: nominative.

OCS: Old Church Slavic.

OH: Old Hittite.

OPers.: Old Persian.

PA: Proto-Anatolian.

PIE: Proto-Indo-European.

PIH: Proto-Indo-Hittite.

PIIr.: Proto-Indo-Iranian.

pl.: plural.

ppl: participle.
prs.: present.
prt.: preterite.
q.v.: quod (etc.) vide = which see.
sg.: singular.
v.: vide = see.
V: vowel.
Ved.: Vedic.
YAv.: Young Avestan.

(The absence of any abbreviation before an indication of the locus of a Hittite or Cuneiform Luwian form means KUB, q.v. below.)

ABoT: Ankara Arkeoloji Müzesinde Bulunan Boğazköy Tabletleri.

K. Balkan. İstanbul 1948.

AOS: American Oriental Series. New Haven, Conn.: American Oriental Society.

AnSt: Anatolian Studies.

BiOr: Bibliotheca Orientalis.

BSL: Bulletin de la Société de Linguistique de Paris.

BSOAS: Bulletin of the School of Oriental and African Studies.

Danske Vid: Det Kongelige Danske Videnskabernes Selskab, historisk-filologiske Meddelelser.

Erg. 1: J. Friedrich. Hethitisches Wörterbuch, 1. Ergänzungsheft. Heidelberg: Carl Winter 1957.

Erg. 2: 2. Ergänzungsheft. Heidelberg: Carl Winter 1961.

Erg. 3: 3. Ergänzungsheft. Heidelberg: Carl Winter 1966.

Fs Bonfante: Scritti in onore di Giuliano Bonfante. Brescia 1976.

Fs Güterbock: Kaniššuwat. A Tribute to Hans G. Güterbock on His Seventy-Fifth Birthday. Ed. Harry A. Hoffner, Jr. and Gary M. Beckman. Chicago: University of Chicago Press 1986.

Fs Hoffmann: Festgabe für Karl Hoffmann. Ed. B. Forssmann and J. Narten, *MSS* 45.

Fs Kuiper: Pratidānam. Indian, Iranian, and Indo-European Studies Presented to F. B. J. Kuiper on His Sixtieth Birthday. Ed. J. Heesterman et al. The Hague: Mouton 1968.

Fs Laroche: Florilegium Anatolicum. Melanges offerts a Emmanuel

- Laroche. Paris 1979.
- Fs Meriggi*: Studia Mediterranea P. Meriggi dicata. Pavia: 1979.
- Fs Neumann*: Serta Indogermanica. Festschrift für Günter Neumann. Herausg. Johann Tischler. Innsbruck: *IfS* 1982.
- Fs Palmer*: Studies in Greek, Italic, and Indo-European Linguistics. Offered to Leonard R. Palmer on the occasion of his seventieth birthday, June 5, 1976. Ed. Anna Morpurgo Davies and Wolfgang Meid. Innsbruck: *IfS* 1976.
- Fs Rozwadowski*: Symbolae grammaticae in honorem Joannis Rozwadowski. 1. Crakoviae: Seminarja języka polskiego Uniwersytetu Jagiellońskiego 1927.
- Fs Schmidt*: Indogermanica et Caucasica. Festschrift für Karl Horst Schmidt zum 65. Geburtstag. Herausg. Roland Bielmeier und Reinhard Stempel unter Mitarbeit von René Lanszweert. Berlin, New York: Walter de Gruyter 1994.
- Fs Szemerényi*: Studies in Diachronic, Synchronic and Typological Linguistics. Festschrift for Oswald Szemerényi on the Occasion of His 65th Birthday. Bela Brogyanyi. Amsterdam 1979.
- FuW*: Flexion und Wortbildung: Akten der V. Fachtagung der Indogermanischen Gesellschaft, Regensburg, 9.-14. September 1973. Herausgegeben von Helmut Rix. Wiesbaden 1975.
- GrKat*: Grammaticische Kategorien: Funktion und Geschichte. Akten der VII Fachtagung der indogermanischen Gesellschaft, Berlin 20.-25. Februar 1983. Herausgegeben von Bernfried Schlerath u. Veronica Rittner. Wiesbaden 1985.
- HAB*: F. Sommer, A. Falkenstein. Die hethitisch-akkadische Bilingue des Hattušili I (Labarna II). München 1938.
- HD*: The Hittite Dictionary. H. Güterbock and H. Hoffner. Chicago 1980
- HE 2*: J. Friedrich. Hethitisches Elementarbuch. 1. Teil. Kurzgefaßte Grammatik. 2. Auflage. Heidelberg 1960.
- HG*: J. Friedrich. Die hethitischen Gesetze: Transkription, Übersetzung, sprachliche Erläuterungen und vollständiges Wörterverzeichnis. Leiden 1959.
- HO*: Handbuch der Orientalistik, Abteilung I, Band II, Abschnitt 1/2, Lieferung 2: Altkleinasiatische Sprachen. Leiden/Köln 1969.
- HS*: Historische Sprachforschung.
- HT*: Hittite Texts in the Cuneiform Characters from Tablets in the

- British Museum. L. King. London 1920.
- HuI*: Hethitisch und Indogermanisch. Vergleichende Studien zur historischen Grammatik und zur dialektographischen Stellung der indogermanischen Sprachgruppe Altkleinasiens. Herausg. Erich Neu und Wolfgang Meid. Innsbruck 1979.
- HW1*: J. Friedrich. Hethitisches Wörterbuch: kurzgefaßte kritische Sammlung der Deutungen hethitischer Wörter. Heidelberg 1952.
- HW2*: A. Kammenhuber. Hethitisches Wörterbuch. Zweite, völlig neubearbeitete Auflage auf der Grundlage der edierten hethitischen Texte. Heidelberg 1975 -
- IBoT*: İstanbul Arkeoloji Müzelerinde Bulunan Boğazköy Tabletlerinden Seçme Metinler. I-III. H. Bozkurt, M. Çiğ, H. G. Güterbock. İstanbul 1944, 1947, 1954.
- IBS*: Innsbrucker Beiträge zur Sprachwissenschaft. *IfS*.
- IfS*: Institut für Sprachwissenschaft der Universität Innsbruck.
- IF*: Indogermanische Forschungen.
- IG*: Indogermanische Grammatik. Begründet von Jerzy Kuryłowicz. Herausgegeben von Manfred Mayrhofer. Band I. 1. Halbband: Einleitung von Warren Cowgill. 2. Halbband: Lautlehre [Segmentale Phonologie des Indogermanischen] von Manfred Mayrhofer. Heidelberg: Carl Winter-Universitätverlag. 1986.
- InGr*: Incunabula Graeca.
- JAOS*: Journal of the American Oriental Society.
- JNES*: Journal of Near Eastern Studies.
- KBo*: Keilschrifttexte aus Boghazköi. Berlin.
- Krat*: Kratylus.
- KUB*: Keilschrifturkunden aus Boghazköi. Berlin.
- KZ*: (Kuhns) Zeitschrift für vergleichende Sprachforschung.
- Laryng.*: Die Laryngalthetheorie und die Rekonstruktion des indogermanischen Laut- und Formensystems. Herausgegeben von Alfred Bammesberger. Heidelberg: Carl Winter-Universitätsverlag. 1988.
- MDOG*: Mitteilungen der Deutschen Orientgesellschaft.
- MIO*: Mitteilungen des Instituts für Orientforschung.
- MSS*: Münchener Studien zur Sprachwissenschaft.
- Mş t*: Maşat-Höyük'te Keşfedilen Çivi Yazılı Hitit Tabletleri. S. Alp. İstanbul 1978.
- MVAeG*: Mitteilungen der Vorderasiatisch-Aegyptischen

- Gesellschaft.
- NF*: Neue Folge.
- NHAI*: Nederlands Historisch-Archaeologisch Instituut.
- ÖAW*: Österreichische Akademie der Wissenschaften.
- RHA*: Revue Hittite et Asianique.
- SMEA*: Studi Micenei ed Egeo-Anatolici.
- StBoT*: Studien zu den Boğazköy-Texten. Wiesbaden.
- TPS*: Transactions of the Philological Society.
- Tunnawi*: A. Goetze and E. Sturtevant. The Hittite Ritual of Tunnawi. AOS 14.
- UF*: Ugarit-Forschungen. Internationales Jahrbuch für die Altertumskunde Syrien-Palästinas. Neukirchen 1969 ff.
- VBoT*: Verstreute Boghazköi-Texte. A. Götze. Marburg 1930.
- ZA*: Zeitschrift für Assyriologie und verwandte Gebiete – vorderasiatische Archäologie. Leipzig & Berlin 1887 ff.

CONTENTS

Foreword, vii

Acknowledgments, xi

Special Signs and Conventions, xii

Abbreviations, xiii

Contents, xviii

Chapter 1: Indo-Hittite Redux, 1

Chapter 2: Thematic Verb Stems of Hittite, 17

Chapter 3: Vocalic (Possibly Thematic) Verb Stems of Other
Anatolian Languages, 139

Chapter 4: Thematic and Pseudo-Thematic Verb Stems of
Anatolian, 202

Chapter 5: The Origins of the Full-Grade Simple Thematic Stems and
of the Subjunctive in Proto-Indo-European, 232

Excursus I: Hittite *ga-ne-eš-* and the Laryngeal Theory, 253

Excursus II: The “Laryngeals” of Proto-Indo-Hittite, 257

Excursus III: The Hittite *-hhi-* Conjugation, 265

Bibliography, 269

Index of Forms, 281

INDO-HITTITE REDUX

§1. The classic family-tree diagram of genetic relationships among languages¹ was never meant to describe the chronological and dialectal intricacies of subgrouping, and should not be reproached for failing to do so. Just like its prototype, the manuscript-tradition stemma, the language-family tree is only meant to show *which genetically related complexes share innovations not known in the rest of their "kin"*—no more, and no less. The genetic relationship among three languages, to choose the minimally relevant case, is established by demonstrating *a common inheritance*—the material that has been retained by all three—on the basis of regular sound correspondences. If two of the three languages *share a number of innovations not likely to be coincidental*, then the two must have come from a common source separate from the third language and thus constitute a separate subgroup. The fact that languages develop through time and show dialect variation, i.e., are not uniform, is taken for granted, as is the fact that each set of phonetic and grammatical phenomena at any given time belongs, whether exclusively or not, to a specific register of the language (dialectal, social, etc.). The relevant details, chronological and dialectal in the broadest sense, can be and usually are spelled out in any competent comparative work, depending on its scope; the family-tree diagram, however, is only designed to show the relationships of subgrouping. The important thing, all too easy to lose track of, is that subgrouping cannot be done on the basis of shared archaisms but only on the basis of shared innovations. The so-called “archaisms” are only discernible by contrast with either their more productive counterparts or else with the absence of anything corresponding to them; in other words, archaisms are no more than the obverse of the corresponding innovations. For instance, the OCS 1 sg. prs. *-ъ* found only in *вѣдѣ* ‘I know’ is recognized as an archaism only against the background of the younger form (innovation) *вѣмь* and against the background of the productive 1 sg. prs. *-я*

¹The principles on which the discussion in the first paragraph of this chapter and *passim* is based are stated in Cowgill 1986: 15-17 (with reference to Brugmann 1884: 253).

(also an innovation) found almost everywhere else; Anatolian “laryngeals” are recognized as an archaism through the contrast with their absence, or loss—also an innovation—in the non-Anatolian Indo-European languages. In any case, archaisms are a part of what is inherited and cannot be used for the purposes of subgrouping.

§2. The reconstruction of Proto-Indo-European was thought to be virtually complete when Hittite was discovered. The discovery proved deeply disturbing to scholars in the field. While Hittite was clearly akin to Proto-Indo-European, it displayed a glaring absence of several significant grammatical patterns and categories that had been taken for granted in Proto-Indo-European, in other words, that constituted the Proto-Indo-European inheritance: absent, incredibly, was the feminine gender in the noun²; absent were the familiar **so-* / **to-* demonstrative pronouns; absent were the imperfect, aorist, and perfect tenses, as well as the subjunctive and optative moods in the verb. Hittite also displayed a number of unfamiliar phenomena, such as the “laryngeal” *h*, unknown in Proto-Indo-European, and a system of consonants in which the Proto-Indo-European three-way contrast of voiceless, voiced, and voiced aspirated corresponded, on the face of it, to a two-way contrast of non-geminate and geminate consonants, whose phonetic nature was not clear.

These striking differences were either explained away as losses and other types of innovations within Hittite (with the exception of the “laryngeal,” on which see below), or else they were simply ignored, so that Hittite and the rest of the Anatolian languages came to be regarded as Indo-European languages like any others; the Anatolian family was viewed as just another filial branch of Proto-Indo-European, like Indo-Iranian, Greek, or Celtic.

The cost of this seemingly conservative “explanation,” however, proved to be very high. The most pernicious consequence of it was the erosion of the firm logical ground on which the theory of language subgrouping had rested. But that was not the only revolutionary consequence of this pseudo-conservatism. If the classic family-tree diagram was to be preserved at all costs, then the one Anatolian phenomenon that could not in good conscience be dismissed as an innovation, namely the “laryngeal”—actually, two “laryngeals” as it turned

²On the fictitious traces of feminine in Anatolian see below.

out—had to be acknowledged as an archaism and admitted into the reconstruction of the Indo-European protolanguage. The absence of the feminine and all the rest could still be viewed as Anatolian losses rather than as shared innovations of Indo-European separate from Anatolian.

The obvious problem with this view was the wide chronological gap separating the attestation of Anatolian from the oldest non-Anatolian Indo-European languages. Hittite texts, in a form that points to a well-established and well-developed tradition, are attested beginning in the 17th century B.C. and continue until the 13th, while the earliest indirect testimony for non-Anatolian Indo-European comes from 14th-century B.C. Indo-Iranian names preserved in Hurrian texts from Mitanni; original texts in an Indo-European language, represented by Mycenaean Greek tablets, hail from the 12th century B.C., that is, a full century after the fall of the Hittite empire. “But how can a language attested so early, 1500 B.C. and indeed earlier, have ‘lost’ everything which is characteristic of Greek and Sanskrit, have lost it much before their time, lost it without a trace? It is hardly credible,” says Wolfgang Meid (1990 [1986]: 15), and I could not agree more.

I shall yet have cause to return to Wolfgang Meid and his influential revision of the classical family-tree model. But first I have to mention the alternative view of subgrouping, the view that is firmly grounded in the well-tested classical theory of subgrouping—namely, the Indo-Hittite theory. In this theory, the significant features and categories found in Proto-Indo-European but absent in Anatolian are correctly regarded as *shared innovations* of the Indo-European family; the Anatolian protolanguage (which has its own innovations, not shared by Indo-European) constitutes in the family-tree diagram a separate branch, *laterally—not filially*—related to Proto-Indo-European. These “sister” families must thus descend from a single parent language which Edgar H. Sturtevant dubbed “Proto-Indo-Hittite.” While one may argue about the felicity of his coinage, his theory of the subgrouping of Anatolian and Indo-European is the only one consistent with the known facts.

Yet scholars in the field have been unwilling to accept Sturtevant’s theory. Wolfgang Meid is an important example. While recognizing that “to subjugate Hittite under the traditional concept of Indo-European, considering it on par with Greek, Iranian, and the rest, is

not a realistic [alternative]" (op. cit., p. 16), he is nonetheless dismayed by the division of the Indo-Hittite protolanguage into the collateral Proto-Anatolian and Proto-Indo-European branches. "There is no justification for such a dichotomy," he says (ibid.). But what can justify just such a dichotomy if not the presence of significant innovations in Proto-Indo-European, which Meid himself willingly acknowledges? He writes: "There are many indications that Hittite branched off earlier from the mainstream of Indo-European though perhaps not as early as to justify a modification of the traditional 'Stammbaum' model to the extent that Proto-Hittite [=Proto-Anatolian] would be on equal terms with Indo-European, both deriving from a higher node in the stemma, labelled 'Indo-Hittite' by E. H. Sturtevant" (ibid.). Meid apparently believes that the lines which connect the language nodes in a family tree have something to do—or should!—with *how early* innovations occurred and not with the mere fact that they occurred. He says further: "[M]odern dialectology has taught us that there are not clearcut breaks between dialects, but rather a number of gradual transitions, and that the emergence of different dialects, and their separation into languages, is a slow process"—as if the speed with which languages change were relevant to subgrouping. W. Meid's first charge against the classical family-tree model, then, is that its lines represent neither the exact temporal point of change nor the speed with which change occurs. Yet, may I remind the reader, the classical family tree was not designed for that. It was intended only as a diagram of relationships among languages, based on shared innovations, and nothing more. A discussion of exactly when and at what rate particular changes occur is irrelevant to subgrouping and belongs in a different place.

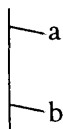
W. Meid's second charge against the tree model is that it disregards *archaisms*. In his influential 1975 essay he writes: "Eine Sprache ist niemals völlig uniform. Das sprachliche System enthält zu jeder Zeit neben die Regel oder Norm darstellenden allgemeinen Sprachgebrauch sowohl einerseits Archaismen, d.h. Überreste früheren Sprachgebrauchs, als auch erste Indikationen von Neuerungen, d.h. Entwicklungstendenzen, die später zum Durchbruch kommen können All dies macht uns zur Pflicht, die Systeme sämtlicher indogermanischer Einzelsprachen, auch der spätbezeugten, auf ihre Archaismen hin zu untersuchen und diese gegeneinander abzuwägen und in Relation zu

einander bringen . . . (1975: 210, 211f.; reiterated in English in 1990 [1986]: 17 f.). “Ein Archaismus ist immer ein kostbares Relikt, und östliche Archaismen und wieder andersartige westliche ergänzen sich gegenseitig zum Bild des frühen Indogermanischen. Mittelindogermanisch sind die etwas rezenteren, aber vergleichsweise immer noch altertümlichen Strukturen, die normalerweise durch Übereinstimmung in Ost und West erwiesen werden . . . Spätindogermanisch sind Strukturen, die nur regionale Verbreitung und Produktivität hatten . . .”³ The main trouble with this approach is that archaisms cannot be used in subgrouping because *subgrouping is possible only in reference to shared changes, never in reference to shared retentions*, which is precisely what archaisms are; *the retentions (archaisms, relics) constitute, by definition, the shared inheritance on the basis of which affinity only, not divergence, can be established*. Furthermore, Meid’s chronocentric proposal to divide the protolanguage into Early, Middle, and Late phases is completely irrelevant to subgrouping.

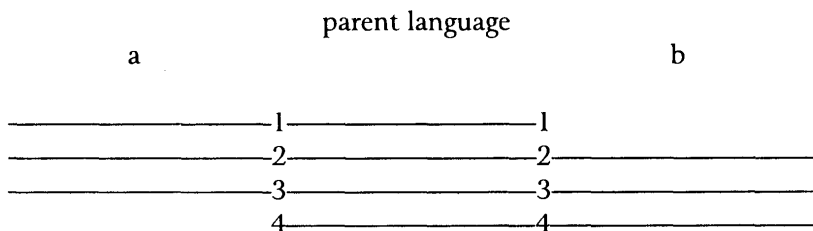
Wolfgang Meid opts to replace the family tree (Stammbaum) with something like a family river. Consider the following description of his revised model (1990 [1986]: 19f.): “Thus, if we envisage a staggered

³Meid 1975: 213. It becomes clear from these and other statements, as well as from W. Meid’s illustrative diagrams that the word *archaism* (*Archaismus*) has two different meanings in Meid’s texts, although he does not seem to be aware of it. The first meaning comes to light when he describes his view of language as consisting at every period of “*archaisms*, norm, and innovatory tendencies” (1990 [1986]: 18; “Archaismen, Norm, Neuerungstendenzen” 1975: 210). In this schema, archaisms and “innovatory tendencies” contrast with the norm and coexist parallel to it. This meaning is quite different from the meaning normally assigned to the term. But when W. Meid gives examples of these archaisms (the Vedic injunctive, the medial 3 sg. ending *-o- [vs. the innovative *-to-] and Vedic *śaye* [vs. Sanskrit *śete*], the medial extension *-r, etc.), he unconsciously reverts to the traditional meaning: in the attested language systems of Vedic, Greek, Slavic, etc., these archaisms do not contrast with any simultaneously existing norm but *constitute the normal form of their words* within their systems. They are called “archaisms” not by virtue of their contrast with competing forms of the same words but by virtue of their contrast with forms proved as *innovative* and belonging to *other language systems*, be it later stages of the same language (such as *śaye* and *śete*) or other languages.

differentiation, like



a may reflect earlier traits of the parent language which had been abandoned when *b* started off, but fail to reflect the most recent developments which, on the other hand, are reflected by *b*:



If we assume that Hittite is comparable to *a* in this model, and other Indo-European languages behave like *b*, and assume also possible derivations *c*, *d*, etc. which remained even longer in the Indo-European mainstream, it will be easier to account for the different patterning of the existing Indo-European languages and the different distribution of diachronic elements of the parent language reflected in them" (1990 [1986]: 19f.).

In the first diagram, the "stream" of Proto-Indo-European flows through time. At the end of its Early course, *a*, the Anatolian rivulet, we might say, flows out and breaks up into Hittite, Palaic, Luwian, and other language brooks (not shown). The Indo-European mainstream, however, flows on through time, and, at the end of its Middle course (sic?) the rest of the Indo-European languages, *b*, break out into a new river bed. What, however, are the "possible derivations *c*, *d*, etc.," assumed by Meid? I wonder. And does the mighty stream of the Indo-European protolanguage still flow on, at the time of this writing? The continuing line of the diagram certainly seems to suggest that. If the center line continued no further than the branching-off of *b*, we could think that the diagram represented the same graph as Sturtevant's Indo-Hittite tree, placed vertically. But the line does not stop there.

The second diagram is explained most coherently in Meid's earlier presentation (1975: 211): "In der früher aus der Grundsprache ausgeschiedenen Sprache [a] ist ein Zustand 1 der Grundsprache noch reflektiert, der z.Z. des Ausscheidens von [b] schon aufgegeben war. Andererseits reflektiert die später ausgeschiedene Sprache [b] einen Zustand 4, der z.Z. des Ausscheidens von [a] noch nicht erreicht war. Beispiel für einen erhaltenen Archaismus die phonetischen Laryngalreflexe im Hethitischen. . . , Beispiel für noch nicht vorhandene Neuerungen in derselben Sprache das Fehlen jüngerer Entwicklungsstufen der Perfektformation." In other words, the loss of the laryngeals and the evolution of the perfect exemplify shared innovations in the non-Anatolian Indo-European languages. This is not at all different from the well-known description of the basis for the Indo-Hittite subgrouping, *pace* Neu (1976: 253 f.) and many others who accept W. Meid's theory uncritically (except that "Zustand 4" cannot belong in the protolanguage, as the diagram seems to show: that would simply make no sense). Yet even these scholars intuitively hesitate to sign on to the "new" model. H. Craig Melchert, for example, is "not yet persuaded that a temporal-spatial model such as that advocated by Meid (1975) can be realized in a meaningful way" (1994a: 3)—and he is right, because, as should be amply clear by now, Meid's model offers nothing new. It is essentially identical to the Indo-Hittite model.

§3. If the extra-Anatolian Indo-European languages show several significant shared innovations, then the Indo-Hittite model has to be accepted as the only correct one. The presence of the "laryngeals," the absence of the feminine, the absence of the perfect (the *-h₂i*-conjugation being a very different formation indeed, see, e.g., Cowgill 1975 and 1979), the absence of inherited simple thematic presents (Lehrman 1985 and the following chapters of this book), the absence of the aorist, the absence of the subjunctive mood and of the optative mood—these distinctive characteristics of Anatolian constitute the most significant Anatolian "archaisms," i.e., they are matched by corresponding shared innovations in extra-Anatolian Indo-European. These characteristics, however, with the obvious exception of the "laryngeals" (on which see below), have been at different times claimed to be Anatolian losses. The absence of the feminine in Anatolian has been challenged most recently by scholars claiming to have found traces of the feminine in Luwian (Starke 1982, Oettinger

1987) and Lycian (Melchert 1992a, 1992b, 1992c, 1994b). H. Craig Melchert has even gone so far as to state (1994c: 129): “It is now certain that Common Anatolian inherited three genders from PIE: masculine, feminine, and neuter. The strongest evidence for the feminine is provided by Lycian animate nouns with the *a* vocalism such as *lada*- ‘wife’ (Melchert 1992b) and by the phenomenon of ‘*i*-motion’ in at least Luvian, Lycian, and Lydian (Oettinger 1987, after Starke).” Let us examine this alleged evidence closely, starting with the “strongest.”

The “strongest evidence,” upon examination, turns out to be weak indeed. Lycian is attested very late—only from about the 5th through about the end of the 4th century B.C. This means that some twelve centuries of language development elapsed between the earliest attestation of Hittite and that of Lycian. To rely on Lycian in building inferences for the purposes of “pre-Anatolian” reconstruction would be about as justifiable as relying on Old Prussian for the reconstruction of Proto-Indo-European—with the important difference that Lycian is known and understood so meagerly that Old Prussian, by comparison, appears problem-free. Maximum caution should be exercised in any comparative inferences drawn with the help of Lycian, a language scantily attested and fraught with basic problems, whose philological processing, in spite of a century-old effort, is still in its infancy. The origin of many of the forms that Melchert uses as comparative evidence cannot be said to have been determined with the certainty required for comparative use. Eager to prove that certain Lycian nouns in *-a*- continue PIE feminines in **-ā* (“< **-eh₂*”), Melchert compares Lycian directly with Proto-Indo-European, as if Lycian could rival Hittite either in seniority or in quality of attestation. Melchert first sets out to prove that, unlike Hittite and Luwian, Lycian preserved the contrast of PIE **o* and **a*; this would allow him to “demonstrate” that Lycian clearly differentiated between **o*-stems and **ā*-stems.

The quality of Melchert’s examples (1992b: 46f.) matches the erroneous nature of his premise. Here is a representative sampling. The Lyc. “infinitive” in *-āne/-ēne/-ēni* is split into two: the forms ending in *-e* are taken back to “**-ātnō*, matching exactly Hittite *-anna*” (p. 47), while the ending *-i* “probably continues a locative form” (ibid.). But PIE “**-ātnō*” is itself problematic, as is the origin of the Hittite directive case in *-a*. Is the continuation of PIE short **o* in Lycian sup-

posed to be the same as that of the long **-ō* (< **eh₃??*)? Melchert says nothing on the subject, nor does he elaborate on the origin of the directive case (beside referring the reader to Gk. ἄνω, κάτω, and Lat. *quō*, see *ibid.*, p. 47). As for Melchert's potentially promising morphological example, it is extremely unlikely that Lyc. prt. 3rd sg. ending *-te/-tē* (if cognate with Luw. *-tta*) continues PIE middle **-to*; the Luwian final vowel is far more likely to be analogical and not go back directly to PIE **-o*; the same concerns Lyc. pl. *-ñte/-ñtē*. Lyc. *ēke* 'when' (: Luw. *a-ah-ha* ?) need not continue PIE **en-h₂o*, with precisely *o* rather than *a*. Lyc. *ñte/ñta* (if from **endo*) changes its vowel due to vowel assimilation (called "vowel harmony" or "umlaut") and can by no stretch of the imagination be probative. Lyc. *ebe-* 'this' (: Hitt. and Luw. *a-pa-a*=) cannot be remanded to any "virtual **obho-*" (p. 46): the "umlaut," by Melchert's own rules (p. 44), disqualifies Lyc. *ebe-* from consideration because its attested forms, with the single exception of nom.-acc. pl. *ebeiija* which is clearly analogic (cf. also *abaiija*!), contain front vowels in their final syllables. The Lycian particle *me* (and *mē*) is also problematic. This particle which, Melchert says, "[d]espite its partially divergent syntax certainly [sic!—A.L.] equals Hitt. *-ma*," and which also, according to Melchert, appears in "*im-ma* = Lat. *im-mō* 'indeed' < PIE **id-mō*" (p. 46), should likewise be disqualified because it always occurs either before the particle *ne/nē* or before the pronominal particle *ti*, with front vowels.⁴ Melchert's best example is Lycian *pddē* 'place', possibly but *not necessarily* interpreted as a neuter nominative singular corresponding, bit by morphological bit, to Old Hittite *pí-e-da-an* 'place' (note that Lyc. *pddē* seems to be an *n*-stem, cf. dat.-loc. pl. *pddēne*, gen. sg. *pddēneh*—unless it turns out that the genitival *-h* in this *hapax* [106.1] belongs in fact to the following word; see also Melchert 1989b: 47). Even if *pddē* really is a nom. / acc. sg.

⁴Note in this connection "a development of special feminine forms in the [Lycian] adjective" (*ibid.*, p. 48), one of which Melchert finds in TL 100 *ebe xupa me tibeija* (*tibeija* acc. to him is a "fem. nom. singular of a relational adjective in **-iyo-*"). Whatever it is (the inscription is clearly incomplete), the *ti* occurring right after *me* probably does not belong with "*tibeija*" but with the preceding *me*. And I heartily welcome Melchert's admission (1994b: 236) that his "examples . . . for feminine *-a-* in adjectives in Lycian must be regarded as uncertain." They should be abandoned altogether.

matching *pí-e-da-an* exactly—and I cannot emphasize the uncertainty of both assumptions strongly enough—there is no need whatsoever to make the extremely risky inference that its vowel directly continues PIE **o* instead of Proto-Anatolian and even Proto-Luwian **a*. Lycian had certainly had enough time—at least 1,200 years and probably quite a bit more—to innovate in ways difficult to determine at this stage of our knowledge of it. The phenomenon of Lycian “vowel harmony” (or “umlaut”), familiar but, *pace* Melchert 1992b: 44, opaque in details (like most everything else in Lycian)—the regressive change of *a* to *e* or *e* to *a* depending on the front or back quality of the final syllable and possibly on some other unclear factors—should, failing everything else, introduce an ethos of deep humility into any speculation on the origins of Lycian *a* and *e*.⁵ The possibility of Lyc. *lada-* ‘wife’ and the rest of Melchert’s Lycian “animate class” (i.e., some of the common gender nouns) directly going back to PIE feminines in **-ā* should probably be rejected. There is no compelling reason to regard the final *-a* of this group of nouns as a direct descendant of PIE **-ā*, bypassing the far more compelling evidence of Hittite and Luwian. To be sure, the striking similarity of Lyc. *lada-* to Russian *лада* is tempting, but nothing more; the Lycian-Russian lexical “isogloss” *lada* : *лада* ⁶ may well be compared with Meillet’s classic example of Modern English *bad* : Modern Persian *bad*. In both cases, the best thing to do is to leave well enough alone, at least for the time being: far too many links are missing. A real explanation for the Lycian

⁵Melchert is forced to disqualify some of his examples (Lyc. *pede-* ‘foot’, *esbe-* ‘horse’, *epri-* ‘rear’, *epirije-* ‘sell’ (: “Hitt. *ḫappiriya-*”) due to the “umlaut rule” (1992b: 47), which does not prevent him from using some of them as probative on other occasions. More of his examples must be disqualified for the same reason, see above.

⁶Closer to home, Lyc. *lada-* ‘wife’ is likely to be related to OHitt. *lazzi-* ‘good, pleasant’ (whence Old Hittite *lāzziya-*⁷ ‘to be well, recover’, see Chapter 2), Hier. Luwian *ARHA la-tà- / la-ra/i-* (with “rhotacism”) ‘to prosper’, see Chapter 3; also the factitive *la-ra/i-ā-nú-* ‘to make prosper, enhance’. (For the connection of the HL stem with the Hitt., see Hawkins and Morpurgo 1978: 105.) The HL rhotacism shows the lenition of the intervocalic **t*—precisely the kind observed in Lyc. 3 sg. prs. *ta-di* ‘places’ and *ha-di* ‘releases’(?), on which see Melchert 1994a: 326 (on *a-di* ‘makes’, see Chapter 3, p. 191).

nouns in *a* may be found after the basic philological work has been satisfactorily completed. But we would do well to keep in mind that a phenomenon in need of an explanation may not be used to explain another, still unexplained, phenomenon; such an “explanation” merely misleads those—and they are a majority—who have no first-hand familiarity with this poorly mapped-out terrain.

There is, then, no basis whatsoever for the claims made in Melchert’s main essay on the subject (Melchert 1992b), to wit: “I cannot pursue here all the consequences of the *demonstration* [italics mine – A.L.] that Lycian distinguishes PIE **o* from **a* The Lycian evidence for animate (!) stems with *a* vocalism distinct both from the reflexes of *o*-stems and from neuter collectives *answers in the affirmative* [italics mine–A.L.] the long debated question as to the existence of the feminine gender in Anatolian. *Evidence for Indo-Hittite or for an early separation of the Anatolian branch will have to be sought elsewhere* [italics mine–A.L.]” (p. 52). Cf. also Melchert 1992d: “Now that feminine *ā*-stems *have been demonstrated* [italics mine–A.L.] for Anatolian . . . , I see no reason not to take Lydian anim. acc. singulars in *-ā v* from **-ām*” (p. 37). Yet nothing at all has been *demonstrated*; a new mildly sensational δόξα, in which *explananda* masquerade as *explanantia*, has been put into circulation, through the unfortunate neglect of some of the most fundamental methodological principles of comparative philology—and that is all.

§4. I shall now turn to the evidence for the Anatolian loss of feminine that is not quite as “strong” as the one just discussed but perhaps somewhat better known, namely the “*i*-motion” suffix discovered in Luwian by F. Starke (1982) and further developed in Oettinger 1987 and Melchert 1994b.

F. Starke noticed that in the nominative and accusative of both numbers of common-gender nouns in Cuneiform Luwian the vowel *i* unexpectedly appears where one would expect either the thematic *-a*- or no vowel at all (as in *-n-*, *-nt-*, and other athematic stems). In the oblique cases the vowel disappears, yielding to the expected forms. Starke proceeded to explain this phenomenon as a suffix cognate with PIE “Motionsfemininum” in *-ih₂* (Starke 1982: 408 n. 3 *et passim*), overlooking the much more likely—and, alas, homely—event of a Common Luwian innovation: the postaccentual Proto-Anatolian **-a*-before final **-s* becomes “raised” to a vowel written with *-i-* or

occasionally with *-e*,⁷ phonetically probably [ə]. It is also very likely that this vowel was phonetically distinct from the continuation of the inherited Proto-Anatolian **-i-*: notably, Hittite borrowings from Luwian render this Luwian *-i-* < **-a-* as *-a-*; see, e.g., the examples given in Starke (op. cit., p. 410, n. 13). Note also that the change did not occur in non-final position, as shown by the first members of compounds such as *Walwa-ziti-*, *Arma-ziti-* (but cf. *Piha-walwi-*, pl. nom. ^DEN.ZU-*inzi* [arminzi]). Analogically, common-gender accusative singular also received the vowel *-i-* before *-n*, to differentiate it from the neuter: (neut. sg. nom.) *-an* : (c. sg. nom.) *-iš* = (neut. sg. acc.) *-an* : (c. sg. acc.) **-an* → *-in*. From this new accusative singular the vowel spread to the common-gender nominative and accusative plural: (neut. sg. acc.) *-an* : (c. sg. acc.) *-in* = (neut. pl. nom./acc.) *-a* : (c. pl. nom.) **-anzi* → *-inzi*, (c. pl. acc.) *-anza* → *-inza*. The innovation does not seem to have taken place in accented syllables, cf., e.g., Cuneiform Luwian nom. sg. c. EN-*aš* 'lord, master' (not ***EN-iš*!) : Old Hitt. c. nom. sg. *iš-ḫa-a-aš* (with plene).⁸

Some details of the Common Luwian sound change described above remain to be worked out, but it seems to me, all in all, a far more reasonable explanation than the fanciful "*i*-Motion suffix" which mysteriously appears in the nominative and accusative and just as mysteriously disappears in the rest of the common-gender paradigm. A

⁷Unlike Old Hittite, Cuneiform Luwian in the attested period did not seem to distinguish *e* and *i*, cf. the variant spellings *ti-ia-am-mi-eš* and *ti-ia-am-mi-iš* 'earth', *el-ḫa-ú-i* (1 sg. prs.) and *il-ḫa-ti* (3 sg. prs.), *ap-pa-ra-an-ti-en* and *ap-pa-ra-an-ti-in* (acc. sg. com.), *ḫal-li-eš-ša* and *ḫal-li-iš-ša*. Hieroglyphic Luwian does not seem to have had this distinction either.

Belg (nogetant note) ⁸Cf. also Old Hittite *ḫa-aš-ša-a-aš* 'hearth' (with the plene discussed in Hart 1980: 14) vs. Lyc. *ḫaha-** 'altar' (if the latter really belongs here). The Lycian *a*-nouns may at least in part go back to Luwian stem-vowel accented nouns. But the Lycian facts are likely to retain their "local" significance and to continue to be irrelevant for pre-Anatolian reconstruction. In any case, the relationship of Lyc. *ḫaha-** with Lat. *āra* is an explanandum, not an explanans; Lat. *āra* cannot be used, as done by Melchert with *petitio principii*, to show that Lyc. abl./instr. *ḫahati* contains an *a*-class stem. Cf. Hart (ibid.): "A direct morphological equation with Latin *āra* is. . . not assured, although there can be little doubt that the words are ultimately related."

stranger suffix has never been witnessed! Certain scholars have gone to great lengths to justify its unprecedented, unsuffixlike behavior. Norbert Oettinger even mobilizes for this purpose the dread armor of structuralist theory.⁹ H. Craig Melchert (1994b) sees the weakness of Oettinger's reasoning but needs the "suffix" as evidence for his alleged pre-Anatolian feminine. Thus he comes up with the following hypothesis: "[T]he development of the feminine gender took place in not one but two steps. In the first, the motion suffixes were added only in the nominative and accusative where gender was already marked. In the second, the suffixes were generalized throughout the paradigm. Anatolian reflects only the first stage. This hypothesis obviously has implications for PIE relative chronology and the position of Anatolian." (1994b: 236). In other words, even if observed darkly through the glass of methodological error, Anatolian facts present a shape that simply refuses to fit the general Indo-European mould. Melchert proceeds to fall back on his Lycian invention, but as I have shown, the murky Lycian evidence cannot be used to clarify anything whatsoever. On the other hand, some Lycian facts become more intelligible in terms of the Luwian sound-change tack outlined above. Lycian final *-i* of e.g. *ēni* 'mother' (Cun.Luwian *an-ni-*, an *i*-stem [abl. *an-ni-ia-ti*]), *tedi* (Cun.Luwian *ta-ti-*, an *i*-stem [abl. *ta-ti-ia-ti*]) 'father', the ablative in *-adi* (Luwian = *a-ti*), represents the inherited **-i-* of Proto-Luwian, while Lycian final *-e* in *pddē* 'place' as well as in the likes of *esbe-* 'horse' and *izre-* 'hand' simply continues the reduced Luwian vowel written as *-i-*, mistaken by Starke *et al.* for the "*i*-Motionssuffix."¹⁰

⁹"Diese Beschränkung innerhalb der Kasus ist m.E. als sekundär erklärbar. Es dürfte sich um eine Reduktion auf das Wichtigste handeln, denn Nom. und Akk. sind die am stärksten "grammatischen" Kasus und bilden daher den Kern des 'Deklinationsparadigmas'." (Oettinger 1987: 41 with n. 26: "Zum Begriff der 'grammatischen Kasus' s. J. Kuryłowicz, *Esquisses linguistiques*, p. 131-150" and n. 27: "Vgl. zur Stellung von Nom. und Akk. im Deklinationsparadigma allgemein H. Seiler, *Kratylos* 11, 1966, p. 204f."

¹⁰There is no reason to think that the Hittite *i*-stems *parkui-* 'clean' and *dankui-* 'dark' are anything other than Hittite remakes of older *u*-stems. (Lindeman in his review of Starke 1990 gives an unconvincing explanation of these *i*-stem transfers by appealing to "inanimate abstract nouns" in **-ih₂*; see Lindeman 1994: 354. In the case of *parkui-* the innovation is more likely to

Those who have tried to prove that the Anatolian languages had inherited the feminine gender of Proto-Indo-European and then proceeded to transform it or lose it, have failed to hit their mark. It does still hold, then, that it was rather Proto-Indo-European that innovated by creating the feminine gender. This innovation alone is significant enough to demonstrate the necessity of the Indo-Hittite model.¹¹ Yet there were also other significant innovations, already mentioned above.

§5. There is, then, no viable alternative to the Indo-Hittite model. It alone is consistent with the known facts and with the corroborated "shared-innovations" principle of language subgrouping. Whether the protolanguage be called "Indo-Hittite" or something else is a different matter. I do, however, object to the Meidian "Mittelindogermanisch" as it clings to the name "Indogermanisch." I propose that Sturtevant's

have come from the denominative *parku-ye-* 'to cleanse', see Chapter 3 below. Naturally, I agree with Lindeman [1994: 355] that "the whole idea of a Proto-Anatolian motion suffix *-i-* should be abandoned.") Pace Oettinger there is no reason to think that Hittite denominatives *alpužšš-* and *dampužšš-* point to **alpui-* and **dampui-* (1987: 38 n. 14). And I believe (cf. Starke 1990: 78) that Luwian *wasui-* and the like are Common Luwian thematizations of formerly athematic stems (such as, e.g., HL *zú-wa/i-ni-* 'dog') that subsequently underwent the phonetic change which I describe above. There is no ground here for the IE *-*ih₂-* suffix (or any other similar suffix, whether ablauting or not), pace Melchert (1994b: 239-42) and Oettinger (1987 with lit.).

¹¹See Stempel 1994: 208: "Es bleibt die Frage, wie das Fehlen des Genus femininum im Anatolischen letzten Endes zu bewerten ist. Mir scheint es . . . weniger wichtig zu sein, daß darin ein Archaismus dieses Zweiges liegt, als vielmehr, daß alle übrigen Zweige des Idg. das neue Genus im wesentlichen mit denselben Morphemen bilden und denselben Kategorien zuordnen, eine tiefgreifende Innovation. . . , die wohl einen noch recht engen Zusammenhang der nichtanatolischen idg. Sprachen voraussetzt, so eng vielleicht, daß wir zum Ansatz des Sturtevant'schen 'Indo-Hittite' genötigt werden." Stempel reaches his conclusion after an analysis of the *i*-motionists' arguments, without considering the Anatolian evidence that makes their play with reconstructed suffix forms superfluous. While I do not agree with some of the details of his essay, I applaud his boldness in plainly stating the logical consequences of this shared Indo-European innovation.

time-weathered term be retained, as long as its obvious shortcomings are clearly explained to beginners.

Once the Indo-Hittite model is accepted, the need to accommodate in Proto-Indo-European the Anatolian “laryngeals” (exemplified by Hittite *ḫ* and *ḫḫ* which variously reflect “**h*₂” and “**h*₃”) falls away.¹² Contrary to well-known claims, there is not the slightest necessity, other than the habitual itch to use the rusty machinery of structuralist morphophonemics, to import into Proto-Indo-European the algebraic *coefficients sonantiques* *A*, *Q* and the neo-Saussurean *E* or anything like them—barring the subjective (nominalist) requirements of “symmetry” and “simplicity” or “economy” which, throughout history, have done little but distort the inconveniently unruly complexity of facts. There is no reason (except “symmetry” and “economy”) why *all* Indo-European lexical roots need to conform to the “(S)(T)(R)e(R)(T/S)” pattern (where S is any spirant, including the laryngeals), unless it is the Bolshevik principle that “the minority shall be subordinate to the majority” (note that there are no such Procrustean “rules” for suffixes and endings). There is no reason (except the same “symmetry” and “economy”) why disyllabic roots¹³ of Proto-Indo-European such as **pel̥a-* / **p̥l̥e-* / **p̥l̥i-* (for **p̥l̥a-*) ‘fill, full’ should necessarily be cooked down to a monosyllabic skeleton, with **h*₁ (*E*) or other laryngeals in place of vowel timbre plus length or the shwa, just to “simplify” things morphophonemically; **p̥l̥ano-* being realized as **p̥l̥ino-* furnishes no evidence at all for treating *ə* as a consonant, *pace* Cowgill (1965: 144), for whom that was “the most powerful evidence” for “laryngeals.” The “laryngeals” should be reconstructed—but for Proto-Indo-Hittite, *not* for Proto-Indo-European—and they should be reconstructed only when they are *actually attested* in Anatolian. While Proto-Indo-

¹²See Melchert 1994: 21 f., 68-75. The “first” laryngeal, **h*₁, which is not “preserv[ed]. . . in any position” (ibid., 65) should not be reconstructed at all. On laryngeals and some related matters, see Excursus II.

¹³ “[T]he ablaut of the disyllabic bases. . . furnishes the most powerful evidence for the laryngeal theory, — evidence that I believe would be sufficient to establish the theory without help from Hittite *ḫ*’s or any other sound effects that with more or less plausibility have been attributed to laryngeals” (Cowgill 1965: 144).

European proper should be left largely in the shape familiar from the second edition of Brugmann's *Grundriß* (with some adjustments for the late-attested, far-flung Tokharian), Proto-Indo-Hittite needs to be reconstructed from scratch, strictly on the merits of each cognate as it is actually attested.

Chapter Two

THEMATIC VERB STEMS OF HITTITE

Chapters 2 through 4 present a substantially revised version of the evidence and results of an earlier investigation (Lehrman 1985), which showed that Anatolian did not have any simple thematic stems cognate with those of Indo-European. The simple thematic class of present stems—the most productive present class of the Indo-European branch of the Indo-Hittite family—is characterized by the addition of the vowel **-e-* alternating with **-o-* to the accented root in the *e* grade (cf., e.g., Ved. *ājati* : *ājanti*, Hom. *ἄγει* : *ἄγουσι*, Lat. *agit* : *agunt*, etc., from PIE **áǵ-e-ti* : **áǵ-o-nti*). The Proto-Indo-European simple thematic class belongs to the set of verb classes, the stem-forming suffixes of which end in the “thematic” vowel **e* : **o*, such as the suffixes **-ye-*, **-ské-*, and **-éye-*. With the exception of the simple thematic class, created within Proto-Indo-European after the separation of Proto-Anatolian, thematic suffixes are well represented in the oldest Anatolian languages. The “athematic” suffixes—those that do not end in the thematic vowel, cf. suffixes such as **-néu-* : **-nu-*, **-s-*, zero—are also well represented in both Indo-Hittite branches. But, significantly, the only Proto-Indo-European simple thematic present stem whose root has an Anatolian cognate, is matched in Anatolian by an athematic root stem, i.e., a stem with the zero suffix: PIE **ǵwés-* ‘dwell’ (Ved. *vás-a-ti* ‘dwells’ : Goth. *wis-i-þ* ‘is’) vs. Hitt. *hues^{-mi}* (TI-*eš-zi* [imp. act. sg. 2 *hu-e-eš*] < PIH **Hwés-ti* [or **H^wés-ti*, see Excursus II]). See Chapter 4 §9 and Chapter 5 §2 for more detail.

Transliteration and Special Signs

Insofar as possible in Roman transliteration, I would like to give the reader access to actual Hittite, Cuneiform Luwian and Hieroglyphic Luwian spellings, instead of the normalized transcription used in standard dictionaries and most secondary works, which often distorts important facts. Thus throughout this book I use mostly the non-normalized transliteration, in which syllabary signs are separated with hyphens; where necessary, I punctuate it with special signs. The plus (+) indicates the boundary between adjacent morphological elements

(prefix, root, suffix, ending). The equal sign (=) indicates any (even arbitrary) cutoff point, when necessary. For example, I write *ú-+i+z-zi* ‘comes’, where *ú-iz-zi* is the attested writing, while the plusses show morphological boundaries between the preverb *ú-*, the root *+i+* and the ending *+z-zi*; “=*h-h*= in *te-e-eh-hé*” is an example of the use of the second sign.

Sometimes it becomes useful to hypothesize about what a word written in a syllabary sounded like. I build all such hypotheses on the available evidence and keep my phonetic representations as close to the actual spellings as possible. The Hittite contrast of “geminate” vs. “plain” is preserved. “Plene” writings are indicated with an extra vowel. Such hypothetical “phonetic” transcriptions appear in brackets.

Normalized transcriptions, set in bold italics (e.g., “Hitt. ***daluki-***‘long’”), are used for the sake of brevity and appear typically in summaries.

I use two asterisks (**) to mark the unattested forms that may be imagined or fancied *in abstracto* but cannot be reconstructed on the basis of any forms actually attested, e.g., ***stw-énti* (instead of **stéw-nti*), ***h₁néh₃-mṇ* (instead of **nō-mṇ*).

For an excellent discussion of the Hittite and Luwian cuneiform writing systems, see Melchert 1994a: 12-35, with literature.

The Chronology of the Hittite Data

The bulk of the Hittite data used in this book comes from texts written in the Old Hittite (18th-16th century B.C.) and Middle Hittite (15th century B. C.) periods. The data hailing from those periods are marked, respectively, OH and MH. Some data come from MH copies of OH texts or Late Hittite (14th-13th century B.C.) copies of OH or MH texts. The period when the text was copied is indicated with the respective letter before the original dating of the text, e.g., MOH (a Middle Hittite copy of an Old Hittite text), LOH (a Late Hittite copy of an OH text), LMH (a Late Hittite copy of a MH text). Late Hittite (LH) texts show that the language had by then undergone a number of developments resulting in demonstrable innovations and so are used only when the relevant OH and MH data are not available.

The datings of Hittite texts are usually based on those of the *HD*.

In addition, Professor Gary Beckman has generously provided answers to my numerous queries on dating specific attestations.

Analytical Criteria

Each Anatolian verb in this and the following chapter was selected based on the likelihood of its stem ending in the cognate of the Indo-European thematic vowel **=e-* : *=o-* followed by the endings corresponding to the Indo-European series of endings used after thematic suffixes (such as active preterite singular 3rd person **-t*, middle **-to*, active present **-t-i*, middle **-to-r*). In Indo-European, the choice of a particular present (imperfective) suffix depends on the verb root. Thus, the root **áǵ-* 'to lead, drive' must be followed by the imperfective suffix **-e-* (the simple thematic suffix), whereas the root **és-* 'to be' is not followed by any suffix at all ("the zero suffix"), with endings added directly to the root; the root **yug-* 'harness, yoke' is combined with the suffix **-n-* which is infixed before the final element of the root instead of being affixed after it. The accent and certain vowel alternations also play a role in the formation of the imperfective verb form. What I aim to reconstruct in each case, to the utmost extent possible, is an entire Proto-Anatolian, or Proto-Indo-European, or Proto-Indo-Hittite word—complete with the lexical root, the particular suffix it requires, the appropriate endings series, and the accentual and apophonic relations, patterned accordingly—rather than isolated morphological fragments. This approach delimits the choice of verbs for this particular study. Verbs belonging to the *-h̥hi-* conjugation (characterized by a special set of roots in the shape specific to this set, with its specific suffixes and with a special set of endings distinct from both the active and mediopassive ending series, although materially closer to the latter) are considered only if their roots may be said to be cognate with those of the thematic stems of Indo-European. The Hitt. *-h̥hi-* conjugation stem *pidda-* 'flee, escape' whose root is cognate with that of PIE **pét-e-ti* 'flies, flees', seems to be the only verb of this kind; it is discussed at length in Chapter 5 §7.

In the preliminary analysis that follows, stems are obtained by subtracting endings from finite verb forms. The obtained entity is then identified by its final vowel (this rules out, e.g., Hittite *-nu-* stems: PIE **-néu-* : **-nu-*), and the immediately preceding segment (or segments,

as in the case of the easily recognizable suffix $+š-ki(-e-) : +š-ka+ / +š-ga+ < *s-ke- : *s-ko-)$. Verbs that have identical stems determined by this deliberately mechanical procedure are then grouped together. The purpose of this procedure is to take a fresh look at those vocalic stems of Hittite that may be regarded as thematic. Its "synchronic" results are strictly preliminary, and are superseded by a historical-comparative classification in Chapters 4 and 5.

The rest of this chapter contains a description of the thematic vocalic stems of Hittite based on the criteria and procedures outlined above, with paradigms consisting of attested forms, and a discussion of attestations. The same procedure is repeated, *mutatis mutandis*, for the other Anatolian languages in Chapter 3. All forms cited were collected first-hand from published texts or from texts made available to me by Professor Gary Beckman. In a number of instances, indicated where necessary, the paradigms adduced below improve upon and complement the similar collections of attested forms published in Oettinger 1979.

Hittite (Possibly Thematic) Vocalic Verb Stems

A preliminary "synchronic" analysis of Hittite vocalic verb stems yields the following provisional classes.¹

1. $+i-(e-)i/e+ : +i-(ia-)a+ / +ia(-a)+$. This class consists of verbs the stems of which end in $=(e-)i+$ alternating with $=(a-)a+$ preceded either by a *Ci* sign (especially significant where the corresponding *Ce* sign is available) or by the sign *i*. Examples: act. prs. sg. 3 *i-(e-)iz-zi* : pl. 3 *ia-an-zi/i-ia-an-zi* 'make' (class marks: *i-(e-)i/e+* alternating with

¹I use the colon to separate the alternating shapes of the stem suffix corresponding to IE $*=e- : *=o-$, regardless of their distribution within the attested Hittite paradigms. For example, given a paradigm with the stem shapes (a). *-yesi* (act. prs. sg. 2), (b). *-yawen* (act. prt. pl. 1) and (c). *-yentsi* (act. prs. pl. 3), forms (a) and (c) belong on the left of the colon, while (b) belongs on the right side; the fact that *-yentsi* is likely to be a replacement of *-yantsi* (which occurs in other items belonging to this class and is expected in comparative terms), as well as the manner in which this replacement occurred, is irrelevant to this device. The virgule stands for the disjunction *or*, e.g., " $=e/i$ " reads " $=e$ or $=i$."

(i-)ia-a+), act. prs. sg. 3 *ú-e-mi-iz-zi* : pl. 3 *ú-e-mi-(ia-)an-zi* 'find' (class marks: =mi-i+ alternating with =mi-(ia-)a+, note the use of *mi* and not *me*), act. prs. sg. 3 *ta-(a-)i-iz-zi* 'steals' : deverbative noun *ta-ia-zi-il+* 'theft / thievery' (class marks: +i-i+ alternating with +ia+).

II. =u-(u-)e/i+ : =u-(u-)wa-a+. This class consists of verbs the stems of which end in =e/i+ preceded by Cu-(u-) alternating with =a-a+ preceded by Cu-(u-)w=. Examples: act. prs. sg. 2 *ka-ap-pu-u-e-ši* 'thou reckonst', pl. 3 *kap-pu-u-en-zi* : participle *kap-pu-wa-an-d+*.

III. =ú-(e-)i+ / =ú-e+ : =ú-wa-a+. This class consists of verbs the stems of which end in =(e-)i+ or =e+ preceded by =ú-, alternating with =a-a+ preceded by =ú-w=, e.g., act. prs. sg. 3 *ú-e-iz-zi/ú-iz-zi*, pl. 3 *ú-en-zi* : pl. 3 *ú-wa-an-zi* 'come'.

IV. =a-(a-)e+ / =a-(a-)i+ : =a-(a-)a+. Verbs which belong to this class have stems ending in =e/i+ alternating with =a+ preceded by =a-(a)=, e.g., act. prs. sg. 1 *tar-ma-e-mi* / 3 *tar-ma-a-iz-zi* : pl. 3 *tar-ma-an-zi* 'peg down'; act. prs. sg. 3 *a-ru-wa-(a-)iz-zi* / pl. 3 *a-ru-wa-en-zi* : pl. 3 *a-ru-wa-an-zi* 'bow down'.

V. +š-ki-(e-)i+ / +š-ki-e+ : +š-ka+ / +šga-(a=)+. Verb stems belonging to this class end in =i-(e-)i+ alternating with =a-a+ preceded by +š-k= / +š-g= (e.g., act. prs. pl. 1 *ak-ku-uš-ki-e-wa-ni* : pl. 3 *ak-ku-uš-kán-zi* 'drink', mid. prs. sg. 1 *pa-iš-ga-ḫa-at* 'I used to go') or other syllabographic attempts to represent the cluster [sk] when preceded by a consonant, e.g., act. prt. sg. 2 *zi-ik-ki-eš* (← *di-ske-s)² 'hast placed', act. imp. pl. 3 *ši-pa-an-za-kán-du* MH (*spand-ska-ntu*)³ 'they shall libate', act.

²It is possible that the stem *zi-ik-ki-(e-)*+ was pronounced as [tsiké]+ and represents a real metathesis (*dsiké-) from the earlier *di-ské-. The non-ske-paradigm of the verb 'place' belongs to the *ḫhi*-conjugation. The Hittite root is *di-* (regularly < PIH *dhē-): act. prs. sg. 1 *te-e-eh-hé* (< *dai-xa-i), 3. *da-a-i* (< *dáy-e-i), pl. 3 *ti-(ia-)an-zi* (< *di(y)-ant-i).

³The interpretation of *ši-pa-an-za-kán-du* MH is based on other Hittite spellings of this root and on its possible cognates in Indo-European languages. For [sp]=, cf. Hittite spellings such as *iš-pa-an-ti* 'libates' (passim). *ši-p=* is a later attempt (the reasons for which are not clear, see Oettinger 1979: 416 f.) to render what is normally written in OH as *iš-p=* (*is-T=* is the usual Hittite spelling of the initial etymological *sT [where T is a stop]; see, e.g., Kronasser 1966: 48): Indo-European cognates of the root, e.g., Gk. σπένδω 'I libate', provide evidence for the etymological *sp= and *d=.

prs. sg. 2 *tar-ši-ik-ki-ši* (*tar-ske-si*) 'thou sayest'.

VI. =*k-ki-i+* : =*k-ka+* /=*g-ga-a+*. The one stem belonging to this class ends in =*i-i+* alternating with =*a+*, etc., preceded by =*k-k*=, e.g., act. prs. sg. 3 *lu-uk-ki-iz-zi* : pl. 3 *lu-uk-kán-zi* 'set alight', mid. prs. sg. 3 *lu-uk-kat-ta* / *lu-ug-ga-at-ta* 'is light'.⁴

VII. =*l-li-i+* : =*l-la-a+*. Stems belonging to this class end in =*i-i+* alternating with =*a+*, etc., preceded by =*l-l*=, e.g., act. prs. sg. 3 *ḫu-ul-li-iz-zi* : *ḫu-ul-la-az-zi*, pl. 3 *ḫu-ul-la-an-zi* 'combat'.

VIII. =*ni-(i=)+* : =*na-a+*. This class consists of stems ending in =*i-(i=)+* alternating with =*a-a+* preceded by =*n=*, e.g., act. prt. sg. 3 *zi-in-ni-it* : prs. pl. 3 *zi-in-na-an-zi* 'finish'.

IX. =*ne-e+* : =*na-a+*. The one verb stem belonging to this class ends in =*e-e+* alternating with =*a-a+* preceded by =*n=*, e.g., act. prs. sg. 2 *ar-ša-ne-e-ši* : participle *ar-ša-na-an-d* + 'be jealous'.

X. =*ri-i+* : =*ra-a+*. Stems belonging to this class end in =*i-i+* alternating with =*a-a+* preceded by =*r=*, e.g., act. prs. sg. 3 *pa-ap-ri-iz-zi* : participle *pa-ap-ra-an-t* + 'be unclean'.

XI. =*še-i+* : =*ša-a+*. Stems belonging to this class end in =*e-i+* alternating with =*a-a+* preceded by =*š=*, e.g., act. prs. sg. 3 *wa-aš-še-iz-zi* : pl. 3 *wa-aš-ša-an-zi* 'clothe'.

XII. =*te-i+* : =*ta/da-a+*. This class consists of stems ending in =*e-i+* alternating with =*a-a+* preceded by =*t=* /=*d=* (*d=* only in the sign *da*), e.g., act. prs. sg. 3 *pí-(e)-ḫu-te-iz-zi* : pl. 3 *pí-(e)-ḫu-da-an-zi* 'take/lead away'.

The derivational relations of the stems in each class to other lexical items (such as nouns and other verbs) are particularly important for the purposes of this study. The following is a detailed survey of derivation of the stems belonging to the twelve provisional classes listed above (cf. a different classification in Oettinger 1979). Some of these verbs were found to derive from nouns or other stems actually attested in Hittite or inferred as likely to have existed there. Such

⁴Technically, classes V and VI could be treated as one class since the pre-vocalic segments in the stems of both end in the same sound, written =*k-k*/=*g-g*= postvocally and =*k/g*= after *s*. For my present purposes, however, it is convenient to keep them apart, as class V contains stems ending in the suffix *-ske-* (: PIE **-sfe-*) : *-ska-* (: PIE **-sko-*), whereas class VI contains a root ending in *k* followed by =*e-* : =*a-*.

Class I

1. *a-ni-e-(i=)+ : a-ni-ia-(a=)+* 'act, perform, work (the soil)'

OMH KB₀ XI 12 I 2

a-ni-e-iz-zi OH XXIX 30 II 21

a-ni-ia-zi LOH KB₀ VI 26 I 13

MH XXIX 7 Vs. 39

a-ni-ia-az-zi MH XXIX 7 Vs. 41

pl. 3 *a-ni-ia-an-zi* LOH XXIX 31 4

LMH KBo II 3 I 43

imp. sg. 2 *a-ni-ia-* LMH XIII 2 III 40

pl. *a-ni-ia-at-te-eʃn* MH KB₀ XVI 25 I 25'

prt. sg. 1 *a-ni-e-[nu-un]* OH StBoT 18 Rs. 48

pl. *a-ni-ia-u-en* MH XXIX 8 IV 39

(The hapax pl. 3 *a-ni-ia-ir* LOH KBo XII 3 III 10' is either a scribal error for *a-ni-i-el-ir* [the signs *ia* and *e* being very similar] or a transfer to class IV, q.v. below.)

mid. prs. sg. 3 *a-ni-ia-at-ta* MH KBo XXI 103 Rs. 20'

-ske- forms:

act. prs. sg. 3 *an-ni-iš-ki-iz-zi* OH KBo VI 2 I 18

an-ni-eš-ki-iš-zi MOH KBo VI 3 I 27

pl. *an-ni-iš-kán-zi* OH KBo XIX 1 II 21'

an-ni-eš-kán-zi LOH KBo XII 49 III 7

verbal noun *a-ni-at-še-it* 'his performance' OH KBo VII 14 + Vs. 29 (Zukraši) cl 819

a-ni-ia-at-ta pl. nom. acc. neut. LOH XXXI 64 IV 8

The spellings *a-ni-iz-zi* and *a-ni-e-iz-zi* are morphologically older than *a-ni-ia-zi* and *a-ni-ia-az-zi*, as the chronology indicates. For etymological connections see Puhvel 1984: 71 with lit. ("etymology uncertain"). The stem is likely to be related to *annanu^{mi}* 'train, cultivate', based on the same root (see Oettinger 1979: 345 for the morphology; with lit.).

2. *a-ri-ia(-a)+* 'to ascertain through an oracle'

act. prs. sg. 1 *a-ri-ia-mi* LMH XIII 20 I 23

3 *a-ri-ia-zi* LMH XXX 36 I 4

pl. 1 *a-ri-ia-ú-e-ni* MH KBo XVI 47 Vs. 17'

3 *a-ri-ia-an-zi* OH KBo XVII 23 Rs. 7 OH-???

-*ske*- forms:

prt. sg. 1 *a-ri-iš-ki-e-nu-un* MH XIV 13+ I 53

3 *a-ri-iš-ki-it* MH XIV 13+ I 51, etc.

mid. prs. sg. 3 *a-ri-eš-kat-ta* LOH XLIII 60 I 25

See Oettinger 1979: 345 for an etymology; note that the laryngeal in his reconstruction ** $\partial_2 r y \acute{e}$ - ("zu gr. * $\acute{\alpha}\rho\tilde{\alpha}$ 'Gebet' (* $h_2\mu\acute{e}h_2$) u. lat. $\acute{o}r\acute{o}$ 'bete' < * $h_2\acute{o}r\acute{e}h_2\acute{i}\acute{e}$ -") is not backed up by any evidence. Oettinger posits the vocalized ** ∂_2 in order to account for the attested *ar(i)ya-* (instead of the expected **har(i)ya-*, cf. the next stem).

3. *ḥa-ri-e-+ : ḥa-ri-ia-a+* 'to bury'

act. prs. sg. 1 *ḥa-ri-e-mi* OH StBoT 25 No.3 Rs. III 9

No.5 Vs. II 2

pl. 3 *ḥa-ri-ia-an-zi* MH MIO 1 (Rost) III 19

prt. sg. 1 *ḥa-ri-e-nu-un* OH StBoT 25 No.4 Rs. III 12

Spellings such as *ḥa-ri-e-mi* and *ḥa-ri-e-nu-un* are ambiguous (they could stand for either [*har(i)ye*]- or [*hare*]-, since there is no sign *re*), but MH *ḥa-ri-ia-an-zi* makes the former reading preferable, and helps identify the stem as belonging to class I.⁵

It is possible that the verb *ḥa-(aḥ)-ḥa-ri-ia+* 'to rake' is a reduplicated derivative of *ḥa-ri-e+* : *ḥa-ri-ia+* 'to bury'. Its earliest attestation in my collection is LMH:

act. imp. sg. 3 *ḥa-aḥ-ḥa-ri-ia-ad-du* LMH XXIV 11 III 9

The rest are LH (for these, see Kronasser 1966: 491). The other possibility is that this verb is a denominative of the noun ^{GIS}*ḥaḥ(ḥa)-ra* 'rake' (HW1). However, I would expect rather a class IV verb to perform this function, namely **ḥa-aḥ-(ḥa-)ra-(a-)i+* or the like (see the section on class IV below): the verbal noun *ḥaḥratar** (^{EZEN}*ḥaḥrannaš* HW1 in pre-LH⁶ XIII 4 I 44) could be derived from just such a stem (cf. *ku-uš-du-wa-a-ta* 'slander, abuse' MOH, a verbal noun based on *ku-uš-du-wa-a-i+* 'to slander, abuse, revile [see below]'). The stem *ḥa-aḥ-ḥa-ri-ia-a+*, if denominative, looks like it is based on an *r*-stem noun, cf., e.g., *ḥa-ap-pa-ri-e+* 'to turn over (to)' based on *ḥa-ap-pa(r)* 'exchange, trade'; see below).

The stem *ḥar-aš+* (-*mi* conj.) 'to plough' or the like⁷ (e.g., *ḥar-aš-zi* LOH VBoT 58 I 30, phonetically [*hars*]-: cf. *ḥar-ši-iš-kán-zi* XXIV 7 I 21) is possibly based on the same root as *ḥa-ri-e+*. It is doubtful that the stem *ḥar-ra-a+* 'to crush', mid. 'to perish, go to ruin' is also based on the root [*har*]- in view of the spelling with =*r-r*= compared with the "single" =*r*= of *ḥa-ri-e+*. Also, the attestations of *ḥar-ra-a+* do not

⁵J. Tischler's (1977: 172 f.) derivation from *ḥari*- 'valley' is also possible. Note, however, that *ḥari*- is itself probably a derivative of *ḥar*-* 'to plough'.

⁶The dating is Professor Gary Beckman's (personal communication).

⁷In Harry Hoffner's view (1974), *ḥarš*- "denotes the simple breaking up of the hard ground . . ." (p. 43). Hoffner prefers "to see in *ḥarš*- an allusion to the action performed on land which had not previously been subjected to cultivation in anticipation of its being plowed" (ibid.). Puhvel BiOr 36: 57 sees it as a Semitic loan.

permit me to determine whether it belongs to the *-mi* or the *-hhi* conjugation (the LH attestation *har-ra-i* XXV 23 IV 52 is far from probative due to the wealth of transfers from one type into the other.⁸ If it is a *-mi* verb, it could belong to either class IV or class X:

mid. prs. sg. 3 *har-ra-at-ta-ri* MH XXIII 77 Vs. 38
har-ra-at-ta LMH XII 63 + Vs. 32
 participle *har-ra-an* LMH XIII 7 IV 3

-ske- forms of the *+nu-u+* deverbative:

mid. prs. sg. 3 *har-ra-<nu->uš-ki-it-ta* LMH StBoT 22 Eid 1 II 28
 act. prs. pl. 3 *har-ra-nu-uš-kán-zi* *ibid.*, 23

The relation of *har-ra-a+* to the stems described above remains problematic.⁹ Cf. Puhvel 1991: 144 f. *hariya-*, 5 f. *hah(ha)r(a)-*, 184 f. *har(a)s-*, with lit.

4. *i-i*+/ *i-e*-(*i=*)+ : (*i*-)*ia*-(*a=*)+ act. 'make, do'

act. prs. sg. 1 *i-e-mi* OH StBoT 25 No.3 Rs. III 21
i-ia-mi OH StBoT 25 No.4 Vs. II 15' *... ...*
 LOH KBo III 7 I 22
 MH XXXIII 24 I 42'
 LMH VBoT 24 I 3

⁸Even in the oldest stages of Hittite the two conjugational types were distinguishable only in the singular (in the imperative, only in sg. 3). Thus, there were ample opportunities for analogic remodeling in either direction.

⁹The verbal noun *ha-ra-a-tar* 'scandal, offense' (a legal term) attested in LOH KBo VI 26 III 29 (also spelled *ha-ra-tar* in that text, KBo VI 26 III 43, 45, 46 and elsewhere), XXIX 34, 16, etc., is apparently formed from a different root, as seems to be indicated by the writing (*har-ra-a+* with *=r-r=* vs. *ha-ra+* with *=r=*). See Tischler 1977: 169 for a discussion of the stem *harra-*, with lit. But it may well belong with the unattested zero-suffix base of *ha-ri-e-* (as an *+a-a-tar* abstract).

- 2 *i-e-ši* LOH XLIII 25 2', 3'
i-ia-ši LOH KBo III 28 Vs. 15
MH XIV 1 Vs. 33
- 3 *i-iz-zi* OH KBo VI 2 II 50
LOH KBo III 28 Vs. II 6
i-e-iz-zi OH XXIX 29 Vs. 10
LOH KBo VI 26 I 29
MH KBo XII 62 Rs. (?) 8'
LMH VBoT 58a I 5
- i-e-zi* LOH KBo III 27 Vs. 5 + OH 1x
MH KBo XXI 47 Vs. (?) II 7'
LMHXXXI 42 III 6
- ia-az-zi* OH XXXVI 108 Vs. 1 → *ia 'go'*
i-ia-az-zi LOH KBo VI 4 IV 14
MH KBo XV 32 I 2
- i-ia-zi* LOH KBo III 1 II 50
MH XXIX 8 I 51
LMH VBoT 58b IV 39
- pl. 1 *i-ia-û-e-ni* LOH KBo III 7 II 19
MH XVII 10 I 29
LMH VBoT 24 I 36
- 2 *i-ia-at-te-ni* LOH I 16 III 23
MH XXIII 77, 5 (*i*-)
- 3 *i-ia-an-zi* OH StBoT 25 No. 72 Vs. II 6
MOH XXXIII 59 III 4 (-z[i])
LOH KBo III 7 I 8
MH XVII 10 III 18
LMH XLI 1 Vs. I 11'
- i-en-zi* MOH KBo VI 3 II 17
MH XXIII 72 Rs. 25 (-en-)
LMH VBoT 24 I 8
- i-e-en-zi* LOH KBo III 40a Vs. 18
- act. prt. sg. 1 *i-ia-nu-un* LOH KBo III 1 I 39
MH XXXVI 75 II Rs. 6
MOH/MH XXX 10 Rs. 11, etc.
- 3 *i-e-it* OH StBoT 18 Vs. 9
LOH XXXVI 105 Rs. 13, etc.
MH XXIII 12 III 5

- LMH KBo XIV 86 I 17 (-i[t])
i-ia-at LOH KBo III 38 Vs. 8
 MH XXIII 72, 15
 LMH XXIII 11 III 6
- pl. 1 *i-ia-ú-en* MH KBo VIII 35 II 8
i-ia-ú-e-en LMH XIII 8 Vs. 1
 2 *i-ia-at-te-en* LOH KBo III 41 + XXXI 4 Vs. 7
 3 *i-e-ir* OH XXXVI 108 Vs. 2
 LOH XXIX 1 II 52, etc.
 MH XXIV 11 III 13
 LMH XXIV 10 III 6
- imp. sg. 2 *i-ia* LOH XXIX 1 II 44
 MH XVII 10 I 30
 3 *i-e-id-du* MH KBo XVII 61 Rs. 5'
- pl. *i-ia-an-du* LMH XIII 2 II 33, etc.
i-en-du LMH StBoT 22 Eid 1 II 49 (2x)
- pple *i-ia-an* LOH KBo III 28 II 22 (neut. sg.)
i-ia-an-za LMH XXIX 7 Rs. 26 (c. nom. sg.)
i-an-za MH? KBo XVII 65 Rs. 37, etc.
- inf. *i-ia-ú-an-zi-* LOH KBo X 23 Vs. II 10

Stem-final *-ia(-a)+* in the forms of 3rd person sg. prs. and prt. is first attested in post-OH texts; on the other hand, *i-e+* is found along with *-ia(-a)+* where only the latter is expected, in agreement with the relevant PIE forms (such as prs. sg. 1, prs. and imp. pl. 3). See the summary to this chapter and Chapter 4.

5. mid. 'go, be on one's way'¹⁰

In Hittite terms, 4. and 5. are formally complementary: the former ('make, do') is *activum tantum* and the latter, *medium tantum* (with the possible exception of *ia-an-zi* discussed in n. 10). Therefore it would

¹⁰Act. prs. pl. 3 *ia-an-zi* OH KBo XXII 2 (=StBoT 17 A) Vs. 7 makes much better sense in its context if it is taken to mean '(they) go': DUMU.NITA^{MES} *a[-ap-p]a*^{URU} *Ne-e-ša ia-an-zi* 'the sons go b[ack] to the city of Neša'. See the same interpretation in Oettinger 1979: 349 n. 183. See also Chapter 4.

make sense to regard them, descriptively, as the active and the middle of the same stem. Below is a representative sample of attestations of 5 (for a fuller list, see Neu StBoT 5: 62 ff.):

- mid. prs. sg. 2 *i-ia-at-ta-ri* LOH XXXI 127 I 59
 3 *i-e-it-ta* OH StBoT 25 No.43 Vs. I 10' . OH *ja-at-ta*
i-ia-at-ta LOH KBo X 23 IV 7'
 MH XXXVI 75 II 5
i-ia-at-ta-ri MH XXIII 77, 34
 pl. 2 *i-ia-ad-du-ma* MH XXIII 72 Rs. 55
 3 *i-e-en-ta* OH KBo XXII 1, 14'
i-ia-an-ta-ri MH KBo XVI 47 Vs. 6'
i-ia-an-ta MH KBo XVII 105 III 13
i-ia-an-da-a(?) -r[i] MH Mašat 75/43
 prt. pl. 3 *i-ia-an-ta-at* MH XXXIII 36 III 8'
 imp. sg. 2 *i-ia-aḥ-ḥu-ut* OH KBo VIII 42 Vs. 16
 LMH IBOT III 141 IV 18
 3 *i-ia-at-ta-ru* MH XXIII 72 Rs. 19
i-ia-ta-ru LMH StBoT 22 Eid 1 III 45
 pl. 2 *i-ia-ad-du-ma-at* MH XV 34 I 42

The oldest attestations show stem final =*e-i+* (prs. sg. 3) and =*e-e+* (pl.) in contrast with the ubiquitous =*ia-a+* of the LOH and MH attestations. See Chapter 4 for more detail.

6. *pí-(i-(e-))i+* : *pí-e-ia-(a=)*+ 'send away'

7. *û-i-e-i+/u-i-e-i+* : *û-i)-ia-(a=)*+ 'send hither'¹¹

- act. prs. sg. 1 *pí-e-i-mi* LOH XXIX I I 51¹²
pí-i-ia-mi MH XXIII 77, 65

¹¹Note the use of *u* in MH *u-i-e-iz-zi* XXXI 103 Vs. 32 and LMH *u-i-e-it* XXXIII 8 II 22 compared with *û* in other attestations of this verb.

¹²The expected writing, suggested by other attestations, is **pí-i-e-mi*, cf. *pí-i-e-iz-zi* OH, *pí-i-e-it* LOH, etc., in the paradigm. The attested form *pí-e-i-mi* is apparently a scribal error.

- 2 *pí-i-e-ši* MH XIV 1 Vs. 32
 3 *pí-i-e-iz-zi* OH XXXVI 106 Vs. 5'

ú-i-e-iz-zi MH XXIII 72 Rs. 22
u-i-e-iz-zi MH XXXI 103 Vs. 32

pí-e-iz-zi MH KBo XVI 24 II 3'
pí-e-ia-zi LMH XIII 9 III 5

ú-i-ia-iz-zi MH XV 34 IV 19
 prt. sg. 1 *ú-ia-nu-un* LOH XXIX 1 I 34

- 3 *pí-i-e-it* LOH KBo III 1 II 8
 LMH VBoT 58b I 21

ú-i-e-it MH XXXIII 5 II 4
u-i-e-it LMH XXXIII 8 II 21

pl. 3 *pí-i-e-ir* OH StBoT 25 No.68 Vs. 1 12' } *pai* 'give'
 LOH KBo III 34 II 4
 MH XXIII 12 II 18
 LMH XXIII 11 III 7

ú-i-e-ir LOH KBo III 40a Vs. 10

ppl. *pí-e-ia-an-za* MH IBoT I 36 I 12

inf. *ú-i-ia-ú-an-zi* LMH VBoT 24 IV 27

-ske- forms:

- act. prs. sg. 1 *ú-i-ia-iš-ki-mi* LMH VBoT 24 IV 14
 pl. 2 *ú-iš-ki-it-te-ni* MH XXIII 77, 68
 mid. prs. sg. 3 *ú-e-eš-ki-it-ta* MH XXIII 68+ Rs. 3
 pl. *ú-iš-kán-da-ri* MH IBoT I 36 I 74

supine *ú-e-eš-ki-u-wa-an* LOH? KBo III 16 Rs. 5

Descriptively, *pí-(i-(e-))i+* and *ú-i-e-i+* look like compounds of the stem *i-e-i+* with the preverbs *pí(-e)+* and *ú-(u=)+* respectively (cf. *ú-(e-)i+* : *ú-wa-a+* 'come' [class III] and *pa-i+* : *pa-(a-)a+* 'go (away)' [class IV]).¹³ So Hrozný 1917: 153: "Dieses Paradigma [des Verbums "jawwar," i.e., *i-e-i+*—A.L.] wird ergänzt durch einige Formen des ähnlich konjugierten Verbums **ujawwar* "Senden," das sich aus Präposition *u-* . . . und dem, bzw. einem Verbum *jawwar* zusammengesetzt." See Chapter 4.

8. *i-mi-e+* : *i-mi-ia-a+* / *(i-)im-mi-ia-a+* 'mix'

- act. prs. pl. 3 *i-im-mi-ia-an-zi* MH XV 34 III 30
 im-mi-ia-an-zi LMH StBoT 22 Eid I Vs. I 38
 prt. sg. 1 *i-mi-e-nu-un* LOH KBo III 46 Vs. 13
 mid. prs. sg. 3 *i-mi-ia-at-ta-ri* MH XXXII 135 I 8
 im-mi-ia-ad-da-ri MH XXIX 8 II 21
 participle *i-mi-ia-an-te-eš* MH XXVI 46, 106
 i-mi-ia-an-za ibid., 103
 i-im-mi-ia-an-ti-it MH XV 34 I 15
 im-mi-ia-an-ta ibid., II 42

9. *ka/ga-ri-(i-)e-i+* : *ka-ri-ia-a+/ga-ri-ia-a+* 'cover'¹⁴

- act. prs. pl. 3 *ka-ri-ia-an-zi* LMH XXXIII 67 I 9
 prt. sg. 3 *ka-ri!-i-e-it* MH XVII 10 I 34
 ga-ri-e-it LMH XXXVI 44 I? 13
 participle *ka-ri-ia-an* LOH? KBo III 21 II 20
 ka-ri-ia-an-te-eš MH MIO 1 (Rost) I 26'

¹³*u* occurs elsewhere in (L)MH compounds with the preverb *u-* where *ú* would normally be written, e.g., *kat-ta-an ar-ḥa u-e-iz-zi* "darunter wegkommt" LMH XXXI 42 II 11. Such cases are very rare.

¹⁴The meaning of *kariya-* (mid.), viz. 'give in, gratify' (HW1: 106: prt. sg. 1 *kariyahhahat* KUB XIX 49 I 47) is sufficiently different from that of *ka/ga-ri-(i-)e-i+*, etc. (act.), to justify treating them as two distinct words.

KBo XV 33 II 32'
ga-ri-ia-an LMH VIII 83, 2'

On the possible connection of this verb with *ka-ru-(u-)uš-ši-ia-(a=)+* and the nature of this connection, see Chapter 4.

10. *ki-i+* : *ki-(ia-)a+* 'lie (down), be placed' (medium tantum)

mid. prs. sg. 3 *ki-it-ta* OH StBoT 25 No.4 Rs. IV 29

MOH XXXIII 5 III 2, etc.

LOH KBo III 41+, 2

MH XVII 10 II 12, etc.

ki-id-da-ri LMH XXX 15+ Vs. 6, etc.

pl. 3 *ki-an-ta* MOH XXXII 135 IV 3 + OH *ki-an-to/da*

ki-ia-an-ta-ri LOH XII 8 III 17

prt. sg. 3 *ki-it-ta-ti* LMH IX 28 IV 6

ki-it-ta-at LOH KBo X 45 I 30

MH KBo XV 33 II 15

LMH VII 41 I 37

pl. 3 *ki-i-ia-an-ta-ti* LMH IX 28 IV 18

imp. sg. 3 *ki]-it-ta-ru* OH StBoT 25 No.9 Vs.? I? 7' ? 17

pl. 2 *ki-id-du-ma-ti* MH KBo V 12 IV 7

For more attestations, see StBoT 5: 86f.

The stem is cognate with the PIE acrostatic root stem **kēi-* and thus does not belong here from a comparative-historical point of view. See the summary at the end of this chapter.

11. *la-(a-)az-zi-a+* / SIG₅-(*zi-ia*)-*a+* 'put in order; restore'¹⁵

mid. prs. sg. 3 *la-a-az-zi-at-ta* OH KBo VI 2 I 18'

la-az-zi-id-at-ta ibid.

SIG₅-*at-ta-ri* MOH KBo VI 3 I 27

¹⁵The hapax legomenon *la-az-zi-iš* (c. sg. nom.) 'good, pleasant' (OH XXXI 143a III 2, listed in HD: 50a) makes it possible that the stem is denominative.

SIG₅-zi-ia-ta LMH XXXIII 22 I 5'
act. prs. sg. 1 SIG₅-zi-ia-mi LMH XXXIII 24 I 44', etc.

mid. prt. sg. 1 la-az-zi-ah-ha-at MOH or MH XXX 10 Vs. 17

SIG₅-ah-ha-at ibid., 18

part SIG₅-ja-an OH

For a fuller list of attestations, see StBoT 5: 106 f. and HD: 50b f.

12. *mar-ri-(e)-i+* : *mar-ra-a+* 'dwindle, dissolve; be crushed, pulverized'¹⁶

mid. prs. sg. 3 *mar-ri-it-ta* OH StBoT 25 No.42 Vs. II 7

OH StBoT 25 No.43 Vs. I 6' (-t[a])

LMH StBoT 22 Eid 1 Vs. I 50

prt. sg. 3 *mar-ra-at-ta-at* LMH XXXIV 91 Vs. 5'

imp.?sg. 3 *mar-ri-e-it-ta-<ru>* LMH StBoT 22 Eid 1 Vs. II 3

Oettinger (1979: 279f.) classifies this verb as "einfach thematisch," which in terms of my provisional classification is equivalent to class X. However, *mar-ri-(e)-i+* (which is morphologically older than *mar-ra-a+* in the singular) shows the shape of the stem final which is characteristic of class I, not class X (cf. class X mid. prs. sg. 3 *šar-ra-at-t[a]* OH XXXVI 108 Vs. 8?, *šar-ra-at-ta* LOH I 16 II 50, pl. 2 *šar-ra-at-tu-ma* LOH KBo III 27 Vs. 25, etc.).¹⁷

¹⁶The form *mar-ri-it-ti* MOH XLIII 60 III 8 (not mentioned in Oettinger 1979) occurs in a context too poorly preserved to be sure that it is a form of the verb under examination; for this reason, it cannot be useful in this discussion.

¹⁷Cf. Oettinger 1979: 280: "Die Schreibungen *mar-ri-it-ta* (1x *mar-ri-e-it-ta*) geben nach §432 [marrēta] wieder und zeigen, dass hier — im Gegensatz zu allen anderen Medien der einfach them. Klasse — bereits früh teilweise der Themavokal e (statt a < o) eingeführt worden war. . . . dieses Phänomen [findet sich] sonst nur bei den ske-Verben . . . , wo es mit Sicherheit auf Einfluss des dominanten Aktivs beruht" Oettinger's interpretation of *mar-ri-it-ta* as secondary is contradicted by the data, where forms such as *mar-ra-at-ta-at* LMH are younger [LMH and LH] than *mar-ri-it-ta* OH, etc.

13. *mu-(um-)mi-(i-)e-i+* ‘fall off and bounce up’

- act. prs. sg. 3 *mu-mi-e-iz-zi* LMH VBoT 58a I 8, 9
 mu-um-mi-e-i[z-zi] LMH XXXIV 19 I 9'
 mid. prs. sg. 3 *mu-um-mi-i-e-it-ta* LMH XIII 2 II 16

-*ske-* form(?):

mu-um-mi-[iš-ki-]it-ta MH XXXI 88 II 4

The stem is apparently based on the same root as *ma-uš-* + (mid.) ‘fall’ (see attestations in StBoT 5: 114 f.). Oettinger’s etymology (1979: 526 f., with lit., especially Eichner 1973: 90, n. 30) should be approached with extreme caution because of its facile use of “**h*₁” for which there is not a shred of evidence. A more realistic reconstruction of the root (that is, based on actual attestations rather than on the laryngealist algebra) would be a disyllabic **mówā-* (likely to continue **méwā-*, with **e* labialized between **m* and **w*): **mū-* / **muw-* (with the intervocalic *w* > *m*, see, e.g., Melchert 1994a: 127f.: *mu-(um-)mi-e-iz-zi* < **muw-(i)yé-ti* (or, less likely, **mówā-(i)ye-ti*), while *ma-uš-* + would thus continue the telic *s*-stem **mowā-s-* ‘to fall’, both based on the atelic root **mówā-* ‘to move’ (whence probably also Luwian *muwa-* ‘life-force, soul’).

14. *pí-eš-ši-(i-(e-))i+* : *pí-eš-ši/še-ia(-a=)+* ‘throw’

15. (*ú-*)*uš-ši/še-i+* : (*ú-*)*uš-ši-(ia-)a+* ‘pull up’ (a curtain)

- act. prs. sg. 1 *pí-eš-ši-ia-mi* OH StBoT 25 No.4 Rs. IV 18
 pí-eš-ši-e-mi OH StBoT 25 No.3 Rs. IV 22
 3 *pí-eš-ši-iz-zi* OH KBo VI 2 IV 14
 MOH KBo VI 3 IV 9
 LMH KBo XIII 58 II 9'
 pí-eš-ši-i-e-iz-zi OH StBoT 25 No.43 Vs. I 16'
 MOH XXXIII 68 II 10
 pí-eš-ši-ia-az-zi LOH KBo VI 5 I 21
 MH MIO 1 (Rost) I 41'

- LMH StBoT 22 Eid 1 Vs. I 48
- pí-eš-ši-ia-zi* MOH KBo VI 3 III 80
pí-eš-ši-az-zi MH VIII 38 II 16
pí-eš-še-ia-az-zi LOH KBo VI 4 I 41, etc.
pí-eš-še-ia-zi LMH KBo II 3 I 19
- act. prs. pl. 1 *pí-eš-ši-ia-u-e-ni* OH StBoT 25 No.139 Vs. 6'
 3 *pí-eš-ši-an-zi* MH IBoT I 36 IV 27
- ú-uš-ši-an-zi* OH StBoT 25 No.17 I 2
- pí-eš-ši-ia-an-zi* MH KBo XVII 105 II 42'
- uš-ši-ia-an-zi* LOH KBo X 23 I 5
- imp. sg. 3 *pí-eš-še-ad-du* MH XLIII 23 Vs. 4
 pl. *pí-eš-še-ia-an-du* LOH XXIX I III 11
pí-eš-ši-ia-an-du LMH XL 57 I 11
- act. prt. sg. 1 *pí-eš-ši-ia-nu-un* MH XXXVI 75 III 15
 3 *pí-eš-ši-it* OH KBo VI 2 I 15
 MOH KBo VI 3 I 23
pí-eš-ši-i-e-it LMH VBoT 58b IV 2 *pí-es-si-e-it* MS KBo 32.15
pí-eš-ši-at LOH KBo III 27 Vs. 28, etc.
- pl. 2 *pí-eš-ši-ia-ten* MH KBo XVII 105 II 33'
pí-eš-ši-ia-te-en LMH KBo XV 10 II 10
- uš-ši-ia-at-ten* LOH XXIX I I 45 (imp.)
- pí-eš-ši-it-te-en* LMH KBo XV 10 II 10
- uš-ši-it-ten* LOH XXIX I I 45
- 3 *pí-eš-še-ir* LOH KBo XII 3 IV 5'
pí-es-si-ir OH

-ske- forms:

- act. prs. sg. 3 *p]í-eš-ši-iš-ki-iz-zi* MH MIO 1 (Rost) III 37
 pl. 3 *pí-iš-ši-iš-ká[n-zi* OH StBoT 25 No.54 Rs. III 8

The two verbs are apparently compounds of one stem, +š-*ši-i*+ : +š-*ši-ia*+, with the preverbs *pí-e*+ and *ú-u*+. This stem appears without preverbs in the meaning ‘throw, shoot; press’; mid. ‘rush forth, gush’:

-*mi*-conj. forms:

- act. prs. sg. 3 *ši-i-ia-iz-zi* LOH XXIX 1 IV 15
 ši-i-e-iz-zi MH XXIX 8 II 9, etc.
 LMH IX 28 II 22
 prt. *ši-i-e-it* LMH VBoT 58b IV 1
 ši-i-e-[it] MH XXXIII 10 Vs. 5
 imp. sg. 2 *ši-ia-a* MH XXXIII 5 II 6
 mid. prs. sg. 3 *ši-e-it-ta* LMH XXXIII 23 I 13

-*hhi*-conj. forms:

- prs. sg. 3 *ša-a-i* LMH KBo II I 29'
 LH XIV 7 IV 8
 prt. *ši-iš-ta* LOH KBo III 34 23

Imperative pl. 3 *ši-i-ia-an-du* LMH IX 28 II 22, participle *ši-ia-an* MH XXXI 87 II 12, and mid. prs. sg. 3 *ši-ia-at-ta-ri* MH XXIII 77, 13 are neutral with regard to the conjugation type. It is difficult to know with certainty which of the two conjugation types is morphologically older. If the -*hhi* type is older, then the change of the conjugation type when compounding the stem with preverbs has to be explained. This would be an additional case to support the pattern implicit in the view held by some that the compounds *pí-(e)-hu-te-(i=)*+, etc., ‘bring’ and *ú-wa-te-(i=)*+, etc., ‘take away’ (as well as some other allegedly related compound stems, see my class XII below), both -*mi*-conj., are based on the -*hhi*-conj. verb *da-a-i* (prs. sg. 3) : *ti-(i=)*+ ‘to place’ (: PIE **dhē-*). Since, however, the evidence to support such conjugation type change is weak and the view is fraught with morphological problems, it would be safer to think that the verb in question, namely *ši-(i)e*+, etc., originally belonged to the -*mi* conjugation (at least in the meaning ‘throw,

shoot').¹⁸

The forms *ši-i-ia-iz-zi* LOH and *ši-ia-iz-zi* LOH II 3 II 53 are replacements of *ši-i-e-iz-zi* and *ši-e-iz-zi*, respectively, paralleled by several replacements of the same type (with the sign *ia* used instead of the earlier *e*):

a-ni-ia-ir LOH KBo XII 3 III 10'

šal-li-ia-it-ta LMH StBoT 22 Eid 1 Vs. I 50 (cf. *šal-li-it-ta-ru* ibid., II 2; discussed below)

ú-i-ia-iz-zi MH XV 34 IV 19 (discussed above)

i-ia-iz-zi LMH KBo II 3 II 7

i-ia/e?-iz-zi ibid., 30 (see above for other forms)

ka[r-tim-mi-]ia-it-ta MH IBoT I 36 I 49 (discussed below)

ú-e-mi-ia-iz-zi LMH KBo XIII 58 Rs. III 4' (discussed below)

These forms are clearly new, since all of them come from MH texts and LH copies of MH and OH texts. The model for the innovation is easy to find among the stem forms which class I and class IV have in common (such as prs. pl. 3),¹⁹ and is stated in the section dealing with class IV.

Prs. sg. 3 *ša-a-i* LMH, LH, is likely to be a backformation to pl.3 **ši-(i-(ia-))an-zi*, = +*a-an-du*, participle *ši-ia-a-an*, modeled on a verb such as *pa-(a-)i+*: *pí(-i=)* + (*-hhi* conj.) 'give', viz. *pa-a-i* : *pí-(ia-)an-zi* = X : **ši-(ia-)an-zi*, where X = *ša-a-i*. Prt. sg. 2 *ši-iš-ta* can be explained along the same lines, namely as parallel to *pí-iš-ta* / *pí-eš-ta* (prt. sg. 3 and [unattested] 2 of *pa-(a-)i+* 'give'; see attestations in Kronasser 1966: 542).

Cf. Oettinger 1979: 347 f. with n. 179.

¹⁸The stem *ši-i+*, etc., resembles the *-hhi*-conj. stem *tí-(i=)+*, etc., 'place' (3 sg. *da-a-i*). It is cognate with PIE **sē-* (laryngealist **seh₁-*) 'sow, throw', shows the same Hittite development of PA **ē > i* (*i*?) as does **dhē-* (cf. also the Hitt. VIII-class stems below, pp. 120-122, with Hitt. *-ni-* < **n-ē-*), and the same *-hhi*-conj. type (on *-hhi*-conj. see Excursus III). For the Luwian cognates, see the summary to Chapter 3 with ref.

¹⁹There is no need to explain the form *a-ni-ia-ir* by Luwian influence, as does Oettinger (1979: 384 n. 255).

16. *šu-ú-ni-(e-)i+* : *šu-ú-ni-ia-a+* ‘to sow, plunge, throw in’

act. prs. sg. 3 *šu-ú-ni-iz-zi* LOH KBo VI 26 I 34

KBo III 38 Vs. 29 (=StBoT 17 B)

šu-ú-ni-e-iz-zi MH KBo XVII 105 Vs. II 3'

pl. 3 *šu-ú-ni-ia-an-zi* LMH VBoT 24 III 7

prt. sg. 3 *šu-ú-ni-it* LOH KBo VI 26 I 39

šu-ú-ni-e-it *ibid.*, 44

In the post-OH period, when morpholexical constraints on the two major conjugation types (as well as spelling practices) slacken, the stem *šu-ú-ni-(e-)i+* (*-mi* conj.) ‘to sow’, etc. (note the plene writing with *ú* and the “single” *n*), falls together with the stem *šu-un-na-(a=)+ (-hhi* conj.) ‘to fill’,²⁰ e.g., *šu-un-ni-id-du* LH Tunnawi IV 13 ‘he shall fill’ : *šu-un-ni-ia-an-zi* LH VI 45 IV 29 ‘they throw in’, pointed out by Oettinger (1979: 159). In a LH copy of the Zalpa story, viz. KBo III 38 = StBoT 17 B, both verbs occur: *šu-un-na-aḫ-ḫi* (*-hhi*-conj. prs. sg. 1) vs. *šu-ú-ni-iz-zi* (see the paradigm). H. Otten’s glossing of both as “füllen” (StBoT 17 pp. 41, 76 [Glossar] and 9 [“er füllt”]) is, in my view, incorrect. Although the context of *šu-ú-ni-iz-zi* is too poorly preserved here for us to be sure what the verb meant in that lost context, its spelling, stem and conjugational type are so distinct from those of the verb ‘to fill’ as to make it necessary to regard the form *šu-ú-ni-iz-zi* as that of a different verb (cf. the other forms of this verb in the paradigm above).

17. *šu-wa-i-i+* : *šu-wa-ia+* ‘to look, look after’

act. prs. sg. 3 *šu-wa-i-iz-zi* OH KBo VI 2 I 2, etc.

MOH KBo VI 3 I 38

šu-wa-a-i-iz-zi *ibid.*, 36

šu-wa-a-iz-zi MOH KBo VI 3 I 9, etc.

²⁰*šu-un-na-aḫ-ḫi* LOH StBoT 17 B Rs. 17', *šu-un-na-i* OH KBo VI 2 IV 50', *šu-un-na-aš* OH StBoT 17 A [= KBo XXII 2] Vs. 2, etc.; note the spelling of the verb meaning ‘to fill’, namely: non-plene and the “double” =*n-n*=.

LOH KBo VI 6 I 38, etc.

šu-wa-iz-zi MOH KBo VI 3 I 3

šu-wa-iz-zi LOH KBo VI 5 I 13, etc.

šu-wa-e-iz-[zi] MOH KBo VI 3 I 18

šu-wa-e-iz-zi LOH KBo VI 14 I 14

šu-wa-a-i-e-iz-zi MOH KBo VI 3 I 34

LOH KBo VI 4 I 34

šu-wa-ia-az-zi LOH XXIX 28, 9 + OH

šu-wa-ia-zi LOH KBo VI 5 IV 15

šu-ú-wa-iz-zi MOH KBo VI 3 II 52

šu-ú-wa-a-iz-zi LOH XIII 13 Vs. 7

act. prt. sg. 1 *šu-wa-ia-u-un-* LOH XXIX 1 II 1²¹

3 *šu-wa-i-it* LOH XVII 6 I 24

imp. sg. 2 *šu-ú-wa-ia* LOH XXIX 1 I 52

3 *šu-wa-a-id-du* LMH XXIV 11 III 10

The oldest writing of the stem is *šu-wa-i-i+* which is consistently written this way in the OH text of the laws (also in LOH XVII 6 I 24: *a-pa-a-ša* GIŠ *lu-ú-ut-[ta-an-za]* *ar-ḫa šu-wa-i-it* 'and he looked out the window'). See an excellent discussion in Starke 1977: 36 f.

A variety of different spellings appear already in the early LOH copy of the laws (see samples above). The most widespread later spelling is *šu-wa-a-i+* (with its variant *šu-wa-i+*) which looks like a transfer to class IV (q.v.). However, the treatment of this stem (and others like it, e.g., *ta-a-i-i+* 'to steal', q.v. below) as belonging to class I is justified not only by the writing of its stem final, which sets it apart from class IV verbs, but also by some of the forms (such as imp. sg. 2 in =*ia* and prs. sg. 3 in =*ia-(az-)**zi*) which follow the path of development shown by class I verbs, but never by those belonging to class IV.

Cf. Oettinger 1979: 295 ff. and 396 (with the etymon ***sua_h-i_é* which unfortunately explains nothing).

18. *ta-(a-)i-i+* (: *ta/da-(a-)(i-)ia+*), etc., 'to steal'

²¹Apparently, scribal error for *šu-wa-ia-nu!-un*. There are at least six other scribal errors in this column.

subst. *da-a-ja-u-wa-ar* } MS (HEG) cf. arraski MS
from arra-washi
 -s-k- *da-a-ja-as-ka'n-*
 act. prs. sg. 3 *ta-a-i-iz-zi* OH KBo VI 2 I 39 et passim
 MOH KBo VI 3 III 35, etc.

ta-i-iz-zi OH KBo VI 2 IV 51
da-a-i-iz-zi OH KBo VI 2 III 23
da-a-i-iz-zi MOH KBo VI 3 I 48
da-a-e-iz-zi OH XXIX 25, 6
t]a-e-i-iz-zi LOH KBo VI 12 I 2, etc.
da-a-i-e-iz-z[i LOH XIII 13 Vs. 4
ta-i-e-iz-zi LOH KBo VI 10 I 21, etc.
da-i-e-iz-zi MOH KBo VI 3 IV 30
ta-a-iz-zi MOH KBo VI 3 IV 50
ta-a-i-ia-zi LOH KBo VI 8, 2 | OH *ta-a-ja-ai-zi* (2x)
da-a-i-ia-zi MOH KBo VI 3 III 39
da-a-ia-az-zi MH XXIII 72 Rs. 56
ta-ia-a-az-zi MOH KBo VI 3 III 26

prt. sg. 3 *da-ia-at* LMH XIII 9 II 11 + eke MS *taja-*
see HEG.
 deverbative *ta-ia-zi-l+a-as* (gen. sg.) 'theft'
 MOH KBo VI 3 IV 39

da-ia-zi-la-as ibid., III 69
 Nom. *tajaziz* 'vixen': OH *ta-ja-a-zi-ic*

The development of this stem can be summed up as follows:

- OH originals: 1. *ta/da-(a-)i-i+*
 2. *ta/da-(a-)e-i+*
 Post-OH: 1. *ta-a-i+* (MOH)
 2. *ta/da-(a-)i-e-i+* (LOH)
 3. *ta/da-a-i-ia+* (LOH)
 4. *da-(a-)ia-a+* ((L)MH)
 5. *ta-ia-a-a+* (MOH)

Post-OH stems 3 through 5 are due to the spread of the *a*-shape stem final, characteristic of class I in its later attestations; stem 1 is a transfer to class IV (q.v.). Stem 5 could be an error (hapax) emendable to a more conventional *ta-a-ia-a+* which would then look more like the (L)MH stem 4. As in many other cases, the MOH copy KBo VI 3 contains a variety of spellings which reflect both the OH original and later developments.

Cf. Oettinger 1979: 393 ff. and esp. 396 f. with lit. He explains the

stem as coming from "voruranat. °*ah₂-je-*" which in turn comes from "uridg. (vor Laryngalumfärbung) °*eh₂-je-*"; specifically, "*ta-a-i-e-iz-zi...* < **(s)táh₂-je-ti*" with a reference to Watkins 1975: 371. There is, however, no evidence in Hittite for the laryngeal. See the discussion in Chapter 4.

19. *tal-li-i-e-i+* 'to beseech; placate'

imp. sg. 3 *tal-li-i-e-id-[du]* MH XVII 10 II 14

prt. sg. 3 *tal-li-ia-at* LMH X 72 II 5

participle *tal-li-an* LMH XV 32 I 47

-ske- form:

act. prs. sg. 1 *tal-li-eš-ki-mi* LMH VII 5 I 23

For an etymology, see Oettinger 1979: 346, with reference to Eichner's "mündl. Vorschlag" connecting the Hitt. stem with OCS оу-толѣти, etc., see Pokorny 1959: 1061 f. Cf. also Vasmer 1987 (vol. IV): 71 (and 63 тлѣть). OCS оу-толѣти is of course an *o*-grade **-éye-* factitive, тѣл-ѣ-ти (1 sg. prs. тѣл-ѣ-ѣж) 'φθείρεσθαι' a zero-grade based stative. There is no evidence for **h₁* posited by Oettinger, loc. cit. (***t₁h₁-je-*).

20. *ti-i((e-)i)=+ : ti-(i-)ia(-a=)+* 'to stand (up); place oneself'

act. prs. sg. 1 *ti-ia-mi* MH XIV 1 Rs. 25 Mšt. 75/43 arkayüz 15

3 *ti-i-e-iz-zi* OH XXIX 30 II 19, et passim

LOH KBo XXV 42, 2'

MH IBoT I 36 IV 18

ti-i-e-zi LOH KBo X 23 I 21

MH KBo XXI 85 I 40'

ti-e-iz-zi OH StBoT 25 No.30 Vs. II 16'

MH KBo XXI 85 I 40'

ti-i-iz-zi OH StBoT 25 No.12 Vs. I 5', No.47 Rs. III 8'

LOH KBo X 23 II 24

- ti-iz-zi* LOH KBo VI 26 IV 24 (end of line, cf. +OH!)
ti-i-iz-zi *ibid.*, 19)
ti-ia-zi LOH KBo X 26 I 5, 12, et passim
 MH KBo XXI 85 I 30'
 LMH KBo XX 63 I 13
ti-ia-az-zi MH IBOT I 36 önyüz II 14, 43, III 34, etc.
ti-i-e-az-zi MH XXIX 8 I 53 (cf.
ti-i-e-iz-zi *ibid.*, 7)
 pl. 1 *ti-i-ia-u-e-ni* LMH XL 15 II 6
 2 *ti-ia-at-te-ni* MH KBo XIX 58 8', 15'
 3 *ti-i-en-zi* OH StBoT 25 No.19 Vs. 48
 (=zfi) LOH KBo XXV 47 Rs. IV 13' OH *ti-en-zi* (>3x)
 ti-e-en-zi (1x)
ti-i-in-zi OH StBoT 25 No.54 Vs. II 15'
ti-i-ia-[an-zi LOH KBo XIV 66 II 3
ti-an-zi LOH XXIX 34 11
 prt. sg. 1 *ti-ia-nu-un* LOH KBo X 2 II 51
 3 *ti-i-e-i[ft* OH KBo VIII 42 Rs.? 8
 (=it) MH KBo XX 59 18', 21'
ti-ia-at LOH KBo X 2 II 53
ti-i-e-ir LOH KBo III 1 I 37
 imp. sg. 2 *ti-i-ia* LOH XXIX 1 I 11, II 23, etc.

-ske- forms:

- act. prs. sg. 1 *ti-iš-ši-ki-mi* LOH KBo III 34 III 4
 pl. 3 *ti-iš-ša-kán-zi* MH IBOT I 36 IV 30, etc.

There are apparently two more attestations of act. prt. pl. 3 *ti-i-e-ir* in *ar-ga ti-i-e-ir* LOH XXXVI 54, 1 and *ar-ga ti-[i]-e-ir* LOH KBo III 7 I 10, both 'stepped out to battle' or the like (see on this Hoffner 1978: 247, Puhvel 1979: 57 f. and Puhvel 1982: 179; thus no ****argatiija-** 'contend, battle', as, e.g., in HW1).

Superficially, this verb looks like a *-mi*-conjugation stem based on the same root as the *-hhi*-conjugation stem *da-a-i* : *ti-(i=)+*, etc., 'to place/put'. The forms where the stem-shape and desinential distinctions between the two conjugations are neutralized, such as prs. pl. 3 and the participle, are almost identical, cf., e.g., *ti-i-en-zi* (to *ti-i-e-i+*) vs. *ti-en-zi* OH StBoT 25 No.31 Vs. II 6' and elsewhere; *ti-an-zi*

(L/M)OH and (L)MH, *ti-ia-an-zi* LOH (to *da-a-i*). The participle to the former is expected to look like *ti-(i-)ia-(a-)an-t+*, i.e., identical to the participle of *da-a-i+* : *ti-(i-)+^{hhi}* (< **day-e-i* : **di(y)-* ultimately from PIH **dhō-* : **dhē-*), and for semantic reasons it is impossible to distinguish between the two. The only possible disambiguating spelling, viz. *ti-i-ia-an-t+*, is not attested in my collection of pre-LH texts.

See the summary and Chapter 4 for discussion.

21. *ú-e-mi-(e-)i+* : *ú-e-mi-(ia-)a+* 'find'

- act. prs. sg. 1 *ú-e-mi-ia-mi* MH KBo VIII 35 IV 2'
 3 *ú-e-mi-iz-zi* OH KBo VI 2 III 38
 LOH KBo III 34 I 12
 MH XXXIII 5 Vs.? II 16
ú-e-mi-e-iz-zi MOH KBo VI 3 III 37
 MH XXIII 77 60
ú-e-mi-ia-az-zi MOH KBo VI 3 II 57
 MH Mst. 75/10 öñ. 5
ú-e-mi-ia-zi MOH KBo VI 3 I 6
 LOH KBo VI 4 IV 5
ú-e-mi-az-zi LMH XIII 7 I 19 (hapax)
ú-e-mi-ia-iz-zi LMH KBo XIII 58 Rs. III 4' (hapax)
- pl. 1 *ú-e-mi-ia-u-e-ni* LMH XIII 7 I 5
 3 *ú-e-mi-an-zi* MH IBoT I 36 III 16
ú-e-mi-ia-an-zi MH XXXVI 127 Rs.? 10
 LMH VBoT 24 II 21
- prt. sg. 1 *ú-e-mi-ia-nu-un* MH XXXIII 2 I 13
 =*nu[-un]* LMH IBoT III 141 I 10'
 3 *ú-e-mi-it* LOH KBo III 7 I 20 + OH (17)
 MH XIV 1 Rs. 62
 LMH IBoT III 141 I 9'
ú-e-mi-e-it MH XXXIII 26 Vs. 3
ú-e-mi-i-e-it! LMH XXXIII 24 I
ú-e-mi-ia-at MH XVII 10 I 27
- pl. 1 *ú-e-mi-ia-u-en* OH StBoT 17 A Vs. 14
 LMH XXIII 21 Vs. 32
 2 *ú-e-mi-ia-[at-ten]* LMH VBoT 58b I 23

3 *ú-e-mi-ir* LOH KBo III 34 II 24
 LMH XXXIII 41 II 12
 infinitive *ú-e-mi-ia-u-wa-an-zi* LOH? KBo III 21 II 13

-ske- forms:

act. prs. sg. 3 *ú-e-mi-iš-ki-iz-zi* MH XXVI 17 II 4
 prt. sg. 3 *ú-e-mi-iš-ki-it* LMH StBoT 22 Eid I Vs. I 19'

The oldest spellings are ambiguous: *=mi-iz=* may stand for *=[mits]=* as well as *=[myets]=* or *=[miyets]=*. The early LOH text (KBo VI 3) has a tendency to make spellings more precise by using *scriptio plena*, cf. *ú-e-mi-e-iz-zi* where the sign *iz* is disambiguated through the use of the sign *e*. Alternative spellings (which, in the case of the early LOH text of the laws KBo VI 3, reflect a more contemporary pronunciation, perhaps the scribe's own [or a different dialect]) such as *ú-e-mi-ia-az-zi* show the spread of the vowel [a] at the expense of [e] in the stem final, which is typical of this class. The form *ú-e-mi-ia-iz-zi* is a transfer to class IV (the proportion would be, e.g., *[urkiyantsi] : [urkiyaitsi] = [wemiyantsi] : X*, where *X = [wemiyaitsi]*; note the semantic closeness of the two stems: *ur-ki-ia-i+OH* (class IV, q.v.) 'to track down, trace' and *ú-e-mi-i+*, etc., 'find').

22. *wa-ap-pí-ia+* 'to roar, bay'

act. prs. sg. 3 *wa-ap-pí-ia-zi* LMH XIII 8 Vs. 7
 KBo XII 96 I 12

Other attestations, none of them dated so far, see in Kronasser 1966: 490. For an etymology, compare Gāthic Avestan *vaf-* 'sing' (1. sg. prs. ind. *ufiā* 43.8e) and OCS *въпити* 'кράζειν'.

Other verbs that possibly belong to the primary subclass of class I are as follows:

23. *ar-pí-ia-a+t-ta-ri* LOH KBo III 21 II 23 (the only pre-LH attestation). Its meaning and even its conjugational type are unknown.

24. *a-aš-ši-ia-a+* ‘(be in) love’. The only attested forms of this stem are non-finite, namely the participle and two kinds of verbal nouns, e.g., dat.-loc.sg. *a-aš-ši-ia-an-ti* LOH KBo III 21 III 20, 21, 24, XLI 29 Vs. III ?, nom. pl. *a-aš-ši-ia-an-te-eš* MH XV 34 II 31; c. nom. sg. *a-aš-ši-ia-an-za* LMH VBoT 120(+)II 17. The verbal nouns are *a-aš-ši-ia-u-wa-ar* neut. ‘(divine) love/favor’ and *a-aš-ši-ia-tar* neut. ‘love’ (see attestations in HW2: 403; all are LH). The available evidence is insufficient even to determine whether the verb belongs to the *-mi* or the *-hhi* conjugation. The most tantalizing thing about this stem, for my purposes, is its relation to the *-u*-stem noun *a-aš-šu* neut. ‘good, weal’ which is obviously based on the same root, and the factitive stem *a-aš-ša-nu+* ‘to care for’ (cf. the **-ške-* stem *a-aš-ši-ia-nu-uš-ga-u-e-ni* LMH XXXI 42 II 23, a morphologically younger factitive to *a-aš-ši-ia+*).

For an etymological discussion with unconvincing results, with lit., see Puhvel 1991: 204-206.

25. *ha-li-e+* : *ha-a-li-a+* ‘to bend, kneel’. Attestations of this stem are not sufficient to determine what conjugation type it belongs to (see StBoT 5: 34 f.). Most of them are of the medial *a*-type (e.g., prs. sg. 3 *ha-a-li-ia* [M/L?]) OH XX 46 III 12 ‘kneels’). The LOH attestations in my collection are: *ha-a-li-an-t+e-eš* (comm. nom. pl. participle) XXIX 1 II 4 and *ha-li-en-zi* (act. prs. pl. 3) KBo VI 26 IV 14 (HG §84, II.Tafel). The sense of the latter, and therefore its membership in the paradigm, is problematic; it occurs in a legal passage dealing with the death penalty and clemency: (13) . . . *tāk-ku te-iz-zi 2-pāt ak-kán-du* (14) *ta hu-ur-ki-in ha-li-en-zi* ‘if he says, “let the two [of them] die,” then they *h. h.*’. The translation “das Rad in Bewegung setzen” does not make any sense to me in this context; “they (may) ask for mercy” makes better sense, but is of course entirely *ad hoc*. (On both, see StBoT 5: 34 n. 6, with lit.) It is possible, of course, that “setting the wheel in motion” is a legal idiom akin to the Old Pāli idiom “setting the wheel of the Law (Ved. *dharma*) in motion”; cf., e.g., the name of the text in which the story of the Buddha’s first exposition of his doctrine (*dhamma* < *dharma*) is narrated, the *dhamma-cakka-pavattana-suttam*, or “the text of the turning of the wheel of the doctrine / law.” This expression may indeed be an old (Indo-Hittite) legal formula. I shall leave the investigation of this lead for the future and withhold

judgment at present.

Third person singular forms such as VIII 62 I 4 *ḥa-li-ia-zi* LH could be later backformations to *a*-middles. The completion *ḥa-li-ef-zi* proposed by E. Neu (StBoT 5: 35 n. 6) for IX 11 + I 6 (not dated) is not necessary.

ḥa-li-iz-zi 1547/u, 3 adduced by Neu (StBoT 5: 34) is apparently still (1996) unpublished and so out of my reach.

The reduplicated stem of *ḥa-li-iḥ-la-i*, apparently based on the same root as the stem under consideration, belongs to the *-ḥḥi* conjugation (e.g. *ḥa-li-iḥ-la-at-ti* 'thou kneelest [before...]' LOH KBo III 34 II 21; sg. 3 *ḥa-li-iḥ-la-i* MH XIV 1 Rs. 10). Later attestations of the unreduplicated stem (all *-ḥḥi*-conj.) can be found in Kronasser 1966: 545; see *ibid.* attestations of *ḥa-li-iḥ-la-i* with references). If, however, the *-mi*-conjugation forms of *ḥa-li-e+* are old, then the relation of this stem to the middle *ḥa-a-li-ia* may have a bearing on C. Watkins's hypothesis of the origin of the thematic inflexion (Watkins 1969: 104 ff.). Watkins (and following him Oettinger 1979: 517) implies, in accordance with his view "daß sich die Erneuerung einer ursprünglichen 3.Sg. Medialendung **-e/o* durch Anfügung von scheinbar aktivem *-t(i)* und eine daher stimmende thematische Konjugation des Aktives auch im Hethitischen aufzeigen lässt" (Watkins 1969: 101), that "*ḥaliyazi*" is built secondarily on the middle *a*-form "*ḥaliya(ri)*": "Die Bedeutung des Verbums weist vielleicht eher auf mediale Flexion als die ursprüngliche hin" (Watkins 1969: 102). This would imply that the function of this new active be the same as that of the remodeled middle. It seems obvious, however, that *ḥa-a-li-ia* and *ḥa-li-iz-zi* : *ḥa-li-en-zi* contrast in transitivity: the former is intransitive whereas the latter is transitive; see the passage quoted above, where *ḥu-ur-ki-in* is the direct object of *ḥa-li-en-zi*; cf. *ḥa-li-iḥ-la-i* (*-ḥḥi* conj.) which is also transitive.²²

The conclusion to be drawn from this is, then, that *ḥa-a-li-ia* and *ḥa-li-iz-zi* (if old) are different formations in function and, if both are of the same relative age, there is no need to claim that the latter is a remodeling of the former.

²²KBo III 34 II 20 f. *mar-ša-an-za-wa zi-ik* LUGAL-un-wa-az me-ik-ki *ḥa-li-iḥ-la-at-ti* "Thou art fraudulent," quoth he, "thou twistest the king for thyself a great deal".

Secondary Stems (a): Deverbatives

26. *a-an-ši-ia-a* + 'wipe'

act. prs. pl. 3 *a-an-ši-ia-an-zi* XXIX 40 II 14 MH

Although the form is not sufficient to determine its conjugation type, it is more likely to be a *-mi*-conj. stem than a *-hi*-conj. one. It is based on the following root stem:

act. prs. sg. 3 *a-an-aš-zi* VIII 38 II 21 LOH

ipv. sg. 2 *a-an-aš* XXXIII 5 II 7 MOH

act. ipv. sg. 3 *a-an-aš-du* KBo III 8 II OH *oH??*

The difference between the two stems is most likely aspectual, the root stem being telic and the **-ye-* stem atelic, similar to English 'wipe up' vs. 'wipe' respectively. See Chapter 4 on Hittite (and other Anatolian) aspectual pairs in which the root stem (telic) contrasts with the *-ye-* stem (atelic). Cf. CL stem 22 *am-ma-aš-ši- + : am-ma-aš-ši-ia-a* + 'wipe' (Chapter 3), with lit.

27. *ar-ši-(i)-e-(i=) + : ar-ši-ia-a* + 'flow, pour (intr.)'

act. prs. sg. 3 *ar-ši-e-iz-zi* MH XXIX 7 Rs. 51

ar-ši!-e-iz-zi MH XVII 10 III 26

ar-ši-i-e-iz-zi LMH XXXIII 54, 10

a)r-ši-ia-zi LMH XXXIII 49 II 3

pl. 3 *ar-ši-ia-an-zi* LMH IBoT III 141 IV 5

mid. imp. sg. 3 *ar-ši-ia-at-ta-ru* MOH KBo VII 28 Rs. 16²³

²³E. Neu (StBoT 5: 16) incorrectly, in my view (and A. Kammenhuber's; see HW2: 343b), translates this form as "soll gedeihen." The MOH text (KBo VII 28) runs as follows: (Vs. 15) *nu ma-a-ú ši-iš-du nu A-NA DINGIR^{MEŠ} NINDA.KU₄.RA^{HI.A} GEŠTIN iš-pa-an-du-uz-z[i-ia* (16) *ar-ši-ia-at-ta-ru* "and (the land) shall grow (and) be tranquil, and loaves [and] wine libation vessels shall be overflowing for/to the gods" (rather than Neu's "... und den Göttern soll Brot- und Weinopfer gedeihen.").

In addition to this stem (class I), a root stem, namely *ar-aš+ : ar-š+ (-mi conj.)* 'flow, run, hurry' also occurs in texts dating from the same period (see now StBoT 29: 62). A sample of attestations is as follows:

act. prs. sg. 1 *ar-aš-mi* MOH or MH XXXV 75 + III 19

3 *ar-aš-zi* MH XV 34 III 24

a-ar-aš-zi LMH XLI 8 IV 37

a-ar-zi (L?)MH XLIII 58 II 15

LMH KBo X 45 IV 39, etc.

pl. 3 *ar-ša-an-zi* MH XV 34 III 13

imp. act. 3 *ar-aš-du* MH KBo XVII 105 II 34

participle *ar-ša-an-t+e-eš* LOH XXXIII 41 II 9

-ske- forms:

act. prs. sg. 3 *ar-ši-ik-ki-it* LOH KBo VI 13 I 8

If there is a difference in lexical meaning between the two stems (+*i-(i)-e-i+* : +*i-ia-a+* and root), it is not easy to determine from their contexts. But in view of the many other instances in which the zero suffix contrasts with the **-ye-* suffix (see the summary to this chapter) I posit that this pair of stems exhibits at least the quasi-aspectual distinction between telic (root, or zero-suffix, stem) and atelic (**-ye-* stem; cf. also the **-ske-* stem). This distinction is confirmed by the distribution of the two stems in their respective contexts (see HW2: *arš(i)a-* 341ff.): the root stem occurs predominantly with the particles *asta* and *kan*, while the *-ye-* stem does not.

The spelling *a-ar-zi*, in my view, probably exemplifies the Hittite change =*rtsi* > =*rtsi*, with the loss of *s* after a consonant before *ts*, rather than a scribal error.

Cf. Puhvel 1984: 170-172, with some etymological connections and lit. (172). Contrary to Puhvel's claims, there is no evidence whatsoever in any of the Anatolian or Indo-European languages for interpreting the last consonant of the root as an **-s-* : **-ś-* extension or for positing an initial **H₂*. For a detailed discussion of the comparative evidence, see Chapter 5.

28. *ḥa-az-zi-(e-)i+* : *ḥa-az-zi-a+* 'strike, play (a musical instrument)'

act. prs. sg. 3 *ḥa-az-zi-iz-zi* LOH KBo III 34 II 33, 34

ḥa-az-zi-zi LOH KBo XII 3 Rs. IV 12'

LOH KBo III 60 Vs. II 14

pl. 3 *ḥa-az-zi-an-zi* OH StBoT 25 No.33 Vs. (I) 19'

MOH XLIII 60 IV 15'

prt. sg. 3 *ḥa-az-zi-e-it* LOH XXXVI 100 Vs. 15 OH' dp. 24 95.69

ḥa-zi-it LOH KBo III 36 Vs. 8

imp. sg. 3 *ḥa-az-zi-e-i[t-tu]* OH StBoT 18 Rs. 51

participle *ḥa-az-zi-an* OH KBo XXII 1, 23'

-ske- forms:

act. prs. pl. 3 *ḥa-az-zi-iš-k[án-zi]* OH StBoT 25 No.35 Vs. II 5

ḥa-az-zi-iš-kán-zi LOH StBoT 25 No.32:

Bo 2599+Vs. II 5'

ḥa-az-zi-iš-kán-zi LOH KBo X 23 Vs. IIIy + 15

ḥa-az-zi-iš-kán-zi MH KBo XV 33 II 11'; III 6

This stem is apparently derived from the root stem *ḥa-at-t+* / *ḥa-ad-d+* (med. tant.) 'hit, cut, hew' (e.g., mid. prs. sg. 1 *ḥa-ad-da-aḥ-ḥa-ri* OH XVII 28 I 6, 3 *ḥa-at-ta-ri* OH KBo XI 14 III 9, pl. 3 *ḥa-at-ta-an-ta* OH StBoT 25 No.29 Vs.? II 6', etc.);²⁴ =z-z= [ts] is the development of *t [written as =t-t=, =d-d= in other environments] before *i and *y. The difference between the two stems seems to be that of *Aktionsart*:

²⁴Other attestations see in StBoT 5: 51 f. Neu's setting up the stem as "hatta-" is not justified, since prs. sg. 3 *ḥa-at-ta-ri* should be segmented as *ḥa-at-t+a+ri*, not as *ḥa-at-ta+ri*, +a+ being mid. sg. 3 ending and +ri, mid. "primary" marker. Prs. sg. 1 *ḥa-ad-da-aḥ-ḥa-ri*, then, either has an anaptyctic vowel or is graphic for *hathhari*. Hitt. *abstractum hattatar* 'wisdom' and participle *hattant-* 'wise' are in all likelihood formed from this root (see Beckman 1986: 26-30 for a discussion of the latter two, with attestations and lit. In my view it is likely that Gk. (Dor.) 'Αθᾶνα 'Athena' has its origin in the Hitt. gen. sg. *hattannaš* (of *hattatar*) in the divine epithet *hattannaš* EN 'the Lord of wisdom' (applied to Ea and Kumarbi), cf. Myc. *a-ta-na-po-ti-ni-ja* KN V 52 (dat.) 'to Athena the Lady'.

ha-at-t+ is telic or semelfactive (for the meaning, cf. Russ. ударить 'strike [once]'), whereas *ha-az-zi-(e-)i+* (-mi conj.) is atelic or iterative (cf. Russ. ударять 'strike [repeatedly]'). The function of the suffix +i-(e-)i+ : +i-a+ is here, again, that of an "atelicizer." On the Hieroglyphic Luwian cognate *ha-zi+* and on the nature of its relationship to this root see Chapters 3 and 4.

Cf. Puhvel 1991: 248 ff., esp. p. 254 with lit.

29. *hu-it-ti-(i=)+* (-a mid.); *hu-it-ti-ia-(a=)+* (-mi conj.) 'pull, draw'

The oldest form of this verb has the mid. sg. 3 ending +a+:

mid. prt. sg. 3 *hu-it-ti-ia-ti* OH StBoT 18 Rs. 54

pl. 3 *hu-e-it-ti-an-ta* OH (2x)

(cf. preterite singular 3 *hu-it-ti-it-ti* [probably a mistake for an expected **hu-it-ti-ia-ti*] in the LOH StBoT 18 Rs. 72 = XXVI 71 Vs. I 15'). The participle *hu-it-ti-an* OH KBo VIII 42 Vs. 14' [and *hu-it-ti-ia-an-t+e-eš* (c. nom. pl.) MH XV 34 IV 12] is, of course, neutral with regard to voice and conjugation.

Later texts have active -mi-conj. forms to this stem, such as act. prs. sg. 1 *hu-u-it-ti-ia-mi* LMH VBoT 24 III 13, IV 10 3, *hu-it-ti-ia-z[i]* MH XV 34 Vs. III 56, prt. sg. 1 *hu-it-ti-ia-nu-un* MH KBo XXI 41 Vs. 65 (Act. prs. pl. 3 *hu-it-ti-an-zi* LOH XXIX I III 27, MH KBo XV 33 II 14', *hu-it-ti-ia-an-zi* MH XV 34 Vs. I 3 *et passim*, as well as imperative pl. 2 *hu-it-ti-ia-at-ten* MH Mst. 75/13 öy. 14, are not distinctive with regard to conjugation. If *hu-it-ti-ia-at* MH XXXIII 3, 5 and XVII 10 IV 14 is middle prt. sg. 3, its conjugation type cannot be determined; if it is active, then it belongs to the -mi conjugation.)

Later yet, middle -tta forms appear, e.g., prt. sg. 3 *hu-it-ti-ia-at-ta-at* LH Hatt. III 14. These could be either backformations to actives²⁵ or remodelings of the -a middles (e.g., MH *hu-it-ti-ia-at* expanded to LH

²⁵Oettinger 1979: 517 proposes just the opposite order of the development, viz.: "Später wird... ein passivisches Medium mit Prät. Sg. 3 *hu-it-ti-ia-at-ta-at* 'wurde gezogen' (Hatt. III 14) gebildet, das ein Aktiv *huittje-mi* nach sich zog." At least in my collection, -tta middles to this stem do not occur in pre-LH texts (Hatt. being LH).

hu-it-ti-ia-at-ta-at).

If the absence of *-mi*-conjugation forms in the available OH texts be taken to mean that the OH language did not have such forms (it must be kept in mind that this absence may be accidental), then one would have to look for their source. This is likely to have been a certain form (or forms) common to both voices, such as the prt. sg. 3 in *+ia-a+t*; this form²⁶ would have been the same as in act. *-mi* conj., in form and in function (prt. sg. 3), only after *-[ya]*- forms replaced the inherited *-[ye]*- forms in sg. 2, 3 and pl. 2 stem finals of class I. The innovation (the diffusion of the vowel [a] throughout the paradigm) is a post-OH phenomenon.

Alongside the suffixed *-a* forms, MOH has one root middle, namely prs. sg. 2 *hu-e-iz-ta* MOH XVII 10 IV 1,²⁷ (*=*HweT+ta > [hwetsta]*, cf. *e-iz-tu* [*etstu*] < **ed-tu*). For more attestations and a detailed discussion of derivation ("das Deverbativum zu einem [entwicklungsgeschichtlich älteren] Verbalstamm *huet-/huit*-" see Neu 1974 (*StBoT* 18): 94f.

The lack of assibilation in *=t-t=* before the *i* of the suffix is remarkable; it may be explained *ad hoc* either by positing that the suffixation took place after the assibilation had ceased to operate, or by positing **dh > tt* before *ye/a* (so essentially Ivanov 1965: 85). Nothing is gained by positing a laryngeal, cf. Puhvel 1991: 351f. and Melchert 1994a: 69 (Puhvel, loc. cit.: "non-affrication . . . points to **H₁weda₁-*"; Melchert, loc. cit.: "**h₂wedh₂-*," for the same reason).

It is difficult to discern a difference in meaning between the two formations (root and suffixed), but a quasi-aspectual difference, similar to that between *ha-at-t+* and *ha-az-zi-(e-)i+*, is very likely.

²⁶Watkins's explanation of the rise of act. *mi*-forms of "*haliya*-" ("Eine 3.Sg. des Präteritums *haliyat* . . . die Friedrich, HWb. und Kronasser 484 als aktiv ansehen . . . könnte ebensogut medial sein" [Watkins 1969: 102]) does not apply to *ha-li-e+* (see above in the relevant lemma) but seems appropriate in the case of *hu-it-ti-ia(-a=)+*. It must be kept in mind, however, that the development is of a post-OH date.

²⁷LH adds prs. sg. 1 *hu-it-tah-ha-ri* KBo XI 11 I 4 and prt. *hu-it-tah-ha-at* ibid., 8, both root. For other LH attestations, as well as discussions of the two stems, see *StBoT* 5: 56 f.; *StBoT* 18: 94-96.

30. *kar-pí-(i-(e-))i+* : *kar-(ap-)pí-a+* 'raise; perform (a service)'

- act. prs. sg. 3 *kar-pí-iz-zi* OH KBo VI 2 II 42, 46
kar-pí-iz[-zi] MOH KBo VI 3 II 69
kar-pí-i-iz-zi OH KBo VI 2 II 39, 48, 49
LOH KBo VI 9, 5
kar-pí-i-e-iz-zi MOH KBo VI 3 II 66
kar-pí-i-e-iz-zi LOH KBo VI 4 IV 27, 34
pl. 3 *kar-pí-an-zi* OH StBoT 25 No. 128 l.col. 3'
LOH KBo VI 4 IV 25,
KBo VI 6 I 9, 11; etc.
kar-ap-pí-an-zi OH StBoT 25 No. 72 Vs. II 3
prt. pl. 3 *kar-pí-i-e-i[r]* LOH KBo VI 6 I 23

In addition to these class I forms, (L)OH texts have root *-mi* forms:

- act. prs. sg. 3 *kar-ap-zi* OH StBoT 25 No. 34 Rs. 5' (little context)
kar-ap-zi MOH KBo VI 3 II 60
LOH KBo VI 4 IV 22, 24 (parallel to
OH KBo VI 2 II 39 *kar-pí-i-iz-zi*)
kar-pa-zi LH XXXI 147 II 14

Oettinger (1979: 345) claims, without argumentation, that "*karp^{-mi}* ist jüngere Umbildung!" Apparently, his view is prompted by the fact that most of the attestations of the root stem are found in LOH copies of the laws, with *+í-i-i+* forms found in the parallel OH text. The nature of the data, however, calls for greater caution. There is at least one clearly OH attestation of the root stem (q.v. above), incidentally, not at all mentioned in Oettinger 1979. Since both stems occur in OH, there is no justification for regarding *kar-ap-* + (*-mi* conj.) as an innovation. Even assuming that it is an innovation, there is no analogical ground for it. Root stems and those belonging to class I have no forms in common, which could serve as starting points for the remodeling suggested by Oettinger.

In view of the above, I regard the two stems as contemporaneous. It is possible that the difference between them was that of aspect (cf., e.g., stems 2 and 3 in this section), the root stem being telic (instantaneous) and the class I stem, atelic (iterative). The idiom recurring in

the laws (OH), viz. *lu-uz-zi kar-pí-i-iz-zi* 'performs the corvée (or the like)' (KBo VI 2 II 39) / *lu-uz-zi na-at-ta kar-pí-i-iz-zi* (ibid., 40) calls for the class I stem (for the aspectual distinction, cf. Russ. производить работы 'to (be) perform(ing) the work' vs. произвести работы 'to finish [have performed] the work'). The later texts use the telic form instead of the atelic one, which is either a mistake or a sign of change whereby the suffix has lost its atelic meaning.

31. *kar-aš-ši-i-(e-)i+* / *kar-aš-še-i+* 'cut (off)'

act. prs. sg. 3 *kar-aš-ši-i-iz-zi* OH KBo VI 2 I 8
kar-aš-ši-i-e-iz-zi MOH KBo VI 3 I 15
kar-aš-še-iz-zi LOH KBo VI 13 I 3

? KAR-aš-ši-i-iz-zi
 signature of Berger

These forms occur in very similar contexts: KBo VI 3 I 14-15 is a rather faithful copy of KBo VI 2 I 7-8, while the phrase where the LOH attestation occurs is almost the same.²⁸

Alongside these forms, root stem forms also occur and are indeed more frequent; for example:

act. prs. sg. 1 *kar-aš-mi* LOH XXIX 1 I 36
 3 *kar-aš-zi* OH KBo VI 2 IV 22
 pl. 3 *kar-ša-an-zi* LOH KBo III 46 Rs. 7'
 prt. sg. 1 *kar-šu-un* MOH or MH XXX 10 Vs. 15'
 3 *kar-aš-ta* MOH XVII 10 II 6

²⁸KBo VI 2 I (7) *ták-ku LÚ.ULÙ LU-aš LÚ-aš na-aš-ma SAL-za ta-ki-i-ia URU-ri a-ki ku-e-la-aš ar-ḫi a-ki* (8) 1 ME *gi-pí-eš-šar À.ŠA kar-aš-ši-i-iz-zi na-an-za da-a-i*; KBo VI 3 I (14) *ták-ku LÚ.ULÙ LU-aš LÚ-aš na-aš-ma SAL-za ta-ki-i-ia URU-ri a-ki ku-e-la-aš ar-ḫi* (15) *a-ki* 1 ME *gi-pí-eš-šar À.ŠA kar-aš-ši-i-e-iz-zi na-an-za da-a-i* "If a human, man or woman, dies in a foreign city, (the person) in whose boundary he/she dies, cuts off one hundred ells of (his) field and he (=the representative of the dead person) takes it." KBo VI 13 I (LOH) (2)... EN À.ŠA À.ŠA LAM 1 *gi-pí-eš-šar* (3) *kar-aš-še-iz-zi ta-az da-a-i* 'the owner of the field cuts 1 ell off the field, and he takes it (he =/ the owner).' The latter attestation qualifies this stem to be considered as belonging to class XI, but *kar-aš-ši-i-iz-zi* takes precedence as the older form.

imp. sg. 2 *kar-aš* LOH XXIX 1 I 37
 pl. *kar-aš-te-en* MH XVII 10 III 5
 infinitive *kar-šu-u-wa-an-zi* LOH XXIX 1 III 15²⁹

Functional differences between the two (clearly contemporaneous) stems, if any, cannot be discerned on the evidence of their contexts. In at least some of the contexts, the stems are interchangeable, cf. KBo VI 13 I 2-3 quoted in n. 28.

32. *ma-al-ki-ia-a*+ ‘spin, (un)ravel’

act. prs. pl. 3 *ma-al-ki-ia-an-zi* LOH XXIX 1 II 8
 prt. sg. 3 *ma-al-ki-ia-at* LM?H XVII 27 II 29

See other attestations (all LH) in HD: 131. The stem is apparently based on the root stem *malk-* attested in act. prs. sg. 3 *ma-la-ak-zi* ‘unravels’ KUB VII 1 (dated in HD: 131 as “pre-NH / NS” = LOH / LMH) II 14, and so should be added to the list of aspectual pairs.

33. *pár-ki-ia-a*+ ‘raise, lift’

act. prs. pl. 3 *pár-ki-ia-an-zi* MH KBo XX 33 III 10
 (L)MH IBoT III 148 III 13
 prt. sg. 3 or
 mid. prt. sg. 3 *pár-ki-ia-at* MOH XXXIII 68 II 1
 mid. prt. pl. 3 *pár-ki-ia-an-ta-at* LMH? KBo XI 10 III 11

(Other attestations and the literature see in StBoT 5: 138.)

In addition to this stem, a root-stem form (imp. mid. sg. 3) is found in the same text where the MOH attestation of the class I stem occurs: (1f.) *nu ša-an-ku-uš a-li-il ma-aḫ-ḫa-an pá-r-ki-ia-at tu-el-la ŠA* ^DU ZI-KA *a-li-il pá-r-ak-ta-ru*. Since, however, the sense of the sentence is not

²⁹Other attestations see, e.g., in Oettinger 1979: 200. Oettinger lists root-stem forms together with the suffixed (the OH attestation). In Oettinger’s (unsubstantiated) view, “karšje-^{mi}” is analogic to “karpje-^{mi}” (q.v., loc. cit.).

clear,³⁰ little can be said of the possible functional difference between the two stems.

34. *pár-ši-(ia-)a* + 'to break (bread)'

mid. prs. sg. 3 *pár-ši-ia* OH StBoT 25 No.25 Vs. I 52"

XXIX 30 III 10, 12, etc.

LOH KBo X 28 Vs. II 12

Bo 2599+II 2', etc.

MH XV 34 I 28 et passim;

KBo XXI 85 IV 9' et passim

LMH KBo XX 63 I 15

KBo XIX 161 I 2' et passim

pl. 3 *pár-ši-ia-an-da* OH StBoT 25 No.88, 7', etc.

pár-ši-an-da[- OH StBoT 25 No.53 r.col.5'

pár-ši-an-ta[- OH StBoT 25 No.54 Vs. II 21'

mid. or

act. prt. sg. 3 *pár-ši-at* LMH KBo XV 10 III 63'

pár-ši-ia-at ibid., 68'

act. prs. pl. 3 *pár-ši-an-zi* MH KBo XXI 85 I 48'

pár-ši-ia-an-zi ibid., 46', 50', IV 29'

LMH VBoT 24 II 22

³⁰The opacity is due to the hapax *ša-an-ku-uš* and problems with *a-li-il* (n.). The meaning "bunt(??)" for *ša-an-ku-uš* in HW1: 182b, used by Neu (StBoT 5: 138), is a mere conjecture, cf. HW2: 59a for a more cautious treatment: *ša-an-ku-uš* left untranslated). On *a-li-il*, see now HW2: 58b f.. This noun is likely to be the name of a plant (or a product thereof) used for ritual meditation purposes; cf. "(D) *alila*-' (Kultgegenstand einer Gottheit; daher auch mit Gottesdet. geschrieben; hurr.?)" (HW2: 59a). Cf. also "*alila*-' c.," which, according to Kammenhuber, is "eher zu *alili*- c. (Orakelvogel) als zu *alil*- n." (loc. cit.). The text (LH ritual KUB XII 62 Vs. 11 ff.) makes the interpretation of the noun as 'the *alil* plant' just as likely, if not more likely, than that proposed by Kammenhuber: *a-li-li wa-ar-šu-wa-an-zi pa-a-i-mi* [...] (13f.) *a-li-la-aš-za wa-ar-šu-wa-an-zi Ū-UL me-im-ma-i* 'I go to the *alil* (or 'to the *alil* plant') to reap (it) [...] (13f.) the *alil* plant does not refuse to be reaped' (cf. Kammenhuber's translation: "Ich gehe zum *a*. um es zu pflücken od. es zu beruhigen. [...] *a*. weigert sich nicht zum Pflücken od. sich zu beruhigen.").

prt. sg. 1 *pár-ši-ia-nu-un* LMH KBo XV 10 II 33, 40
 participle *pár-ši-ia-an-t+a-an* MH KBo XXI 85 IV 10'

As the listing of attestations shows, active forms begin to appear in post-OH texts. It is possible that they arose analogically, starting from the ambiguous form *pár-ši-(ia-)at* (ambiguous in post-OH, cf. the comments on *hu-it-ti-ia-at* above).

A few *-tta* middles are also found. Those in my collection, q.v. below, are all from the same LMH text:

mid. prs. sg. 3 *pár-ši-it-ta-ri* LMH StBoT 22 Eid I Vs. II 10
 (=KBo VI 34)

imp. sg. 3 *pár-ši-it-ta-ru* *ibid.*, 16
pár-ši-ia-ad-da-ru LMH StBoT 22 Eid I Vs. I 38

These younger middle forms can be explained as backformations to active forms.

Alongside the class I forms, contemporaneous root-stem forms are also attested, such as the following:

mid. prs. sg. 1 *pár-aš-ḥa* OH StBoT 25 No. 3 Rs. III 14
pá[r-a]š-ḥa-ri *ibid.*, IV 10
 pl. 3 *pár-ša-an-da* OH StBoT 25 No. 26 Rs.? IV 10
act prs pl. 1 *pár-šu-wa-ni* OH StBoT 25 No. 4 Rs. III 47³¹
 prt. pl. 3 *pár-še-ir* LOH KBo III 46 Rs. 38

The conjugation type of the active forms (*-mi* or *-ḥhi*) cannot be determined due to the absence of disambiguating forms.

In both stems, functional differences between the active and middle forms, if any, cannot be determined from the context. The same can be said about the two stems: functional differences between the suffixed stem and the root stem, if they existed, cannot be discerned from their contexts.

³¹Otten/Souček 1969: 34, 120 and Oettinger 1979: 518 n. 14 have doubts about this form: *-wa-ni* is written over erasure and there is very little context left.

35. *pa-aš-ku-i-i+* 'to neglect'

act. prt. sg. 3 *pa-aš-ku-i-it* MOH I 18 III 70

mid.prs. sg. 3 *pa-aš-ku-i-it-ta* *ibid.*, 65

See StBoT 5 for the context of the latter and Oettinger 1979: 335 for other attestations.

The stem appears to be based on the zero suffix stem *pa-aš-ku-*: *pa-aš-ku-w+* (with [*kʷ*], cf. HL 21 *pa-sà-kwi-* 'to neglect',³²) attested in act. prs. sg. 2 *pa-aš-ku-ši* LOH XXXI 127 I 47, pl. 3 *pa-aš-ku-wa-an-zi* LMH XXX 11 Vs. 8, prt. sg. 3 *pa-aš-ku-ut-ta* MOH/MH XXX 10 Rs. 2.

On the etymology of this stem, see Chapter 4 §3.

36. *ta-ri-ia-a+* 'invoke, appeal'

SiG₁-an-ta-ri-ia-a

mid. prs. sg. 3 *ta-ri-~~ia~~-at-ta* OH XXXVII 223 Vs. 5

This is the only instance of the class I stem in my collection. The stem is derived from the same root as the root stem *ta-r+* / *da-r+* 'say, speak, promise' (e.g. prs. pl. 3 *ta-ra-an-zi*, participle *ta-ra-an-za* / *da-ra-an-za*), copiously attested in Hittite texts of all periods.

The root stem is used in the telic sense 'promise' ('betroth'), cf., e.g., *tāk-ku* DUMU.SAL LÚ-ni *ta-ra-an-za ta-ma-i-ša-an pīt-te-nu-uz-z[i]* (early LH KBo VI 3 II 5) 'if a woman is promised to a man, (but) another (man) makes her run away (with him)', in addition to its common use of introducing direct speech and the like (which could be either telic or atelic, cf. *say* and *speak*). If the root stem is telic, then it is at least possible (cf., e.g., *ha-at-t+* vs. *ha-az-zi-(e)-i+* above) that the class I stem is not: 'appeal, entreat' or the like.

37. *ú-e-ri-i+* : *ú-e-ri-ia-a+* 'call, speak'

act. prs. sg. 3 *ú-e-ri-iz-zi* LMH XVII 21 III 13

³²E.g., in Sultanhan 5 C (end): *nt-pa-wa/i-ta ara/i-ha pa-sà-kwi-i* 'or (if he) neglects (it)'.

prt. pl. 3 ú-e-ri-ir LOH KBo III 1 I 45

This same root exists in unsuffixed form, namely the quotative particle +*wa-r+* (before a vowel) / +*wa* (elsewhere) 'inquit', originally possibly act. prt. sg. 3 of the root stem,³³ e.g., *ša-aš ša-ra-a URU-ia pa-it ú-uk-wa LUGAL-uš-mi-iš ki-iš-ḫa* "and he went up to the city: 'I, he said, shall be your king'" (OH KBo XXII 2 [=StBoT 17] Rs. 14'-15'). It seems that the root stem, of which the quotative particle is the sole survivor in Hittite (but cf. Palaic *ú-e-ir-ti* 'says' XXXII 18 I 8', q.v. in Chapter 3), is telic ('said'). Thus, this pair of stems is yet another candidate for exhibiting the quasi-aspectual distinction.

Other stems that possibly belong to the deverbative subclass of class I are as follows:

38. *ḫu-ul-ḫu-li-ia-a* + 'fight one another'. The only pre-LH attestation of this stem in my collection is the participle *ḫu-ul-ḫu-li-ia-an-t+e-eš* LOH KBo III 40b Vs. 12. Its root is the same as that of the class VII stem *ḫu-ul-li-i+*, etc., 'combat'. However, the attested form is not sufficient for determining the conjugation type (-*mi* or -*ḫi*) of its stem. Cf. StBoT 18, p. 78.

39. *ti-it-ti-(ia)-a* + 'place, set in'. Its attestations in my collection are the following:

act. prs. pl. 3 *ti-it-ti-ia-an-zi* LOH KBo XII 3 IV 9'

participle *ti-it-ti-an-za* OH KBo XIX 1 II 18'

MOH KBo VI 3 II 37

ibid., 43

LOH KBo VI 5 IV 1

KBo XII 3 IV 9'

ti-it-ti-an [MH XXXVI 114, 22'

³³Hitt. *wa-r+*, etc., < **wer-t* (sg. 3). As a typological parallel, cf. the Russ. quotative particle *ѣ* 'quoth', formerly root aor. sg. 3 (< **dhē-t*). Cf. also Ivanov 1965: 73 f.

The stem's attestations are not sufficient for establishing whether it belongs to the *-mi* or the *-hhi* conjugation.

See Oettinger 1979: 347: "... entweder zu *tije^{hhi}* 'setzen' gebildet ... oder setzt altes **d^hi-d^hh₁-je-* fort." I would be inclined to support the former (replacing Oettinger's normalization "*tije^{hhi}*" with *da-a-i+* : *ti-(i-)+*) because there is no evidence for any ***d^hi-d^hh₁-je-* either in Anatolian or in Proto-Indo-European.

Secondary Stems (b): Denominatives

40. *ap-pa-ta-ri-i+* / (*a-*)*ap-pa-at-ri-(i=)+* : *ap-pát-ri-a+* 'seize, take as deposit (on a loan)'

act. prs. sg. 3 *ap-pa-ta-ri-iz-zi* OH KBo VI 2 IV 4

ap-pa-at-ri-iz-zi MOH KBo VI 3 III 76

ap-pát-ri-ia-zi LMH XIII 8 Vs. 10

infinitive *a-ap-pa-at-ri-wa-an-zi* LOH KBo VI 26 I 28

Apparently, this stem is derived from the noun *appatar* neut. 'seizure', a derivative of *e-ip+* : *ap-p+* (*mi*-conj.) 'seize, capture'.

See Puhvel 1984: 98 f. with lit. On denominatives to *r*-stems see Oettinger 1979: 351 ff.

41. *ha-liš-ši-ia+* / *ha-li-iš-ši-ia+* 'to frame, overlay'

act. prt. sg. 1 *ha-liš-ši-ia-nu-un* LOH StBoT 18 Rs. 58(B)=XXVI 71,7

ha-li-iš-s[i-i]a-nu-un LOH KBo X 2 II 30

ha-li-iš-s[i-ia-an]-da-an MH XXIX 7 Rs. 40

This stem is apparently a derivative of the noun *ha-li-iš-š+* or *ha-li-iš-ša+* 'casing, fitting, frame' or the like (*hapax*, abl. *ha-li-iš-ša-az* KUB V 7 Rs. 23), likely derived from the verb *ha-li-e+*, etc.; see p. 45 f. above.

See Puhvel 1991: 33-35 for attestations and a morphological discussion (p. 35).

42. *ha-ap-pa-ri-e*+/*i*+ 'give, turn over (to)'

- act. prs. sg. 3 *ha-ap-pa-ri-iz-zi* MOH KBo VI 3 II 36
 prt. sg. 1 *ha-ap-pa-ri-e-nu-un* OH StBoT 18 (=KBo III 22) Vs. 20
 3 *ha-ap-pa-ra-a-it* OH see p. 26-27

The stem is apparently derived from the noun *ha-ap-pa-r*+ neut. (nom. sg. *ha-ap-pa* LOH XXIX 29 Vs. 10) 'exchange, transfer, trade'.³⁴

See also Oettinger 1979: 352f. and Puhvel 1991: 126 (under *happir*-, *happar*- p.125-7).

43. *hu-la-a-li-e*+/*hu-la-a-li-i*+/*hu-(u)la-li-e-i*+ : *hu-(u)la-(a)li-(ia)a*+ 'wrap up, enwrap'

- act. prs. sg. 1 *hu-la-a-li-e-mi* OH StBoT 25 No.4 Rs. IV 23
hu-la-a-li-ia-mi OH StBoT 25 No.6 Rs. III 14'
 3 *hu-la-a-li-iz-zi* OH XXXVII 223 Rs. 3
h]u-la-a-li-e-z[i OH StBoT 25 No.100 Rs. 3'
hu-la-a-li-az-zi LOH KBo III 27 Vs. 27
hu-u-la-li-e-iz-zi LMH XXIV 9 I 42, 47
 prt. sg. 1 *hu-la-li-ia-nu-un* LMH XXIII 11 II 23
 mid. 3 *hu-u-la-li-it-ta-at* MH IBoT I 36 III 54
 participle *hu-la-li-an* OH StBoT 25 No.4 Rs. IV 28
 MOH XLIII 60 Vs. IV 7'
hu-u-la-li-ia-an MH XXIX 7 Rs. 30
hu-u-la-li-ia-an-za *ibid.*, 28
hu-la-li-ia-an LMH XXIV 10 III 33

-*ske*- forms:

- act. prs. sg. 3 *hu-u-la-li-iš-ki-iz-zi* MH KBo XVII 105 II 15'
 pl. *hu-u-la-li-eš-kán-zi* *ibid.*, 16'
 imp. *hu-u-la-li-iš-kán-du* *ibid.*, 24'

³⁴Cf. Class IV stem *ha-ap*-(*pa/pf*)-*ra-(a)i*+ : =*ra-a*+ 'sell, trade' (see the relevant section of this chapter). See also Neu 1980: 82-5 on both stems. Neu does not, however, distinguish between *happarye*- and *happarai*-, wrongly regarding the former a later variant of the latter.

The verb is a *-ye-* denominative based on *hulāli-* 'roller, spindle' (q.v. in HW1: 73).

44. *hu-ur-tal-li-(e-)i+* : *hu-ur-ta-li-a+* 'mix up, confound'

act. prs. sg. 3 *hu-ur-tal-li-iz-zi* LOH KUB I 16 III 38
 pl. *hu-ur-ta-li-an-zi* OH StBoT 25 No.54 Vs. I 16
hu-ur-ta-li-an-z[i] OH StBoT 25 No.54 Vs. I 30
hu-ur-ta-li-an-zi LOH KBo III 27 Vs. 16, 18
 prt. *hu-ur-tal-li-e-ir* LOH KUB I 16 III 43

The verb is apparently a derivative of the noun *hurtalli-/hurtali-* c. translated in HW1 as "Gemengsel, Mus(?)" (p. 77a) and corrected by Otten to "Widersacher" (ZA NF 21 p.158 line 10; p.164 f.).³⁵

See Puhvel 1991: 437 (*sub huwarti-*) for some unimposing etymological connections, with lit.

45. *ku-u-ru-ri-e-i+* : *ku-u-ru-ri-a+* 'be hostile'³⁶

act. prt. sg. 3 *ku-u-ru-ri-e-it* LOH XI 1 II 7
 pl. *ku-u-ru-ri-e-ir* LOH XXXVI 100 Rs. 4 end *urub' OH*
 participle *ku-u-ru-ri-a[n-t/da]* OH KBo VI 2 I 52 *sl*

³⁵On the noun *hurtal(l)i-* see Kronasser 1966: 493. In almost all of the contexts where the verb occurs, it has the noun *ud-da-a-ar / ut-tar* 'word(s), command' as its direct object. The contexts (all LOH), conveniently brought together by Josephson (1972: 64), allow for interpretations of the verb ranging from 'confound, mix up' ('break unintentionally') to 'violate, oppose' ('break intentionally'). Jucquois & Lebrun 1979: 105ff. have wrongly mixed this stem up with *huwart*.^{hhi} 'curse'.

³⁶Cf. discussions in Watkins 1973: 77 and Oettinger 1979: 339 (not "399" given in the index on p. 594). Watkins's view that the denominative has the suffix *-e-* (loc. cit.) is based on the forms with *-ri-e-i+* which can be interpreted as *-re-*. But the OH form *ku-u-ru-ri-a[n-t/da]* (see attestations; the reading proposed and convincingly defended by Starke 1977: 55) disambiguates *=ri-e-i+* as *=[r(i)ye]-*. Cf. also the post-OH transitive stem *kururiyahh-* HW1: 119a clearly based on *kurur(i)ye-*.

The verb is based on the noun *kurur* 'enmity; enemy' (HW1: 119b, Erg.2: 16a; for example, *ku-r[u-u]r* OH StBoT 18 Vs. 25).

46. *ku-(uš-)ša-ni-(i-e-)i+ /ku-uš-ne-i+ : ku-uš-ša-ni-ia+ 'rent, lease, hire'*

act. prs. sg. 3 *ku-uš-ša-ni-iz-zi* OH KBo VI 2 II 27;

IV 10 XXIX 30 Vs. II 9

(=*ni-i[z-zi]*) LOH KBo XIV 66 II 6

ku-uš-ša-ni-i-e-iz-zi MOH KBo VI 3 II 48

ku-ša-ni-iz-zi *ibid.*, IV 3

ku-uš-ša-ni-ia-zi LOH KBo VI 5 IV 7

ku-uš-ne-iz-zi LOH KBo VI 10 III 36

(=*n[e-iz-zi]*) *ibid.*, 38

The verb is based on the noun *kuššan-* neut. 'pay' (HW1: 120a; e.g., *ku-uš-ša-ni* LOH XXIX 30 II 7 / *ku-uš-ni* LOH KBo VI 10 III 32 [loc. sg.]). The two LOH attestations where the stem is written *ku-uš-ne-i+* (both in the same text) may be analogic to *uš-ne-e+* 'sell, trade' (see class XI below), close in meaning and similar in form. The form *ku-uš-ša-ni-ia-zi* shows the typical post-OH leveling of the inherited alternation *-ye-* : *-ya-* in favor of the *-ya-* alternant.

47. *lam-ni-i+ /lam-ma-ni-i-e+ : lam-ni-ia+ 'call, name'*

act. prs. sg. 3 *lam-ni-iz-zi* MH IBoT I 36 öy.I 30

pl. 1 *lam-ma-ni-i-e-u-e-ni* MH KBo XVI 50 Vs. 17

prt. sg. 1 *lam-ni-ia-nu-un* LMH XXIII 11 II 28

pl. 3 *lam-ni-ir* MH XXXVI 109, 6

The stem is based on the noun *lāman-* (neuter *-n-* stem; oblique stem *lamn-*; see HW1: 126b). There is no evidence whatsoever for positing any laryngeals in the PIH (to say nothing of the PIE) etymon. See Excursus I and II for more detail.

48. *pár-ku-i-e-i+ : pá-r-ku-(i-)ia-(a-)+ / pá-r-ku-wa-a+ 'cleanse'*

act. prs. pl. 3 *pár-ku-wa-an-zi* MH XIII 9 III 20'
 prt. sg. *pár-ku-wa-a-it* LMH KBo XXI 8 II 4
 pl. *pár-ku-i-e-ir* LOH KBo III 34 Vs. II 25
 mid. prs. sg. 3 *pár-ku-i-id-d[a]* LOH KBo XXII 6, 6'
 prt. *pár-ku-i-ia-ta-at* LMH XXIV 8 + I 31
 verbal noun *pár-ku-ia-a-tar* LOH KUB I 16 II 67

The stem is based on adj. *parkui-* 'clean, pure' (HW1: 161) = [*bargwi*]-, if cognate with Gothic *bairht-* 'clear', etc.; see, e.g., Pedersen 1938: 35 f., and Kronasser 1966: 107 for hypotheses on the historical morphology of this adjective.³⁷

Hittite (OH and later) also has a *-nu-* transitive to *parkuye-*, namely *pár-ku-nu-u+* (*mi*-conj.) (see attestations and discussion in Kronasser 1966: 454 f.) 'clean, wash (off); remove (brand from an animal)'.

MH *pár-ku-wa-an-zi* formally belongs to class II and class IV (see page 21 above); LMH *pár-ku-wa-a-it* belongs to class IV (q.v.). While it is possible that class IV forms are based on an *-a-* stem variant of the adjective, viz. **[ParKwa]*-, it is unlikely, as this stem is *ad hoc*. It seems more likely that class IV forms here are due to later remodeling, such as undergone by several class II stems (q.v.). These class II forms, then, would be based directly on the adjectival stem **parku-* (*[barg]*-*[u]*-, if cognate with Goth. *bairht*, etc. < **bheræg-*).

49. *tu-(u)ri-(e)i+* : *tu-u-ri-ia(a=)+* 'yoke, harness'

act. prs. sg. 3 *tu-u-ri-iz-zi* OH KBo VI 2 III 60
 ibid., IV 1, 12
 XXIX 30 II 20
 (tu-) MOH KBo X 2 III 73
tu-u-ri-e-iz-zi MH XXIII 77, 81

³⁷In the case of *parkui-*, it is not clear whether one is dealing with the sequence *k + u* (*[kw]* before vowels) or with the sound *k'*: there are no writings of the type **pár-uk-nu-u+* parallel to *pár-ku-nu-u+* (the *-nu-* transitive to this stem) which could confirm the latter possibility (cf. *tar-u[k-zi]* O¹ KBo XVII 44 + 22', etc. : IE **terk'*-, cf. Lat. *torqueo* : *tortus*, etc. (See the discussion in Lehrman 1987).

tu-u-ri-ia-zi MOH KBo VI 3 IV 7
 pl. *tu-ri-ia-an-zi* LOH KBo VI 26 I 36
 prt. sg. 1 *tu-u-ri-[ia-nu-(un)]* LOH KBo X 2 III 42
 pl. 3 *tu-ri-ir* LOH KBo III 34 I 16
 participle (?) *tu-u-r[i-ia-an]* LOH XXXI 127 I 52
 verbal noun *tu-u-ri-ia-u-wa-aš* MOH KBo VI 3 III 48; 51

-ske- form:

act. prs. sg. 3 *tu-u-ri-iš-ki-iz-zi* MOH KBo VI 3 III 65

The stem is apparently based on the noun *tūri-* which translates the
 sumerogram ^{GIS}ŠUKUR 'spear, shaft' (cf. HW1: 229 and Erg. 2: 26a
 with lit.).³⁸

50. *ú-e-ši-i+ : ú-e-ši/še-ia-a+ 'graze'*

mid. prs. sg. 3 *ú-e-še-ia-at-ta* LOH XXIX 1 I 33
 ú-e-ši-ia-at-ta-ri LMH XXVI 19 II 33
 pl. *ú-e-ši-ia-an-da-ri* *ibid.*, 18
 prt. sg. *ú-e-ši-it-ta-at* LOH XXIX 1 I 32

E. Neu (StBoT 5: 200) also adduces "prs. sg. 2 *ú-ši-e-it-ta* 113/b Vs. 4 (alt)" which I personally have not seen since the text, to my knowledge, has not been published.³⁹ The stem is apparently based on the

³⁸Cf. Vedic *dhūr-*, nom. sg. *dhūr* RV VIII 33, 17b 'shaft, pole'. It is at least possible that the Hittite stem is primary (so Oettinger 1979: 344 f.) or based on the root noun, cf. the Vedic cognate.

³⁹The mid. prs. sg. 3 *ú-e-še-ia-at-ta* is interpreted by E. Neu (StBoT 5: 200) as prt., for which I see little reason (cf the other prs. 3 form). The use of the sign *še*, instead of the *ši* which appears everywhere else, is hard to explain (except as an instance of the occasional post-OH practice of substituting the former for the latter, cf. MH *ar-ša-ni-e-še* [StBoT 26: 29 n. 178: "mittelhethit., gegen A. Kammenhuber HW2 344a"] vs. OH *ar-ša-ne-e-ši*, the attestations of which see below.

noun *weši-* c. 'pasture' (see HW1: 253a with lit.).⁴⁰ See Eichner 1973: 79 and Oettinger 1979: 529 for etymological connections.

There are also several stems which possibly belong to the denominative subclass of class I, but cannot be so classified with certainty because some forms, important for class assignment, are missing. These stems are as follows:

51. *an-na-nu-uz-zi-ia-a* + 'to rein, curb'. The only attestation in my collection is the participle *an-na-nu-uz-zi-ia-an-te-e[š]* (pl. nom. c.) OH StBoT 25 No.27 Rs.1 9' 'reined, curbed, haltered' or the like. The same participle possibly occurs in line 11' of the same text, where it is reconstructed on the basis of two post-OH copies: [*(an-na-nu)-uz-zi-ia-(an-za)*] (nom. sg. c.; see StBoT 25: 71ff.). If there is a verb stem *an-na-nu-uz-zi-ia-a* + (so also HW2: 78a), then it is based on the noun ^{KUS}*an-na-nu-uz-zi-* c. "a kind of rein/curb" (?) (e.g. pl. acc. ^{KUS}*an-na-nu-uz-zi-uš* in the same text, i.e. StBoT 25 No.27 Rs.1 7'). The stem is somewhat dubious because it is attested only in the participles; yet it is likely to be a *mi*-conjugation denominative in *-*ye-*. (On the deverbative derivation of ^{KUS}*an-na-nu-uz-zi-* c. see Eichner 1975: 161 n. 10.)

See Puhvel 1984: 61 f. for the connection with *annanu-* 'train, cultivate' and some morphological parallels, with lit.

52. *ar-mi-iz-zi-ia-a* + 'to bridge'. The only pre-LH attestation I know of is mid. imperative pl. 3 *ar-mi-iz-zi-ia-an-ta-ru* MH XV 34 I 46. The stem is based on the noun ^{(GIŠ)NA}*ar-mi-iz-zi* neut. 'bridge' (attestations see in HW2: 327a). Its conjugation type (-*mi* or -*hhi*) is not certain, although it is more likely that the stem belongs to the -*mi* conjugation, as the -*hhi* conj. (see Excursus III) is not a productive denominative conjugation during the attested period and, in any case, does not con-

⁴⁰It is possible that both the noun and the verb are based on the root *wes-*, cf. Hitt. *westara-* c. 'shepherd' (HW1: 253b with lit.), in which case the verb stem would be primary. If the form *ú-ši-e-it-ta* (see text) is old (which is not contradicted by the shape of the class stem suffix that keeps the older [inherited] *e*-grade of the vowel) and should be taken at face value, then the zero grade which its root shows could be taken as evidence for the verb, this form at least, being primary.

tain any denominatives of this kind.

See Puhvel 1984: 160 ff. for a list of inconclusive etymologies for the nominal base.

53. LUGAL-*u-iz-zi-i*+ 'be king'. There is only one possibly pre-LH form of this stem in my collection, namely mid. prt. sg. 3 LUGAL-*u-iz-zi-it-ta-at* LMH XXXIII 115 III 6 (see StBoT 5: 109 for LH attestations). It is possible, in light of LH attestations such as LUGAL-*iz-zi-at* act. prs. sg. 3 LH XXIII 1 I 42, that the stem belongs in this subclass of class I; however, on its own it is not sufficient for determining its conjugation type. Its putative nominal base, *LUGAL-*u-iz-zi*-, is unattested; for a discussion of this brood see Puhvel 1991: 241 (*sub hassu*-, pp. 240-246).

54. *iš-kar-ra-an-ni-a*+ 'pierce, make holes'. The only attestation I have is the participle *iš-kar-ra-an-ni-an* MH KBo VIII 35 II 21, insufficient for determining the stem's conjugation type with certainty. But, as the stem appears to be based on the verbal noun written in IBoT I 33 23, 28, 41, etc., as *iš-ga-ra-tar* neut. 'piercing, sticking through' (based on the root verb stem *iš-ka-a-r+* / *iš-ga-r+* (-*hhi* conj.) 'stick through', see StBoT 26: 79 with attestations), it is more likely to belong to the -*hhi* than to the *mi*-conjugation. See also Excursus III, and cf. *ták-ša-an-ni-i*+, etc., 'to level, smooth out' below.

55. *iš-ta-an-ta-a-i-i*+ 'linger, hesitate'. The only form in my collection is act. prs. sg. 3 *iš-ta-an-ta-a-i-iz-zi* OH StBoT 25 No.139 Rs. 8. The stem could be denominative, but that is not certain since its putative nominal base is not attested (cf. Puhvel's confident derivation from "a noun *istant- < *stA₇-nt- (root *stā- 'stand'...)" 1984: 465 which leaves the verb stem shape unexplained; *stā- as the ultimate etymon is, however, quite likely). Although the stem final in this form makes the stem a possible member of class I, more attestations are needed to be certain that the stem does not belong in class IV (see below).

56. *ka-li-(e)-li-e-i*+ 'to fetter, shackle'. The attestations in my collection are both act. prt. sg. 3 *ka-li-li-e-it* MOH XXXVI 100 Vs. 16 and *ka-li-e-li-e-it* LOH? XVII 5 I 16. The base is not attested outside this stem but it can hardly be anything but nominal. The stem's member-

H OH¹ d p24, 19

ship in class I is uncertain because the sign *li* is ambiguous (it can be read as both [*le*] and [*li*]), and there are no disambiguating forms such as the participle or act. prs. pl. 3.

57. *ka-ru-(ú-)uš-ši-ia(-a=)*+ 'be silent, hide (intr.)'. The attestations in my collection are all post-OH: act. prs. sg. 3 *ka-ru-uš-ši-ia-zi* LMH XIII 8 Vs. 7 and *ka-ru-ú-uš-ši-ia-zi* LMH XIII 9 III 13, pl. 3 *ka-ru-uš-ši-ia-an-zi* MH IBoT I 36 IV 14. The base *ka-ru-(ú-)uš-š+** is not attested separately, but is likely to be nominal. It seems to me possible, on both formal and semantic grounds, that the base is derived from the same root as the stem *ka/ga-ri-(i-)e-i+* : *ka/ga-ri-ia-a+* 'cover, hide' (see above). A parallel correlation of derivatives apparently exists between stems such as *nakk(i)ye-* 'be heavy' and *nakkuss(i)ye-* 'be ritually impure (?)' or perhaps 'be burdened' (metaphorically), *dākk-* (*-hhi* conj.) 'look like, correspond' and *tekkuss(i)ye-* 'show (intr.), appear' (see below). I explain *+u-uš-š+* segmented out of these bases as cognate with IE **-us-*, zero grade of the suffix **-wos-* used to form the perfect participle of IE.

58. *kar-tim-mi-ia(-a=)*+ 'be wroth'. The oldest example in my collection is mid. prs. sg. 3 *ka[r-tim-mi-]ia-it-ta* MH IBoT I 36 I 49; if the missing parts are supplied correctly, this is in fact a class IV form. The other examples are mid. prs. sg. 3 *kar-tim-mi-ia-at-ta-[ri]* LOH XXIX 9 I 3, *kar-tim-mi-ia-ta-ri* *ibid.*, 21, pl. 3 *kar-tim-mi-ia-an-ta-ri* MOH KBo VI 3 II 32. This stem's presumably nominal base (it could hardly be anything but nominal, for structural reasons) is unattested. Also, one could not be absolutely sure about the conjugational type of the stem, although, as I have already pointed out, it is more likely to belong to the *-mi* conj. than to the *-hhi* conj. On the morphology of the verb, see van Brock 1960: 143 f. and Oettinger 1979: 255 n. 35.

See Chapter 3 (HL 31) for an Anatolian cognate of the root, with lit.

Etymologically, the stem from which this denominative is derived looks related to PIE **k₁rd-* 'heart' (for the meaning, cf. Russian *сердиться* [refl.] 'to be angry' from *серд-це* 'heart' (< PIE **k₁rd-*).

59. *ki-iš-ta-an-zi-a+* 'to hunger, starve'. The only attestation in my collection is mid. prt. sg. 3 *ki-iš-ta-an-zi-at-ta-at* (see also StBoT 5: 99).
OH

Its conjugation type is thus not certain, although likely to be *-mi*. The stem is based on the noun *kištant-* c. 'hunger' (HW1: 111b).

60. *ku-ud-da-ni-e-i+* '?'. The meaning of this verb is uncertain. Its only attestation in my collection is act. prs. sg. 3 *ku-ud-da-ni-e-iz-zi* MH XVI 25 Vs. I 8'. There is too little context to be sure about what the form means. The base (*ku-ud-da-n+* or *ku-ud-da-ni+*) certainly looks nominal, and there is a noun, *kuttar* neut. : obl. *kuttan-* 'shoulder, upper arm'; 'physical strength' (HW1: 121ab) or 'chest' (Erg.2: 16b). (Cf. Sturtevant's etymologizing with Lat. *guttur* 'throat', see reference in HW1: 121b).

61. *li-e-la-ni-(e)i+* : *li-e-la-ni-(ia-)a+* 'be furious / enraged'. Attestations in my collection include: mid. prs. sg. 3 *li-e-[la-]ni-at-ta* OH KBo VI 2 II 14 (if E. Neu [StBoT 5: 108] is correct), prt. sg. 3 *li-e-l]a-ni-it-ta-at* MH XXXIII 10 Vs. 15, *li-e-l]a-ni-e-it-ta-at* 9, participle *li-e-la-ni-ia-an-za* (nom. sg. c.) MH XVII 10 II 33, IV 4. Now see also HD: 58b f., with attestations and lit. The conjugation type of this stem is not known with certainty, and its nominal base (hardly other than nominal) is not attested independently.

62. *na-aḥ-ša-ri-(ia-)a+* 'be afraid'. The attestations in my collection are not sufficient for determining the stem's conjugation type with certainty. They are: mid. prt. sg. 3 *na-aḥ-ša-ri-ia-ta-ti* LO?H KBo III 1 I 35, *na-aḥ-ša-ri-ia-at-ta-at* LMH XII 60 I 12, pl. *na-aḥ-ša-ri-ia-an-ta-ti* OH XXXVI 100 Rs. 4, *want*-adjective *na-aḥ-ša-ri-ia-wa-an-za* 'fearful' (nom. sg. c.) LO?H KBo III 21 II 17. The stem seems to be based on the noun *naḥšar(a)-** 'fear' or the like, attested only in sg. abl. *na-aḥ-ša-ra-az* IBoT I 36 I 59.

Cf. Oettinger 1979: 352 who gives "**nahsra/i-*" as the base of this stem, comparing directly it with Olr. *nár* 'modest; diffident; fearful(?)' whose meaning is not always clear.

63. *na-ak-ki-e-(i=)+* 'be hard/difficult/heavy'. The attestations in my collection (act. prs. sg. 3 *na-ak-ki-e-zi* LM?H KBo XIII 13 Vs. 14', prt. *na-ak-ki-e-it* LOH XXXI 4, 17; KBo III 41, 16) are not sufficient to be certain about the stem's class, due to the ambivalence of the sign *ki* (both [*Ki*] and [*Ke*]). Watkins 1973 normalizes the stem as *nakke-* and

uses it as an example of the denominative stative in *-ē* (op. cit., p.72 f.). His normalization, however, is not compelling; actually, the stem in question is more likely to belong to class I, cf. the factitive *nakkīyahh-* ‘make heavy, respect’, etc., [HW1: 148a] (not **nakkahh-*). The stem is apparently based on the adjective *nakki-* ‘heavy’, etc. (HW1: 148a). It is also possible, however, that it is primary (i.e., based on the root *nakk-**, cf. the following stem).

64. *na-ak-ku-uš-ši-e+* ‘be ritually impure (?)’. The two attestations in my collection come from the same MH text: act. prs. sg. 3 *n[a-ak-ku-uš-ši-e-zi* MH KBo XIII 13 Vs. 6’ and *na-ak-ku-uš-ši-e-zi* ibid., 13’. The use of the sign *ši* (not *še*) puts the stem unambiguously in class I. Its nominal base, *na-ak-ku-uš-š+* (possibly derived from the same root as *nakki-*, see preceding page and the section on *ka-ru-(ú-)uš-ši-ia-(a=)+* above), is attested as neut. acc. sg. *na-ak-ku-uš* in the Laws, §98 (OH KBo VI 2 IV): (53) *ták-ku LÚ-aš EL-LUM É-ir lu-uk-ki-iz-zi* [É-ir EGIR-pa ú-e-]te-iz-zi (54) *an-da-an É-ri ku-it har-ak-zi LÚ.ULÙ[.LU-ku GUD-ku UDU-ku e-eš-za* (sic!) *na-ak-ku-uš* (55) *na-at [šar-ni-ik]-za* (sic!).⁴¹ Laroche (1986: 137f.) translates the word as “dommage.” Cf. Nadia van Brock on *nakkušši/a-* c. “substitut vivant” and RHA XVII/65, p. 144 n. 33. While I see no reason to accept Laroche’s etymology (: PIE **nek-* “périr, faire périr” > Gk *nekus* “cadavre,” Lat *-nocuus* “nuisible,” *noxa*, “pratiquement synonyme du hitt. *nakkuš*,” Laroche 1986: 140), I believe he is correct as far as the general sense of the noun. As a legal and ethical term it may well have developed tropologically from the basic meaning “heavy,” cf. “heavy heart,” “weighing heavily on one’s conscience,” “heavy offense,” “heavy penalty,” etc. See Chapter 4 for a discussion of the word’s morphology.

65. *nu-un-tar-ri-(e-)i+* ‘hurry’. Attestations in my collection are insufficient for determining the stem’s class with certainty, due to the ambiguous value of *ri* ([*ri*] and [*re*]) and the lack of disambiguating forms (such as prs. pl. 3 and the participle). The attestations are as follows: act. prs. sg. 3 (?) *nu-un-tar-ri-e-i[z-zi* MH KBo XVI 25 I 7’, imperative sg. 3 *nu-un-tar-ri-id-du* MH KBo XVI 24 I 16’, KBo XVI 25 I 66’, mid.

⁴¹The material in brackets comes from the MOH text KBo VI 3 IV which also substitutes *e-eš-zi* for OH *e-eš-za* and has *šar-ni-ik-zi*.

present or imp. sg. 3 *nu-un-tar-ri-it-ta*[*ibid.*, 69'. The stem's nominal base is attested in the gen. sg. (adv.) form *nuntaraš* 'hastily' (q.v. in HW1: 152b with lit.) and may be either a consonant stem (*nuntar-**) or an *a*-stem (*nuntara-**); cf. Oettinger 1979: 351 "zu **nuntar* in *nuntaraš* 'eilends'."

66. *pa-an-ga-ri-ia-a* + 'be copious, increase'. The two attestations in my collection are insufficient for determining the stem's conjugation type with certainty: mid. prt. sg. 3 *pa-an-ga-ri-ia-at-ta-ti* LOH KBo III I II 31 and 33 (in both cases, the subject is *e-eš-ḫar* 'blood[-letting]'; see StBoT 5: 135 for contexts). The stem's nominal base is attested in the instr. [*pa-*]*an-ga-ri-it* 'en masse' (cf., e.g., Russ. толпой 'in a crowd' instr. sg.); see also StBoT 18: 64 for a discussion and other attestations (all instr.) of the noun. The instrumental can be formed not only from an *r*-stem (*pangar-**) but also from an *a*-stem (*pangara-**) or an *i*-stem (*pangari-**).

67. *pa-tal-li-ia-a* + 'fetter'. I have only one attestation of this stem: act. imp. pl. 3 *pa-tal-li-ia-an-du* LMH StBoT 22 Eid I Vs. I 30'. (Note that Oettinger [1979: 29 and 600] lists the stem as "*pattalje-*," with *tt*, which is incorrect.)

The form is not sufficient to determine the stem's conjugation type. The supposed nominal base of the stem is not attested separately. It is likely, however, that the noun from which the stem is derived is **pa-tal-li* + 'fetter' which, I propose, is based on the noun *pat(a)-* 'foot' (HW1: 165b) (cf. Gk. ποδός gen sg. 'foot', etc.); cf. German *Fessel* and English *fetter* for typological (at least) parallels of word formation. For the suffix +*al-li*+, cf. the list of derived adjectives and substantivized adjectives in +*al-li*+ (and in +*a-li*+), see Kronasser 1966: 211 f.; cf. also Oettinger 1979: 265 on *hulāli-* and *harpali-*).

68. *pīt-tu-li-a*=/*ia*+ 'to cause anguish'. The attestations in my collection (acc. sg. c. of the participle *pīt-tu-li-ia-u-wa-ar* *ibid.*, III 6) are not sufficient for determining with certainty the stem's conjugation type; however, if the stem is based on the noun *pīttul-* 'noose' or 'lace, cord' ("Einschnürung" Erg. I: 16b with lit.; I *pīttula-* "Schlinge" HW1:

172a; Kronasser 1966: 342 with lit., *pittul(a)*- ‘Schlinge’),⁴² then it is more likely to belong to the *-mi* conjugation.

For the possible semantic connection of ‘noose/cord’ and ‘anguish’, cf., e.g., Lat. *angō* ‘choke, strangle’ and ‘anguish, torment’ and the possible Slavic cognates OCS жза ‘δεσμός’ : Russ. узы ‘fetters’ and OCS жзъкъ ‘στενός’ : Russ. узокъ ‘(is) narrow’, узелъ ‘knot’, etc. (cf., e.g., Vasmer 1973: 152 with lit.).

Cf. Puhvel 1979: 211 for some etymological attempts.

A connection with Russ. and Russ. Church Slav. петля ‘noose’ < Proto-Slavic **petъlja* or **petъlja* is likely, unless these are really borrowings from Germanic (OE *fetel* ‘belt’, OHG *fezzil* ‘fetter’, mentioned and rightly rejected by Puhvel, because of the Hittite *tt* rather than *t/d*, as cognates of the Hittite, loc. cit.).

69. *pu-ta-li-ia-a* + ‘tuck up’; ‘dress lightly’(?). Only the participle is attested in pre-LH: *pu-ta-li-ia-an-te-eš*- (nom. sg. c.) OH StBoT 25 No.4 Vs. I 20’ and *pu-ta-li-ia[(-a)]n-te-eš*- No.3 Vs. I 25’. The conjugation type is not known for certain, and the putative nominal base is not attested. Etymologically, however, cf. Russian подóль ‘hem (of a dress)’.

70. *ša-ak-ku-ri-ia* + ‘overpower, subdue’. The only attestation in my collection is act. prs. sg. I *ša-ak-ku-ri-ia-nu-un* LOH KBo X 2 Vs. II 19; cf. also mediopassives (all post-OH) in StBoT 5. The supposed nominal base is not attested separately.

71. *ša-a-ki-i* + ‘reveal’. The only attestation I have is act. prs. sg. 3 *ša-a-ki-iz-zi* MOH XXXVI 32, 2. The stem may be based on the noun *šagai*- c. ‘omen, sign’ (e.g., *ša-ga-i-[i]š* nom.sg. OH StBoT 25 No.3 Rs. IV 9; see HW1: 176a), as Kronasser (1966: 124 and 495) proposes. It is also possible, however, that the verb is primary (Oettinger 1979: 345). The absence of forms such as prs. pl. 3 or the participle make it possible that the stem belongs in a different class (since the sign *ki* is ambiguous, i.e. can be read as both [Ki] and [Ke]), namely such that its prs. pl. 3 (act.) would end in *=kán-zi* and the participle, in *=kán-t=* or the like, cf. my provisional classes V and VI (defined above; in de-

⁴²Cf. also the noun *pittuliya*- c. OH ‘anxiety’ (attestations listed in StBoT 26: 152), a derivative of *pittul*- neut.

tail see further in this Chapter). On the stem's etymology see Chapter 4.

72. *šal-li-i+* and *šal-li-ia-i+* (class IV) mid. 'to sprawl, be wide'. The only attestation of the class I stem (possibly) is mid. imperative sg. 3 *šal-li-it-ta-ru* LMH StBoT 22 Eid 1 (=KBo VI 34) Vs. II 2. The class, or even the conjugation type of this stem, cannot be determined with certainty: the former, because the sign *li* is ambiguous ([li] and [le]); the latter, because only the mediopassive forms are attested. The stem is possibly based on the adjective *šalli-* 'big/large' (HW1: 179ab with lit.) The same text that contains the above attestation has the class IV attestation: mid. prs. sg. 3 *šal-li-ia-it-ta* LMH StBoT 22 Eid 1 Vs. I 50. The form *ša-li-iz-zi* in StBoT 25 No.139 Vs. 11' occurs in what appears to be a Palaic context (q.v.) and, most likely, has nothing to do with the stem in question (StBoT 26: 319 treats it as a Palaic word).

73. *še-ḫu-ri-e-i+* 'urinate'. The single attestation in my collection is act. prs. sg. 3 *še-ḫu-ri-e-iz-z[i]* MH KBo XXIII 23 Vs. 29'. The stem is derived from the noun *šeḫur-* neut. 'urine' (HW1: 189b). Its class, however, is not known with certainty because of the ambivalence of the sign *ri* ([ri] and [re]) and the absence of disambiguating forms (e.g. either **še-ḫu-ra-an-zi* or **še-ḫu-ri-(ia-)an-zi* [act. prs. pl. 3]).

74. *ši-ia-at-tal-li-ia-a+* 'to seal as acquired / purchased' or the like. The only attestation I have is act. prs. sg. 3 *ši-ia-at-tal-li-ia-az-zi* LOH KBo VI 5 IV 3. The unattested noun on which the stem is likely to be based (viz. **ši-ia-at-tal-la-* [or **ši-ia-at-tal-li-* under the possible Luwian influence; see Laroche 1959: 139 §30.3]) looks like a *nomen agentis* in *-talla-* [Luw. *-talli-*]⁴³ of the verb (+š-) *ši-i+* : (+š-) *ši-ia+* 'press', etc., see above. The stem is apparently a late replacement of the stem *ši-it-ta-ri-i+*, etc., 'id.'

75. *ši-it-ta-ri-i+* / *ši-ia-at-ta-ri-i-e-i+* : *ši-ia-at-ta-ri-ia+* 'to seal as acquired / purchased'. The attestations in my collection are: act. prs. sg.

⁴³Pace Oettinger's unsupported assertion (1986: 20) that "[e]in slavischem *-tel-* entsprechendes hethitisches Suffix *-talla-* (-*-*tel-*) existiert entgegen bisheriger Ansicht nicht."

3 *ši-it-ta-ri-iz-zi* OH KBo XIX 1 Vs. II 19', *ši-it-ta-ri-iz-zi* *ibid.*, 24', *ši-ia-at-ta-ri-ia-zi* MOH KBo VI 3 II 39, *ši-ia-at-ta-ri-i-e-iz-zi* *ibid.*, 45, prt. *ši-it-ta-ri-it* OH KBo VI 2 III 19, MOH KBo VI 3 III 22. The stem's putative nominal base is *siyatar** 'seal' apparently attested in É *siyannas* = É NA₄ KISIB "house of the seal" = 'treasury' or the like (HW1: 193a).⁴⁴ Even more likely is the possibility that the stem is based on some extension of *siyatar** such as **siyatara-* or **siyatari-*, because otherwise the expected verb stem would be based on the shape of the stem in the oblique cases (i.e., **siyann(i)ye-* or the like [?]), cf., e.g., *ták-ša-an-ni-i+* from *taksatar* neut., see below.

76. *ták-ka/ga-li-i=/e=/e+* : *ták-ka/ga-li-ia-a+* 'embrace, enclose'. The attestations in my collection are as follows: act. prs. sg. 2 *tág-ga-li-e-ši* LO?H II BoTU (=KBo III 17+18+19) III 22, prt. sg. 3 *ták-ka-li-it* OH KBo VII 14 Vs. 8, 9, 10, LOH XXXVI 100 Rs. 6, participle *tág-ga-li-ia-an-da* (neut.pl.) LOH KBo VI 10 I 17, KBo VI 11 I 14, *tág-ga-li-ia-an-da-* LOH KBo VI 11 I 12, *ták-ka-li-ia-an-da-* LOH XXIX 23, 8, *ták-ka-li-en-d[a* *ibid.*, 10. This stem's base, although not attested separately, could have hardly been anything but nominal.⁴⁵

77. *ták-ša-an-ni-i+* / *ták-ša-at-ni-i+* : *ták-ša-at-ni-ia-a+* to level, smooth out'. The stem is apparently based on the noun *tákšatar* neut. 'level / smoothed out surface' (see HW1: 204a [with the wrong meaning] and [improved] Erg. 3: 30b). The attestations in my collection are insufficient for determining the stem's conjugation type with certainty (although it quite likely belongs to the *hhi*-conjugation due to its derivation; see on this also Excursus III): middle imperative plural 3 *ták-ša-at-ni-ia-an-ta-ru* MH XV 34 I 45, **-ške*-forms: act. prt. sg. 3 *ták-ša-an-ni-iš-ki-it* LOH KBo X 2 II 5, active imperative plural 2 *ták-ša-at-ni-iš-ki-it-ten* MH XV 34 III 52. Only the LOH attestation has the properly Hittite shape of the nominal base stem (i.e., Hitt. =Tn=

⁴⁴*siyannas*, the gen. sg. of the verbal noun *siyatar**, is derived from (+š-)ši-i+ 'to press', etc. (q.v. above).

⁴⁵See Kronasser 1966: 509, with lit., on the possibility that the stem has the same root as *tággani*- 'breast' (HW1: 204a). See also Haas/Wäfler, UF 8, 92, n. 82.

> =nn=, cf. HE 2: 34 §32a)1); the others preserve the cluster and thus perhaps show Luwian influence (see, e.g., HE2: 185, §379c).

78. *te-ik-ku-uš-ši-e-i+* ‘show oneself, appear’.⁴⁶ The attestation in my collection is act. prt. sg. 3 *te-ik-ku-uš-ši-e-it* LOH KBo III 60 Vs. I 5. The putative nominal base is **te-ik-ku-uš-š+*, cf. lemma 56 above.

OH prs 3 sg. 3. *te-ik-ku-uš-ši-e-i-2*

79. *tu-pí-i+* : *tup-pí-a+* ‘?’ (‘strike’, ‘caedere/incidere’?). It is not even clear whether the stem to the left of colon belongs to the same paradigm as the stem to the right (note the use of *tu* in the former vs. *tup* in the latter). Attestations: act. prs. sg. 3 *tu-pí-iz-zi* LOH KBo XII 3 Rs. III 6'; participle *tup-pí-an-za* (nom.sg.c.) MH Mst.75/10 öy.4, 75/11 öy.5, 75/69 öy.6, [*tu*]p-pí-an-za 75/13 öy.12. The uncertainty of the stem's meaning creates obvious difficulties in hypothesizing about its derivation. If the stem means ‘caedere/incidere’ or the like (as is suggested by its possible Luwian and Lycian cognates, viz. Cuneiform Luw. *du-ú-pí+* ‘strike’, Hieroglyphic Luw. *tu-pi+* ‘caedere’ and *à-ta tu-pi+* ‘incidere’, Lyc. *tubi-* : *tube-* ‘caedere’, see Chapter 3), it might be based on the noun *tuppi-* neut. ‘clay tablet’ (HW1: 228b: “als Idgr. ist DUB anzusehen; akk. entspricht *tuppu*”; also Elam. *tuppi* and possibly OPers. *dipī* ‘inscription’; all likely to be “traveling loanwords.”⁴⁷

80. *ú-e/i-šu-(u-)ri-ia-(a)=* ‘be tied; suffocate; be oppressed’. The attestations in my collection are as follows:

mid. prt. sg. 3 *ú-i-šu-u-ri-ia-ti* MOH XVII 10 III 14
ú-i-šu-u-ri-ia-at-ta-ti LOH XXXIII 51 II 5
ú-e-šu-ri-ia-at-ta-ti LOH XXXIII 11 III 9
ú-i-šu-ri-ia-at-ta-ti LOH? XXXIII 46 I 11
ú-i-šu-ri-ia-ad-da-at LOH? XXXIII 45+ 53+ II 8
 pl. *ú-i-šu-u-ri-ia-an-ta-ti* MOH XVII 10 I 6, 7, 8
 LMH KBo XIV 86 I 15
ú-i-šu-ri-ia-an-ta-ti LOH XXXIII 37+39 IV 2

⁴⁶The meaning acc. to Oettinger 1979: 29, 255, 340, 356.

⁴⁷I don't see any evidence for the Indo-Hittite origin of the root, cf. Kimball 1994: 85 (< PIE ***(s)teup-**).

ú-i-š]u-ri-ia-an-ta-at MOH XXXIII 36 II 6

ú-i-šu-ri-an-da-at ibid., 8

participle ú-i-šu-u-ri-ia-an-za- MOH XVII 10 II 8

The stem's conjugation type is not certain, for the want of active forms (sg.). The putative nominal base (**we/išur-*, **wešura-* or **wešuri-*) is not attested separately. Other attestations (LH) see in StBoT 5: 201 f. The stem is discussed in StBoT 2: 49 ff.

ú-e/i-šu-(u-)ri-ia-(a=)+ with its meaning 'to be oppressed, weighed down' is, in my view, a cognate of OCS висѣти 'to hang, pendere' (< **weis-ē-*), Russian вѣсъ 'weight, pondus' < **wois-*. Eichner's proposal (1973: 77) which takes the stem back to Pokorny's **ueis-* 'drehen' (Pokorny 1959: 1133), repeated in Kimball 1994: 26, seems less likely for semantic reasons.⁴⁸ See Chapter 4 for more detail.

81. *uš-ša-ni-ia-(a=)+* 'sell, trade'. See *uš-ne-e+** below (class IX).

82. *ud-da-ni-ia-a+* 'proclaim'. The only attestation I have is act. imperative pl. 2 *ud-[d]a-ni-ia-at-ten* LOH/LMH XVII 8 IV 5. The form is insufficient for determining the stem's conjugation type, but it is likely to be a class I denominative based on the noun *uttar* (neuter r/n-stem) 'word/thing' (HW1: 237a; e.g., *ut-tar-še-it* 'his/her word' OH StBoT 25 No.13 Vs. II 10').

83. *wa-ag-ga/qa-ri-ia-(a=)+* 'make (someone) suffer deprivation; be rebellious'. I have the following attestations: active preterite sing. 3 *wa-ag-ga-ri-ia-at* LOH KBo III 1 II 21, imperative sg. 2 *wa-ag-ga-ri-ia* LOH I 16 II 65, verbal noun *wa-aq-qa-ri-ia-u-ar* LMH XXIII 11 III 6, *wa-a]q-qa-ri-ia-u-ar* MH XXIII 12 III 7. The stem's putative base is not attested independently, but it could hardly be anything but nominal (**waggar-*, cf. *ha-ap-pa-ri-e/i+* 'give, turn over (to)' [q.v.] based on

OH wa ak ka ri-ja-šar-zi

⁴⁸Eichner's "slav. *vichru* 'Wirbelwind'" (1973: 77) is incorrect. The Proto-Slavic forms should be **vichŭrī* 'whirlwind' and **vichŭrŭ* 'a twisted stalk; forelock' (see Slavic forms under *вѣхорь* and *внхоръ* respectively in Vasmer), the former a *-yo- derivative from the latter.

ḥa-ap-pa-r+ neut. 'exchange', etc.).⁴⁹

84. *wa-ar-ši-ia-a+* 'drip; be satisfied'.⁵⁰ The attestations in my collection are not sufficient for determining the stem's conjugation type and class with any certainty: mid. prs. pl. 3 *wa-ar-ši-ia-an-da* MH XXI 47 I 10, participle sg. nom. c. *wa-ar-ši-ia-an-za* MH XXIII 82 Rs. 16, MH XXI 47 I 10. The stem may be based on the noun *warsa-* 'dew, moisture' or the like (HW1: 247a and especially Erg. 3: 36a; see also Oettinger 1979: 429 with lit.). But there is no way to ascertain that the verb and the thematic noun are not derived from the root independently.

85. *za-aḥ-ḥi-(e)i+* : *za-aḥ-ḥi-ia-(a=)* + 'to fight'. The attestations in my collection are as follows:

act. prs. sg. 1 *za-aḥ-ḥi-ia-mi* MH KBo XVI 47 Vs. 9', 12'

2 *za-aḥ-ḥi-ia-ši* *ibid.*, 13'

3 *za-aḥ-ḥi-e-iz-zi* MH XXIII 77, 76

pl. 2 *za-aḥ-ḥi-at-te-ni-* MH XXIII 77, 16

prt. sg. 3 *za-aḥ-ḥi-ia-at* MH XXIII 72 Vs. 38

pl. *za-aḥ-ḥi-ir* MH XIV 1 Vs. 63

za-aḥ-[ḥi-]ir *ibid.*, 59

imp. pl. 2 *za-aḥ-ḥi-ia-at-ten* MH XXXI 103 Vs. 19

LMH XXVI 29, 16

mid. prs. sg. 1 *za-aḥ-ḥi-ia-aḥ-ḥa* MH XXIII 72 Rs. 41

za-aḥ-ḥi-ia-aḥ-ḥa-ri MH XIV 1 Vs. 31

za-aḥ-ḥi-ia-aḥ-ḥa-ri *ibid.*, 29

3 *za-aḥ-ḥi-ia-at-ta* LOH KBo III 46 Rs. 32

ibid., 41

⁴⁹The root is *wa-ag-g+*, cf. the root verb stem *wa-ag-g+* 'be missing' in *wa-ag-ga-a-ri* (mid. prs. sg. 3) pre-LH KBo IV 8 II 10; cf. the same root also in *wa-ak-ši-ia-(a=)* + 'to lack, be missing' (only LH, as far as I know) in, e.g., act. prs. sg. 3 *wa-ak-ši-ia-zi* VIII 35 I 11, etc.

⁵⁰If one stem originally, the semantic development may have been (roughly) 'drip' > 'overflow (from abundance)' > 'be satisfied'?? Or two different stems?

- pl. 2 *z]a-aḥ-ḥi-ia-ad-du-ma* MH XXIII 11 III 30
 prt. sg. 1 *za-aḥ-ḥi-ia-aḥ-ḥa-at* LMH XXIII 11 III 30
 imp. sg. 1 *za-aḥ-ḥi-ia-aḥ-ḥ[a-ru* LOH XXVI 35, 7
 2 *za-aḥ-ḥi-ia-aḥ-ḥu-ut* *ibid.*, 8
 pl. 2 *za-aḥ-ḥi-ia-ad-du-ma-at* MH XXVI 17 I 5
 LMH XIII 20 I 7
 -[-at(?) *ibid.*, 19

-ske- forms:

- act. prs. sg. 1 *za-aḥ-ḥi-iš-ki-m[i* LOH KBo III 41 Rs. 7
 za-aḥ-ḥi-eš-ki-mi LMH XXXIII 75 II 2
 3 *za-aḥ-ḥi-iš-k[i-i]z-zi* MH XVII 10 II 34
 za-aḥ-ḥi-iš-ki-iz-zi LMH KBo XII 126 I 34
 mid. prs. sg. 3 *za-aḥ-ḥi-iš-kán-ta* OH StBoT 25 No.54 Vs. II 16'

One possibility is that the stem is based on the noun *zahhāi-* c. 'fight, battle' (gen.sg. *zahhiyas*, dir. *zahhiya*, etc.; HW1: 257a); this is the view of Kronasser (1966: 497) shared by Oettinger (1979: 446).

The other possibility (just as likely, if not more likely than the first) is that the stem is based on the root stem *zahh-* 'to strike' (see attestations in Kronasser 1966: 387 and in Oettinger 1979: 446 with lit.).⁵¹ The semantic difference between the root stem and the class I stem is that between semelfactive ('strike') and iterative ('fight') and seems to be well represented in Hittite, cf. *hatt-* : *hazz(i)ye-*, *karp-* : *karp(i)ye-*, *wer-** : *wer(i)ye-*, etc., above, in the section on deverbatives.

Secondary Stems (c): ?

86. *kat-kat-ti-i+* : *kat-kat-ti-ia+* 'sink, drop' appears to be neither

⁵¹Oettinger 1979: 446 classifies *zahh-* as a *-ḥḥi* verb based on one LMH form (*za-a-ḥi* KBo VI 25+ III 7', StBoT 9; note the spelling with a "single" *ḥ*, which arouses suspicion: is this a misspelling? or a different word?), while *-mi* forms are also attested (e.g., act. imperative sg. 3 *za-aḥ-du* XLIII 35, 10' LMH) and other forms (such as *za-aḥ-ḥu-u-e-ni* LOH KBo III 60 II 17 or *za-aḥ-ḥa-an-zi* StBoT 29: 165) are neutral with regard to the conjugation type.

denominative nor deverbative. Its attestations in my collection are as follows: act. prs. sg. 3 *kat-kat-ti-ia-zi* LOH XXIX 9 I 6; *-*ske*-form: *kat-kat-ti-iš-ki-iz-zi* (act. prs. sg. 3) LMH XXXIII 103 III 5. Morphologically, the stem reminds one of *ḥu-ul-ḥu-ul-li-ia-a*+ ‘fight one another’ based on the same root as *ḥu-ul-li-i*+ ‘combat’ (see above). There is, however, no known verb base to the stem in question; a root *katt-* is apparently found in the adverb *katti* (loc.), *katta* (dir.), *kattan* (nom. / acc. sg. neut.??) which, according to Starke (StBoT 23: 181ff.) means ‘together with’ (a philologically well-justified improvement on HW1: 105 *katta*... “unten; hinab; herab...,” etc.).

Opaque Stems

87. *pal-ku-i-ia-a*+ ‘applaud; praise’ (??) is attested in my collection once: mid. prs. pl. 3 *pal-ku-i-ia-an-ta* LOH XXIX 1 III 5 (see StBoT 5: 134 f. for the context and literature). Noteworthy is Güterbock’s (1946: 79 f.) proposal connecting this stem with *pal-wa-a-i*+ ‘clap (one’s hands)’ (q.v. below). Since only a middle form is attested, the stem’s conjugation type is uncertain. There is not enough information for determining whether the stem is primary or secondary (and if the latter, whether it is deverbative or denominative).

88. *pu-ut-ki-i-e-i*+ ‘to swell, rise (dough)’. The stem’s only attestation in my collection is mid. prs. sg. 3 *pu-ut-ki-e-it-ta* LMH StBoT 22 Eid I Vs. I 39 (=KBo VI 34 I 33). Neu (StBoT 5: 143) adduces also *pu-ut-ki-iš-ki-it-ta-ri* n.d. VIII 36 II 14, mid. prs. sg. 3 *-*ske*- form to this stem.

89. *šar-ḥi-i-e-i*+ ‘to knock down, attack suddenly’. In my collection, the stem is represented by act. imperative sg. 3 *šar-ḥi-i-e-id-du* MH KBo XVI 24, 15’ (other [LH] attestations see in Oettinger 1979: 288 n. 57). See also Beckman 1983: 196, where the verb is translated as “press, push [down or out]; oppress,” and a LMH imperative *šar-ḥi-ia-aḥ-ḥu-ut*, marked with a *glossenkeil*, is also adduced.

90. *ta-a-ni-i*+ ‘?’. The only occurrence of this stem in my collection is act. prs. sg. 3 *ta-a-ni-iz-zi* OH KBo XX 10 I 5. Oettinger (1979: 29

n. 24) suggests possible connection with “*taninu-* ‘ordnen’, das jedoch gelegentlich luw. Endung oder Glossenkeil (Bo 2562 IV 27”) aufweist.”

According to C. Watkins (personal communication), *ta-a-ni-iz-zi* may well be a misreading for *ta a-ni-iz-zi* ‘and he performs (the ritual)’.

Etymological connections (Greek τόνος ‘tension, tone’ and τένειν ‘stretches’, Gothic *uf-þanjan* < **-ton-éye-*, Vedic root aorist *atan* and a **-néu-* present *tanóti*) are clearly premature.

91. *za-ap-pí-ia-a+* ‘to sweat; drop’; mid. ‘leak, be leaky’. The stem’s attestations in my collection (mid. prs. sg. 3 *za-ap-pí-ia-at-ta* LOH KBo III 23 Vs. 11, LMH XXXI 90 III 7, XIII 2 II 38; *-ške-* form [act. prs. sg. 3] *za-ap-pí-iš-ki-iz-zi* LMH XXX 10 Rs. 15) are not sufficient to determine with certainty the stem’s conjugational type, class and derivational nature (i.e., whether the stem is primary or secondary). See also Hoffner, BiOr 38, p. 649.

Class II

There are no primary stems in this class, only the secondary (denominative) ones. These are as follows:

1. *ḫa-aš-šu-u-e-i+* / *LUGAL-u-e-i+* ‘be king’. The attestations in my collection are: act. prt. sg. 3 *ḫa-aš-šu-u-e-it* LOH KBo III 1 I 12; the same form written with the sumerogram: *LUGAL-u-e-it* *ibid.*, 23, *LUGAL-e-it* KBo III 57 II 4 (LOH). The stem is based on the noun *ḫa-aš-šu-u+* c. ‘king’ (written phonetically in MOH XXXI 100 II 9, 10; more frequently written with the sumerogram *LUGAL*); so also Kronasser 1966: 492, Oettinger 1979: 331. Watkins’s (1973: 77 f.) assumption of “an *e*-verb *ḫaššu-e-*” is discussed in Chapter 4.

See also Weitenberg 1984: 158, and cf. Puhvel 1991: 241 where the stem is listed incorrectly as “*hassuwai-*.”

2. *kap-pu-(u-)e/i+/ka-ap-pu-u-i+* : *kap-pu-u-a+/kap-pu-(u-)wa-(a=)+* ‘count, reckon, consider’. This stem is represented in my collection with the following attestations:

- act. prs. sg. 2 *ka-pu-u-e-ši* LOH KBo III 28 II 13'
kap-pu-u-wa-ši LOH XXXI 127 I 48
 3 *kap-pu-u-iz-zi* MH IBoT I 36 öy. I 46
kap-pu-e-iz-zi LMH XIII 7 I 9
kap-pu-u-wa-iz-zi LOH XXXIII 37+39 IV 3, 4, 5
 (class IV transfer!)
- pl. 3 *kap-pu-u-en-zi* OH KBo VI 2 IV 20
kap-pu-u-an-zi MOH KBo VI 3 IV 16
- prt. sg. 3 *kap-pu-u-e-it* MOH XVII 10 I 21; IV 20, 26
kap-pu-u-it MOH XVII 10 IV 27
 LOH XXXIII 38 IV 5
- pl. *kap-pu-u-e-ir* LOH XXIX 1 III 6
- imp. sg. 2 *kap-pu-u-i* MOH XXXI 130 Rs. 8
 LMH XIII 2 IV 20
ka-pu-u-i LOH KBo III 28 II 13'
 3 *kap-pu-id-du* LOH XXXI 131 Vs. 8
kap-pu-u-id-du LMH XIII 2 I 27
kap-pu-u-wa-id-du *ibid.*, 13
 (class IV transfer!)
- imp. pl. 2 *kap-pu-wa-at-te-en* LMH XIII 2 II 33
 LMH VBoT 58b I 19
kap-pu-wa-at-ti-en LMH XIII 2 III 1
- participle *kap-p[u]-wa-an-da* LOH KBo X 2 II 17
kap-pu-u-wa-an MH XVII 21 Vs. I 8, 13
 XXXI 87 I 8
 LMH XIII 2 I 23, 27, 32; IV 27
- verbal noun *kap-pu-u-wa-u-wa-ar-* LOH XXIX 1 II 9
kap-pu-u-wa-u-wa-ar- KBo 32.13 MS

-ske- forms:

- act. prs. sg. 3 *kap-pu-u-uš-ki-iz-zi* MH XXIII 72 Vs. 27
kap-pu-uš-ki-iz-zi MH KBo XVII 105 IV 21'
- imp. *kap-pu-u-is-ki-id-du* MH XXXI 87 II 13
 LMH XXXI 86 II 40

Note the writing of the stem in the two forms from KBo III 28 II 13' with the sign *ka* instead of *kap*. The obvious transfers into class IV (discussed below) can be explained by analogy statable in, e.g., the

following proportion: *tar-ma-an-zi* : *kap-pu-u-wa-an-zi* = *tar-ma-iz-zi* : *x* (*x* = *kap-pu-u-wa-iz-zi*). The putative nominal (hardly other) base is not attested independently. (See also Oettinger 1979: 332 f. and Weitenberg 1984: 68 with lit.)

3. *šar-ku-e-i*+/*šar-ku-u*+ : *šar-ku-wa-a*+/*ša-ra-ku-wa-a*+ 'put on footwear'

act. prs. sg. 3 ^{*šar-ku-e-iz-za* ! MS} *šar-ku-e-iz-zi* LOH XX 4 I 8'
 prt. *šar-ku-ut-ta* LOH XXXIII 67 I 28
 participle *šar-ku-wa-an-za* LMH StBoT 14 Appu I 26
ša-ra-ku-wa-an-te-eš LOH XXXV 148 III 39

Cf. Oettinger 1979: 335. The stem is apparently based on the *u*-stem adjective *šarku*- 'high, elevated' (pl. nom. c. *šargawēš*; HW1: 186a). Since the adjective is an *u*-stem, as, e.g., the quoted plural form seems to show (and not a consonant stem with the final *K*", which would be the other possibility), the sign *ku* here stands for *Ku*, not *K*". (For this reason, entering this verb into the index of StBoT 26(: 161) as "*šarku-a*-" is, in my view, unduly biased. Prt. sg. 3 *šar-ku-ut-ta* LOH looks athematic; the form may be a backformation to, e.g., the participle and the (unattested) prs. pl. 3 **šar-ku-wa-an-zi* if these were pronounced with [kw] instead of [kuä] or [kuwa] (two syllables). Cf. the discussion in Weitenberg 1984: 135 f.

At this point, I owe the reader a brief explanation which of necessity anticipates the later discussion. The stems that belong to my provisional class II are members of the same morphological class as those belonging to the provisional class I, i.e. the *-ye-* : *-ya-* (: IE **-ye-* : **-yo-*) class. After the final =*u*- of the base and before the following *a*= of the ending, in this case, **y* became phonetic zero. Following this change, the preceding *u* possibly became [w] before *a*; it is also possible that the *u* preserved its vocalic character but the glide [w] developed in the transition from *u* to *a*. Thus it is possible that, in the case of the base [*šarKu*]-, the base-final =*Ku* before *a* coincided with *K*". It is this latter possibility that would make the athematic backformation possible.

4. *ša-ru-u-e-i+* / *šar-wa-i+* 'to plunder'

act. prt. sg. 3 *šar-wa-it* LMH XXIII 21 Vs. 30

pl. *ša-ru-u-e-ir* MH XXXI 124 Vs. II 14
XVII 21 II 5; III 3

Cf. Oettinger 1979: 336 (where also see LH attestations). The stem is apparently based on the noun *šāru-* 'booty' (HW1: 187b and esp. Weitenberg 1984: 172); so Oettinger 1979 loc. cit. The form *šar-wa-it* LMH is a late transfer into class IV (q.v.) along the lines suggested above. It appears relevant to quote in this connection the following *à propos* passage from Oettinger 1979: 336 f.: "Der Grund, warum fast alle diese Stämme . . . auf "uūāi-" angesetzt wurden . . . liegt in den junghethitischen Umbildungen nach der *hatrae*-Klasse (=my provisional class IV—A.L.). So erscheint in dieser Epoche [huesuæzzi], [huesuæet] (see my provisional class III below – A.L.), [kapuæzzi], [kapuānzi], [kapuūai], [kapuūaetu] . . . usw. Diese Analogietendenz . . . ging von den *a*-haltigen Flexionsausgängen aus."

Class III

Primary (?) Stem

1. *šu-ū-i+* / *šu-ū-i-e-i+* : *šu-wa-a+* 'reject, expel, cast off'

act. prs. sg. 3 *šu-ū-iz-zi* OH KBo VI 2 IV 48

MOH KBo VI 3 IV 58

LOH KBo VI 26 II 4

MH KBo XVI 25 Rs. IV 5

šu-ū-i-e-iz-zi LMH VIII 81 Rs. III 7

prt. sg. 3 *šu-ū-it* MH KBo XVI 25 Vs. I 68'

pl. 2 *šu-wa-at-te-en* LMH IV 1 III 13

3 *šu-ū-ir* LOH XXXVI 105 Rs. 4'

Cf. Oettinger 1979: 294 for other attestations (including LH) and datings. The stem appears to be primary (i.e., not derived from another verb stem or a noun, etc.). It is quite possible, however, that two

middle forms (LMH) previously thought to belong to the paradigm of another (similar-sounding) verb, viz. *šu-wa-i*+* 'to fill' (see StBoT 5: 159), could very well belong to this stem:

mid. prt. sg. 3 *šu-ut-ta-ti* LMH StBoT 22 Eid 1 (=KBo VI 34) III 17
 imp. sg. 3 *šu-ut-ta-ru* *ibid.*, 21

The meaning 'be pulled out' or the like (a viable mediopassive to the above active stem) seems to fit very well in their contexts ("then he breaks the oath and the oath gods seized him, and his inside was pulled out [formerly: "swollen"], and his hand held the entrails high"; "let his inside be pulled out!"; see the texts in StBoT 5: 159). Unless these forms are morphologically late (replacements, via syncope, of the expected **šu-wa-at-ta-ti* and **šu-wa-at-ta-ru*), which is quite likely in view of their late attestation, they might be taken at face value as based on the root verb stem *šu-u*+. In that case, *šu-ú-i*+, etc., would be secondary.

Denominative

2. *hu-(u-)i-šu-(ú-)e-i*+ : *hu-(i-)šu-wa-a*+ /*hu-is-(šu-)wa-a*+ 'be alive'
 rrs p. 1 *hu-su-e-wa-ni* (OH/NS) – on wtk //Fs Hoffman!
 act. prs. sg. 3 *hu-iš-ú-iz-zi* MOH XXXVI 75 IV 3
 prt. pl. 2 *hu-iš-ú-e-te-en-* MH XIV 1 Vs. 12
 3 *hu-u-i-šu-ir* LOH XXXI 64 I 17'
 participle *hu-šu-wa-an-da-an* OH StBoT 25 No.4 Vs. II 14'
hu-šu-wa-an-za *ibid.*, No.112 Vs. II 4'
hu-iš-šu-wa-a[n-te-eš(?) *ibid.*, No.124 Vs. II 15'
hu-i-šu-wa-an-t[e-eš *ibid.*, No.117 Rs.? 7"
hu-iš-w[a-an-za *ibid.*, No.124 Vs. II 8'
hu-iš-wa-an-du-uš MH XXIX 7 Vs. 20, 27
hu-iš-wa-an-za *ibid.*, 31

Cf. Oettinger 1979: 331. There is also a *-hhi*-conj. active preterite sg. 3 *hu-iš-wa-a-iš* KBo III 63 I 2' LOH?. The dating notwithstanding, the form could have arisen through resegmentation of the stem alternant attested in the participle (e.g., *hwiswa*+*nt*+).

The stem appears to be based on the adjective *huišu-* (*huešu-*) 'live, fresh, raw' (HW1: 72a); so also Oettinger 1979: 331. For an unlikely interpretation (discussed at some length in Chapter 5) see Weitenberg 1984: 103 ff.

Other

3. *ú-(e-)i+/ú-e+/ú-i-i+ : ú-wa+/ú-(wa-)a+ 'come'*

act. prs. sg. 1 *ú-wa-mi* OH StBoT 25 No.7 Rs. IV? 11'

No.139 Vs. 15'; etc.

LOH XVII 5 I 1; etc.

LMH XIII 20 I 28

ú-wa-a-mi LOH XXIX 1 I 20

ú-wa-am-mi LMH VBoT 24 IV 9

sg. 2 *ú-wa-ši* OH KBo VII 14 Vs. 5

3 *ú-e-iz-zi* OH StBoT 25 No.3 Rs. III 13

ú-e-iz-zi MOH XVII 10 I 17

ú-iz-zi OH StBoT 25 No.3 Vs. I 40'

ibid., No.12 Vs. I 13', II 16', etc.

No.18 Rs.? 2';

No.19 Rs. 67

et passim

LOH KBo III 27 Vs. 26; etc.

MH XXVI 17 I 10; etc.

LMH XIII 2 III 39; etc.

pl. 1 *ú-wa-u-e-ni* OH StBoT 25 No.3 Rs. IV 7

No.4 Rs. III 16

MH XXIII 72 Vs. 28

ú-wa-ú-e-ni LOH KBo XII 42, 4

2 *ú-wa-at-te-ni* MOH KBo VII 28 Rs. 40, 45

MH KBo VIII 35 II 19

3 *ú-en-zi* OH KBo VI IV 13

StBoT 25 No.12 Vs. II 18'; Rs. IV 2

No.25 Rs. IV 24'

No.34 Vs. 7'

No.38, 8'; No.43 Vs. I 5', etc.

92! *ú-wa-a-zi* (iv)

- MOH KBo XVII+ Vs. I 5'
 LOH XLIII 48, 4'
ú-an-zi OH StBoT 25 No.19 Vs. 16 (end of line)
 MH IBoT I 36 öy.I 7
ú-wa-an-zi OH StBoT 25 No.54 Rs. III 7'
 MH IBoT I 36 öy.I 22
 LMH XIII 2 I 6; etc.
- prt. sg. 1 *ú-wa-nu-un* LOH KBo X 2 I 41, 45
 MH XIV 1 Rs. 55
 2 *ú-wa-aš* MOH XXXIII 27 Vs. 2 *ú-e es OH*
 3 *ú-e-it* OH StBoT 18 Rs. 66
ú-e-it StBoT 17A Rs. 13'
ú-e-it MOH XXXIII 59 III 11, 12
 XVII 10 I 17
ú-e-it! LOH XXXI 4 Vs. 18
ú-i-it- OH StBoT 25 No.123 4' *??*
ú-it OH XXXVI 99 Vs. I 3, 5; Rs. 8
 StBoT 17A Rs. 8'
 KBo VII 14 Vs. 7
 MOH XVII 10 IV 20
 LOH StBoT 17B Rs. 30'
 (//StBoT 17A Rs. 13), etc.
 MH XIV 1 Vs. 13, 18, 60, 62
 LMH KBo II 3 I 57
- pl. 1 *ú-wa-u-en* OH KBo VIII 42 Vs.? 5
 3 *ú-e-ir* OH KBo VI 2 III 16
 MOH KBo VI 3 III 19
 MH XIV 1 Vs. 71
 LMH XXIII 17, 5
- imp. sg. 3 *ú-id-du* LOH XXIX 1 III 1
 MH XIV 1 Vs. 74
- pl. 2 *ú-wa-at-ten* OH XLIII 23 Rs. 14' *OH 200*
 LOH I 16 II 45 end
ú-wa-at-te-en OH StBoT 17A Vs. 15
 LOH KBo III 41 Rs. 23
ú-it-te-en LOH KBo III 41 Rs. 2
 3 *ú-wa-an-du* LMH KBo XIII 58 II 25'
- participle *ú-wa-an-za* MH XXIII 72 Vs. 44

infinitive *ú-wa-u-an-zi* MH XIV 1 Rs. 31

Cf. the paradigm in Oettinger 1979: 131 f.

This stem is placed in class III on a purely descriptive basis, due to a mechanical application of the class identification procedure as stated in Chapter 1. The stem can be explained as consisting of the preverb *ú-* 'hither' and the root *+(e-)i+* 'go' (: IE **ei-*); its imperative sg. 2 *e-hu* 'come here' (attestations: OH XLIII 23 Rs. 10', KBo VII 14 Vs. 4, etc.; MH XIV 1 Vs. 17, 77, etc.; LMH VBoT 24 I 28, 37, etc.) is explicable as the same combination in the reverse order. See the summary to this chapter and Chapter 4.

Class IV

Primary Stem

1. *ša-a-i+* : *ša-a-a+* 'be wroth'

act. prs. pl. 3 *ša-a-an-zi* MOH XXXI 135 Vs. 14'

ša-an-zi MOH XXXI 127 I 47

prt. sg. 3 *ša-a-it* MOH XXXIII 67 I 26

MH XXX 10 Rs. 2

ša-a-it- MOH XVII 10 I 22

participle *ša-a-an-za* MH KBo XXVI 127 Vs.? 3'

verbal noun *ša-a-u-wa-ar* MOH XVII 10 III 20

Cf. the paradigm in Oettinger 1979: 362.

Secondary Stems

The attested secondary stems seem to be denominative only.

2. *ha-ap-(pa-)ra-(a-)i+* : *ha-ap-pa/pi-ra-a+* 'to put up for sale'

act. prs. sg. 3 *ha-ap-pa-ra-iz-zi* OH KBo XIX 1 II 17'

LOH KBo VI 10 III 28

ḥa-ap-ra-iz-zi LOH XXVI 56 II 5
 pl. 2 *ḥa-ap-pi-ra-at-te-ni* MH XXIII 72 Rs. 58
 3 *ḥa-ap-pa-ra-an-zi* LOH KBo VI 26 II 22
 prt. sg. 3 *ḥa-ap-pa-ra-a-it* OH KBo VI 2 II 52
 participle *ḥa-ap-pi-ra-an* LMH XIII 2 IV 16

Cf. also the stem *ḥa-ap-pa-ri-e+/i+* 'give, turn over (to)' (class I, see above) based on a similar (if not identical) nominal stem, namely *ḥappar* neut. 'exchange, transfer, trade' (HW1: 54a). The class IV stem, however, is more likely to be based on a derivative of the *r*-stem *ḥappar*, such as **ḥappara-* or **ḥappira-* (with the *e*-grade of the suffix, cf. the (L)MH attestations in the paradigm above).⁵² The writing *ḥa-ap-ra-i+* LOH perhaps reflects a later syncope rather than indicating that *ḥa-ap-pa-ra-i+* etc., should be read as [*hapra*]-.

3. *ir-ḥa-(a-)i+* : *ir-ḥa-(a-)a+* 'delimit'

act. prs. sg. 3 *ir-ḥa-a-i[z-z]i* OH StBoT 25 No.12 Vs. I 5'
 ir-ḥa-a-iz-zi LOH XXXIII 13 II 23'
 VBoT 58b IV 38
 MH KBo XXI 33 II 27'
 XV 34 IV 26
 ir-ḥa-iz-[zi] OH StBoT 25 No.45 r.col.7'
 MOH VBoT 58b IV 41
 pl. 3 *ir-ḥa-a-an-[zi]* OH StBoT 25 No.87, 8'
 ir-ḥa-an-zi OH StBoT 255 No.26 Vs.? I 18'
 prt. sg. 3 *ir-ḥa-a-it* MOH KBo VII 28, 42
 imp. pl. 2 [*ir*]-*ḥa-at-te-en* *ibid.*, 43
 participle *ir-ḥa-a-an* *ibid.*, 41

The stem is based on the noun *irḥa-* c. 'border, limit' HW1: 83b. See discussion in Chapter 4.

⁵²Cf. discussion in Neu 1974 (StBoT 18): 80 ff. and 1980: 82 ff.

4. *ga-an-ga-ta/da-a-i+* : *ga-an-ga-ta-a-a+* 'cleanse with the *gangati*-plant'

act. prs. sg. 3 *ga-an-ga-ta-a-iz-zi* MH XXIX 7 Vs. 2, 8, 9, 10, 15;

Rs. 64

ga-an-ga-da-a-iz-zi *ibid.*, Rs. 64 end

participle *ga-an-ga-ta-a-an-za-* *ibid.*, Vs. 11; 32

ga-an-ga-ta-a-an-te-eš *ibid.*, 12

Cf. Oettinger 1979: 379.

The stem is apparently based on the noun *gangati-* (a kind of plant) HW1: 98a with lit., possibly a Hurrian loanword. Note that the stem must be in the shape **gangatai-ye-*, i.e. the *i* stem noun has the full grade of the stem suffix *-i-* (whatever the ultimate origin of the noun).

5. *ku-(u-)ut-ru-wa-a-i+* 'be witness'

act. prs. sg. 3 *ku-u-ut-ru-wa-a-iz-zi* LOH KBo VI 4 IV 7

ku-ut-ru-wa-a-iz-zi *ibid.*, 10

The stem is apparently based on the noun *kutruwa-* c. 'witness' (which also shows some *n*-stem forms; see HW1: 121b and Oettinger 1979: 494 n. 94).

6. *li-la-a-i+* : *li-la-(a-)a+* 'conciliate, pacify'

See now HD: 57b for a complete list of attestations (most of the pre-LH ones are [L]MH). The base of the stem is the noun *lila-* c. 'conciliation, pacification' HD: 57a.

7. *pár-aš-na-a-i+* : *pár-ša-na-a-a+* 'squat, crouch, cower down'

act. prs. sg. 3 *pár-aš-na-a-[iz-zi]* OH StBoT 25 No. 153 Rs. III 16'

pár-aš-na-a-iz-zi OH XX 11 II 10 *OH-217* (CND: OH/MS?)

pl. *pár-aš-na-a-an-zi* LOH KBo XI 50 V 16

- pār-aš-na-an-zi* LOH X 54 III 2
 participle *pār-ša-na-a-an* OH StBoT 25 No.27 Rs.1 16'
 MOH KBo XVII 40 IV 10
pār-aš-na-a-an-te-eš LOH II 3 II 16
 verbal noun *pār-aš-na-a-u-wa-aš* LOH I 17 I 1, II 16, III 46
 pār-aš-na-u-wa-aš LOH XX 28 III 1

The stem is apparently based on the noun written as *pār-ši-na-** (acc. pl. comm. *pār-ši-nu-uš* LOH/LMH XXXIII 120 I 25 'buttocks, cheeks' (?)). The sign *ši* is used here either in an attempt to render the cluster **=rsn=* (cf. the use of *aš* and *ša* in the same slot in the verb stem) or perhaps to indicate a real anaptyctic [*i*] (hardly [*e*] as Oettinger would have it (1979: 365 n. 222: "[*parsēna-*]") because *ši* is used instead of the available *še*). For possible IE cognates of the noun, see, e.g., HW1: 163b (Skt. *pārṣṇi-* 'heel', Goth. *fairzna*, etc.)

8. *pār-ša-(a)-i+ / pār-ša-i-i+ : pār-ša-(a)-a+* 'crumble (tr.)'

- act. prs. sg. 3 *pār-ša-a-iz-zi* MH XV 34 Vs. I 27
 ibid., Rs. III 33
 pār-ša-iz-zi LMH KBo II 9 IV 2
 pār-ša-i-iz-zi MH KBo XVII 105 II 27'
 participle *pār-ša-an* MH XV 34 Vs. I 37
 pār-ša-a-an ibid., Rs. III 44

The stem is apparently based on the *a*-stem noun ^{NINDA}*pārša-* 'bread crumb' (HW1: 163a; OH attestations now see in StBoT 26: 139; also Hoffner 1974: 175). The form *pār-ša-i-iz-zi* qualifies the stem for class I, but the joint evidence of MH *pār-ša-a-iz-zi* and *pār-ša-a-an* necessitates its classification here (with some caution). The form *pār-ša-an* could well belong to the root verb stem *pār-š+* on which the class I deverbative *pār-ši-(ia)-a+* 'break (bread)' is based (see p. 55 ff. above).

9. *pa-tal-ḥa-e+* 'to fetter, tether'

- act. prs. sg. 1 *pa]-tal-ḥa-e-mi* OH StBoT 25 No.150, 4'

pa-ta]l-ħa-e-mi *ibid.*, 5'

The stem is based on the noun (^{GIS})*patalħa-* 'fetter, ankle-cuff' (without the determinative [and perhaps originally] 'ankle') HW1: 106a; Erg.2: 20a. Cf. *pa-tal-li-ia-a* + 'id.' above.

10. *píd-da-(a-)i* + 'give (grants / allotments of land)'

act. prs. sg. 3 *píd-da-a-iz-zi* MOH KBo VI 3 II 26

píd-da-a-iz-zi *ibid.*, 23

píd-da-iz-zi MOH KBo VI 3 II 11

prt. *píd-da-a-īt* *ibid.*, 15

This stem is apparently based on the noun *pitta*-* 'grant, allotment (of land)' (neut. pl. nom./acc. *pí-it-ta* 'grants' LMH XIII 2 III 41, *pi-e-it-ta* 'id.' LMH XXXI 84 III 66-67, *pí-i-e-it-ta* 'id.' LMH XXX 29 Vs. 9). See the summary to this chapter for a discussion.

11. *ták-šu-ú-la-a-e* + /*ták-šu-la-i* + 'be bound by a peace treaty'

act. prs. sg. 3 *ták-šu-la-iz-zi* LMH XXIV 9 II 9

prt. 2 *ták-šu-ú-la-a-eš* MH XIV 1 Vs. 75

The noun on which this stem is based is an *a*-stem derivative of the noun *takšul-* 'friend(ly); friendship, peace; treaty, contract', cf. ^{LU}*takšul-aš* "man of peace" = 'friend, ally' (where *takšulaš* is interpreted as the genitive of *takšul*) HW1: 205. Cf. Oettinger 1979: 264.

12. *dam-me/mi-iš-ħa-(a-)i* + : *dam-me/mi-iš-ħa-(a-)a* + 'oppress violently'

act. prs. sg. 3 *dam-me-iš-ħa-a-iz-zi* MH Mšt.75/13 ay.21

dam-mi-iš-ħa-iz-zi LMH XIII 7 I 4

mid. pl. *dam-mi-iš-ħa-an-da-ri* MH Mšt.74/104 öy.12

participle *dam-me-iš-ħa-an-da-aš* LOH XXXI 127 I 35

dam-mi-iš-ħa-an-da-aš XXXI 132, 14

Based on *dammešḡa-* c. 'violence' (HW1: 208a), on which see Otten StBoT 17: 52 n. 22. See also Oettinger 1979: 554 (and 123 f.).

13. *tar-ma-(a-)e-/i+* : *tar-ma-(a-)a+* 'to affix, peg down'

- act. prs. sg. 1 *tar-ma-e-mi* OH StBoT 25 No. 3 Rs. III 9
tar-ma-e-mi *ibid.*, No. 4 Rs. III 9
LOH XXXI 4 Vs. 13
tar-ma-a-e-[mi] OH StBoT 25 No. 7 Rs. IV? 3'
tar-ma-a-mi LOH XXXI 4 Vs. 14
sg. 3 *tar-ma-a-iz-zi* MH IBoT II 111 öy. 8
MIO 1 (Rost) II 16
pl. *tar-ma-a-an-zi* LMH VBoT 24 II 18
prt. sg. 1 *tar-ma-a-nu-un* LMH XXIV 9 II 23
3 *tar-ma-a-it* MH MIO 1 (Rost) II 20
participle *tar-ma-a-an-te-eš* LMH XXIV 9 II 24
tar-ma-an LMH XXIV 11 II 13

The stem is based on (^{GI5})*tarma-* c. 'peg' (nom. sg. *tar-ma-aš-* OH StBoT 25 No. 4 Vs. I 4').

14. *ur-ki-ia-i+* 'track down, trace'

- act. prs. sg. 3 *ur-ki-ia-iz-zi* OH XXIX 30 Vs. II 5
LOH KBo VI 10 III 30

Cf. Oettinger 1979: 29, 257, 355, where this stem appears, without any justification, as "*urkje-*." The stem is apparently not based directly on the noun *urki-* c. 'trace' (HW1: 235, with two MH attestations), but rather on an *a*-stem derivative (*urkiya-** or the like).

There are a number of class IV stems the derivation of which is unclear because their bases are not attested independently. Among these are the following:

15. *a-ra-(a)i+/a-ra-i-i+/a-a-ra-i-e-i+ : a-ra-a+* 'to stop (trans.)'

act. prs. sg. 3 *a-ra-a-iz-zi* MOH XVII 10 IV 5
a-ra-iz-zi LOH XXXIII 49 III 1
a-ra-i-iz-zi MH VIII 10 IV 5
prt. *a-ra-a-it* MOH XVII 10 III 1, 2 (twice)
pl. *a-ra-ra-i-e-ir* LOH XXIX 1 I 4
imp. pl. 3 *a-ra-an-du* MOH XVII 10 IV 7

The forms *a-ra-i-iz-zi* and *a-a-ra-i-e-ir* show writings characteristic of class I (cf., e.g., *šu-wa-i-i+*, etc., ‘look after’ above), but older forms such as *a-ra-a-iz-zi* MOH and especially *a-ra-an-du* MOH show that the stem belongs to class IV. It could be denominative, based on **ara*- ‘stop’ or the like (cf. Oettinger’s further taking this stem back to **h₃or-eh₂*- ‘Stand, aufgestanden Sein’” [1979: 369]; why not **h₃or-o-* which in his own terms would have been quite sufficient, to say nothing of a more realistic **or-o-*). This putative noun would be based on the same root as the *-hhi* verb *a-ra-a-i* ‘gets up, arises’.

16. *a-ru-wa-e*+/*a-ru-wa-(a-)i*+ : *a-ru-wa-(a-)a*+ ‘to bow, supplicate’

act. prs. sg. 3 *a-ru-wa-iz-zi* OH StBoT 25 Vs. I 10'
 MH KBo XXV 187 Vs.? II 7'
a-ru-wa-a-iz-z[i] LOH KBo X 28 III 6 + OH (1x)
ar-wa-iz-zi LMH KBo XIX 161 I 16'; II 12'
 pl. *a-ru-wa-a-an-zi* OH KBo VI 2 III 16
a-r]u-wa-an-zi OH StBoT 25 No.25 Rs. IV 7'
a-ru-wa-en-zi ibid., No.76 l. col. 6'
 prt. sg. 3 *a-ru-wa-a-it* LOH XXXI 127 I 13
a-ru-wa-it LOH XXXVI 101 II 6; 8
 XXXVI 102, 7
 infinitive *a-ru-wa-an-zi* OH StBoT 17A Rs. 13'
a-ru-wa-u-wa-an-z[i] LOH StBoT 17B Rs. 30' //17A Rs. 13'

-ske- forms:

act. prs. sg. 3 *a-ru-i-iš-ga-zi* MOH KBo XX 34 Rs. 7'

20 a.ru-wa-is-k[i-i2-zi]

pl. *a-ru-e-ēš-kán-zi* LOH XXXI 134, 8

a-ru-u-iš-kán-zi LOH XXXVI 75 I 12

imp. pl. 3 *a-ru-e-ēš-kán-zi* LOH XXXIII 23 I 18

(Note the haplography in the OH form of the infinitive, corrected in the LOH copy of the text.)

Although no base for this stem is attested separately in Hittite, it is possible that the stem is denominative (to **a-ru-wa-/ar-wa-* or the like, cf. Hom. ἀρή 'imprecation' < **arwā* [Arc. *kat-arwos*], see, e.g., Lejeune 1972: 159). Cf. Puhvel 1984: 185, with lit., for a rather improbable etymology ("*ar(u)wai-* < **rw-āye-*, from **(E₁)r-étw-* 'stir, rush'").

17. *ḫa-an-da/ta-(a-)i+* : *ḫa-an-da/ta-(a-)a+* 'set in order, determine (through an oracle)'

act. prs. sg. 3 *ḫa-an-ta-a-iz-zi* OH StBoT 25 No.19 Vs. 9

ḫa-an-da-a-iz-zi MOH KBo VIII 109, 1'

ḫa-an-da-a-iz-zi MH IBoT I 36 oy.57

KBo XV 10 Vs. I 11; etc.

pl. *ḫa-an-da-a-an-zi* MH IBoT I 36 III 20, 48

KBo XVII 62 I 15'

ḫa-an-da-an-zi MH KBo XVI 31, 6'

prt. sg. 3 *ḫa-an-da-a-it* MOH XLIII 60 I 30

ḫa-an-da-it LOH KBo III 7 I 15

imp. sg. 2 *ḫa-an-da* MH XXXVI 127 Vs.? 6

LMH XXXIV 76 I 13

3 *ḫa-an-ta-id-du* LMH XIII 2 II 6

mid. prs. sg. 3 *ḫa-an-da-a-it-ta* OH StBoT 25 No.34 Vs. 22'

MH IBoT I 36 IV 21

ḫa-an-da-it-ta-ri LOH XXIX I IV 8

MH IBoT I 36 oy.40

ḫa-an-da-a-it-ta-ri ibid., IV 22

ḫa-an-ta-it-ta LOH Bo 2599+ Vs. II 9', 17'

(in: StBoT 25 No.31 and 32)

ḫa-an-d[a]-a-e-it-ta OH StBoT 25 No.31 Vs. II 11'

ḫa-an-da-i-it-ta-ri LMH KBo XIII 58 II 24'

prt. sg. 3 *ḫa-an-da-a-it-ta-at* MH XIV I Rs. 90

- ḫa-an-da-[a]t-ta-at* LMH XXXIII 19 III 3
 pl. *ḫa-an-da-an-ta-ti* MOH XVII 10 IV 22
ḫa]-an-da-a-an-ta-ti MOH/MH XXXIII 29 Rs. 5
ḫa-an-da-an-da-ti LOH XXXIII 40 IV 6
ḫa-an-ta-an-da!-ti LMH XXXIII 19 III 4
ḫa-an-ta-an-ta-ti *ibid.*, 6, 7
 imp. sg. 2 *ḫa-an-da-aḫ-ḫu-ut* MOH XVII 10 II 32
 LOH XXXIII 11 II 14
 participle *ḫa-an-da-a-an* OH StBoT 25 No.109 Rs. III 13
ibid., No.110 Vs. II 10, 17, etc.
 LOH KBo III 23 Rs. 12'
 MH KBo XVII 61 Vs. 11'
 XV 34 I 4, 20
ḫa-an-da-an MH KBo XVI 24 Vs. II 8'
 LMH XIII 7 I 21
ḫa-an-da-an-te-eš LOH KBo X 23 Vs. II 11
ḫa-an-da-a-an-za XXXI 127 I 20
ḫa-an-ta-an-ta-an *ibid.*, 51
ḫa-an-da-an-da LMH XXIV 9 IV 12

(For middle forms, see also StBoT 5: 40 ff.)

-ske- forms:

- act. imp. sg. 2 *ḫa-an-te-iš-ki-i* LOH XXXI 127 I 17
 ind. prs. 3 *ḫa-an-te-eš-ki-zi* MH XIV 1 Vs. 81
 imp. pl. *ḫa-an-te-eš-kán-du* MH XIII 1, 27

The stem's base is apparently a derivative of *ḫant-* c. 'front' (HW1: 51b; Old Hittite ablative *ḫa-an-ta-az* StBoT 15 No.124 Rs. III 19'). In Kronasser's view, the stem is derived from adv. *ḫanda* 'according to, appropriate (to)', directive ("dat.-loc.") of *ḫant-*. Semantically, the derivation scenario with *ḫant-* c. 'front' seems unlikely. Puhvel 1991: 107 is probably right in deriving this stem from "*hānt-*, participle of *hai-* 'trust' . . . , much as (*parā*) *hantantai-* merely repeats the derivation ... from the participle *hantant-*" (see also *op. cit.*, p. 9 f., for *hai-* 'trust').

The stem *ḫa-a(-)+^{mi}* 'to trust, believe', of which *ḫa-an-t+* seems to be the participle, is incorrectly normalized as "*ḫae-*" by Oettinger and

18. *ha-at-ra-(a-)e/i+* : *ha-at-ra-(a-)a+* 'write, command, appoint'

XIV 1 Vs. 77 =*at-ra*=

LMH XIII 20 I 25

3 *ḥa-at-ra-a-an-zi* ibid., 24

Mst.75/14, 5

Mş.75/15 öy.5

Mışt.75/43 öy.4; ay.14

Mş.t.75/104 öy.4, 15

Kbo III 34 I 14

XXXVI 101 II 12

MH XIV 1 Vs. 66, 69, 78; Rs. 73

***ḥa-at-ra-i[t]* MH Mṣt.75/13 öy.5**

***ḥa-at-ra-a-i* Mst.75/104 öy.18**

pl. 3 *ḥa-at-ra-a-an-du* MH Mst.75/64 ay.32

95

- act. prs. sg. 1 *ḫa-at-ri-eš-ki-mi-* MH XIV 1 Vs. 25
ḫa-at-ri-eš-ki-iz-zi OH KBo XXII 1, 22'
ḫa]-at-ri-eš-ki-iz-zi LOH KBo III 41 Rs. 19
ḫa-at-ri-eš-ki-zi MH XIV 1 Rs. 25
ḫa-at-ra-eš-ki-zi *ibid.*, Vs. 40
prt. sg. 1 *ḫa-at-ri-eš-ki-nu-un* *ibid.* Rs. 60
3 *ḫa-at-ri-eš-ki-it* KBo XIX 38 Rs. 43
XIV 1 Rs. 65 [ha-a]=
pl. *ḫa-at-ri-eš-ki-ir* XIV 1 Rs. 35
imp. sg. 2 *ḫa-at-ri-eš-ki* Mšt.75/43 öy.10, ay.23

The stem could be a denominative of *hatra*-* based on *ḫa-at-t*+ 'hit' (see above). So also Oettinger 1979: 374 with lit.

19. *ḫu-up-pa-i*+ : *ḫu-up-pa-a*+ 'prepare (a meal)'(?)

- act. prs. sg. 3 *ḫu-up-pa-iz-zi* OH StBoT No.98 l.col.12'
participle *ḫu-up-pa-an-du-u* LMH VBoT 24 II 20

See StBoT 29: 81 f. The stem is most likely to be based on the noun *ḫu-up-pa**, an *r*-less form of the *r*-stem *ḫuppar*- neut. 'tureen' or the like (Hitt. word-final *-r* regularly disappears in present middles, unless the ending appears with the analogic primary *-i* taken from actives, e.g., *ki-it-ta* 'lies (down)', cf. Palaic *ki-i-tar* 'id.', e.g., XXXV 165 Vs. 12, but *ki-it-ta-ri*; it is also often missing in nom. acc. sg. of neuter *r*-stems, e.g., *ḫa-ap-pa* 'trade' LOH XXIX 29 Vs. 10 (nom. sg. neut.), *ḫa-ne-eš-ša* (a vessel) OH StBoT 25 No.80 Rs. IV 8' (*r*-stem, LOH copy has [*ḫa-n*]e-eš-šar; see StBoT 26: 48 n. 243; *ibid.*, see the reference to Neu 1982 on the word-final *r* in Hittite). Cf. also (DUG) *ḫu-u-up-pi-i*+ c. (a vessel) StBoT 26: 72 with n. 298. If, as seems likely, the Hittite preverb *pi-e*+ (Luw. *pa-*) comes from Proto-Anatolian **pe* < **per* (: PIE **per* 'through, across'),⁵³ then there is at least one Proto-Anatolian instance of the loss of the final **r*.

⁵³This connection seems better justified than the well-known direct comparison with Slav. *po-* and Toch. *p(a)-*, Benveniste 1962: 32, Ivanov 1965: 76 n. 67.

20. *kar-ta-a*+ 'cut'. The two attestations in my collection are act. prt. sg. 1 *kar-ta-a-nu-un* LMH XXIV 10 III 27 and participle *kar-ta-an-te-eš* pre-LH XIII 4 I 15. It seems to me possible to compare the putative nominal base of this stem, viz. **karta-*, with RV *kartá-* 'hole' (*a-* [*<*o-*] stem derivative of the root *kṛt* 'cut'). Cf. Oettinger 1979: 375 f. and 416 n. 42, where he explains this stem as a **-ye-* denominative to the verbal adjective **kṛ-tó-*; cf. the other possible **-to-* formations in Hitt., listed by him on p. 377, op. cit., such as *mitae-* 'fasten' (: Skt. *mita-* 'fixed'), *mutae-* 'remove' (: Skt. *mūta-* 'pushed', "ai. *kāma-mūta-* 'von Begierde getrieben'"), *šutae-* 'fill out' (?) "zu *suh₂-to-* 'voll'" (none of which occur in my collection of pre-LH texts), in addition to "**saktae-*" 'take care of / look after (a patient)', the explanation of which as a **-to-* formation derivative was proposed by C. Watkins (1974: 70 f.); on *ša-(a-)ak-ta-(a-)i*+, see below. It is also worth noting that, if Oettinger's normalization is to be taken at face value, the writing of these stems does not conform to Sturtevant's rule: the expected writings would be **mittae-*, **muttae-*, **uttae-*.

21. *ki-i-ša-a-i*+ 'to comb, card'. The only attestation in my collection is act. prs. sg. 3 *ki-i-ša-a-id-du* MH KBo XXI 8 III 14'. The stem could be denominative (from **ke/iša-* ?) or deverbative, cf. the attestations adduced by Oettinger 1979: 201 (e.g., present sg. 3 *ki-iš-zi* Bo 7568 4' (date?), prt. pl. 3 *ki-iš-ši-ir* LH [according to HD, cf. Oettinger's "älter"]). It is likely that the Hittite root present, even if attested late, is old. Cf. Hom. ξέω '(make) smooth, plane' remodeled from the paradigm (sg.) **kés-mi* **kés-si* **kés-ti* (pl.) **ks-mé--* **ks-té--* **ks-énti*, with thematic ξέ- created on the basis of a resegmented **ks-énti*. CL *kiš(a)-* (Chapter 3, CL stem 31) also points to the original athematic root present.

Luwian influence suggested by Oettinger (loc. cit.) is unlikely; the suffix *=a-(a-)i=* could in principle be segmented out of Hittite class IV stems as an intra-Hittite innovation. The Luwian vocalism (*kiš(a)-* Chapter 3, CL 31, instead of the expected **kaša-*) makes it probable, rather, that this is a Luwian borrowing from Hittite. But cf. Chapter 3, HL stem 18 *lis(a)-* 'pick (off)', also with *i* instead of the expected **a* (: PIE **les-* 'gather') before *s*.

22. *ku-uš-du-wa-a-i+* : *ku-uš-du-wa-a+* ‘abuse, slander’

act. prs. sg. 3 *ku-uš-du-wa-a-iz-zi* MOH KBo VII 28, Vs. 10

prt. *ku-uš-du-wa-a-it* *ibid.*, 6, 7 *ku-uš-d]u=*

8 =i[t, 10, Rs. 36

verbal noun *ku-uš-du-wa-ta* *ibid.*, Rs. 48

ku-uš-du-wa-a-ta LOH I 16 II 51

k]u-uš-du-wa-a-ta *ibid.*, 55

-ske- form:

act. prt. pl. 3 *ku-uš-tu-e-eš-ki-ir* LOH I 16 II 64

Little can be said about this stem except that it looks denominative.
Cf. Kronasser 1966: 481.

23. *la-aḥ-ḫi-ia-i+* : *la-aḥ-ḫi-ia-(a=)* + ‘travel, go on an expedition, attack’, etc. A list of attestations now see in HD: 7b f. The stem on which this verb is based is apparently derived from the noun listed in HD: 4a (also in HW1: 124a and in StBoT 26: 106) as *lahḫa-* c. ‘military campaign’, etc., although it is by no means certain, judging from its attestations, that the noun was an *a*-stem and not a root stem (see esp. HD loc. cit. for the attestations). This verb stem’s base appears to be something like **la-aḥ-ḫi-ia-*. The stem “*lahḫi-e-^{mi}*” cited by Oettinger (1979: 384, 494) is not attested.

24. *mu-ka-e-i+ / mu-(u-)ga-(a-)i+* : *mu-ga-(a-a=)* + ‘complain, wail’

act. prs. sg. 1 *mu-ga-mi* LOH VBoT 58b IV 10

2 *mu-ga-a-ši* MH XXIII 77, 66

3 *mu-ga-a-iz-zi* MOH XXXIII 62 III 14

prt. *mu-ga-it* LOH XXXVI 54, 3

mu-ú-ga-it KBo III 7 I 13

pl. 2

or imp. *mu-ka-e-it-te-en* LOH KBo III 43 Rs. 9

participle *mu-ga-a-an-za* LMH XXXIII 21 III 19

infinitive *mu-ga-u-an-zi* MOH XXXIII 62 III 21

verbal noun *mu-ga-a-u-wa-ar* LOH XXXI 127 I 6
 (gen.) *mu-ga-a-u-wa-aš* MOH XXXIII 68 II 3
 LOH VBoT 58b IV 13
 LMH KBo IX 109 Rs. 11

-ske- forms:

act. prs. sg. 3 *mu-ki-iš-ki-iz-z[i]* LMH XXXIII 17 Rs. IV 5
 prt. pl. 3 *mu-ki-iš-ki-ir* MH KBo XVII 105 II 18'
 supine *mu-ki-iš-eš-ki-u-wa-an* LOH KBo III 16 Rs. 13

In the **-ske-** supine, either *iš* or *eš* should be deleted. Perhaps the original had *eš*; the scribe wrote *iš* which was standard in his day, instead, and then copied the original's *eš*. Cf. (M)OH writings of the stem final before **-ske-** in paradigms above).

The stem is possibly denominative (based on **muga-* 'complaint' or the like), although deverbative origin cannot be ruled out. Cf. Oettinger 1979: 369 with n. 230 (Oettinger's assumption of "**mug-eh₇*" as the base's etymon is, in my view, not necessary: positing an *-o*-stem would do sufficient justice to the evidence; see Chapter 4 for a discussion).

25. *mu-(u-)un-na-(a-)i+* : *mu-un-na-(a-)a(-)+* 'hide (tr.)'

act. prs. sg. 1 *mu-un-na-a-mi* LOH VBoT 58a I 5
 2 *mu-un-na-a-ši* LMH XIII 9 III 14
 3 *mu-un-na-a-iz-zi* MH XXIII 72 Rs. 50
 LMH XXXVI 127 Rs. 13
mu-u[n-na-]a-iz-zi XXIII 68+ Vs. 24
mu-un-na-iz-zi MH VIII 81 Vs. II 14; Rs. III 3
 KBo XVI 25 Vs. I 58'
 pl. 2 *m]u-un-na-at-te-ni* MH XXIII 77, 58
mu-un-n]a-at-te-ni LMH XXIII 68+ Vs. 6'
 3 *mu-un-na-an-zi* LOH KBo III 1 II 29
 LMH XIII 20 I 4
 prt. sg. *mu-ú-un-na-a-it* LOH XVII 5 I 4
mu-ú-un-na-it LOH KBo III 7 I 28
mu-un-na-a-it MH XIV 1 Rs. 49

LMH XXXVI 127 Rs. 12 =n[a]=
imp. sg. 3 *mu-un-na-a-id-du* MH MIO 1 (Rost) III 28

Cf. Oettinger's selection of attestations (1979: 161). He explains this stem as a remake of a possible *n*-infix verb to a root "ultimae h_3 " (i.e., a *n*-infixing stem to a particular kind of a disyllabic root) which is a possibility, although he overestimates, in my view, the distinctive value of the writing *mu-un-na-an-zi* — without plene in the stem final — as against, e.g., *píd-da-a-an-zi* (see stem No. 8 above); he takes this writing to be a mark of the stem's different origin, while it is possible that an instance with plene has simply not been found yet, cf. the many writings of the denominative class IV stems without plene). A nominal base to this stem also cannot be ruled out. Note that there is no evidence whatsoever for positing a final " $*h_3$ " in this root. See class-I stem 13 *mu-(um)-mi-(i-)e-i* + 'fall' (< $*muw-(i)ye-$) above.

26. *pal-wa-a-i* + : *pal-wa-a* + 'clap (one's hands)'(?)

act. prs. sg. 3 *p[al-wa-a-iz-zi* OH StBoT 25 No. 82 Rs.? 12'
 pal-wa-a-iz-zi LOH KBo X 28 II 9;
 pal-wa-a[iz-zi ibid., III 12
 pal-w[a-a-iz]-zi KBo X 23 Rs. V 7
 pal-wa-q-iz-zi LOH KBo X 26 I 16
 pl. *pal-wa-an-zi* OH StBoT 25 No. 63 l.col. 3'

-*ske*- forms:

act. prs. sg. 3 *pal-ú-i[š-ki-iz-zi* OH StBoT 25 No. 69 Vs.? II 6' [?]
 pl. *pal-ú-i-iš-kán-zi* LOH KBo X 23 Vs. III 6"
 ibid., 14"

Note also the agent noun (^{LU/SAL})*pal-wa-at-ta-al-la-a* + * (see StBoT 26: 135 for attestations in StBoT 25; also LU *pal-wa-tal-la-aš* in LOH KBo X 28 III 12 as the subject of the verb under consideration. As to the meaning of the verb, it is disputed (cf. Oettinger 1979: 369 ff. "klatschen" vs. StBoT 26: 135: "(Verbum dicendi) [n. 423:] . . . Eine sichere Entscheidung zugunsten des einen oder anderen Bedeutungs-

ansatzes erscheint mir wegen des insgesamt recht stereotypen Belegmaterials nicht möglich.”). The stem is possibly cognate with *pal-ku-ia-a+* (where the same semantic dilemma exists; see lemma in Class I above). If denominative, it could be based on **palwa-*.

27. *pí-ia-na-(a-)i+* ‘give as a present (to)’

(*2il pí-ja-na-a2-zi*)?

act. prs. sg. 3 *pí-ia-na-iz-zi* MOH KBo VI 3 II 58

LOH KBo VI 5 IV 22

pí-ia-na-a-iz-zi MH KBo XVII 65 Rs. 64; left edge 5, 7

prt. sg. 3 *pí-ia-na-it* LOH KBo XXII 3 + XXXVI 103

OS sup *pí-ja-an-ni-wa-an*

The stem is possibly based on a noun, **piyana-* ‘present’ (so already Kronasser 1966: 569: “**piyana-* ‘Geschenk’?? Eine Funktion der *n-* Erweiterung lässt sich nicht festlegen”) derived, most likely, from the *-hhi*-conjugation stem *pa-a-i* : *pi-(i=)* + ‘give’; the function and form of the suffix *-ana-* appear to be comparable with, e.g., the Vedic suffix *nominis actionis* (neut.) and *agentis* (masc.) *-ana-* (e.g., *kár-ana-m* ‘deed’, *kar-aṇá-h* ‘active’); cf. the passage from Kronasser quoted above.

28. *ša-(a-)ak-ta-(a-)i+* ‘take care of / look after (a patient)’

act. prs. sg. 3 *ša-a-ak-ta-a-iz-zi* OH KBo VI 2 I 17

ša-a-ak-ta-a-iz-zi MOH KBo VI 3 I 26

ša-ak-ta-iz-zi- LOH KBo VI 4 I 23

The stem is likely to be denominative (based on **sakta-* or the like; Watkins’s etymon [“**sok-to-* ‘dryness’ > ‘sickness’ (air. *socht* ‘stupor’)” 1974: 70 f., accepted, *inter alia*, by Melchert 1994a: 93 *et passim*] is unlikely as it produces the opposite meaning for the *forme fondée*, i.e., ‘make sick’ instead of ‘look after’). Oettinger’s “**soh_g-*” (1979: 450 f.) has an unjustified laryngeal, used as a nostrum for the problem of the Latin vowel (see below).

An internal Hittite connection with *ša-a-ak-* + : *ša-ak-* + : *še-ik-* + ^{hi} ‘know’ closely affined with PIE **sag-* as in Ved. *bhi-śáj-* ‘curing, physician’ (on which see Brugmann 1911: 285), Lat. *sāgax*, *sāga* f. ‘diviner,

soothsayer', etc., Goth. *sok-j-an* (Feist 1939: 442 and Lehmann 1986: 318) via the *-to- adjective is more likely. For a semantic parallel, cf. Skt. *vaidya*- 'physician' to *vid*- 'know' (pointed out by Brugmann, op. cit., p. 287).

29. *ši-ip-pa-a-i+* : *ši-ip-pa-a+* 'peel off'

act. prt. sg. 1 *ši-ip-pa-a-nu-un* MH XXIX 7 II 31

imp. sg. 3 *ši-ip-pa-a-id-du* MH XXIX 7 II 32

Used both times with *ar-ḫa*. Possibly denominative from **šippa*- 'peel'. Cf. CL stem 47 (Chapter 3) *šap-pa-a* + 'id.' (both denominatives based on PA **sepa*-, i.e. **sepa-ye*-).

30. *tar-kum-ma-i+* and *tar-kum-mi-ia-i+* : *tar-kum-mi-ia-a+* 'interpret, translate'.

These two stems are attested as follows:

act. imp. sg. 2 *tar-kum-ma-i*

prs. pl. 2 *tar-kum-mi-ia-an-zi* MH IBoT I 36 öy.58

imp. sg. 2 *tar-kum-mi-ia-i* MH XXX 10 Vs. 5'

The stems are likely to be denominative, based on **tar-kum-ma*- (the former) and **tar-kum-mi-ia*- (the latter). The common part of both is found in Akkadian *tarkumanu* 'interpreter' (HW1: 214b), as well as in Hebrew and Aramaic *targum* 'translation' (also Arabic *targamatun* 'rubric, section (of a book)' the root *trgm* of which is an Aramaic loan according to Brunnow 1928: 17b). The quadrilateral root **trgm* is rare in Semitic (with its preponderantly triliteral roots [e.g. Дьяконов 1965: 27 ff.]) and so is likely to be a borrowing.

31. *ú-i-da-a-i+* : *ú-e/i-da/ta-a(-)+* 'bring, lead, convey'

act. prs. sg. 1 *ú-i-da-a-mi* MH KBo XVI 24+ I 10'

- 3 *ú-i-da-a-iz-zi* MH IBoT I 36 I 62
 pl. 1 *ú-e-da-u-e-ni* LOH KBo XIII 42 III 6'
 ú-e-da-a-u-e-ni LMH XXXI 42 II 21
 2 *ú-i-ta-at-te-ni* MH XXIII 77+ Rs. 73'
 ú-i-da-a-at-[te-ni] MH XXIII 72 Vs. 60

Also see Oettinger 1979: 373 f. The stem could be based on **ú-e/i-da/ta-* (*a*-stem) 'convoy' or the like. Similarly Oettinger 1979: 374: "Morphologisch könnte ein Denominativ vorliegen, weshalb urheth. **yeda-* 'das Bringen, die Führung' < **yedh-eh₂* zu uridg. **yedh-*" (see Pokorny 1959: 1115f. for the well-known connections). There is no evidence, however, for positing **y₂edh-eh₂*; an **o* stem (> Hitt. *a* stem) would do just fine. The writing of the root with *i* in the oldest attestations (MH) makes the posited etymon more problematic than one would like, but this is probably a preaccentual short **e* becoming *i*, see Melchert 1994a: 101.⁵⁴

Only Baltic (Lith. *vedù, vėda*), Slavic (OCS ведѣ, ведеть) and Celtic (OIr. *fedid*) point to a simple thematic stem **wédh-e-*; this evidence is not secure enough to reconstruct a Proto-Indo-European simple thematic stem. The Hittite verb stem, apparently secondary, contributes nothing to the reconstruction of a verb stem based on the root **wedh-*; it is certainly not simple thematic.

32. *za-am-mu-ra-(e/a-)i+* : *za-am-mu-ra-a+* 'offend, insult'

- act. prs. sg. 3 *za-am-mu-ra-a-iz-zi* MH XIV I Vs. I 38
 za-am-mu-ra-a-iz-zi LMH XIII 20 I 27
 XXXI 42 II 5
 za-a]m-mu-ra-e-iz-zi MH KBo VIII 35 I 25'
 za-am-mu-ra-iz-[zi] MH KBo XVI 25 Rs. IV
 pl. *za-am-mu-ra-an-zi* MH XXIII 72 Rs. 26

This likely denominative is possibly based on **zammura-*, an *a*-stem (cf.

⁵⁴Melchert's rule "*/i/ < /e/ /w_ [+coronal]*" *ibid.*, to account for the cases in which the new *i* could be accented, seems entirely ad hoc. I prefer to see such cases as results of paradigmatic leveling.

another possibility in Oettinger 1979: 386: "zum (vielleicht zugrundeliegenden) Nomen *zammuri*- ['?—A.L.] R.LEBRUN, Samuḫa, foyer religieux de l'empire Hittite, 1976, p. 55"). I suggest that the putative **zammura*- might be cognate with Russ. смурый 'grim', ONorse *meyrr* 'id.' (for IE **sm*- : Hitt. [*ts(a)m*]- cf. Hitt. *za-ma-kur*- 'beard' LOH XXXI 127 I 11 : RV *śmaśru* ← **smaśru* 'beard', cf. Lith. *smākras* 'chin').

There are also a number of stems the classification of which presents some problems. These stems are as follows:

33. *a*-(*a*-)+ 'be hot'

mid. prs. sg. 3 *a-ri* LMH HT I I 49

pl. *a-a-an-ta* LOH VBoT 58b I 24

participle *a-a-an-ta-an* LOH XXXIII 70 II 5

Other attestations (LH and n.d.) see in StBoT 5: 1 and HW2: 44 f. This stem's root is possibly the same as that of the *nu*-factitive *i-nu-u*+ 'heat up' (act. prt. pl.2 *i-nu-ut-te-en* OH StBoT 17A Vs. 9); if so, then *a*-(*a*-)+ < **eya*-, which qualifies the stem for membership in class IV. Since only middle forms (*a*-middles) and participles are attested, it is not clear whether the verb belongs to the *-mi* or to the *-hhi* conjugation; for this reason its membership in class IV cannot be certain. But it is attractive. Melchert's view (1994a: 28) that *a-a-an-ta*, *a-ri* comes from "**ayari*" does not take into account the likely relationship with *i-nu*- and the development of the PA sequence **éya*- to *-a*-, cf. PA **was-éyanti* > Hitt. *wa-aš-ša-an-zi*. The attested forms *a-ri*, *a-a-an-ta*, then, may reflect acrostatic **éy-a-ri*, **éy-anta*. The causative **i-néu*- shows the zero grade of the root.

34. *ar-ku-?wa-i*+ : *ar-ku*-(*wa*-)*a*+ 'pray'

act. prs. sg. 3 *ar-ku*-(*wa*-)*iz-zi* LMH XLIII 57 IV 7

pl. *ar-ku-an-zi* OH StBoT 25 No.34 Vs. 17'

ar-ku-wa-an-zi *ibid.*, 15'

The (LMH) form important for determining the stem's class is un-

certain. LH forms such as prt. sg. 3 *ar-ku-wa-it* KBo XI 1 Vs. 18, 32, Rs. 4, etc.; *ar-ku-wa-a-it*[L 53, 12, etc. (HW2: 309b), belong to class IV. The stem is possibly denominative (**ark^a*- 'prayer' or the like). For semantic reasons, Ved. *ṛ* (as in, e.g., *ṛ*, *arka-* m. 'hymn', etc., *arcati* 'shines, praises') seems to me a more likely cognate than Lat. *arguō* (still a possibility). Cf., e.g., Laroche 1964: 19 ff. and Oettinger 1979: 369. Also noteworthy is the fact (pointed out by Otten and Rüster 1977: 61) that this stem and the stem *a-ru-wa-e+* / *a-ru-wa-(a-)i+* 'to bow, supplicate' (q.v. above) seem to be interchangeable; it is thus possible that the two stems are cognate. Cf. also the pair *pal-ku-i-ia-a+*, *pal-wa-a-i+* discussed above. Cf. also pairs such as *tarkw-* : *tarw-* 'to dance' and Hitt. *walkwa-* 'dangerous, violent' : Luw. *walwa-* 'lion' discussed in Lehrman 1987.

Cf. Puhvel 1984: 150f., who insists on the meaning 'to plead' and on the etymological connection with Lat. *arguō*, etc., and believes that the use of *a-ru-wa-e+* instead of *ar-ku-wa-i+* is due to "some semantic conflation of the two near-homophones" (ibid., p. 151).

35. *ar-ša-(a-)i+* / *ar-še-i+* 'to plant'

act. prs. sg. 3 *ar-ša-a-iz-zi* LOH KBo VI 12 I 20

ar-ša-iz-zi XXIX 21, 15

ar-še-iz-zi KBo VI 12 I 12

ar]-še-iz-zi XXIX 21, 7

-ske- forms:

act. prs. pl. 3 *ar-ši-eš-kán-zi* LOH XXIX 1 IV 24

The stem appears to be based on the noun *arši-* c. 'plant' (HW2: 345b), unless of course both are independently produced from the root *ar-š+*. The stem *ar-še-i+* belongs in my provisional class XI (see discussion below). As the listing above shows, forms belonging to both stems are found in the same text. Since all the attestations are LOH, it is difficult to determine which of the stems is morphologically older.

Cf. Puhvel 1984: 174 inconclusive but with reference to *arziya-* 'cultivated land', etc. (see op. cit., p. 187).

36. *ša-ku-wa-i-e-i+* : *ša-ku-(u-)wa-(a-)a+ /ša-ku-wa-ia+* 'observe, watch'

act. prs. pl. 3 *ša-ku-wa-an-zi* LMH XIII 9 III 11, 12

prt. sg. 3 *ša-ku-wa-i-e-it* LMH XXXIII 32 II 4

imp. sg. 2 *ša-ku-wa-ia* MOH KBo VII 28 Rs. 12'

participle *ša-ku-wa-a-an* OH KBo VI 2 II 62'

ša-ku-wa-an MOH XXXIII 38 I 6

ša-ku-wa-an-ta-an LOH XXXIII 70 II 5

ša-ku-ú-wa-an MOH XVII 10 II 16

Cf. the paradigm in Oettinger 1979: 394 (incomplete).

The forms *ša-ku-wa-i-e-it* and *ša-ku-wa-ia* qualify the stem for class I (q.v. above); it is because of these and similar forms that Oettinger classifies this verb together with *ta-a-i-i+*, etc., in his "tāiḫe-Klasse." The fundamental difference between the stem under consideration and the stem such as *ta-a-i-i+* is that the latter keeps the *i* (= [y]) of the suffix before the *a*-grade alternant (see the paradigm above) whereas the former, in its oldest attestations, does not. Oettinger seems to ignore this.

In the case of imp. sg. 2 *ša-ku-wa-ia*, it is at least possible that the form consists of the imperative proper *ša-ku-wa+* and the enclitic 'and' (+*a* after consonants, +*ia* after vowels). The stem is apparently based on the noun *šakuwa* 'eyes' (neut. pl.; stem uncertain [Gertz 1982: 35]; OH attestations in StBoT 25 No.3 (=KBo XVII 1) Vs. I 24' *ša-a-ku-wa-a+*.

37. *pa-(a-)i+* : *pa-a-a+* 'go'

act. prs. sg. 1 *pa-i-mi* OH KBo VI 14 Vs. 4

StBoT 25 No.2 Vs. I? 9'

No.3 Rs. IV 11

etc. (often)

pa-a-i-mi- LOH KBo III 55 Vs. 5

2 *pa-i-ši* OH KBo XXII 1, 28'

MOH/MH XXX 10 Vs. 4

pa-a-i-ši LOH KBo III 7 III 10

- 3 *pa-iz-zi* OH StBoT 18 Rs. 78
 KBo VI 2 I 51
 StBoT 25 No.4 Vs. II 9'
 ibid., No.25 Vs. I 35', etc. (often)
- pl. 1 *pa-i-wa-ni* OH StBoT 17A Vs. 15
 StBoT 25 No.3 Rs. IV 7, 24
 ibid., No.4 Vs. I 15', etc. (often)
- pa-a-i-wa-ni* LOH KBo III 7 IV 6
- 2 *pa-it-te-ni* OH KBo XXII 1, 24'
pa-it-ta-ni LOH KBo III 23 Rs. 16
- 3 *pa-a-an-zi* OH KBo VI 2 IV 12
 StBoT 25 No.12 Rs. III 23', 27', etc.
 MH IBoT I 36 öy.I 4, etc. (often)
- prt. sg. 1 *pa-a-un* OH StBoT 25 No.4 Rs. IV 9
 StBoT 17A Rs. 5'
 LOH ibid., B (=KBo III 38) Rs. 21', etc. (often)
- 3 *pa-it* OH StBoT 17A Rs. 10', 14
 KBo VIII 42 Vs. 11, Rs. 9
 LOH StBoT 17B (=KBo III 38) Rs. 18', etc.
 (often)
- pa-i-it* LOH KBo III 60 Vs. I 13
- pl. 1 *pa-i-ú-u-en* LOH KBo III 60 Rs. III 11
- 3 *pa-a-ir* OH StBoT 17A Vs. 6
 LOH KBo III 46 Rs. 12, 13
 MH XXIII 72 Vs. 31, etc. (often)
- pa-i-e[-ir]* LOH KBo III 60 Vs. II 9
- imp. sg. 3 *pa-it-tu-* OH StBoT 25 No.123, 7'
pa-it-tu LOH KBo III 28 Vs. II 11
pa-id-du MOH XVII 10 IV 8; XXXIII 3, 4
 LOH StBoT 17B (=KBo III 38) Vs. 6', etc.
 (often)
- pl. *pa-a-an-du-* LOH KBo III 1 II 13
- participle *pa-a-an-za* MH XXIII 72 Vs. 46, Rs. 14
- infinitive *pa-a-u-wa-an-zi* LOH KBo VI 6 I 30

-ske- forms:

act. imp. pl. 2 *pa-iš-ki-it-ten* LOH XXXIII 60 Rs. 13

- mid. prs. *pa-iš-kat-tu-ma* OH KBo VIII 42 Vs.? 9
 3 *pa-iš-kán-ta* MH IBoT I 36 I 63
pa-iš-kán-da *ibid.*, 60
 prt. sg. 1 *pa-iš-ga-ḫa-at* OH StBoT 25 No.3 Rs. IV 13
 imp. sg. 2 *pa-iš-ka-aḫ-ḫu-[ut* LOH XXXIII 60 II 10
 3 *pa-iš-ga-ta-ru* LOH VBoT 58 Vs. 11
pa-iš-kat-ta-ru LMH IV 1 I 40

This stem's presence in class IV is due to mechanical application of the classification procedure described in Chapter 1 (q.v.) The fact that this stem is quite different from ordinary class IV stems shows up in the distribution of the stem-final alternants (present sg. 1 *pa-(a)-i-mi* vs. $=a-(a)mi/=a-e-mi$ (rarer) in other class IV stems), the *n*-less prt. sg. 1 (*pa-a-un*) vs. the "normal" $=a-a-nu-un$, in the presence of some class I forms (such as OH *pa-i-iz-zi*, LOH *pa-i-iz-zi*, *pa-i-it*, *pa-i-ú-u-en* [the last three from the same text], and in the "suppletive" imperative forms act. sg. 2 *i-it* OH StBoT 25 No.3 Rs. III 5, etc., LOH KBo III 23 Vs. 10, etc., pl. *i-it-te-en* OH KBo VI 2 III 19, KBo VII 14 Vs. 3, etc., LOH KBo III 41 Rs. 19, etc. These latter make it necessary to analyze this stem as consisting of the preverb *pa-a+* "hin" (*pí-(e-)/pí-e+* before consonants, e.g., *pí-e-ta-i* OH StBoT 25 No.3 Vs. I 32' "schafft hin" vs. *ú-da-i* OH StBoT 25 No.26 Vs. I? 14' "schafft her," *pí-eš-ši-e-mi* 'I throw (away)' [q.v. above], and the like) plus the root *+i+* alternating with zero before back vowels. Cf. the stem *ú-(e-)i+* /*ú-e+* /*ú-i-i+* : *ú-wa+* / *ú-(wa-)a+* 'come' with its preverb *ú+* and the same root in the shape *+(e-)i+/+e+/+i-i+* alternating with *+w+/zero*, where *+w+* is the glide in the transition from [ú] to [a] filling in for the zero $<^*y-$.

38. *šar-la-a-i+* 'extol'

act. prt. sg. 3 *šar-la-a-it* ^{MS sic} MH KBo XVI 25 IV 14' *Instruct.*

-*ske-* forms:

act. sg. prs. 1 *šar-li-iš-ki-mi* ^{sic} MH XXX 11 Rs. 10' *Kantuzi*²
 3 (*šar*)-*lji-iš-ki-iz-zi* LMH XXIV 8 + I 3

The stem, attested only from the MH period, is likely to be a Luwian loanword. The participle *šar-la-i/im-mi-* (Luw. in Hitt.), used as divine epithet, bears witness to that; so does the possible etymology of the stem as a compound of the preverb *šar* (Luw.; Hitt. *še-e-ir* [*ser*]) with the originally *-hhi*-conjugation stem *la-a+* (cf. Hitt. *la-a+* [*-hhi* conj.] 'let (go)' and *da-a-i* : *da-a+* [*-hhi* conj.] 'take'; on the latter, see Chapter 3, section 2, stem 17). The *-mi* conjugation of the stem *šar-la-a-i+* in Hittite is easy to explain by the fact that most of the forms of the Luwian stem by the time of the borrowing (the MH period) were either ambiguous or *-mi* (the only unambiguous *-hhi*-series ending still in use being *-i*).

Class V

This provisional class consists of stems with the easily identifiable suffix *+š-ki-(e-)+/+š-ki-(e-)i+* : *+š-ka-/+šga-a+* (as well as some other writings which see below). The Indo-European cognate is the suffix **-ske-* : **-sko-*. The Hittite suffix can form secondary stems (iteratives) to virtually any verb stem. The active endings the suffix requires are of the *-mi* series; the middle ending of the third person singular has a *tt* in it.

Below is a paradigm listing of the various writings of class V stems.⁵⁵

- act. prs. sg. 1 *iš-hi-is-ki-i-mi* MH/NS - *KeššA // A. 01 5/2, 27: 280* (hapax?) - *i-i-* but cf. *imv 2 sg. 1-6* *prt 3 sg. 1-6*
da-aš-ki-e-mi ('take') OH StBoT 25 No. 4 Rs. IV 10
tar-ma-iš-ki-mi ('peg down') LOH XXXI 4 Vs. 13
ú-i-ia-iš-ki-mi ('send here') LMH VBoT 24 IV 14
tar-ši-ki-mi ('say') LOH KBo III 1 II 15
 2 *ak-ku-uš-ki-e-ši* ('drink') OH StBoT 25 No. 110 Vs. II 16
ak-ku-uš-ki-ši *ibid.*, 9
me-mi-iš-ki-ši ('speak') LOH XXXI 127 I 34
 3 *an-ni-iš-ki-iz-zi* ('work') OH KBo VI 2 I 18
ha-at-ri-eš-ki-iz-zi ('writes') OH KBo XXII 1, 22'
da-aš-ki-iz-zi ('takes') *ibid.*, 12'

⁵⁵For important discussions of *-ske-* verbs, see Bechtel 1936, Kammenhuber 1956: 40 f., Risch 1965, Konasser 1966: 575 ff., Dressler 1968: 159 ff., Neu 1968, Oettinger 1979: 315 ff. and Otten 1979.

an-ni-eš-ki-iz-zi ('works') MOH KBo VI 3 I 27
an-ni-iš-ki-iz-zi ('id.') LOH KBo III 16 Rs. 8
tar-ši-ki-iz-zi ('says') OH StBoT 17A Rs. 4'
tar-aš-ki-iz-zi ('id.') LOH KBo III 16 Rs. 8
tar-aš-ki-[iz-]zi KBo III 38 Rs. 20
iš-pa-an-za-aš-ki-i[z-zi] (*išpand-* [-*hhi* conj.]) 'libate'
 OH StBoT 25 No.66 Vs. I 3'
iš-pa-an-za-ki-zi ('id.') MOH KBo XX 34 Rs. 6'
zi-ik-ki-iz-zi OH StBoT 25 Rs. IV 3'
 (*da-a-i/da-i + : ti + [-hhi conj.]*) 'place'
 MOH KBo XXI 85 Vs. I 49'
 MH Mst.75/43 öy.7
a-ru-i-iš-ga-zi ('bows') MOH? KBo XX 34 Vs. 7'

pl. I *da-aš-ki-e-u-e-n[i]* ('take') OH StBoT 17A Vs. 19
zi-ki-e-ú-e-n[i] ('place') LOH KBo III 40a Vs. 5
ša-an-ḫi-iš-ki-u-e-ni ('seek') OH StBoT 17A Vs. 14
šar-ni-in-ki-eš-ki-u-e-ni ('compensate')
 MH XXIII 72 Vs. 28
ak-ku-uš-ki-e-wa-ni ('drink') OH StBoT 25 No.140 Rs. 7'
ḫu-it-ti-ia-an-ni-iš-ki-u-wa-ni ('pull') MH XV 34 IV 31
mu-ki-iš-ga-u-e-ni ('complain') *ibid.*

act. prs. pl. 2 *da-me-eš-kat-te-ni* ('oppress') OH KBo XXII 1, 18'
pí-iš-kat-te-ni ('give') *ibid.*, 20'
ša-an-ḫi-iš-kat-te-ni ('seek') *ibid.*, 24'
te]-ip-nu-uš-ki-te-ni ('make small') MH XXIII 72 Rs. 62
az-zi-ik-ki-ta-ni (*e-it + : a-t/d + 'eat'*) LOH VBoT 58 I 18
ak-ku-uš-ki-it-ta-ni (*e-ku + : a-ku + 'drink'*) *ibid.*
ša]-aš-nu-uš-ki-it-ta-ni ('let sleep with')
 MOH KBo VII 28 Vs. 25
ša-aš-nu-uš-ga-at-te-ni- *ibid.*, 24 end

act. prs. pl. 3 *an-ni-iš-kán-zi* ('work') OH KBo XIX 1 Vs. II 21'
an-ni-eš-kán-zi LOH KBo XII 49 III 7
pí-iš-kán-zi ('give') OH StBoT 25 No.19 Vs. 8
 MH XXX 29 Vs. 9
tar-ši-kán-zi ('say') OH StBoT 17A Vs. 8

LOH KBo VIII 41, 8

tar-ši-ik-kán-zi LOH KBo III 1 II 33

tar-aš-kán-zi ('id.') KBo VI 3 III 20

zi-ik-kán-zi ('place') MOH KBo XXI 85 Rs. IV 23'

zi-ig-ga-an-zi ('id.') MH Mst.75/15 öy.10

prt. sg. 1 *za-aḫ-ḫi-eš-ki-nu-un* ('fought') LOH KBo X 2 I 47

3 *zi-ki-e-it* ('placed') OH StBoT 17A Vs. 3

ḫu-iš-nu-uš-ki-e-it ('let live') LOH KBo III 28 II 18

ḫa-an-di-li-iš-ki-it OH XXXVI 105 Rs. 20

LI MH?

ták-ša-an-ni-iš-ki-it ('leveled') LOH KBo X 2 II 5

ap-pi-iš-ki-it ('seized') MH XXIX 7 Vs. 29

ša-al-la-nu-uš-kat ('raised') OH StBoT 17A Vs. 7

zi-ik-ki-i-it (Sto 6:42 ff.)

pl. 1 *tar-aš-ki-u-en* ('said') LOH KBo III 16 Rs. 15

ú-wa-an-ši-ki-u-en ('fucked') LOH KBo III 60 Rs. III 13

act. prt. pl. 3 *da-<aš>-ki-e-ir* ('took') OH KBo VI 2 I 14

da-aš-ki-e-ir *ibid.*, 58

da-aš-ki-ir OH StBoT 25 No.47 II 15'

šal-la-nu-uš-ki-ir ('raised') LOH XXIX 1 I 27

ša-al-la-nu-uš-ki-ir XXIX 3 I 9'

mu-ki-iš-ki-ir ('complained')

MH KBo XVII 105 Vs. II 18'

imp. sg. 2 *me-e-mi-iš-ki* ('speak') OH StBoT 25 No.4 Rs. III 5

ú-uš-ki LOH KBo III 29 Vs. I 6

ḫa-at-ri-eš-ki ('write') MH Mst.75/43 öy.10, etc.

ak-ku-uš-ki-i ('drink') MOH KBo VII 28 Rs. 18

az-zi-ik-ki-i ('eat') *ibid.*

az-zi-ki-i LOH KBo III 24, 17

zi-ki-i (Sto 6:42 ff.)

3 *pi-iš-ki-id-du* ('give') OH XLIII 23 Vs. 19', 22' < OH-???

az-zi-ik-ki-id-du ('eat') LOH I 16 II 33; III 21

pl. 2 *me-mi-iš-ki-it-te-en* ('speak') OH XLIII 23 Vs. 8 < OH-???

ak-ku-uš-kat-te-en ('drink') LOH KBo III 28 Vs. II 8

- az-zi-kat-te-en* ('eat') *ibid.*
pí-iš-kat-ten ('give') MH XV 34 Vs. II 24; III 18
pí-i]š-ki-it-ten *ibid.*, 25' end
- 3 *ak-ku-uš-kán-du* ('drink') LOH KBo III 1 II 14
az-zi-ik-kán-du ('eat') *ibid.*
ḫu-u-la-li-iš-kán-du ('wrap') MH KBo XVII 105 II 24'
pí-iš-kán-du ('give') MH KBo XX 42 Vs. I 36
pí-eš-kán-du Mst.75/64 öy. 15
 orig: OH No 7 14 + Ku 36.100 47
- mid. prs. sg. 1 [*e-e*]š-ka-aḫ-ḫa-ri (*e-eš* + *e-š* + 'sit') OH KBo VII 14+II 7
e-eš-ka-aḫ-ḫa LOH KBo III 41 + 11
- 2 *šar-ra-aš-ki-it-ta* ('step through/across')
 MOH XXXI 133 I 11
im-pa-iš-kat-ta ('be troubled') LMH XXXIII 76, 17
- 3 *uš-ne-eš-kat-ta* ('sell/trade') OH XXIX 29 Vs. 12
 LOH KBo VI 10 III 18, 22
ḫal-zi-iš-kat-ta-ri ('call') LOH X 45 III 11
ša-a-ḫi-iš-kat-ta-ri ('besmear') LMH XXXI 86 II 31
mi-i-e-eš-ki-it-ta ('prosper') OH XLIII 23 Rs. 9' — OH 12?
ti-it-ḫi-iš-ki-it-ta ('thunder') MOH XVII 10 II 34
ar-ki-iš-ki-it-ta ('fuck') LOH XXIX 1 I 30
ú-iš-[k]i-it-ta ('come') LOH I 16 II 36
na-iš-ki-it-ta-ri ('turn to') MH Mst.75/43 öy.9
ú-e-eš-ki-it-ta ('come') LMH XXIII 68 Rs. 3
- pl. 2 *pa-iš-kat-tu-ma* ('go') OH KBo VIII 42 Vs.? 9 → *pa-iš-kat-tu*
pa-iš-kat-tu[-ma *ibid.*, 10 *inv 3 sg?*
- 3 *za-aḫ-ḫi-iš-kán-ta* ('fight') OH StBoT 25 No.54
 Vs. II 16'
ú-e-eš-kán-ta ('come') LOH KBo III 1 + II 4
ú-i-iš-kán-ta ('id.') LOH XI 1 II 10
e-eš-kán-ta ('sit down') LOH KBo III 34 III 15
ḫar-ki-iš-kán-ta-ri ('perish') LOH KBo III 1 II 57
pa-iš-kán-ta ('go') MH IBoT I 36 I 63

pa-iš-kán-da ibid., 60

ú-iš-kán-da-ri ('come') MH IBoT I 36 I 74

prt. sg. 1 *pa-iš-ga-ḥa-at* ('go') OH StBoT 25 No.3 Rs. IV 13

3 *kur-ku-ri-iš-kat-ta-t[i]* ('cut/injure') MOH XVII 10 I 2

ú-i-iš-ki-it-ta-at ('come') LMH XXIII 68 Rs. 1

pl. 2 *e-eš-ki-du-ma-at* ('sit down') MOH XII 63 + I 5

wa-al-lu-uš-ki-id-du-ma-at ('be praised') MOH XXXVI

44 IV 14

ú-li-li-iš-ki-id-du-ma-at ('be green') LOH XIX 1

Vs. I 28

K₃ 7.14 + K₃ 6.100 II 2

3 *e-eš-kán-ta-ti* ('sit down') OH KBo VII 14+ II 2

imp. sg. 2 *pa-iš-ka-aḥ-ḥu-[ut* ('go') LOH XXXIII 60 II 10

na-i-eš-ga-ḥu-ut ('turn to') LMH VII 8 + II 5

še-eš-ki-ia-aḥ-ḥu-ut LO?H or LH KBo III 16 III 9

3 *pa-iš-k]at-ta-ru* ('go') OH StBoT 25 No.107, 3'

pa-iš-kat-ta-ru LMH IV 1 I 40

tu-uš-ki-iš-kat-ta-ru ('rejoice') LOH KBo III 40a Vs. 3

ú-iš-ki-it-ta-ru ('come') LOH I 16 II 34

pa-iš-ga-ta-ru ('go') LOH VBoT 58 Vs. 11

pl. *ú-iš-kán-ta-ru* ('come') MH XXXI 103 Vs. 10

participle *zi-ik-kán-te-eš* ('place') LOH VBoT 58 Rs. 15

supine *ša-an-hi-iš-ki-u-wa-an* MOH XVII 10 I 23, 32

wa-al-lu-uš-ki-u-an ('praise') MOH XXXVI 44 IV 6

ši-ip-pa-za-ki-u-wa-an ('libate') LOH XXXI 127 I 50

še-eš-ki-u-wa-an ('sleep') LOH KBo III 1 I ??

ḥu-wa-a-i-iš-ki-wa-an ('run') LOH KBo III 40a Vs. 9

The suffix notably changes its written (and occasionally perhaps also phonetic) shape after consonant-final stems, cf., e.g., *tar-ši-ki-iz-zi* OH,

tar-aš-ki-iz-zi LOH (*tar+*) as attempts to render $*=rsk=$; *az-zi-ik-ki-id-du* LOH has $*=dsk=$; *iš-pa-an-za-aš-ki-i[z-zi]* OH, *iš-pa-an-za-ki-zi* MOH and *ši-ip-pa-za-ki-u-wa-an* LOH grapple with $*=ndsk=$; *ša-an-ḫi-iš-ki-u-e-ni* OH and *ša-an-ḫi-iš-kat-te-ni* OH (*ša-an-ḫ+*), $*=nhsk=$ ($=[nhisk]=?$); *ḫar-ki-iš-kán-ta-ri* LOH (*ḫar-k+*), $*=rKsk=$ ($=[rKisk]=?$); etc.

The phonetic value of the sign *kat*, important for determining the quality of the thematic vowel alternant in the suffix, remains problematic. It makes sense to conclude that, since the sequence $-[skVt]=$ (i.e., the suffix + *-t*-ending) is mostly written $+š-ki-it(-t=)$ (keeping in mind the plene spellings with *e* such as *ḫu-iš-nu-uš-ki-e-it* and *zi-ki-e-it*), and only sporadically $+š-ga(-at-)t=$, the writing $+š-kat(-t)=$ which occasionally alternates with the former in the same text must represent $-[sket]=$ (see Oettinger 1979: 317 on the reading of the sign as *kit*, with lit.). It is recognized, however, that *kat* might be phonetically ambiguous. Oettinger, loc. cit., cites *du-uš-kat-ti*, a Late Hittite analogic *-ḫḫi*-conj. prs. sg. 2 form where, in his view, the sign must be read as $[kat]$ because other *-ske-* stem forms in the *-ḫḫi* conj., such as prs. sg. 1 *pa-aš-ga-aḫ-ḫi* 'set up', *du-uš-ga-i* 'rejoices', show the $[a]$ alternant. This argument is hardly compelling, since *du-uš-kat-ti* might well parallel middles like *du-uš-kat-ta* (prs. sg. 3 [and in principle 2]), where *kat* should represent the same as $=ki=(e-)-it=$. In *ša-al-la-nu-uš-kat* (OH), *kat* can hardly represent anything but $[ket]$ (no $*+š-ga-at$ is found, as far as I know). The change of postaccentual *e* to *a* occurs only in open syllables, e.g., 1. sg. pl. primary ending *-weni* appears as $+(u-)wa-ni$, 2. sg. pl. primary ending *-teni* appears as $+(=t-)ta-ni$, pre-Anat. enclitic **-te* 'tibi, te' (: IE **te*, Pedersen 1938: 74) shows up as $+t-ta$; there is, however, no **-wan* or **-tan* as secondary endings: only $+u-en$ and $+(=t-)ten/+te-en$. One may cite OH mid. prs. sg. 3 *lu-uk-kat-ta* (passim, see class VI below) spelled out as *lu-ug-ga-at-ta* OH StBoT 25 No.4 Rs. IV 21 in support of reading *kat* also as $[kat]$; no writings of the **lu-uk-ki-it-ta* type are found here. In comparison with this latter, writings of the suffix *-ske-* with *ga* before *t*-endings are rare and relatively late, while writings with *ki(-e-)+* clearly predominate. One may therefore posit, with due caution, that *kat* (in *-ske-* verbs) is more likely to be read as $[ket]$ than $[kat]$. If so, then the *e*-alternant is the dominant one in the older language with the *a*-alternant occurring there before the 3rd plural ending (*-nzi*) and before the participial suffix (rare as it is) beginning with *n*, and before the middle endings that begin with *ḫḫ*

(viz. prs. and prt. sg. 1 and imperative sg. 2 [no example of imperative sg. 1 in my collection]). The replacement of the *e* alternant with *a* in certain forms (for example, +š-*ga*-*zi* for +š-*ki*-*iz*-*zi*, +š-*ga*-*u*-*e*-*ni* for +š-*ki*-(*e*)-*u*-*e*-*ni*, +š-*ga*-*ta*-*ru* for +š-*ki*-*it*-*ta*-*ru*) is post-OH proper and sporadic (regional or other register encroachment upon the written language?).⁵⁶ An interesting combinatorial property of class V stems is the rarity of participles (first noted by Bechtel 1936: 102); the exceptions are *zi-ik-kán-t+* (LOH hapax) sufficiently different from other class V stems (and perhaps not identifiable as part of the paradigm of *da-a-i* : *ti*-(*ia*)-*an*-*zi*, etc., 'place' in formal terms)⁵⁷ and *iš-ḥa-aš-kán-t+* (e.g. OH pl. acc. c. *iš-ḥa-aš-kán-tu-uš* StBoT 25 No.4 Vs. II 7') 'bloodspotted, bloodshot', the morphology of which is opaque.⁵⁸

Class VI

The only stem that clearly belongs in this class is apparently de-verbative: 1. *lu-uk-ki-i+* : *lu-uk-ka+* / *lu-ug-ga-a+* / *lu-uq-qa+* 'set alight, light (tr.)' based on *lu-uk+* 'be (a)light, dawn'; see paradigms below.

act. prs. sg. 3 *lu-uk-ki-iz-zi* OH KBo VI 2 IV 53, 56, 59
 XXIX 38 l.c. 1
 MOH KBo XXV 14 II 7
 KBo VI 3 IV 52, 55, 59

⁵⁶The possible Hittite evidence for Indo-European reduced grade forms in pl.1 **-sk^o-mes* (< **-sk^o-mes*) and pl.2 **-sk^o-te* (< **-sk^o-te*), namely forms such as "*daškaweni*" and "*daškatteni*" adduced by Risch (1965: 239 ff.), is thus disqualified.

⁵⁷Eichner 1980 §14: "Erst als sich der paradigmatische Zusammenhang zwischen *tiianzi* und *zikkanzi* gelockert hat, bildet man schließlich doch einzelntes *zikkant-*." Eichner does not mention *išḥaškant-*.

⁵⁸The stem could be based on an *s*-denominative to the *r/n*-stem *e-eš-ḥar* 'blood' OH [e.g., StBoT 25 No.3 Vs. I 27]: **išḥanš-* 'bleed?', cf. *kammarš-* 'to shit' to **kammar* 'shit' (on which *kammara-* c. 'stench?', 'fumes' is apparently based) and *ištamaš-* (< **ištamanš-* ?) 'hear' to *ištaman-* [instr. sg. *ištamanta* XII 21, 11; more often *a*-stem forms to *ištamana-* c.] 'ear'; cf. Eichner 1975: 83.

LOH KBo VI 12 I 17, 23
LMH KBo XV 48 II 14

pl. *lu-uk-kán-zi* OH StBoT 25 No.105
MOH KBo XX 34, 10', 11'
LOH XXXIII 11 III 10
KBo X 26 I 2
LMH XXXIII 128 II 10

prt. sg. *lu-uk-ki-it* LOH XXVI 71 I 13
XXIII 20, 13'

pl. *lu-uk-ki-e-ir* MH XIV 1 Rs. 54

mid. prs. sg. 3 *lu-uk-kat-ta-* OH StBoT 25 No.3 Vs. II 30'
ibid., IV 7, 24 =[uk-k]=
LOH VBoT 58b IV 40
MH XIII 1 I 29
LMH VBoT 24 I 22
lu-ug-ga-at-ta- OH StBoT 25 No.4 Rs. IV 21
lu-uq-qa-ta LMH KBo X 41, 6

prt. *lu-uk-kat-ta-ti* LOH KBo III 38 Vs. 2 (=StBoT 17B)

The root verb stem on which this stem appears to be based is attested as follows:

mid. prs. sg. 3 *lu-uk-ta* OH StBoT 25 No.68 Rs. 9
(=KBo XVII 13 x+1 and KBo XXV 68 Rs. 6)
prt. *lu-uk-ta-at* LOH KBo III 34 I 19

The participle *lu-uk-kán-t+* could in principle belong to both, but, as its contexts make clear (see HD: 78 f.), it in fact belongs to *lu-uk-ki-i+*, etc. Attestations are as shown:

(acc. pl. c.) *lu-uk-kán-tu-uš* OH StBoT 25 No.105, 6'
(acc. sg. neut.) *lu-uk-kán* LOH KBo VI 11 I 6
XX 96 IV 2

(Cf. listings in HD: 74b ff., 78 f. and Oettinger 1979: 271 f.)

The writing *lu-uk-kat-ta* cannot be interpreted as equivalent to *lu-uk-ta* (i.e., it does not stand for [*lukta*], see Oettinger 1979: 274 f. Thus Hoffmann's statement (1968: 218) that "Präs. *lukkatta* lautlich auf **lukta* zurückgeführt werden darf" must be corrected, with all due consequences. For this reason, one may not list the forms *lu-uk-kat-ta* / *lu-ug-ga-at-ta*, etc., in the paradigm of *lu-uk-ta* without explaining first how the two forms got to coexist in the same paradigm. If the root stem is the older of the two (as is usually assumed), then perhaps the stem with *a* between the root and the middle ending arose analogically, via resegmentation of, e.g., the 3rd person pl. **lu-uk-kán-ta*; but this type of thematization does not occur in Older Hittite (see root stem and other athematic verb paradigms, e.g., in Oettinger 1979). Nor is it likely that *lukkatta* came into being by means of the hypercharacterizing addition of the middle ending *-ta* to a *t*-less mid. prs. sg. 3 **lukka*: there is no evidence for such a form, whether in Anatolian or in pre-Anatolian (as also in extra-Anatolian IE). By far the more obvious step, descriptively in any case, is to assign the forms in question to the paradigm where the verb has a vowel between the same root and endings, namely to the paradigm of *lu-uk-ki-iz-zi*, as its regular middles. Semantically, there is no obstacle to regarding [*lukata*] as the middle to [*luketi*] 'light (tr)'. In some Indo-European languages, such as Russian, verbs typically used as predicates with the words for 'fire' and those for things being lighted (as both subject and object) are used, in their mediopassive (reflexive) form, with regard to 'dawn', e.g., загорѣлся пожаръ / огонь (домъ) 'the fire has been lit' / 'the house caught on fire': загорѣлась заря 'the dawn lit up', зажечь пожаръ 'to set fire (to)', зажглась заря 'the dawn lit up'; (за)пылать (intr.) 'be ablaze' and заняться 'begin' [idiomatically of fire / dawn] have the same distribution with regard to 'fire', etc., and 'dawn'. If this is done in Russian, it could also be done in Hittite.

Thus, if [*lukata*] is the middle of [*luketi*] which is a deverbative (transitive) of [*luk*]- (medium tantum, intr.), the stem *lu-uk-ki-i+* : *lu-uk-ka+*, etc., cannot be interpreted as corresponding to "den thematischen Flexionstypen *uškizzi*, *uškanzi*, *uškit*, *uškant*..." as K. Hoffmann

determines at the outset of his influential paper (Hoffmann 1968: 214⁵⁹): *-ske-* stems have the vowel *e* in the suffix before the middle endings (often written (=k)i-i(t=); note the absence of such spellings in the stem under investigation, coupled with =ga-at= spelling out the *kat* sign in one OH example), and they are *not* transitive deverbatives based on some fictional intransitive “*sk-” stems. In lexical comparisons of all kinds, meaning is an obviously important factor in establishing and validating connections among items being compared; this should not be forgotten in establishing and validating morphological relations.⁶⁰ Further on this stem see the summary to this chapter as well as chapters 4 and 5.

2. *la-lu-uk-ki-i+* ‘be/become luminous’. This stem, the only attestation of which, viz. act. prt. sg. 3 *la-lu-uk-ki-it* MOH XXXIII 66 II 17, is insufficient for determining its class (it could very well belong to class I) is listed here because it is based on the same root (albeit re-duplicated) as the two stems dealt with above.

Class VII

Primary

1. *ḥu-ul-li-i+* : *ḥu-(u-)(ul-)la-(a=)+* / *ḥu-(u-)ul-li-ia-(a=)+* ‘combat, contest, defeat’

act. prs. sg. 2 *ḥu-ul-la-ši* OH XXXVII 223 Rs. 5

3 *ḥu-ul-la-az-zi* OH XXXVII 223 Vs. 4

⁵⁹K. Hoffmann further puts *pehutezzi* in the same class; on this latter, see below and Chapter 4.

⁶⁰The superficial similarity between *lukke-* and the *-ske-* verbs is akin to that between any *bona fide* class IV denominative and the stem *pa-(a-)i+* : *pa-a-a+* ‘go’ (see the class IV section above): it becomes obvious as merely superficial even after a cursory look at the distribution of alternants in the paradigm compared to other class IV stems. Further comparison shows that the stem does not belong here at all.

hu-u-ul-la-az-zi LOH KBo VI 26 II 11
hu-ul-li-[iz-zi] OH StBoT 18 Vs. 35
hu-ul-li-iz-zi MH XXXIV 53 Rs. 9' + 05
hu-u-ul-li-ia-az-zi LOH KBo VI 26 II 13

} *hulie-*!

pl. *hu-ul-la-an-zi* MOH KBo VI 3 II 12
hu-u-ul-la-an-zi LOH KBo VI 55 III 8
hu-ul-la-an-zi MH XVII 21 IV 19

prt. sg. 1 *hu-ul-la-nu-un* OH StBoT 18 Vs. 11, 15
hu-ul-la-a-nu-[un] LMH XXIII 21 Rs. III 28
hu-ul-li-ia-nu-un LOH KBo X 2 Vs. I 35
 XXIII 33, 55'

3 *hu-ul-li-it* OH StBoT 17A Rs. 8'
 XXXVI 99 Rs. 4
 LOH StBoT 17B (=KBo III) Vs. 31'
 KBo III 46 Vs. 25
 KBo III 1 I 29
hu-ul-li-iš LOH StBoT 17B Rs. 24'

pl. 1 *hu-ul-lu-mi-en* LMH XXIII 21 Vs. 29
hu-ul-li-e-ir LOH KBo III 16 Rs. 2,3,4
 KBo XII 3 III 11'
hu-ul-li-ir LOH StBoT 17B Vs. 32'
 LMH XXXI 124 Vs. II 12

mid. prt. sg. 3 *hu-ul-la-at-ta-ti* LOH KBo III 29, 14
 imp. *hu-la-da-ru* LOH KBo VIII 41, 5
hu-ul-la-at-ta-ru LMH KBo XVI 56, 8'

(Cf. attestation listings with discussion in StBoT 18: 74 ff. and Oettinger 1979: 261 ff.)

Note also the *atar*-abstracts to this stem (meaning 'aggressiveness', 'fighting spirit' or the like): *hu-ul-la-tar-* LOH XXIX 1 II 37, *hu-ul-la-a-tar* LMH KBo XXI 8 III 15'.

Cf. *hu-ul-lu-li-ia-a+* 'fight one another' to the same root (class I.37). The *a*-alternant before the endings of the 2nd and 3rd person sg.

appears in OH XXXVII 223 (and in LOH KBo VI 26 II 11). Other texts show =i-i= (in 3 sg. prs. and prt. where the same alternant is expected). Late Hittite copies contain innovations such as class I forms *ḫu-ul-li-ia-az-zi* (with the Late generalization of the *a* alternant in the suffix) and *ḫu-ul-li-ia-nu-un*, easy to explain by analogy if the writing =i-i= in the stem final is to be interpreted as *i*, for example: *ú-e-mi-iz-zi* : *ḫu-ul-li-iz-zi* = *ú-e-mi-ia-nu-un* : *x*, where *x* = *ḫu-ul-li-ia-nu-un* (etc., *mutatis mutandis* for other forms; cf. Oettinger's unconvincing statement [he assumes [hulle]-]: "... wird [hullëzzi] zu [hullëzzi] umgeformt, was zur Durchführung eines Stamms *hullje-* (im Ablaut mit *hullja-*) im Sinne der *uemiē*-^{mi}-Klasse ... führt" (1979: 263), without an explanation of how this *Umformung* took place). It is important to note in this connection that, in the case of *lu-uk-ki-i+*, etc. (cf. above), no forms of the type **lu-uk-ki-ia-an-zi* are attested, due to the fact that *lu-uk-ki-i+* did stand for [luke]- and thus there was no basis for transfer into class I (see the summary at the end of this chapter and Chapter 4).

The LMH form *ḫu-ul-lu-mi-en* matches the copiously attested *-ḫḫi*-conj. transfers such as *ḫu-ul-la-i* (LH); for a good account of this transfer, see Oettinger 1979: 263 (parallels: the *-ḫḫi* verb *tarnai* 'lets loose' : *tarnanzi* : *tarnummen* : *tarnant-* and the like).

Act. prs. sg. 3 *ḫu-ul-li-iš* is a *-ḫḫi*-conj. inspired mistake for *ḫu-ul-li-it* in the OH original, or else a hypercorrect form due to the post-OH replacement of 2. sg. prt. +š with +t. (The latter was suggested to me, in a conversation, by Warren Cowgill).

The other possible member of this class is (2.) *šu-ul-li-(i=)+* : *šu-ul-la-(a=)+* / *šu-ul-li-ia-a+* 'seek confrontation, confront aggressively' or the like; evidence for the *šu-ul-la-(a=)+* alternant is furnished only by the *ātar*-abstract (attested since MOH) and is thus not entirely reliable. The stem might in fact belong to class I. Its attestations in my collection are as follows:

act. prs. sg. 2 *šu-ul-li-ši-* MH XXXVI 114, 6'

3 *šu-ul-li-iz-zi-* ibid., 14'

prt. *šu-ul-li-ia-at* LOH XII 60 I 3

-ātar-deverbatives: *šu-ul-la-an-na-az* (abl.) MOH KBo VI 3 I 4
LOH KBo VI 10 II 17

Cf. paradigm with different datings in Oettinger 1979: 291. Again, contrary to Oettinger's interpretation (loc. cit., ff.) there is no evidence for reading *šu-ul-li*-(i=)+ as [*sulle*]- instead of [*sulli*]- (cf. [*hulli*]- above).

Class VIII

Primary

1. *hur-ni-e-i* + : *hur-na* + / ~~*hu-u-ur-nu-u*~~ + / *hur-ni-ia* + 'sprinkle, water'

act. prs. sg. 3 *hur-ni-e-iz-zi* LOH VBoT 58b IV 24
hur-ni-ia-zi LMH or LOH KBo X 45 II 15
hur-ni-ia-iz-zi NS

pl. 1 *hur-na-u-e-ni* OH StBoT 25 No.137 Vs. II 17

3 *hur-ni-ia-iz-zi* ? MS KBo 20.34

verbal noun ~~*hu-u-ur-nu-u-wa-as*~~ LMH? XXXIX 6 Vs. 147^{HTR}
 770 denom. character na aje (u-ur-ur-nu-u-wa-as & chet!) or hur-ni aromatic sap (of wood)

Cf. Oettinger's list of attestations (with different datings) in 1979: 307.

Cumulative evidence of these forms points to class VIII. The forms *hur-ni-e-iz-zi* and *hur-ni-ia-zi* are analogic class I transfers for **hur-ni-iz-zi* (cf. *hu-ul-li-iz-zi*, etc., of class VII above). Further discussion of this and other class VIII verbs see below and in Chapter 4. (Cf. Oettinger's view of the stem as "einfach thematisch," loc. cit.).

2. *tu/du-wa-ar-ni*-(i=)+ : *tu/du-wa-ar-na*-(a=)+ / *tu-wa-ar-ni-ia* + 'pierce, break (into)'

act. prs. sg. 3 *tu-wa-ar-ni-iz-zi* MOH KBo VI 3 I 29
du-[w]a-ar-ni-iz-zi MOH XXXIII 68 II 9
du-wa-ar-ni-iz-zi LOH KBo VI 4 I 27, 30
 LMH KBo II 3 II 44
du-wa-ar-ni-zi MOH KBo VI 3 III 70
tu-wa-ar-na-zi MOH KBo VI 3 I 31

- pl. ^{MH/MS} *tu-wa-ar-ni-ia-an-zi* MOH/(MH?) KBo XX 34 Vs. 10, 12
du-wa-ar-na-an-zi LOH KBo XIII 146 I 17
- prt. pl. 1 *du-wa-ar-ni-nu-un* LMH XLI 19 Rs. 8'
 3 *du-wa-ar-ni-it* MOH XVII 10 I 33'
- pl. *tu-wa-ar-ni-ir* OH XXXVI 104 Vs. 7'
 LOH KBo III 34 Vs. I 9

-*ske*- forms:

- act. prs. sg. 3 *tu-wa-ar-ni-iš-ki-iz-zi* MH MIO I III 36, *ibid.*, 33 =a[r]=
du-wa-ar-[ni-iš]-ki-iz-zi LMH KBo II 3 II 41

Cf. Oettinger 1979: 308 f. (with different datings); to him, this is a descriptively simple thematic stem (viz. "[duwarnězzi]"). Note, however, that (as also in the case of *hur-ni-e-i+*) the available sign *ne* is not used here. Thus, even descriptively, this stem cannot be viewed as "simple thematic."

For *tu-wa-ar-na-zi*, cf. *hu-ul-la-az-zi* of class VII; *tu-wa-ar-ni-ia-an-zi* (and perhaps *du-wa-ar-ni-nu-un*) are analogic class I transfers (cf. the proportion formulated for class VII above).

3. *zi-in-ni-i+* : *zi-in-na-a+* 'finish'

- act. prs. sg. 2 *zi-in-ni-ši* LOH XXIX I I 5
 3 *zi-in-ni-zi-* OH KBo XX 10 I 5
zi]-in-ni-iz-[zi OH StBoT 25 No.47 Rs. III 20'
zi-in-ni-iz-[zi LOH VBoT 58b IV 35
zi-in-ni-iz-zi LMH XXIV 11 III 13
zi-in-na-i MH XXIX 8 II 17
- act. prs. pl. 1 *z]i-in-na-u-e-ni* OH StBoT 25 No.138 Vs.? 2'
 3 *zi-in-na-an-z[i* OH StBoT 25 No.27 Vs.! 19'
ibid., No.66 Vs. 4'
- prt. sg. 3 *zi-in-ni-it* LOH XXXIII 33, 12'
zi-in-ni-it LOH(?) KBo III 21 Vs. II 2
 MH XXXIII 10 Vs. 3 =i[t
- imp. pl. 2 *zi-in-na-at-ten* LOH XXXI 64 III 20'
- mid. prs. sg. 3 *zi-in-na-at-ta-ri* LOH XXXIII 67 IV 26
- pl. *zi-in-na-an-ta-ri* MH IBoT I 36 III 51

participle *zi-in-n[a-a]n-[t]e-eš* LMH VIII 83, 13'

Cf. Oettinger 1979: 311 f. (with different datings); he normalizes the stem as "zinne-" despite the fact that it is never written with *ne* but with *ni*.

zi-in-na-i is analogic (*tarnanzi* : *zinnanzi* = *tarnai* : *x*; *x* = *zinnai*).

It is possible that *zi-in-ni-i* is secondary, a deverbative (transitive) to *zi/zé-e-(i=)* + 'be ready/cooked' (medium tantum).

The forms *zi-in-na-u-e-ni*, *zi-in-na-at-ten* and *zi-in-na-at-ta-ri* (especially the latter two) can be easily explained as regular (not analogic) in light of the origin of this stem (and the other class VIII stems) as **-n-* infixing stems.⁶¹ See Chapter 4.

Class IX

Denominative

1. *ar-ša-ne-e* + */ar-ša-ni-e* + : *ar-ša-na-a* + 'be jealous, envy'

act. prs. sg. 2 *ar-ša-ne-e-ši* OH StBoT 25 No.122 Rs. III 2',4',6',8'

[*a*] *r-ša-ne-e-ši* *ibid.*, 10'

[*a*] *r-ša-ne-e-ši* *ibid.*, 12'

ar-ša-ne-e-ši *ibid.*, 14'

⁶¹So also Oettinger 1979: 307: "auf n-Infix-Präsentien ultimae *h*₁ zurückgehenden Verben," and §59 (p. 150 f.). He, however, apparently confuses himself through his assumption that these verbs "— innerhethitisch gesehen — ebenfalls der einfach thematischen Klasse angehören" (*ibid.*). This assumption does not bear out because, as most writings show, **-nē-* (***-ne-h₁-*) > Hitt. *-[ni]-* (not *-[ne]-*). Oettinger further forgets his own important qualifier "innerhethitisch" and blames forms like *zi-in-na-at-ten* on the "sekundäre Einführung der dunklen Variante des Themavokals," whereas positing the expected **--n-h₁-te--* and **--n-h₁-to-r-* would be sufficient, in his terms, to explain the [*a*] in *zi-in-na-at-ten* and *zi-in-na-at-ta-ri* (Eichner's views on the outcome of **h₁* in this context, which Oettinger appears implicitly to accept, would allow him to posit the development mentioned above; Eichner 1973: 55: "*H₁* (d.i. *ə*₁) wird im Heth. vermutlich zunächst zu einem indifferentem Murmelvokal *ə* und bei ungestörter Weiterentwicklung zu *a* (wie *H₂* = *ə*₂)."

ar-ša-ni-e-še MH¹ABOT 65 Rs. 6

přt. sg. 1 *ar-ša-ni-e-n[u-un* *ibid.*, 4

participle [*ar-ša-na-an-d*]a LMH XXXIII 9 III 7

arsananda ms (Mst)

разные пакеты?

Cf. Oettinger 1979: 28 et passim. Oettinger normalizes the stem as “*aršanje*”^{mi} and treats it as a -*ye*- stem (corresponding to my class I), in disregard of the OH evidence (q.v. above) which he condemns as “Fehlschreibung” while preferring as “korrekt” the MH *ar-ša-ni-e-še*, with its idiosyncratic *še* instead of the normal *ši* as the 2nd person sg. ending—all this without explanation (see op. cit., p. 342). On the sign *ne*, see below (p. 125).

The stem is likely to be a denominative (intransitive) of **aršana-* 'jealous, envious' (nomen agentis in *-ana-* to the verb root **ars-* 'envy'; cf. the transitive denominative *pī-ia-na-(a)-i+* 'give as a present (to)', possibly based on nomen actionis in *-ana-* to *pa-a-i* : *pī-(i=)* 'give', cf. class IV stem 27 above).

2. *uš-ša-ni-ia-(a=)* ‘sell, trade’. Its attestations (all post-OH) are as follows:

act. prs. sg. 3 *uš-ša-ni-ia-zi*- LMH? XIII 4 II 40

pl. 2 *uš-ša-ni-ia-at-te-ni* LMH? XIII 4 II 72;

ibid., IV 26

imp. sg. 3 *uš-ša-ni-ia-ad-du*

ibid., II 39

These attestations, taken at face value, require that the stem be classified as belonging to class I (with the mostly post-OH generalization of the *a* alternant, cf. class I paradigms, passim). It is the *-ske-* stem to this verb, attested in OH and in LOH, that makes the classification of the verb stem under consideration sub class I rather unlikely. The stem final of class I preceding the suffix *-ske-* has the shape $=i-i+$ or $=i-e+$ (cf. *an-ni-iš-ki-i+*/*an-ni-eš-ki-i+*, *a-ri-iš-ki-e+*/*a-ri-iš-ki-i+*, *pi-iš-ši-iš-ka+*, *tal-li-eš-ki+*, *ti-iš-ši-ki+* / *ti-iš-ša-ka+* (to *ti-i((e)j)=+ : ti-(i)ia(-a)=* 'stand (up)'), *ú-e-mi-iš-ki-i+*, *za-ap-pi-iš-ki-i+*; q.v. in their paradigms). The stem final of this verb, however, invariably has the shape $=e-e+$ (*uš-ne-e+*) before the iterative suffix:

mid. prs. sg. 3 *uš-ne-eš-kat-ta* OH XXIX 29 Vs. 12

uš-ne-eš-[kat-ta] ibid., 8; 15

uš-ne-eš-kat-ta MOH KBo VI 10 III 18; 28

act. prs. sg. 1 *uš-ne-eš-ki-mi* KBo XXI 22 Vs. 18, 19

This evidence is not to be taken lightly, especially in view of the nature of the sign *ne* consistently used in the forms under discussion. It takes nine strokes to write the sign *ne*, compared with only two strokes that are necessary to write the sign *ni* (in the old ductus; in the younger ductus *ni* takes four strokes). The stem *uš-ne-e+** thus abstracted belongs to class IX (unfortunately, no forms with the alternant **uš-na-a+* or the like are attested, which calls for some caution). The class I forms (all LMH, possibly LH) are likely to be due to analogic remodeling, the model for which is provided by the class I stem *ku-(uš-)ša-ni-(i-e-)i+* / *ku-uš-ne-i+* : *ku-uš-ša-ni-ia+* 'to lease, hire', denominative of *kuššan-* n. 'pay, price', very similar to *uš-ne-e+** both formally and semantically. That *uš-ne-e+** too served as a model for *ku-(uš-)ša-ni-(i-e-)i+* at some point, is shown by LOH *ku-uš-ne-iz-zi* (act. prs. sg. 3) q.v. *sub* class I stem 45.

The stem *uš-ne-e+** is possibly a denominative of **usna-* 'sale, price' (itself a deverbative of *wa-a-š+* [*-hhi* conj.] 'buy'); see discussion below and in Chapter 4.

One more class IX stem is possibly attested in *ga/ka-ne-na-a+* 'bend (intr.)' which, in my collection, is presented only by participial forms: *ga-ne-na-an-da-aš* OH StBoT 25 No.42 Vs. II 10, *ga-ne-na-an-ta-aš* OH StBoT 25 No.43 Vs. I 9', *ka-ne-na-an-te-[eš]* LOH XXXI 132, 6. The classification remains uncertain because of insufficient information (the conjugation type is unclear; if *-mi*, then class IX or possibly also VIII?). In any case, there is no evidence for normalizing the stem as **kanenje-*, as Oettinger does (1979: 28 and 354; no attestations given).

Class X

Primary

1. *iš-pār-ri-i+* : *iš-pār-ra-a+* 'tread (on)'

- act. prs. sg. 3 *iš-pár-ri-iz-zi* MH XIV Rs. 91
 pl. *iš-pár-ra-an-zi* LOH KBo XX 32 Vs. II 3
iš-pár-rq-a[n-zi KBo XXV 47 Rs. IV 17'
 participle *iš-pár-ra-an-za* MH KBo XVII 61 Vs. 17

Cf. listings in Oettinger 1979: 266.

Oettinger places *iš-pár-ri-i+* (-*mi* conj.) 'tread (on)' in the same paradigm with *iš-pa-ra-an-zi* (with *pa* instead of *pár* in this form and thus a "single" *r*). I believe, with C. Watkins (1975: 377), that the writing difference should be taken seriously. As Watkins has shown, *iš-pa-ra-an-zi* belongs to the same paradigm as *iš-pa-a-ri* 'spreads' OH XX 46 Vs. III 8 (see the context in loc. cit.; also note Watkins's etyma for the two verbs). For details, see Chapter 4.

2. *šar-ri-(e-)i+* : *šar-ra-a+* 'divide, cross over, transgress, (break an oath)'

- act. prs. sg. 3 *šar-ri-e-iz-zi* LMH StBoT 22 I 51; IV 7
šar-ri-iz-zi *ibid.*, I 40; II 35, 46; III 20, 27, 34, 40;
 IV 7
 pl. *šar-ra-an-zi* OH KBo VI 2 III 8, 9, 11
 StBoT 25 No.47 Rs. III 9'
šqr-rq-a[n-zi *ibid.*, No.12 Vs. II 9'
šar-ra-an-zi MOH KBo VI 3 II 19;
ibid., III 10, 12, 13
 LOH KBo VI 6 I 13, 16, 17
 XIII 11 Vs. 3
š]ar-ra-an-z[i LOH XXIX 15, 4
 prt. sg. 3 *šar-ri-īt* OH XXXVI 106 Rs. 5'
šar-ra-aš MH XXIII 72 Rs. 3
 pl. *šar-ri-i[r* MH XXXI 124 II 18'
 mid. prs. sg. 3 *šar-ra-at-[ta* OH XXXVI 108 Vs. 10 !
šar-ra-at-ta LOH I 16 II 50
 pl. 2 *šar-ra-at-tu-ma* LOH KBo III 28 Vs. II 21
šqr-ra-at-tu-ma KBo III 27 Vs. 25

-*ske*- forms:

act. prs. sg. 2 *šar-ri-eš-ki-š/i* LOH XXXI 127 I 31

mid. prs. sg. 2 *šar-ra-aš-ki-it-ta* MOH XXXI 133 I 11 (parallel to the preceding attestation)

3 *šar-ri-eš-kat-ta* LMH/LOH XIII 4 III 61

Cf. the paradigm in Oettinger 1979: 284 ff., with lit. (p. 286). MH *šar-ra-aš* is a transfer to the *-hhi* conjugation (analogy, e.g., *tarnanzi* : *šarranzi* = *tarnaš* : x, x = *šarraš*). The connection of this stem with *šar-ḫi-e-i* + ‘knock down, attack suddenly’ (q.v. above, class I stem 88) —both based on the root *šar-ḫ*+? (as proposed by Oettinger 1979: 288 f.⁶²)—is in my view unlikely: cf., e.g., *ar-ḫa* (not **ar-ra*) ‘outward, away’, *par-ḫ* + ‘hunt, persecute’, *tar-ḫ* + ‘be powerful’, which show Indo-Hittite **rH* to be preserved in Hittite. See Chapter 4 for further discussion.

Secondary: Denominative (?)

3. *pa-ap-ri-i* + : *pa-ap-ra-a* + ‘be impure, act profanely’

act. prs. sg. 3 *pa-ap-ri-iz-zi* OH KBo VI 2 I 56

pa-ap-ri-iz-zi *ibid.*, 57

pa-ap-ri-iz-zi MH KBo XVI 25 II 19'

prt. *pa-ap-ri-it-ta* LOH KBo III 28 Vs. 19

participle *pa-ap-ra-an-te-eš* MH KBo XVI 27 II 10'

-ske form:

act. prt. pl. 3 *pa-ap-ri-eš-kir* LOH KBo III 28 Vs. II 17

Cf. Oettinger 1979: 282. The form *pa-ap-ri-it-ta* is act. prt. (should be emended to *pa-ap-ri-it*), see op. cit., p. 283, with discussion.

Oettinger analyzes the verb as **pa-pr-e-*; diesem reduplizierten, ein-

⁶²Ibid., p. 289: “**sḫ₂-(i)je-tu* > *šar-ḫi-i-e-id-du* . . . them. Akt. Prs. Sg. 3 **serḫ₂-e-ti* > **šarheti* > [*šarrēzzi*] (i.e., *šar-ri-(e)-iz-zi*—A.L.), Med. **serḫ₂-o-to-re* > **šarhatar* > [*sarrata*]” (i.e., *šar-ra-at-ta* in Oettinger’s interpretation—A.L.).

fach thematischen Verbum ist infolge seiner Isoliertheit im Hethitischen einiges Alter zuzutrauen. Die Aktionsart konnte auf ein mit *i* redupliziertes, duratives Präsens (vgl. uridg. **si-zd-e-ti* 'sitzt' . . .) mit an die Wurzelsilbe angeglichenem Reduplikationsvokal weisen . . ." (ibid., p. 284). I find this analysis and the whole scenario unconvincing because everything in it is ad hoc. C. Watkins's (1973: 79 f.) view of the stem as an erstwhile *ē*-stative is also hardly compelling since *pa-ap-ri-it-ta* is not a middle preterite parallel to Homeric φάτο (as *pa-ap-ri-iz-zi* is parallel to Hom. φησι in Watkins's interpretation), and *ú-e-da* which is a misreading of *ú-e-it*⁶³ (see class III stem 3 above) is thus not an example of the same ending.

Furthermore, the existence of the *-ahh*-factitive *pa-ap-ra-ah-h*+ 'make impure, defile' (e.g. participle *pa-ap-ra-ah-ha-an* MH XXIX 8 I 39) points to a possible a-stem adjective *papra*-* 'impure' on which the factitive is almost certainly based (see Benveniste 1955: 1 and Lehrman 1983) and which could very well serve as the base for *pa-ap-ri-i*+ : *pa-ap-ra-a*+. See discussion in the summary and in Chapter 4.

There are also two stems which might belong to class X, but cannot be so classified with certainty because of insufficient information. *har-ra-a*+ 'crush', mid.'perish' has already been dealt with (see class I stem 3). The other is *tar-ra-a*+ 'be able, competent', attested from MH and only in the middle voice:

mid. prs. sg. 2 *tar-ra-at-ta* LMH XIII 9 I 8
 3 *tar-ra-at-ta* MH KBo XV 32 I 3

This information is insufficient for determining even the conjugational type to which the verb belonged. Cf., however, Oettinger 1979: 298 f., where the stem is labeled "einfach thematisch"; Oettinger further claims that *tar-ra-a*+ ("*tarre*-" in his normalization) "ist wahrscheinlich mit *tarh*-^m 'bezwingen' verwandt und geht . . . auf *térh₂-o-to-(re)* = ai. *tára-te* zurück" (op. cit., p. 299). I am skeptical about Oettinger's classification and about the connection with *tar-h*+ (see above on **rH*

⁶³As Gary Beckman points out to me, the copy (XXXI 4 Vs. 18) shows a form midway between *da* and *id* in an erasure, and so the problematic sign should be transcribed as "*it* (over erasure)," with or without "I".

in Hittite). At best, *tar-ra-a+* is a Luwianism (especially in view of the date of its attestation, when Luwian influence noticeably increases), which is made likely by the Luwian outcome of **rH*, cf. CL *pa-ra-a+* 'hunt, persecute' (: Hitt. *pár-ḫ+*, etc., 'id.'), see Laroche 1959: 77 and Chapter 3.

Class XI

Secondary: Deverbative

1. *wa-aš-še-i+ / wa-aš-ši-(e)-i+ : wa-aš-ša-a+ / wa-aš-ši-ia+* 'clothe, dress'

act. prs. sg. 2 *wa-aš-ša-ši* LMH XXXIII 54, 14'

3 *wa-aš-še-i / z-zi* OH StBoT 25 No.65 Rs. ? 3'

wa-aš-še-iz-zi LOH KBo XIII 137, 8 — OH

wa-aš-ši-e-iz-zi LOH KBo VI 26 IV 13

wa-aš-ši-iz-zi MH KBo XVII 61 Vs. 21

LMH XXXIV 76 I 2, 3 = [zi

wa-aš-ši-ia-zi LOH KBo X 23 Vs. I 11'

pl. 3 *wa-aš-ša-an-zi* LMH KBo XXI 34 II 12

prt. sg. 3 *wa-aš-ta* LMH XIII 9+ II 4

For an excellent discussion, with attestations, see Eichner 1970; also cf. Oettinger 1979: 299 f.

The stem is apparently based on the root verb stem *ú-e-eš(-š=)* (medium tantum) 'have on (clothes)' which is attested as follows:

mid. prs. sg. 3 *ú-e-eš-ta* OH StBoT 25 No.34 Vs. 12'

ú-e-eš-ta LOH KBo III 41+XXXI 4 Vs. 2

KBo XII 22 Vs. 3

LMH IX 28 I 15

pl. *ú-e-eš-ša-[a]n-da-* OH StBoT 25 No.3 Vs. I 24'

ú-e-eš-ša-an-da ibid., No.4 Vs. I 19'

ú-e-eš-ša-an-ta MH IX 31 I 37

See the discussion in Eichner 1970; see also Chapter 4 of this book (largely in agreement with Eichner, op. cit., on the interpretation of

the pattern *ú-e-čš(-s=)+* : *wa-aš-še-i+* as cognate with IE **wes-* (medium tantum) : **wos-éye-*; q.v. in Chapter 4.)

The stem *wa-aš-še-i+*, etc., underwent several kinds of remakings (transfers) in post-OH proper (for LH results of these, consult Oettinger's paradigm [1979: 299 f.]). The apparent post-OH uncertainty about the value of *še* (or possibly some real sound change underlying it) resulting in its replacement with *ši* in some cases (e.g. OH *+(š)-še* 'to him/her' > post-OH *+(š)-ši* 'id.'; cf. the reverse in MH *ar-ša-ni-e-še* [class IX stem 1], MH *pi-čš-še-ad-du* and the like [class I stem 14], where *še* for the expected *ši* (OH) is perhaps a hyperarchaization) helped transfer the stem into class I (LOH *wa-aš-ši-e-iz-zi*, (L)MH *wa-aš-ši-iz-zi*, LOH *wa-aš-ši-ia-zi*; the frequent LH *wa-aš-ši-ia-an-zi*). LMH *wa-aš-ša-ši* is in all likelihood a transfer to class IV (the analogy: *mu-un-na-an-zi* : *wa-aš-ša-an-zi* = *mu-un-na-(a)-ši* : x, where x = *wa-aš-ša-(a)-ši*, cf. LH *wa-aš-ša-a-ši*, [*wa-aš*]-*ša-iz-zi* [Oettinger 1979: 299]). The MH act. prt. sg. 3 *wa-aš-ta* exploits another analogic possibility: e. g., *ha-aš-ša-an-zi* (*ha-aš-š+*, *-hhi* conj., 'open') : *ha-aš-ta* = *wa-aš-ša-an-zi* : x, x = *wa-aš-ta*.

For Oettinger, the stem is "einfach thematisch." He takes it back to "voruranat. **uós-e-...*; also [*uässězzi*] : [*uässānzi*] < **uós-e-ti* : **uós-o-nti*" (ibid., p. 304). For a discussion of this view and presentation of my own views (in line with those of Eichner 1970), see the relevant section of Chapter 4.

One more stem possibly belongs to class IX, namely (2) *mar-še-e-i+* : *mar-ša-a+* 'be fraudulent', the attestations of which are insufficient for determining the stem's conjugation type with certainty:

act. prt. pl. 3 *mar-še-e-ir* OH KBo VI 2 II 55

participle *mar-ša-an-za-* LOH KBo III 36 Vs. 24

KBo III 34 Vs. II 20

mar-ša-an-ta-an LOH XXXI 115, 20

mar-ša-an-da pre-LH KBo XII 45, 4

c. stem *te* *gene* *xom*
oro u *nomen* *marša-*

The stem is more likely to belong to the *-mi* than to the *-hhi* conjugation because it is apparently based on the adjective *mar-ša-a+* 'unfit, fraudulent' (accusative sg. c. *mar-ša-an* LMH KBo V 2 I 4; factitive *mar-ša-a-aḥ-ḥ+* MH XXIX 8 I 39). Oettinger (1979: 29, 239

(*< marša-ḥi-ḥi*)

Class XII

- 131

KBo III 36 Vs. 14
pí-e-ḫu-te-ir LOH KBo III 34 Vs. II 7
 imp. pl. 2 *pí-e-ḫu-te-it-te-[en* LOH KBo III 41+ Rs. 10

Cf. the paradigm in Oettinger 1979: 37.

2. *ú-wa-te-(i=)* + : *ú-wa-ta/da-a* + 'bring/lead over here'

- act. prs. sg. 3 *ú-wa-te-iz-zi* OH KBo VI 2 I 43, 46
ú-wa-te-iz-zi *ibid.*, 48
ú-wa-te-iz-zi MOH KBo VI 3 I 51, 56
ú-wa-te-iz-zi *ibid.*, 54
ú-wa-te-iz-zi *ibid.*, 60
ú-wa-te-iz-zi LOH KBo VI 26 IV 10, 17
 KBo X 23 Vs. I 32 *ú*] =
 KBo III 27 Vs. 4 *ú*] =
 MH IBoT I 36 III 17
ú-wa-te-iz-zi VIII 81 Vs. II 1
ú-wa-te-iz-zi KBo XVI 27 Rs. III 18'
ú-wa-te-iz-zi LMH XXVI 11 Rs. IV 4
- pl. 1 *ú-wa-te-wa-ni* LMH XXXI 42 II 14
 2 *ú-wa-te-it-ta-ni* MH KBo VIII 35 II 7
 XXIII 77, 70
 XXIII 78b, 2
ú-wa-da-te-e-ni LMH XIII 9 III 10
- 3 *ú-wa-ta-an-zi* OH StBoT 25 No. 54 Vs. I 8
ú-wa-da-an-zi LOH XXIX 34, 6, 3 = *z[i*
 MH IBoT I 36 II 68
- prt. sg. 1 *ú-wa-te-nu-un* OH StBoT 18 Vs. 44
 MH XIV 1 Rs. 38
 LMH XXIII 11 II 10, 12, 32, 35, 38
ú-w]a =
- ú]-wa-te-nu-un* MH XXIII 12 II 3
- 3 *ú-wa-te-it* OH StBoT 18 Vs. 37
 StBoT 17A Rs. 9'
 StBoT 25 No. 146 Vs. I 2'
 LOH KBo III 38 Vs. 16

- XXXIII 23 I 5 u]
- pl. 1 *ú-wa-te-u-en* LMH XXIII 21 Rs. III 7
 3 *ú-wa-te-ir* OH KBo VIII 42 Vs. 3'
 XXXVI 104 Vs. 12' u]
 LOH KBo III 34 I 14; II 39
 KBo III 46 Rs. 9
 ú-wa-te-ir MH XIV 1 Rs. 71
- imp. sg. 2 *ú-wa-te* MOH XXXIII 5 Vs.? II 9
 LOH VBoT 58b I 26
 MH Mst.75/10 öy.10
- 3 *ú-wa-te-id-du* MH Mst.75/45 öy.12
 LMH XIII 2 I 21
- pl. 2 *ú-wa-te-it-te-en* OH XLIII 23 Vs. 1,6 — *on*²⁹¹
 ú-wa-te-it-ten LMH XIII 9 III 9
 XIII 20 I 27
 XXIII 68+ Vs. 12', 26', 28'
- ú-wa-ta-at-ten* MH XV 34 III 16

Cf. Oettinger 1979: 126; no attestations given.

Descriptively, the two stems presented above look like one and the same stem, namely **wade-* : **wada-*, compounded in the case of *pí-(e-)* *hu-te-(i=)*+ with the preverb *pí-(e-)*+ 'thither' and in the case of *ú-wa-te-(i=)*+, with the preverb *ú*+ 'hither'. The root vowel of **wade-* is syncopated after *pí-(e-)*+, but is left intact after *ú*+ (**uude-* or the like would have made the verb's morphology opaque; morphological opacity was not a threat in **peude-*). *h* in *pí-(e-)* *hu-te-(i=)*+, etc., notably always written single, appears to perform the same function as it does in *e-hu* 'come!' < **e-u* (disyllabic) < **ey-aw*; on *e-hu*, see above, class III, stem 1), namely that of a hiatus filler inside the disyllabic [eu]. The syncope of *a* in *wa* (< [u]) is likely to be explained by the place of the accent: this syncope is found, as a variant, in certain unaccented positions; the clearest example of this is the post-accentual alternant *+wa-ni* of the 1 pl. primary ending *+u-e-ni*, viz. *+wa-ni* < *+u-ni* in, e.g., MH *ha]-at-ra-a-u-ni* 'we write' (for the expected *ha-at-ra-a-wa-ni*). Apparently, *pí-(e-)* *hu-te-(i=)*+ became lexicalized as "standard" early on, while other cases, such as the syncope in the 1. pl. primary ending, remained occasional (register?) variants.

My view of the synchronic makeup of *pí-(e-)* *hu-te-(i=)*+ and *ú-wa-*

te-(i=)+ has important implications for my diachronic and comparative explanation of the verb; see Chapter 4 for a discussion, with lit.

3. *ú-e-te-(i=)*+ : *ú-i-ta-a*+ / *ú-e-da-a*+ 'build'

- act. prs. sg. 3 *ú-e-te-iz-zi* OH XXIX 29 Vs. 6
ú-e-te-[iz-zi] XXXVI 108 Vs. 9
ú-e-[te-iz-zi] KBo VI 2 IV 53 (//KBo VI 3)
ú-e-te-iz-zi MOH KBo VI 3 IV 52, 59
LOH XXIX 1 Vs. I 1
XXIX 20, 4
KBo XIV 65 IV 5 *ú]-e=*
- pl. *ú-e-da-an-zi* MH ABoT 60 Vs. 16'
- prt. sg. 1 *ú-e-te-nu-un* OH StBoT 18 Rs. 55
LMH XXIII 21 Vs. 3, 7
- 3 *ú-e-te-it* OH StBoT 17A Rs. 10
LOH XVII 6 I 15
- pl. *ú-e-te-ir* MH KBo XVI 27 Vs. I 18
- imp. sg. 3 *ú-e-te-id-du* LMH XXXI 86 II 20
- pl. *ú-e-da-an-du* MH XXXI 90 III 4
LMH XIII 2 II 35
- participle *ú-i-ta-an-tu-uš* OH XXXVI 108 Vs. 6, 8
ú-e-ta-an XXXVI 110 Rs. 16' (= 110.11.140)
ú-e-da-an LMH XIII 2 II 34
XIII 24, 15
ú-e-da-an-te-eš LMH XIII 2 II 20

Cf. attestations in Oettinger 1979: 129 (with LH; pre-LH incomplete).
See my discussion of the stem in Chapter 4.

4. *ú-wa-ri-te-i*+ : *wa-ri-ta-a*+ 'be afraid'

- act. prs. pl. 3 *wa-ri-ta-an-zi* OH StBoT 25 No.4 Rs. IV 34
[*wa-r*]i-ta-an-zi ibid., No.3 Rs. IV 39
- prt. sg. 3 *ú-wa-ri-te-it* MOH KBo XX 59, 17

Cf. Oettinger 1979: 127 f. (See an explanation in Watkins 1971: 75.)

Noteworthy is the noun *ú-e-ri-ti-ma-a* + 'fear' (acc. sg. *ú-e-ri-ti-ma-an* LOH XXIX 1 II 34) related to the stem. See discussion below and in Chapter 4.

One more candidate for membership in class XII is *ta-an-na-at-te-i* + 'be empty', too meagerly attested to be admitted here without reservations:

act. prs. sg. 3 *ta]-an-na-at-te-iz-zi* MH KBo XIII 13 Vs. 11
ta-an-na-at]-te-iz-zi *ibid.*, Rs. 2

This stem could be a denominative of adj. *dannatta-* (*tannatta-*) 'empty' (HW1: 209a; factitive *dannattahh-* *ibid.*, p. 209b). Cf. the Luwian cognates in Chapter 3. See the summary there and Chapter 4 for discussion and etymology.

Summary

I have surveyed all of the vocalic verb stems of Hittite that could be comparable with thematic verb stems of Indo-European (thus *-nu-* stems, as well as any *-hhi-* conjugation stems, do not belong in the survey; see the criteria outlined at the beginning of this chapter). In order to make the description free of preconceived notions (comparative, historical or any other) I devised and used a purely mechanical procedure of determining the stem and assigning stems to classes. (The procedure consists of separating endings from the stem and then grouping stems according to the segment immediately preceding the thematic segment.) The only case in which the procedure was deliberately violated was the *-ske-* stem class (class V) whose stem final consists of the easily identifiable iterative (etc.) suffix *-ske-*. Now that the survey has been completed, I shall summarize its results and attempt to come up with a more economical classification based on derivational histories of stems.

The already mentioned class V requires no further comment. Class I contains stems which have, before their thematic vowel, the segment which is necessarily and sufficiently identified as *y*; in other words,

class I is defined as a class characterized by the suffix *-ye-:ya-* (written *+i-(e-)i= /+i-e-(e-)+ : +i-(ia-)a+*). There is a tendency to level the variation in the paradigm by generalizing one or the other alternant. Although in some (chiefly [M/L]OH) texts a predilection is shown towards the *ye* alternant, it is the *ya* alternant that becomes prevalent in MH (and especially LH) texts; cf., e.g., the paradigm of *ú-e-mi-(e-)i+*, etc., 'find' (Class I stem 21). Among the twenty-five primary class I stems (i.e., those that are not secondary in Hittite terms), at least one belongs here only by virtue of the automatic application of the stem identification procedure, viz. *ki-i+ : ki-(ia-)a+* in which *=i-i+* is not a suffix but part of the root (see also Chapter 4). At least some of the thirteen deverbatives represent the morphological pattern in which the base (=forme de fondation) and the forme fondée in *-ye-* differ with respect to Aktionsart (e.g., *ha-at-t+ / ha-ad-d+ [=hat-]* 'strike (once)' : *ha-az-zi-(e-)i+ [=hatye-]* : *ha-az-zi-a+ [=hatya-]* 'strike (repeatedly); play (a string instrument)', cf. the similar pattern in IE where root perfectives pattern with **ye-* : **yo-* stems (see Chapter 4).

But it is the denominatives that help reduce the number of the provisional stem classes. Most class I denominatives (at any rate, the eleven relatively certain denominatives) are based on consonant and *i*-stem nouns; where other stems (such as *-a-* stems) are assumed, they are not necessarily so. Consonant stems and *-i-* stems are the only ones attested both as bases to class I stems and independently. My provisional class II has at least two stems whose nominal bases (*u*-stem nouns) are attested independently, viz. *ha-aš-šu-u-e-i+* 'be king' and *ša-ru-u-e-i+* 'plunder'. These are also likely to be **ye-* stems, with the change of **y* to zero between vowels (cf. *ú-an-zi / ú-wa-an-zi* 'they come' < **uanti* [with the glide *w* filling in the transition between *u* and *a*] < **u-y-anti* < **Vw-y-onti* [where *V* is a back non-high vowel]; *pa-a-an-zi* < **pe-y-anti*; class I stems such as *šu-wa-i-i+ : šu-wa-ia+* and *ta-(a-)i-i+ : ta/da-(a-)(i-)ia+*, where intervocalic **y* remains, require a special explanation, see Chapter 4). The same would apply to the other two class II stems, likely **ye-* denominatives. Class III has *šu-ú-(i-e-)i+ : šu-wa-a+* 'expel', which can without difficulty be regarded as a (primary?) **ye-* stem, especially in light of the comparative evidence (see discussion in Chapter 4), and *hu-(u-)i-šu-(ú-)e/i+ : hu-(i-)šu-wa-a+ / hu-iš-(šu-)wa-a+* 'be alive', which could quite as easily be regarded as a *-ye-* denominative to the adj. *huišu-* 'live', etc.; *ú-(e-)i+*, etc., 'come'

is placed in this class for technical reasons only (cf. *ki-i+* in class I), since it goes back to Proto-Indo-Hittite **ei-t-i* : **y-ent-i* 'be on one's way' with the preverb PA **aw-* > Hitt. *ú+*. Most class IV stems can likewise be easily explained as **ye-* denominatives based on *-a-* stem nouns (see the relevant section above).

Thus, my provisional classes I through IV are actually one class, namely the **ye-* : **ya-* class. Comparative and historical motivation makes this reclassification not only sufficient but also necessary. In addition, class IX denominatives such as *ar-ša-ne-e+*, etc., 'be jealous', *uš-ne-e+* 'sell, trade', class X denominative *pa-ap-ri-i+*, etc., 'be impure', class XI denominative *mar-še-e+*—all of them are likely to be **ye-* denominatives to their *-a-* stem adjective bases, with the stem vowel in the *e* grade: this pattern, well motivated by the comparative evidence (cf. Hom. φίλος 'friendly' : φιλέω 'be friendly [towards someone], love' vs. the factitive πυργόω 'fortify' based on πύργος 'fortress', cf. Hitt. *ir-ḫa-(a-)i+* 'delimit' based on *irḫa-* c. 'limit'; see Chapter 4 for discussion), is supported by the distribution of nominal bases in the *-ye-* : *-ya-* class: consonant (=C-*ye-*) and *i*-stems (*-i-ye-*) in the provisional class I, *u*-stems in class II (the plene writing of the base stem suffix with *u* is likely to indicate its diphthongal origin [see Hart 1983: 128 ff.]) and III, *-a-* stems (**-a-ye-*, with the *a* [*< *o*] grade of the suffix) in class IV, and then the *-a-* stems with the *e* grade of the suffix (**-e-ye-* : **-e-ya-*) in the simple thematic-looking *ar-ša-ne-e+*, *pa-ap-ri-i+*, *mar-še-e+*, etc. If this is so, then the thematic-looking vowel of *lu-uk-ki-i+*, etc., 'to light' (see above), *wa-aš-še-i+*, etc., 'put on (clothes)', as well as that of the class X (*=r-ri-i+* : *=(r-)ra-a+*) stems and class XII (*=te-i+* : *=ta/da-a+*) stems possibly stands for **eye-* : **eya-*. This possibility is best considered after the relevant evidence of other Anatolian languages (Chapter 3) as well as that of Indo-European, and the literature are discussed (Chapter 4).

Class VIII (paralleled by VII) shows contrast with class IX in that its stems use the sign *ni* (cf. class IX's *ne*). On the other hand, neither class VII nor VIII stems can be said to have the suffix *-ye-* : *-ya-* (except in analogic transfers of post-OH proper). The parallelism of class VII and VIII stems makes it possible to regard them as complementary and regroup them in one class: one may posit, provisionally, that the *=l-li-i+* : *=l-la-a+* of the two class VII stems goes back to Proto-Anatolian **=lni-* : **=lna-*, cf. the *=r-ni-i+* : *=r-na-a+*, *=n-ni-i+* : *=n-na-a+*

x, xi - LC ?
(no 3 stems)
x - "e/o"

stem finals of class VIII stems (especially since the cluster *ln*, to my knowledge, occurs in Hittite only in gen sg. *ú-i-il-na-aš* OH StBoT 25 No.3 I 41' / *ú-il-na-a-aš* OH *ibid.*, No.4 III 8, IV 14 'loam/clay', which cf. with the spelling *ú-i-la-a-nu-uš* OH *ibid.*, No.137 II 16; this latter suggests that **ln* in this oblique form and in similar post-OH proper oblique forms may be due to relatively late syncope, or to restoration of the cluster (**wiln-* > **will-* > *wiln-*) on the analogy of *wilan-* (HW1: 255a) in a paradigm with the old ablaut). As we shall see, classes VII and VIII contain, in historical-comparative terms, **-n*-infixing imperfectives formed to certain disyllabic roots (*radices ultimae laryngalis* in the laryngealist framework).

Chapter Three

THEMATIC VERB STEMS OF THE OTHER ANATOLIAN LANGUAGES

Below are presented the vocalic (possibly thematic) verb stems of Palaic, Cuneiform Luwian, Hieroglyphic Luwian, Lycian and Lydian.¹ These languages are not nearly so well attested and understood as is Hittite, and scholars often disagree even on such basic matters as the meaning of certain stems or the interpretation and grammatical category of many items. The purpose of this chapter—to determine whether a morphological class (simple thematic verb stems) of Proto-Indo-European can be said to have been inherited by the Anatolian sub-family—requires, as a minimum, that these basics about the *comparanda* under discussion be reasonably well known. Thus, in the overview of the possibly thematic verb stems of extra-Hittite Anatolian, I list only those items, the basic characteristics of which (viz. the meaning and grammatical category) have been established with certainty, or could, in my view, be so established through textual evidence. Where extensive philological groundwork was necessary, the matter has been left for future study.

From here on, Hittite verb stems discussed in Chapter 2 will be referred to by their provisional class number in capital Roman numerals (I, II, . . . , XII) followed by the number of the stem within the class, e.g., "I.36" = class I, stem 36.

1. Palaic

In Palaic,² two types of stems are clearly discernible: consonantal, e.g., the athematic root stems *a-aš* + : *a-š* + 'be' (cf. Hitt. *e-eš* + : *a-š* +

¹For an overview of Anatolian (including the verb) for the purposes of subgrouping, see Oettinger 1978. Sketches of extra-Hittite Anatolian verb systems (except Lydian and Lycian) see in Oettinger 1979: 558 ff.

²Detailed presentations of Palaic are Kammenhuber 1959a, Carruba 1970 (verb: p. 45 f.), 1972. A sketch of Palaic verb morphology is also found in Oettinger 1979: 558-560. Melchert 1984b has also been consulted.

'id.'). *ú-e-ir*+ 'say' (cf. Hitt. *-ye-* deverbative *ú-e-ri-i*+, etc. 1.36), and vocalic, some of which look thematic, e.g., *a-ni-i*+, etc., 'do, work', *šú-ú-na-a*+ 'throw in' (?) (rather than 'fill', see discussion below), and some of which do not, e.g., *ta-a-(az-)zu-(u=)*+ 'place' (?); many are problematic due to an inadequate understanding of the context.

Below is a list of Palaic vocalic (thematic-looking) stems with their attestations.³

1. *a-ni-i*+/*a-ni-e-i*+ : *a-ni-(i-)ia*+ 'do, work'

act. prs. sg. 2 *a-ni-i-ia-ši* 2 A Rs.10

3 *a-ni-it-ti* *ibid.*

prt. 1 *a-ni-e-eḫ-ḫa* 3 A Vs.I 4'

imp. sg. 2 *a-ni-ia-* 2 A Rs.10

(Carruba 1970: 50 with Hitt. and Luw. parallels.)

Cf. the Hittite primary *-ye-* stem *a-ni-(e-)i*+, etc. I.1 'do, perform, work (the soil)'.

2. *az-zi-ki*+ 'eat'

act. imp. sg. 2 *az-zi-ki-i* 2 A Vs.15

az-zi-[ki-i? *ibid.*, 20

(Carruba 1970: 52.)

A *-ske-* deverbative to *a-t*+/*a-d*+ 'eat' (in act. prs. pl. 3 *a]-ta-a-an-ti* 1 A I 7, 8; *a-da-a-an[-ti?*] 12, 7).

Cf. Hitt. imp. sg. 2 *az-zi-(ik-)ki-i* M(L?)OH class V in Chapter 3.

³Attestations are given according to Carruba's edition of Palaic texts in transliteration (Carruba 1970 and 1972), checked with the cuneiform editions. For convenience of orientation, see concordance in Carruba 1970: 6.

3. *pa-ar-ku-i+* / *par-ku-i+* 'cleanse'

act. prs. sg. 3 *pa-ar-ku-i-ti* 5 A II 22
par-ku-i-ti 5 B 4

(Carruba 1970: 67, with Hitt. and Luw. parallels.)

Cognate with the Hitt. *-ye-* denominative *par-ku-i-e-i+*, etc., 'cleanse' I.47.

4. *šu-ú-na-a+* 'throw in' (Carruba 1970: 70 "füllen")

act. prt. sg. 3 *šu-ú-na-at* 2 A Rs. 22'
 imp. sg. 2 *šu-ú-na* 2 A Rs. 24'

(Carruba 1970: 70 with lit.)

The stem, if its plene with *ú* is to be taken at face value, could be cognate with Hittite *šu-ú-ni-(e-)i+* 'sow, plunge, throw in' (I.16). The latter may thus belong in class VIII (= *ni-i+* : = *na-a+*, etc.), its class I forms (LOH and [L]MH) being later transfers (cf. the class VIII section in Chapter 2; discussion in Chapter 4).

The other possibly thematic stems are too poorly attested and understood to be of use. These include:

hu-uš-ši-i-i+ 'bring, offer (a libation)' (?) (see Carruba 1970: 56, 1972: 27 f.; Kammenhuber 1959a: 37: "unbekannter Bedeutung");

lu-(u-)ki-(i-)i+ : *lu-ki(-in/i-)lu-ki-(i-)e+/i+* (Kammenhuber 1959a: 13 f. and 80 f.: "anzünden"; Carruba 1970: 62: "'teilen' o. ä."; similarly Carruba 1972: 16 f., 28; at least, Kammenhuber's interpretation is based on the similarity with Hittite *lu-uk-ki-i+*, etc., 'to light' VI.1);

ha-pa-ri-(i=)+ 'give, turn over (to)' (??) (see Carruba 1970: 54: "Verbum unb[ekannter] B[e]d[eutung]"; cf. Hittite *ha-ap-pa-ri-e+/i+* 'give, turn over (to)' I.41; except for the formal similarity, there is nothing to impose the interpretation);

iš-ka+ '?' (act. imp. sg. 2 ? *iš-ka* 2 A Vs.22, see Carruba 1970: 57:

"Imper. Sg. 2, unb. Bd.");⁴

ták-ku-wa-a+, *ták-ku-wa-ga+* + '?' (the relation of the two stems is questionable *pace* Watkins 1975, cf. Szemerényi 1979: 317 f.);

wa-ḥa-ri-ia-a+ + '?' (cf. Carruba 1970: 77, 1972: 44; the suggested connection with the root of Hittite *ú-e-eh* + *wa-ḥ* +, etc., 'turn' [see also Watkins 1972] is possible but hardly compelling);

ú-i-te + *ú-i-ti* + '?' (the meaning 'build' suggested by Kammenhuber [see lit. in Carruba 1970: 76], based on the similarity with the Hittite [see XII.3], does not fit the context, Carruba 1970: 16 f.; Carruba's own suggestion, viz. 'bring' based on the similarity with Hitt. *ú-i-da-a-i* + IV.30, fares a little better only because 'bring' is likely to fit more contexts than 'build');

ši-(i)-i + '?' (cf. Carruba 1970: 70, 1972: 6 f.; Kammenhuber 1959a: 49, 51, 53).

2. Cuneiform Luwian (CL)

§1. The Cuneiform Luwian⁵ verb has consonantal (athematic) and vocalic stems. The former are exemplified by (*a*)-*aš* + : *a-š* + 'be' (cf. Hitt. *e-eš* + : *a-š* +, Pal. *a-aš* + : *a-š* + 'id.'), *a-d* + / *a-z* + [before +*t* = of

⁴If the form is an imperative, then the meaning 'go!' is possible in its context (q.v. in Carruba 1970: 16; "translation" and commentary in Carruba 1972: 20); the passage, however, is not at all clear and other interpretations are possible (such as voc. sg. of an *a*-stem, *iš-ka* + '?' or even Watkins's [1993: 477 f.] imp. 'be!' < **škw* (!!)). The root 'go' is attested in the imperative *i-ú* 'come!', corresponding exactly to Hitt. *e-ḫu* 'id.' (on which see III. 3 above and Carruba 1972: 8 f.; see also Cowgill 1979: 27, n. 8). Thus, if the stem is a *-ske*-stem to this root, the problem is to explain the difference between the stem vowel of *az-zi-ki-i* and that of *iš-ka*. Perhaps the former shows Hittite influence while the latter is Palaic proper.

⁵The most complete listing of the attested Cuneiform Luwian vocabulary to date is Melchert 1993 with lit. For a good sketch of the CL verb morphology, see Oettinger 1979: 561 ff. See Starke 1985 for a recent edition of the CL corpus and Starke 1990 for a compendious survey of CL word formation, unfortunately often marred by unconvincing analyses. Laroche 1959 is somewhat obsolete but still very useful.

the ending, cf. midd. prs. sg. 2 *az-tu-u-wa-ri* KUB IX 31 II 28] 'eat' (Hitt. *e-it* + : *a-d* + 'id.', Pal. iter. *az-zi-ki* +), *ta-pár* + 'govern', etc. The latter include possibly thematic stems such as *a-a/i-ia-(a=)* + : *a-(a-)* + 'do, make', *du-u-pí* + / *du-u-pa-i* + 'strike', *tu-(u-)um-ma-an-ti-i* + 'hear', *pi-pi-iš-ša* + 'give' (reduplicated iterative of *pí-(i-)ia-(a=)* + / *pí* + 'give', cf. Hitt. *pa-a-i* : *pí* + [-*hhi* conj.] 'id. '), *az-za-a* + 'eat' (iter. of 'eat', see above). Some CL thematic-looking stems have obvious athematic Hittite counterparts; yet others have Hittite cognates that belong to the *-hhi* conjugation (of which CL has but a few prs. sg. 3 forms in *-i* left) while the Luwian forms have *-ti*-series endings (corresponding to the Hittite *-mi* series).

§2. The relevant stems are listed alphabetically below:

1(a). *a-(a-)* + and 1(b). *a-a/i-ia-(a=)* + 'do, make'

See attestations in Laroche 1959: 24 and Melchert 1993: 3 f. The distribution of the two stem forms is nearly complementary, the latter occurring before endings beginning with *t/d* and *h* (once) and the former, elsewhere; e.g., act. prs. sg. 2 *a-a-ia-ši* KBo IX 141 Vs. 16, prt. pl. 3 (?) *a-a-ia-an-ta* ibid., Vs. 20, *a-i-ia-an-da* XXXV 132 II 8, mid. prs. sg. 3 *a-a-ia-ri* XXXV 54 II 43, 44, 45, imp. sg. 3 *a-a-ia-ru* XXXII 8 III 26, 27, *a-i-ia-ru* XXXV 39 I 266, II 12, etc., participle (in +*m-mi-i* +) *a-i-ia-am-mi-in-zi* (pl.nom. KBo IX 145, 6 vs. act. prt. sg. 1 *a-ha* KBo XXIX 49 Ro. 6 (hapax), prs. sg. 3 *a-ti* (hapax) XXXII 8+5 IV 25, prt. *a-a-ta*, *a-ta*, *a-da*, imp. *a-a-du*, and, importantly, prt. sg. 3 *a-ia-ta* and *a-ta* in the same text (KBo XIII 260 II 2-4 and II 8-22 respectively).

While it cannot be ruled out that the alternation is phonologically conditioned, it is more likely, in light of the attestation of both *a-ia-ta* and *a-ta*, that we are dealing here with two stems, namely the root stem *a-(a-)* + and the *ye*-stem *a-a/i-ia-(a=)* +.

2. *a-(a-)an-ni-(i-)* + : *a-ni-(e-)ia-(a=)* + 'do, perform'

act. prs. sg. 3 *a-an-ni-ti* XXXV 39 III 26
a-an-ni-i-ti XXXV 14 I 8
a-a-an-ni-i-[ti] XXXV 88 II 11

*an-ni-i-ti*⁶ HT 82, 5
 pl. 3(?) *a-ni-e-ia-an-t[i]* XXXV 15 III 12 = 14 IV 14
 imp. sg. 2(?) *a-ni-ia* XXXV 133 III 4

See Laroche 1959: 27 with lit. and Melchert 1993: 17. Cognate with Hitt. *-ye-* stem *a-ni-(e-)i+*, etc. 'do, perform' and Palaic *-ye-* stem *a-ni-i+*, etc., 'id.' (Palaic 1). Melchert loc. cit.: "The geminate *-nn-* in the *ānni-* form is due to "Čop's Law" **énye-* > **ényi-* > **éni-* > *ānni-*." I remain extremely skeptical with regard to "Čop's Law" in all its formulations, the evidence being insufficient.

3(a). *a-ú-i+/a-wi+* (: *a-wi-ia-a+?*) 'come' and 3(b). *i(-i)+ : i-ia-a+* 'go'

act. prs. sg. 1 *a-ú-i-mi*⁷ XXXV 71 II 5
 2 *a-ú-i-ši* XXXV 100, 3
 3 *a-ú-i-ti* XXXV 54 II 41; III 24 *ibid.*, 107 II 1-6 106, 4
 KBo VII 67, 4
a-wi-ti XXXV 123 IV 10
i-ti XXXV 21 Vs. 5 et passim

prt. sg. 1 *a-ú-i-ḫa* XXXV 136 IV 12, 16, 20, 22
 (?) *a-wi-ia-aḫ-ḫa* XXXV 96, 12
 3 *a-ú-i-ta* XXXV 79 IV 4
ibid., 88 II 1; 103 III 11; 133 II 7
 (?) *i-i-ta* XXX 109 III 1
 pl. *a-ú-i-en-ta* XXXV 98, 14
a-ú-i-in-ta KBo IV 11, 46

⁶Melchert 1993: 17 supplies <a-> as the first sign. I see no need for that.

⁷Melchert 1993: 44: "Ex. in 71 ii 5 is not dissimilated pres. 1st sg., which should be stricken." Melchert, loc. cit., lists it as the participle "*a-ú-i-<im>-mi-[iš]*." I am not convinced. If Laroche's identification stands (Laroche 1959: 36), then the *m* in the ending is the result of dissimilation (from **a-ú-i-i-ú-i/=wi* [awiwī], as *per* Laroche, loc. cit.

imp. sg. 2(?) *i-ia-a* XXV 39 I 27

3 *a-ú-i-du* XXXV 30+31 II 2; *ibid.*, 75, 14; XXV 39 IV 9

a-wi-du XXXV 133 III 16

i-du KBo VII 66, 6

pl. 3 *i-ia-an-du* XXXV 103 II 13 et passim

See Laroche 1959: 36 with lit. and Melchert 1993: 43 f.

The stem is related to Hitt. *ú-e-i+*, etc., 'come' III.3; cf. also Palaic *i-ú* 'come here!' and the HL cognate *a-wa/i(-i)+* 'id.' (also *i+* 'go'; see section 3 below). Thus it is a thematic-looking⁸ root stem with the preverb *a-ú-+ /a-w+* 'hither' (: Hitt. *ú+*, etc.)⁹ and belongs here only descriptively. The root stem is attested in Hittite only in the imperative sg. and pl. 2, q.v. at *pa-i+* in Chapter 2, class IV. Cf. also the HL cognate in section 3 below.

4. *hal-ta-a+ / hal-ti-i+* 'call'

act. prs. sg. 3 *hal-ta-at-ti* XXXV 145 Rs.4 (Luw. in Hitt.)

mid. *hal-ti-it-ta-ri* KBo IV 11, 49

See Laroche 1959: 39 with lit., Melchert 1993: 49 with lit. (where the fact that the Hittite cognate belongs to the *-hhi* conjugation is not mentioned).

Corresponds to the Hitt. *-hhi*-conj. stem *halzāi* : *halzi*- 'call' (HW1: 49a; Oettinger 1979: 69 ff.); the CL stem's *-ti*-conj. forms are most likely secondary.

⁸Apparently, pre-Anatolian tautosyllabic **ei* became *i* in Luwian (cf. Hittite where it became *e*, e.g., **ei-ti* > *ú-e-iz-zi*, q.v. Chapter 2), but so did **ye* after consonants (as Luwian continuations of **ye*-stems to consonant-final bases amply show). For this reason, CL *a-ú-i-ti* looks thematic, i.e., it looks as if it might have contained the suffix **ye-*.

⁹The heterosyllabic *aw* seems to be preserved in CL and HL (as in CL *a-ú-i+*, etc. : HL *a-wa/i(-i)+* 'come'; cf. Hitt. *ú-(e-)i+*, etc., 'id.'), whereas the tautosyllabic *au* is monophthongized to *u* (as possibly in *ú-pa-(a=)+* 'afferre', *ú-wa-ta-a+* 'adducere').

5. *ḫa-(a-)pí-+ : ḫa-pa-(a-/i-)i+* 'bind, attach to'

- prs. sg. 1 *ḫa-pí-ú-i* KBo VIII 17, 8
 3 *ḫa-a-pí-ti* KBo XIII 262, 5
 ḫa-pí-ti XXXV 9 Ro 7; KBo XXIX 7,2
 pl. 3 *ḫa-pa-in-ti* XXXV 45 III 10*
 prt. sg. 3 *ḫa-pí-ta* XXXV 95, 5; 105 I 1
 pl. *ḫa-pa-i-in-ta* KBo XXIX 25 II 12
 imp. pl. *ḫa-pa-a-in-du* XXXV 104, 10

See Melchert 1993: 55 with lit.

This class corresponds to provisional class IV of Hittite (see Chapter 2); cf. esp. *tar-mi-+ : tar-ma-i+ (: Hitt. tar-ma-e/i- : tar-ma-a+ IV.13).*

6. *ḫa-aš-pa+* 'destroy, pillage'

- act. prs. sg. 3 *ḫa-aš-pa-ti* 579/d 9
 prt. 1 *ḫa-aš-pa-ḫa* XIV 3 I 41'

See Laroche 1959: 44.

It is quite likely that the writing stands for [*hasp-ti*], i. e., the stem is athematic. Hittite has, from MH on, *ḫa-aš-pí-ir* (act. prt. pl. 3) '(they) destroyed' MH XIV 1 Vs. 52, LMH XXIII 11 III 8, etc. The attestations above come from LH texts where they are marked with the gloss wedge. Oettinger 1979: 101 (with a reference to Kronasser 1966: 408 "mit Lit."), setting up the stem in Hittite as "*ḫašp^{mi}*", also cites (participle) *ḫa-aš-pa-an* Bo 7863 I 5 and "unklar *ar-ḫa ḫa-aš-pa-ta(-)iš-x* KBo XVI 22 Vs. 9." It seems appropriate in this connection to quote Oettinger, loc. cit., further: "Auch sonst dringen m.E. in mittel-heth. Zeit keil.-luw. [n. 28: "Thematische Flexion von *ḫašp(a)-* im Keil.-Luwischen (E.LAROCHE, RA 62, 1968, p. 88) ist graphisch nicht beweisbar.]" Verbalstämme ins Hethitische ein und werden dort hethitisch flektiert. In der Grossreichszeit dagegen, als sich die luwischen Sprachen stärker ausdehnten, werden diese alten Luwismen (zusammen mit neuen) oft durch luwische Endung und Glossenkeil als Fremdwörter gekennzeichnet"

7. (e-)el/il-*ḫa*-(a-)+ 'wash'

act. prs. sg. 1 *el-ḫa-ú-i* KBo XXIX 49 Ro 3, 4
 3 *il-ḫa-ti* XXVII 26, 6
 prt. 1 *e-el-ḫa-a-ḫa* XXXV 93 Ro(!) 8, 9*
 imp. 3 *e-el-ḫa-a-du* XXXV 39 II 14

See Melchert 1993: 87.

Cf. the reduplicative *i-li-il-ḫa-a-* / *e-li-el-ḫa-(a-)* + 'wash (off)' with *-ḫi* forms (e.g., prs. sg. 3 *i-li-il-ḫa-a-i*, see Melchert *ibid.*).

Cf. also CL *la-ḫu-ni-i-* + *la-(a)ú-na-i-* and *lu-u-wa-a-* / *lu-ú-u-* (see both below). See discussion in the summary of this chapter.

The CL form shows the zero grade of the root (+*l-ḫ*+), with the initial (e-)e = / i = likely to represent the prothetic vowel before the cluster. The suffix +*a-(a-)* is not clear, but there is no sense in which this CL stem could be explained as genetically simple thematic.

8. *kan-ga-ti* + : *ga-an-ga-ta-(a-)i* + 'cleans with the *gangati*-plant'

act. prs. sg. 3 *kan-ga-ti-ti* XXII 40 III 18 (Luw. in Hitt.)
 pple *ga-an-ga-ta-im-mi-iš* XXXV 67 II 3
 ga-an-ga-ta-a-im-ma-an *ibid.*, 6

See Laroche 1959: 54 where no meaning given; with lit. "Emprunt du hitt. et du louv. au hourrite" (*ibid.*). See also Melchert 1993: 100.

Cf. Hitt. denom.(?) *ga-an-ga-ta/da-a-i* +, etc., 'id.' (IV.4).

9. *kat-mar-ši-i* + 'to shit'

act. prs. sg. 3 *kat-mar-ši-it-ti* XXX 31 I 6

See Laroche 1959: 55, with the Hitt. parallel and lit.

Cf. Hitt. *kam(m)arš-* (-*mi* conj.) 'id.' (see attestations in Kronasser 1966: 403 and Oettinger 1979: 198). The CL stem could be a *ye*-deverbative to CL **kat-mar-s* + (cf. the Hitt. pattern of *ye*-deverbatives

[frequentative / durative] based on consonant stems [semelfactive],
e.g., *ḫa-at-t+ / ḫa-ad-d+* = **ḫat-* 'strike (once)' : *ḫa-az-zi-(e-)i+* < **ḫatye-*
: *ḫa-az-zi-a+* < **ḫatya-* 'strike (repeatedly); play a string instrument').

10. *ku-wa-li-i+* : *ku-(wa-)la-i+* 'turn'

act. prs. sg. 3 *ku-wa-li-i-ti* XVII 12 II 25

imp. pl. 3 *ku-wa-la-in-du* XXIX 54, 9

mid. imp. sg. 3 *ku-wa-la-ru* KBo XIII 260 II 34

ppl. *ku-la-i-mi-iš* XLII 59 Vo. 17

ku-la-i-me-en-zi XLII 69 Ro. 16

Melchert 1993: 114 with lit.

Most likely, the root is the same (*kuwal-* : *kul-*) as in stem 32 (see below). Apparently, denominative to **k(u)wala-* 'wheel' (the transitive stem **kwala-ye-*), cf. *ku-u-la-aš* (nom. sg.) XII 1 IV 4, 19 'link (in chain)' (see Melchert 1993: 105 with lit.), perhaps from Luwian -s- stem c. **kwalās* (hence *ku-u-la-aš* and not ***ku-u-li-iš*; see p. 11 above) < PA **kwelās* < PIH c. **kʷel-ōs* (based on neut. -s- stem **kʷel-os*).¹⁰

11. *ma-li+* : *ma-la-a-i+* 'think, suppose'

act. prs. sg. 1 *ma-li-wi*, KBo IV 14 IV 34

2 *ma-li-ši* KBo IV 14 II 78

ppl. *ma-la-a-i-mi-in()* XL 80 I 9

See Melchert 1993: 132 with lit. The Proto-Anatolian form should be **mala-ye-*, probably denominative to **mala-* 'thought' > CL *ma-a-li+*, see Melchert, loc. cit.

There is no reason why Hitt. *ma-la-a-i+* 'approve', etc. (see HD3, p. 251), cannot be a cognate rather than a Luwian loan (as *per* Starke,

¹⁰Cf. Starke 1990: 236 f. for the etymological connection with Hom. τέλος but a different derivational interpretation ("gewiß keine Ableitung von *ku(ḫa)la-*," *ibid.*, 237; to Starke, the putative base of this stem and that of *kulani-* [q.v. stem 32] are the same).

apud Melchert, loc. cit.).

12. *ma-na-a* + 'see'

act. prs. sg. 3 *ma-na-a-ti* KBo IX 143 Vs.3'; 755/z r. col. 2'

(Starke 1980: 145)

prt. 1 *ma-na-a-ḫa* XXXV 8 I 4; 96, 6; 7

3 *ma-na-a-ta* XXXV 99, 4; KBo VII 68 II 15

imp. *ma-na-a-du* XXXV 88 II 12, 13, 15, 17

"incertain" *niš ma-na-a*[XXXII 7, 10

See Laroche 1959: 67 f. with lit. (meaning not given); on this stem's cognate in HL see Hawkins 1980b (q.v. in section 3 below), and see Starke 1980 on the CL stem.

There is also what appears to be a reduplicated stem based on the root of the above. It is attested as follows:

imp. sg. 2 *ma-am-ma-an-na* XXXV 16 I 8=XXXII 5+8 IV 12

ma-am-ma-an-na- XXXV 21 II 1; *ibid.*, 43 II 36 = 44, 6

3 *ma-am-ma-an-na-ad-du* XXXV 16 I 10; *ibid.*, 133 III 21, 23

pl. 2 *ma-am-ma-an-na-ten* XXIV 12 II 30; *ibid.*, III 5 (gloss)

See Laroche 1959: 67, and Starke 1980: 145 ff.

The stem's conjugation type in CL is not clear because of insufficient attestation (*pace* Starke, *op. cit.*, p.146, one cannot be certain that reduplicated stems necessarily belong to the *i*-type; compare, for instance, *pa-ap-pár-ku-wa-at-ti*, redupl. of *pár-ku-wa-i* + 'cleanse', and see stems 21 and 22 below). The apparent HL cognate, however, belongs to the *i*-type: cf. LITUUS-LITUUS-*na-i* (Sultanhan stele, line 5) prs. sg. 3 (see Hawkins 1980b: 136-138).

13. *pa-ra-a* + (and *pár-+!*) 'chase, drive away'

act. prs. sg. 3 *pa-ra-at-ti* KBO XXIX 26 l.c. 3 (?)

imp. *pa-ra-ad-du* XXXV 43 II 10

pár-du XXXV 90, 9

pl. *pa-ra-an-du* XXXV 88 III 7; *ibid.*, 89, 7

See Laroche 1959: 77 with Hittite and HL cognates, and Melchert 1993: 166 with lit.

The Hittite cognate is the athematic *par-aḫ*+/*par-ḫ*+ (-*mi* conj.) 'id.' (q.v. in Oettinger 1979: 213). This correspondence suggests that the CL (and HL, q.v.) thematic forms are secondary in origin. The =*a-a*= of *pa-ra-ad-du* is most likely due to a Luwian resegmentation of act. prs. pl. 3, viz. *par+antu* → *para+ntu*. This is supported by the attestation of the athematic imperative form *pár-du* which may be the direct continuation of a Proto-Anatolian **parHtu*). The other possibility, namely that it comes from a "vocalized" **H*, viz. PA **parHtu* > Luw. *paratu*, has to be rejected.¹¹

14. *pa-ar-ri-i+* : *pa-ar-ri-e+*/*pa-ri-ia+* 'coat, plaster'

act. prs. sg. 3 *pa-ar-ri-it-ti* XXII 61 I 19 (gloss)

pl. *pa-ar-ri-en-ti* *ibid.*, 6 (gloss)

See Laroche 1959: 78 with lit.; *ibid.*: "Noter Ú *pa-ri-ia-u-wa-an-za* : XXII 61 I 14; incertain: *par-ri-ya-i[t]*, (XXXV) 111 II 2."

For an etymon, cf. Lat. *paries*, *parietis* fem. 'wall'.

15. *pa-ap-pár-ku-wa-a+* 'cleanse'

act. prs. sg. 3 *pa-ap-pár-ku-wa-at-ti* XXXV 103 II 16

See Laroche 1959: 79.

The stem is a reduplicative derivative of the stem *pár-ku-wa-i+* 'cleanse', attested in the participle *pár-ku-wa-i-mi-in-zi* XXXV 86 II 7 (c.

¹¹Cf. "PIE" ***dhugh₂ter-* (> Ved. *duhitár-*, Hom. *δυγάτηρ*, Lith. *dukter-*, etc.) : HL *tu-wa/i-tara/i-* : Lyc. *kbatr-* 'daughter'. Yet no "laryngeal" is attested in the Anatolian cognates, and the correct reconstruction should therefore be *PIH *dhug₂ter-*, with the shwa. See Excursus I and II.

nom. pl.); see Laroche 1959: 79 with the Hittite cognate. This looks like a *-ye*-derivative from an *-a*-stem akin to the genuine Hittite class IV verbs (the *tarmāizzi*-type). The Hitt. cognate is *pár-ku-i-e-i+*, etc. (I.47); see esp. LMH *pár-ku-wa-a-it* and the discussion on p. 63 f. The CL attestation gives no information about the non-reduplicated stem's conjugation type.

It is also possible that the "reduplication syllable" *pa-a+* is actually a preverb (: Hitt. *pí-e+*, etc. < PIH **per*); see, e.g., the next lemma.

pa-pparkuwa- could well be from **ParKu-ye-*, if one assumes that *y* went to zero in this position, i.e., intervocalically, before **e* became *i* in Luwian after *y*; for the posited **ParKu-ye-*, see the relevant lemma in Chapter 2.

16. *pa-ši-ḫa-(a-)i?* + : *pa-(a-)ši-ḫa-a* + "crush, mash"

act. prs. sg. 3 *pa-ši-ḫa-a-ti* XIV 3 II 25 (gloss)

prt. 1 *pa-a-ši-ḫa-aḫ-ḫa* Bo 4899 Vs. 9

3 *pa-ši-ḫa-a-it?-ta* XIV 3 II 24

See Laroche 1959: 80 with lit. and the Hitt. parallel. Cf. Starke 1990: 484.

Hitt. has *pašihai-* 'id.' (see HW1: 164b and Burde 1975), which is likely to be a Luwian loanword (Oettinger 1979: 381: "Priorität des Luwischen ist sehr wahrscheinlich"), in view of the lateness of the Hittite attestations. The stem looks denominative, but could be primary if it is a compound with the preverb *pa+* (: Hitt. *pí(-e)+/pa+*) "away, forth", on which see, e.g., the Hitt. class IV lemma *pa-i+*, etc., and possibly also HL *pa-sa-ia+* (cf. Hitt. *pí-eš-ši-ia-a+*) in the HL section below.¹²

17. *pu-tal-li-i+* 'tuck up' (clothing)

¹²Starke 1990: 484: "k.-luw. *pašiḫa*-* im denominalen Verbum *pašiḫaḫi-* (> heth. *pašiḫae-*) 'ein-, zerreiben, zerdrücken' (DLL 80), das sich zu heth. *peš-/ *paš-* '(ein)reiben' . . . stellt."

act. prs. sg. 3 *pu-tal-li-it-ti* Bo 5607 III 3
prt. *pu-tal-li-it-ta* XLIV 4+ Rs. 3

See Melchert 1993: 181 with lit.¹³

Cf. Hitt. (Chapter 2, see lemma).

18. *pu-(u-)wa-(a-)* + 'crush'

act. prs. sg. 3 *pu-wa-a-ti* XXXVII 1 I 16
pu-ú-wa-ti KBo IV 2 I 40

See Laroche 1959: 83 with lit. and Hitt. parallel; see also Melchert 1993: 182 with additional attestations.

The stem's derivational history is opaque. Hitt. has *pu-u-wa-(a-)i* + LH (-*mi* conj.) 'id.', which is likely to be a loanword from Luwian (so Oettinger 1979: 385).

19. *da-wa-al-li-i* + 'cast the evil eye upon'

act. prs. sg. 3 *da-wa-al-li-it-ti* XLIV 4+ Rs. 33

See Melchert 1993: 225.

This is a *ye*-denominative to *dawalli*-* 'of the eye' based on CL *dawi*- 'eye' (see Melchert 1993: 224 for attestations and lit.).

20. *du-(ú-)pi* + /*du-(u/ú-)pa-i* + 'strike'

act. prs. sg. 3 *du-ú-pi-ti* XXXV 21 Rs.20
ibid., 28 I 1
ibid., 103 III 13

¹³Cf. Starke 1990: 342 for different meanings ("eilmarschfertig machen, mit leichter Bekleidung versehen', Denominativ von *putalli*-* 'die Eile betreffend") and a very unlikely etymological connection of the base (ibid., n. 1210).

ppl *du-ú-pa-im-mi-i-iš* XXXII 8 III 28-29
du-ú-pa-i-mi-in XXXII 8 III 12-13, 18-19

See Laroche 1959: 99 for more attestations and lit.; see also Melchert 1993: 235.

Cf. Hitt. (MH and LOH) *tu-pí-i+*, etc., 'caedere' (?) I.79 and the HL and Lycian cognates discussed below. The CL stem seems to be a *ye*-denominative based on an **-a*-stem noun **du-ú-pa-*.

§3. Other possibly thematic stems of Cuneiform Luwian are insufficiently well attested or too poorly understood to be of use here. Those worth listing include:

21. *a-ku-wa-a+* 'drink' (?)

act. prt. sg. 3 *a-ku-wa-at-ta* KBo VII 68 III 13, 18

Laroche (1959: 24) also lists *a-ku-wa-an* XXXV 128 III 10 which he qualifies "incertain." He also adduces the Hittite and Palaic parallels (see the former above; Palaic has *a-lu+* 'drink', see attestations and lit. in Carruba 1970: 49). Melchert 1993 omits this stem altogether.

The Hittite and Palaic cognates are athematic; it is therefore more reasonable to suppose that CL thematicized a formerly athematic stem (e.g. through resegmentation of 3rd person plural forms such as *a-ku-wa-an-ti**, *a-ku-wa-an-ta** < **aKⁿ+ant-* as **aKⁿa+nt-*) than to suppose that Hittite and Palaic dethematicized their originally thematic stems. The originally athematic character of the stem is further supported by the Tocharian B cognate *yokäm* (act. prs. sg. 3) 'drinks' which is clearly athematic: the thematic form would have been **yošäm*.¹⁴

22. *am-ma-aš-ši-* + : *am-ma-aš-ši-ia-a+* 'wipe'

act. prs. sg. 3 *am-ma-aš-ši-ti* KBo IV 6 Vo. 2

¹⁴I owe the Tocharian example to Warren Cowgill (personal communication, 1984).

pl. *am-ma-aš-ši-ia-an-ti-* KBo XXIX 43, 4(?)

See Melchert 1993: 11 with lit.

This is a *ye*-stem based on the root stem attested in Hitt. *a-an-aš-zi* [*anstsi*] 'wipes', see lemma in Chapter 2 (p. 47). Cuneiform Luwian prt. sg. 3 *am-ma-ša-t[a]* KBo XXIX 34 I 3 may be an innovation based on the root stem.

23. *a-(a-)ri-i+* : *(a-)a-ri-ia(-a)+* 'raise; check, restrain'

act. prs. sg. 3 *a-ri-it-ti* XXXV 107 II 2, 5

prt. *(a-)a-ri-it-ta* ibid., 13; KBo VII 68 II 19, 20 with plene

pl *(a-)a-ri-in-ta* XXXV 107 II 7, 10, 12; 8 with plene

imp. sg. 2 *a-a-ri-ia* XXXV 89, 12

3 *a-ri-ia-ad-du* XXXV 54 II 26

pl. *a-ri-in-du* KBo XXIX 54, 6

ppl. *a-ri-im-mi* XXXV 21 Rs. 17; 22, 8

See Melchert 1993: 26 f. with lit.

It is not entirely clear which form means 'raise' and which 'check, restrain' (Starke's choices in favor of one or the other [1990: 303 ff.] are not compelling).

Melchert, loc. cit., seems unaware of the difference between the two separate stems in Hittite. Hittite has two different stems: *a-ra-a-i+* 'check' (*-mi* conj., see Chapter 2, IV.15) and *a-ra-a-i* (*-hhi* conj.). It is not clear how this distinction is reflected in the Luwian stem, which has most likely fused the two into one.

24. *a-ar-ši-ia-a+* 'flow, run'

act. imp. pl. 3 *a-ar-ši-ia-an-du* XXXV 39 I 25

See Laroche 1959: 32 for lit. and the Hittite connection. The attestation does not show which conjugation type the stem belongs to; in view of the Hitt. cognate, however, the *ti*-conj. (the Luwian equivalent of the Hittite *-mi* conj.) is likely.

Cognate with Hitt. *ar-ši-(i-)e-(i=)+*, etc., ‘flow, pour (intr.)’ 1.27, deverbative.

25. *a-ta/da-ri-(i=)+* ‘feed, nourish’

act. prt. sg. 3 (?) *a-ta-ri-[it-ta]* KBo IX 141 Rs. 2

[a]-da-ri-it-ta XXXV 15 II 2 (dupl. to the above)

imp. pl. 2 *a-da-ri-ta-an* IX 31 II 32

a-ta-ri-ta-an HT 1 II 8

See Laroche 1959: 34, with lit. and the Hittite parallel. Apparently, the stem is a *ye*-denominative of **a-ta/da-r(i-)+* ‘food’ or the like, cf. the Hitt. *-ske-* stem *e-it-ri-čš-ki-i+* (MOH KBo VI 3 IV 60) based on *e-it-ri-e+* ‘id.’

26. *ha-an-da-a+* ‘set in order, prepare’

Attested only in the nomen actionis *ha-an-da-at-t+* ‘decision’ or the like (see attestations and the Hitt. parallel in Laroche 1959: 40 f.). Cf. the Hittite stem *ha-an-da/ta-(a-)i+*, etc., (IV.17) ‘set in order’.

27. *har-wa-an-ni-i+* ‘to send’

act. prt. sg. 3 *har-wa-an-ni-it-ta* XXXV 89, 16

See Melchert 1993: 62. The conjugation type is most likely *-ti*, which corresponds to the Hittite *-mi* conj. Cf. the Hieroglyphic Luwian cognate: *VIA-(ha-ra/i-)wa/i-ni-(i-)+* ‘id.’ (q.v.).

28. *ha-at-ta-ri-i+* ‘to hoe’ (or sim.)

act. prt. sg. 3 *ha-at-ta-ri-it-ta* XXXV 52, 10*; 54 II 33

See Melchert 1993: 64 for attestations and lit.

Denominative to ^{GIŠ}*hattara-* 'hoe' or sim.

29. *ḫu-u-i-ia-(a=)*+ 'run, move'

See Laroche 1959: 46 for attestations and lit. Also Melchert 1993: 85.

The Hittite cognate, *ḫu-(u-)wa-a-i* : *ḫu-(u-)i*+ 'id.', belongs to the *-i* conjugation (see e.g. Oettinger 1979: 74 for the paradigm); thus it is likely that the CL forms, notably act. prs. sg. 1 *ḫu-u-i-ia-mi* (with *-mi* for the expected *-wi* due to dissimilation under the influence of *w* in the root, cf. *awimi* instead of **awiwi* above) are later (Luwian) transfers. Note also the reduplicated stem *ḫu-u/i-ḫu-i-ia-(a=)*+ 'id.' (attested in act. prt. pl. 3 *ḫu-u-ḫu-i-ia-an-da* XXV 39 IV 2, imp. sg. 2 *ḫu-i-ḫu-i-ia* Goetze 1938, I 59 and the fragmentary *ḫu-i-ḫu-ia-an-*[XXXV 139 IV 2, qq.v. in Laroche 1959: 46 with other Anatolian parallels and lit. Compare the HL cognate in the next section.

30. *kap-pí-la-az-za-a*+ 'become hostile'

act. prt. sg. 3 *kap-pí-la-az-za-at-ta* XIV 8 I 23*; XIV 10 II 20; XIV 11 II 17.

Melchert 1993: 101: "'Iterative' (here 'inchoative') in *-za-* to **kappilā(i)-* 'be hostile' attested in Hitt. *kappilāir* at XXIV 7 I 28." Cf. *kap-pí-la-al-li-iš* XIX 37 II 15 (Melchert 1993: 100 with lit.).

If Melchert is right, then the stem is thematic, with CL +*z-za-a*+ < PIH **-sše-*.

31. *ki-(i-)š(a-a)*+ 'to comb'

act. prt. pl. 3 *ki-ša-an-da* XVIII 24 III 21
ppl *ki-i-ša-am-m[i-iš]* XXXV 108, 40
ki-i-ša-am-ma XXXV 88 II 14
ki-ša-am-ma-an XXXV 88 III 15

See Laroche 1959: 55 with lit. and the Hitt. cognate. Also Melchert

1993: 104. The attestations give no cause to normalize the CL stem as *kiša(i)-* (as does Melchert loc. cit.); Starke's athematic *kiš-* (1990: 263 f. passim) is certainly better justified. See discussion in Chapter 2, IV.21.

Cf. Hittite *ki-i-ša-a-i+* 'to comb, card' (IV.21). The CL attestations are ambiguous with regard to the conjugation type.

32. *ku-la-(a-)ni-(i=)* + 'bring to an end' (?)

act. prs. sg. 1 *ku-la-ni-wi* XXI 20, 3.

prt. 2 *ku-la-(a-)ni-it-ta* VI 45 II 52; VI 46 IV 21.

mid. 3 *ku-la-ni-it-tar* KBo II 7 Vo 22.

Melchert 1993: 106: "prob. denom. to **kulan(a)-* 'turning point' (or sim.) attested in Hitt. gen. sg. *kulanaš* at KBo II 38 RC 4, parallel to *mehunaš* at II 1 II 39." Cf. Starke 1990: 237, where three different stems are conflated into one. See also stem 10 above.

33. *la-ḫu-ni-i+* : *la-(a-)ú-na-i+* + 'wash (away)'

act. prt. sg. 1 *la-ḫu-ni-i-ḫa* XXXV 54 III 37 (with *-tta* 'away')

pplē *la-ú-na-i-[mi-š()]* XXXV 54 III 32

la-a-ú-na-mi-š() XXXV 54 III 34

See Melchert 1993: 120 with lit.

The alternation of *=ḫu=* in the finite form with *=ú=* in the participle (if they do indeed belong to the same stem) is unclear. Cf. CL 37. *ma-a-la-ḫu-u+* : *ma-al-wa-(a-)a+* 'crush, break' below, CL 43. *pa-wa-ar-i+* 'light a fire' (if so!) : CL *pa-a-ḫu-u-ur* 'fire', Hitt. *pa-aḫ-ḫur* 'id.' (< PIH **paxwr*; or even **pax"r*; see Excursus II).

34. *la-aḫ-ḫi-i+* + 'travel'

mid. prs. pl. 3 *la-aḫ-ḫi-i[n]-ta-ri* XXXV 79 IV 12

See Laroche 1959: 61 with the Hitt. cognate, and Melchert 1993: 120.

Cf. Hitt. *la-aḫ-ḫi-ia-i+* : *la-aḫ-ḫi-ia-(a=)* + 'id.' IV.13. The CL attestation is ambiguous with regard to the stem's conjugation type.

35. *la-(u-)wa-ar-ri-(i=)* + 'break, pierce'

act. prt. sg. 3 *la-wa-ar-ri-it-ta* XIII 35 II 32

participle [*la*]-*wa-ar-ri-ma* XIII 35 II 29 (pl. acc. neut.)

See Laroche 1959: 63 with lit.

It is likely that the stem has a cognate in Hittite, namely *tu/du-wa-ar-ni-(i=)* +, etc., 'id.' (VIII.2). (For CL *l* : Hitt. *t / d* word-initially, cf. Hittite *da-a-i* : *da-a* + 'take' : CL *la-(a-)a* + 'id.' [q.v. in Laroche 1959: 61], cf. HL *ta-ia*, etc. 'id.', Hitt. *ta-pár-na-a* + 'ruler' : CL *la-pár-na-a* +.) The attestations are insufficient for determining the CL stem's conjugation type.

The Hittite cognate is an *-*n*- stem while the CL stem is a -*ye*- stem based on the root stem attested in the infinitive *la-u-wa-ar-ru-na* XXIV 3 II 30.

36. *li-la-i+* : *li-la-a* + 'pacify, soothe'

act. prs. pl. 3 (?) *li-la-an-t[i]* XVII 32 I 19

imp. sg. 1 (?) *li-la-i-lu* XXXII 13, 6 (2x)

pl. 3 *li-la-an-du-* XXXII 13, 7; 10

See Laroche 1959: 63 with lit.; Melchert 1993: 127.

Denominative to *li-(i-)la-a* + c. (attestations in Melchert loc. cit.).

Cf. Hitt. *li-la-a-i+*, etc., 'conciliate, pacify' (IV.6), a -*ye*- denominative to *li-(e-)la-a* + c. 'conciliation, pacification'. The stem's conjugation type in CL cannot be determined on the basis of the attestations.

For an etymon, cf. Russ. *лелѣять* 'cherish, caress'.

37. *ma-a-la-ḫu-u+* : *ma-al-wa-(a-)a* + 'crush, break'

act. prt. sg. 3 *ma-a-la-ḫu-u-ta* XXXV 107 III 2

participle *ma-al-wa-a-am-mi-iš* KBo XXIX 63 II 4
 ma-al-wa-am-mi-iš XXXV 70 II 21.

See Melchert 1993: 132 with lit. Cf. the redupl. *i*-conj. stem *ma-am-ma-al-ḫu-u+* : *ma-am-ma-lu-wa+* ‘crush, break’ *apud* Melchert, *ibid.*, p. 134.

If the two alternants of the stem are indeed just that and not two entirely different stems, which is far from certain, then the stem shows what may be an outcome of syncope in prt. sg. 3: **mal(a)wata* > *malaḫuta*. Cf. Hitt. *pehute-* < **pewate-* (see Chapter 4 for discussion). I emphasize, however, the uncertainty of the CL stem.

38. *ma-ar-ša+* ‘be fraudulent’ (?)

act. prt. sg. 3 *ma-ar-ša-ta* XXXV 123 IV 8

See Laroche 1959: 69 where the adj. *mar-ša-aš-ša* KBo IV 14 II 59 (gloss) is also adduced. See other attestations in Melchert (1993: 140), who prudently remarks: “Any connection to Hitt. *marša-* . . . unclear.”

Cf. the Hittite cognate stem *mar-še-e-i+* : *mar-ša-a+* ‘be unfit, fraudulent’ (XI.2). The CL stem could be a thematization of the root stem **mars-* (e.g., **mars-anti* resegmented as *marsa-nti**) or a vocalic stem (+*a+* < **=a-ya-* < **=e-ye-*).

39. *mi-im-ma-a+* ‘regard, recognize’ (?)

act. ipv. pl. 3 *mi-im-ma-an-du* HT 78, 7

participle *mi-im-ma-me-iš* VI 45 III 75
 me-im-ma-mi-iš VI 46 IV 44

See Melchert 1993: 147 with lit.

The conjugation type is impossible to determine. Meaning and etymology remain uncertain, despite the efforts of Melchert and Starke (see *lit.*, *loc. cit.*).

40. *pal-ḫa-a-a* + ‘spread out’

infinitive *pal-ḫu-na* XLIV 4+ Rs. 22

participle *pal-ḫa-a* <*am*> *-ma-an-za* XXXV 145 III 7; KBo VIII 130 II 9; XXIX 25 II 9

pal-ḫa-am-ma XLIV 4+ Rs. 30

See Melchert 1993: 164 (*palḫā-* and *palḫamman-*) with lit.

The conjugational type is uncertain. The infinitive looks as if it belongs to a root stem, *palḫ-*. The participial forms may well be from *palḫ-* as well. Otherwise, a denominative of **palḫ-* ‘wide’ (it could be **palḫ-ai-*, with the **o* grade of the suffix, cf. Hitt. *palḫi-* ‘wide, broad’, or else, on the face of it, a thematic adjective **palḫ-a-*). The PIH root is then **pḷH-* (it is not clear which of the two velar spirants should be reconstructed here, **x* or **ɣ*; on PIH laryngeals, see Excursus II).

41. *pa-ap-pa-ša-a* + ‘sprinkle’

act. prs. sg. 3 [*pa*]-*ap-pa-ša-at-ti* XXXV 103 II 18 (hapax)

See Melchert 1993: 165 (falsely normalized as *pappas-*), with lit.

Cf. Hitt. *pappas-* ‘id.’ See Chapter 2 (p. 89).

42. *pa-tal-ḫa-(a-)i* + ‘to fetter’

infinitive *pa-tal-ḫa-ú-na* XLIV 4+ Rs. 24 (gloss)

participle [*pa-tal*]-*ḫa-a-im-ma* XXXV 88 II 15

See Melchert 1993: 174 with lit.

A **ye-* denominative to *patalḫa-* ‘fetter’; see the Hittite cognate in Chapter 2 (p. 89 f.).

43. *pa-wa-ar-i* + ‘light a fire’

act. prt. sg. 3 *pa-wa-ar-it-ta* XIV 20, 11

See Melchert 1993: 175 with lit.

According to Melchert loc. cit. (with ref. to Starke 1990: 571 f.), a denominative to **pawar-* 'fire', cf. CL *pa-a-ḫu-u-ur*, Hitt. *pa-aḫ-ḫur* 'id.'

44. *pí-ḫa-i+* / *pí-ḫa-a+* 'imbue with awe'

pple *pí-ḫa-im-mi-iš* XII 2 I 18 III 1; XXXVIII 12 III 19; KBo IV 10 Vs. 53; XXVI 161 III 3

pí-ḫa-am-mi-iš VI 45 I 66; VI 46 II 31; XVIII 6 I 24; XXXVIII 10 IV 14; KBo II 16 Vs. 6

See Melchert 1993: 176 with lit.

Attested only in the participle, the stem, a denominative to *pí-ḫa-* + attested in proper names (see Lehrman 1978: 220 f.), does not show its conjugation type directly.

Pace Starke 1990: 103 ff., 314f., and Melchert, loc. cit., *piḫa(i)mmi-* corresponds formulaically to Hittite *hatuka-* 'awesome, fearsome', common as the epithet of the Storm-god (on *hatuka-* as a divine epithet, see Beckman 1983: 29).¹⁵

45. **ša-(aḫ-)ḫa-ni-i/e+* 'to impose feudal service on'

¹⁵Starke's disquisitions on the meaning and etymology of *piḫa-** and its derivatives are not compelling. The correspondence of ^dU *ḪI.ḪI-aš-ši-* (Bo 86/299 II 16) and ^dU *pi-ḫa-aš-ša-aš-ši* (KBo IV 10 Vs. 36) proves nothing whatsoever for the etymology of Luw. *piḫa-**. The use of *piḫa-*, if it means "Blitz" or "Glanz," as an epithet for 'lion' ("blitzender Löwe"? "glanzender Löwe"?), does not make much sense; nor does the unattested semantic development "Glanz (→ Herrlichkeit) → Macht" which Starke is forced to posit, entirely *ad hoc*, to make his interpretation work. Etymologically, the *i* of Luw. *piḫa-** cannot come either from PA **peha-* or from PA **pēhas* (lengthened-grade strong forms of *s*-stem "PIE **bheh₂-es-*," etc., in spite of Starke's claims [1990: 106]). The pre-PA root could only have been **bhiH-*, with **H* for **x* or **γ* (see Chapter I and Excursus II).

The stem, a **-ye-* (> Luw. *-i-*, see the summary below) denominative to *ša-aḫ-ḫa-an+* ‘feudal service’ (found also in Hitt.), is inferred from the *+š-ša(-a=)*-durative / iterative *ša-(aḫ-)ḫa-ni-i/eš-ša-a+* (see attestations and discussion [against Laroche 1959: 83] in Melchert 1993: 183 with lit.).

46. *ša-na-a-e+* / *ša-an-na-i-i+* ‘overturn, turn upside down’

act. prt. pl. 3 *ša-na-a-en-ta* KBO XXIX 26 l.c. 5
imp. *ša-an-na-i-in-du* XXXV 103 III 5

See Melchert 1993: 187 with lit.

Cf. HL *sa-ni-i+* ‘id.’ (q.v. below). Cf. also Hitt. *ša-an-na-a+^{hhi}* ‘suppress, conceal’ (attestations in Oettinger 1979: 160). Discussion in Chapter 4.

47. *šap-pa-a+* “to peel, strip”

act. prt. sg. 3 *šap-pa-at-ta* VIII 50 III 16 (gloss)

See Laroche 1959: 85 and Melchert 1993: 187.

Cf. the Hittite (MH) class IV stem *ši-ip-pa-i+* ‘id.’ (q.v. in Chapter 2), apparently a cognate (whose *=i-i=* may stand for *e* which corresponds to Luwian *a* except under special conditions, see the summary at the end of this chapter). This stem is probably a *-ye-*denominative of **šappa-* (: Hitt. **ši-ip-pa-*, PA **sepa-*) ‘peel’ or the like.

48. *šar-la-(a-)i-+/i+* ‘exalt’

ppl. *šar-la-<i>-mi-iš* XXXII 8+5 IV 31

šar-la-i-mi-iš VI 45 II 16e

šar-la-im-mi-iš VI 46 II 57; XII 35, 4; KBo IV 10 I 28

^D*šar-la-a-i-mi-in* KBo XVI 100, 13; XVII 57 Vs. 3

šar-la-i-me-en XXVII 66 II 22; KBo XIV 93 IV 5

See Melchert 1993: 191 with lit. and other attestations: "Denom. to *šarla/i- cognate w/ HLuv. SUPRA+LA- & Lyd. *serli-* / *sell-* 'supreme'."

The attestations are insufficient for determining conjugation type. Etymologically it could be a compound of the preverb *sar (< PA *ser, cf. Hitt. *še-e-ir*, etc.) with the *i*-stem *lā-* (see Melchert 1993: 120 for attestations and lit.) < PA *dā- < PIH *dhō- (*o* grade of *dhē-), i.e., "to place on top".

If so, the CL stem is all the more likely to belong to the *-i* conjugation.

49. *ša-aš-ša* + 'release'

act. imp. sg. 2 *ša-aš-ša* XXXV 133 III 17

See Melchert 1993: 192 with ref. to Melchert 1989a: 33 f. (convincingly against Laroche 1959: 87).

A +š-ša-+ iterative to *-i*-conj. stem *šā-* 'release, let go' (see Melchert 1993: 181).

50. *ta-ḫu-ši-ia-a* + "tolerate, watch calmly"

act. prt. sg. 3 *ta-ḫu-ši-ia-aḫ-ḫa* Götze 1925 III 63 (gloss)

da-ḫu-ši-ia-aḫ-ḫa I 6 III 9, 11

da-ḫu-u-ši-ia-a-aḫ-ḫa XIX 67 II 8e, 12 (gloss)

See Laroche 1959: 89 with lit. and Melchert 1993: 201.

The Hittite parallel (cognate?) suggested by Laroche, loc. cit., namely *tuhus(s)ye-* 'id.' (the attestations I know of are LH), is problematic because of the vowel match in the first syllable (CL *a* : Hitt. *u*), which is difficult to explain,¹⁶ unless we infer that the vowel between *t* and *ḫ*

¹⁶The etymology for the Hittite stem in Oettinger 1979: 326, viz. "heth. *tuhuš(š)ie-* 'ruhig zusehen' **tuh₂s-je-* (mit regulärer Anaptyxe...)" (also "ai. *tūṣṇīm ās* 'ruhig dasitzen' < **tuh₂-*," loc. cit.) does not take into account the CL parallel and does not deal with the fact that the stem is written with a single *ḫ*, which creates difficulties for its interpretation as **h₂*—unless, of

is epenthetic and developed separately in Hittite and Luwian in a form that was inherited in both as **tH-us-*. The stem's conjugation type in CL is not shown by the attestation.

51. *tar-kum-mi-i-* + 'interpret'

act. prt. sg. 3 *tar-kum-mi-i-[ta]* XXXV 107 III 10

See Melchert 1993: 213.

The attestation is not sufficient for determining the stem's conjugation type. Cf. the Hittite parallel (Chapter 2).

52. *tar-mi-/tar-ma!-i-* + "peg down"

act. prt. sg. 3 *tar-mi-ta* KBo IX 145, 4

imp. pl. *tar-ma!-in-du* XXXII 5+8 IV 23

See Laroche 1959: 93.

Note also the *-šša*-iterative: *tar-mi-iš-ša-an-du* (imp. pl. 3) KBo IX 145, 8.

The stem is denominative (**-ye-*) of *tar-mi-i-/tar-ma-* (attestations see in Laroche 1959: 92 f.). Cf. Hitt. *tar-ma-(a-)e/i-*, etc., 'peg down' (IV.13). The CL stem's attestations are not sufficient for determining its conjugation type.

53. *ta/da-(a-)ta-(ar-)ri-(ia-)a-* + * 'to curse'

Attested only in the neuter *-man*-stem noun and the *-assi-* adjective derived from it, e.g.:

nom. acc. sg. *da-a-ta-ri-ia-am-ma-an* XXXV 31 Rs. 26; XXXII 9 Vs. 13
ta-ta-ri-ia-am-ma-an XXXV 43 III 28, etc.

course, the PA form was **th₂us-*).

nom. sg. c. *da-a-ta-ri-ia-am-na-aš-ši-iš* XXXV 21 Vs. 27, Rs. 22, etc.

For a complete list of attestations see Melchert 1993: 222 f.

54. *ti-ta-i-(i=)+** ‘give breast, nurse’

Preserved in the participle *ti-ta-i-(im-)me-iš* “nursed (one), nursling” KBo II 1 I 33, 40 (gloss) (Laroche 1959: 98). A denominative of *tita-** ‘breast’ (cf. *n*-stem *ti-i-ta-an+* “téton” in dat. sg. *ti-i-ta-ni* XXXV 103 III 6 and Hitt. (^{UZU})*tita(n)-* ‘id.’). See the HL and Lyc. cognates below.

55. *tu-u-um-ma-a-ta-i-i+** ‘achieve renown’

Attested in the participle *tu-u-um-ma-a-ta-i-im-mi-iš* XXXV 34, 4 (Laroche 1959: 99). Cf. Melchert 1993: 232 with the unattested (*n*) in his normalized *tūmma(n)taimma/i-*, and an unlikely interpretation as a “denom. adj. in *-aimma/i-* to *tummant-*.”

I submit instead that this is a *-ye-* stem to a not entirely clear thematic base (< **-to-*?) related to *tumman(t)-* ‘ear; hearing, renown’. Cf. the next stem.

56. *tu-um-ma-an-te-i+ / tu-u-ma-an-ti-i+* ‘hear’

act. prt. sg. 3 *tu-um-ma-an-te-it-ta* XXXV 43 II 8

pl. *t[u]-u-ma-an-ti-in-ta* KBo XXII 254 Rs. 12

Melchert 1993: 233: “Denom. to unattested oblique stem **tūmmant-* ‘ear, hearing’. = HLuv. AUDIRE+MI-(*ma*)-ti-.” See the HL stem below.

57. *du-ú-wa-a+ / tu-u-wa-a+ : du-ú-u+ / du-ú-wa-a+* ‘put, place’

act. prt. sg. 3 *du-ú-wa-at-ta* KBo XIV 114, 11; XXIX 6 Vs. 13

pl. *du-ú-wa-an-da* XXXV 107 III 19, 22

imp. sg. 2 *tu-u-wa-a* XXV 39 I 26 (?)

pl. 3 *du-ú-wa-an-du* XXXV 39 III 29; 103 III 6; KBo XXIX 25
III 13

du-ú-un-du XXXV 70 II 15, 16 (bis)

See Melchert 1993: 238.

The CL attestations do not show the stem's conjugation type. HL (q.v. below) clearly belongs to the *-i* conjugation. See Morpurgo 1979: 586.

58. *ú-na-i-i*+ 'know' ?

participle *ú-na-i-im-mi-i[n-zi/a]* KBo VIII 129 Vs. 5

Melchert 1993: 241: "Morphology and sense based on assumed equation with HLuv. *u-ni*- 'know'" (q.v. in the next section).

59. *ú-pa-(a)-*+ / (*u-*)*up-pa-a*+ 'bring'

act. prs. pl. 3 *ú-pa-an-ti* KBo IX 145, 2; Bo 83/617 Vs. 9

prt. sg. *ú-pa-at-ta* XXXV 88 III 11

u-up-pa-ad-da XXV 39 IV 18

pl. *up-pa-an-ta* XXXV 88 III 12; 107 III 21

imp. sg. 2 *ú-pa* XXXV 133 II 28, 30

pl. 3 *ú-pa-an-du* Bo 83/617 Rs. 4

ppl. *ú-pa-am-ma-an* XXXV 54 III 18

See Laroche 1959: 102. There is no evidence (*pace* Melchert 1993: 242) that *ú-pa-(a)-*+ and (*u-*)*up-pa-a*+ are two different stems: in Luwian, unlike in Hittite, there seems to be no consistency in the use of "double" consonant spellings or in the use of *ú* vs. *u*.

Cf. Hitt. *uppa(i)-* (*-hhi* conjugation); see Oettinger 1979: 78 f., 489 f. (*"uppiē-*").

60. *ú-wa-ta-a*+ 'lead'

act. imp. pl. 3 *ú-wa-ta-a[n-du XXXV 102 Rs.2; ibid., 103 II 14*

See Laroche 1959: 104.

In Hittite, the stem *ú-wa-te-(i=)+ : ú-wa-ta/da-a+* ‘bring/lead over here’ is the cognate (while Hitt. *ú-i-da-a-i+* ‘lead’ also has to be kept in mind as a possible cognate, q.v. *sub* IV.30 in Chapter 2). See Chapter 2, XII.2 and Summary on class XII stems. See Chapter 4 for a discussion.

61. *ú-l+** (or *ú-la-a+**) ‘to die’

Attested only in *ú-la-an-ti-iš* ‘dead’ XXXV 45 II 26; 48 II 20, a *-nt*-participle (unproductive in Luwian) of **wal-* attested in HL *wa-la/i- / wa+ra/i-* (see below). If Melchert (1993: 250) is right, Lyc. *la-* (‘die’?) is also from **wal-* (“**wla-*,” loc. cit.)

62. *wa-al-li-i+* ‘raise, lift’

act. prt. sg. 3 *wa-al-li-it-ta XXXV 88 III 13*

imp. pl. *wa-al-li-in-du XXXV 102 Rs. 4; XXXV 103 III 4.*

See Melchert 1993: 252.

Cf. HL *wa/i-li-ia-* ‘exalt’ and Hitt. *hhi*-conj. *wallai-* (see Oettinger 1979: 490 ff. *sub* “*uallje-*”).

63. *u-wa-ni-i-ta-i+* ‘be(come) petrified’

participle ^{NA}₄ *u-wa-ni-i-ta-im-ma-an XXXV 70 II 17*

See Melchert 1993: 255 with lit. and discussion.

Cf. CL *wa-ni-i-ti-i-iš* ‘of rock’ (?), an *-iya*-adjective to **wanit-* ‘a thing of stone’ according to Starke 1990: 187 and see *wāni(ya)-* in Melchert 1993: 256 with lit. and discussion (the actual stem: (*u-*)*wa-(a-)ni-ia-*+). Cf. also CL ^{NA}₄ *wanni-* ‘boundary stone’ (XVII 33 IV 12). Lyd. *vāna-* ‘tomb’ also is likely to belong here “orig. referring to graves carved out

of rock-face” (Melchert, loc. cit.)

64. *wa-aš-ša-a-* + ‘to dress, clothe’

act. prs. pl. 3 *wa-aš-ša-an-ti* I 11 III 3

mid. prs. pl. 3 *wa-aš-ša-an-ta-ri* IX 31 II 23

See Laroche 1959: 108 and Melchert (1993: 262), who asserts that the form *wa-aš-ša-an-ti* is not Luwian; see *ibid.* for literature and discussion.

Laroche, loc. cit., also lists prt. sg. 1 *wa-aš-ḫa* XXXV 54 II 32 in the same paradigm, with the note “même vb.??” following the listing; indeed it is not clear whether this form has anything to do with the stem.¹⁷ The medial form corresponds to the Hitt. *ú-e-eš-ša-an-ta* which occurs in the same text (MH, IX 31 I 37).

Compare this stem with Hitt. *wa-aš-še-i+*, etc. ‘id.’ (XI.1). See discussion in Chapter 4.

65. *ú-i/wi₅-ši-* + : *ú-i-ša-i-* + ‘press’

act. prt. sg. 1 *ú-i-ši-ḫa* XXXV 110, 7

mid. prt. 3 *ú-i-ši-ta* XXXV 19, 2; 70 II 20; 106, 9; XXXII 9 Vs. 3

ú-wi₅-ši-da XXV 39 IV 12

act. prt. pl. 3 *ú-i-ša-in-ta* KBo XXIX 25 II 2

ú-i-ša-i-in-ta KBo XXIX 25 II 11

See Melchert 1993: 270 for more attestations and lit.

The attestations are not sufficient for determining the stem’s conjugation type.

Cf. Hitt. *wesurye-* (see Chapter 2) with discussion. There is no need whatsoever to assume, with Starke 1990: 549, that Hittite borrowed from Luwian.

¹⁷If it does, which is unlikely, it could be due to the resegmentation of *wassa+nti* as *wass+anti*, i.e., the reverse of the thematizing resegmentation.

3. Hieroglyphic Luwian

§1. The writing of Hieroglyphic Luwian¹⁸ makes it more difficult to distinguish between consonantal and vocalic stems because signs of the HL syllabary are all of the shape CV (there are no VC signs). It is therefore due mostly to the Hittite and CL evidence that one can ascertain the existence of both types of stems here.

Examples of the consonantal (and thus athematic) stems are: *á-s+* 'be' (e.g., *á-sá-ta* prt. sg. 3 Karatepe VI Hu 37 et passim), *á-t+* 'eat' (e.g., *á-tà-tu* imp. pl. 3 Sultanhan c = [*adantu*], *á-za-tu* imp. sg. 3 Karaburna 2, 3 = unambiguously [*atstu*] < **adtu*; cf. the Hitt. [*ts*] in place of the root-final *d* before the initial *t* of an ending, e.g. act. imp. sg. 3 *e-iz-du* LOH XLIII 23 Vs.3' vs. act. ind. prs. sg. 1 *e-it-mi*).

Vocalic stems include the patently athematic *-nu*-stems (such as *i-sà-nu+* 'seat (trans.), establish', e.g., prt. sg. 1 SOLIUM-*i-sà-nu-ha* Karatepe XXXI Ho 158; cf. the thematicized SOLIUM-*i-sà-nu-wa/i-ha* Hu, ibid.) and the stems which show traces of the *i*-series endings. Of these two groups, the former are not discussed here at all, while the latter are considered when relevant (e.g., as evidence that an ambiguous or *-ti*-conj. CL stem originally belonged to the *-i* conjugation). As to the vocalic stems possibly containing thematic suffixes, only the least problematic have been selected. These include the following:

¹⁸The edition of HL texts which I use here is Meriggi 1967-1975 (three volumes), still the most complete edition to date available to me (I have not yet received Hawkins 1994). The system of transliteration of HL syllabary signs adopted here is that of Hawkins et al. 1973. There is as yet no up-to-date HL grammar or lexicon. As a dictionary, the obsolete Meriggi 1962 is still useful. Indispensable, with their discussions of important points of grammar and vocabulary as well as numerous textual samples, are essays by J. David Hawkins and Anna Morpurgo Davies such as Hawkins 1971, 1975, 1978, 1980a, 1980b, 1980c, 1981, 1995, Morpurgo 1979, 1980, 1982, Hawkins and Morpurgo 1975, 1986, 1988, 1993, in addition to the already mentioned Hawkins et al. 1973. A brief sketch of the HL verb is attempted in Oettinger 1979: 565-570. In this section I have had to rely on my own reading of the published HL texts (the Meriggi edition, with revisions suggested in the Hawkins and Morpurgo papers mentioned above).

- 1(a). *á-à*+ 'do, make'
 1(b). *á-ia*+
 prs. sg. 3 *á-ia-ti-i* Sultanhan, line 6
*á-à-ra/i*¹⁹ Maraş II, line 2

Cf. CL *a-(a)+* and *a-a/i-ia-(a=)+* 'id.' (see the preceding section, stem 1).

2. *á-wa/i-(i-)+* = *PES-wa/i-(i-)+* 'come'²⁰ and *(PES₂)-i+ : i/ia* + 'be on one's way'

- prs. sg. 1 *i-wa/i* Kululu I C, line 6
 3 *PES-wa/i-ti* Karaburçlu
 Carchemish A 11 c, 1.2 (2x)
 Gaziantep I
PES-wa/i-ra/i Sultanhan b
 Porsuk (end)
 Çalapverdi I, 1.3
PES-wa/i-ti-i Aleppo II C, 1.4 (2x)
 ibid., B, 1.6
PES₂-i-ra/i Topada, 1.3
 Cekke, rev.10

- prt. sg. 1 *PES-wa/i-i-ha* Carchemish A 11 b, 1.5
PES-wa/i-i-ha-à Carchemish A 1 a, 1.3

¹⁹On the rhotacism in HL see Morpurgo 1982. In the Hawkins et al. transliteration of HL, the sign '+' (plus) is used to indicate the joining of the syllabary signs *ra/i* and *MI* to the preceding sign. In my transliteration, I have replaced this plus with a hyphen which is more convenient for my purposes, since I use the plus to indicate a morpheme boundary. In order to go back to the Hawkins et al. transliteration, one only has to replace hyphens before *ra/i* and *MI* with plusses.

²⁰On "*FOOT-wa-*" (i.e., *PES-wa/i-*) as identical to "*a-wa-*" (i.e., *á-wa/i-*), see Hawkins 1971: 113-6. Morpurgo 1979: 591: "...the interpretation *awi-* (rather than *awa-*) of *PES-wa/i-i-* is now certain."

- 3 *PES-wa/i-ta* Carchemish A 1 a, 1.3
PES-wa/i-tà Carchemish A 11 c, 1.6
 Veliisa, 1.1
 Kōrkūn A, 1.3
PES₂-i-tà Kayseri C, 1.6

- imp. sg. 3 *ā-wa/i-i-tu* Kululu I C, 1.5
PES-wa/i-tu Carchemish A 4 d
PES₂-i-tu-u Tell Ahmar VIII, 5.4
i/ia-tu Emirgazi B, 1.6

To these might be added *PES-wa/i-i* in Bolkarmaden, line 5, and in Palanga, line 3 (end). In the Palanga text, however, there is too little context to be certain about the grammatical interpretation of the form, and the form in the Bolkarmaden text is equally problematic (see a discussion of the form and the passage in Morpurgo 1979: 591 f.).

The stem *a-wa/i(-i)+* is a compound of the root stem (*PES₂-i*)+ with the preverb *ā-w+* 'hither' cognate with the CL *a-ū-i+ / a-wi+* 'come' and *i(-i) + : i-ia-a+* 'go' (see the mentioned CL lemmata in the preceding section for other cognates and discussion). Thus, the stem belongs in this survey only on descriptive grounds.

3. *VIA-(ha-ra/i-)wa/i-ni(-i)+* 'send'

- prs. sg. 2 *VIA-ha-ra/i-wa/i-ni-si* Assur letter *d* 2
VIA-wa/i-ni-si Assur letter *f* 4
 prt. sg. 3 *VIA-wa/i-ni-ta* Assur letter *a* 3; *f* 4
 (or: sg. 2? on this latter possibility, see Morpurgo 1980: 103)
 imp. sg. 2 *VIA-ha-ra/i-wa/i-ni* Assur letter *d* 2 (twice), 3 (twice), *c* 3, 4
 (twice); passim in Assur letters
VIA-wa/i-ni-i Assur letter *e* 3, 4

Compare this stem with CL 27. *harwani-* (hapax *har-wa-an-ni-it-ta* XXXV 89, 16). The stem is almost certain to belong to the *-ti* conjugation because of its transparent and thus apparently recent denominative derivation (cf. HL "*VIA*" *-wa/i-na* Karatepe xxxiv 180 'road'; CL KASKAL^{HLA} *-wa-an-za* pl. acc. c. XXXV 107 III 14; orig. an *n*-stem?).

4. (LOQUI-)ha-ti-(i-)/ha-ra/i-(i-)+ ‘strike; write’

prs. sg. 3 LOQUI-ha-ti-i-ti Assur letter f l (‘writes’)

LOQUI-ha-ra/i-i-ti Assur letter a 3

ARHA ha-ra/i-i-ti Topada, line 8 (‘strikes, destroys’)

imp. sg. 3 ha-ra/i-tu Bolkarmaden, line 5 (end)

ARHA ha-ra/i-tu-u Topada, line 8

With the logograph LOQUI, the stem means ‘write’ (in the Assur letters) rather than ‘declare’, contrary to Melchert 1989c: 240; with the preverb ARHA (and in one case without it) it means ‘strike’, ‘smite’, ‘destroy’ or the like.

The stem is apparently a *-ye- deverbative of the root stem *ha-t+* which is attested in prt. pl. 3 ARHA *ha-ta-ta* Karaburna, line 1 (‘they smote / destroyed’), in the participle *ha-ta-ma* (neut. pl.) ‘destroyed’ (e.g., Kululu I B-C, line 1: *á-wa/i REL-ia DOMUS-na-á ... á-sa-ta ha-ta-ma wa/i-tá ta-ma-ha* ‘and the houses which had been destroyed I (re)built’) and in the noun *ha-tu-(á-)-ra/i-(i-)+* ‘writing, letter’ (attestations in the Assur letters). It is clearly cognate with Hittite *ḫa-az-zi-(e)-i+*, etc., ‘strike, play (a musical instrument)’, which is derived from *ḫa-at-t+* / *ḫa-ad-d+* ‘hit’ (I.27, with discussion).²¹

The stem *ha-zi+* ‘to write’ (attested, e.g., in Cekke 5 prs. pl. 1 *ha-zi-mi-na*) is best explained as a *-ske- derivative of the root stem *hat-** (i.e., *ha-zi+* < **hat-ske-*), pace Melchert (1994a: 62 passim) who explains it as continuing a “(virtual) PA **Hatsye/o-* < **h₂étye/o-*” (loc. cit.).²²

Possibly derived from the same root is the stem (Meriggi) *11-ha-ta-*

²¹Cf. Melchert 1989c: 240 f.: “The rhotacism of *hati-* to *hari-* points to an underlying stem with voiced stop /hadi-/: see Morpurgo[-]Davies, KZ 96.250. A Luvian stem /hadi-/ meaning ‘solemn declaration/pronouncement’ may be compared to Oir. *ad* ‘law’, both from a root **h₂ed-* meaning ‘solemnly declare’.” But the rhotacism need not point to an original **d*, cf. the intervocalically rhotacised 3.sg.prs. ending *-ti* (numerous examples). Melchert’s false conjecture “*haTi-* ‘declare’” further leads him to an unlikely etymology.

²²This, then, is not an example of the change “*t > z* (= [ts]) before *y*” which Melchert posits as Proto-Anatolian.

li-(i)-+ 'destroy, defeat', the conjugation type of which is uncertain. Its attestations are:

- prt. sg. 1 *l-l-ha-ta-li-i-ha* Karatepe Hu xxviii 144
l-l-ha-ta-li-há ibid., //Ho
l-l-ta-li-ha ibid., Hu xxv 129
l-l-há-ta-li-há ibid., //Ho
l-l-ha-ta-li-ha Carchemish A 25a
 3 *l-l-ha-ta-li-i-ta* Karatepe Hu xxvi 135
l-l-há-ta-li-i-ta ibid., //Ho

The stem looks denominative, viz. like a **-ye-* derivative of a noun (*hatali-** 'smiter' [?]) based on the root *ha-t+*.

5. *i-zi-(i)-*+ : *i-zi-ia*+ 'make, perform'

Below is a representative list of forms of this copiously attested stem:

- prs. sg. 1 *i-zi-i-wa/i* Karatepe lxix 365
 Til-Barsip I, line 7
 passim
 3 *i-zi-i-ti* Kötükale, line 6
 Boybeypınarı III B, 2; passim
i-zi-i-ti-i Tekirderbent I, line 3
i-zi-ti Karatepe lxvii 359
 pl. 1 *i-zi-ia-mi-na* Cekke B, 4
 Carchemish A 4 a, line 1
i-zi-ia-mi-na-à Sultanhan Base, line 9
 prt. sg. 1 *i-zi-i-ha* Karatepe Hu and Ho viii 44; passim
i-zi-i-há ibid., Hu x 52; passim
i-zi-i-ha-à Maraş, IV, line 5
i-zi-ha Karahöyük, line 10
i-zi-ia-ha Maraş, III, line 2
 3 *i-zi-i-ta* Topada 6
i-zi-i-tà Karatepe iii 17
 Izgın D 6, line 7
 passim

- i-zi-i-tà-à* Carchemish A 26 f, line 3
i-zi-tà Karatepe Ho xviii 88
 pl. *i-zi-ia-ta* Carchemish A 11 a, line 3 (mid.)
 Karaburna 1 (end)
 act. imp. sg. 2 *i-zi-ia-à* Assur letter b 1
 3 *i-zi-i-tu* Izgın D, 19
 i-zi-ia-ru Karatepe Hu 1 281
 i-zi-ia-rú ibid., //Ho
 pl. 3 *i-zi-ia-tu* Kululu I, line 5
 Cekke B, line 12
 mid. imp. sg. 3 *i-zi-ia-ru* Carchemish A 3, line 3 (end)

See a discussion in Hawkins et al. 1973: 44.

If PIH **k̂* > Luw. *z*, as Melchert has convincingly shown (1987; 1994a: 234 with exx.), then *izi-* is likely to continue **ī-ské-*, the iterative stem based on the zero grade of **yē-* (> Proto-Luwian **ā-*, see CL stem 1(a) and further discussion in Chapter 4). The stem is treated as if it also had the suffix *-i-* : *-ia-* (< **-ye-* : **-yo-*), cf. *hazi-* above *sub* HL stem 4, because the regular outcome of **-e-* after **-sk̂-*, which I infer to be *-i-*, facilitated the stem's transfer into the inherited **-ye-* stems.

6. *LITUUS-na* + 'see'

As Hawkins has shown (1980), with the help of Starke's identification of the CL cognate (1980), the phonetic shape of the stem is *mana-** (cf. CL *ma-na-a* + 'see' in the preceding section). Below is a representative list of the attested forms of the stem (for a complete list of attestations, with discussion, consult Hawkins 1980):

- prs. sg. 2 *LITUUS-na-ti-sa* Assur letter g "1" (3)
 3 *LITUUS-na-ti* Carchemish A 15 c, line 3
 LITUUS-na-ti-i Carchemish A 3, line 4
 LITUUS-na-ra/i-i Assur letter g "4" (2)
 pl. 1 *LITUUS-na-mi?-na?* Izgın B, 11
 prt. sg. 1 *LITUUS-na-ha* Carchemish A 11 b, line 5
 3 *LITUUS-na-tà* Carchemish A 2, line 3
 participle *LITUUS-na-mi-sa* Carchemish A 17 b, line 2

On the 2nd sg. ending *-ti-sa* see Morpurgo 1980: 104.

Cf. CL stem 12 in the preceding section, and see discussion in the summary to this chapter.

7. *DOMUS-na-zi* + 'construct'

prs. sg. 3 *DOMUS-na-zi-ti* Kululu I C, line 6 (end)

The stem is to be read *parnazi-* (cf. the phonetic spelling of the *DOMUS* logogram in Karatepe lviii Ho: *DOMUS-pa-ra/i-ní* dat. sg. [the parallel version Hu has *DOMUS-ní-i*]).

The suffix *-zi-* may be the HL counterpart of PIE **-skē-* (cf. Melchert 1994a: 234 and see summary to this chapter).

The nominal stem from which the verb is derived is common to most Anatolian languages, cf. CL *pár-n* + 'house', Hitt. *pí-ir*: oblique *pár-n* + 'id.', Lyc. *prñn-** 'id.', and Lyd. *bir-* 'id.'

From the same nominal stem is derived the verb stem (*DOMUS*.) *CRUX-pa-ra/i-na-wa* + 'be in service' (attested in Karatepe lviii 325: Hu *CRUX-pa-ra/i-na-wa/i-tu-u* // Ho *DOMUS*. "*CRUX*"-*pa-ra/i-na-wa/i-tu₄* [imperative pl. 3]); cf. the morphologically identical Lycian *prñnawa-* 'build' in the Lycian section below. The stem's attestations are insufficient for determining its original conjugation type but, in view of its productive denominative derivation, the stem is likely to belong to the *-ti* (i.e., Hitt. *-mi*) conjugation.

8. (*SA₄*)*sa/sá-ni/ní-(i-)* + 'remove'(?)

prs. sg. 3 *sa-ni-i-ti* Erkilet II, line 1

sa-ni-ti Erkilet I, line 2

SA₄sa-ni-ti Kululu II B, line 3

Carchemish A 18 e, line 3

SA₄sá-ni-ti Carchemish A 11 a, line 6

SA₄sá-ní-ti ibid.

SA₄sá-ní-ti-i Babylon stele, line 6

The meaning 'remove' is inferred from the contexts (Hawkins 1975:

146). Cf. CL stem 46 above.

9. AEDIFICARE-MI/*ta-ma*+ 'build'

See attestations in Hawkins 1971. To these, the following crucial ones should be added:

prs. sg. 3 AEDIFICARE-MI-*ra/i-i-i* Karatepe lxxi 373
AEDIFICARE-MI-*ra/i-i* *ibid.*, 379

These forms determine the conjugation type of the stem (namely, the *-ti* conj.). The stem is discussed in Morpurgo 1982: 261 f. with references. The phonetic interpretation of the writing as *tamari** (rhota-cized from *tamati**) is based on the full spellings of other forms, such as prt. sg. 3 *ta-ma-ta* Karaburna, line 1, et passim. Anna Morpurgo Davies (Morpurgo 1982: 262) explains the HL stem as cognate with "IE **demH₁*-, attested, e.g., in Greek δέμω, Myc. future participle *de-me-o-te*. A present from this root must either be an athematic form **démH₁-ti* or a thematic form parallel to the Greek form: **démH₁-e-ti*; the form **démH₁-ti* is excluded because in Luwian it would presumably yield **dm̃ti* . . . **démH₁(e)ti* ought to become **dámati*"

Within the anachronistic laryngealist framework, Homeric δέμας indicates the second laryngeal rather than the first, and Myc. *de-me-o-te* is not probative because the Greek liquid future tends to generalize -eo- in the stem. More to the point, there is no reason to posit a laryngeal where none is attested. In any case, the form δέμας and the like, as well as Myc. *de-me-o-te*, should be explained as internal Greek developments.

There is no need whatsoever to assume that the stem is vocalic. The writing *ta-ma-ta*, in view of the non-existence of VC-type signs in the HL syllabary, may well stand for an athematic [*Tamta*].

10(a). AUDIRE-(*ma*-)(*ti*-)(*i*-)+ 'hear' and 10(b). AUDIRE-*ta*-+ 'glorify'

The stem was identified by Hawkins (1975: 151 f.). Its attestations

are as follows:

prs. sg. 3 *AUDIRE-ti-ti* Carchemish A 32, line 5

prt. sg. 1 *AUDIRE-ha* Carchemish A 6, line 3

3 *AUDIRE-ti-i-ta* *ibid.*, line 2 (twice); line 3

participle *AUDIRE-ma-ti-mi-i-sa* *ibid.*, line 1

*AUDIRE-ti-mi-sa*₄ Bohça, line 1

AUDIRE-mi-sà Maraş I, line 4

To these must be added *AUDIRE-ta-ra/i-ru* Carchemish A 11 c, line 5 (end) and *AUDIRE-ta-à-ra/i-nu* Assur letter *e*, line 1, which are difficult to interpret. The latter is plausibly interpreted as a rhotacized imp. pl. 2 (see Morpurgo 1980: 91 ff. where this interpretation is proposed). With regard to the former, Morpurgo (1980: 92, n. 12) suggests that “the two *r*-syllables of the ending may perhaps point to a middle form.”

To propose a more specific solution, I would suggest that the form is perhaps middle 3rd person pl. imperative, which would fit the context: *à-wa/i za-à-zi DEUS-ni-i-zi AUDIRE-ta-ra/i-ru* ‘and let the gods be glorified’. This interpretation would require an emendation, namely that the oblique stroke *ra* be read after *AUDIRE* and not after *ta* (assuming that the stonecutter made a mistake). Morphologically, the form would be a rhotacized version of **tummaTa(n)taru* (where the capital *T* shows the dental to undergo rhotacization. The immediate CL cognate of the posited HL *without the nasal before T* is CL stem 56 *tu-u-um-ma-a-ta-i-i-* ‘glorify’ in the CL section of this chapter; for the ending, cf. CL [Laroche 1959: 142] and Hitt. *-ntaru*).²³ If this interpretation is correct, then we have two different stems in HL, just as we

²³Terumasa Oshiro 1994: 99 n. 15 objects to my interpretation of CARCHEMISH A 11c 5 iii *AUDIRE-MI-ta+ra/i-ru* as [tumaTariru] because he assumes that the stem is “**tumanta-* or **tumanti-*.” My emendation of the form and the inferred stem are based on the Cuneiform Luwian attestation (stem 56, q.v. above) which has *t*, not *nt*, as well as on the inference that the HL *r* may come from *t* but not from *nt*. NB Oshiro’s own observation that “the rhotacism of the postconsonantal *-t-* (from **-nt-*) is exceptional” (*ibid.*). His explanation of the fictitious *-a(n)raru* as a regressively assimilated form from **-a(n)taru* is, of course, entirely *ad hoc*.

do in CL (56. and 57.): *tumaTa-* (with the rhotacizable *T*) 'to glorify' which appears in the two mediopassive forms and *tumanti-* (with =*nt*=) 'hear' required by most of the attestations); cf. Morpurgo 1980: 92 n. 12, with a brief discussion of "stem hesitations" in HL and CL.

11. ("X")*tu-pi-(i)-*+ 'strike, smite'

prs. sg. 1 *tu-pi-wa/i* Karatepe lxiv 349

3 "X"*tu-pi-ti-i* Kayseri, line 3

(or prt.) *tu-pi-i-ra/i* Sultanhan (base), line 13

tu-pi-ra/i Burunkaya, §3?

Cf. the CL stem 20 *du-(ú)pi+*, etc., 'id.', in section 2 above and Hitt. *tu-pi-i+*, etc., 'smite' (?) (1.80). See also the Lycian section.

12. *LITUUS-u-ni*+ 'know'²⁴

The stem is discussed in Hawkins 1975: 131 (No. 14) and esp. 150 (Appendix 2). Attestations:

prs. sg. 3 *LITUUS-u-ni-ti* Assur letter *e*, line 4

prt. sg. 1 *LITUUS-u-ni-ha* Carchemish A 15 b, line 4

participle *LITUUS(-)u-ni-mi-sa* Palanga, line 3

The stem serves as the base for the causative *LITUUS-u-na-nu*+ 'cause to know, teach' (Carchemish A 15 b, 4: *LITUUS-u-na-nu-ta* prt. sg. 3; for the context, see Hawkins 1975: 150 f.)

§2. In addition to these, there are a number of stems that are not sufficiently well attested to be directly useful for my purposes but should nonetheless be mentioned because of their relation to thematic stems of the other Anatolian languages. These include the following:

²⁴The transliteration here is *LITUUS-u-ni-* (in agreement with Hawkins 1980) rather than *u+LITUUS-ni-* as in Hawkins 1975. See Hawkins 1980 for the uses of *LITUUS*.

13. (INFRA) *á-ka-* + 'subject?'

Identified by Hawkins 1995: 28 in the "Südburg" inscription of the Empire (=early) period, "written, as typically in Empire inscriptions, phonetically but without verbal ending" (loc. cit., with n. 30 where additional examples are given). Two more attestations may be confirmed, according to Hawkins, loc. cit., in NIŞANTAŞ, line III: both prt. sg. 1 *á-ka-ha*. Hawkins contextually translates (*kata/annan*) *aka-* as 'to subject', "to render the sense of the preverb" (loc. cit.), and gives CL *akkussa-* 'animal pit' and *aggati-* 'hunting net' as conceivable cognates (with reference to Starke 1990: 115 f.). Obviously, there is little to support these CL connections, and any speculation on the stem's affinities is premature.²⁵ There is no evidence as to the stem's conjugation type.

14. "308"-*á-sa-ha-ra/i-* + 'bleed'(?)

If "308" (=Laroche 350)-*á-sa-ha-ra/i-mi-sà(-)* in Carchemish 11b, 6 and in Carchemish 12, 4 is a participle, its stem may be interpreted as *ashari-*, i.e., a **-ye-* stem based on *ashar-* 'blood' (so Starke 1990: 556 f.). The attestations are obviously not sufficient for determining the stem's conjugation type.

15. (LITUUS)-*á-za-* + 'to favor'.

prt. sg. 3 *á-zi/a-tá* Yalburt 4, §3

pl. LITUUS-*á-za-ta* Carchemish 11a 3; 11b 4; Maraş I 4
participle LITUUS-*á-za-mi-sa* Maraş I 3; etc. passim

Attested also in the proper name *Á-za-ti-i-wa/i-tà-sà* (e.g., Karatepe bilingual I) 'beloved of Sun-god'. For examples without the LITUUS

²⁵It is tempting, however, to explore some comparative possibilities. Hittite *ak^{hhi}* 'die' is the closest. Could the HL stem be an **-eye-* (> Luw. *-a-*) factitive to the root 'die'? The meaning would then be 'annihilate' rather than 'subject'. Cf. Puhvel 1984: 22: "[Hitt.] *ak(k)-* has no known inner-Anatolian cognates."

determinative attested in the Empire texts other than Yalburt, see Hawkins 1995: 75.

The possibly cognate Hitt. stem *assiya-* ‘to love’ and its derivatives (q.v. in HW2, p. 402 ff.) are discussed in Chapter 2 (p. 45). The exact character of the affinity between the Hieroglyphic Luwian and the Hittite stem is problematic, particularly if Hitt. *assiya-* is derived from the root of *ass-u-* ‘good’ and thus should be analyzed as *ass-(i)ya-*, i.e., a **-ye-*-derivative of *ass-** ‘goodness’ (?). But if we infer *ad hoc* that the HL sign *za* also covers the phonetic outcome of the sequence **=sya=* in Hieroglyphic Luwian, we can reconstruct Proto-Anatolian **as-ye-* ‘to favor’.

16. *hwi/a-i(a)-*+ ‘run’

See attestations in Hawkins and Morpurgo 1993: 50 ff., to which add prt. sg. 3 *hwi/a-i(a)-ta* Yalburt 4 §2, 10 §3, 11 §1 (Hawkins 1995: 75) and imp. pl. 3 *hwi/a-i(a)-tu* Emirgazi §37 (Hawkins 1995: 88, 92).

Cf. also the reduplicated *-sa-*-suffixed *i-*conj. stem (PES₂-) *hwi-hwi-sà-*+ ‘run, march’ (e.g., in Carchemish 11 b, 3).

Prs. sg. 3 has not been attested and so there is no direct HL evidence for assigning this stem to the *i*-conjugation to which its CL and Hittite cognates belong (see Chapter 2 and the preceding section).

17. *ARHA la-tà-*+ / *la-ra/i-*+ ‘prosper, flourish; enhance’

prt. sg. 3 *ARHA-à la-ra/i-ta* Sultanhan 2-3

ARHA la-tà-ta Aksaray 2

pa-ra/i-na ARHA la-ra/i-ta Bulgarmaden, 2

See on these Hawkins and Morpurgo 1978: 104-106 where also the felicitous connection with Hitt. *lāzziya-^{ttā}* ‘be well, recover’ is made (105). See also Poetto 1982: 276.

Note also the proper name *la-ra/i-à-ma-sa* which Hawkins and Morpurgo 1978: 105 explain as based on this stem, as well as the *-nu-*causative HL *la-ra/i-à-nú-*+ (prt. sg. 1 (*ARHA-ha-wa/i*) *la-ra/i-à-nú-ha* attested in Karatepe IV, 18-20 Hu; see Hawkins and Morpurgo 1978:

104-105).

The *r* in two of the attestations (and in the proper name, if it belongs here) is a rhotacized *t*. The root may be reconstructed as PA **lat-*, cf. Hitt. *lazzi-* 'well, good' < PA **lat-i-* and the denominative **-ye-* stem *lāzziya-*²⁶ < PA **lat-ye-*.

The HL stem appears to be transitive in Bulgarmaden and Aksaray, and intransitive in Sultanhan (so Hawkins and Morpurgo, op. cit.). It looks simple thematic but need not be genetically so. It may instead go back to an **-eye-* transitive based on the PA **a-grade* root **lat-*, cf. Hittite, or to a **-ye-* denominative to an *a-* (< **o-*) stem noun.

If Lycian *lada* 'wife' is based on this root, it cannot be directly related to Russ. *лада* 'darling' and *ладъ* 'order, concord', *pace* Melchert 1994b: 231 (with footnote 1).²⁶ See also Chapter 1.

18. ARHA (LEGERE) *li-sá(/sa_g)* + 'pick out, pick up, remove'.

This stem is identified here for the first time, as far as I know. The sign (Meriggi)127.5 which I transcribe here as "*sa_g*", to record the difference in shape, to my mind, distinguishing it from (Meriggi) 391 = *sá* (Laroche 433), appears in several attestations. Prt. sg. 1 ARHA *li-sá-ha* appears in Gürün B, line 4, in a context where the meaning 'pick up, remove' seems likely: (4) MONS-na ha-ra/i(-)REX? MONS-na-na mu-zi-na-à ARHA li-sa-ha wa/i-mu-à x x li-na zi(-)Y Z (5) x x wa/i-à URBS-mi-ni SOLIUM-nú-wa/i-ha (Y, Z: unidentified signs): 'I picked up / removed [something] . . . (5) and for myself . . . established [something] in the city'. Prs. sg. 3 ARHA 42.1 (= a variant of the MANUS sign) *li-sa_g-ti* occurs below in the same text (line 6), in the protasis of a punitive formula (viz. 'if someone removes this X'): za-pa-wa/i Y-za-ra/i-sà REL-i-sa (6) ARHA 42.1-li-sa_g-ti pa-ti-pa-wa/i-à MAGNUS.DEUS.TONITRUS MAGNUS.DEUS hi-pa-Z-sa₅ MAGNUS.DEUS SARMA IRA(-)sa-tú-à 'if someone takes away / removes [Y], then the great Thundergod, the great god H. (and) the great god Sarma shall be wroth with him'. The same form, minus logogram 42.1,

²⁶Russian *лѣта* 'a patch' (pl. *лѣты* 'plate armor') : Lith. *lotà* 'a plank' and its denominative *лататъ* 'to patch up, to fix' : Lith. *lotóti* 'to cover a roof with planks', i.e., Balto-Slavic **lat-ā-*, is equally unlikely to be related.

appears in the Şırzı text, in an almost identical formulaic context: *za-pa-wa/i* (4) *x x -pá? x PES₂.PES-pa-mi-na REL-sa ARHA li-sa_g-ti*. We have, then, two forms of this stem, viz. prs. sg. 3 *-li-sa_g-ti* and prt. sg. 1 *li-sa-ha*. The stem could be compared with the Hittite (LMH, LH) stems *li-(i)-ša-i+* (*-mi* conj.), *li-eš-š+* ‘pick, remove’ (attestations and literature see in Oettinger 1979: 206); *LEGERE* could thus be an appropriate Latin label for (Meriggi) 42.1.

Now on the interpretation of this stem. The cognate Hittite root should be the starting point. The two Hittite stems, namely the root stem *li-eš-š+* (infinitive *li-eš-šu-wa-an-zi* LMH? XXX 15 + Vs.1, 7, 17) and the *=a-ye-* stem *li-(i)-ša-i+* (the other attestations) point toward possible interpretations of the HL stem either as an athematic (root) stem—whether actually athematic, i.e., *lis-*, concealed by the non-phonetic writing system (or by our inadequate understanding of it), or thematized *lisa-* due to, e.g., resegmentation of 3. pl. **lis-anti* as **lisa-nti*, or else as an *=a-ye-* stem (a *-ye-* denominative to **lisa-* ‘removal’ or the like?). Perhaps the sign *li*, Meriggi 284 = Laroche 278, should be transcribed as *la/i*, with the variant reading [*la*]? If so, the opaque sequence in Assur letter *g* which may be interpreted as *ARHA OCCIDENS?-lá/i/u-si-ta* (to be read [*la/isita*] and interpreted as some-thing like “opted out”) also belongs here? If the reading *lis-* is correct, it is interesting to compare CL 31 *kis(a)-* ‘to comb, card’ (and Hitt. *kisāi-* ‘id.’ IV.21) < **kes-* ‘comb, scrape, plane’ (in, e.g., Russian чесать ‘comb, card, scratch’, Lith. iter. *kasýti* ‘id.’, Hom. ξέω ‘plane, make smooth’ < **kse-* resegmented from **ks-enti*, see IV.21 for a discussion). This stem is brought up in Morpurgo and Hawkins 1988: 181, with the inconclusive proposal “**ke-* > *ki-*” to explain the unexpected Luwian vocalism. Perhaps it is not the preceding *k* but the following *s* that is responsible for the raising of **e* to *i*? The paucity of usable data and the problematic root vowel²⁷ make further speculation unwarranted.

What is clear, however, is that there is no need to posit a simple thematic prototype for this HL stem.

²⁷The conditions (other than after **y* or **g(h)* or **k*) under which **e* > Luw. *i* instead of the expected *a* are unclear (cf. examples in Melchert 1994a: 240 “pretonically(?)”, 262 “the entire rule is not assured!”). Cf. also the examples of **e* > *i* in Hittite (Melchert 1994a: 139 f.).

As for Indo-European affinities, with the mentioned reservations, cf. OHG *lesan* 'gather, read' : Lith. *lės-ti* 'peck, pick' (of birds), *las-y-ti* 'gather' < PIE **les-* : **los-éye-*.

19. "PANIS"-*ma-li-ri-i*+ 'to coat with honey'

The only attestation of this stem is in the passive participle "PANIS"-*ma-li-ri-i-mi-sá* (sg. nom. c.) Maraš, I, lion, line 3. The stem can be interpreted as a *-ye-* denominative to the consonant stem **malit-* 'honey' (cf. CL *ma-al-li-(i)-t*+ 'id.' [Laroche 1959: 66], Hitt. *mi-li-it* XXX 36 II 1, Palaic *ma-li-t*+; cf. Gk. *μέλιτ-* 'id.', Goth. *miliþ*, etc.). The stem was identified by Anna Morpurgo Davies (Morpurgo 1982: 250 n. 18: "Another instance of an etymological *-t-* which is rhotacized..., " etc.).

20. "CULTER"-*pa-ra/i-tu-ni-(i)-*+ 'sever'

The stem, with its two attestations ("CULTER"-*pa-ra/i-tu-ni-tu-u* and "CULTER"-*pa-ra/i-tu-ni-i-tú*, both imperative sg. 3, in Carchemish A 11 c, line 4), is discussed in Hawkins 1975: 143. There is not enough information to decide what conjugation type it belongs to. However, in view of its denominative appearance, it may well belong to the *-ti* type (a *-ye-* denominative to a *-war-* : *-un-* stem deverbative noun).

21. *pa-sà-kwi/a-*+ 'neglect'(?)

The only attestation known to me (*pa-sà-kwi/a-i* prs. sg. 3 Sultanhan, line 5) shows it to belong to the *-i* conjugation (see also Morpurgo 1979: 585 [list]). The stem is cognate with the Hittite *pa-aš-ku-i-i*+ 'to neglect' (this was suggested by Gillian R. Hart, *apud* Hawkins 1975: 119 n. 9, where the Hitt. stem is incorrectly normalized as *paškuwai-*). See Chapter 2, I.34, for Hittite attestations and discussion. The disagreement between Hittite and HL with regard to the conjugation type is difficult to explain, unless one assumes that the HL attestation is

incomplete for **pa-sà-kwi/a-i-ti*.²⁸

22. *pa-sa-ia* + 'throw away' (?)

The only attestation of this stem—*pa-sa-ia-tu-u-à* imp. sg. or pl. 3, in a list of punitive actions to be undertaken by various deities against a potential violator—does not allow one to determine the conjugation type of this stem in HL. The stem is apparently related to Hitt. *pí-eš-ši-(i-(e-))i+*, etc., 'throw away' (I. 14), a compound of the preverb *pí-(e-)* + 'away, forth' with the stem +š-ši-(e-)i+ (-mi conj.), see the discussion in the mentioned lemma in Chapter 2. A discussion of a probable etymon for the two stems can be found in Chapter 4 (see Oettinger 1979: 348 for the original proposal).²⁹ See also the summary at the end of this chapter.

23. (VERERI)-*pi-ha-* + 'to revere, hold in awe'

Attested in proper names and in the participle (Meriggi 400-)*pi-ha-mi-* +. See Lehrman 1978: 224-228 and the summary below for a discussion. Cf. CL stem 44 *pí-ha-i* + 'id.' (in connection with which see a different and, I believe, mistaken interpretation by Starke 1990: 103 ff.).

In the following context (Carchemish A 11 b 5), the participle is part of a passive construction:

à-wa/i pí-i-na-à REGIO-ni-ia-ti VERERI-pi-ha-mi-sa SUPER-ra/i-à PES-wa/i-i-ha 'and I arrived, revered by the Pina (?) country'.

(For the passive construction "instr. + -mi-participle," cf. the beginning of the same A 11 b 1: *EGO-wa/i-mi Ka-tú-wa/i-sa IUDEX-ni-i-sa*

²⁸Cf. the typical practice in Empire inscriptions of writing verbs phonetically but without verbal endings (see Hawkins 1995: 28 n. 30). This inscription, however, is Late.

²⁹Besides the laryngeal in the root for which I see no evidence, I differ from Oettinger (loc. cit.) in positing **pe* (< PIH **per*) with the short **e* as the Anatolian prototype of Hitt. *pí-e-* and Luwian *pa-*.

DEUS-*ni-ti-i á-LITUUS-za-mi-i-sa* 'I, Katuwas, ruler-judge [Luw. *tarwanis* → τῳρᾶννοϰ] favored by [the] god[s]'.)

The sign Meriggi 400, not identified in Laroche, could be a variant of Meriggi 399 = Laroche 200, latinized as VIS by Hawkins 1975: 153. I prefer to transcribe Meriggi 400, sufficiently distinct from Meriggi 399, as VERERI. Perhaps Meriggi 399 should also be so symbolized.

Conjugation type cannot be determined, but if based on **piha-* 'reverence, awe', may well be a **-ye-* denominative and thus most likely belong to the *-ti* conj.

24. (VASTUS-)*ta/tá-na-tá/ta-* + 'to devastate'

See Hawkins and Morpurgo 1986: 74-5 and Melchert 1988: 32 f. for attestations and discussion.

HL *tanata-* 'devastate' is based on an adjective meaning 'empty' which Melchert (op. cit.) normalizes as an *i*-stem adjective *tanati-* 'empty'; it may, however, very well be a PA **-a-* (< **-o-*) stem adjective with the Luw. change of final *-a-* > *-i-*, on which see Chapter 1.

HL *tanata-* is likely to continue a **-ye-* denominative based on a PA thematic adjective **Tanata-* (cf. Hitt. *dannatta-* 'empty'; cf. Hitt. *dannatte-* 'be empty' in Chapter 2). The Hittite parallel *dannattahh-*¹ makes it possible but not necessary that the HL stem actually continue a PA **-ax-* stem ("with the same loss of stem-final **h₂*, seen in Palaic," see Melchert [1988: 32] who, however, allows the possibility that "the HLUvian stem could also be *tanatā(i)-*," loc. cit.).

This adjectival base is itself likely to be originally deverbative. For an extra-Anatolian cognate, cf. Hom. θάνατος 'death', θανόντ- 'dead, killed', θνητός 'mortal' (see Frisk 1973: 652 f.) and see a summarizing discussion in Chapter 4.

25(a). *PES₂(PES)-tara/i-pi-(i)-* + 'tread on; attack, assault'

25(b). *(PES₂,PES)-tara/i-pa* + 'id.'

prs. sg. 3 (a) "*PES₂-tara/i-pi-ra/i* Tünp I, line 3

(b) *tara/i-pa-à-ti* Karahöyük, line 11

prt. sg. 3 (b) *PES₂.PES-tara/i-pa-ta₅* Carchemish A 6, line 4
 imp. sg. 3 (a) *PES₂.PES-tara/i-pi-i-tu* Carchemish A 2, line 5
 PES₂.PES-tara/i-pi-tu-u ibid., line 6
 PES₂.PES-pi-tu Şırzı, line 4
 "*PES₂.PES*"-*tara/i-pi-ru-u-à* Kayseri, line 5
 participle (b) *PES₂.PES-pa-mi-na* Şırzı, line 4

The proper name (?) *tara/i-pa-i-mi-i-sa* Assur letter *a*, 2 (participle, sg. nom. comm.) may or may not belong to the same paradigm (see Hawkins 1975: 136: "Tarpamis: perhaps a PN; otherwise 'the TARPAMED man'."

Anna Morpurgo Davies devoted an article (Morpurgo 1986: 129-145) to this stem and the two nouns morphologically related to it, bringing together all the relevant contexts.

One noun, namely *ta-ra/i-p+*, preceded either by the determinative CORNU or by SCALPRUM, occurs in the construction "noun (dat.) + *tarapa/i* (dir.? / loc.) + *ta-^l* 'stand, put'," met with "in curses as an example of what the evil man can do to another individual or to a stele or to a god . . .; the same phrase is also used to refer to the punishments which the gods may inflict upon the evil-doer . . ." (op. cit. p. 134).

The other noun, *ta-ra/i-pu-n+* (the attested forms in Carchemish 6, 4-5 are *ta-ra/i-pu-na-sá* in line 4 and *ta-ra/i-pu-na-zi-i* in line 5) Morpurgo plausibly interprets as a verbal noun (infinitive), of which the line-4 form is a genitive and the line-5 form is an accusative plural. This infinitive would belong to stem 21(b) rather than 21(a).

Morpurgo's results, however, are unconvincing. She starts out with the conjectured meaning 'trample' and is therefore understandably puzzled that the noun *tarap-* "should be determined by CORNU and SCALPRUM. A foot logogram would be more appropriate" (op. cit., p. 140). The role of *tarapun-* in Carchemish 6 also remains obscure to her. Morpurgo then proceeds to compare Hitt. *teripp-^{mi}* 'to plough' and Greek *τρέπω* 'turn' with the root of the HL formations, with an eye to Lat. *terram vertere* / *versare* 'to plough' (op. cit., pp. 142-143). I believe that her extra-Luwian connections are sound, but her interpretation of *tarapun-* as referring to agricultural activities is weak because it diverges from the rest of the contexts where the root clearly

refers to aggressive behavior.³⁰ If we infer the meaning 'to attack, assault' for the verb stem (including the infinitive from which the Carchemish 6, 4-5 attestations derive) and the meaning 'attack, aggression' for the noun in the collocation "*tarapa/i ta-*" 'to subject to aggression / assault / attack' or the like, then the problem is likely to be solved. The determinatives CORNU and SCALPRUM similarly cease to be puzzling as both are fitting tools of assault, the former naturally for creatures with horns but also metaphorically for humans.

Now on the relation of stems (a) and (b). The most likely possibility is that (1) stem (b) is a consonant stem (most likely *trap-*) and stem (a) is a **-ye-* stem based on it. Other possibilities are that (2) stem (b) continues an **=a-ye-* stem, i.e., a **-ye-* stem based on an *-a-* stem noun (on this subclass of the **-ye-* class in Hittite, see the summary of Chapter 2) or that (3) it continues an **-eye-* stem based on the **o* grade of the root. Yet while the first possibility is supported by morphological parallels in Hittite, the second is little more than a conjecture (the participle *tara/i-pa-i-mi-i-sa*, q.v. above, being the strongest piece of evidence in its favor; the noun which occurs, e.g., in the phrase "*CRUX*"-*tara/i-pa* *CRUS-i* Aleppo II A 6 could be either a consonant stem or an *a*-stem). The third possibility remains likely (cf. the rare Hom. τροπέω compared with the much more frequent τρέπω) but speculative.

CL has *tar-pi-(i-)+* 'trample' (?) (which probably should also be changed to 'attack, assault') comparable with the HL stem (a) as well as the deverbative *tar-pa-at-t+* which could be derived from either **tarp-* or **tarpa-* (< **tarpaya-*?) (HL stem (b)); see attestations in Laroche 1959: 93 and also in Melchert 1993: 214 (*tarpa*⁻² 'walk on?'), 217 (*tarpi-/tarpai-* '?'). Thus, CL does not contribute anything to solving this morphological problem.

In any case, there is no need to posit a simple thematic prototype for stem (b).

Oettinger 1979: 569 adduces HL "*tarpji-/tarpaji-* 'sich aufhalten' [???—A.L.]" as an example of "Mischflexion zwischen I 2 d [i. e., my = *a-ye*-subclass] und I 2 c [my = *C-ye*-subclass—A.L.]."

³⁰In Carchemish, both *314 *kat-* and *382 *tarap-* would thus be military instruments, *pace* Morpurgo 1986: 140 ff. One could suggest the defensive and the aggressive as the two likely domains of meaning in this case.

26. *MALEDICERE-tá/ta-tara/i-ia* + 'curse'

The stem is attested as follows: imp. sg. 3 *MALEDICERE-tá-tara/i-ia-tu* Carchemish A 3, line 3; Til-Barsip A, line 9; Aleppo 2, line 4; participle *MALEDICERE-ta-tara/i-ia-mi-sa* Carchemish A 3, line 4 (end).

The attestations are not sufficient for determining with certainty the conjugation type of the stem. The *a* variant of the suffix is generalized for the singular (if the relevant forms are indeed sg., which is not absolutely certain).

Cf. the CL deverbative *ta-(a-)ta-ri-ia-(am-)ma-an* (stem 54) in the CL section above.

27. *MORI-wa/i-la-* + / *wa/i-ra/i-* + 'die'

prt. sg. 1 *ARHA MORI-wa/i-ra/i-ha* Kululu 2, A1-B2

3 *ARHA MORI-wa/i-la-tá* Tell Ahmar 1, 5 iv; viii

See Hawkins 1980a for attestations. The forms *ARHA wa/i-la-u-ta* (without the determinative *MORI* and with the unclear *u* written before the ending) and *ARHA wa/i-la-mi-na-á* (also without *MORI*; possibly a participle to the stem in question) in Assur letter f, 1, as well as *ARHA MORI-wa/i-wa/i-ri-i-ta-ti*, presumably prs. pl. 3, in Assur letter e, 2, are too uncertain to be of use here (see Hawkins op. cit. 117 f. for discussion).

The alternation *l/r* in the root is not clear.

Cf. CL stem 61 in the preceding section.

28. *BONUS-(wa/i-)li-ia-* + 'exalt'

The attestations (prt. pl. 3 *BONUS-wa/i-li-ia-ta* Carchemish 14a, 4, *BONUS-li-ia-ta* Carchemish 2, 1.2.3) are insufficient. While a *-ti-* conj. **-ye-* stem cannot be ruled out, the cognate Hittite *-hhi-*conj. stem *wallai-* suggests that this stem likely belongs to the *-i* conjugation. Cf. CL stem 63 in the preceding section.

29. *wa/i-mi-LITUUS-* + 'find'.

First identified by Hawkins (1975: 135). Attestations: prs. sg. 2 *wa/i-mi-LITUUS-si*; prt. sg. 1 *wa/i-mi-LITUUS-ha* Carchemish A 15 b, line 5; Maraş, VIII, line 3. As suggested by Hawkins (loc. cit.), the stem appears to be cognate with *ú-e-mi-(e-)i* +, etc. 'find' (I.21).

30. *wa/i-su-* + / *wa/i₄-sú-* + 'be successful'

Attested in Bohça, prs. sg. 1 *wa/i-su-wa/i-i* (§2), *wa/i-su-wa/i* (§4), and possibly in Topada, 4, prt. sg. 1 *wa/i₄-sú-ha*. The attestations are insufficient for determining the conjugation type but a *-ti*-conj. **-ye-* stem to *wasu-* 'good' is likely, in spite of the difficulties with the shape of the stem, which may be explained as due to the loss of the intervocalic *y* replaced with *w* in hiatus with the subsequent syncope, i.e.: PA **wésu-ye-ti* > Luw. **wásuwati* (preceding **e* > Luw. *i* after **y*) > *wásuti**. Cf. the discussion of this stem and the related stems *apud* Hawkins and Morpurgo 1979: 387 ff.

31.(a) *za-ra/i-ti-* + 'to harbor in one's heart, desire'

(b) *za-ra/i-za-* + * 'to desire'

stem (a):

act. prs. sg. 3 *za-ra/i-ti-ti-i* Karaburun, B 2

za-ra/i-ti-ti ibid., B 3

za-ra/i-ti-ti-i ' Sultanhan base §46

VAS-*za-ra/i-ti-ti-i* Tell Ahmar 2, 7

prt. VAS-*z[a]-ra/i-ti-ta* Tell Ahmar 1, 6

stem (b):

participle (?) *za-ra/i-za-mi-sa* Carchemish A 7j, 3

See Morpurgo and Hawkins 1988: 173 ff.

Stem (a) is apparently a *-ye*-denominative to HL *zart-* 'heart' (HL *za-ra/i-za* Kululu 5, 7 and CL ^{UZU}*za-a-ar-za* XXXII 7, 12'), see esp. Morpurgo and Hawkins 1988: 169 f., 174 (< PA **kard-* < **k̥rd-*).

Stem (b) is not necessarily a real verb stem. The “participial” form is a *hapax* and no finite forms to the putative stem are attested. Melchert 1994a: 233, who believes that Luw. *zarza* is the expected neuter consonant stem plus the particle *-sa*, does not take into account the HL noun or the HL stem 31(b), which show that *zarz(a)* is indeed the nominative neuter form, whatever the etymology of this extra *-z* (see Morpurgo and Hawkins 1988: 175-177 for some ideas, the most fruit-ful of which, at least for *zarzamis*, seems the development **-dyo- > Luw. -za-*, p. 175, with “**zard-yo-mis*” as a tentative prototype).

Now PIH neut. **kērd* gives *ki-ir* in Hittite, presumably [*ker*] with the loss of the final **d* (Gk. nom. sg. κῆρ need not be regarded as a direct continuation of ***kēr*). We don’t really know what to expect in Luwian. Could it be that the Luwian outcome would lawfully be [*tsarts*] (with the zero grade of the root generalized), i.e., the final **d > *t > *ts*, instead of being lost? I know of no other examples to corroborate this, but there seems thus far to be no cause to infer anything else.

4. Lycian

§1. Lycian³¹ apparently did not preserve any traces of the *-hhi*

³¹Lycian texts are published in Kalinka 1901 and Friedrich 1932 (the latter being a fuller transliterated edition, with better readings than Kalinka’s); an important recently (1973) discovered Lycian text, namely the Lycian-Greek-Aramaic trilingual, is published, with discussion in Carruba 1977 (with a parallel translation), Laroche 1979 (with ample commentaries and translation) and Neumann 1979 (as N 320, together with other texts found since 1901). The current state of publication and interpretation of Lycian texts is discussed in the introductory section of Eichner 1983. There is as yet no up-to-date grammar of Lycian; Neumann 1969 (compiled in 1963) is the only more or less complete (and in many respects obsolete) grammatical sketch of the language. H. Craig Melchert published his *Lycian Lexicon* in 1989. Important points of Lycian verb morphology have been discussed in Heubeck 1981 (where 3rd person plural stem forms and endings of vocalic stems are for the first time identified with some certainty); some discussion of Lycian vocalic stems, based on Heubeck’s results, is found in Morpurgo 1982: 266-8. The transliteration of the Lycian alphabet employed here is that used in Neumann 1969: 373, except that I use the Roman *x* instead of the Greek *χ*. The numbers

conjugation as a separate series (cf. CL and HL which did): stems cognate with *-h₁hi* verbs of the earlier Anatolian have the ending *-ti* (*-di*) in the third person sg. prs., e.g., *pibiti* 'will give' N 320.18-19 (redupl. of *pi(j)*- 'give' in *pijētē* 'they gave' 57.4, *pijatu* acc. sg. 'gift' 57.5 [on the interpretation of which see Heubeck 1981: 164 with n. 23, lit.]; cf. Hitt. *pa-a-i* 'gives', HL *pi-ia-i* 'id.' Babylon stele, line 6; etc.), *xuwati* 'follows' 80.2, N 320.11 (cf. Hitt. *hu-wa-a-i* 'runs, moves'),³² *tuweti* 'places' (cf. HL *PONERE-MI-tu-wa/i-i* 'id.' Maraş, VII A and elsewhere, often), *ubete* 'brought, offered' (prt. sg. 3) N 331.1, 313 m (cf. HL *u-pa-i* Sultanhan base, 11). These Lycian stems clearly fall outside the scope of this study and will not be considered further. The Lycian verb stems that can with some certainty be said to represent vocalic stems relevant to the discussion are listed below. Only samples of their attestations are given; fuller lists of attestations are found in Melchert 1989.

1. *a/e-* : *ai-* 'do, make'

prs. sg. 3 (-) *adi* 59.2 (*mei-j-adi* [Heubeck 1981: 163]) 91.3, 118.2, N 314a.3

edi 56.3 (?)

pl. 3 *aiti* 44c.17 (Heubeck 1981: 163)

prt. sg. 1 *agā* 149b.13

3 *-adē* 52.1 (*mē n-adē* Heubeck 1981: 163; other exx. *ibid.*)

pl. 3 (-) *aitē* N 320.9.30

N 320.22 (*sewajaitē*)

N 320.7 (*m̄maitē*)

N 320.9 (*sēñnaitē*)

(on these complexes, see Heubeck 1981: 162 f.)

following attestations are those of Lycian texts in Kalinka 1901 (the same numeration is preserved in Friedrich 1932) and Neumann 1979; the latter are preceded by the capital N. Text numbers are followed by numbers of lines (e.g.: 87.2 = Kalinka 1901/Friedrich 1932, text No. 87, line 2; N 320.18 = Neumann 1979, text No. 320, line 18).

³²But cf. Laroche 1979: 66 and Melchert 1989: 87 following him.

The stem is clearly cognate with the CL and HL verb 'make' (see CL and HL sections).³³

2. *kumezi-* : *kumezei-* 'sacrifice, officiate'

prs. sg. 3 *komezidi* N 320.26.29

pl. *kumezeiti* 149.11, etc.

infinitive *kumezeine* 150.9

For a full list of attestations, see Laroche 1979: 108 f. For the distinction between sg. and pl. forms, see Heubeck 1981: 165 and 168.

The stem is likely to be a denominative of the same stem on which the form *kumezijē* acc. sg. is built; whether the latter is a noun meaning 'sanctuary' or an adjective meaning 'holy' ('sacerdotal') depends on the interpretation of the syntagm *kumezijē: ὁθε* N 320.7, on which see Eichner 1983: 59-62 (with a discussion of the morphology of the verb *kumezi-*, etc.). This derivational scenario seems to me more likely than the one that derives *kumezi-* : *kumezei-* directly from the noun *kumaza* 'priest' (49; acc. sg. *kumazu* N 320.9 : Gk. *ιερέα* [line 8 of the Greek version of the trilingual, q.v. in Neumann 1979: 45 f.], dat. sg. *kumazi* N 320.36 : Gk. *ιερέι* [line 30]), cf. Laroche 1979: 109 and Morpurgo 1982: 268. An argument against the direct derivation is the denominative *xssa ὄrapaza-* 'take over as satrap' (not **xssa ὄrapezi-* or the like), q.v. in lemma 5 below.

3. *prñnawa-* 'build'

prs. sg. 3 *prñnawati* 109.6, 111.6

prt. sg. 1 *prñnawaxā* 40c.8

3 *prñnawate* 29.1; passim, often

prñnawatē 8.1; passim, often

³³Melchert (1989: 1 and 1992: 189 ff.) may well be right in interpreting *axagā* TL 44c, 4 as a middle preterite sg. 1, to be analyzed as "*a-xagā*" where "*-xagā*" is the equivalent of Hittite *-ḫaḫat-* (see Excursus II on the voiced laryngeal). But this brilliant guess is yet to be corroborated.

- prñnawetē* 13.1 (hapax)
 pl. 3 *prñnawātē* 6.1
prñnewātē 12.1 (hapax)

A noun *prñnawa** is also attested (acc. sg. *prñnawā* 14.1, etc., passim, *prñnawu* 39.1, etc. passim). Quite possibly, the verb is a *-ye- denominative based on the noun. Cf. HL (*DOMUS.*)*CRUX* -*pa-ra/i-na-wa*+ 'be in service' in the HL section above.

4. *tubi-* : *tubei-* 'strike'

- prs. sg. 3 *tubidi* 44d.12 (Lyc.B), 80.3, 83.15
 93.3, 102.3, 139.4, N 314b.4
 pl. *tubeiti* 88.5, 118.3, 135.2, N 317.4

The stem is clearly related to CL *du-(ú-)pí*+, etc. 'strike', HL ("X"-) *tu-pi-(i)-*+ 'id.' and Hitt. *tu-pí-i*+, etc., 'id.' See the relevant sections.

5. *xssa θrapaza-* 'take over as satrap'

- prt. sg. 3 *xssa θrapazate* N 320.1

Heubeck 1981: 158: "Trans. Verbum im temporalen Nebensatz; wörtlich etwa: 'er hatte (Lykien) als Satrap übernommen'. Formal (°-ate) und syntaktisch eindeutig 3. Sg. Prät." The verb governs an object in the accusative (viz. acc. sg. *trñmisiñ*: the Greek version is syntactically different from the Lycian: *ēke:trñmisiñ:xssa θrapazate:pigesere:katamlah:tideimi*: 'when Pigesere son of Katamla took Lycia over as satrap': Gk. *επει Λυκίας ξαδραπης εγενετο Πιξωδαρος Εκατομνω υος* 'when Pixôdaros son of Hekatomnôds became satrap of Lycia'). The stem is based on a derivative of the noun *xssadrapa* 40d.1, etc., 'satrap'. The derivative's suffix is reminiscent of the suffix in *kumaza* (: *kuma* 'sacred'), see lemma 2 above; also *asaxlaza**, title of a functionary corresponding to Gk. *επιμελητης* 'caretaker, manager'; other examples and discussion see in Laroche 1979: 98 f. The relation of -(a)za to -(e)zi (as in *kumezi*-, q.v. in lemma 2, and *prñnezi* : Gk. *οικειος* [bilingual 6.2 : Gk. 6.5]; cf.

the HL stem *DOMUS-na-zi*+ 'to construct' in the HL section, lemma 6) is not entirely clear. Laroche 1979: 99: "Il est, en principe, possible que ce soient les deux faces d'un seul morphème, selon les caprices de l'harmonisation: nom. *-aza*, acc. *-azu*, dat. *-azi -ezi*." (On the suffix(es), cf. also Neumann 1969: 380 with lit.). The conditions under which vowel assimilation works in Lycian need to be further investigated (see Neumann 1969: 376 on "Vokalharmonie" [a brief mention of the problem]; Melchert 1992b: 44 makes some progress but is still insufficient).

§2. In addition to these five stems, the stem *tidei-* should also be mentioned. It occurs in the originally participial stem *tideimi* 'son' (passim) 'nursed [one]', 'nursling', evidently cognate with CL *ti-ta-i* (*im-*)*me-iš* 'nursling' (q.v. in the CL section above).

§3. Some of the stems that can be identified as both verbal and potentially thematic are too uncertain to be of use here. These include *la-* 'die' (?), see Melchert 1989b: 32 ("< **wla-* : Luv. (u)*walanti-*"; the meaning and the Luwian connection, however, are problematic); *tli-*: *tlei-* 'pay'???³⁴ (attestations: prs. sg. 3 *ttlidi* 109.6, 111.3.4.5, 131.3; prs. pl. 3 *ttleiti* 102.2-3); (*p*)*puwe-* 'be written'??? (in N 320.23 seems to correspond to Gk. ἐγγράφονται; also occurs in 83.7 and 12-13, q.v. in the version edited by Laroche in Laroche 1979: 71) possibly belonging to the same paradigm as *pu-* 'write'??? (attestations: Arbinas II line 3 apud Laroche loc. cit., prt. sg. 3 *pude*; prt. sg. 3 *pudē* 78.5 and 87.4 [both preceded by *ipñ*, a preverb], prt. pl. 3 *puñtē* 114.2 [preceded by *epñ* of which *ipñ* is apparently a variant]);³⁵ *xba-*: *xbai-* (prt. pl. 3 *xbaitē* in the trilingual N 320.14 corresponds to Gk. κατ-

³⁴On the meaning and etymology of this stem, see Oettinger 1976: 106 n.11 (where Oettinger compares it with Hitt. *tattaluški-* "loskaufen" and German *zahlen*; the etymology is not compelling since the contexts of the verb are fairly obscure). Gusmani translates the stem as 'pay' (like Oettinger) (e.g., in Gusmani 1979: 134 n. 21); Neumann 1969: 393 has "wird erlegen" for *ttlidi*.

³⁵For detailed discussions, see Laroche 1979: 71 f. and Heubeck 1981: 167 f., where Heubeck says inter alia: "Auch die bisherigen Erörterungen . . . haben noch nicht alle Probleme klären können. Rein formal scheint ein Paradigma *puweti* 3.Sg.Präs., *-pudē* (vielleicht **puwedē* . . .) 3.Sg.Prät., *puñtē* 3.Pl.Prät. nicht ausgeschlossen."

ηργάσαντο; see discussions in Laroche 1979: 68, who interprets the verb as “arroser, irriguer,” and in Heubeck 1981: 165 f. which also see for the attestations); *xtta-* : *xttai-* (see attestations and discussion in Heubeck 1981: 169 ff.)

5. Lydian

In the very small Lydian³⁶ corpus, where so much is still so poorly understood, I could find but a few items of use for my present purposes. Among them, the stem *vic-* ‘build’ (prt. sg. 1 *vic v* 11.2, 22.1), which also appears as *-vici-* in the compound *davici-* ‘to construct’ (prt. sg./pl. 3 *davicil* 13.7), seems to be the most certain because its meaning is known. Since the letter *c* (= *ʃ* in the Lydian alphabet) represents a (voiced?) dental (see Gusmani 1964: 32 f., with lit., and esp. Heubeck 1959: 51-58 and Shevoroshkin 1967: 23), the stem may be cognate with Hitt. *ú-e-te-(i)=*+, etc., ‘build’ (q.v. in Chapter 2, class XII.3); so, e.g., Heubeck 1959: 53, Gusmani 1964: 225, Oettinger 1978: 83 passim. The Lydian stem should be set up as *vici-*; as Oettinger plausibly suggests, “Prät.Sg.1 *vic v* zeigt, dass vor *-v* der Stammaslautvokal *i* ebenso wie beim (Pro-)nomen geschwunden ist; Nom.Sg. *ēm-i-s* ‘mein’ : Akk. *ēm-v*.” Other possibly thematic verb stems include *fēnani-* ‘perform’ (?) [meaning uncertain; possibly analyzable as a compound of the preverbs *f(a)-* and *ēn-* with the stem *-ani-* which may be cognate with Hitt. *a-ni-(e-)i*+, etc. ‘do, perform’ (I.1), Pal. *a-ni-(e-)i*+, etc., ‘id.’, CL *a-(a-)an-ni-(i)-* (q.v. above in this chapter); attested in the prt. sg./pl. 3 *fēnanil* 15.2, see Gusmani 1964: 124]; *ān rē-* ‘to order’ [prt. sg./pl. 3(?) *ān rēt*; attestations and discussion see in Gusmani 1964: 73; the form, possibly cognate with Hitt. *ḫa-an-da/ta-(a-)i* + ‘set in order,

³⁶Most Lydian texts are published, in transliteration, in Gusmani 1964 which also contains a grammatical sketch and lexicon of the language. Other grammars of Lydian are Heubeck 1969 (written in 1963, with a 1969 Nachtrag containing additional references) and Shevoroshkin 1967. Also useful for its discussions of the Lydian writing system and points of grammar is Heubeck 1959. More recent finds of Lydian inscriptions were published in Gusmani 1975 (in transliteration). Numbers after attested Lydian forms in this section refer to the texts published in Gusmani 1964.

determine', q.v. in Chapter 2 (IV.17), may in my view be an inherited prs. plural 3, from **handainti* < **handayVnti* (where V is either *a* or *e*); *fakorfi-* 'damage' or the like [prs. sg./pl. 3 *Fakorfid* 11.11; see discussion in Gusmani 1964: 120, with lit.; analyzable as *fa-* (preverb) + *-korfi-*, which is possibly cognate with Hitt. *kar-pí-i-i+*, etc. 'raise, perform (a service)' (I.29), *fakativāmi-* 'accede', "entgegen-kommen" (?) [prs. sg./pl. 3 *fakativāmid* 22.14, perhaps analyzable as *fa-kat-* (preverbs)- + *vāmi-*, which is cognate with Hittite *ú-e-mi-(e)-i+*, etc., 'find' and possibly HL *wa/i-mi-LITUUS* + 'id.', see Gusmani 1964: 119 and Oettinger 1979: 81 n. 30 where the Lydian stem, as if it were problem-free, is used to corroborate the reading of the HL]. All these stems, in light of their Hittite (et al.) cognates, have to be interpreted as continuations of **-ye-* stems.³⁷

Summary

Among the stems surveyed in this chapter, CL 1(a). *ā-* 'do' and HL 1(a). *a-* 'id.', corresponding to Hittite *ye-* 'id.' (with its *y-* analogically restored, see discussion in Chapter 4), as well as CL 3(a). *i-* 'go' 3(b). *aw-i-* 'come' matched exactly by HL 2(b). *i-* 'go' 2(a). *aw-i-* 'come' (and Palaic *i-* 'go'), corresponding to the Hittite *-e-* : *-i-* 'go' (see the relevant stems in Chapter 2, classes III and IV), are root-vocalic stems.

³⁷I find the evidence brought together in Melchert's "PIE **y* > Lyd. *d*" (Melchert 1994d) insufficient and cannot therefore accept either the Lydian sound change postulated by him (intervocalic **y* > Lyd. *d*) or the numerous conclusions he draws with the help of this postulate and a number of other questionable postulates, the evidence for which is scant. Melchert makes generous use of "lenition" and "syncope," see especially his 1992 essay "The Third Person Present in Lydian" (Melchert 1992d), passim. I believe that the value of any attempt to reconstruct "stem types, not individual lexical items" (op. cit. 33) is close to nil. At the end of the 1992 article Melchert says, soberly: "the dearth of solid root etymologies (the result of our imprecise grasp of the synchronic meanings), leads to a greater degree of arbitrariness in our historical analysis than we would like" (1992d: 54). Yet he continues: "Nevertheless . . . we have arrived at Lydian preforms whose phonological shapes suggest, although they do not prove [italics mine—A.L.], derivation from well-established PIE and C[ommon] A[natolian] morphological types" (ibid.).

The former goes back to PA **yē-* / **ī-* 'do' (: PIE 'id.', laryngealist ***yeh₁-* / ***ih₁-*); the latter, to PA **ei-* / **i-* 'go' (: PIE 'id.', laryngealist ***h₁ei-* / ***h₁i-*).

Several stems are likely to be analogic transfers from the *-i* conj. (Hitt. *-hhi* conj.). Such is certainly CL 4 *halta/i-* 'call' : Hitt. *halzi^{hhi}*; such are probably CL 23 *ari-* 'raise? check?'; CL 28 *huw(i)ya-* 'run' and HL 16 *hwiya-* 'run' : Hittite *h(u)wi^{hhi}*; CL 57 *u(p)pa-* 'bring' and Lyc. *ube-* (see attest. in Melchert 1989: 76) : Hitt. *uppa(i)^{hhi}* and HL *upaⁱ* (cf. *u-pa-i* Sultanhan base and elsewhere, see Morpurgo 1979: 586); CL 62 *walli-* 'raise' and HL 27 *waliya-* 'exalt' : Hitt. *walli^{hhi}*; and CL 57 *duwa-* 'put (in)', Lyc. *tuwe-* (att. Melchert 1989: 74) : HL *tuwaⁱ* which clearly belongs to the *-i* conjugation (see, e.g., Morpurgo 1979: 586 for attestations). This latter, if my etymology is correct (q.v. below), may (but does not have to) be a transfer into the *i*-conj. Technically, HL 20 *paskwi-* 'neglect' should also be regarded as a *-i* conj. stem, but may be an incomplete writing for a *-ti*-conj. form.

If H. Craig Melchert (see lemma) is right, as I believe he may be in this case, CL 49. *sassa-*, a *-ssaⁱ* deverbative, does not belong in this collection at all.

One problematic CL stem is likely to be a *-zz(a)-* (< **-ske-*) stem: *kappilazza-* 'become hostile', although it is probably an *i*-conjugation stem like virtually all the other CL *-zz(a)-* stems.

Unlike CL, HL has at least three stems, namely *hazi-* (see 4), 5 *izi-* 'do', and 7(a) *parnazi-* which continue the **-ske-* stem class while remaining *ti*-verbs. *hazi-* and *izi-* are likely to be deverbative **-ske-* stems to root stems, while *parnazi-* is probably a deverbative **-ske-* stem based on a **-ye-* denominative (to *parna-* 'house', from the oblique stem attested also in Hitt. *per* nom. sg. neu.: *parn-* obl. 'house'). These, then, correspond to the very productive Hittite class V stems.

A vast majority of the remaining stems are denominatives in **-ye-* based on consonant or vocalic stems. The most characteristic of the latter are the **-ye*-denominatives that look based on **a*-stem nouns; some of these correspond well to the provisional Hittite class IV.³⁸

³⁸For a discussion of **-aye*-denominatives in CL, see Morpurgo 1982: 267 f. (esp. n. 44). Morpurgo Davies's emphasis is on the putative place of accent and length, because she sees in them potential factors in the rhotacization she

Among them are the following: CL 5 *hāpi-* / *hapai-* ‘bind’, 8 *kangati-* / *gangatai-* ‘cleans with *gangati-*’ (: Hitt. *gangatāi-* ‘id.’, IV.4), 10 *kuwali-* / *kuwalai-* ‘turn’, 11 *mali-* / *malai-* ‘think’, 20 *dūpi-* / *dūpai-* ‘strike’ (if the participle is formed from the same stem as the remaining attestations, which Lyc. *tubi-* / *tubei-* ‘id.’ seems to confirm, cf. Lyc. *tidei-* corresponding to CL *titai-*; cf. Hittite *tupi-* I.79), and very possibly CL 33 *lahuni-* / *launa(i)-* ‘wash away’, CL 42 *patalhai-* ‘to fetter’ (: Hitt. *patalhae-* IV.9), CL 44 *pihai-* ‘revere, hold in awe’ and HL 23 *piha-* ‘id.’ 52 *tarmi-* / *tarmai-* ‘peg down’ (: Hitt. *tarmāe/i-* ‘id.’, IV.13), CL 54 *titai-* ‘give breast’ and Lyc. *tidei-*, CL 55 *tūmmātai-* ‘achieve renown’ and HL 10(b) *tumaTa-* ‘glorify’, CL 63 *wanītai-* ‘be(come) petrified’ (?), and CL 65 *wisi-* / *wisai-* ‘press’. HL 24 *tanata-* ‘devastate’ is also likely to belong here.

At least two of these may be based on genuine (by which I mean “not the spurious ‘i-motion’ nouns”) *i*-stem nouns with the suffix in the *a* (< **o*) grade, viz. CL 8 *kangati-* / *gangatai-* and 20 *dūpi-* / *dūpai-* (cf. Hitt., with discussion). The rest of these (not necessarily all but certainly some, see lemmata) are based on *-a-* (< **o-*) stem nouns.

The certain correspondence of several of these stems to Hittite class IV proves wrong Melchert’s claim (1994a: 246, based on Melchert 1990) that, in CL, “/a:y/ < */éyo/ (via */á:ya/) in weak stem of denom. and iter. (spelled *-Ca-(a)-iC-*, *-Ca-a-eC-* and *-Ca-i-iC-*). Exx.: *šannaīndu* / *šannāenta*, *zarpāinta*, *hapāindu*, *tarmaīndu*, *kūšāinta*, etc.”

The remaining **-ye-* denominatives include: HL 31(a) *zarti(e)-* ‘harbor in one’s heart, desire’, CL 15 (?) *parri(e)-* ‘to plaster, coat’, CL 16 *papparkuwa-* ‘cleans’ (if from **pa-pparku-ye-*!), CL 18 (?) *putalli-* ‘tuck up (clothing)’, CL 20 *dawalli-* ‘cast the evil eye upon’, CL 25

sets out to explain. I cannot refrain from observing, however, in anticipation of the more detailed treatment in Chapter 4, that the stems whose stem-final vowels continue an earlier **-e(-)ye-*, such as *ma-ar-ša+* : Hitt. *mar-še-e-i+* < **marse-ye-*, *ú-wa-ta-a+* : Hitt. *ú-wa-te(i=)+* < **wad-eye-*, *wa-aš-ša-a+* : Hitt. *wa-aš-še-i+* < **was-eye-*, have *a* as their stem final, while denominatives in **=a-ye-* such as *li-la-i+* (to *li-la-*), *tar-mi+/tar-ma-i+* (to *tarma-*), *ti-ta-i-i+* (to *tita-*) have their stem finals in *ai*, etc. This leads me to conclude that **y* disappeared in the environment **e_e* in Proto-Anatolian (cf. Hittite), or in any case in Luwian before **e* coincided with *a* there; **-eye-* and **-aye-* were kept clearly distinct in CL.

ad/tari- 'feed' corresponding to Hittite *e-it-ri-e* + * 'id.' (see Chapter 2, class V), CL 27 *harwanni-* 'send' and HL 3 *harwani-* 'id.', CL 43 *pawari-* 'light a fire' (if correctly identified), CL 51 (?) *d/tahusiya-* 'tolerate', CL 52 *tarkummi-* 'interpret', CL 57 *tummante/i-* 'hear and HL 10(a) *tumanti-* 'hear', HL 14 *ashari-* 'bleed', HL 15 *aza-* 'favor' (unless descriptively "simple thematic"), HL 19 *maliTi-* 'to honey', HL 20 *partuni-* 'sever', and HL 29 *wasu-* 'be successful' (< **wasuwa-* < **wasu-ya-*, etc.).

There are a number of likely *-ye- deverbatives, the least uncertain of which are: CL 9 *katmarši-* 'to shit', 22 *ammašši(ya)-* 'wipe' (if the corresponding Hitt. *anš-* is from **amš-??*), 24 *aršiya-* 'flow, run', cf. Hitt. *aršiye-* 'id.' (based on *arš-*), 35 *lawarri-* 'break' (< *-ye-, cf. Hitt. Chapter 2, class VIII *duwarni/a-* < *-nē-). If CL 1(b) *a-ya-* is indeed a separate *-ye- deverbative to 1(a) *ā-* (< PA **yē-* 'do'), as CL and HL 1(b) *a-ya-* 'do', as well as Lyc. *a-* / *ai-* seem to indicate, then it too belongs here. HL 4 *haTi-* 'strike, write' corresponding precisely to Hittite class I *hazzye-* 'strike (repeatedly)' based on *hat-* 'strike (once)', HL 25(a) *tarpi-* 'attack' (based on 25(b) *tarp-*), HL 26 *tatarya-* 'curse' (and CL 53 *tatariya-**), possibly also HL 22 *pasaya-* 'throw away' (< **pe sa-ye-* < **sə-*), HL 21 *paskwi-* 'neglect' (if < **pe sk"-ye-*) based on the zero grade **sk"-* of **sek"-*, see the entries), and HL 11 *tupi-* 'smite' (unless denominative) also belong here.

Two *-ye- stems appear primary: PA **an-ye-*¹¹ 'perform', safely reconstructed on the basis of Palaic 1 *anye-*, CL 2 *an(n)i/ya-* and Hitt. 1.1 *anye-*, and PA **aw-em-ye-*¹² 'find' reconstructed on the basis of Hitt. 1.21 *wemye-*, HL 27 *wami-* (and perhaps cf. Lyd. -*vāmi-*).

A number of stems, including some already mentioned, look "simple thematic," i.e., characterized by the suffix -a-. They include the following: CL 6 *hasp(a)-* 'destroy' (if not root, cf. above); CL 7 *e/ilhā-* 'wash' or 'pour'; CL 12 *manā-* 'see, perceive' and HL 6 *mana-** 'id.'; CL 13 *par(a)-* 'chase'; CL 15 *papparkuwa-* 'cleanse' (if not from **pa-pparku-ye-*); CL 16 *pa-siha-* 'crush', if the stem is not *pa-sihai-*; CL 18 *pūwa-* 'crush'; CL 21 *akuwa-* 'drink'? (if it exists); CL 31 *kis(a)-* 'comb' (more likely athematic); CL 37 *mālahu-* / *malwā-* 'crush' (unless a transfer from the -i conj.—if this very problematic stem exists at all); CL 38 *marsa-** 'be fraudulent'; CL 39 *me/imma-* 'regard? re-cognize?'; CL 41 *pappasa-* 'sprinkle'; CL 47 *sappa-* 'peel' (unless *-ye-denominative); CL 57 *d/tūwa-* 'put (in)' (although this could be an -i-conj. transfer);

CL 61 *ul(a)-* 'die' (if not a root stem *ul-*); CL 64 *wass(a)-* (could technically also be a root stem) 'dress'; HL 10(b) *tumaTa-* 'glorify'; HL 23 *tanata-* 'devastate', and also, problematically, HL 13 *aka-* 'subject? annihilate?'; HL 9 *tama-* (unless athematic), HL 15 *aza-* 'favor' (unless athematic or < **as-ya-* [or even < **as-ske-*?], see entry); HL 17 *laTa-* '(make) prosper'; and possibly HL 18 *lisa-* 'pick off' (unless athematic). In view of the many uncertainties of attestation as well of the verisimilarity of other analyses, q.v. in the relevant lemmas, none of these must be regarded as genetically simple thematic. Not a single one of these stems has cognates among the PIE simple thematic stems (see Chapter 4). On the other hand, three of them have reasonably good PIE cognates among the **-éye-* factitives with the **o* grade in the root: CL 65 *wassa-* (cf. Hitt. XI.1 *wasse-*, etc.): **wos-éye-* (e.g. Ved. *vās-áya-*); CL 12 *manā-* 'see' and HL 6 *mana-**: **mon-éye-* (e.g. Lat. *mon-e-ō*), pace Starke 1980, CL 58³⁹ *d/tūwa-* 'put in': **dow-éye-*⁴⁰ (Goth. *tau-j-an* 'make, produce', cf. the root in, e.g., Hom. aor. sg. 3 ἔδω 'sank in, entered' lengthened from **-du-*).⁴¹

HL 17 *laTa-* may go back to pre-PA **lot-eye-*; 10(b) *tumaTa-*, if correct, may be affixed with CL *tūmmātai-* 'glorify' and thus continue

³⁹But see Starke 1980: 147: "mn-eh₂-ti... (dorisches μνᾱμα...)" (cf. the same in Oettinger 1979: 447). See also Morpurgo 1982: 261 with n. 39, where the same etymology is given; the footnote reads: "Starke does not discuss the possibility of a proto-form *ménH₂(e)ti . . . presumably because he gives weight to the scriptio plena in *ma-na-a-ti* and to the contrast between the simple -*n-* of this form and the -*nn-* of the reduplicated form." But there is no evidence for positing **mn-eh₂-* (or **mn-eh₁-*, Melchert 1994a: 156 passim) as the etymon of Common Luwian **manaa-*. A third etymon, not mentioned by Starke, Oettinger, Morpurgo, or Melchert is more likely than the other two, namely **mon-éye-* (cf. Lat. *moneo*).

⁴⁰Starke's (1990: 380 n. 1373) explanation of the Luw. *duwa-* as resegmented from l. pl. ***t-u(ṽa)nmi* 'wir setzen' < *(*d^he-*)**d^hh₁-u^éne-i* is unlikely.

⁴¹Melchert's (1994a: 260) examples of PA **y* allegedly preserved in Luwian are all liable to be "topophonic" (I. Dyen's term), or secondary, *y*-glides in the hiatus between *i* and *a* (pl. **piya-* [i-conj.] 'give' > Luw. **pia-* = *piya-* with the secondary -*y-*; likewise Melchert's "-*iya-*" adjectives; on the **-éye-* verbs misidentified by Melchert, see above).

a PA **-a-ye-* factitive; 22 *tanata-* may likewise represent a **-ye-* factitive to a PA **-a-* stem adjective (< **-o-* stem **dhñ-tó-*, cf. Gk. θάνατος).

In any case, none of the stems in this group must be regarded as genetically simple thematic.

HL 8 *sani-* 'get rid of, throw away' or the like (cf. CL *sanai-*) and 12 *uni-* (cf. CL *unai-*, if correct) may well go back to **-n-* presents formed to certain roots ending in a long vowel or in a sonorant: *sani-ti* 'gets rid of' < **s-n-ē-ti* (from the root **sē-* : **sə-* 'throw; sow', likely to be attested also in HL *pa-sa-ya-* 'throw away' : Hitt. *pe-ssiye-*, Hitt. *sehur* 'urine' and the verb stems *pe-ssiye-* and *u-ssiye-*, see Chapter 2, I.14 and I.15, and the summary there), *uni-ti* 'knows' < **u-n-ē-ti* (root **awə-* : **wē-* : **ū-* 'think, reason'; cf. the *-hñi-* conjugation forms in Hitt. prs. sg. 1 *u-uh-hñi*, prs. sg. 2 *a-ut-ti* < **awə-* and the **-s-* suffixed *mi-* conj. prs. sg. 3 *a-uš-zi* < **awə-s-* vs. the zero-grade forms prs. pl. 1 *ú-me-ni*, 2. *uš-te-ni*, 3. *ú-wa-an-zi* < **ū-* = **uw-* prevocally).⁴² In CL, the verbs seem to have been transferred into the *-i-/ai-* class which corresponds to the *-ai-/a-* class (provisional class IV) of Hittite. Palaic *šu-ú-na-a* + 'throw in' (: Hitt. *šu-ú-ni-e-i* + 'id.', a later transfer into the **-ye-* class [?]), is also likely to belong here.

⁴²In the standard laryngealist notation, **sē-* is of course **seh₁-* and **awə-* is **h₂ewh₁-* (with the **h₁* unattested but required by the "system" and with the **h₂* contradicting the evidence since no *h-* is attested in the Hittite). The question of how best to analyze nasal-infix presents merits serious reconsideration. The laryngealist solution, as usual, would replace a historical consideration of complex developments in individual branches with the fudging necessary to get to the attested forms from an elegant *a priori* protoform.

Аналогично на основе из тем
 до чего-то больше или меньше
 больше хорошо понимать, что н-хет (LH, LOH
 на LMH) применяем не без использования н-хет
 там где.

Chapter Four

THEMATIC AND PSEUDO-THEMATIC VERB STEMS OF ANATOLIAN

§1. I begin my explanatory overview of the potentially thematic verb stems of Anatolian described in the preceding two chapters by focusing on those stems that look thematic but are historically athematic.

Athematic are the stems belonging to the provisional classes VII and VIII of Hittite, brought together as the *-ni- : -na-* class (see the summary to Chapter 2), namely *ḫu-ul-li-i+ : ḫu-(u-ul-)la-(a=)+/ḫu-(u-)ul-li-ia-(a=)+* 'combat, defeat' (VII.1), *šu-ul-li-(i=)+ : šu-ul-la-(a=)+/šu-ul-li-ia-a+* 'confront aggressively' (VII.2), *tu/du-wa-ar-ni-(i=)+ : tu/du-wa-ar-na-(a=)+/tu-wa-ar-ni-ia-a+* 'pierce, break (into)' (VIII.2), *ḫur-ni-e-i+ : ḫur-na-+/ḫur-ni-ia+* 'sprinkle, water' (VIII.1; the forms in *+i-ia-a+*, etc., are secondary, see discussion in the lemma), and *zi-in-ni-i+ : zi-in-na-a+* 'finish, make ready' (VIII.3). Hittite *šu-ú-ni-(e-)i+* 'sow, throw in' (I.16) may be an analogic transfer, cf. Palaic *šu-ú-na-a+* 'id.' HL 8 *sa-ni+*, etc., 'get rid of' (cf. CL 46 *ša-na-a-e+* 'overturn' (?), etc., a transfer) and HL 12 LITUUS-*u-ni+* 'know' (cf. CL 58 *ú-na-i-i+* 'id.', also a transfer) should also be mentioned here.

It is convenient to begin the discussion with Hittite *tu/du-wa-ar-ni-i+* 'pierce, break (into)'. In view of the evidence of the forms *du-wa-ar-na-an-zi* (pl. 3) and *tu-wa-ar-na-zi* (sg. 3, analogic, see the lemma and the reference there), the stem cannot be a **yé-* denominative *pace* Eichner 1973: 75; this is possible, although not necessary, in the case of the Cuneiform Luwian cognate *la-(u-)wa-ar-ri-(i=)+* 'break' discussed below. The Indo-European imperfective class which the Hittite stem resembles most is the **-n-* infixing class to disyllabic roots (cf., e.g., Szemerényi 1990: 291 ff., with lit.; on this class in Hittite, see Oettinger 1979: 135 ff. with lit.).¹ Oettinger explains the stem as originally an "n-Infix-Präsens **dhurnéh₁-ti* zu **dhyérh₁-* (ai. *dhvrⁱ* 'ver-

¹Carl Marstrand was the first to recognize this stem as an "n-present": "Que l'hittite aussi ait connu des verbes de ce type ["type sanskr. *prñāti*, armén. *dnem* . . . à côté d'un plus ancien *prñāti*," in Marstrand's own words—A.L.], c'est ce qui est indiqué par *du-wa-ar-ni-iz-zi*, qui n'est guère un verbe dérivé par *je*." (Marstrand 1919: 76).

letzen, beschädigen')" (1979: 151).² Since there is no need to posit the laryngeal, not attested in Anatolian and forced upon the reconstructing grammarian only by the requirement of root-structure symmetry, I shall reconstruct the Proto-Indo-Hittite form as **dhwr̥-n-ē-*. < 2/10

The Cuneiform Luwian stem *la-(u-)wa-ar-ri-(i=)+* 'break, pierce' (Chapter 3, 2.17), if related to the Hittite, may well be a **ye-* stem, as Oettinger plausibly suggests (**lauarr̥i- < *dh̥u(e)rh̥-i-*" 1979: 151).

Hitt. *hur-ni-e-i+*, etc., 'sprinkle, water' (VIII.1) and *zi-in-ni-i+*, etc., 'finish, prepare' (VIII.3) are also quite likely to be explained as erst- while **-n-* imperfectives (cf. Oettinger 1979: 151 f. with **h₁*). The former may be based on the PIH root **Hwer-* (cf. Oettinger, loc. cit., *"*h₂uerh₁-"*, Pokorny's 1959: 80 f. *"auer-*"; in addition to Greek ἄν- αῦρος 'torrent' mentioned by Oettinger, ibid., one could adduce Homeric αὔρη 'sea breeze' and perhaps Lithuanian *vir-ti* 'cook in water, boil' < PIE **aw̥r̥-*; on **(H)wr̥* yielding Hitt. *(h)uR* see Eichner 1973: 73 f. and Melchert 1994a: 126 f. In terms of its extra-Anatolian etymology, *zi-in-ni-i+* is more problematic (see Oettinger 1979: 151 f.), but it is most likely to be based on the root found in Hittite *zi/zé-e-(i=)+*^a 'be prepared, cooked' (Oettinger, ibid.; cf. his incorrect normalization *"zi₁e-*" and see Oettinger 1979: 515, for attestations). If so, then **si-né-h₁-* (: Lat. *sinere*), suggested by Eichner (*apud* Oettinger 1979: 152 n. 39; "*s > z* im Anlaut in Nachbarschaft von *n*," ibid. n. 40) falls away as the etymon of *zi-in-ni-i+*, as the *z* in the *forme de fondation* cannot be explained (an analogy with the *forme fondée* seems unlikely). The meaning of Lat. *sinere*—'to allow, permit'—is also a bad match for the Hittite verb.

The alternation *-ni-* : *-na-* in the paradigm of these stems, with some forms pointing toward the generalization of the latter (e.g., prs. sg. 3 *tu-wa-ar-na-zi* beside *du-wa-ar-ni-(iz-)zi*) is paralleled by the stems of the provisional class VII, especially the copiously attested *hu-ul-li-i+*, etc., 'combat, defeat' (VII.1). Both class VIII and class VII stems show later transfers to the provisional class I (mostly **ye-* stems to roots and consonantal stems, see below). The evident parallelism of the two provisional classes in Hittite led me to regroup them into one class (see the summary to Chapter 2). There is also good comparative evid-

²The connection of the root of *tu/du-wa-ar-ni-i+* with Ved. *dhvr̥* was made by A. Goetze (1954: 403).

ence which shows that the stem *hu-ul-li-i+*, classified by Oettinger (1979: 261 ff.) as simple thematic descriptively and erroneously explained by him as such historically, continues an Indo-Hittite **-n-ē-* formation. Oettinger (1979: 264) takes the stem back to **h₂ulh₂-é-ti* (für **h₂ulh₂-é-ti*)." This is one of Oettinger's two examples of the *inherited* (as against *descriptive*) simple thematic type with the root in the zero grade and the accent on the thematic vowel (the *tudāti* type). But Oettinger's explanation runs into difficulties. The rule which, in Oettinger's view, describes the assimilation of the putative root-final laryngeal to the preceding **l* is stated as follows: "VRh₂V > VRRV" (see his §482). This presupposes a retraction of the accent, for which Oettinger gives no parallels or evidence (and I do not know of any). The very presence of the root-final **h₂* in the posited **h₂ulh₂-é-ti* depends on Oettinger's claim that **h₂ulh₂-é-ti* is based on the same root as that of the root stem *walh₂-* 'strike' (1979: 264). This claim forces Oettinger to assume dissimilation of the sequence *h₂---h₂* which results in *walh₂-*, with the elimination of the first *h₂*, on the one hand, and in *hulli-*, with the elimination of the second *h₂*, on the other hand. Yet this is entirely *ad hoc*. A more attractive explanation for Hitt. *hu-ul-li-i+*, to my mind, is based on the comparison with Hom. ὀλλῦμι 'I slay, destroy', mid. aor. sg. 3 ὄλετο 'was slain, destroyed'. The root aorist (as well as other formations such as ὀλετήρ 'slayer') shows that the Indo-European root was **wolā-* (laryngealist **h₃élh₁-*) < PIH **Hwolā-* (or even **H^wolā-*, see Excursus II) > Gk. ὄλε- (cf. Lat. *lētum* < **wlē-*). The present ὀλλῦμι < **ōlnūmi* is likely a replacement of the inherited form **ōlnūmi* < **H^wlnēmi*, cf. the standard laryngealist version in Rix 1976: 210: "Bei Wurzel auf idg. -ǵ₁- -ǵ₃- im Gr. -vu- statt **-ne-* **-no-* : ὀλλῦμι ὀμνῦμι für **ǵ₃l-né-ǵ₁-* **ǵ₃m-né-ǵ₃-* (cf. **ǵ₃elǵ₁-* **ǵ₃emǵ₃-* in Aor. ὄλέ-σ-αι ὀμό-σ-αι." Hittite *hu-ul-li-iz-zi* may well be a continuation of PIH **H^wl₁-n-ē-ti* (the laryngealist "PIE" **h₃l-né-h₁-ti*).

Middle forms such as prt. sg. 3 *hu-ul-la-at-ta-ti*, imper. sg. 3 *hu-ul-la-at-ta-ru*, actives such as prs. sg. 3 *hu-ul-la-az-zi*, *tu-wa-ar-na-zi* need not be explained as based on the expected forms with the zero grade, viz. **-n-ǵC-* (**CǵC* [= **Ch₁C*] > Hitt. *CaC*; so Eichner 1973: 55), but may simply reflect the innovating influence of the endings with the vowel *a*, particularly prs. pl. 3 *-ant-* (active *-anzi*, middle *-anta(ri)*) and the formally related participial suffix *-ant-* on the rest of the forms, cf. the analogic spread of *a* in the thematic stem forms (cf., e.g.,

LOH *i-ia-ši* : OH *i-e-ši*, LOH *i-ia-az-zi* and already OH *ia-az-zi* : OH *i-e-iz-zi*, MH *i-ia-at-ta-ri* : OH *i-e-it-ta*, MH *ú-e-mi-ia-at* : OH *ú-e-mi-e-it*, LMH *ap-pát-ri-ia-zi* : OH *ap-pa-ta-ri-iz-zi*, and even *-ske-* forms where *-e-* tends to be preserved better than elsewhere: MOH *a-ru-i-iš-ga-zi* 'bows', MOH *ša-aš-nu-uš-ga-at-te-ni-*, LOH *pa-iš-ga-ta-ru*, and the like).

HL 8 (*SA₄*) *sa/sá-ni/ní-(i-)* + 'get rid of, suppress' is clearly related to the Hittite *-hhi*-conj. stem *ša-an-na-a* + 'to suppress, conceal' attested since MH (but cf. Starke 1990: 522 n. 1927: "*šanaḫi-šannaḫi-* 'umkehren, umstürzen' . . . , das noch ohne Etymologie ist"). Oettinger 1979: 159 f. explains it as likely to continue **sṇ-n-h₂*.³ There is, however, no evidence for positing a laryngeal, particularly a "second" laryngeal, quite well preserved in Hittite as *h₂V*, *Vh₂*, or as *Vh₂-h₂V* intervocalically. Here the posited "**h₂*" is unattested, cf. Hitt. prs. sg. 3 *ša-an-na-a-i* (instead of the expected prs. sg. 3 ***ša-an-na-aḫ-ḫi!*). The Hitt. *-hhi*-conj. stem may well go back to the oblique stem of the deverbative in *-atar* (*-ann-* < **-atn-*) as do most if not all *-anni^{hhi}* verbs of Hittite. The most likely root on which the Hittite and Luwian forms are based is **sē* 'throw away, discard', attested also in Hittite *sehur* 'urine', *pe-ssiye-* 'throw away' and—very likely—in HL 22 *pa-saya-* 'id.' The Hittite *-anni^{hhi}* stem and the Hieroglyphic Luwian *-ni*-stem *sani-* are thus two entirely different formations based on the same root. CL 46 *ša-na-a-e* + / *ša-an-na-i-i* + (the "double" *nn* in one of the attestations, unlike the consistently written Hittite *-nn-* < **-tn-*, is just a spelling variant) attested in two 3. pl. forms (prs. and imp. respectively) is likely to be an analogic transfer: *tarmiti* : *tarmainti* = *saniti* : *x*, where *x* = *sanainti* replacing the inherited **sananti* (likely to be found yet).

HL 12. LITUUS-*u-ni-* + 'know' (cf. the causative *-nu*-stem LITUUS-*u-na-nu-* + 'teach') is most likely a **-n*-present to the root **awə-* : **ū-* 'know, understand' attested also in Hittite prs. sg. 1 *u-uh₂-ḫi*, prs. sg. 2 *a-ut-ti* < **awə-* and the **-s-* suffixed *mi*-conj. prs. sg. 3 *a-uš-zi* < **awə-s-*

³ "Da alle hethitischen . . . Nasal infix-Stämme zu dreiradikaligen Wurzeln gehören. . . . Es würde somit ein Faktitivum zu einer Wurzel **senh₂* 'verborgen sein' vorliegen. Gr. *ἀνευ* 'ohne' (IEW p.318) könnte dann auf einen Lokativ **sṇh₂-ey* und ai. *sanutār* 'beiseite' (IEW p.907) auf einen Stamm **sṇh₂-u-* mit lokativischem *-tar* zurückgehen. Vgl. auch lat. *sine* 'ohne' < **sṇh₂-i*," *ibid.*, p. 159.

vs. the zero-grade forms prs. pl. 1 *ú-me-ni* < **ū-wé*..., pl. 3 *ú-wa-an-zi* < **ū-ónti*, i.e., **uw-ónti* with the transitional, or toponhonic, glide *w*).

§2. A vast majority of the genuinely thematic stems must be explained as containing the suffix **-ye-* : **-ya-* (: PIE **-ye-* : **-yo-*; on these, see, e.g., Szemerényi 1990: 295 ff. with lit.), used to form primary and secondary stems, both deverbative and denominative.⁴

The stems that look like **-ye-* stems but are not include the following:

Hitt. *i-i+* / *i-e-(i=)+* / *i-e-(e=)+* : (*i-*)*ia-(a=)+* 'make / do', CL. *a-(a=)+* 'id.', HL. *á-ā-* 'id.' The Hittite stem is graphically identical to Hitt. *i-e-i+* / *i-e-e+* : *i-ia-(a=)+* (*medium tantum*) 'go, be on one's way' which is attested only in Hittite.

Oettinger takes Hittite *iye-* and Luwian *aya-* (which I analyze as *a-ya-*, see below) back to pre-Anatolian (IE in his terms) simple thematic **h₁éj-e-*" (1979: 349; see also Hawkins and Morpurgo 1982: 102 and Morpurgo 1982: 268 for a similar opinion). This, however, is a problematic explanation for the Hittite stem: it ignores some relevant sound correspondences, in addition to positing for this root the problematic simple thematic suffix (to say nothing of the totally unjustified initial **h₁*"). As the correspondence of Hitt. *lu-uk-ki+* : *lu-uk-ka+* 'set alight' and *wa-aš-še-i+* : *wa-aš-ša-a+* 'clothe' to PIE **louk-éye-* : **louk-éyo-* 'light' (tr.) and **wos-éye-* : **wos-éyo-* 'clothe' as well as some others (notably Proto-Anatolian **pe y-anti* > *pa-a-an-zi* 'they go away') show (q.v. below), the PIE sequences **eye* and **eyo* are matched in Hittite by *e* and *a* respectively. If so, then Hitt. *i-e-i+* cannot be a continuation of the *ad hoc* simple thematic stem **h₁éj-e-*", etc., which would yield the non-existent Hitt. **e-iz-zi* : *(*a-*)*an-zi*, etc.

Melchert 1994a: 129 posits PIE **yeh₁-* as the explanatory etymon.⁵

⁴Their profusion in Hittite was recognized already by Marstrand (1919: 78): "Les formations indo-européennes du présent en *je* / *jo* eurent un développement particulièrement fort en hittite. Il va donc sans dire que l'hittite a connu tant déverbatif que dénominatif, même si à l'heure actuelle nous ne sommes pas encore en état de les distinguer l'un de l'autre."

⁵After Pokorny 1959: 502 "*īē- / jē-*" which includes Hittite. The connection with Hom. *ἵμι* was first made by Pedersen 1938: 198. Oettinger's objection ("semantisch unbefriedigend," 1979: 348 n. 180) is not justified.

In his view, Proto-Anatolian **ā-* as the regular outcome of **yeh₁-* (with the regular loss of **y-* before **e*, see examples in Melchert 1994a: 75) would account for the attested Anatolian forms. If I understand him correctly, Melchert assumes an ablauting PIE paradigm **yéh₁-* (sg.) : **ih₁-* (pl.) which would regularly yield Hittite (prs. sg. 3) **e-zzi* : (prs. pl. 1)⁶ **i-wéni* (Palaic *i-wini*), (pl. 3) **y-enzi* (< **ih₁-énti*), with **y-* “maintained / restored by analogy” (loc. cit.). Thus Melchert is able to come up with a plausible scenario for both the Hittite and the Luwian forms. The Indo-Hittite prototype (without the chimaerical **h₁* and without the *e* grade of the ending, for which there is no evidence in Anatolian) would be **yē-ti* : **ī-onti* > **(i)y-onti*. An important consequence is that Proto-Luwian **a-ya-*, attested in CL and HL, would thus be a Proto-Luwian innovation. Whether it points to the productivity of the suffix *-ya-* and the quasi-aspectual distinction which it marked (see §3 below) or to a morphological leveling of the inherited apophony in the paradigm (i.e., PL **a-* < PA **yē-* : PL **i-* < PA **ī-*) is difficult to say; only the Proto-Luwian **a-* < PA **yē-* (> Hitt. *i-i* + *i-e* (*i=*) +, etc.) is clearly inherited.

Hitt. *i-e-e/i+* (OH) / *i-ia-a+* (MH, LM/OH) alternating with *i-ia-a+* (mid.), ‘to proceed, be on one’s way’ is sometimes explained as simple thematic (cf. Eichner 1975: 77-78 n. 3; Hart 1990: 447 n. 2: “the most convincing of these [i.e., the candidates for the Hittite simple thematic class—A.L.]”), reinforced by the direct comparison with Ved. *áy-a-te* (< Central, i.e. “Indo-Grecian,” IE **éy-e-to-i*). The Hittite stem, however, makes a very poor candidate indeed for membership in the Hittite “simple thematic class.” The fact that nothing like it seems to be attested in Cuneiform or Hieroglyphic Luwian should perhaps not be made too much of, in view of the relatively poor attestation and our even more imperfect understanding of that which is attested in those

⁶To support this, Melchert adduces, without giving attestation sources, Hitt. prt. sg. 3 *ēt* ‘made’, prs. pl. 3 *ēnzi*, and prs. pl. midd. 3 *entari* ‘they go’ (1994a: 129). These forms do not reappear in the index (p. 388). The first of these (*e-it* XXXVI 41, 5) appears to be MH; the second (Bo 2599 = KUB LVI 46 I 23) clearly shows *ú-en-zi*, not *e-en-zi*; the last one I have not been able to locate. I am grateful to Professor Gary Beckman for the dating of the first form as well as for identifying the published version of the second one and for bringing to my attention the actual form attested there.

Вед. *áya-* из *pa-á an-ti* < **pe-íonti*. Но тогда непонятно *3 sg pa-í-z-í* < **pe-e-í-ti* ??
 Лучше считать, что протитва была *pe-/pa*! Cf. Slav. **po-*.

I.e. *pānzi* < **pa-jānzi* < **po-íonti*

paízi < **pāízi* < **po-e-í-ti*, т.е. **o+e > ai*, а в индоевр. *ai* не с гримасой

? d:
nai/
neja
hejaw-
rain

two languages (to say nothing of Palaic, Lydian, and Lycian). Yet the fact of this absence should be noted. Some scholars are still not persuaded by the phonological arguments such as the Hittite outcome of **éye-*, namely *e-* (with the intervocalic disappearance of **y*, cf. e.g. *wassezzi* < **wos-éye-ti*) and of **éyo-*, namely *a-* (cf. *wassanzi* < **wos-éyo-nti*, *pānzi* if from **pe yanti* with the **o* grade of the athematic ending: there is no Hittite evidence that the pre-Anatolian athematic 3. pl. ending had the *e* grade; in Hittite the ending is *-anzi*, *-anta*; *-enzi*, *-enta* only appear occasionally after *y*) which would clearly contradict the explanation of Hitt. (*i*)*ye-*⁷ as the direct *comparandum* of Ved. *áyate*. Yet even on the grounds of purely descriptive evidence (see lemmata I.4 and I.5 in Chapter 2), the stem in question is best explained as a middle regularly formed in Hittite (not in Anatolian, because Hittite is all the evidence there is) to the active *yē-*: *y(a)-* 'do, perform' (I.4) discussed above. That the *regular* form of a predesinential =*ye-* in the middle forms is OH +*i-e-i+* : +*i-ia-a+*, with the second alternant beginning to spread already in OH and prevailing throughout in MH and later, is well known (some examples: prs. sg. 3 *a-ni-ia-at-ta* MH, (*i*)*ia-at-ta(-ri)* MH+, *i-mi-ia-at-ta-ri* MH, *la-a-az-zi-at-ta* OH, *la-az-zi-ia-at-ta* MH, *ta-ri-ia-at-ta* OH, *ú-e-še-ia-at-ta* LOH, *za-ah-hi-ia-at-ta* MH). This important additional fact reduces to nil the value of (*i*)*ia-at-ta(-ri)* as a *comparandum* of Ved. *áyate*. Besides, the Ved. *áyate* itself is not matched by anything anywhere else in Indo-European—not in Old Iranian, not in Greek—and may well be regarded as a purely Indic innovation.⁷

Hitt. *pí-(-(e-))i+*, etc., 'send away' and *ú-i-e-i+*, etc., 'send hither' consist of the familiar preverbs *pí-e-* + 'away' and *ú-* + 'hither' with the simplex stem discussed above (pace Oettinger 1979: 348: "Das Kom-

⁷See Gotō 1987: 92-96 who shows that Ved. *áya-* is likely to be an internal Vedic development (Esp. p. 95: "...Dialektisches eine Rolle gespielt hat. Dafür sprechen auch die Bedeutungsnuancen 'dahinschießen' (vgl. RV-Belege und *palāyate*) bzw. 'herumstreichen, -bummeln'... Es ist deshalb denkbar, daß *áya-* ursprünglich umgangssprachlich aus *éti* ('gehen' im allgemeinen Sinne) hervorgegangen ist." Note also his discussion of the alleged affinity of Hitt. *iyattari* on pp. 95-96. Although I disagree with some details, I agree completely with Gotō's skepticism of the affinity and with his rejection of "PIE" ***h₂éy-e-* as the prototype of the two, both of which are clearly independent creations.)

positum ist wohl als $*pē + (i\bar{i})i\bar{e}-mi$ zu analysieren, wobei das Hinterglied mit gr. ἵημι 'sende, werfe' < $*i\bar{i}-i\bar{e}h_1-mi$ identisch war und im Kompositum seine Reduplikation einbüßte").

The genuine primary $*-ye-$: $*-ya-$ stems of Anatolian (i.e. those built to roots not attested as separate stems in Anatolian) are as follows:

ie / i_o

Hitt. $a-ni-e-(i=) + : a-ni-ia-(a=) +$ 'act, perform, work (the soil)', Palaic $a-ni-i + / a-ni-e-i + : a-ni-(i-)-ia- +$ 'do, work', CL $a-(a-)an-ni-(i-)+ : a-ni-(e-)ia-(a=) +$ 'do, perform', possibly also Lydian $-ani-$. The Proto-Anatolian form of the stem would be $*an-ye-$: $*an-ya-$. Oettinger's etymon (" $*h_3n-jé-$ zu $*h_3n-es-$ (lat. *onus* 'Last')" 1979: 345) is unlikely because " $*h_3$ " would have been attested in Hittite as h_3- .

Hitt. $a-ri-ia-(a=) +$ 'ascertain through an oracle'. The alternant $a-ri-e +$ is attested only in $*-ské-$ formations (see lemma I.2), $a-ri-ia-(a=) +$ having been generalized for prs. sg. 3 $a-ri-ia-zi$ (LMH). On the possible etymon see Oettinger 1979: 345 (with lit.).

Hitt. $ha-ri-e + : ha-ri-ia-a +$ 'bury' (I.3 with discussion). The reduplicative $-ye-$ stem $ha-aḥ-ha-ri-ia- +$ 'to rake' (see the same lemma) is apparently also based on this stem (for the meaning, cf. Russian закопать 'bury' : про-копать 'rake, dig through'). For the reduplicative type of deverbatives differing from their bases aspectually, cf. Luw. $ta/da-(a-)ta-(ar-)ri-ia-(a=) + *$ 'curse' < $*\text{'invoke evil consequences on someone'}$ to Hitt. $ta-ri-ia-a +$ 'invoke, appeal', itself based on $te-i(r) + : tar- +$ 'say' (discussed below, q.v.); Hitt. $ti-it-ti-ia- +$ 'place (around)' to $ti- +$ (hhi -conjugation) 'place', $la-lu-uk-ki-i + *$ 'glimmer' to $lu-uk- +$ (medium tantum) 'be light' (discussed below). The root of $ha-ri-e +$ may be cognate with PIE $*ar-$ (PIH $*xar-$ with $*x$ on the evidence of $ha-aḥ-ha-ri-ia- +$) 'plough'. See below (§3) a discussion of the aspectual differences (disregarded *opinione communi*) in the Anatolian verb system.

§3. Other primary $*-ye-$ stems, most of which are quite clearly $*-ye-$ stems, include the following:

Hitt. $ši-i-e-i +$ 'throw, shoot' with its compounds $pí-eš-ši-(i-(e-))i +$, etc., 'throw away' (I.14) and $ú-uš-ši-i +$, etc., 'pull up (a curtain)' (I.15) (< $*\text{'throw hither'}$?; the meaning depends on the technology of the procedure; for a discussion, see Oettinger 1979: 347 f. with lit.).

Hitt. *ta-(a)-i-i+*, etc. 'steal' (I.18).⁸ If we dispense with the otherwise unattested laryngeal and simply assume a prototype with the long vowel—which is indeed all we have the evidence for—i. e., **tā-ye-*, we may infer that prevocalic **y* preceded by a long vowel did not disappear but was retained. In any case, this stem is certainly not simple thematic.

Hitt. *šu-wa-i-i+*, etc. 'look (after)' (I.17), is clearly a **-ye-* stem⁹ formed to an etymologically opaque base which, if the preceding inference is correct, ends in a long vowel.

Hitt. *ti-i((e)-i=)+*, etc., 'stand (up), place oneself' (I.20) is usually etymologized from "PIE" **(s)th₂(i)ye-* to root ****steh₂*" (Watkins 1969: 57; Oettinger 1979: 350 with lit.; cf. already Pedersen 1938: 112 in the pre-laryngealist form). But the stem is far more likely to be derived internally, in Hittite, by means of the suffix **-ye-*, from the same root as the *hhi*-conjugation stem *te-e+ / da-(a)-i+ : ti-(ia)-a+*, etc., 'to place'; the forms where the stem-shape and desinential distinctions between the two conjugations are neutralized, such as present pl. 3 and the participle, are almost identical, cf., e.g., *ti-i-en-zi* (to *ti-i-e-i+*) vs. *ti-en-zi* OH StBoT 25 No.31 Vs.II 6' and elsewhere, *ti-an-zi* (M/L)OH and (L)MH, *ti-ia-an-zi* LOH (to *da-a-i*). The participle to the former is expected to look like *ti-(i)ia-(a)-an-t+*, i.e., practically identical to the participle of *da-a-i* (*hhi*-conj.), and for semantic reasons it is impossible to distinguish between the two. The only possible disambiguating spelling, viz. *ti-i-ia-an-t+*, is not attested in my collection of pre-LH texts.

Hitt. *ú-e-mi-(e)-i+*, etc., 'find' (I.21), probably HL *wa-mi-* 'id.', and

⁸Watkins and others explain the preservation of the intervocalic *y* in this stem by reconstructing a laryngeal in the "PIE" etymon, viz. **(s)teh₂-je-* (see Watkins 1975: 371, Oettinger 1979: 397, Melchert 1994a: 100, 122, 130 with lit.). Yet, the desire to reduce **ā* to ****eh₂* aside, there is no evidence for this laryngeal; therefore it should not be reconstructed.

⁹As I say in Chapter II, "the treatment of this stem (and others like it, e.g., *ta-a-i-i+* 'to steal') as belonging to class I is justified not only by the writing of its stem final, which sets it apart from class IV [= **-dye-*] verbs, but also by some of the forms (such as imper. sg. 2 in *=ia* and prs. sg. 3 in *=ia-(az-)zi*) which follow the path of development shown by class I [= **C-ye-*] verbs, never by those belonging to class IV."

possibly Lyd. -*vāmi*- 'id.' < PA **wemye*-.¹⁰

§4. An important and yet ignored derivational role of Anatolian *-*ye*-deverbatives to root stems is to form lexically idiosyncratic iteratives to semelfactives. Cf. the following pairs (I refer the reader to the appropriate sections of Chapters 2 and 3 for details):

1. Hitt. *ḫa-az-zi-e-i*+ 'strike, pluck, play (a musical instrument)' (Chapter 2, I.28) : HL *ha-ti-(i-)*+ / *ha-ra/i-(i-)*+ 'strike, write' (< PA **Hat-ye*-) (Chapter 3) vs. Hitt. *ḫa-at-t*+ 'hit, chop' (I.28) : HL *ha-t*+ 'smite' (< PA **Hat*-) (Chapter 3);

2. Hitt. *ta-ri-ia-a*+ (*medium tantum*) 'invoke, appeal (for oneself)' (I.36) vs. Hitt. *tar*+ 'say'; CL *ta-(a-)ta-ri-ia-(a=)*+ and HL *ta/tā-tara/i-ia*+ 'curse' is a reduplicated stem based on PA **tar-ye*-, cf. other reduplicatives of the same type: Hitt. *ḫa-aḫ-ḫa-ri-ia-a*+ 'rake' based on *ḫa-ri-e*+ (see Chapter Chapter 2, I.3 for discussion), *ti-it-ti-(ia-)a*+ 'set in' (I.39) based on *ti-i((e)i=)*+ 'stand (up)' (I.20);

3. Hitt. *ú-e-ri-i*+ 'speak, invoke' (I.37), cf. Hom. εἶπω < **wér-yo-*-, vs. the root stem attested in Hittite -*wa-ar*- 'quoth' and in Palaic *ú-e-ir-ti* 'says';

4. Hitt. *za-aḫ-ḫi-(e)i*+ 'fight' (I.85) vs. *za-aḫ-ḫ*+ 'strike'.

The same aspect-like lexical (derivational, not inflexional) distinction may well be the *raison d'être* of the following, more problematic, pairs (see lemmata for details):

5. Hitt. *ar-ši-(i)-e-(i=)*+ 'flow, run, pour (intr.)' (I.27), CL 24 *a-ar-ši-ia-a*+ 'id.' vs. *ar-aš*+ / *ar-š*+ 'flow, run, hurry'; cf. the Vedic root *ṛṣ* 'rush'—and note, incidentally, that in Vedic this root forms two simple thematic presents, whereas in Hittite we have a root stem (the correlation to be commented on later) and a *-*ye*-deverbative based on it (see Chapter V);

6. Hitt. *ḫu-it-ti-(i=)*+ (*hwit-ye*-) 'pull, draw' (see discussion in Chapter 2, I.29) vs. *ḫu-e-iz*+ < **H⁵⁰et*- (**Hwet*-);

¹⁰The further etymologizing of this stem as a compound of *ú*- 'hither' with the root **em*- 'take' of, e.g., Lat. *emō* 'get', which goes back to Hrozný (*apud* Pedersen 1938: 82 fn. 1), is still dubious in view of the HL cognate: one would expect Luwian **awami*-, cf. HL *awi*- 'come': Hitt. *ú-e-i*+, etc., 'id.' Seebold's proposal (1983: 43) to take **wemye*- back to **g^{em}em-ye*- has perhaps more to recommend itself than the view that **u-em-ye*- was somehow generalized in PA, since the PA for 'hither' was surely **au*-.

7. Hitt. *kar-pí-(i-(e-))i+* ‘raise, perform (a service)’ (I.30) (Lyd. *-korfi-* Chapter 3, 5.5) < PA **karp-ye-*, vs. Hitt. *kar-ap+*;

8. Hitt. *kar-aš-ši-i-(e-))i+* ‘cut’ (I.31) vs. Hitt. *kar-aš+* / *kar-š+* (the hapax LOH *kar-aš-še-iz-zi* prs. sg. 3 is dealt with below;

9. Hitt. *ma-al-ki-ia-a+* ‘unravel’ (I.32) vs. *ma-la-ak+*;

10. Hitt. *pár-ki-ia-a+* ‘raise, lift’ (I.33) vs. *pár-ak+*, cognate with PIE **bhrǵh-* ‘high’ (: Arm. *barjr* ‘high’, etc., see also Oettinger 1979: 356);

11. Hitt. *pár-ši-(ia-)a+* ‘break (bread)’ (I.34) vs. *pár-š+*;

12. Hitt. *pa-aš-ku-i-i+* ‘neglect’ (I.35) : HL 21 *pa-sà-kwa/i+* ‘id.’ vs. Hitt. *pa-aš-ku(-w=)+*. This stem is most likely (in view of the shape of the putative preverb) a loan from Luwian, which nevertheless contains the suffix and the aspectual distinction productive in Hittite. The preverb, Luw. *pa-(a-)* ‘away’ (< PA **pe* probably < PIH **per* whence also PIE **per*) : Hitt. *pí-e+* (the shape *pa-(a-)* occurs only in *pa-iz-zi* : *pa-a-an-zi* ‘go away’ under special circumstances, q.v. in lemma) and the root **sek-* (attested also in Hitt. *ša-a-ku-wa+* ‘eye’ < PA **sak^wa-*, see, e.g., Melchert 1994a: 61). Thus, in the zero-suffix forms of LOH act. prs. sg. 2 *pa-aš-ku-ši* and MOH act. (sic!) prt. sg. 3 *pa-aš-ku-ut-ta*, we may have the analogically generalized (from e.g. pl. 3 *pa-aš-ku-wa-an-zi**, infinitive LMH *pa-aš-ku-wa-an-zi*) zero grade of the root in lieu of the expected **-sek^w-si* and **-sek^w-t*. The **-ye-* suffixed forms would, of course, go back to **-sk^w-yé-*, with the zero grade of the root.

13. CL *a-(a-)* ‘do’ CL 1 : HL *á-à+* ‘id.’ HL 1(a). (and possibly Lyc. *a-?*) vs. CL *a-a/i-ia-(a=)+* : HL *á-ia+*. If the explanation proffered by Melchert is correct, as I believe it is, then it is only the non-suffixed stem that is inherited (< **yē-ti*). The suffixed stem is thus a Luwian innovation; note the absence of a Hittite counterpart.

The role of the PA suffix **-ye-* in these stems is similar to, but quite different from, the imperfectivizing role of the PIE suffix **-ye-*. In PIE, the suffix is used as an *inflexional* means of forming imperfective stems to perfective roots, cf., e.g., PIE **g^wem-* ‘have gone (to), come’ (inception and result of going; e.g., Vedic aor. sg. 3 *a-gan* < **e g^wem-t*) : **g^wm-yé-* ‘be coming, be on one’s way to’ (e.g., Gk. *βαίνει*, Lat. *uenit* < **g^wm-ye-ti*), and the like. In Anatolian, the distinction between root stems and their **-ye-* derivatives is *word-formational* or lexical, not

inflexional.¹¹ The same is true of other suffixes used to form imperfectives to perfective roots, e.g., the infix **-n-*. In Hittite, the **-n-*-infixing *hunink-* 'injure' based on the root stem *hwek-* : *huk-* 'slay' (see Oettinger 1979: 101-103 for discussion and attestations) shows a change of its aspect and lexical meaning (lesser degree of the meaning of the telic root stem). In Proto-Indo-European, on the other hand, the **-n-*-infix forms the imperfective stem from a perfective root with no change of meaning, e.g., Lat. act. prs. sg. 3 *ui-n-ci-t* (remade from the weak forms of PIE **wi-n-ék-ti* such as **wi-n-k-ént-i*) vs. prf. sg. 3 *uic-i-t* (remade from PIE **weik-t*).¹² Compared with Anatolian, Indo-European has a rather neatly constructed system of juxtaposed stems differing not in their *lexical* meaning but in the single inflexional feature of aspect. The Indo-European situation with the imperfective forming suffixes (cf. also the perfectivizing **-s-* of the aorist, neatly performing a single inflexional role) is just the kind that seems clearly a result of extension by analogy: word-formational, i.e., derivational suffixes with limited combinatorial properties come to be used, through analogy, with a growing number of roots, and a relatively neat *inflexional system* of predictable aspectual contrasts is built up. This scenario seems to me far more convincing than its opposite, namely the one that *assumes* the loss of the Indo-European aspect system by Anatolian, e.g. Eichner 1975: 81 ff. If the distinction of mere aspect between the two stems was *lost*, then how would it be retrieved to result in a lexical difference, a difference of meaning, between them? The two stems would become synonymous, and one of them would disappear, giving way to the other; or they would coexist as dialectal or social variants; or the former imperfective stem would be associated with and generalized for the tense in which it was typically used, namely the present and the preterite stem. These are the developments attested in the Indo-European languages that *lost* the Proto-Indo-European distribution of aspectual stems (e.g., Germanic, Italic, Baltic).

¹¹The only verb-forming thematic suffix whose impact on the stem meaning is wholly predictable is the iterative suffix *-ske-* which, however, retains its purely word-formational role: it may be added to any other stem.

¹²See, e.g., Szemerényi 1990: 290 ff. with lit.

§5. Denominative **-ye-* stems are built to a variety of nominal stems, both consonantal and vocalic. The former include the following:

- Hitt. I.40 *ap-pa-ta-ri-i+* ‘seize, take as deposit (on a loan)’;
HL 14 “308”-*á-sa-ha-ra/i+* ‘bleed’;
Hitt. I.76 *ši-it-ta-ri-i+* ‘seal as purchased’ (to deverbatives in *-ātar*);
Hitt. I.55 *iš-kar-ra-an-ni-a+* ‘pierce, make holes’;
Hitt. I.78 *ták-ša-an/at-ni-i+* ‘level, smooth out’ (to oblique stems of *-ātar*-deverbatives);
Hitt. I.45 *ku-u-ru-ri-e-i+* ‘be hostile’ (a **-ye-* stem *pace* Watkins 1973: 76 f.; see discussion in the lemma);
Hitt. I.74 *še-ḫu-ri-e-i+* ‘urinate’ (to nouns in *-ur* / *-war* : PIE **-wr̥*¹³);
HL 20 “CULTER”-*pa+ra/i-tu-ni-(i-)+* ‘sever’ (possibly to oblique stem in *-un-* of the cognates of PIE **-wr̥*);
Hitt. I.42 *ḫa-ap-pa-ri-e+/i+* ‘deliver, turn over to’;
Hitt. I.63 *na-aḫ-ša-ri-(ia-)a+* ‘be afraid’;
Hitt. I.66 *nu-un-tar-ri-(e-)i+* ‘hurry’;
Hitt. I.67 *pa-an-ga-ri-ia-(a-)+* ‘be copious, increase’;
Hitt. I.83 *wa-ag-ga/qa-ri-ia-(a=)+* ‘deprive’ (to *r*-stems);
Hitt. I.82 *ud-da-ni-ia-a+* ‘proclaim’ (to *r* : *n*-stem *ut-tar*);
Hitt. I.46 *ku-uš-ša-ni-(i-e-)i+* ‘rent, lease, hire’;
possibly CL 32 *ku-la-(a-)ni-(i=)+* ‘bring to an end’ (?) (if to an *n*-stem);
Hitt. I.47 *lam-ni-i+* / *lam-ma-ni-i-e+* ‘call, name’;
HL 3 VIA-(*ha+ra/i-*)*wa/i-ni-(i-)+* ‘send’ and CL 27 *ḫar-wa-an-ni-i+* ‘id.’ (to *n*-stems?);
Hitt. I.58 *ka-ru-(ú-)uš-ši-ia-(a=)+* ‘be silent, hide’ (to the root of *ka-r+i-ia-a+* ‘cover’);
Hitt. I.65 *na-ak-ku-uš-ši-e+* ‘be ritually impure’;

¹³ *šeḫur* ‘urine’ < **sēwar* < **sē-wr̥* to **sē-* ‘throw, shoot’, cf. *meḫur* < **mēwar* < **mē-wr̥*, *pace* Eichner 1973 and *opinio communis* (e.g., Melchert 1994a *passim*), see Cowgill 1979: 27 n. 8. Note the role of *-ḫ-* in these examples as a hiatus filler. See Chapter 2, sections III.1 (*apud* Hitt. *ú-e-i+* ‘come’), XII.1 (*apud* Hitt. *pí-e-ḫu-te-i+* ‘take away’), the summary, and especially the discussion *à propos* Hitt. *pí-e-ḫu-te-i+* below.

Hitt. I.79 *te-ik-ku-uš-ši-e-i*+ ‘show oneself, appear’;¹⁴

Hitt. I.41 *ḫa-liš-ši-ia*+ ‘to frame, plate, overlay’ (to *ḫa-li-iš-š*+* ‘frame’ or the like;

HL 19 “PANIS”-*ma-li-ri-i*+ ‘to honey’ (to **malit-* ‘honey’, cf. CL *mallit-* ‘id.’, Hitt. *milit-* ‘id.’ : PIE **melit-*).

These Anatolian denominatives are paralleled in PIE by **ye-* denominatives such as Ved. *namas-yá-* ‘revere’ (to *námas-* ‘reverence’), Goth. *namnjan* ‘to name’ (to *namo* ‘name’) : Hom., etc., ὀνομαίνω (to ὄνομα), cf. Hitt. *lam-ni-i*+ ‘call, name’ to *lāman* ‘name’.

§6. The vocalic stems to which Anatolian **ye-* denominatives were built include *-i-* stems, *-u-* stems, *-a-* (< **-o-*) stems with the suffix in the *a* grade (: PIE **o* grade; typically transitive), and *-a-* (< **-o-*) stems with the suffix in the *e* grade (typically intransitive). Among the **ye-* denominatives to *-i-* stems, the following are the least uncertain ones:

1. Hitt. *ḫu-la-a-li-e*+ ‘enwrap’ I.43 (to *ḫu-la-a-li-i*+ ‘roller, spindle’);

2. Hitt. *ḫu-ur-tal-li(-e)i*+ ‘mix up, confound’ I.44 (to *hurtalli-* ‘adversary’ < *‘confuser, deceiver’ or the like);

3. Hitt. *pār-ku-i-e-i*+ ‘cleanse’ I.48 (to *parkui-* ‘clean’);

4. Hitt. *tu-(u-)ri(-e)i*+ ‘yoke, harness’ (to *tūri-* ‘spear, shaft, pole’; but see n. 48, Chapter 2, for the possibility that the stem is primary);

5. Hitt. *ú-e-ši-i*+ ‘graze, pasture’ I.50 (to *wesi-* ‘pasture’).

The following are also likely to belong among **ye-* denominatives:

6. Hitt. *ša-a-ki-i*+ ‘reveal’ I.73 (most likely to *sagai-* c. ‘sign’), and

7. Hitt. *za-aḫ-ḫi(-e)i*+ ‘to fight’ I.85 (possibly to *zakhḫai-* c. ‘battle’, unless deverbative to *za-aḫ-ḫ*+ ‘strike (a blow)’, cf. above).

Their putative nominal bases are *-i-* stems of the type cognate with the hysterokinetic *-i-*stem type of PIE attested in, e.g., Ved. *sákhā* ‘comrade’, acc. sg. *sákhāyam*, instr. sg. *sákhya*, and Gk. Σαπφώ, gen. Σαπφούς.

§7. The subclass of **ye-* denominatives to *-u-* stems has been esta-

¹⁴These three stems are apparently derived from deverbative nominal formations with the suffix **-us-*, zero grade of **-wos-* which serves in PIE as the perfect participle; *na-ak-ku-uš-š*+* is built on the root of *na-ak-ki-e(i=)*+ ‘be heavy, difficult’ I.63, *te-ik-ku-uš-š*+* on the root of *da-ak-k*+ (*-ḫi* conj.) ‘be similar, correspond to’ cognate with the root of Lat. *docere* (Oettinger 1979: 427), *deceat* ‘it is appropriate’, etc. Melchert (1994a: 95 with ref. to Goetze 1951) takes *te-ik-ku-uš-š*+* (“*tekkušša-*” [?]) back to “PA **dek*”so-“ [?] (cf. Av. *daxš-* ‘teach’).

blished relatively recently (Oettinger 1979: 330 ff.¹⁵). These include:

Hitt. *ḫa-aš-šu-u-e-i+* 'be king' II.1¹⁶ (to *ḫa-aš-šu-u+* c. 'king');

Hitt. *kap-pu-(u-)e/i+* 'count, reckon, consider' II.2, *šar-ku-e-i+* 'get shod' II.3 (to *sarku-* 'high, elevated' > *"high shoe," according to Neumann *apud* Oettinger 1979: 335 n. 159);

Hitt. *ša-ru-u-e-i+* 'plunder' II.4 (to *sāru-* 'booty');

Hitt. *ḫu-iš-ú-e-i+* 'be alive' III.2 (to *ḫwisu-* 'live, fresh, raw').¹⁷

Anatolian *-ye- denominatives to -u- stems are paralleled in PIE, as a type, by Vedic -ya- denominatives to -u- stems, e.g., *śatrū-yá-* 'act inimically' (to *śatru-* 'enemy'), and by the cognate Latin formations, e.g., Lat. *statuo* (to *status*).

§8. It was apparently Götze (1928: 97) who first showed that Hittite stems in =a-(a-)e/i+ : =a-(a-)+ are properly a subclass of the *-ye- class of verb stems. The prelaryngeal interpretation of this class as "-āye-" factitives of the type found in, e.g., Latin *domāre*, which goes back to Pedersen 1938: 136 (repeated in Kronasser 1966: 468 ff.) has been rejected. Hittite =a-(a-)e/i+ : =a-(a-)+ stems are satisfactorily explained as *-ye- denominative (strictly desubstantival) factitives to thematic nouns with the thematic-vowel suffix in the a (< *o) grade, cf. the Hittite strictly deadjectival -aḫḫ- factitives to thematic stems, on which see Oettinger 1979: 454 ff. These contrast derivationally with Hittite (and other Anatolian) *-ye- denominatives to thematic nouns with the suffix in the e grade (on these see below). This implies

¹⁵I am generally in agreement with Oettinger as far as the interpretation of Hittite verbs with stem-final =ue+ : =uwa+ as *-ye- denominatives, except in two cases, namely his stem "*parkue-* 'reinigen'" which, as my data show, is based on an i-stem (q.v. above and in the relevant lemma), and his "*paškue-* 'vernachlässigen' (Nomen **pašku-* unbelegt)", which is, as my more complete set of data indicates, a *deverbative* *-ye- stem (see above and the relevant lemma).

¹⁶Unlike Watkins (1973: 172 ff.) I see no compelling reason to interpret this stem as an example of the IE denominative *-eh₁-stative.

¹⁷For a different interpretation (as an *-eh₁-stative) and derivation (from OH *huš(u)want-* 'alive'), see Watkins 1985: 245. Again, as in the other instances, I see no reason for this interpretation. But, be that as it may, the stem is not simple thematic.

a categorial contrast between thematic substantives and adjectives, clearly manifested in the Anatolian verb formation: the former use the suffix **-ye-*, the latter, the suffix **-ax-*.

Anatolian **-ye-* denominatives to *a-* (< **o-*) stem nouns with the suffix in the *a* (< **o*) grade include the following transitive stems:

Hitt. IV.3 *ir-ḫa-(a-)i+* : *ir-ḫa-(a-)a+* ‘delimit’ (from **erḫa-ye-* : **erḫa-ya-*, with **y* disappearing intervocally) based on *irha-* c. ‘border, limit’;

Hitt. IV.6 *li-la-a-i+*, etc., ‘conciliate’ (to *lila-* ‘conciliation, pacification’) : CL 36 *li-la-i+* : *li-la-a+* ‘pacify’;

Hitt. IV.8 *pār-ša-(a-)i+*, etc., ‘crumble’ (tr.) (to *parsa-* ‘bread crumb’);

Hitt. IV.9 *pa-tal-ḫa-e+* ‘to fetter, tether’, CL 42 *pa-tal-ḫa-(a-)i+* ‘id.’ (to *padalḫa-* c. ‘fetter, ankle-cuff’);

Hitt. IV.10 *pīd-da-(a-)i+* ‘give (grants/allotments of land)’ (to *pī-e-it-a-a+* neut. ‘grant, allotment (of land)’);

Hitt. IV.12 *dam-me/mi-iš-ḫa-(a-)i+*, etc., ‘oppress violently’ (to *dammesha-* c. ‘violence, oppression’);

Hitt. IV.13 *tar-ma-(a-)e-i+*, etc., ‘to affix, peg down’ (to *tarma-* ‘peg’, cf. Hom. τέρμα ‘goal mark (in a race)’, Lat. *terminus*) : CL 52 *tar-mi-*+, etc., ‘id.’;

Hitt. IV.16 *a-ru-wa-e+*, etc., ‘bow, supplicate’ (to Hitt. **arwa-* ‘supplication’¹⁸);

Hitt. IV.17 *ḫa-an-da/ta-(a-)i+*, etc., ‘set in order, establish (through an oracle)’ : CL 26 *ḫa-an-da-a+* ‘set in order, prepare’ : Lyd. *ān ṛ-‘id.’?*;

Hitt. IV.18 *ḫa-at-ra-(a-)e/i+*, etc., ‘write, appoint’ (to **ḫatra-* “pointed instrument”[?] based on *ḫa-at-t+* ‘smite’; cf. CL 28. *ḫa-at-ri-i+* ‘to hoe’ based on Luw. ^{GIŠ}*hattara-* ‘hoe’ or the like; perhaps originally “an instrument for incision,” like the Hittite, with the subsequent separate specialization of meaning).

This class of Anatolian **-ye-* denominatives can be directly compared with desubstantial factitives such as Hom. πυργόω ‘fortify’ (to

¹⁸Oettinger’s assumption that this denominative is built on “**ár-ya-* < **ár-ya-* ‘Gebet’ = gr. **arwā-* (1979: 365) is erroneous since the existence of the noun class in **-ā* cognate with PIE feminines in **-ā* cannot be claimed for Anatolian (pace Melchert, see Chapter I of this book).

πύργος 'fortification') which no longer need be regarded as Greek innovations; compare also Goth. *sweraiþ* 'honors' (to *-o-stem *swer-s* 'heavy') and Ved. *yajñā-yā-* 'make sacrifices', which may well continue the same transitive *-o-ye-type.¹⁹ Oettinger 1979: 357 f. erroneously assumes that "der Themavokal *ē* des Stammausgangs der thematischen Nomina bei *īe*-Ableitungen spätestens im Urhethitischen durch die Ablautvariante *a* (<*o*) ersetzt wurde." Oettinger further compares these Hittite denominatives with Greek factitives in -όω, apparently regarding the two formations as parallel independent innovations (although he does not state so explicitly). In this connection, he mentions the Greek differentiation between the mostly intransitive -έω (< *-e-yo-) denominative type and the always transitive (factitive) -όω (< *-o-yo-) denominative type, "vgl. *oknéō* 'zögere' gegenüber *doulōō* 'versklave' (Nomina *óknoś*, *doūlos*)" (Oettinger 1979: 358). He then correctly notes: "Auffälligerweise sind auch im Hethitischen die Denominative auf **ae-* überwiegend transitiv, diejenigen auf **īe-* (*uēmīe*-Klasse, *tāīīe*-Klasse [both subsumed in my provisional class I, see Chapter 2—A.L.], *kappue*-Klasse) überwiegend intransitiv" (ibid.).

§9. An even better case for the formal and functional parallelism, indeed genetic identity, of the two *-ye-derivative types in Anatolian and Greek could have been made previously, had several important stems not been misclassified. These stems include the following:

Hitt. IX.1 *ar-ša-ne-e+*, etc., 'be jealous, envy';

Hitt. IX.2 *uš-ne-e+*, etc. 'trade';

Hitt. X.3 *pa-ap-ri-i+* : *pa-ap-ra-a+* 'be impure, act profanely';

Hitt. XI.2 *mar-še-e-i+* : *mar-ša-a+* 'be fraudulent', CL 38 *ma-ar-ša-* + 'id.' (?);

Hitt. XII.4 *ú-wa-ri-te-i+* : *wa-ri-ta-a+* 'be afraid'; and

Hitt. XII.5 *ta-an-na-at-te-i+* 'be devastated' (cf. HL 24 VASTUS-*ta-na-ta-*+, etc., 'to devastate', the HL equivalent of the Hittite factitive deadjectival *dannattahh*¹ 'id.' and clearly a HL morphological innovation whereby the old *-ax- deadjectival factitives merge with the *-ye-desubstantival ones).

Oettinger erroneously classifies *ar-ša-ne-e+* as "*aršanīe-*," in contradiction to the Old Hittite evidence (see Chapter 2, lemma IX.1 for

¹⁹See, e.g., Rix 1976: 201 (§215a.) and Neu 1980: 88 n. 60 positing PIE age for *-o-ye-denominatives.

attestations and discussion). He also normalizes *mar-še-e-i+* as “*marš-je-*” for no apparent reason and without discussion (see XI.2). The stem *pa-ap-ri-i+*, etc., to Oettinger, is simple thematic (1979: 282 ff.). While it may be so dubbed descriptively (and misleadingly), in the “synchronic” terms of Hittite, there is no sense in which it could be so explained in historical-comparative terms. Oettinger analyzes the stem as “*pa-pr-e-*”, explaining this odd formation in the following way: “Die Aktionsart könnte auf ein mit *i* redupliziertes, duratives Präsens (vgl. uridg. **sí-zd-e-ti* ‘sitzt’...) mit an die Wurzelsilbe angeglichenem Reduplikationsvokal weisen” (1979: 284). The fact that this “reduplicated simple thematic” stem is unique in Hittite is taken to indicate its archaicity²⁰ instead of making the *ad hoc* interpretation suspect. Besides, the entire PIE class of **sí-zd-e-ti* type imperfectives looks suspiciously like a late remake, within PIE, of an earlier athematic reduplicative class: prs. sg. 3 **si-séd-ti* : pl. **si-sd-énti* resegmented as **si-sd-é-nti* and prs. sg. 3 **si-zd-é-ti* and the other forms created, with the further analogical retraction of the accent (more on the process of resegmentation based on the endings beginning with **e* and on its importance for the creation of the simple thematic class of imperfectives in PIE, see Chapter V).

Watkins’s explanations of *pa-ap-ri-i+*, etc., *mar-še-e-i+*, etc., and *ta-an-na-at-te-i+* (as well as of some other stems such as *ha-aš-šu-u-e-i+* ‘be king’ and *ku-u-ru-ri-e-i+* ‘be hostile’, on which see above) as denominative *-*eṣ-*statives are not compelling. The only substantial evidence presented by Watkins (1973: 71 f., reprinted 1994: 146 f.) in favor of the *-*eṣ-*stative origin of the Hittite formation is the correspondence of Hittite -*eš-* “inchoatives” such as *dannattes-* ‘become empty’ to Latin “inchoatives” in -*ē-sc-* (viz. -*ē-sce-*). Watkins then infers the genetic identity of the -*e-* preceding Hitt. -*š-* in -*eš-* with what he claims to be the Latin outcome of the stative suffix *-*eṣ-* based on the “archaic parallelism -*s-* : -*sk-*” (1973: 166). Yet this superficial parallelism, far from probative for the material it purports to explain (*pace Celtic Verb* [Watkins 1962 :] 76-77), certainly does not prove anything in this instance. Indeed, Watkins’s postulation of the denominative *-*eṣ-* origin for the Latin type *claudēre*, *senēre* is not in the least compelling;

*Det.
Hitt.*

*Wtk
ē-statives*

²⁰“Diesem reduplizierten, einfach thematischen Verbum ist infolge seiner Isoliertheit im Hethitischen einiges Alter zuzutrauen” (loc.cit.)

nor is his rejection of the much better motivated earlier explanation of the denominative Lat. *-ē-re* < **-e-ye-*, cf. Gk. *φιλέω* < **-e-yo-*).

Old Hittite attestations leave no doubt that *ar-ša-ne-e+* is not a *-ye-* stem to a consonant-final ***arsan-*.²¹ We could call the stem "simple thematic" only in "synchronic" Hittite terms, or descriptively. In genetic terms, however, that label would be absurd (the PIE root: **ṛ(H)son-*? **or(H)sn-*? **or(H)son-*? **ṛ(H)sn-*?). The same holds, as we have seen, for *pa-ap-ri-i+* 'be impure'. The stem *mar-še-e-i+*, etc. (CL *ma-ar-ša+*) 'be fraudulent' can, in principle, be interpreted as genetically simple thematic because its root structure ([*mars-*] : PIE **mrs-* or **mors-*) would permit such an interpretation. If simple thematic, it would belong to the *tudāti*-type, granted the zero grade of its root, or to the simple thematic type with the **o* grade of the root. The existence of the latter type in PIE is, however, dubious *pace* Hiersche 1963: most of the examples for the **o* grade presents are liable to be innovations of the individual languages (see, e.g., Szemerényi 1990: 287). Possibly, *mar-še-e-i+* is just such an innovation in Hittite (**mōrs-e-* from **mérs-e-* under the influence of the initial labial, see Szemerényi, loc. cit., with lit.); the same could apply to *wa-aš-še-i+*, etc., 'clothe, dress' : CL *wa-aš-ša-a+* 'id.', q.v. below, from **wōs-e-* (so Oettinger 1979: 306) from **wēs-e-*; cf. also *lu-uk-ki-i+* : *lu-uk-ka+* 'set alight' < **léuk-e-* according to Hoffmann 1968).

The trouble with this explanation is that the posited simple thematic stem **mérs-e-* would be isolated, both in Hittite and in IE: active simple thematic transitive stems **wēs-e-* and **léuk-e-*, with which **mérs-e-* would form a class, are not attested in old Indo-European dialects. Hoffmann's **léuk-e-ti* (op. cit.) is based entirely on a face-value interpretation of the Hittite *lu-uk-ki-iz-zi* and is not supported by extra-Anatolian attestations. In Vedic, only the middle *rócate* exists; instead of **rócati* [< **léuketi*], which appears later in Sanskrit, the only attested

²¹Watkins 1982: "OH/OS (*li-e*) *ar-ša-ne-e-ši* '(do not) be jealous'... This stative [to him, an **eṣ-*stative, of course—A.L.] appears to be built on an adjectival derivative **aršana-* < **ṛh_{1,s}-no-* parallel to those see in Yav. *aršiant-* (Y.52.2) and Ved. *irsyant-* (TS 2.3.5.1) as well as *irsyū-* (AV, JB) and the substantival *irsyā-* (AV, MS)." Cf. Oettinger's faulty normalization with the erroneous conclusion drawn from it (1979: 355): "eher von einem athem. Nomen abgeleitet (**ṛh₁son-je...*)."

active transitive to match *rócate* in Vedic is the **-éye-* factitive *rocáyati*. (Vedic 1st-class active *várdhati* matching the middle 1st-class *várdhate* and their Avestan cognates cannot be used to show that the non-existence of **rócati* and the existence of *rocáyati* are somehow irrelevant for a valid explanation of Hitt. *lu-uk-ki-iz-zi*.) Oettinger's **wós-e-ti* (< **wés-e-ti*?) is even more dubious, since neither **wós-e-ti* nor **wés-e-ti* 'clothes, dresses' can be reconstructed for Proto-Indo-European. Further, if the Vedic root *mṛṣ* 'forget, neglect' is cognate with the root of the Hittite stem, it is noteworthy that it has a root aorist (midd. sg. 2 *mṛsthās* RV iii, 33.8) and a matching **-ye-* present (e.g., midd. pl. 3 *ná mṛsyante* RV vi, 67.7 'they are not remiss'), while Sanskrit *marṣati*, found only in Grammarians, is clearly a later remake. We could, of course, insist on **mérs-e-ti* or even **mórs-e-ti* as the "PIE" prototype of Hitt. *mar-še-e-iz-zi*, **léuk-e-ti* or even **lóuk-e-ti* as the "PIE" prototype of Hitt. *lu-uk-ki-iz-zi*, **wós-e-ti* or even **wés-e-ti* as the "PIE" prototype of Hitt. *wa-aš-še-iz-zi*. That, however, would involve us in difficulties which cannot be satisfactorily resolved within Proto-Indo-European. Particularly in the case of *wa-aš-še-iz-zi* 'dresses' (trans.) : *ú-e-cš-ta* midd. 'wears, has on' (and also in the case of *lu-uk-ki-iz-zi* 'lights' (trans.) : *lu-uk-ta* middle 'is light') we would have a correlation of prototypes squarely contradicting the best extra-Anatolian Indo-European evidence supplied by the "dependable duo" of Vedic and Greek, supported as it happens by Germanic and Balto-Slavic. Would that not give us, paradoxically, yet another "Indo-Hittite" pattern? But there is no need to corner ourselves in this way when the forms in question can be satisfactorily explained by good Indo-European correlates—as long as we are careful to treat each stem on its own merits and not to reject the evidence for the stem in question in favor of the evidence from other stems.

Beside the verb stem *mar-še-e-i+*, etc., 'be fraudulent', Hittite has an *-a-*stem adjective, *marsa-* 'fraudulent, unfit'. Given the intransitive meaning of the stem *mar-še-e-i+* and the already mentioned Greek intransitive **-ye-* denominatives to thematic nouns with the suffix in the *e* grade, to which the relevant Latin denominatives should also be added, *pace* Watkins 1973,—Hom. *ὀκνέω* to *ὀκνος*, *φιλέω* to *φίλος*, cf. Ved. *deva-yá-* 'be godly, pious', Lat. *claudē-re* 'be lame'—I explain the stem in question as a **-ye-* denominative to the thematic *mars-a-* with the suffix in the *e* grade, namely *mar-še-e-i+* < **marse-ye-* the alter-

πρὸ μαρξέ
μήλ' ὀσφύε
ἡμῶν δὲ
νόξεν
κακίστος

crepus
marseeir
302.
single
at test.

nating stem *mar-ša-a+* < **marse-ya-*. Perhaps the Old Hittite *plene* writing *mar-še-e-i+* reflects a disyllabic pronunciation [ee] still in effect soon after the disappearance of the intervocalic *y.

The same may well apply to the *plene* of OH *ar-ša-ne-e-ši* (see lemma^{p. 129}), the stem of which I also explain as a **ye-* denominative to *arsana-* (a *nomen agentis* in **-ana-* : PIE **-ono-* and **-eno-* or a verbal adjective in **-na-*, see p. 220 n. 21).

The nominal base of *uš-ne-e+*, etc., < **usne-ye-* 'be trader, trade', may be a verbal adjective **usna-* or a syncopated *nomen agentis* **us-ana-* 'trader' to the root of *wās-* (*-hhi* conjugation) 'buy' in the zero grade, cf. the same root in the full grade in Vedic *vasná-* n. 'price' < **wes-no-* (less likely **wos-no-*), Lat. *uēnum*, *uēnus* 'sale'.

Hitt. *pa-ap-ri-i+*, etc., may well be a denominative of **pa-ap-ra+* 'impure' (perhaps cognate with PIE **bher-* 'brown' [Pokorny 1959: 136] 'filth-colored' > 'impure') and thus from PA **babre-ye-*.

Hitt. *ta-an-na-at-te-i+* 'be devastated' < **dan(n)ate-ye-* to the attested adjective *dannata-* 'empty, void'. Cf. HL *ta-na-ta+* 'to devastate'. I have already mentioned, in Chapter 3, the likely etymological connection with Hom. *θάνατος* 'death' < **dhñ-to-s* '(someone) devoid (of life)', with the accent shifted to the root by the morphological device of substantivization, vs. *θνητός* 'mortal' < **dhñ-tó-s* '(capable of being) emptied, voided (of life)'.²² It is hard to argue for reconstructing a laryngeal here because the Anatolian languages do not have one. The Greek form could tempt someone into reconstructing PIH **x* (i.e., ***h₂*), but I shall refrain; see Excursus II. (Cf. the tropological development of the main Indo-European verb root for 'dying', **mer-*, whose Hittite cognate, *mer-mi*, means 'to disappear'.)

The stem *ú-wa-ri-te-i+*, etc., 'be afraid' was listed by Eichner (1975: 88) among the alleged compounds with "PIE" ***dheh₁-* 'to place' (on the other items in Eichner's list see below). But this explanation skirts the fact that the alleged continuation of "PIE" ***dheh₁-* in the Old Hittite attestations of the stem, namely *=-te-it* : *-ta-an-zi*, does not at all behave as what is claimed by consensus to be the Hittite cognate

²²The connection of *θάνατος* with Ved. *dhvan'* assumed by Frisk 1973: 653 (*et al.*, see lit.) is as dubious as *dhvān-tá-* 'dark' and *a-dhvanī-t* 'became extinguished' are problematic.

of "PIE **dheh*₁," namely the *-hhi*-conj. stem *da-a-i* : *ti-an-zi*.²³ The stem in question, I believe, is much better explained as a **ye*- denominative to a thematic nominal stem. Oettinger's explanation, based on Eichner's list (Oettinger 1979: 127: "...Dat.-Lok. **ueri* eines Wurzelnomens der Bedeutung 'Verehrung, Scheu', und **dheh*₁ 'festsetzen'; also ursprünglich wohl transitiv *'zur Verehrung setzen') is contradicted, with regard to ***dheh*₁-, by the attested forms of the stem's conjugation. And, in any case, the stem is not originally simple thematic.²⁴

This discussion brings me to the deverbative transitive *lu-uk-ki-i* + : *lu-uk-ka* +, etc., 'set alight' (VI.1), based on *lu-uk* + midd. 'be light'; *wa-aš-še-i* + : *wa-aš-ša-a* +, etc. 'clothe, dress' (XI.1, cf. CL 39 *wa-aš-ša-a* +, based on *ú-e-eš*(-š=) + (medium tantum) 'wear, have on'; and a number of other transitive stems which may be deverbative—including the rest of the stems in Eichner's list mentioned above, namely *pí-e-hu-te*(*i*=) + : *pí-e-hu-da-a* + 'take/lead over there' (XII.1), *ú-wa-te*(*i*=) + : *ú-wa-ta/da-a* + 'bring/lead over here' (XII.2, cf. CL 38 *ú-wa-ta-a* + 'id.', and *ú-e-te*(*i*=) + : *ú-e-da-a* +, etc. 'build' (XII.3, cf. Lyd. 5 *vici* 'id. '); *iš-pár-ri-i* + : *iš-pár-ra-a* + 'tread (on), trample' (X.1), and *šar-ri*(*e*)-*i* + : *šar-ra-a* + 'divide, cross over; transgress, break (an oath)' (X.2).

Hittite *wa-aš-še-i* +, etc., 'clothe, dress' is a transitive built to the medium tantum *ú-e-eš*(-š=) + 'wear, have on'. The correlation of the two stems, the former an *-e* : *-a*- active transitive with the root in the

wos-ei-e
on nraš.?

²³This explanation, as well as the similar explanations of other stems belonging to this class, make the mistake of bypassing the attested facts in favor of unattested constructs outside of the language and the subfamily under investigation. This procedure is permissible to quench the investigator's explanatory thirst only as a last resort, when there is no language- or subfamily-internal evidence available. In this particular instance, the available language-internal evidence plainly falsifies the explanation which appeals to the reconstructed form while bypassing the attestations.

²⁴In Lehrman 1985: 255, I explained it as "perhaps a formation with a suffix akin to Lat. *-ido-* in *timidus* 'afraid' (to *timeo*), *fumidus* 'smoky' (to *fumus*), etc., to the root found also in Lat. *uereor* 'am in awe, afraid of.'" But, since the origin of Latin *-ido-* is itself opaque, I am content to agree with Oettinger (1979: 127) in the explanation of the root and to suspend judgment as to the exact nature of the rest of the putative nominal base of the stem.

a grade and the latter a root middle in the *e* grade, is conspicuously matched in Indo-European by Ved. *vās-āya-ti* 'clothes, dresses' : *vās-te* 'has on, wears' where the former continues an active transitive with the root in the **o* grade, and the latter, a root stem *medium tantum* with the root in the **e* grade (PIE **wos-éye-ti* : **wés-to-*). Based on this correlation, Eichner in his careful study (1970) showed that Hittite *wa-aš-še-i+* is cognate with (in his terms, continues) PIE **wos-éye*.²⁵

Hitt. *lu-uk-ki-i+* : *lu-uk-ka+*, etc., 'set alight' (see Chapter 2, lemma VI with discussion), also a transitive active built to a medium tantum, *lu-uk+* 'be light', must then be explained in the same way, namely as a transitive **-eye-* : **-eya-* stem, cognate morpheme by morpheme with PIE **louk-éye-* : **louk-éyo-* (cf. Ved. *rocáyati*, YAv. *raocaiieiti*). Hitt *lu-uk-ta* (mid. prs. sg. 3) may correspond to PIE **léuk-to-*, cf. **wés-to-* above), or to PIE **luk-tó-* (so Hoffmann 1968: 217 f.): for my purposes this is of no great importance. Mid. *lu-uk-kat-ta*, as we have seen (see the discussion in lemma) is not identical to *lu-uk-ta* (cf. Hoffmann 1968: 218) and belongs to the paradigm of *lu-uk-ki-i+*, etc. (see discussion in the lemma).²⁶ Besides, as I have already pointed out, the existence of Vedic transitive active 1st-class *vārdhati* next to the intransitive middle 1st-class *vārdhate* is not in the least probative with regard to Vedic *rócate*, the active transitive to which is *rocáyati* and not an unattested **rócati*. Hittite *lu-uk-ki-iz-zi*, the stem to be explained, cannot be used to explain itself, in other words as an *explanans*, in view of the absence of any evidence for "**léuk-e-ti*" among the attested old Indo-European forms. Hoffmann's widely accepted explanation (see also Gotō 1987: 274 who accepts Hoffmann's opinion in disregard of the evidence

²⁵Cf. Oettinger's interpretation of the stem as a simple thematic **wós-e-ti*, discussed above. His view is motivated not by the data but by the untenable view that pre-Anatolian **-eye-* transitives were transferred into the Hittite *-hhi-* conjugation (stated in Eichner 1975: 97 f.; [see also Oettinger 1979: 304 ff.]), in contradiction to Eichner 1970.

²⁶As regards the explanation of *wa-aš-še-i+*, etc., as an **-éye-* transitive, Cowgill and Watkins agree (independently) with Eichner 1970, but as regards *lu-uk-ki-i+*, etc., they differ from both Hoffmann 1968 and Eichner 1970 in recognizing also this latter as an **-éye-* transitive. So also Melchert 1984 and, e.g., 1994a.

presented *ibid.*).

The Hittite =*te-(i=)*+ : -*ta/da-(a=)*+ verbs (Chapter 2, class XII) have been explained either as simple thematic (Pedersen 1938: 131, Benveniste 1962: 38 f., Risch 1965: 240 f.) or as compounds of various preverbs with the root ***dheh₁-* 'to place' (Sturtevant 1951: 121, Watkins 1969: 69 with lit., Eichner 1975: 88 f., Oettinger 1979: 125 ff., Melchert 1994a: 94, 103, and esp. 134). The former opinion can be correct only if it describes the appearance of these stems, not their origins, because neither the shape of the segments preceding the thematic vowel nor the absence of affinity with any known simple thematic stems of Proto-Indo-European can justify the genetic use of this term. The latter opinion is contradicted, first, by the *-hhi*-conjugation **ye*-stem type of the attested Anatolian cognates of ***dheh₁-*, viz. particularly Hitt. *da-a-i* : *ti-an-zi*, etc., without any evidence for ***dheh₁-t(i)* : ***dhh₁-ent(i)* or the like anywhere in Anatolian,²⁷ and second, because of a number of particles and preverbs postulated entirely *ad hoc* to account for the otherwise opaque phonetic chunks before the putative continuation of ***dheh₁-*. For example, according to Watkins (*loc. cit.*), "*uwa-* [in *ú-wa-te-i+*—A.L.] enthält eine zweisilbige Variante von *u* 'her', vgl. skt. *áva* : lat. *au-*, aksl. *u*, oder es gibt *u* + eine Partikel oder ein verlorenes Präverb *a* wieder, vgl. vielleicht skt. *ā*". Hitt. *pí-e-hu-te-i+* is opined as containing *pe-* 'thither, away' "+*hu*, die in *e-hu* 'komm'... und med. Impv. 2. Sg. *-hu-t* enthaltene Partikel" (cf. also the more elaborate versions of the particle and the lost preverb in Oettinger 1979: 125 ff. and 129 f., with lit.; a different interpretation of *e-hu* see above). My explanation of *ú-wa-te-i+* as **au+* **wodhéye-* (Lehrman 1985: 258) has won partial acceptance (see, e.g., Melchert 1994a: 66), but my explanation of *pí-e-hu-te-i+* was not successful.²⁸

²⁷Hitt. *te-iz-zi* 'says' (< **ter-zi*) : pl. *ta-ra-an-zi* has nothing to do with **dheh₁-*, pace, e.g., Watkins 1969, Oettinger 1979, and Melchert 1994a *passim*.

²⁸Melchert 1994a: 134: "Lehrman's derivation of *pēhute/a-* from the same source . . . is not convincing: **pe+wodhéye/o-* > **pe_ude/o-* with syncope and hiatus (!) and then *pēhute/a-* with hiatus-filling *-h-*. The last two steps run entirely counter to normal Hittite treatment of secondary vowel sequences (either contraction or insertion of glides). . . . We must assume rather

My analysis of the attestations of *pí-e-ḫu-te-i+* and *ú-wa-te-i+* (XII.1 and 2) yielded the stem [*wade*]- : [*wada*]- after *ú-*+ and [*hude*]- : [*huda*]- after *pí-(e)-*+. The meaning of the two stems differs only in the direction of the movement, "hither" vs. "thither." The bearers of these meanings are clearly identifiable as the preverbs. I believe it is likely that the stem [*hude*]- : [*huda*]- which we have after *pí-(e)-*+ is a conditioned variant of the stem [*wade*]- : [*wada*]- which we have after *ú-*+. The conditions for this change, as I now see, are difficult to establish. Yet postulating an otherwise unattested preverb,²⁹ an unjustified stem formation (*-+te-i+* : *-+da-a+* < ***dheh₁-t(i)* : ***dh₁-ent(i)*), and a semantic shift to boot, as does Melchert (1994a: 134), seems hardly more felicitous.

The laryngeal in the preverb ***h₂au-* is posited on the basis of the Hitt. imperative sg. 2 *e-ḫu* ("< **H₁éi-H₂au*" Eichner 1973: 76); the single *h* is explained by "lenition" (Eichner op. cit. *passim*). The preverb ***h₂au-*, according to this version, appears only in the imperative, and is somehow replaced by the preverb **ou* (Eichner 1973: 76) or **au* (Melchert 1994: 134) in the other forms. I find this explanation totally unsatisfactory. The inference that the preverb is the same both in the imperative and in the other forms seems to me far more reasonable; the setting up of ***h₂au* to account for one form seems no better than no solution at all.

Now if the segment *ḫu* in *e-ḫu* is morphologically identical to *ú* in *ú-iz-zi*, then only the following explanation becomes likely. Assuming that the phrase **ei au* "go here" = 'come' was treated as two separate words, it became Proto-Anatolian **e au* and then Old Hittite **e u* which is written as *e-ḫu*. (If we assume that **ei au* was treated as one

**pe+Hude/a-* 'hin-schaffen', with **Hu-de/a-* 'zu-stellen, deliver, produce' < **h₂(e)u-dheh₁-*. The semantics of **u-wode/a-* 'lead here' (people) were carried over to **pe-hude/a-* 'remove', whose inflection had accidentally come to match the former." With regard to *tameumma-* 'of another', which Melchert adduces (ibid.) as a "direct counterexample," I never claimed that *phonotactically* the sequence *eu* was impossible in Hittite. I might add OH *he-e-uš* 'rain'. But the origin of *eu* in either *tameumma-*, etc., or *he-e-uš*, is not clear and so obliges no one to conclude anything.

²⁹On the intervocalic *h* in Hitt. *e-ḫu* 'come!' (: Palaic *i-ú*) see below.

word, then the intervocalic *y would disappear and the resulting ***eau* would further be contracted to ***au*, a non-existent form.)

The above reasoning gives us therefore an extremely likely example of *h* playing the role of a hiatus filler in Hittite between **ε* and **u* and obviously in this case *not* continuing any inherited laryngeal.³⁰

This conclusion improves our chances for explaining the *h* in *pi-e-ḫu-te-i+* in the same manner. The rest remains difficult but not impossible, however. If we assume a syncope in **pe-wade-*, that would, of course, require that the *a* in the root be unaccented. That is precisely what we would expect, speculating that the primary accent should be situated on the preverb. A very similar case of syncope, with the same phonological conditioning, is found in the post-accentual alternant *-wa-ni* of the 1 pl. primary ending *-u-e-ni*, viz. *-wa-ni* < *-u-ni* in e.g. MH *ḫa]-at-ra-a-u-ni* XIV 1 Rs. 36 (for the expected *ḫa-at-ra-a-wa-ni*).

Thus, although more evidence needs to be considered before the likelihood of my explanation can increase, I continue to maintain that my explanation is preferable because it sets up and relies on no poorly motivated unattested entities, unlike the *opinio communis*, and it connects morphologically two Hittite stems, the obstacles in connecting which are inversely proportionate to the semantic and intuitive necessity of their connection. I leave the rest to further investigation.

The etymon of *ú-e-te-i+*, etc., 'build' (Lyd. *vici* 'id.') remains problematic. The *comparanda* listed in Lehrman 1985: 259 remain highly uncertain. I have withdrawn Latv. *vidināt* because *-dinā-* is of course a

WEDE-

³⁰The most likely etymon for Hitt. *mehur* 'time' is still a cognate of "PIE" ***meh₁* 'to measure', *pace* Eichner 1973 which gives no independent corroborating evidence to the alternative etymon **meh₂*, namely, that Hitt. *mehur* belonged to the "acrostatic" type with the lengthened grade impeding the expected change of **ε* > **a* before **h₂*. Eichner needs that to be so in order to account for the unexpected quality of the vowel before a timbre-changing "laryngeal" (**h₂* or **h₃*), as well as to convince his reader that lenition has to take place thereby changing the intervocalic *hh* to *h* after his morphologically conditioned long vowel. The trouble is that all this complicated argumentation is entirely *ad hoc*, and the other two acrostatic nouns in Eichner's acrostatic group are problematic (*hekur* 'rock, cliff' is etymologically opaque and *šehur* 'urine' is also an *explanandum*). But then *me-(e)-ḫur* < **mēwar* < **mē-wr* would be one more example in corroboration of *pi-e-ḫu-te-i+* < **pe-wade-* < **pe(r?)* *wodh-éye-*.

Hittite *iš-pár-ri-i+* cannot be an inherited simple thematic formation (as per Oettinger 1979: 266) but continues an **o* grade *-éye-* formation instead (see Lehrman 1991-1993: 131 f.). Incidentally, this is one of the two simple thematic stems of the *tudāti* type, which Oettinger claimed to be inherited from the proto-language. In Lehrman op. cit. I established the non-existence of **sprh₁-é-* by demonstrating that the Vedic *sphurāti* is due to a internal Vedic remodeling of an inherited root present. The other stem which Oettinger claims to be an inherited simple thematic stem with the root in the zero grade and the accent on the suffix in Anatolian is Hitt. *šu-ú-i+* / *šu-ú-i-e-i+* : *šu-wa-a+* ‘reject, expel, cast off’ (III.1). This he directly compares with Vedic *suváti* ‘impels’ (*set*-root *sū*), positing PIE age for the *tudāti* class. It is more likely, however, that *suváti* is also a Vedic innovation (cf. its root middle *sūté*, act. *sau-ti* [Brāhmanas]) arisen in a way similar to *kṣiyāti* and *tiráti* (see Lehrman op. cit. with lit.). Moreover, the *plene* spelling with *ú* in the root of the Hittite stem makes Oettinger’s interpretation of it as ***suwé-* (“**suh₁-é-*”) unlikely. It is much more likely that, as the *plene* indicates, the accent was on the root.³²

- sūte' -
-ro 'give
born'
110101 110101
(em Narten)

³²The Hittite stem may well be explained as a **-ye-* stem to the root **séwa-* ‘push’, cf. Russ. сов-ѧ-ть ‘shove, stuff’, прс. су-ѧ-ть ‘shoves’.

lemma) does not have a good etymology *pace* Oettinger 1979: 288 ff., but may also be regarded as continuing an **-éye-* transitive (so also Eichner's "**sor-éje-*," *apud* Oettinger 1979: 290 n. 62; Oettinger's objection to Eichner is based solely on the former's misclassification of **eye-*stems). Could it be derived from the adverb and, most likely, a former nominal root of *še-e-ir* 'over, trans-', i.e., **sor-éye-* 'transgress' (so apparently Eichner, whose dissertation I have not seen)? This explanation seems to me better motivated, both phonologically and semantically, than Oettinger's interpretation of the stem as genetically simple thematic ***serh₂-e-* (> ***sera-*?) which does not explain anything.

CL 17 *ma-na-a-* + : HL 5 *LITUUS-na-* + ([*mana-*], 'to behold, look at, regard' need not be, *pace* Starke, *ibid.*, p. 147, taken back to an unjustified ***mn-eh₂-* (note the absence of any continuation of ***h₂* in the Luwian), nor to an equally dubious ***mn-eh₁-* (*pace* Melchert 1994a: 156 *et passim*, inspired probably by Watkins's poorly motivated "*eh₁*"-statives, on which see above), but is more likely to continue **mon-éye-*, identical with the prototype of Lat. *moneō*.

§10. Thus the question whether Anatolian had an inherited counterpart of the class of simple thematic imperfectives of Indo-European has a clearly negative answer. Anatolian has good correspondences to Proto-Indo-European formations with the thematic suffixes **-ye-* : **-yo-* and transitives (causatives) in **-éye-* : **-éyo-*, in addition to athematic root stems, athematic stems with the nasal infix and suffixes.³³ But Anatolian has no cognate counterpart of the Proto-Indo-European simple thematic suffix **-e-*, as in, e.g., PIE **áǵ-e-ti* 'drives, does' > Ved. *ájati* : Gk. *ἄγει* : Lat. *agit* : OIr. *agid* : Arm. *acē* : Toch. B *āśām*, alternating with **-o-* as in Gk. *ἄγουσι* : Lat. *agunt*, etc. Most of the roots that can be reconstructed for Proto-Indo-European as originally forming full-grade simple thematic presents have not been found in Anatolian, e.g., **ag-* above, **tres-* 'tremble' > Ved. *trásati* : Gk. *τρέει*, **dheg^h-* 'burn' > Ved. *dáhati* : OCS *жежеть* < **dežetī* : Lith. *dēga*, **pek^h-* 'cook' > Ved. *pácati* : Lat. *coquit* : OCS *печеть* : Lith. *kēpa*, **yebh-* 'fuck' > Ved. *yábhati* : Russ. *ебѣть*, **weǵh-* 'transport' > Ved. *váhati* : Lat. *uehit* : OCS *вежеть* : Lith. *vėža*, **seǵh-* 'hold' > Ved. *sáhate* : Gk. *ἔχει*, **tyeg^h-* 'shrink from' > Ved. *tyájati* : Gk. *σέβεται*, **bheg^h-* 'flee' > Gk. *φέβεται* : OCS *бѣжеть* : Lith. *bėga*, **leg-* 'gather' > Gk. *λέγει* : Lat.

³³On these see Oettinger 1979 and some discussion in this chapter.

legit, **med-* ‘mete out’ > Gk. μέδεται : Goth. *mitiþ*, **nes-* ‘return’ > Ved. *násate* : Gk. νέεται : Goth. *-nisip**, **mesg-* ‘immerse’ > Ved. *májjati* : Lat. *margit*, **pleu-* ‘move in water’ > Ved. *práivate* : Gk. πλέει : Lat. *pluit* ‘rains’ : OCS плoвeтъ, **dheu-* ‘run’ > Ved. *dhávate* : Gk. θέει, **sreu-* ‘flow’ > Ved. *srávati* : Gk. ῥέει, **eus-* ‘sing’ > Ved. *ósati* : Gk. εὔει : Lat. *ūrit*, **perd-* ‘fart’ > Skt. *pardate* : Gk. πέρδεται, **leudh-* ‘grow’ > Ved. *ródhati* : Goth. *liudip*, **wert-* ‘turn’ > Ved. *vártate* : OLat. *uortit* : Goth. *wairþip*, **serp-* ‘creep’ > Ved. *sárpati* : Gk. ἔρπει : Lat. *serpit*, **bheidh-* ‘trust’ > Gk. πείθει ‘persuades’ : Lat. *fīdit* : Goth. *beidiþ* ‘waits’, **welk-* ‘pull’ > Gk. ἔλκει : OCS влѣчетъ : Lith. *velka*, **gheu-* ‘call’ > Ved. *hávate* : OCS зoвeтъ.³⁴

Of the seven Anatolian stems whose Indo-European cognates build simple thematic presents,³⁵ four are athematic root stems (two also build a *-*ye-* stem), two are *-h̥hi-* conjugation stems (one apparently a root stem and the other an *-i-* stem), and one is attested only as a (de-nominative) **=a-ye-* (< **=o-ye-*) stem.

Only one of the athematic five, namely *ḫu-e-eš^{mi}* / *ḫu-i-iš⁺* / *ḫu-uš⁺*, and one *-h̥hi-* conjugation stem, namely *píd-da-a⁺* / *pīt-ti-i(a-a)⁺*, have Proto-Indo-European simple thematic present stems as cognates. The other three athematic *-mi-* conjugation stems—Hitt. *ars^{mi}* ‘rush, run,

³⁴Professor S. A. Starostin, in a conversation of October 26, 1996, suggested that some of the roots listed here, especially those of the TVT shape (such as **dheg^h-*) may have been *lost* in Anatolian for phonotactic reasons, i.e., for the same reasons that were accountable for the rise of the PIE full-grade simple thematic class (see my arguments in Chapter 5, §8). But there are TVT roots (such as *dakk^{hhi}* ‘look like’) and a great number of S/UVT roots which show that there was no phonotactic prohibition against them and that the relevant roots, had they existed in PIH, could have easily been accommodated in Anatolian, particularly in the *-h̥hi* conjugation which solved phonotactic and apophonic problems without difficulty (see Chapter 5 and Excursus III). Phonotactics was thus not a factor that could have motivated the lexical loss; rather, the words with the roots in question were a PIE import.

³⁵The occurrence of an Anatolian cognate of PIE **sek⁻* (> Ved. *sácate* : Gk. ἔπεται : Lat. *sequitur* : Goth. *saiþ^{ip}* ‘sees’ : OIr. *sechithir* : Lith. *sēka*), possibly found in HL 21 *pa-sà-kwi/a⁺* ‘to neglect’ and in Hitt. I.34 *pa-aš⁻ku-i-i⁺* ‘id.’ borrowed from Luwian if the preceding is correct (see p. 212 above for more information), is still far too uncertain, in my view, to be of use here.

flow' (with Hitt. *arsye*^{-mi} : Luw. *arsya*- as its secondary stem), *guls*^{-mi} 'draw, write', and *ispart*^{-mi} 'run off, escape' (with the secondary *ispartye*^{-mi} attested only in Late Hittite) and the athematic *-hhi*-conj. stem *ne*-(*e*-)*i*+ / *na*-(*a*-)*i*+^{hi} 'turn (tr.); draw (a sword)' have simple thematic cognates only in Indo-Iranian.³⁶

In the next chapter I will deal with each of these stems in detail, in order to shed some light on the origins of the Indo-European full-grade simple thematic presents and the formally related subjunctive. What is already clear, however, is that, in the absence of any credible simple thematic stems in Anatolian, we have to infer that it is the extra-Anatolian Indo-European that innovated by creating simple thematic paradigms for the roots attested in Anatolian (Proto-Indo-European in the instance of **ǵwés-e-ti* and Proto-Indo-Iranian or just Indic alone for the rest of the roots, see Chapter 5) as well as by introducing a considerable number simple thematic present stems (including roots) not attested in Anatolian, and by creating a new category, namely, the subjunctive morphologically identical with the simple thematic present formation, and that Anatolian therefore preserves the older state of affairs.

Holger Pedersen's statement in the introduction to his *Hittitisch und die anderen indoeuropäischen Sprachen* (1938: 12) is still worth recalling: "...nur gemeinsame Neuerungen der zehn [counting, as Pedersen did, Baltic and Slavic as separate subgroups within IE—A.L.] lebendigen [indoeuropäischen] Sprachzweige [können] sie dem Hittitischen gegenüber als eine Einheit charakterisieren." The class of simple thematic imperfectives of Proto-Indo-European is one such shared innovation.

³⁶The etymology of Homeric ἔπρε, etc., is too uncertain to be of use; see Chantraine 1948: 136 and Frisk 1973: 566.

THE ORIGINS OF THE FULL-GRADE SIMPLE THEMATIC PRESENTS AND THE SUBJUNCTIVE IN PROTO-INDO-EUROPEAN

§1. H. Eichner, in his important essay "Die Vorgeschichte des hethitischen Verbalsystems" (1975a), charges the advocates of the Indo-Hittite theory with the task of showing exactly how the complex Proto-Indo-European verb system was built up on the significantly different Indo-Hittite foundation: "Wer im Rahmen des 'indohethitischen' Verwandschaftsmodells eine 'urindohethitische' Grundsprache annimmt und ihr ein dem Hethitischen ähnliches Kategoriensystem zuschreibt — ohne Konjunktiv, Optativ, Dual, Präsens-Aorist-opposition, voll ausgebildetes Perfekt usw. — hat die Aufgabe zu zeigen, wie sich aus diesem System . . . das von den außeranatolischen Sprachen gemeinsam vorausgesetzte Verbalsystem in plausiblen Entwicklungsschritten herausgebildet haben kann" (op. cit., p. 73). In this chapter I shall accept this challenge, at least in the part that is of special concern to me, and attempt to show why and how the full-grade simple thematic present formation and the subjunctive, grammatically identical with it, were created in Proto-Indo-European.¹

To begin with, I shall focus specifically on the four roots which form their present stems with the simple thematic suffix in Indo-European but take the zero suffix or the suffix **-ye-* or both in Anatolian (see Chapter 4, end of §10). It seems to me that a comparative and historical investigation of the stems based on these crucial roots may finally shed light on the problem of the origin of the simple thematic inflexion in Indo-European. Just as I did at the outset of this study, I continue to emphasize that an investigation of formative suffixes alone is inadequate because these suffixes exist only in connexion with their roots. The choice of a root uniquely determines the choice of the suffix which, taken together with the root in the appropriate shape, determines the choice of the endings. It goes without saying that the speaker's (writer's, etc.) meaning within the given context determines,

¹For a completely different interpretation, cf. Barschel 1986, who believes, with Oettinger 1979 *passim*, that Hittite had inherited simple thematic stems.

at the outset, the entire word. Disregarding the determining relation of root and suffix leads to the absolutization of grammatical abstractions (which “roots,” “suffixes,” and “endings” certainly are) at the expense of actual words.² This results in a state of “virtual reality,” in which disconnected bits and pieces of words are floated about and spliced together in “virtual” protoforms, as eristically needed and with no commitment to the historical accuracy of the reconstruction. The inevitable consequence of this post-modern approach³ is the ultimate arbitrariness of analysis and the mere non-probative suggestiveness of explanations, in other words, the inability of explanations to explain. If one does not know the etymology of a root, in other words, if one cannot prove the likelihood of a root’s origin, how can one claim even to “suggest” what the suffix was? The only certain foundation for comparative and historical grammar has always and uniquely been the knowledge of as great as possible a number of plausible etymologies of *whole words*, on the basis of which *only* the analysis into roots, suffixes, etc., can be meaningfully performed.

It must thus be emphasized that, on a morphosemantic level, *each word has its own history* (assuming, of course, the unconditional accept-

²I regard the problem of thematic and athematic endings of Indo-European as essentially solved by Warren Cowgill (1985) with whom I am in complete agreement concerning the original identity of both sets of endings. Those who (like Hart 1990) gloss over Cowgill 1985 without comment and settle again on the no longer tenable views expounded in Watkins 1969: 66, 100 ff., 108 ff., in my view default by so doing.

³E.g., Melchert 1992d: 33: “I stress that I attribute no great significance to them [etymologies of verbs—A.L.]. My emphasis will be on reconstructing stem types, not individual lexical items, and my account of the verbal endings stands or falls on the plausibility of the former, not the latter.” Compare this programmatic statement with the epistemological status of the results, acknowledged by the author in the same essay (p. 54): “. . . the dearth of solid root etymologies (the result of our imprecise grasp of synchronic meanings), leads to a greater degree of arbitrariness in our historical analysis than we would like. Nevertheless, starting with historical phonological rules most of which are independently motivated, we have arrived at Lydian preforms whose phonological shapes *suggest, although they do not prove* [italics mine—A.L.], derivation from well-established PIE. and CA. morphological types.”

ance of the Neogrammarian principle of the regularity of sound correspondences: the level of *word history* as such is strictly speaking a *morphosemantic* level); that is, each morphosemantic complex of stem (prefix, root, and suffix) and endings has to be traced individually and on its own merits. A piece of evidence given by one stem cannot be arbitrarily summoned to stand in for another. For example, it is incorrect, as Karl Hoffmann did in his 1968 study (which is often quoted as if it were the final verdict⁴) to dismiss the evidence provided by Vedic *rócate*—namely, that it is matched by the 10th-class active *rocáyati*—and supplant this evidence with the reconstructed prototype of an unattested stem (**léuketi*) just because an unrelated Vedic stem, *várdhate*, is matched by the 1st-class active *várdhati*. The ultimate reason for this substitution is the need to explain Hitt. *lu-uk-ki-iz-zi*. The researcher has already come up with a prototype for the Hittite form (i.e., **léuketi*); all that he needs to do is to reject the attested Vedic form (*rocáyati* < **loukéyeti*) in favor of the needed unattested one (**rócati*, like *várdhati*). As a result, the *explanandum* (Hitt. *lu-uk-ki-iz-zi*) is used as its own *explanans* in what is a disguised circular argument.

If there is any hope of discovering how and why the simple thematic imperfective class of Indo-European (and with it probably the subjunctive mood) came into being, we should concentrate on the history of the *words*—that is, the morphosemantic complexes of stem and endings—whose etymologies are reasonably well known and which, *ceteris paribus*, differ in only one characteristic, namely the presence of the simple thematic suffix in Indo-European, inferred from the historically attested evidence of specific words, vs. its absence in Anatolian, inferred in the same way.

§2. Hittite *lu-i-iš-* + / *lu-e-eš-* + / *lu-uš-* +^{mi} has been widely recognized, since Kuryłowicz 1927: 102, Sturtevant 1933: 75 and Couvreur 1937: 120 ff., as the cognate of Ved. *vásati*, YAv. *varha'ti*, and Gothic *wisip* (see also Oettinger 1979: 91, Puhvel 1991: 341, and Melchert 1994a *passim*). There are also those who are, for various reasons, skeptical (Tischler 1983: 264-8) or negative with regard to this connection

⁴See, e.g., Eichner 1975a: 84, Oettinger 1979: 273, Barschel 1986: 7, Gotō 1987: 274, to name but a few. Gotō's uncritical acceptance of Hoffmann's view is particularly striking since the Vedic evidence presented by him contradicts Hoffmann's opinion so clearly.

(Kimball 1983: 68 ff. and especially Weitenberg 1984: 103-112).

Proto-Indo-European **awés-e-ti* may be reconstructed with relative certainty, even if the Greek evidence, needed to corroborate the Indo-Iranian (Germanic *wisip* could conceivably be a subjunctive used as a present, cf. Goth. *qimip* < **g^hém-e-ti* on which see §11 below) is indirect: granted that Hom. aor. *ἄεσα* < **ἄεσ-σα* is likely to be based on **ἄει* < **awés-e-ti* according to the same model as *ἔτρεσα* < **ἔτρεσσα* based on *τρεῖ* 'flees in fear' < **tréseti* (cf. Risch 1974: 248 [§98]). Hom. *ιαύω*, unparalleled anywhere else in IE and thus clearly a Greek innovation, whatever its origin in Greek,⁵ was created (on the model of *ιάλλω*, *ιάχω*, note the zero grade of the root in *ι-αύ-ω* < **-aus-*, cf. Peters 1980: 37 f.) to replace the inherited **ἄεω* < **awés-ō* ravaged by sound change. I do not see any compelling philological reason to believe that the aorist *ιαύσα* is any later or more innovative than *ἄεσα*, *pace* Peters 1980: 35: both are innovations of about the same Homeric age and purpose, judging by their attestations. Nor can I accept Barton's reconstructions (1988: 52 ff.). Barton posits PIE "**h₂éuh₁-*" as the original telic *forme de fondation* meaning "something like 'participate in the spatio-temporal process', whence 'be, dwell, live, pass (time)'" (op. cit., p. 54 n. 31), to which is formed, by means of a stative **-es-*, the PIE atelic "**h₂u(h₁)-es-*, which lies behind the *uncharacterized* presents of Hit. *hwišzi*, Skt. *vasati* 'dwells', Gmc. **wesan* 'be'" (op. cit., p. 54; note that both Ved. *vás-a-ti* and Gmc. **wés-i-p* are of course characterized—by means of the thematic suffix— compared with the

⁵Barton's laryngitis-stricken "PIE protoforms" "**h₂ih₂éuh₁-ti* > **h₂ih₂auh₁-ti* > **h₂ih₂au(h₁)-e/o-*" (loc. cit., p. 53) are based on nothing but Greek. (Note, besides, the sudden appearance of the thematic suffix, which Barton does not explain.) His evidence for positing a root with the final **h₁* is circular: he needs to explain the **e* of *ἄεσα* which he wants to connect with Armenian aorist *agay* (prs. *aganim*)—which is more likely to go back to a form with an **s* instead of Barton's **h₁*—and thus takes back to Proto-Greek telic **awe-*; that way the desinential *a* of *agay*, if it is to match Gk. *ε*, can only have come from **h₁*. Yet when this **h₁* becomes inconvenient—because it would cause ***uvasa-* instead of *vasa-* to appear in Vedic—Barton simply parenthesizes it. Arm. *agay* next to *go-m* remains enigmatic, the two-way correlation of aorists like *agay* with presents like *aganim* (*meranim meray*, etc.) makes the vowel an unreliable witness; but these are internal Armenian *problems* which cannot contribute anything constructive or elucidating to a discussion of PIE.

Hittite.). Barton's ultra-reductionist approach, with the help of the laryngealist algebra, creates more problems than it knows how to solve.

The Hittite stem itself is not problem-free, but the problems are genuine, not invented. The MH writings such as act. prs. sg. 3 *ḫu-i-iš-zi* (VI 46 IV 9), pl. 2 *ḫu-i-iš-te-ni* (LMH KUB I 16 III 37) show =i-i= instead of the expected **ḫu-e-eš-zi* (but cf. half-logographic writings such as LMH TI-eš-zi XV 30 III 5, LVII 116 Vs. 18), **ḫu-uš-te-ni*; LMH KBO XII 81 II 5 sg. 3 *ḫu-uš-zi* shows the zero grade instead of the expected *e* grade which does occur in LOH act. imp. sg. 2 *ḫu-e-eš*. The historical value of the testimony of this latter form is greatly enhanced by the fact that the context is clearly an ancient greeting formula (as per Weitenberg's comment, 1984: 108: "Es ist hier zweifelsohne eine Grußformel gemeint"): ⁹UTU-uš *ḫu-e-eš* LOH XXXI 127+ I 56 'O Sun-god, live!' This form, then, is likely to preserve the oldest shape of the root, and does therefore confirm that the historical-comparative expectations for the inherited "strong" shape of the root are justified.⁶

The forms with *i*, while clearly innovative, beg to be explained. I do not know of a completely satisfying explanation for these and will propose my own below; but the lawfully expected zero-grade form of the root, viz. *ḫu-uš-*+, is certainly attested in such derivatives as the causative act. imp. sg. 2 *ḫu-uš-nu-ut* 'bring to life, revive' OH KBo III 36 I 9, *ḫu-uš-nu-ut-ten* LOH XXXI 64 II 14, OH *ḫu-šu-wa-an-d+* StBoT 25 No.4 Vs. II 14', *ḫu-šu-wa-an-za* ibid. No. 112 Vs. II 4' (the participle of Class III.2 *ḫu-(u-)i-šu-(ú-)e-/i+*, a -*ye*-denominative of *huišu-* '(a)live; fresh, raw'); sg. 3 LMH *ḫu-uš-zi* also points to the zero grade's role in the reshaping of the paradigm.

In a thorough discussion, Weitenberg 1984: 103 ff. seeks to establish that the Hittite root stem *ḫu-i-iš-*+/ *ḫu-e-eš*+/ *ḫu-uš-*+^m is actually a backformation to the causative *ḫu-iš-nu-u+*+/ *ḫu-uš-nu-u+* based on the adjective *huišu-* (Weitenberg sees the meaning 'raw, fresh' as primary while regarding 'live, living' as only inferrable from its derivatives), which he takes back to Proto-Anatolian **huidy-* ("eine u-Bildung zu einem erweiterem Verbalstamm **huid-y-*," op. cit., p. 107). Weitenberg's motivation in positing this unlikely prototype, which he himself cannot explain any further (op. cit. p. 111: "Eine neue Etymo-

LOH
CTH 8
(ca. 1200 BC)
-aa. xaa
na. 6.129)

⁶I am grateful to Prof. Gary Beckman for the datings of the texts in which these forms occur.

logie vermag ich nicht zu geben”), is utterly commendable: he wants to connect the Hittite word family of *ḫu-i-iš-*+, etc., and its derivatives with Hitt. *ḫu-(u)-i-tar*, etc., neut. ‘fauna; wildlife; cattle’ (gen. *huitnas*, instr. *huitnit*) on the one hand and the Luwian word family based on the stem *huit-* (such as *huidwali-* ‘alive’, *huidumar* ‘life’, *hu(i)tum-(ma)nahi* ‘vitality’), “den man als verbal betrachten kann” (op. cit., pp. 109-110).

I find Weitenberg’s theory completely unacceptable because of (1) the peculiar *-y*-extended verbal stem (athematic?) “**huid-y-*” on which, (2) incredibly, an *-u*-stem adjective would be based. It is from this *huisu-* < **huid-y-u-*! that the *hu(i)s-nu*-causative would be formed. The merit accumulated by connecting Hitt. *huis-* and Luw. *huit-* vanishes completely because of the totally improbable fashion (two *ad hoc*, mechanistic protoforms) in which this connection is made, in addition to the fact that the Anatolian prototype (**huid-y-u-*) is unintelligible.

Hitt. *hues*⁻^{mi} (which is how I shall normalize the stem *ḫu-i-iš-*+/ *ḫu-e-eš*+/ *ḫu-uš-*⁺^{mi} from now on) and Luw. *huit*⁻* (not attested as a verb stem except in derivatives) cannot be connected, and there is no pressing need to connect them. Yet there is a need to explain the form *ḫu-i-iš-*⁺ which replaces both *ḫu-e-eš-*⁺ and *ḫu-š-*⁺ in the later variants of Hittite.⁷ This form may be explained as the former full-grade form (*ḫu-e-eš-*⁺), used in place of the inherited zero-grade form in a late attempt to simplify the ablauting paradigm (cf. my discussion of the similar motivation for the rise of the acrostatic presents in PIE below), with *e* > *i* in the pre-accentual position (e.g., in *ḫu-i-iš-te-ni*); on the Hittite change of the pre-accentual **e* to *i*, not clear in all its details but indisputable, see, e.g., Melchert 1994a: 101. The inherited zero-grade form used in the MH 3 sg. *ḫu-uš-zi* KBo XII 81 II 5 testifies to the other direction of the leveling (more productive in Hittite, as we shall see), also put to use in the language of the Empire (LH).

Luwian *huit*⁻, etc., then, cannot be related to Hittite *hues*⁻^{mi} also because of the vocalism: Hitt. *e* should correspond to Luw. *a* and so the expected Luwian cognate should have been **huat*⁻.

It appears therefore that there is no reason to doubt the affinity of Hittite *hues*⁻^{mi} : *hus-* ‘be alive’ (Proto-Anatolian **Hwés-* : **Hus-*) and

⁷*ḫu-i-iš-*⁺ cannot have the original vowel because the form *ḫu-š-*⁺ would then become inexplicable since there is no syncope of the inherited *i* in Hittite.

PIE **ǵwēs-e-ti*. This stem is the only relatively secure example of the correspondence of a Hittite root-stem (athematic) formation to a Proto-Indo-European simple thematic present. The Indo-European simple thematic counterparts of Hitt. *ars-mi* 'run, rush', *guls-mi* 'draw, write', *ispart-mi* 'run off, escape', which I discuss below (§§3-5), are attested in Indo-Iranian only, and therefore, for these roots, simple thematic presents cannot be reconstructed on the Proto-Indo-European level; these full-grade simple thematic present stems constitute, strictly speaking, Indo-Iranian innovations which merely testify to the productivity enjoyed by the formation in the Indo-Iranian branch.

It is significant that Proto-Indo-European, judging by the forms attested in its daughter languages, did not have a root perfective ("aorist") to match the simple thematic imperfective ("present") stem. Vedic has no aorist at all for its *vās-a-ti*, while Homeric has a newly formed **-s-aorist* *ἄεσα* < **ǵwēs-s-ṃi* (not **ǵwēs-s-ṃi*). The significance of this fact in this particular case is that the simple thematic stem for the PIE root **ǵwēs-* had no aspectual role to play, quite unlike the other present formations. Vedic *spārdhate* (next to the root aorist *aspr̥dhran*) is, as we shall see, an Indic innovation and has nothing to contribute to a discussion of the PIE situation. The full implications of the aspect-free nature of the simple thematic suffix will become clear as we discuss the origins of the subjunctive.

§3. Hittite (Chapter 2, I. 27) builds two stems from the root *ars-*: the root stem (*a-*)*ar-aš-*+^{mi} 'run, rush, flow' and the *-ye-* stem *ar-ši-(i-)e-(i=)*+ : *ar-ši-ia-a*+^{mi} 'id.'. That the two stems mean roughly the same is clear from their contexts (HW2: *arš(iia)-* p. 341 f.); the likely aspectual difference between them is signaled by the consistent use of the particles *asta* and *kan* with the root-stem formation and the equally consistent absence of particles with the *-ye-* stem formation (see discussion in lemma). This Hittite *-ye-* stem is perhaps matched by CL 24 *a-ar-ši-ia-a*+. Thus two verbs may be reconstructed for Proto-Anat.: **ers-ti* (: **ars-anti*), a telic root stem, and **ars-ye-ti*, an atelic **-ye-* stem based on it.

The Hittite root stem generalized the zero-grade shape of the root: instead of the expected **(e-)ir=* it shows *(a-)ar=* in the "strong" forms (cf. *ku-e-ir-šu-un* LOH KBo X 2 II 48 prt. sg. 1 'I cut', *ku-e-ir-zi* 'cuts' : *ku-ra-an-zi* 'they cut', *ku-en-zi* 'kills' : *ku-na-an-zi* 'they kill', *ir-ḫa-aš*

'boundary, outside' : *ar-ḥa* 'out' adv. from the "directive" of the preceding,⁸ in all of which the alternation "e grade : zero grade," familiar also from Proto-Indo-European, is vigorous). The generalization is most likely to have occurred based on the weak (zero-grade) forms in the root-stem paradigm (cf. prs. sg. 3 *ḥu-uš-zi* above).

The only indisputable Indo-European cognate is attested in Vedic which shows two simple thematic presents based on the root *ṛṣ-* 'rush; butt': the full-grade simple thematic (1st-class) stem *árṣati* meaning 'gush, dart out, rush, flow', see Grassmann 1964: *arṣ* 119 f. and Gotō 1987: 104 f., and the zero-grade simple thematic (6th-class) stem *ṛṣ-á-ti*, etc., 'fill up (as with water)' (with *ni*), 'butt (with horns)' (with *ud*), see Grassmann, op. cit., *ṛṣ* 292b.⁹ This 6th-class stem, basically transitive compared with the basically intransitive 1st-class stem, is likely to be a Vedic innovation created on the basis of the root-present 3. pl. *ṛṣ-ánti* resegmented as *ṛṣ-á-nti*.¹⁰ This shows a basic creative morpho-semantic mechanism at work: a new paradigm is created on the basis of the purely formal inherited peculiarity of the athematic 3rd person active present desinence beginning with a vowel, unlike the rest, in order to be pressed into service as a makeshift transitive. The inherited paradigm also cannot remain the same, once *ṛṣ-ánti*, its important member, has been "pulled out" into the new paradigm: it is remodeled on the basis of the full-grade root *árṣ-* provided by the "strong" forms of the old root-stem paradigm, and the "buffer" suffix *-a-* which does not carry any imperfective or any other, e.g., causative, meaning (as

⁸Cf. a different interpretation of *irha-* : *arha* in Puhvel 1984: 135.

⁹A close examination of Vedic contexts has shown that Whitney (1885: 16) was right in regarding the two present formations as belonging to the same root yet wrong in not differentiating the distinct meanings of the two, whereas Gotō 1987: 105 is wrong in treating them as belonging to two different homonymous roots.

¹⁰Compare the other Vedic 6th-class transitives that match the 1st-class stems either as transitives or as "double transitives" (factitives), listed in Gotō 1987: 57 f.: *tár-a-* 'pass through' : *tir'-á-* 'bring through, make pass', *várs-a-* 'rain' : *vṛṣ-á-* 'pour, shoot'; also *kárs-a-* 'pull, drag' : *kṛṣ-á-* 'plough' with specialized meanings. Note also that this root does not have a root aorist to contrast with the simple thematic presents.

proved by the vast majority of full-grade thematic presents) comes into play. This buffer suffix is readily available from the PIE simple thematic stems such as **bhéreti*, **wégheti*, etc., as well as from a number of old remakes (such as the PIE thematized reduplicatives, e.g., **sí-zde-ti* surely from **sí-sed-ti*, see §10 below).

The reinterpreted and henceforth otherwise occupied *ṛsánti* is replaced with *árṣanti* (using *árṣ-* from the old “strong” forms; see also the discussion in §10 below), and the new Vedic simple thematic paradigm is built up. Thus the two root shapes from the same root-stem paradigm become the bases for the two new simple thematic paradigms, one transitive and the other intransitive:

- (1) *ṛṣ-á-nti* → (2) *árṣ-a-nti*
ṛṣ-á-ti, etc. *árṣ-a-ti*, etc.

§4. Hitt. *guls-^{mi}* (see Oettinger 1979: 202 ff. for attestations, discussion, and etymology) < **k^wṛs-*, *gul-aš-zi* [*kulstsi*] the generalized zero grade for **k^wṛs-ti* : 3. pl. *gul-ša-an-zi* < **k^wṛs-ónti* (there is no evidence for an athematic *e*-grade ending **-énti* in Anatolian) corresponds to two simple thematic presents in Vedic: 1st-class *kárṣ-a-* ‘draw, pull’ and 6th-class *kṛṣ-á-* ‘harrow, plough’. Young Avestan has *karəša-* < **kṛṣá-*, the zero-grade simple thematic stem (the full-grade form would have given **čarəša-* < **čarša-* < **k^wṛlse-*, cf. the discussion of the Vedic 1st-class form below). There are no other simple thematic formations to this root in any other Indo-European branches. We may with great certainty infer from this fact that the “6th-class” simple thematic *kṛṣ-á-* ‘plough’ is an Indo-Iranian innovation, created along the lines outlined in §3. The 1st-class simple thematic present exists only in Indic, which indirectly corroborates the scenario of the relatively late formation of the full-grade simple thematic present in Vedic, outlined in §3. The same scenario may be inferred for *kṛṣ-á-* and *kárṣ-a-*; note also the close resemblance of the two stems which may have played a part in the course of the innovations. The late, purely Indic origin of the 1st-class stem *kárṣ-a-* is further proved by the very shape of this stem: *kárṣati*, with *k*, instead of the lawfully expected **čárṣati* (< In.-Ir. ***čárṣati* <

****k^wéls-e-ti**).¹¹ The form *káršati* becomes intelligible only if we start from the inherited **kṛš-ánti*. This paradigm had excellent reasons to be remodeled; the inherited root-stem forms must have been as follows:

act. prs. sg. 3 **éárš-ti* < **k^wéls-ti* : pl. **kṛš-ánti* < **k^wéls-é/óni*

The new 6th-class paradigm was constructed in Proto-Indo-Iranian to replace the old root-stem paradigm:

**kṛš-ánti* → *kṛšá-nti*
kṛšá-ti,
 etc.

Subsequently, in Indic alone, a new full-grade (1st-class) paradigm was created, based on the new 6th-class paradigm.

Gotō 1987: 113, in contravention of the available evidence, projects the Indo-Iranian innovation into Proto-Indo-European and into Hittite by assuming that it was Hittite that remodeled PIE simple thematic **k^wéls-é-ti* into a root stem: “*gul-aš-zi* [*kulšzi*] statt **kulšezzi* aus 3. Pl. *gulša-an-zi* < **kulsanti* < **k^wéls-o-nti*.” But even if the parent of Anatolian had a form like **k^wéls-é-ti*, which is unlikely, it is not at all clear why Hittite would give up **kulšezzi*, had it existed, in favor of an athematic [*kulšzi*]. Not even Oettinger, who posits in Hittite an inherited zero-grade simple thematic presents class (1979: 314 *passim* and cf. my Chapter 4), can deny the attested evidence in favor of a ghost, and duly lists the stem as an athematic root present (op.cit., p. 202 ff.).

§5. Hitt. *ispart*.-^{mi} ‘escape, run off’ (and *ispartye*.-ⁿ attested only in the Late texts), on which see Oettinger 1979: 194-195 with attestations, discussion, and lit., is matched in Vedic by the 1st-class present *spárdh-a-te*, the only IE simple thematic present-forming root among those attested in both IE and Anatolian that has a matching root aorist in Vedic (see Gotō 1987: 334). Hittite generalized the zero grade of the root (*ispart*- instead of the expected **ispert*- in “strong”

¹¹Each of the roots such as *kar*, *garh*, *kalp*, etc., must be investigated and evaluated on its own merits. See Wackernagel 1896 (I): 145 and cf. Gotō 1987: 113.

forms) and, as we have seen in *ars-*, *guls-*, and possibly *huēs-*, got rid of the inherited alternation by favoring the zero-grade variant of the root.¹² Although a plethora of cognates exists in other IE branches (see, e.g., Pokorny 1959: 995), only Indic has a full-grade simple thematic present stem. The Hittite root stem *ispart-^{mi}* and the Vedic root aorist (as in *aspr̥dhran*) agree in showing the root to have been telic (i.e., inherently perfective) originally, and the Hittite *-ye-* stem to this root, although attested late, may well reflect an earlier Hittite attempt to create an atelic counterpart. Gotō (1987: 334) explains the consistent middle voice of both *sp̥ardh-a-* and aor. *sp̥rdh-* as “reziprok”: all the contexts refer to or imply contestants vying (running) against each other.

Clearly, no PIE ***sp̥rdh-e-* can be reconstructed, and since the Iranian sister branch of Indic shows no simple thematic formation, Vedic *sp̥ardhate* has to be regarded as an Indic innovation.

§6. Eichner (1975a: 84, 91) regards Hittite *ne-(e)-i+* / *na-(a)-i+*^{hhi} ‘turn; draw (a sword)’ (with the matching mediopassive *ne-e-^a*, viz. prs. sg. 3 OH *ne-e-a(-ri)*) as originally simple thematic: “themat. Präs. **nejh-e-t* (wie im Indoiranischen)” (op. cit., p. 84). Oettinger seconds this view, assuming for some reason, as does Eichner, that the Indo-Iranian full-grade simple thematic stem attested in Vedic *nāya-te*, *nāyati* ‘leads’ is probative (1979: 482). The circularity of their reasoning becomes apparent in Gotō’s treatment of the Vedic 1st-class stem **náy-a-* (Gotō 1987: 197): beside Indo-Iranian (OPers. mid. ipf. sg. 3 *a-nay-a-tā*, YAv. *naiia-*), the stem is not attested anywhere else in Indo-European, and Gotō posits the Proto-Indo-European age for the simple thematic stem to this root relying solely on the authority of Eichner’s and Oettinger’s statements about the Hittite stem (loc. cit.):

→ got *nejh-e-t*
 aor *ne-e-a(-ri)*
 prs. sg. 3 *ne-e-a(-ri)*
 mid. ipf. sg. 3 *a-nay-a-tā*
 YAv. *naiia-*

¹²Oettinger’s inference that Hitt. “*ě* > *ǣ* vor Resonant + Konsonant” is false, cf., e.g., OH act. prt. sg. 3 *me-ir-ta* ‘disappeared’, MH prs. *me-ir-zi* < **mer-ti*, OH *ku-e-en-zi* ‘slays’ < **g^hhen-ti*. Paradigmatic leveling in Hittite clearly favored the zero grade; there had to be a good phonetic reason to keep the inheritance. These examples also falsify Melchert’s conviction “that PA short **/eN/* becomes */aN/* before a dental” (Melchert 1994a: 134 f.). Hitt. *anda* = Lyc. *ńte* do not have to come directly from **endo* but may well be from **nd-ó*, cf. Hitt. *arha* clearly from *irha-s* ‘border’, i.e., **érH-s* : **r̥H-ó* (pace Puhvel 1984: 135).

“Die Stammbildung ist urindogermanischer Herkunft, vgl. jav. *naiia-*, ap. *naya-*, heth. z. B. 3. Pl. *nēanzi* (*nejanzi*) < **nejh-o-nti* (s. Eichner Flexion und Wortbildung 91, ds. MSS 31 77, Oettinger Stammbildung 460, 481f.).”

An examination of the Hittite stem clearly shows that there is nothing thematic about it. The attested paradigm in the older Hittite (OH, M/LOH, MH), see Oettinger 1979: 74 f., leaves one puzzled as to why Oettinger ends up by normalizing the stem as “*niye-*”: act. prs. sg. 2 *na-it-ti* M/LOH, MH, 3 *na-a-i* LOH, pl. 2 *na-iš-ta-ni* MH, 3. *ne-e-an-zi*, *ne-ia-an-zi* MH, prt. sg. 1 *ne-e-iḫ[-ḫu-un]* OH, *ne-iḫ-ḫu-un* M/LOH, MH, 3 *na-i-iš* OH, *na-iš* MH, pl. 3 *na-i-ir*, *na-a-ir* M/LOH, imp. sg. 2 *na-i* MH, 3 *na-a-ū* MH, pl. 2 *na-iš-ten* MH; mid. (“stative”) prs. sg. 3 *ne-e-a-ri* OH, MH, *ne-e-a* OH, *ne-e-ia* MH, prt. sg. 3 *ni-ia-ti* M/LOH, pl. *ne-ia-an-ta-ti* M/LOH, imp. sg. 2 *na-iš-ḫu-ut* MH, pple *ne-e-an=* OH, MH, *-ske*-stem *na-a/i-iš-ki=* MH—the stem “*niye-*” cannot be justified by any of them. Such forms as the third-person plurals *ne-e-an-zi*, *ne-ia-an-zi*, *ne-ia-an-ta-ti*, the participle *ne-e-an=*, and the “stative” prs. sg. 3 *ne-e-a-ri*, *ne-e-a*, *ne-e-ia* testify only for the *e*-grade form, *nēy-*, plus the desinence beginning with *-a=*; to consider this *-a=* as part of the thematic stem is false segmentation, not by the speakers of Hittite but by the scalpel-happy scholars. The Hittite stem is of course athematic and should be normalized as *nē-* / *nāi-* : *nēi-* < PA **nāi-* : **nēi-*, with the intervocalic *y* before the desinences beginning with **-a=* retained through the analogy with the tautosyllabic forms. The Proto-Indo-Hittite root stem should be reconstructed as **nōi-* (**o* grade) : **nēi-* (**e* grade) : **nī-* (zero grade), without any laryngeals (none are attested in Hittite).

It is the Indo-Iranian full-grade simple thematic stem, then, that requires an explanation. Unsupported by the evidence of any other Indo-European branches, it looks like an atelic athematic root stem (cf. the *s*-aorist that goes with it in Indo-Iranian, see e.g. Gotō 1987: 63 for Vedic and cf. Gāthic Avestan act. subj. aor. sg. 3 *naēšaṭ* 31.20c) remodeled in Indo-Iranian—i.e., it looks like an Indo-Iranian innovation. In Hittite, the athematic *-ḫi-* conjugation stem clearly belonged to the acrostatic type, with the *e*-grade shape serving in place of the zero-grade shape in the amphikinetic pattern. This stem’s acrostatic accent pattern may well have been inherited by Proto-Indo-European. On the role of the acrostatic type in the development of the full-grade simple

thematic presents, see §10 below.¹³

§7. Hitt. *-hhi*-conj. prs. sg. 3 *píd-da-a-i* 'flees' LOH StBoT 12, MH KBo XVII 43 I 16', IBoT I 36 III 10, pl. *pít-ti-ia-an-zi* IBoT I 36 II 17, part. ¹⁰*pít-ti-ia-an-t+* 'runaway' is likely based on the same root as PIE full-grade simple thematic active **pét-e-ti*, middle **pét-e-to-*, attested in Vedic *pátati* 'flies', Hom. *πέτεται*, Lat. *petit*. No other forms of this stem have been found so far in the older Hittite, nor do there seem to be attested any extra-Hittite Anatolian cognates; but cf. the OH *-nu*-factive *pít-ti-nu-(u=)*¹⁴ 'abduct' based on the same root.¹⁴

Oettinger assigns this stem to the "II 3 a" subclass of his "*je*-Verben der *hi*-Konjugation" (1979: 472 f.), without specifying, to which of the three types of this subclass—"α" (e.g., *pí-(e-)ih-hé/i*, *pa-a-i*, *pí-(i-)ú-e-ni*, *pí-iš-te-ni*, *pí-an-zi*; *pí-i-e-ir*), "β" (e.g., *te-ih-hé/i*, *da-a-i*, *ti-ia-u-e-ni*, *ti-an-zi*; *da-ir*), or "γ" (e.g., *i-ia-an-na-ah-hé*, *i-ia-an-na-i*, *i-ia-an-ni-an-zi*; *i-ia-an-nir*)—the stem might belong, since the type-distinctive forms are not attested.

The obvious presence of some *i*-suffix in the Anatolian stem, viz. esp. 3 pl. prs. *pít-ti-ia-an-zi* and the substantivized participle ¹⁰*pít-ti-ia-an-t+*, makes it clear that the Hittite stem cannot, in any rational sense, be regarded as simple thematic. It is also clear that the root **pet-* is not in the **o* grade, as are all the root stems in the *-hhi* conjugation, and that it is the suffix that participates in the **o* grade : zero grade apophony:

**pet-oī-e-i* (> *píd-da-a-i*) : **pet-ī-(ont-i)* (> *pít-ti-an-zi*),

where the suffix **i* is underlined and the ending **-ont-i* parenthesized as its continuation in this verb in Hittite is likely a replacement of an earlier **-er-i*, cf. the prt. ending *-er*. The "failure" of the Hittite *t* to

¹³The distribution and morphological role of the accent in the PIE (*rectius* PIH) verb system, broached in Nikolaev & Starostin 1982, merits close re-consideration.

¹⁴Oettinger (1979: 473) clearly prefers the later (LOH) writing *pít-te-nu-uz-zi* to the earlier (OH KBo VI 2) *pít-ti-nu-uz-zi*; cf. also StBoT 25 No. 54 Rs. IV 2' OH *pít-ti-nu-an-zi*. The writing with *ti*, however, should be privileged as the old one.

assibilate before the *i* of the plural forms may well be due to the influence of the singular forms (for the lack of assibilation, cf. also Hitt. *ḫu-it-ti-*+, etc., 'pull' [I.29], and *ti-it-ti-ia-a*+, etc., 'place' [I.39]).

The Indo-European cognate, attested in Vedic, Homeric, and Latin, is clearly a simple thematic present formed to an atelic root that did not form any aorist in PIE. In Indic, the *set*-forms are quite late (see Whitney 1885: 94), whereas in Homeric, a near-homonymous root *πετα-* 'spread (wings, *inter alia*)' is used to supply the aorist *ἔπτато* (see Oettinger 1979: 473 n. 33) alongside the aoristless present middle *πέτεται*. In Homeric this root also forms the reduplicated present *πιπτω* with the *-s*-aorist *πέσε* employed in its paradigm. (On PIE reduplicated presents see §10 below.)

Clearly, the PIE full-grade simple thematic **pét-e-ti* (act.) or **pét-e-to(r)* (mid.) cannot be reconciled with the Hittite *i*-suffixed *-ḫhi* conjugation stem, whatever its origin, except in a trivial and incomplete way, namely, by restating that both are formed to the same root **pet-*.

For a discussion of the Hittite *-ḫhi* conjugation, its Anatolian cognates, its nominal origins, and its relations to Proto-Indo-European, see Excursus III.

§8. It is clear from the preceding survey (§§2-7) that the only productive evidence for a discussion of the stem-forming difference between Anatolian and (extra-Anatolian) Indo-European is found in Hitt. *hues-mi* and PIE **awés-e-ti*. Two explanations of the difference between Hittite and Vedic in forming these stems are possible: (1) Anatolian innovated by losing the suffix **-e-* : **-o-* and by creating a new root present; (2) Proto-Indo-European innovated by replacing the root present with a newly created present stem characterized by the suffix **-e-* : **-o-*.

Explanation (1), in order to work, requires an answer to the following questions: (a) why and (b) how did Anatolian lose the suffix **-e-* : **-o-*? We know that the loss could not have been caused by sound change. Therefore we may explain it only as a morphological change. But we would be hard-pressed to find any motivation for such a change. Gotō, who posited precisely such a change for Hitt. *guls-mi* (see §4 above), could not come up with any (save for the predetermined protoform, not justified by attestations). Stem-characterizing suffixes are hardly ever dropped when they lose their meaning (and we could establish no meaning-carrying role for the suffix **-e-* : **-o-* even in

Proto-Indo-European where none of the full-grade simple thematic present stems pair with a root aorist, unlike the other characterized present stems¹⁵), cf. the present-stem suffixes of Baltic and Germanic, which, after the old aspectual-stem distinctions had been lost, continued their existence as parts of the new tense stems. Thus question (a) remains unanswerable. The technically facile answer to the question (b), given by Gotō in reference to one Hittite stem (see §4), recedes into irrelevance when the crucial question “why” has been answered in the negative.

Explanation 1, then, is unacceptable. Explanation 2 remains the only serious one.

§9. In the sections that follow I will outline a history of the simple thematic stems in Proto-Indo-European. Based on the results of my investigation, I regard it as established that Anatolian did not inherit any simple thematic stems, either those with the zero-grade root or those with the root in the full grade. As I said previously, I am in complete agreement with Cowgill 1985 who argued convincingly in favor of the original identity of the athematic verb endings with the thematic ones, whatever the origin of the PIE 1. sg. act. **-ō*. I will therefore not repeat his arguments against Watkins 1969: 65, 100 ff., and others in that doctrinal line. It is important for the reader to remember only that it is still as impossible as ever to produce the thematic vowel **-e-* : **-o-* from the middle 3rd sg. ending **-o* and that there is no demonstrable systematic connexion between the PIE or Anatolian middle voice and the simple thematic presents.

The explanations of the simple thematic presents with the root in the full grade as the original subjunctives (Risch 1965: 237, Rix 1986: 14 f.) have also been inadequate. No one has yet been able to explain why a perfectly good PIE subjunctive form should lose, in PIE, its subjunctive meaning to become a new indicative present while other subjunctives, identical in structure, continued to function as sub-

¹⁵The PIE verb **bher-* ‘carry’ (prs. **bhér-e-ti*) shows traces of forming an old root present: Vedic *bhar-ti*, GAv. imp. *barətū*, Hom. φέρτε, Lat. *fer fertō ferte* and indic. *fers fert fertis* next to the simple thematic *fero ferimus ferunt* (Szemerényi’s putative solution [1964: 189 ff.] appears superficial); there are no early traces of a root aorist to this root anywhere, *pace* Gotō 1987: 227 and n. 489, with lit.

junctives without replacing their corresponding old athematic presents. H. Rix (loc. cit.) claims that simple thematic stems such as **bhér-e-ti*, **wégh-e-ti*, and **h₂ǵē-e-ti* were originally subjunctives of punctual (i.e., inherently perfective, or telic) roots, meaning generally 'es ist zu erwarten, daß er bringt', reinterpreted as presents ("parontives," in Karl Hoffmann's terminology used by Rix) of thematic secondary roots with the meaning shifted to durative. "Die Umdeutung ist besonders dort leicht vorstellbar, wo die punktuelle Bedeutung der (athematischen) Primärwurzeln verloren ging, wie bei den drei hier genannten Beispielen, zu denen es tatsächlich im Späturindogermanischen keinen Wurzelaorist gibt" (op. cit., p. 15). But there is not a shred of evidence that these roots were ever "punktuell" (telic) and so had root aorists. At the same time, subjunctives to durative roots like **és-e-ti* (to **és* : **s-* 'be') failed ever to become indicative parontives. Besides, the question of the origin of the subjunctive itself remains unanswered.

§10. I believe that the key to explaining the origin of the PIE **ǵwés-e-ti*-class (as I will refer to the formation in question) is an understanding of the necessity—already evident in Hittite and Luwian—to simplify the difficult apophonic patterns in the athematic forms.¹⁶ In Proto-Indo-European there exists one subclass of verb stems in particular that seems to exemplify this trend outside of the simple thematic presents. I am referring to the thematized reduplicated presents **sǵd-e-ti* : **sǵd-o-nti* based on the root **sed-* 'sit' (e.g., Ved. *sīdati* : *sīdanti*, Hom. ἵζει : ἵουσι) and **pib-e-ti* : **pib-o-nti* (e.g., Ved. *pībati* : *pībanti*, Lat. *bibit* : *bibunt*). In the small class of the PIE athematic reduplicated presents there remain only those stems whose roots ended in a long vowel (i.e., **eH* in the laryngealist framework): **dé-dō-ti* : **dé-d(ə)-nti* to **dō-* 'give' (cf. Hitt. *da-i* : *da-an-zi* 'take'), **dhé-dhē-ti* : **dhé-dh(ə)-nti* to **dhē-* 'put, do' (cf. Hitt. *da-a-i* : *ti-(ia)-an-zi* 'put'), **stí-stā-ti* : **stí-st(ə)-nti* to **stā-* 'stand', **g^hi-g^hā-ti* : **g^hi-g^h(ə)-nti* to **g^hā-* 'go'. One PIE stem whose root ended in an obstruent, namely **sí-sed-ti* : **sí-zd-nti* to root **sed-* 'sit', became thematized to **sǵd-e-ti* : **sǵd-o-nti*, most likely

¹⁶This need may well have been caused by the expansion of the use of the language among a population of non-native speakers (certainly a factor for Hittite during the Middle Hittite period and afterwards, and obviously for Proto-Indo-European, judging by the results of its wide distribution by 1000 B.C.).

to replace cluster-laden (and thus less transparent) forms such as sg. 2 **síssetsi*, 3. **síset(°)ti*, pl. 2 **síst(°)te--* with the more transparent correlates **sízdesi*, **sízdeti*, **sízdete--* (with **z* < **s* before **d*), and the like.¹⁷

The model for this remodeling, which is impossible to arrive at through the material of the reduplicated present stems alone, must have been provided by the already available thematic-stem classes (see below). The motivation for the rise of the **ǝwés-e-ti*-class itself must have been similar. This may be illustrated on the exemplary stem of the class, namely **ǝwés-e-ti* itself.

The original present formation to this root was, as we have ascertained, an athematic root (zero-suffix) present of the "amphikinetic" type (PIH **Hwés-ti* : **Hus-ónti*). The acrostatic presents (Narten's "proterodynamic" presents, see Narten 1968) are best explained, as far as their structural motivation goes, as an early attempt to deal with the crippling side-effects of the full-grade vs. zero-grade apophony among atelic (i.e., inherently imperfective) roots beginning or ending with a semivowel (such as PIH **kéi-* 'lie', **kyéu-* 'move', **stéu-* 'utter', **wés-* 'wear (clothes)' or the *shwa* followed by the semivowel, viz. PIE **ǝwés-* 'live, dwell'. [**nēi-* 'to lead', preserved only in Indo-Iranian (see §6 above) should also be added to this list.] Apophony would reduce such roots, in their weak forms, to barely recognizable, hard-to-manage forms, e. g. act. ***stw-énti*, ***ǝws-énti*, midd. ***ky-ó-*, ***kiw-ó-*, ***stw-ó-*, ***us-ó-*, [**niy-ó-*]. The "acrostatic solution" would result in replacing the zero-grade form with the full grade while preserving the quantitative contrast of strong vs. weak forms by lengthening the vowel of the full-grade form: thus, act. sg. **yēC-ti* : pl. **yēC-ṇti*, sg. **Cēi-ti* : pl. *Céy-ṇti*, mid. **yēC-(t)ó-*, etc., or, to put it more abstractly, by making the *e*-grade shape the functional zero grade of the root.

¹⁷Yet another, **té-teḱ-ti* : **té-tḱ-ṇti* to root **téḱ-* 'fashion, make', wound up in the "acrostatic" present class (cf. Narten 1968: 14) in Vedic, because sound change fashioned 3. pl. *táksati* out of **tétḱṇti* with its difficult cluster; the whole stem was then treated as acrostatic, and the inherited sg. **tátastṣi* (< **té-teḱ-ti*) was replaced with *tāstṣi*, on analogy with the plural. Cf. Gk. τέκτων 'fashioner, carpenter', more likely to be based on the old present stem than on an aorist. (In Greek, sound change produced two stems that needed to be kept distinct: τέκτ-- 'fashion' < **té-tḱ-* with the palatal velar and τίκτ-- 'give birth' < **té-tḱ-* with the plain velar.)

This Proto-Indo-European attempt to achieve perspicuity, however, proved only partially successful because it could do little for the roots ending (and, even less so, for those also beginning) in an obstruent. Thus, for PIE roots such as **wēǵh-* 'to transport' or **dhēǵh-* 'burn' (neither found in Anatolian!), whose root presents would have been, respectively, **wēǵh-ti* (and thus perhaps already PIE **wēǵh^hdi*) : **uǵhénti* (2. pl. **uǵh^hdhé-*), **dhēǵh^hdi* : **dhǵhénti* (2. pl. **dhǵh^hdhé-*), the newly formed acrostatic presents would have been 3. sg. ***wēǵh^hdi*, ***dhēǵh^hdi*, 3. pl. ***wēǵh-nti*, ***dhēǵh^h-nti*. The other inconvenient feature of the acrostatic athematic root presents would have been the rare 3rd-person active ending **-nti*, etc., the zero-grade apophonic variant of the **-nt-* endings and participle, existing only in the other similar acrostatic formation, namely in the reduplicative present. The first step in redressing this situation would be to replace the **-nti* with a more frequently encountered apophonic form. This was of course readily available from the thematic stems such as in particular the PIE acrostatic **-ye-present* **(s)pék^yeti* : **(s)pék^y-onti*, inherently acrostatic precisely by virtue of its unpalatable root cluster, reconstructed with complete certainty for the protolanguage on the basis of Vedic, Homeric Greek, and Latin evidence; note besides the 3. pl. **-éyonti* of the **-éy-* transitives, surely of Proto-Indo-European and arguably of Proto-Indo-Hittite age, and the PIH iteratives in **-ske-* which, *pace* Risch 1965, have always been thematic, insofar as the Hittite and Greek evidence attests, and were surely used to form iter-atives from any stem and could thus be unaccented.¹⁸

¹⁸There are certainly enough instances in the deepest reconstructible layers of Proto-Indo-European that cannot be reduced to the standard apophonic formula, in spite of the valiant efforts of some scholars (e.g., Schindler 1967, 1975a on the apophony of **-s-* stems and 1975b on the apophony of **-r/h-* stems). The unaccented PIE 3. sg. perfect ending **-e* (as in **wóid-e*, but also in 1. sg. **wóid-h₂e* and 2. sg. **wóid-th₂e* in the laryngealist rendition) as well as the unaccented full grade of the root in the strong forms of the reduplicated present class has certainly flown in the face of all rigid accent-apophony schemata, as have the **i-* stem common-gender "mesodynamic" plurals in **-éy-es*, the 1. pl. pronoun **wéyes*, and **(s)pék^y-ye-ti* where the **-ye-* suffix is clearly added to the full-grade root already in Proto-Indo-European, based on the evidence of Vedic (*pásyati*) and Greek (*σκέπτεται* < **skep^y-ye-* < **spék^y-ye-*), with Latin support (*specio specit/spicit*). De Saussure's famous set of rules (1879:

Thus reformed, **wéġh-onti* (for **wéġh-nti*, and probably the simultaneously created **sízđ-onti*, **píb-onti*) would start participating in analogic proportions of the classic variety (such as **(s)pékyonti*, **loukéyonti*, **--skonti* : **əwésonti*, **sízđonti*, **wéġhonti* = **(s)pékyeti*, **loukéyeti*, **--sketi* : X, where X = **əwéseti*, **sízđeti*, **wéġheti*. The quantitative variation in the acrostatic type (**əwēs-* : **əwes-*) could thus also be eliminated. The great advantage of the new **əwéseti* class of PIE presents was, obviously, that the root was preserved intact throughout the paradigm, neatly separated from the endings by the “buffer” **-e-* : **-o-*. This device proved so successful that a number of verb roots not known in Anatolian, that is, newly created or borrowed from sources unknown after the separation of the Anatolian branch and before the breakup of the Indo-European branch, i.e., during the common Proto-Indo-European period, were absorbed into this new class. All these roots (see a representative list in Chapter IV, §9) would have been vulnerable to the amphikinetic “é : zero” apophony. Some examples¹⁹: **pét(°)ti* : **pténti* ‘fly’, **pék”ti* : **pk”énti* ‘cook’, **bhék”ti* : **bhg”énti* ‘run’, **dhég”hdhi* : **dhg”hénti* ‘burn’, **sékhti* or **sékhthi* : **zġhénti* (**séġh-* ‘hold’), **ákti* : **ġénti* (?) (**aġ-* ‘drive, do’), **éusti* : **usénti* ‘burn’ trans. That none of these roots have a root aorist is no accident: all of them are originally root presents.

§11. But it is precisely that absence of matching uncharacterized (root) aorists to these presents that creates a new opportunity: it provides an excellent model for creating brand new “presents” directly to root aorists, thereby launching a new tense formation: the *future*

188), “der Kern der idg. Morphologie” in Watkins’s phrase (1969: 25), applies only to “normalen, aktiven, nicht-intensiven, athematischen Präsensia des Idg.” (loc. cit.).

¹⁹This is a good opportunity to remind the reader that it is *sounds* (allophones, i.e., positional variants) that change, *not* phonemes, i.e., context-free abstract invariants (see Dyen 1969: 500f.). For that reason I adduce here examples of progressive and regressive assimilation for voicing and voicing with aspiration, reconstructed with reasonable certainty for PIE. Were there *tenues aspiratae* in PIE? Of course there were, as *sounds*, or positional variants!—which is all that really matters. See also Excursus II.

tense, commonly known as the subjunctive.²⁰ The future-tense role of this formation is still quite vigorous in the *Ṛgveda* and in Gāthic Avestan. The mechanism works in the following way: an inherently perfective root, e.g., **gʷém-* 'come' which already has an old present stem (*-*ské-* or *-*yé-*), builds a new perfective non-past by adding the *-*e-* : *-*o-* suffix which, as we have seen, has no aspectual meaning at all, and is just a convenient productive buffer between the root, which retains its aspectual value, and the endings. The same combination of meanings—the perfective root with the present-tense endings—builds the synthetic future in Russian: the present form of the inherently perfective (telic) root has the value of the future (e.g., 3. sg. *дасть* 'will give' from the telic *дать*, cf. 3. sg. *ѣсть* 'is eating/eats' from the atelic *ѣсть*) while the atelic roots, to build the perfective future, use a prefix-perfectivized present form (e.g., 3. sg. *у-видитъ* 'will notice', cf. *видитъ* 'sees', from the perfectivized *увидѣтъ* and the telic *видѣтъ* respectively). The old system of formal distinctions has been completely refashioned but the underlying grammatical principles, albeit re-embodied, remain the same. In Proto-Indo-European, the newly created form **gʷém-e-t(i)* has the meaning of the perfective non-past, or, in other words, of the future. The oscillation between using either the primary or the secondary set of endings may well be explained by the double nature of the new formation: the secondary endings are associated with the inherited use of the aoristic root, while the primary endings are associated with the non-past character of the formation (there is, of course, no third set of endings available here).²¹

From this new future formation there is only a short and straight analogic step to the creation of new futures for **s*-aorists (codified, e.g., in the Greek and Latin sigmatic futures), for the preserved old

²⁰Sec, e.g., Delbrück 1879: 116 f.; Whitney 1889: 217 (§575 c.); Hammer-schmidt 1892: 22: "der Konj. ist ursprünglich ein Tempus, das die Zukunft vom Standpunkt der Gegenwart bezeichnet"; Hirt 1934 (VI): 270 ff.

²¹A kind of laboratory test—"what will happen if the aspectual distinction is removed?"—was performed by Proto-Germanic where the old aspect system was lost: formations such as **gʷém-e-ti* became mere synonyms of the inherited present formations and so eventually replaced them as present-tense stems, as in Gothic *qimih* 'comes'. Cf. Hoffmann 1955.

root presents like *és- 'be' (*és-e-ti > Lat. *erit*), and, finally, for simple thematic presents themselves (*bhérēti = *bhere-e-ti). But this multi-layered formation of new future tenses is a late process which occurs independently, for the most part, in the individual Indo-European branches.

HITT. *ga-ne-eš-*+ AND THE LARYNGEAL THEORY

As Helmut Rix put it so frankly, “[d]er Ansatz eines grundsprachlichen Laryngals ist oft nur aus der Wurzelstruktur oder der Stammbildung zu motivieren” (Rix 1976: 68 §79). So, for instance, C. J. Ruijgh insists on a PIE **ǵes-* ‘be’ instead of **es-* chiefly on the grounds of the structuralist belief going back to Kuryłowicz and Benveniste that “[l]a structure *eC-* est impossible pour une racine indo-européenne, tandis qu’elle est bien possible pour un morphème non lexical” (Ruijgh 1988: 454 note 31).¹ Cf. W. Cowgill’s characteristically sober statement: “the economy of not having to posit a root type **eC* in addition to **CeC* is *some faint argument* [italics mine—A.L.] in favor of a root **Eed-* ‘eat’, with the participle **Edónt-* ‘tooth’” (Cowgill 1965: 152).

And a faint argument it is. There is absolutely no reason why a lexical root of Proto-Indo-European (or Proto-Indo-Hittite) cannot have the shape **eC-*, except the willful imposition by the researching scholar of the inferred structure of a majority of lexical roots on a minority of them. Only the will of a scholar entertaining a strong belief in symmetry, economy, and other nominalist virtues, can impose upon a root a consonant for which there is no *prima facie* evidence among the attested forms. It is ironic that by so doing the believing scholar increases the number of *entia* beyond all necessity, distorts the facts, and creates needless theoretical complications. Among the most glaring examples of this laryngealist fiction are such laryngitis-afflicted “proto-forms” as “PIE” **h₁néh₃mn̥* ‘name’ for Hitt. *lāman*, Ved. *nāman-*, Hom. *δνομα*, etc. (see, e.g., Mayrhofer 1986: 126; cf. Cowgill 1965: 152: “An example of a prothetic vowel for which there is no evidence [of] laryngeal origin is *δνομα...*”), *(s)*teh₂ye-* ‘steal’ for Hitt. *ta-(a)-i-i+* (see

¹Ruijgh, loc. cit., refers to Cowgill as someone who “a déjà établi” the **XeC* structure of this root. Yet Cowgill remains guarded in his own evaluation of the root-structure argument and of the argument that it is unlikely that Greek would give up the ablaut in the verb ‘to be’: “I do not see that the evidence yet available points unambiguously in either direction” (op. cit., p. 168); “the matter is certainly not simple or certain” (p. 169).

discussion in Chapter 2, I.18, with lit., the summary, and Chapter 4), and **ǵnēh₃-s-* for Hitt. *ga-ne-eš-* + ‘recognize’.

The latter became the target of some particularly complicated argumentation forced into existence by the laryngeal not attested in Anatolian but posited for structural reasons. The evidence of the Hittite root present *ga-ne-eš-* + and Tocharian A *kñas-* suggests PIH **ǵnēs-* which I for one would be reluctant to reconstruct because, in my view, the evidence of the late-attested Tocharian, without the support of the old Indo-Iranian and Greek, is insufficient for reconstructing a realistic protoform, unless of course one is content, as J. H. Jasanoff and H. Craig Melchert often are, with reconstructing “virtual” protoforms. The laryngealist reconstruction of course requires the root in question to be **ǵneh₃-*. If *ga-ne-eš-* + is a cognate, the Hittite vocalism must be explained.

Jasanoff tackles this in his 1988 essay: “Since there is . . . no reason to reject the traditional reconstruction of ‘know’ as **ǵneh₃-*, a special mechanism must be found to account for the **-ē-* of *ganešzi* and *kñasäst*” (p. 230). The strong belief in the laryngeal, for which there is not a shred of evidence in this root, forces Jasanoff into a series of dubious ratiocinations. Here are, in the order of appearance, the most important ones: 1. if the laryngeal is posited in **ǵneh₃-*, then something must be brought in to explain its failure to color the *e* of *ganeš-* into *a*; 2. this something is, obviously, “Eichner’s Law” according to which **e* fails to be “colored” as *a* (< **a* and **o*) if it is lengthened by means of a previous morphological process; 3. a search for such a process leads Jasanoff to come up, eventually, with a PIE **-s-* present whose “grammatical function is to derive a stem with processual meaning from an inherently punctual root,” and of which Hitt. *ganešzi* is the only example, with “possible traces . . . in Albanian and Armenian” (Jasanoff 1988: 236). The most likely cause of lengthening in Hittite stems ending in *-š* would of course be the sigmatic aorist of the proto-language (so Oettinger 1979: 199), but the evidence for it is so slim (see admissions of that on pp. 231 and 232, op. cit.) that Jasanoff is forced into a completely *ad hoc* solution, namely the inchoative present

The glaring gap in Jasanoff's reasoning at this point shows itself in his statement that "[t]he *s*-presents of the attested IE languages present a bewildering variety of formal types. The most widely distributed are the productive desiderative/future formations . . ." (ibid., p. 232): (1) they are **not** presents but desideratives and futures; (2) they are **not** **s*-presents but **s-ye/o*-futures and **s-e/o*-desideratives or futures. Importantly, the "unreduplicated athematic *s*-future[s] of Baltic, Old Irish, and Osco-Umbrian" (p. 233 with n. 15 where Latin is also said to "[belong] here despite its synchronically thematic appearance") are not athematic at all: none of Jasanoff's attempts to explain these thematic formations as originally athematic (pp. 233-4) are compelling. Then Jasanoff drafts the Hittite "fientives" in *-eš(š)-* and iteratives in *-šš(a)-* (*-hūi*-conj.) to support his newly established **s*-presents, even though the origins of these two formations remain problematic (ibid., p. 234 f.). Fatally for his argument, Jasanoff is satisfied to claim that "[t]he desiderative, inchoative and iterative values of **s-* are semantically very close," losing sight of the fact that the formations he is heaping together are **not** **s*-formations at all but **s-ye-*, **s-e-*, *-eš(š)-* (of whatever origin), and the obscure *-šš(a)-* (*-hūi*-conj.) formations (on the latter, see Excursus III).

None of his subsequent speculations help Jasanoff present a coherent and adequate argument for his new present class. The forced explanation of the Armenian aorist *caneay* as coming from this "present / imperfect **gnēh₃-s-*," which Jasanoff tries to make palatable by saying that there is nothing remarkable about it (ibid., p. 237), and an equally forced explanation of the Proto-Germanic **knējan(an)*—the source of the attested Germanic forms—as the replacement of the putative **knōjan(an)* (itself a replacement of an older inherited present formation), merely add to the list of forced arguments. Jasanoff's conclusion (ibid., p. 239) that "the reflexes of this paradigm constitute a genuine word equation—one which not only contributes materially to the overall body of evidence for Eichner's Law, but which further allows us to generalize the rule . . . to the case of a following **h₃*,"

²Cf. Barton's similar attempt to analyze *hwes-*, etc., as ***h₂u(h₁)-es-* (!), a stative present, in the same volume; see Barton 1988 and its discussion in Chapter 5 of this book.

therefore, sounds particularly hollow. It is also circular: Eichner's Law was used by Jasanoff, before all else, to explain the preservation of *e* in *ganeš-*. "The origin of the *-ē- in these forms cannot, of course, be determined by direct inspection. Its source must be inferred from the apophonic structure of the formally similar *s*-presents which underlie the athematic unreduplicated futures of Baltic, Celtic, and Italic; for these there is the strong presumption of an acrostatic ablaut pattern, with lengthened grade in the active singular and full grade elsewhere" (loc. cit.). None of this poorly motivated argumentation would have been necessary or even possible if not for the strong belief, at the outset, that the laryngeal existed in the prototype *in spite of* its absence in Anatolian, evident to all upon direct inspection.

Many unnecessary secondary *entia* would have been kept from cluttering the etymology of *ga-ne-eš-*+, had the primary evidence been accepted at face value, with the following inference as a result: the protolanguage (PIH, to be specific) had the root **gnē-* alternating with **gnō-* (as the *e* grade alternates with the *o* grade) meaning 'know', from which the two daughter branches, namely Proto-Anatolian and Proto-Indo-European, proceeded to build different present formations individually (see Pokorny 1959: 376 for an unbiased, if uncritical, listing of IE facts).

Since Indo-Hittite knew no paradigmatic distinction of presents vs. aorists, the PIH athematic "punctualizing" suffix **-s-* > Hitt. *-š-* was used in Hittite to build a verb meaning 'recognize' (*ga-ne-eš-*+) from the root meaning 'to know' (Hitt. **g(a)nē-* < PIH **gnē-*). The pending task for the interested comparatist is to account for the change of the PIH root **gnē-* : **gnō-* from inherently atelic to inherently telic (thus forming characterized presents to the root aorist in PIE) and then to explain the distribution of the attested IE formations and their rise. My task here, however, has been merely to show how serious theoretical complications and factual distortions arise when a laryngeal is posited against all evidence, out of ill-conceived considerations of symmetry and economy.

THE LARYNGEALS OF PROTO-INDO-HITTITE

§1. Hittite has two distinct laryngeals: (1) *hh*: *h*- before vowels / *-hh*- between vowels, and (2) *h*: *h*- before vowels / *-h*- between vowels. These pattern in the same way as voiceless and voiced stops (cf. "Sturtevant's Law"); thus it is likely that the former was phonetically a voiceless spirant [x] and the latter a voiced spirant [ɣ]. In the now standard three-laryngeal theory, the former corresponds to ***h₂*, or "the *a*-coloring laryngeal," and the latter to ***h₃*, or "the *o*-coloring laryngeal." I do not see, however, any reason to ascribe any vowel-"coloring" powers to either **x* or **ɣ* in any position, and am quite content in reconstructing the vowel timbre for which there is evidence in the attested languages (i.e., **xant*- 'front', not ***h₂ent*-; **loɣw*- 'pour' or even **loɣ*- [see below], but not ***leh₃w*- or ***leh₂w*-).

There are no credible traces of any ***h₁* anywhere.

There is no evidence that any of the PIH tautosyllabic "laryngeals" were lost in PIE thereby lengthening the preceding vowel. There is no way to deny that, in the very few items that seem to show such compensatory "lengthening," the vowel could have been long to begin with. The correspondence of Hitt. *pa-ah₃-ha-aš-* + / *pa-ah₃-š+*^{mi} to PIE (telic) **pā-s-* in, e.g., Ved. aor. subj. *pā-s-a-ti*, Lat. *pāstor* 'shepherd', or of Hitt. factitive suffix *-ahh-* to PIE factitive **-ā-*, shows that the PIH vowel was long in these items (**pāx-s-*, **-āx-*) but does not at all show that the vowel was lengthened in PIE to compensate for the loss of **x*. Hittite *plene* spelling or the lack thereof cannot be admitted as evidence of the *original* vowel quantity (see on that, e.g., Melchert 1994a: 27, 100 ff.).

Some examples of the reconstructible "laryngeals" include the following:

(1) Hitt. *hant*- 'front' : Hom. ἀντί 'opposite' < PIH **xant*- 'front' (cf. Hitt. *mena-hhanda* 'opposite'), Hitt. *-hhe/i* (act. prs. sg. 1. verb ending) : Luwian act. prt. sg. 1 *-ha* < PIH **xa* > PIE **-a* (in Ved. *ved-a*, Hom. οἶδ-α), Hitt. *-ahh-* (factitive suffix) : Lat. *-ā-* : Goth. *-o-* < PIH **-āx-* > PIE **-ā-*.

(2) It is impossible to determine whether the following words had **x* or **ɣ*; the adjacent vowel (**a*) is no more relevant for determining

the quality of the velar spirant than it would be if the consonant in question were, say, **t* or **d*: Hitt. *harki-* 'white' (: Ved. *rjrá-* 'shining' : Lat. *argentum* 'silver' < PIH **Harg-*), *haster-* 'star' (: Hom. ἀστήρ, Ved. instr. pl. *stṛbhī-* : GAv. *star-* < PIH **Haster-* [> PIE **aster-* with the prothetic **ə-* originally anaptyctic – which has nothing to do with the laryngeal that disappeared without a trace in PIE]), Hitt. *huw-ant-* 'wind' (: Hom. ἀέις, ἀέντρος [pple. of ἄFημι* 'blow'] : Ved. *vā-ti* 'blows' : Lat. *uentus* 'wind' < PIH **Hawē-* 'to blow' [or **əH^wē-*, with the prothetic **ə*; on the PIH labiovelar spirant that has nothing to do with ***h₃* see below]). In the same way, the conclusion that such words as Hitt. *haran-* 'eagle' (: Hom. ὄρνις 'bird'), Hitt. *hastai* 'bone' (: Hom. ὀστέον : Lat. *os*), and Luw. *hawī-* 'sheep' (: Hom. οἷς : Lat. *ouis*) had ***h₃* rather than ***h₂* is founded on premises which are insufficient because they are based entirely on the standard laryngealist **e*-coloring calculus. On the other hand, Hitt. *la-a-hu-i* 'pours' (: Hom. λοέω 'wash' < PIE factitive **low-éyō*, cf. Myc. *re-wo-* < thematized PIE **leu-* with no "coloring" : Lat. *lauō*)—barring Eichner's "Law" invented in order to explain away Hitt. *me-e-hur* 'time' and some other clear counter-examples to the "vowel-coloring" theory—shows a word with a single intervocalic *-h-* that has good IE correspondences and thus can be reconstructed as PIH *o*-grade **loγw-* (better **loγ^w-*, see the next section).

§2. Those who believe that ***h₃* was a labiovelar (as did Cowgill, in whose notation this laryngeal was written as ***x^w*) have to explain why there is no trace of the labial element¹ in its Anatolian continuation, while the labial element is so well preserved in other labiovelars, cf., e.g., **k^w*, **g^w*, **g^wh* continued in Hittite (Hitt. *kuis* 'who' : Lat. *quis*, Hitt. *nekuz* 'evening' : Gk. νύκτ-; Hitt. *nekumanza* 'naked' : Ved. *nagnā-*; Hitt. *ku-en-zi* 'slays' : Ved. *hán-ti*). I infer from this evidence that ***h₃*—where its reconstruction is justified by the Hittite writing and not by the vowel-timbre calculus—was not a labiovelar but a voiced spirant **γ*. [PIE ***pí-ph₃-ti* (> Ved. *pībati*, OIr. *ibid*, etc.) in which **h₃* allegedly voices the preceding **p* (e.g. Mayrhofer 1986: 143 with caution) remains dubious because Hitt. *pa-a-ši* 'swallows', etc., has no

¹With the sole exception of Hitt. *hullizzi* (< ***x^wl₃-né-š-ti*, according to W. Cowgill's oral communication, 1985) whose *-ul-* could have been due to the labial element of ***x^w*. See Chapters 4 and 5.

h in any of its attested forms.] There is in fact no shortage of genuine labiovelar spirants in Hittite: the frequent occurrence of *h* and *hh* before *u(w)* closely parallels that of *k* and *kk* before *u(w)*, and as good a case could be made for the Hittite labiovelar “laryngeals” *hh*” and *h*” (from PIH **x*” and **ɣ*” respectively, although for the most part it is not clear which of the two is continued in Hittite due to the peculiarities of Hittite spelling) as for *kk*” and *k*” (from PIH **k*” and **g*”, **g*”*h*): *huek*- : *hukk*- ‘to slay’ : *hunink*- ‘to injure’, *hues*- : *hus*- / *huis*- ‘to live’ (on which see chapter V above), *huwart*- : *hurt*- ‘to curse’, *hulana*- ‘wool’, *huwai*- : *hui*- ‘to run, flee’, *huet*- and *huittiya*- ‘to pull’, *ishuwa*- : *ishu*- ‘to pour, spill’, *lāhu*- ‘to pour’ and its reduplicated frequentative *le-lhuwa*- : *lelhu*- undoubtedly support such an analysis. The two PIH labiovelar spirants are preserved only as the labial **w* in PIE, the fricative element having disappeared there entirely.

§3. The *shwa indogermanicum* or, incorporating the Anatolian evidence, *indohethiticum* is not directly connected to the “laryngeals.” It is a vowel which must simply be accepted where the inference based on the combined evidence of Anatolian and Indo-European together or of Indo-European alone, if Anatolian is silent, requires it to be reconstructed.

Finding an explanation for the *shwa* is a different matter. Theoretical generalization has no business trying to get rid of an inconvenient item only because it has been acquired through inference. What one should do is try to find some common ground for the varied manifestations of the item in question, while being ever aware of the provisional nature of any and all of one’s findings.

What all manifestations of **ə* seem to have in common is epenthesis. In some instances it is an anaptyctic vowel which serves to “ease” consonant clusters such as the initial cluster of PIH **Hster*- ‘star’ (**Hāster*- or **əHster*-) or the medial cluster of PIH **dhugtr*- (= **dhugātr*-), the weak stem of **dhugtér*- ‘daughter’ (there is no evidence of any ****h*₂”, *pace*, e.g., Mayrhofer 1986, p. 137: Anatolian cognates plainly show the vowel *a*, see §10 below; however, that has not prevented the laryngealist faithful from seeing in it a “vocalized laryngeal,” e.g., Mayrhofer, *loc. cit.*). In an interesting set of instances it shows up in the second syllable of “disyllabic” roots of Proto-Indo-European when the first syllable is in the full grade due to some derivational process (e.g., PIE **pélə-mn̥*- > Ved. *pári-man* ‘plénitude’,

**ǵenə-tor-* > Ved. *jani-tā* : Hom. γενέ-τωρ : Lat. *genitor*), or in the zero grade in place of the full-grade long vowel (e.g., PIE **dhē-* ‘to place’ : **dhə-* ‘placed’ m./n. > Ved. *hi-tā-*, Hom. θή-μενος, etc.); here it also seems to serve as an anaptyctic vowel separating the root from a consonantal suffix while ensuring the presence of a syllabic element between non-syllabic ones. The *shwa* does not appear when the immediately preceding element is capable of being syllabic; instead, the length of the original long syllable is transferred to that element (e.g., **pī-nó-* > Ved. *pūr-ná-* : OCS плъ-нъ : OIr. *lán*, etc.). Nor is the *shwa* preserved when the following element is syllabic. There is nothing in these facts that necessitates the interpretation of the *shwa* as a consonant—just as there is nothing in them that necessitates the interpretation of the *shwa* as a suprasegmental *tonal* feature: nothing except an overhasty use of subjective typological knowledge to “correct” the unexpected result of an inference by bringing it in line with what the researcher has seen elsewhere.

§4. The “laryngeals” should not be reconstructed where there is no direct evidence for them in Anatolian. This approach, as I have already pointed out, eliminates ***h*₁ altogether, and with it such artificial problems as the alternation of *e* and *a* in Hitt. *e-eš-zi* : *a-ša-an-zi*, *e-iz-zi* : *a-da-an-zi* (solved in favor of the analogy with other such alternations in the root athematic class, see, e.g., Melchert 1994: 66 f.) or the ablaut of Gk. ἐστί : εἰσί (< PIE **esti* : **sentī*). For the other “laryngeals,” cf., e.g., PIH (oblique-stem) **dhugətr-* ‘daughter’, with the anaptyctic **a*, > PA **dwatr-* > Hier. Luw. *tu-wa/i-tara/i-* : Lyc. *kbatr-*; > PIE **dhugətr-* > Hom. θυγάτρ- : (Ved. *duhitr-* indicates PIIr. innov. **dhughətr-*), etc.; PIH **nō-mṇ* : **ṇ-mén-s* : **ṇ-mn-ós*, with the different apophonic grades generalized in different languages (PA: strong in Hittite, weak in Hier. Luwian: *a-ta₅-ma-za* = *adama(n)z* < **ana-man-s* < **ṇ-mén-s*; PIE: strong in e.g. Vedic, Latin, Germanic; weak in, e.g., Greek, Old Irish, Slavic); PIH **ǵnē-* ‘know’ in Hitt. *ga-ne-eš-* + ‘recognize’ (see Excursus I for more detail); all the **-n*-infixing presents (deverbative transitives) to roots “*ultima^e laryngalis*” in the standard laryngealist version of Proto-Indo-European (e.g., Oettinger 1979 *passim*).

§5. The symmetrizing and economizing approach is characteristic of the aprioristic intellect distrustful of the inference grounded in experience and suspicious of empirical reality because empirical reality

is made up of singular facts and is both accident-like and accident-prone. This kind of intellect seeks to simplify empirical reality wherever and whenever it can by imposing regularities where they do not exist. And while this aprioristic intellect cannot tamper with the attested facts, it can and will tamper with the results of inference. If, for example, inference has established, next to roots of the shape CVR (Cei- Ceu- Cer- Cen- Cem-), roots of the shape CŮ, the regularizing intellect hastens to reduce the variety and fit the divergent shape into the familiar mold: "Pourquoi . . . serait-il allongé? Si au contraire *Ā* est assimilable à une diphthongue, *στᾱμων* en regard de *στᾱτός* s'explique exactement de même que l'indien *ġēman* (*ē = a, i* monophthongué) en regard de *ġitá* . . . Toute racine en *ā* est identique dans son organisme avec les racines comme *kai*, *nau* . . . et aussi *tan*, *bhar* . . ." (de Saussure 1879: 136). How satisfying—because so *economical* and so *symmetrical*! But non-artificial human languages—in stark contrast to algebra—just do not work that way. In attempting to reconstruct Proto-Indo-European, or even Proto-Indo-Hittite, we are not reconstructing the primeval perfect language of humanity, be it the Edenic protolanguage of Adam or the quadrielemental "Japhetic" protolanguage (*SAL BER JON ROIII*) of Nikolai Marr, but a human language actually spoken some time in the 4th millennium B. C. at the earliest. Whatever we may be fortunate enough to reconstruct will surely be just as asymmetrical, contingent, and uneconomical as any of the real human languages actually in use today.

The desire to reduce variety and impose regularity is a primordial and inalienable driving force of the regularizing intellect. Spontaneously and selectively at work in a community of language speakers, this force produces analogic change, folk etymology, resegmentation, the regularity of sound change—and the equally important yet completely overlooked *regularity of sound persistence*—all of them working at cross purposes because they come from multiple and uncoordinated sources. It is the job of the language comparatist and historian to discover and describe, with a deep sense of respect for their "psychological" and *philological* reality, all of these various processes in all of their complexity. This same driving force, however, is also at work in the community of linguists, preventing them, ironically, from doing their job properly.

Consider how this force—the desire to reduce variety and impose

regularity—is manifested in Ferdinand de Saussure's famous "règles" of Indo-European accent and apophony published in his *Mémoire* (1879: 188): "I. L'a₁ [= *e—A.L.], QUI FINIT UN THÈME ET QUI PORTE LE TON NE PEUT S'EN DÉPARTIR EN AUCUN CAS. II. SI LA LOI I N'Y MET OBSTACLE, TOUTE DÉSINENCE SUSCEPTIBLE D'ACCENT (C'EST-A-DIRE FORMANT UNE SYLLABE) S'EMPRE DU TON DE LA CELLULE PRÉDÉSINENTIELLE. III. AUSSITÔT PRIVÉ D'ACCENT, L'a₁ DE LA CELLULE PRÉDÉSINENTIELLE SE PERD." Calvert Watkins quotes these seminal "règles" in his volume of *Idg. Grammatik* (1969: 24), provides them with an updated example of application, praises them as "gleichzeitig die ersten (genau im Sinne der generativen Grammatik) synchronisch geordneten Regeln in der Indogermanistik überhaupt" (*loc.cit.*), and sums up their significance: "In diesen Prozessen liegt der Kern der idg. Morphonologie" (*ibid.*, p. 25). Yet immediately his sense of fairness to the reader forces him to admit that "diese Auffassung de Saussures ...nicht ganz ausreicht" and that this supposed kernel of IE morphophonemics works only for a small segment of IE phenomena: "... ist sie doch immerhin für die normalen, aktiven, nicht-intensiven, athematischen Präsensia des Idg. ... gültig," and even then not quite: the rest of the chapter ("II. Die athematische Konjugation") is largely devoted, implicitly, to showing how de Saussure's rules, starting out as they do from abstract non-existent forms, fail to work well even for those "normal" athematic formations that are supposedly governed by them (athem. 2 pl. act. in *-te which Watkins convincingly shows to be "strong" in the proto-language, i.e., *és-te, instead of a weak **s-té "predicted" by de Saussure's "règles," the apophony of most reduplicated stems, etc.).

De Saussure's "règles" elevate a set of observations induced from a small sample of data to an abstract system superimposed, as if it were deductive, on all concrete data. The fact that this abstract system is falsified by concrete data other than those in the original sample from which it was induced should have led to the rejection of the abstract system. Instead, it is the data that are manipulated in order to preserve the abstract system, for purely dogmatic reasons.

§6. Doctrinal uniformity, or dogmatism, in a community of scholars, is a defensive reaction to a serious external threat. In this century, the mortal threats to Indo-European philology have been many: World

War I, because of which the institutional base for this discipline in Germany—the country where it had been most developed—was destroyed and an entire generation of potential future scholars, German, French, and others, perished; de Saussure's crude reductionism which was popularized, absurdly enough but symptomatically for the epoch, in the form of a book he in fact never wrote, namely the famous *Cours* concocted by Bailly and Sechehaye; World War II which virtually completed the destruction of Europe's *humaniora*; the ensuing rise of the United States with its inherently ahistorical, "scientoid," behaviorist orientation; the growth and institutionalization, with U.S. government funding, of ahistorical linguistic dogmata (radically mechanistic structuralism of the Zelig Harris variety, then Chomsky's generative-transformational syntax and its later splinters and avatars) which ultimately marginalized language history and comparison, particularly in the United States. Watkins's homage to de Saussure *qua* the first generative grammarian, quoted above, is a telling sign of the times.

§7. The remedy against this situation is a complete and decisive break with Saussureanism and the systems it spawned, and a return to the experientially tested historicist principles and practices of the Neogrammarian school. Hermann Paul's *Prinzipien der Sprachgeschichte* (5th edition 1920) and Philipp Wegener's *Untersuchungen über die Grundfragen des Sprachlebens* (1885; reissued in 1991) provide serious and sophisticated starting points for a discussion of the fundamental principles from which everything else ought to follow.

Languages and other philological objects, unlike the *a priori* objects of mathematics, are complex processes which exist by developing in time and space. The only valid explanation of a philological object, therefore, is a historical ("diachronic") explanation, in which the object is described as an ongoing process and the contingencies of its continuing development are presented in as much detail as the investigator's skill and scope allow. The so-called "synchronic" description, which disregards the development of the object through time, is at its best incomplete. The "synchronic" description reduces the complexity of the object's temporal and spatial connections with other objects to what it can or wishes to observe in a random cutoff of an ongoing process. The "generalizations" which result from such observations are necessarily reductionist and therefore unrealistic.

The standard laryngealist notion that each root of PIE contains, in

phonemic terms and before any relevant morphological processes apply, only one vowel **e* variously “colored,” *ceteris paribus*, when preceded or/and followed by the two “coloring” laryngeals, the *a*-coloring **h*₂ and the *o*-coloring **h*₃, is due to the limitations of the structuralist notion of the phoneme itself. The phoneme is a product of the reductionist intellect; it exists—outside real time and space—only in the mind of the analyzing linguist, *pace* the simplistic argumentation to the contrary (see, for instance, the classic Sapir 1933). The phoneme may be useful as a label for a class of similar sounds brought together through complementary-distribution analysis checked with the intuition of similarity—but it is no more than that. The “phonemic status” of this or that sound, as well as the barren taxonomy of “splits” and “mergers,” may well be interesting *per se*, but it is totally irrelevant as an explanation of the processes of change and persistence. Only the concrete sound, connected to its neighboring sounds, exists in historical reality and is given its relatively stable identity by virtue of the meaning of the entire expression of which it is a part; its relative identity and connections to its immediate neighborhood define the possibilities of its change, uniform in all identical neighborhoods only due to the fact that it is the expression as a whole that is required to preserve its relative identity for as long as it is a viable bearer of its meaning. Only contextual variants (sounds, not “phonemes”) change or persist (so already Dyen 1969); linguistic abstractions, like any abstractions, are beyond time and space and thus beyond reality, and for that reason the notions of change or persistence cannot, in any meaningful way, apply to them. Yet it is precisely the investigation of the probable causes and conditions of the change or of the persistence of verbal objects that is the focus of philology, a discipline which is historical and comparative *par excellence*. This is useful to remember at a time when the unexamined influence of structuralist mechanistic reductionism and the resulting misapplication of mathematical models and rhetoric remain widespread.

ON THE HITTITE *-hhi* CONJUGATION

The Hittite *-hhi* conjugation (see Oettinger 1979: 39-83 for the most thorough, though not error-free,¹ description available; no significant improvement has yet appeared) is so different both from the *-mi* conjugation and from the mediopassive, which for the most part have good morpholexical correspondences in PIE, that it cannot be mapped onto any PIE formation called thematic: what appears as the vocalic stem outcome in the apophonically "strong" forms is in fact the obligatory predesinential **o* grade which characterizes most suffixed stems or the suffixless stems whose roots end in a vowel or a semi-vowel. The vocalic stem outcome is, descriptively, =*i*- / =*e*- or =*a*- before the 1 sg. *-hh*= and =*ai*- or =*i*- or =*a*- elsewhere; the vowels =*i*- / =*e*- and =*a*- before *-hh*= go back to PA **āi* (< **ōi*), **ai* (< **oi*), as in, e.g., *ne-e-iḫ-ḫi* 'I am leading' < **nāi-xa-i*, *i-ia-an-na-aḫ-ḫé* 'I am campaigning' < **iyánnexe* < **iyátn-ai-xa-i*, or to **ā* (< **ō*), **a* (< **o*), e.g., *da-a-aḫ-ḫé* 'I take' < **dā-xa-i*, *i-iš-ša-aḫ-ḫi* 'I work on' < **ī-sa-xa-i*, pl. 2 *i-iš-te-e-ni* < **ī-s-té-*, and may not be called "thematic" in any traditional sense of the term.

The *-hhi* conjugation includes root stems as well as stems characterized by suffixes such as *-ahh-*, *-anna-* : *-anni-*, *-ai-* : *-i-*, and *-ssa-* : *-ss-*. Root stems in the singular (the "strong" forms) are in the *-a* < **o*-grade; the plural forms of some (not all!) XVS and XVK root stems are in the *e* grade whereas most root stems retain their *a* grade. In suffixed stems, it is the suffix that carries the apophonic burden: the "strong" forms are in the *a* grade whereas the "weak" forms are in the zero grade.

The similarities of the *-hhi* endings to the endings of the Proto-Indo-European perfect triggered the attempts to derive the *-hhi* conjugation from the PIE perfect, and the **o* grade of the root stems in the *-hhi* conjugation provided the focus for all subsequent explanations of the

¹The most serious of Oettinger's errors is the false normalization of stems evident in, e.g., his "*nije-*" 'to lead', which is misleading and incompatible with the attested forms, on the basis of which the stem could only be normalized as *ne-/nai-* : *ne-*, see Chapter 5 §6 above.

conjugation's origin (see Oettinger 1979: 399 f. with lit. for details). Most of these attempts have not been successful because neither the grammatical roles nor the meanings, nor the roots participating in the two classes under comparison could be reconciled; the Hittite formation, in complementary distribution with the *-mi* conjugation, cannot be mapped out from the PIE perfect.

Some sought to solve this problem by deriving a number of *-hhi* conjugation verbs from the only other Proto-Indo-European formation which had the **o* grade, namely the PIE **-éye-* factitives (see Oettinger 1979 : 414 ff. and esp. 452 ff.); these attempts must also be regarded as failed because the PIE suffix **-éye-* cannot be convincingly demonstrated for these stems, and no motivation for the transfer into the *-hhi* conjugation can be found. (E.g., Oettinger's PIE **tors-éye-ti* > Hitt. *tarši** based on the infinitive *tar-šu-wa-an-zi* and participle *tar-ša-an*, see op. cit., 452 f., where no evidence is given as to why these attestations are taken to belong to a *-hhi*-conj. verb; equally as problematic are ***h_{ork}-éje-ti* > Hitt. *a-ar-ki*, pl. *ar-kán-zi* 'divide', and PIE **spond-éje-ti* > Hitt. *iš-pa-an-ti*, sg. 1 *iš-pa-an-tah_{hé}*, pl. 1 *ši-pa-an-du-wa-ni*, 3. *ši-ip-pa-an-ta-an-zi* / *iš-pa-an-ta-an-zi*, with no explanation of why these stems were transferred into the *-hhi* conjugation when they could have perfectly well stayed in the *-mi* conjugation.) Kuryłowicz, Szemerényi, and Cowgill explored the remaining possibility for the deployment of the **o* grade, namely, some denominative origin: Kuryłowicz's Slavic perfect-inspired nominal was a passive participle; Szemerényi proposed an endingless root noun as the basis for the PIE perfect (1980: 306 = 1990: 364) while believing (1980: 228 = 1990: 261 f.) that the *-hhi* conjugation was a Hittite innovation because other Anatolian languages did not have it (despite its clearly attested traces in both Luwian languages); Cowgill suggested that PIE perfects and the Hittite *-hhi* conjugation both went back to a Proto-Indo-Hittite "nominal verb" formed from agent nouns in the **o* grade, typologically similar in function and origin to the Akkadian stative and the West Semitic perfect (Cowgill 1979: 34). Cowgill motivated his version of the *-hhi* formation as the Proto-Indo-Hittite mechanism to build atelic finite forms to telic roots. The only objective problem with his explanation (arguments for Proto-Indo-Hittite constitute an insurmountable subjective, or emotional, problem for most Indo-Europeanists) was the difficulty of accounting for the suffixed *-hhi*-conjugation stems.

Whatever the ultimate origin of the putative nominal on which the *-hhi* conjugation was based, it is clear that (1) because of its **o* grade, in light of what is known about PIE root apophony, the only formation onto which the root stems of the *-hhi* conjugation can be mapped is a noun of some kind, and, as I intend to show, (2) the suffixed stems of the *-hhi* conjugation may all be explained as denominatives.

The suffix *-anna-* : *-anni-* was convincingly explained by Emil Forrer as early as 1931 (see Oettinger 1979: 494 f. with n. 95) as based on the oblique stem of deverbative *-ātar* nouns (e.g., *taksanna*^{hhi} 'to level' based on *taksatar* 'leveling', *lahhiyanna*^{hhi} 'to conduct a military campaign' based on *lahhiyatar* '(a military) campaign', etc.: see op. cit., p. 495). The only substantial improvement left to make is to specify that the suffix used to form the *-hhi* conjugation denominative here is not, properly speaking, **-ye-* but rather **-i-*: e.g., prs. sg. 1 **-ātn-a-i-xa-i* > **-ānnexe* > *-annahhe* : pl. 1 **-ātn-i-wē-n-i* > *-anniweni*. The Anatolian suffix *-ahh-* has a cognate in the PIE suffix **-ā-* used to form factitives from adjectives (e.g., Hittite *newahh-* : Lat. *nouā-re*, see Oettinger 1979: 454 f. with lit.).

The suffix *-ai-* : *-i-* has been less satisfactorily explained as the continuation of **-ye-* (see Oettinger 1979: 459 ff.), and I will come back to it shortly. The suffix *-ssa-*, one of the most productive suffixes in the Luwian subgroup of Anatolian, has remained obscure. H. Mittelberger compared it directly with the PIE thematic desiderative suffix **-se-* : **-so-* (*apud* Kronasser 1966: 552). The purely formal similarity is there, but either functionally or morphologically the Anatolian suffix has little in common with the PIE desiderative, especially in view of the fact that the *-hhi* conjugation endings are obligatory with the suffix *-ssa-* : *-ss-* in Anatolian—a fact that cannot be explained away (see Oettinger 1979: 510 f., with lit.).

If, however, the nominal origin of the *-hhi* conjugation is to be taken seriously, the Anatolian *-ssa-* : *-ss-* suffix may be adequately explained as a continuation of the nominal suffix **-s-* used to form deverbative nouns (full grade **-os/-es-*, zero grade **-s-*, see Schindler 1967: 200 f. for some apophonic possibilities; the zero grade typified by, e.g., the gen. sg. **us-s-és*, cf. acc. sg. **āus-os-ṃ* 'auroram' [I give the non-laryngealist equivalents of Schindler's forms] is used to form the verb stem). The oblique zero-grade (weak) stem was used in Anatolian for the nominal *-hhi*-conj. forms, with the **o*-grade vowel inserted in the sg.

where expected in the *-hhi*-conj. paradigm: OH *i-iš-ša-i* 'works' < PA **i-s-a-i*, pl. *iš-ša-an-zi* < **i-s-anti* (from **ye-* : **i-* 'do, make').

It is also likely that the Hittite suffix *-ai-* : *-i-*, only roughly comparable with PIE **ye-*, continues a nominal suffix **-i-* familiar from the PIE deverbative nouns reflected in, e.g., Vedic *arc-i-* m. 'beam' ($\sqrt{rc}$ 'shine'), *kṛ-i-* f. 'ploughing' ($\sqrt{kṛ}$ 'plough'), in the datives of the *-i*-stem deverbatives serving as infinitives, such as *yudh-āy-e* ($\sqrt{yudh}$ 'fight'), *drś-āy-e* ($\sqrt{drś}$ 'see'); in, e.g., Greek (Hom.) *μῆν-ι-ς* 'wrath' (cf. μένος 'fury' and μαίνομαι 'rage' < **mḥ-yó-*), *τρόπ-ι-ς* 'keel' (cf. τροπέω / τρέπω 'turn, set on course'); cf. also OCS *ѣд-ѣ* f. 'eating, food' < **ēd-i-*, Russ. медв-ѣд-ѣ 'bear' < **medhu-ēd-i-* 'honey eater'. The pertinent question of the relationship between the nominal suffix **-i-* and the verbal suffixes **ye-* and the factitive **-éye-*, particularly the latter in view of the required **o* grade of its root, cannot be addressed here but deserves a thorough investigation.

Nor can I address here the issue of the origin of the *-hhi* conjugation; this I intend to do *in extenso* elsewhere. Suffice it to say that I find Cowgill's 1979 argument more convincing than any other, and my differences with him concern the original role of the Proto-Indo-Hittite **-xa* formation. I believe that role to have originally been *diathetic*: the **-m*-series endings marked the active, the **-xo-* series the mediopassive, and the **-xa* series added to the nominal **o*-grade stem, most likely to be a *nomen actionis*² (rather than a *nomen agentis*), marked the *receptive* voice, the grammatical subject of which was the experiencer or recipient of the state or action denoted by the verb. Thus, e.g., Hittite *da-(a-)+^{hhi}* means 'take' and not 'give' (as in PIE) because PIH **dō-xa* meant '(it) is given me' or 'I (*rec.*) am given (it)', by implication 'I take (it)', in the same way as PIH **woid-xa* would theoretically mean '(it) has been visible to me', by implication 'I know (it)'.

²K. Brugmann (1921: 139) explained the IE perfect as a nominal form "und zwar vermutlich ein Verbalabstraktum...."

BIBLIOGRAPHY

(For the abbreviations used in the bibliography, see p. xiv ff.)

- Barschel, Bernd. 1986. "Der Modusbestand des Hethitischen – eine Altertümlichkeit?" *MSS* 47, pp. 5-21.
- Barton, Charles R. 1988. "Gk. *āesa*, Arm. *agay* and PIE **h₁*," *Laryng.*, pp. 49-55.
- Bechtel, George. 1936. *Hittite Verbs in -SK-. A Study of Verbal Aspect*. Ann Arbor: Edwards Brothers.
- Beckman, Gary M. 1983. *Hittite Birth Rituals*. Second Revised Edition. *StBoT* 29.
- . 1986. "Proverbs and Proverbial Allusions in Hittite." *JNES* 45/1, pp. 19-30.
- Benveniste, Emile. 1935. *Origines de la formation des noms en indo-européen*. Paris: Adrien Maisonneuve.
- . 1955. "Présents dénominatifs en hittite". *Corolla linguistica. Festschrift Ferdinand Sommer*. Wiesbaden: Otto Harrassowitz, pp. 1-4.
- . 1962. *Hittite et indo-européen*. Bibliothèque archéologique et historique de l'institut français d'archéologie d'Istanbul, V. Paris: Adrien Maisonneuve.
- van Brock, Nadia. 1960. "Hittite *kartimmiya*-" *RHA* 18, pp. 143-147.
- . 1962. "Dérivés nominaux en *l* du hittite et du louvite." *RHA* 20, pp. 67-168.
- Brugmann, Karl. 1884. "Zur Frage nach den Verwandtschaftsverhältnissen der indogermanischen Sprachen." *Internationale Zeitschrift für allgemeine Sprachwissenschaft*, 1, pp. 226-256.
- . 1911. "Wortgeschichtliche Miszellen." *IF* 28, pp. 285-298.
- . 1921. "Zur Frage des Ursprungs der Personalendungen des indogermanischen Verbums." *IF* 39, pp. 131-139.
- Brünnow, R. 1928. *Arabische Chrestomathie aus Prosaschriftstellern*. 4. Auflage. Herausgegeben von August Fischer. *Porta Linguarum Orientalium*, XVI. Berlin: Reuther und Reichard.
- Burde, Cornelia. 1974. *Hethitische medizinische Texte*. *StBoT* 19.
- Carruba, Onofrio. 1970. *Das Palaische. Texte, Grammatik, Lexikon*. *StBoT* 10.

- . 1972. *Beiträge zum Palaischen*. Uitgeven van het NHAJ, 31.
- . 1976. "Anatolico e indoeuropeo." *Fs Bonfante*, pp. 121-146.
- . 1977. "Commentario alla trilingue licio-greco-aramaica di Xanthos." *SMEA* 18, pp. 273-318.
- Chantraine, Pierre. 1948. *Grammaire homérique*. Tome I. Phonétique et morphologie. Paris: Klincksieck.
- Couvreur, Walter. 1937. *De hethitische H; een bijdrage tot de studie van het indo-europeesche vocalisme*. Leuven: Le Muséon.
- Cowgill, Warren. 1965. "Evidence in Greek." *Evidence for Laryngeals*. Ed. Werner Winter. The Hague: Mouton.
- . 1975. "More Evidence for Indo-Hittite: the Tense - Aspect Systems." *Proceedings of the Eleventh International Congress of Linguists, Bologna-Florence, Aug. 28—Sept. 2, 1972*. Vol. II. Ed. Luigi Heilmann. Bologna: Società editrice il Mulino Bologna, pp. 557-570.
- . 1979. "Anatolian *hi*-Conjugation and Indo-European Perfect: Instalment II." *HuI*, pp. 25-39.
- . 1985. "The Personal Endings of Thematic Verbs in Indo-European." *GrKat*.
- . 1986. "Einleitung." *IG*, pp. 11-71.
- Delbrück, Berthold. 1879. *Die Grundlagen der griechischen Syntax*. Syntaktische Forschungen IV. Halle: Max Niemeyer.
- Dressler, Wolfgang. 1968. *Studien zur verbalen Pluralität. Iterativum, Distributivum, Durativum, Intensivum in der allgemeinen Grammatik, im Lateinischen und Hethitischen*. Wien: Hermann Böhlau Nachf.
- Dyen, Isidore. 1969. "Reconstruction, the Comparative Method, and the Proto-Language Uniformity Assumption," *Language* 45 No. 3, pp. 499-518.
- Дьяконов, Игорь Михайлович. 1965. *Семито-хамитские языки. Опыт классификации. Языки народов Азии и Африки*. Академия наук СССР, Институт народов Азии. Москва: Наука.
- Eichner, Heiner. 1970. "Hethitisch *uešš-/uašši-ia-* 'Gewänder tragen; anziehen; bekleiden'." *MSS* 27, pp. 5-44.
- . 1973. "Die Etymologie von heth. *mehur*." *MSS* 31, pp. 53-102.
- . 1975a. "Die Vorgeschichte des hethitischen Verbalsystems." *FuW*, pp. 71-103.
- . 1975b. "Einige Fehlschreibungen und Fehllesungen in

- hethitischen Texten." *Sprache* 21/2, pp. 157-164.
- . 1980. "Phonetik und Lautgeschichte des Hethitischen—ein Weg zu ihrer Entschlüsselung." *Lautgeschichte und Etymologie* (Akten der VI. Fachtagung der idg. Gesellschaft, Wien 24.-29. September 1978). Herausgegeben von Manfred Mayrhofer et al. Wiesbaden: Dr. Ludwig Reichert, pp. 120-165.
- . 1983. "Etymologische Beiträge zum Lykischen der Trilingue vom Letoon bei Xanthos." *Orientalia* LII 1 (Nova Series), pp. 48-66.
- Feist, Sigmund. 1939. *Vergleichendes Wörterbuch der gotischen Sprache*. Leiden: E. J. Brill.
- Friedrich, Johannes. 1932. *Kleinasiatische Sprachdenkmäler*. Berlin: Walter de Gruyter.
- . 1969. "Churritisch". *HO*, pp. 1-30.
- Frisk, Hjalmar. 1973. *Griechisches etymologisches Wörterbuch*. 2., unveränderte Auflage. Heidelberg: Carl Winter.
- Gertz, Janet E. 1982. *The Nominative-Accusative Neuter Plural in Anatolian*. Ph.D. Dissertation. New Haven: Yale University.
- Götze, Albrecht. 1925. "Hattušiliš. Der Bericht über seine Tronbesteigung nebst den Paralleltexten." *MVAeG* 29, 3.
- . 1928. "Madduwattaš." *MVAeG* 32, 1.
- Goetze, Albrecht. 1951. "On the Hittite Words for 'Year' and the Seasons and for 'Night' and 'Day'." *Language* 27, pp. 467-476.
- . 1954. Review of HW1. *Language* 30, pp. 401-405.
- Gotō, Toshifumi. 1987. *Die "I. Präsensklasse" im Vedischen*. Untersuchung der vollstufigen thematischen Wurzelpresentia. Wien: ÖAW.
- Grassmann, Hermann. 1964. *Wörterbuch zum Rig-Veda*. 4., unveränderte Auflage. Wiesbaden: Otto Harrassowitz.
- Gusmani, Roberto. 1963. "Kleinasiatische Miszellen: 4. Heth. handa(s) 'gemäß'." *IF* 68, 3, p. 294.
- . 1964. *Lydisches Wörterbuch*. Mit grammatischer Skizze und Inschriftensammlung. Heidelberg: Carl Winter.
- . *Neue epichorische Schriftzeugnisse aus Sardis (1958 - 1971)*. Archaeological Exploration of Sardis, 3. Cambridge, Mass.: Harvard University Press.
- . 1979. "Lykisch sñmati." *Fs Laroche*, pp. 129-136.
- Güterbock, Hans Gustav. 1946. *Kumarbi*. Mythen vom

- churritischen Kronos aus den hethitischen Fragmenten zusammengestellt, übersetzt und erklärt. Istanbuler Schriften, 16. Zürich: Europaverlag.
- Hammerschmidt, H. 1892. *Über die Grundbedeutung von Konjunktiv und Optativ*. Erlangen: Universitätsbund.
- Hart, Gillian R. 1980. "Some Observations on Plene-Writing in Hittite". *BSOAS* 43, 1, pp. 1-17.
- . 1988. "Anatolian Evidence and the Origins of the Indo-European Mediopassive." *BSOAS* 51, pp. 69-95.
- . 1990. "'Class I Present', Subjunctive and Middle Voice in Indo-European." *BSOAS* 53, pp. 446-468.
- Hawkins, J. David. 1971. "'To come' And 'to build' in Hieroglyphic Hittite." *RHA* 29, pp. 113-131.
- . 1975. "The Negatives in Hieroglyphic Luwian." *AnSt* 25, pp. 119-156.
- . 1978. "The Luwian Word For 'daughter'." *KZ* 92, pp. 112-116.
- . 1980a. "The Hieroglyphic Luwian Word 'to die'." *KZ* 94, pp. 109-119.
- . 1980b. "The Logogram 'LITUUS' and the Verbs 'to see' in Hieroglyphic Luwian." *Kadmos* 19, pp. 123-148.
- . 1995. *The Hieroglyphic Inscription of the Sacred Pool Complex at Hattusa (SÜDBURG)*. With an Archaeological Introduction by Peter Neve. *StBoT Beiheft* 3. Wiesbaden: Otto Harrassowitz.
- Hawkins, J. David, and Anna Morpurgo Davies. 1975. "Hieroglyphic Hittite: Some New Readings and Their Consequences." *JRAS* 76, p. 121 ff.
- . 1978. "On the Problem of Karatepe: the Hieroglyphic Text." *AnSt* 28, pp. 103-119.
- . 1979. "The Hieroglyphic Inscription of Bohça." *Fs Meriggi*.
- . 1982. "Buying and Selling in Hieroglyphic Luwian." *Fs Neumann*, pp. 91-105.
- Hawkins, J. David, et al. 1973. *Hittite Hieroglyphs and Luwian: New Evidence for the Connection*. Nachrichten der Akademie der Wissenschaften in Göttingen, Philologisch-Historische Klasse, 6. Göttingen: Vandenhoeck and Ruprecht.
- Heubeck, Alfred H. 1959. *Lydiaka*. Untersuchungen zu Schrift, Sprache und Götternamen der Lyder. Erlangen Forschungen,

Reihe A: Geisteswissenschaften, Band 9. Erlangen:
Universitätsbund.

———. 1969. "Lydisch." *HO*, pp. 397-427.

———. 1981. "Weiteres zur lykischen Verbalflexion" *KZ* 95, pp. 158-173.

Hiersche, Rolf. 1963. "Gab es im Idg. ein o-stufiges primäres Präsens?" *IF* 68, pp. 149-159.

Hirt, Hermann. 1934. *Indogermanische Grammatik*. VI. Syntax I. Heidelberg: Carl Winter.

Hoenigswald, Henry M. 1966. "Criteria for the Subgrouping of Languages." *Ancient Indo-European Dialects. Proceedings of the Conference on Indo-European Linguistics Held at the University of California, Los Angeles, April 25-27, 1963*. Ed. Henrik Birnbaum and Jaan Puhvel. Los Angeles: University of California Press.

Hoffmann, Karl. 1955. "Vedisch *gámati*." *MSS* 7, pp. 89-92.

———. 1968. "Hethitisch *luk(k)-, lukki-*." *KZ* 82, pp. 214-220.

Hoffner, Harry A., Jr. 1966. "Composite Verbs, Nouns and Adjectives in Hittite." *Orientalia* 35, pp. 377-402.

———. 1974. *Alimenta Hethaeorum: Food Production in Hittite Asia Minor*. AOS 55.

———. 1977. Review of KUB XLVI. *BiOr* 34, pp. 74-75.

———. 1978. Review of KBo XXIII. *BiOr* 35, pp. 246-248.

Hrozný, Friedrich. 1917. *Die Sprache der Hethiter, ihr Bau und Zugehörigkeit zum indogermanischen Sprachstamm*. Ein

Entzifferungsversuch. Boghazköi-Studien herausgegeben von Otto Weber. 1. Stück. Leipzig: J. C. Hinrich.

Иванов, Вячеслав Всеволодович. 1965. *Общенноевропейская, праславянская и анатолийская языковые системы*. Москва: Наука.

Jasanoff, Jay. 1977. "A Note on Hittite *tāja-* 'steal'." *Indo-European Studies III*, ed. Calvert Watkins. Cambridge, Mass.: Department of Linguistics, Harvard University, pp. 187-189.

———. 1988. "PIE **ǵnē-* 'recognize, know'." *Laryng.*, pp. 227-239.

Josephson, Folke. 1972. *The Function of the Sentence Particles in Old and Middle Hittite*. Acta Universitatis Upsaliensis. Studia Indoeuropaea Upsaliensia 2. Uppsala: Skriv Service AB.

Kalinka, Ernst. 1901. *Tituli Asiae Minoris conlecti et editi auspiciis Caesareae Academiae Litterarum Vindobonensis, I*. Vindobona: A. Holderi.

- Kammenhuber, Annelies. 1955. "Studien zum hethitischen Infinitivsystem. IV. Das Supinum auf -uuan-." *MIO* 3, pp. 31-57.
- . 1959a. "Das Palaische: Texte und Wortschatz." *RHA* 17, pp. 1-92.
- . 1959b. "Esquisse de grammaire palaïte." *BSL* 54, pp. 18-45.
- Kimball, Sara E. 1981. "Plene Writing in Hittite." Paper presented at the LSA Annual Meeting (Winter 1981). Handout.
- . 1983. *Hittite Plene Writing*. University of Pennsylvania Ph.D. dissertation.
- . 1994a. "Loss and Retention of Voiced Velars in Luvian: Another Look." *IF* 99, pp. 75-85.
- . 1994b. "The IE Short Diphthongs *oi, *ai, *ou and *au in Hittite." *Sprache* 36/1, pp. 1-28.
- Kronasser, Heinz. 1966. *Etymologie der hethitischen Sprache*. Vol. I. Wiesbaden: Otto Harrassowitz.
- Kuryłowicz, Jerzy. 1927. "ə indoeuropéen et ḫ hittite." *Fs Rozwadowski*, pp. 95-104.
- Laroche, Emmanuel. 1950. "Études de vocabulaire III." *RHA* 11, pp. 38-46.
- . 1959. *Dictionnaire de la langue louvite*. Bibliothèque Archéologique et Historique de l'Institut Français d'Archéologie d'Istanbul. Paris: Librairie Adrien Maisonneuve.
- . 1965. "La prière hittite." *Ecole Pratique des Hautes Etudes, Sciences Religieuses, Annuaire*, Tome LXXII, 1964-1965, pp. 3-29.
- . 1979. "La stèle trilingue de Létôon. Deuxième partie, l'inscription lycienne." *Fouilles de Xanthos VI*, ed. Henri Metzger. Paris: Librairie C. Klincksieck, pp. 49-127.
- . 1986. "Hittite *nakkuš—nakkuššiš*." *Fs Güterbock*, pp. 137-140.
- Lehmann, Winfred P. 1986. *A Gothic Etymological Dictionary*. Leiden: E. J. Brill.
- Lehrman, Alexander. 1978. "Essays in Anatolian Onomastics." *Names*, vol. 26, No. 3, pp. 220-230.
- . 1983. "Transitivizing Verb Suffixes in Hittite and Indo-European." *Abstracts of the One Hundred and Ninety-Third Meeting of the American Oriental Society*, New Haven: American Oriental Society, pp. 52-53.
- . 1985. *Simple Thematic Imperfectives in Anatolian and Indo-*

- European*. Ph.D. Dissertation. New Haven: Yale University.
- . 1987. "Anatolian Cognates of the Indo-European Word for 'wolf'." *Sprache* 33/1, pp. 13-18.
- . 1993. "Hittite *išpárrī*- 'trample' and Vedic *sphuráti* 'kick'." *Sprache* 35/1, pp. 131-132.
- . 1996. "Indo-Hittite Revisited." *IF* 101, pp. 73-88.
- Lejeune, Michel. 1972. *Phonétique historique du mycénien et du grec ancien*. Paris: Editions Klincksieck.
- Marazzi, Massimo. 1990. *Il geroglifico anatolico. Problemi di analisi e prospettive di ricerca*. Roma: Università "La Sapienza".
- Marstrand, Carl J. S. 1919. *Charactère indo-européen de la langue hittite*. Christiania: En commission chez Jacob Dybwad.
- Meid, Wolfgang. 1975. "Probleme der räumlichen und zeitlichen Gliederung des Indogermanischen." *FuW*, pp. 204-219.
- . 1990 [1986]. "Reconstructing Indo-European. A Methodological Approach." *Essays on Indo-European Linguistics [Proceedings of the Seminar on Indo-European Linguistics held on 1-2 February 1986]*. Ed. Satya Ranjan Banerjee. The Asiatic Society: Calcutta 1990, pp. 5-22.
- Melchert, H. Craig. 1984a. *Studies in Hittite Historical Phonology*. Göttingen: Vandenhoeck & Ruprecht.
- . 1984b. "Notes on Palaic." *KZ* 97, pp. 22-43.
- . 1988. "'Thorn' and 'Minus' in Hieroglyphic Luvian Orthography." *AnSt* 38, pp. 29-42.
- . 1989a. "New Luvo-Lycian Isoglosses." *HS* 102, pp. 23-45.
- . 1989b. *Lycian Lexicon*. Lexica Anatolica Volume 1. Chapel Hill, N. C.
- . 1989c. "Luvian Lexical Notes." *HS* 101, pp. 211-43.
- . 1992a. "The Middle Voice in Lycian." *HS* 105, pp. 189-199.
- . 1992b. "Relative Chronology and Anatolian: the Vowel System", in: R. Beekes et al., *Akten der VIII. Fachtagung der idg. Gesellschaft*, Leiden, 1987. Innsbruck: *IfS*, pp. 41-53.
- . 1992c. "Hittite Vocalism", in: O. Carruba (ed.), *Per una grammatica ittita*, pp. 181-196, Pavia.
- . 1992d. "The Third Person Present in Lydian." *IF* 97, pp. 31-54.
- . 1993. *Cuneiform Luvian Lexicon*. Lexica Anatolica Volume 2.

- Chapel Hill, N. C.
- . 1994a. *Anatolian Historical Phonology*, Amsterdam-Atlanta, GA: Rodopi.
- . 1994b. "The Feminine Gender in Anatolian." *Früh-, Mittel-, Spätindogermanisch. Akten der IX. Fachtagung der Idg. Gesellschaft vom 5. bis 9. Oktober 1992 in Zürich*. Herausgegeben von George E. Dunkel et al. Wiesbaden: Reichert, pp. 231-244.
- . 1994c. "Anatolian." *Langues indo-européennes*. Sous la direction de Françoise Bader. Paris: CNRS Editions, pp. 121-136.
- . 1994d. "PIE *y > Lydian d." *Iranian and Indo-European Studies*. Memorial Volume of Otakar Klíma. Edited by Petr Vavroušek. Praha: enigma corporation, pp. 181-187.
- Meriggi, Piero. 1962. *Hieroglyphisch-hethitisches Glossar*. 2nd ed. Wiesbaden: Otto Harrassowitz.
- . 1967-75. *Manuale di eteo geroglifico*, 1-4. InGr 13-6.
- Morpurgo Davies, Anna. 1979. "The Luwian Languages and the Hittite *hi*-Conjugation." *Fs Szemerényi*, pp. 577-610.
- . 1980. "The Personal Endings of the Hieroglyphic Luwian Verb." *KZ* 94, pp. 86-108.
- . 1982. "Dentals, Rhotacism and Verbal Endings in the Luwian Languages." *KZ* 96, pp. 245-270.
- Narten, Johanna. 1968. "Zum 'proterodynamischen' Wurzelpräsens." *Fs Kuiper*, pp. 9-19.
- Neu, Erich. 1968. *Das hethitische Mediopassiv und seine indogermanischen Grundlagen*. *StBoT* 6.
- . 1976. "Zur Rekonstruktion des indogermanischen Verbalsystems." *Fs Palmer*, pp. 239-254.
- . 1980. "Die hethitischen Verben des Kaufens und Verkaufens." *WdO* 11, pp. 76-89.
- Neumann, Günter. 1969. "Lykisch." *HO*, pp. 358-396.
- . 1979. *Neufunde lykischer Inschriften seit 1901*. Österreichische Akademie der Wissenschaften. Philosophisch-historische Klasse. Denkschriften, 135. Band. Ergänzungsbände zu den Tituli Asiae Minoris, Nr. 7. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Николаев, С. Л. и С. А. Старостин. 1982. «Парадигматические классы индоевропейского глагола». *Балтославянские исследования 1981*. Москва: Наука, стр. 261-344.

- Oettinger, Norbert. 1976. *Die militärischen Eide der Hethiter*. StBoT 22.
- . 1978. "Die Gliederung des anatolischen Sprachgebietes." KZ 92, pp. 74-92.
- . 1979. *Die Stammbildung des hethitischen Verbuns*. Erlanger Beiträge zur Sprach- und Kunstwissenschaft, 64. Nürnberg: Hans Carl.
- . 1986. *'Indo-Hittite' Hypothese und Wortbildung*. Innsbruck: IJS.
- . 1987. "Bemerkungen zur anatolischen i-Motion und Genusfrage." KZ 100, pp. 35-43.
- Otten, Heinrich. 1962. "Aitiologische Erzählung von der Überquerung des Taurus." ZA NF 21, pp. 156-168.
- . 1979. "Zu einigen mittelhethitischen -sk-Formen." *Studia Mediterranea Piero Meriggi dicata*. Pavia, pp. 439-443.
- Otten, Heinrich, & Christel Rüster. 1977. "Textanschlüsse und Duplikate von Boğazköy-Tafeln (41-50)." ZA 67, pp. 53-63.
- Otten, Heinrich and Vladimír Souček. 1969. *Ein althethitisches Ritual für das Königspaar*. StBoT 8.
- Pedersen, Holger. 1938. *Hittitisch und die anderen indoeuropäischen Sprachen*. DanskeVid 25, 2.
- . 1945. *Lykisch und Hittitisch*. DanskeVid 30, 4.
- Peters, Martin. 1980. *Untersuchungen zur Vertretung der indogermanischen Laryngale im Griechischen*. Wien: ÖAW.
- Poetto, Massimo. 1982. "Osservazioni sull'iscrizione luvio geroglifica di Aksaray." *Fs Neumann*.
- Pokorny, Julius. 1959. *Indogermanisches etymologisches Wörterbuch*. Bern: Francke Verlag.
- Puhvel, Jaan. 1979a. "Hittite Words with Initial *pít/pát* Sign." *HuI*, pp. 209-218.
- . 1979b. Review of Tischler 1977. *BiOr* 36, pp. 56-58.
- . 1982. Review of HW2. *JAOS* 102, pp. 177-179.
- . 1984. *Hittite Etymological Dictionary*. Vol. 1. Words beginning with A. Vol. 2. Words beginning with E and I. Berlin, New York, Amsterdam: Mouton.
- . 1991. *Hittite Etymological Dictionary*. Vol. 3. Words beginning with H. Berlin, New York: Mouton de Gruyter.
- Renou, Louis. 1925. "Le type védique tudáti". *Mélanges linguistiques*

- offerts à M. J. Vendryès. Paris, pp. 309-316.
- Riemschneider, Kasper. 1973. "Zur Unterscheidung der Vokale ē und ī in der hethitischen Orthographie." *Fs Otten*, pp. 273-281.
- Risch, Ernst. 1965. "Zum Problem der thematischen Konjugation." *Symbolae linguisticae in honorem Georgii Kurylowicz*. Wrocław: Zakład Narodowy im. Ossolińskich, pp. 235-242.
- . 1974. *Wortbildung der homerischen Sprache*. 2., völlig überarbeitete Auflage. Berlin, New York: Walter de Gruyter.
- . 1975. "Zur Entstehung des hethitischen Verbalparadigmas." *FuW*, pp. 247-258.
- Rix, Helmut. 1976. *Historische Grammatik des Griechischen: Laut- und Formenlehre*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- . 1986. *Zur Entstehung des urindogermanischen Modusystems*. IBS 36.
- Ruijgh, C. J. 1988. "Observations sur les traitements des larygales en grec préhistorique." *Laryng.*, pp. 443-469.
- Sapir, Edward. 1933. "La réalité psychologique des phonèmes." *Journal de psychologie normale et pathologique* 30, pp. 247-265.
- Saussure, Ferdinand de. 1879. *Mémoire sur le système primitif des voyelles dans les langues indo-européennes*. Reprinted 1968. Hildesheim: Georg Olms Verlagsbuchhandlung.
- Schindler, Joachim. 1967. "Zu heth. nekuz." *KZ* 81, pp. 290-303.
- . 1975a. "L'apophonie des thèmes indo-européens en -r/n." *BSL* 70, pp. 1-10.
- . 1975b. "Zum Ablaut der neutralen s-Stämme des Indogermanischen." *FuW*, pp. 259-267.
- Seebold, Elmar. 1982. "Vertretung der indogermanischen Labiovelare im hethitischen Anlaut." *KZ* 96, pp. 33-49.
- Sommer, Ferdinand. 1947. *Hethiter und Hethitisch*. Stuttgart: W. Kohlhammer.
- Starke, Frank. 1977. *Die Funktionen der dimensionalen Kasus und Adverbien im Althethitischen*. *StBoT* 23.
- . 1980. "Keilschriftluwisch manâ- 'sehen', mammanna- 'schauen'." Appendix to Hawkins 1980b, pp. 142-148.
- . 1982. "Die Kasusendungen der luwischen Sprachen." *Fs Neumann*, pp. 405-425.
- . 1985. *Die keilschrift-luwischen Texte in Umschrift*. *StBoT* 30.
- . 1990. *Untersuchung zur Stammbildung des keilschriftluwischen*

- Nomens. StBoT* 31.
- Stempel, Reinhard. 1994. "i-Genitiv, i-Motion und Femininum: Versuch einer Synthese." *Fs Schmidt*, pp. 197-210.
- Streitberg, Wilhelm. 1943. *Urgermanische Grammatik*. Unveränderter Abdruck der 1. Auflage (1896). Heidelberg: Carl Winter.
- Sturtevant, Edgar. 1932. "The Development of the Stops in Hittite." *JAOS* 52, pp. 1-12.
- . 1933. *A comparative grammar of the Hittite language*. Philadelphia: Linguistic Society of America.
- Sturtevant, Edgar and E. Adelaide Hahn. 1951. *A Comparative Grammar of the Hittite Language*. Volume I. Revised Edition. New Haven: Yale University Press.
- Szemerényi, Oswald. 1964. Syncope in Greek and Indo-European and the Nature of Indo-European Accent. Istituto universitario orientale di Napoli.
- . 1979. "Palaic and the Indo-European Larungeals." *Fs Laroche*, pp. 315-319.
- . "Recent Developments in Indo-European Linguistics." *TPS* 1985, pp. 1-71.
- . 1990. *Einführung in die vergleichende Sprachwissenschaft*. 4., durchgesehene Auflage. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Шеворошкин, Виталий Викторович. 1967. *Лидийский язык*. Москва: Наука.
- Thurneysen, Rudolf. 1946. *A Grammar of Old Irish*. Revised and enlarged edition with supplement. Translated from the German by D. A. Binchy and Osborn Bergin. Dublin: The Dublin Institute for Advanced Studies.
- Tischler, Johann. 1977. *Hethitisches etymologisches Glossar*, 1. Lieferung. 1983. 4. Lieferung. Innsbruck: IfS.
- Vasmer, Max [Фасмер, Макс]. 1986-7. *Этимологический словарь русского языка*. Перевод с немецкого и дополнения О. Н. Трубачева. Изд. второе. В четырех томах. Москва: Прогресс.
- Wackernagel, Jacob. 1896. *Altindische Grammatik*. Band I: Lautlehre. Göttingen: Vandenhoeck & Ruprecht.
- Watkins, Calvert. 1969. *Indogermanische Grammatik*. Herausgegeben von Jerzy Kuryłowicz. Band III: Formenlehre. Erster Teil: Geschichte der indogermanischen Verbalflexion. Heidelberg: Carl

Winter Universitätsverlag.

- . 1973. "Hittite and Indo-European Studies: the Denominative Statives in -ē-." *TPS* 1971, pp. 51-93.
- . 1974. Review of Grothus, Jost. *Die Rechtsordnung der Hethiter* (1973). *Kratylos* 19, pp. 63-71.
- . 1975. "Die Vertretung der Laryngale in gewissen morphologischen Kategorien in den indogermanischen Sprachen Anatoliens." *FuW*, pp. 358-378.
- . 1985. "Hittite and Indo-European Studies II." *Fs Hoffmann*, pp. 245-255.
- . 1994a. *How to Kill a Dragon. Aspects of Indo-European Poetics*. Oxford: Oxford University Press.
- . 1994b. *Selected Writings*. Ed. by Lisi Olivier. Vol. I: Language and Linguistics. Vol. II: Culture and Poetics. Innsbruck: *IBS*.
- Weitenberg, Joseph J. S. 1984. *Die hethitischen u-Stämme*. Amsterdam: Rodopi.
- Whitney, William D. 1885. *The Roots, Verb-Forms, and Primary Derivatives of the Sanskrit Language*. Reprinted 1945. AOS 30.
- . 1889. *Sanskrit Grammar*. 2nd edition. Reprinted 1967. Cambridge, Mass.: Harvard University Press.

Numerals refer to page numbers.

Entries appear in the Roman alphabetical order. Letters with diacritics follow those without diacritics.

In Proto-Indo-Hittite (PIH) and Proto-Indo-European (PIE), velars follow the order *g *g̃ *gʷ, etc. The *shwa* follows *e*. In PIH, *γ follows the *g series; *x appears in its alphabetical place.

In Hittite and Luwian, forms as normalized by me appear in bold italics; numbers of the pages where whole paradigms appear are printed in bold.

Vedic, Avestan, and Old Persian forms appear in the traditional order.

Greek and Slavic forms are listed in their traditional alphabetical order.

Proto-Indo-Hittite

**au* (preverb) 225
 **awā-*: **ū-* (: **wē-*) 201, 205
 **awā-s-* 201, 205—206
 **-āx-* factitive 257
 **bhiH-* 161n15
 **dō-xa* 268
 **dhē-* 21n2, 163
 **dhñ-tó-* 201
 **dhō-* 43, 163
 **dhugtér-* 259
 dhugtr-* (dhugətr-*) 259, 260
 **dhwr̥-n-ē-* 203
 **ei-t-i*: **y-ent-i* 137
 **éndo* 243n12
 **érH-s* 243n12
 **-éye-* 249
 **gnē-* 260
 **gʷhen-ti* 243n12
 **Harg-* 258
 **Hat-*: **Hat-ye-* 211
 Həwē-* (əHʷē-*) 258
 Hster-* (Həster-*, **əHster-*) 258, 259
 Hwer-* (Hʷer-*) 203
 Hwés-ti* (Hʷés-ti*) 17
 **Hwés-ti*: **Hus-ónti* 248
 Hwet-* (Hʷet-*) 211

**Hʷlnēmi* 204
 **Hʷl̥-n-ē-ti* 204
 Hwola-* (Hʷola-*) 204
 **kes-* 182
 **k̥-tó-* 97
 **kyéu-* 248
 **k̥ei-* 248
 **k̥erd* 190
 **k̥rd-* 189
 **kʷel-os* 148
 lo yw-* (lo yʷ-*) 257, 258
 **lot-eye-* 200
 **-m-* series (verb endings) 268
 **mer-ti* 243n12
 **mē-wr̥* 214n13, 227n30
 **-n-* infixing imperfectives 138, 213
 **nōi-*: **nēi-*: **nī-* 243, 248
 **nō-m̥*: **ñ-mén-s*: **ñ-mn-ós* 260
 **nd-ó* 243n12
 **paxwr̥* / **paxʷr̥* 157
 **pāx-s-* 257
 **per* 184n29, 212
 **pe(r?) wodh-éye-* 227n30
 **pet-* 244, 245
 **p̥l̥H-* 160
 **rH* preserved in Hittite 127
 **r̥H-ó* 243n12

*-s- (nominal suffix) 267
 *sek^w (: *sk^w-) 199, 212
 *séwə- 228n32
 *sē- : *sə- 201, 205, 214n13
 *sē-wr̥ 214n13
 *-ské- 249
 *stéu- 248
 *tā-ye- 210
 *te 114
 *-to- formations 97, 102,
 *wer-t 58n33, 211
 *wér-yo- 211
 *wés- 248
 *wodhéye- 225
 *woid-xa 268
 *woidh-eye- 228
 *-xa 257
 *-xa series (verb endings) 268
 *xant- 257 *passim*
 *xar- 209
 *-xo- series (verb endings) 268
 **x^w[-né-*x*-ti (Cowgill) 258n1
 *-ye- : *yo- 47, 137, 206
 *yē-ti : *(i)y-onti 174, 207, 212

Proto-Anatolian

*a 10
 *-a- (postaccentual) 11
 *-ana- deverbatives 101, 124
 *an-ye^{-ti} : *an-ya- 199, 209
 *ark^wa- 105
 *ars- 124
 *ars-ye-ti 238
 *as-ye- 180
 *-átn-a-i-xa-i 267
 *-átn-i-wè-n-i 267
 *au-/aw- 137, 211n10
 *aw-em-ye^{-ti} 199
 *-a-ye- 137
 *-ax- 185
 **ā- (Melchert) 207
 *babre-ye- 222

*dā- 163
 *dā-xa-i 265
 *dwatr- 260
 *ei- / *i- 197
 *ers-ti (: *ars-anti) 238
 *eya- 104
 *éy-a-ri 104
 *éy-anta 104
 *-éya- (> Hitt. -a-) 104
 *-eye- : *-eya- 137
 *-e-ye- : *-e-ya- 137
 *ē > Hitt. i (i?) 37n18
 *Hwés- : *Hus- 237
 **huid-y- (Weitenberg) 236—237
 **huidyu- (Weitenberg)
 236—237
 *-i- 12
 *i-néu- 104
 *iyátn-ai-xa-i 265
 *i-s-a-i 268
 *i-s-anti 268
 *i-s-a-xa-i 265
 *i-ské- 174
 *i-s-té- 265
 *kwelās 148
 *kard- 189
 *karp-ye- 212
 *lat-i- 181
 *lat-ye- 181
 *mala- 148
 *mala-ye- 148
 *marse-ya- 222
 *marse-ye- 221
 *mēwar 214n13, 227n30
 *nāi- : *nēi- 243
 *nāi-xa-i 265
 *parHtu 150
 *-ParKu-ye- 151
 *pe (< *per) 184n29, 199, 212
 *pe-wade- 227, 227n30
 *pe y-anti 206—208
 *-s- 11

*sak^m a- 212
 *sepa- 102, 162
 *sepa-ye- 102
 *ser 163
 *sē- 205
 *sēwar 214n13
 *dan(n)ata- 185
 *dan(n)ate-ye- 222
 *tar-ye- 211
 *tā-ye- 210
 *us-ana- 222
 *usna- 222
 *usne-ye- 222
 *wasēyanti 104
 *wēsu-ye-ti 189
 *-ye- : *-ya- 137, 206
 *yē- / *ī- 174, 197, 199, 268

Hittite

-a-stem nouns 136
 -a- (stem-final, in Luw. loans) 12
 a-(a)-+^a 104
 -aḫḫ- factitives 216, 257, 265
 -ai- : -i- 265—268 *passim*
 ak^{hhi} 179n25
 ak-ku-uš-kán-du 112
 ak-ku-uš-kán-zi 21
 ak-ku-uš-kat-te-en 111
 ak-ku-uš-ki-i 111
 ak-ku-uš-ki-it-ta-ni 110
 ak-ku-uš-ki-e-ši 109
 ak-ku-uš-ki-e-wa-ni 21, 110
 +al-li+ 70
 alpužšš- 14n10
 a-ni-ia-ir 23, 37, 37n19
 a-ni-ia-at-ta 208
 a-ni-e-(i=) : a-ni-ia-(a=)+
 23—24, 144, 195, 209
 -anna- : -anni^{hhi} 205, 265
 -anna 8
 annanu^{mi} 24, 65
^{KUŠ}an-na-nu-uz-zi- c. 65

an-na-nu-uz-zi-ia-a+ 65
 an-ni-eš-kán-zi 110
 an-ni-iš-kán-zi 110
 an-ni-eš-ki-iz-zi 109
 an-ni-iš-ki-iz-zi 109
 a-an-aš-+^{mi} 47, 154, 199
 a-an-ši-ia-a+ 47
 -ant- 204 *passim*
 anda 243n12
 a-pa-a= 9
 appatar 59
 ap-pa-ta-ri-i+ /
 (a-)ap-pa-at-ri-(i=) :
 ap-pát-ri-a+ 59, 214
 ap-pa-ta-ri-iz-zi 205
 ap-pát-ri-ia-zi 205
 ap-pí-iš-ki-it 111
 a-ra-an-du 92
 a-ra-(a-)i+ / a-ra-i-i+ / a-a-ra-i-e-i+ :
 a-ra-a+ 92, 154
 a-ra-a-i (3 sg. prs. *-hhi-* conj.) 92,
 154
 a-a-ra-i-e-ir 92
 a-ra-i-iz-zi 92
 ar-ḫa 102, 127, 239, 239n8,
 243n12
 a-ri-ia-(a)+ 24, 209
 ar-kán-zi 266
 **argatiija- 42
 a-ar-ki 266
 ar-ki-iš-ki-it-ta 112
 ar-ku-?wa-i+ : ar-ku-(wa-)a+
 104—105
 ar-ku-wa-(a-)it 105
 Arma-ziti- (Luw. in Hitt.) 12
 (GIŠ)^{NA} ar-mi-iz-zi neut. 65
 ar-mi-iz-zi-ia-a+ 65
 ar-pí-ia-a+ t-ta-ri 44
 ar-aš+ : ar-š+^{mi} 48, 199, 211,
 230, 238—240, 242
 ar-š+ 105
 ar-ša-(a-)i+ / ar-še-i+ 105

aršana-* 124, 222
ar-ša-na-an-d+ 22, 124
ar-ša-ne-e+/*ar-ša-ni-e*+ :
 ar-ša-na-a+ 123—124, 137
 passim, 218 *passim*, 220, 222
ar-ša-ne-e-ši 22, 64n39, 123, 222
 “*aršanje*.”^{mi} (false norm.) 124,
 217
ar-ša-ni-e-še 64n39, 123, 124,
 130
ar-še-i+ 105
arši-c. 105
ar-ši-(i)-e-(i)=+ : *ar-ši-ia-a*+
 47—48, 154, 199, 211, 231,
 238
a-ru-i-iš-ga-zi 110, 205
 **a-ru-wa-/ar-wa*-93, 217
a-ru-wa-an-zi 21
a-ru-wa-e+/*a-ru-wa-(a)-i*+ :
 a-ru-wa-(a)-a+ 92—93, 217
a-ru-wa-(a)-iz-zi 21
a-ru-wa-en-zi 21
a-ar-zi 48
a-aš-ša-nu+ 45
a-aš-ši-ia-a+ 45, 180
a-aš-ši-ia-nu-uš-ga-u-e-ni 45
a-aš-šu 45, 180
asta 48, 238
-atar (-*ann*- < **-atn*-) 205, 265
a-uš-zi 201, 205—206
a-ut-ti 201
az-zi-ik-kán-du 112
az-zi-kat-te-en 112
az-zi-ik-ki-i 111
az-zi-ki-i 111
az-zi-ik-ki-ta-ni 110
az-zi-ik-ki-id-du 111, 114
 consonant-stem nouns 136
 directive in -a 8
 -e- : -a- 22n4
e-ḥu 86, 133, 142n4, 225, 226,
 226n29

“*entari*” 207n6
 “*enzi*” (false reading for *ú-en-zi*)
 207n6
e-ip+ : *ap-p*+^{mi} 59,
e-eš+ : *a-š*+ 139, 142
 -eš- “inchoatives” 219
e-eš-ḥar 70
e-eš-ka-aḥ-ḥa 112
e-eš-kán-ta 112
e-eš-kán-ta-ti 113
e-eš-ki-du-ma-at 113
e-eš-za 69n41
e-eš-zi 69n41
e-eš-zi : *a-ša-an-zi* 260
 “*ēt*” (= *e-it* MH?) 207n6
e-it+ : *a-d*+ 143
e-it-mi 169
e-it-ri-e+* 155, 198
e-it-ri-eš-ki-i+ 155
e-iz-du 169
e-iz-zi : *a-da-an-zi* 260
ḥ 2, 15
 -ḥ- as a hiatus filler 214n13,
 226—227
ḥa-a(-)+^{mi} 94
 “*ḥae*” (false norm.) 94
^{GIŠ}*ḥah(ḥa)ra*-25
^{EZEN}*ḥahṛannaš* 25
ḥa(-aḥ)-ḥa-ri-ia+ 25, 209 *passim*,
 211
ḥa-li-e+ : *ḥa-a-li-a*+ 45—46
ḥa-li-iḥ-la-i 46
ḥa-li-iš-š+ (*ḥa-li-iš-ša*+) a noun
 59, 215
ḥa-liš-ši-ia+ / *ḥa-li-iš-ši-ia*+ 59,
 215
ḥa-li-iz-zi 46
 “*ḥaliya(ri)*” 46
 “*ḥaliyazi*” 46
halzāi : *halzi*- 145, 197
ḥal-zi-iš-kat-ta-ri 112
ḥa-ne-eš-ša ([*ḥa-n*]e-eš-šar) 96

hant- c. 94, 257
handa 94
ha-an-da/ta-(a-)i+ :
ha-an-da/ta-(a-)a+ 93—94,
 155, 195, 217
ha-an-ta-az 94
ha-an-di-li-iš-ki-it 111
ha-ap-pa(r) 25, 60, 76, 96
 (*ha-ap-pa*)
**happara- / *happira* 87
ha-ap-(pa)-ra-(a-)i+ :
ha-ap-pa/pi-ra-a+ 86—87
ha-ap-pa-ri-e/i+ + 25, 60, 75, 87,
 141, 214
ha-ap-ra-i+ 87
*har-** 25
haran- 258
har-aš- + (*harš-*) 25, 25n7
hari- 25n5
ha-ri-e+ : *ha-ri-ia-a+* 24—26,
 209 *passim*, 211
harki- 258
har-ki-iš-kán-ta-ri 112, 114
harpali- 70
har-ra-a+ 25—26, 128
har-ra-nu-uš-kán-zi 26,
har-ra-<nu->uš-ki-it-ta 26
har-wa-an-ni-i+ 155
ha-aš-š+ ^{hi} 130
ha-aš-ša-an-zi 130
ha-aš-ša-a-aš 12n8
"hašp-mi" 146
ha-aš-pí-ir 146
ha-aš-šu-u+ + c. 79, 216
ha-aš-šu-u-e-i+ / *LUGAL-u-e-i+*
 79, 216, 219
"hassuwai-" 79
hastai 258
haster- 258
ha-at-t+ / *ha-ad-d+* 49, 77, 96,
 136, 148, 172, 211, 217
"hatta-" 49n24

hattannaš EN 49n24
hattatar 49n24
*hatra-** 96, 217
ha-at-ra-(a-)e/i+ : *ha-at-ra-(a-)a+*
 95—96, 217
ha]-at-ra-a-u-ni 133, 227
ha-at-ri-eš-ki 111
ha-at-ri-eš-ki-iz-zi 108
hatuka- 161
ha-az-zi-(e-)i+ : *ha-az-zi-a+* 49,
 77, 136, 148, 172, 210
hekur 227n30
he-e-uš 226n28
hē 15
-hhe/i 257
-hhi- conjugation 19, 244,
 265—268
huek- : *hukk-* 213, 259
hu-e-eš+ ^{mi} / *hu-i-iš+* / *hu-uš+* + see
hues-mi
hues-mi 17, 230, 234—238, 242,
 245, 259
hu-e-eš 17, 235 *passim*, 237
TI-eš-zi 235
huet- 259
hu-e-iz+ + 211
hu-e-iz-ta 51
hu-i-iš+ + 236, 237n7
hu-iš-nu-uš-ki-e-it 111
hu-i-iš-te-ni 235, 237
hu-iš-nu-u+ / *hu-uš-nu-u+* + 235
huišu- (*huesu-*) 84, 136, 216
hu-(u)-i-šu-(ú)-e/i+ :
hu-(i)-šu-wa-a+ /
hu-iš-(šu-)wa-a+ 83—84, 136,
 216, 235
hu-iš-wa-a-iš 83
hu-i-iš-zi 235
hu-(u)-i-tar 236
hu-it-tah-ḫa-ri (LH) 51n27
hu-it-tah-ḫa-at (LH) 51n27
hu-it-ti-(i=) + ^a; *hu-it-ti-ia-(a=)* + ^{mi}

- 50—51, 51n26, 211, 245,
259
hu-it-ti-ia-an-ni-iš-ki-u-wa-ni 110
hu-it-ti-ia-at-ta-at (LH) 51
hulāli- 61, 70, 215
hu-la-a-li-e+, etc. 60, 215
hu-u-la-li-iš-kán-du 112
hulana- 258
hu-ul-hu-li-ia-a+ 58, 78, 119
hu-ul-la-i 120
hu-ul-la-an-zi 22, 119
hu-ul-la-(a-)tar(-) 119
hu-ul-la-at-ta-ru 204
hu-ul-la-at-ta-ti 204
hu-ul-la-az-zi 204
hu-ul-li-i+ : *hu-(u-)(ul-)la-(a=)* + /
hu-(u-)ul-li-ia-(a=) + 58, 78,
118—119, 202, 203, 204
passim
hu-ul-li-ia-nu-un 120
hu-u-ul-li-ia-az-zi 120
hu-ul-li-iš 120
hu-ul-li-iz-zi 22, 119, 258n1
hu-ul-lu-mi-en 120
hunink- 213, 259
*hu-up-pa-** 96
hu-up-pa-i+ : *hu-up-pa-a+* 96
huppar- neut. 96
hu-u-up-pi-i+ + c. 96
hur-ni-e-i+ : *hur-na+* /
hu-u-ur-nu-u+ / *hur-ni-ia+* 121,
202
hur-ni-e-iz-zi 121
hur-ni-ia-zi 121
hurtalli-/hurtali- c. 61, 61n35, 215
hu-ur-tal-li-(e-)i+ : *hu-ur-ta-li-a+*
61, 215
hu-š+ 237n7
hu-uš-nu-ut 235
hu-uš-nu-ut-ten 235
hu-šu-wa-an-d+ 235
hu-šu-wa-an-za 235
hu-uš-zi 235 *passim*, 237, 239
hu-(u-)wa-a-i : *hu-(u-)i+* ^{hhi} 156,
191, 197, 259
hu-wa-a-i-iš-ki-wa-an 113
huw-ant- 258
huwart- ^{hhi} 61n35, 259
i-stem nouns 136
-i 8
i (i?) (< PA **ē*) 37n18
+i+ (< **ei-* : **i/y-*) 108, 196
i-ia-an-na-aḥ-ḥé 265
ia-an-zi 20, 28n10
ia-az-zi 205
i-ia-iz-zi 37
i-ia-ši 205
i-ia-at-ta-ri 205, 208
i-ia-az-zi 205
i-i+/i-e-(i=) + : *(i-)ia-(a=)* +
20, 26—29, 196, 206, 207
(i)ye- ^{ta} 206—208
+i-(e-)i= / *+i-e-(e-)* + : *+i-(ia-)a+*
135—137, 196
i-e-ši 205
i-e-it-ta 205
i-(e-)iz-zi 20, 205
i-mi-ia-at-ta-ri 208
i-mi-e+ : *i-mi-ia-a+/(i-)im-mi-ia-a+*
31
im-ma 9
im-pa-iš-kat-ta 112
i-nu-u+ 104
i-nu-ut-te-en 104
irha- c. 87, 137, 217, 239n8,
243n12
ir-ḥa-(a-)i+ : *ir-ḥa-(a-)a+* 87,
137, 217
ir-ḥa-aš 238
iš-ḥa-a-aš 12
iš-ḥa-aš-kán-tu-uš 115
ishuwa- : *ishu-* 259
iš-ka-a-r+ / *iš-ga-r+* ^{hhi} 66
iš-kar-ra-an-ni-a+ 66, 214

iš-ga-ra-tar neut. 66
iš-pa-an-tah-hé 266
iš-pa-an-ti 21n3, 266
iš-pa-an-za-ki-zi 109, 114
iš-pa-an-za-aš-ki-i[z-zi] 109, 114
iš-pa-ra-an-zi 126
iš-pa-a-ri 126
iš-pár-ri-i+ : iš-pár-ra-a+
 125—126, 223, 228
ispart^m 231, 238, 241—242
ispartye^m 231, 241
i-iš-ša-aḡ-ḡi 265
i-iš-ša-i 268
iš-ša-an-zi 268
iš-ta-an-ta-a-i-i+ 66
i-iš-te-e-ni 265
ka-li-(e)li-e-i+ 66—67
kam(m)arš^m 147
kan 48, 238
ga/ka-ne-na-a+ 125
 “*kanenje*.” (false norm.) 125
ga-ne-eš+ 253—256, 260
ga-an-ga-ta/da-a-i+ :
ga-an-ga-ta-a-a+ 88, 147
**gangatai-ye* 88
gangati 88
kap-pu-(u)e/i+/ka-ap-pu-u-i+ :
kap-pu-(u)(wa-)a+ 79—81,
 216
ka-ap-pu-u-e-ši 21
kap-pu-u-en-zi 21
kap-pu-wa-an-d+ 21
ka/ga-ri-(i)e-i+ :
ka-ri-ia-a+/ga-ri-ia-a+ 31—32,
 67
kariya- (mid.) 31n14
kar-ap+^m 52, 212
karp- : *karp(i)ye* 77, 212
kar-pt-(i-(e-))i+ : *kar-(ap-)pt-a+*
 52—53, 195, 212
kar-aš+ / *kar-š+*^m 53—54, 212
kar-aš-še-iz-zi 53n28, 212

kar-aš-ši-i-(e-)i+ / *kar-aš-še-i+*
 53—54, 212
**karta-* 97
kar-ta-a+ 97
kar-tim-mi-ia-(a=)+ 67
ka[r-tim-mi-jia-it-ta] 37, 67
ka-ru-(ú)uš-š+^{*} 67
ka-ru-(ú)uš-ši-ia-(a=)+ 32, 67,
 214
kat (= [ket]) 114
katt^{*} 78
katta 78
kattan 78
katti 78
kat-kat-ti-i+ : *kat-kat-ti-ia+*
 77—78
ki-i+ : *ki-(ia-)a+* 32, 136, 137
ki-ir 190
ki-i-ša-a-i+ 97, 157, 182
kištant- c. 68
ki-iš-ta-an-zi-a+ 67—68
ki-iš-zi 97
ki-it-ta / ki-it-ta-ri 32, 96
ku-e-en-zi 243n12
ku-en-zi 238, 258
ku-e-ir-šu-un 238
ku-e-ir-zi 238
kuis 258
kulanaš 157
guls^m 231, 238, 240—241, 242,
 245
gul-aš-zi 240
gul-ša-an-zi 240
ku-na-an-zi 238
ku-ra-an-zi 238
kur-ku-ri-iš-kat-ta-t[i] 113
ku-r[u-u]r 62
ku-u-ru-ri-a[n-t/da] 61n36
ku-u-ru-ri-e-i+ : *ku-u-ru-ri-a+*
 61—62, 214
kururiyahh- 61n36
ku-uš-(ša-)n+ neut. 62

ku-(uš-)ša-ni-(i-e-)i+/ku-uš-ne-i+ :
 ku-uš-ša-ni-ia+ 62, 214
 ku-uš-du-wa-a-i+ : ku-uš-du-wa-a+
 25, 98
 ku-uš-du-wa-a-ta 25, 98
 ku-ud-da-ni-e-i+ 68
kuttar neut. : obl. *kuttan-* 68
kutruwa- c. 88
 ku-(u-)ut-ru-wa-a-i+ 88
 la-a+^{hi} 109
lahḫa- c. 98
 la-aḫ-ḫi-ia-i+ : la-aḫ-ḫi-ia-(a=)+
 98, 158
lahhiyanna-^{hi} 266
lahhiyatar 266
 "lahḫi-^{mi}" 98
lāhu- 259
 la-a-ḫu-i 258
 la-lu-uk-ki-i+ 118, 209
lāman- 62, 215, 253
 lam-ni-i+/lam-ma-ni-i-e+ :
 lam-ni-ia+ 62—63, 214, 215
 la-(u-)wa-ar-ri-(i=)+ 158
 la-az-zi-iš (*lazzi-*) 10n6, 32n15
 la-(a-)az-zi-a+ / SIG₅-(zi-ia)-a+
 (*lāzziya*-^{ta}) 10n6, 32—33,
 180—181
 la-a-az-zi-at-ta 208
 li-e-la-ni-(e-)i+ : li-e-la-ni-(ia-)a+
 68
lelhuwa- : *lelhu-* 259
 li-eš-š+ 182 *passim*
 li-eš-šu-wa-an-zi 182
lila- 217
 li-la-a-i+ : li-la-(a-)a+ 88, 158,
 217
 li-(i-)ša-i+ 182 *passim*
 lu-uk+^{ta} 115, 116, 209, 221, 223
 lu-uk-kán-t+ 116
 lu-uk-kán-zi 22
 lu-uk-kat-ta / lu-ug-ga-at-ta 22,
 114, 117, 224

lu-uk-ki-i+ : lu-uk-ka+ /
 lu-ug-ga-a+ / lu-uq-qa+
 115—116, 141, 206, 220,
 221, 223, 224n26
 lu-uk-ki-iz-zi 22, 115 *passim*, 137,
 220, 234
 lu-uk-ta 224
 -ma 9
 ma-la-a-i-i+ 148
 ma-la-ak-^{mi} 54, 212
 ma-al-ki-ia-a+ 54, 212
 mar-ra-at-ta-at 33n17
 mar-ri-(e-)i+ : mar-ra-a+ 33
 mar-ri-it-ta 33n17
 mar-ri-it-ti 33n16
 mar-ša-a+ 130
 mar-ša-a-aḫ-ḫ+ 130
 mar-ša-an 130
 mar-še-e-i+ : mar-ša-a+ 130, 137
passim, 159, 198n38, 218,
 219—222 *passim*
 "mars₁e-^{mi}" (false norm.) 131,
 219
 ma-uš+ (mid.) 34
 "mehunaš" 157
 me-e-ḫur 214n13, 227n30, 258
 me-e-mi-iš-ki 111
 me-mi-iš-ki-ši 109
 me-mi-iš-ki-it-te-en 111
mena-hhanda 257
 mer-^{mi} 222
 me-ir-ta 243n12
 me-ir-zi 243n12
 mi-i-e-eš-ki-it-ta 112
 mi-li-it 183, 215
mitae- 97
 mu-ka-e-i+/mu-(u-)ga-(a-)i+ :
 mu-ga-(a-a=)+ 98—99
 mu-ki-iš-ga-u-e-ni 110
 mu-ki-iš-ki-ir 111
 mu-(um-)mi-(i-)e-i+ 34
 mu-(u-)un-na-(a-)i+ :

mu-un-na-(a-)(-)+ 99—100
 mu-un-na-(a-)ši 130
 mu-un-na-an-zi 130
 "mutae-" 97
 naḥšar(a)-* 68
 na-aḥ-ša-ra-az 68
 na-aḥ-ša-ri-(ia-)a+ 68, 214
 na-i-e-ša-ḥu-ut 113
 na-iš-ki-it-ta-ri 112
 nakk-* 69
 nakki- 69
 na-ak-ki-e-(i=)+ 68—69, 215n14
 nakkiyaḥḥ- 69
 nakk(i)ye- : nakkuss(i)ye- 67, 69
 na-ak-ku-uš (neut. acc. sg.) 69
 na-ak-ku-uš-š+ 69, 215n14
 nakkušši/a- c. 69
 na-ak-ku-uš-ši-e+ 69, 214
 ne (a 9-stroke sign) vs. ni (a 2-stroke sign) 125
 ne-e-^a 242
 ne-e-a(-ri) 242
 ne-(e-)i+ / na-(a-)i+^{hi} 231,
 242—244, 265n1 (norm. ne-
 /nai- : ne-)
 ne-e-iḥ-ḥi 265
 nekumanza 258
 nekuz 258
 newahh- 266
 "nije-" (false norm.) 243, 265n1
 -nu-stems 19, 135
 nuntar(a)-* 70
 nuntaraš 70
 nu-un-tar-ri-(e-)i+ 69, 214
 pa-aḥ-ḥa-aš-+ / pa-aḥ-š+^{mi} 257
 pa-aḥ-ḥur 157, 160
 pa-(a-)i+ : pa-a-a+ 106—108,
 145, 151, 196
 pa-a-i : pi-(i=)+^{hi} 101, 124, 143,
 191
 pa-iš-ga-ḥa-at 21, 113
 pa-iš-ga-ta-ru 113, 205

pa-iš-ka-aḥ-ḥu-[ut 113
 pa-iš-kán-da 113
 pa-iš-kán-ta 112
 pa-iš-kat-ta-ru 113
 pa-iš-kat-tu-ma 112
 pa-iz-zi 212
 palhi- 160
 pal-ku-i-ia-a+ 78, 101
 pal-wa-a-i+ : pal-wa-a+ 78,
 100—101
 (LÚ/SAL)pal-wa-at-ta-al-la-a+* 100
 LÚpal-wa-tal-la-aš 100
 pangar(a)-* / pangari-* 70
 pa-an-ga-ri-ia-a+ 70, 214
 [pa-]an-ga-ri-it 70
 pa-a-an-zi 136, 206—208, 212
 papparaš- 160
 papra-* 128
 pa-ap-ra-aḥ-ḥ+ 128
 pa-ap-ra-an-t+ 22, 127
 "pa-pr-e-" (false norm.) 219
 pa-ap-ri-i+ : pa-ap-ra-a+
 127—128, 137 passim, 218,
 219 passim, 220, 222
 pa-ap-ri-it-ta 127
 pa-ap-ri-iz-zi 22, 127
 pa-ra-a+ 129
 par-aḥ+/par-ḥ+^{mi} 127, 129, 150
 pá-rak-ta-ru 54, 212
 pá-rki-ia-a+ 54, 212
 pá-rku-i-e-i+ : pá-rku-(i-)ia-(a-)+/
 pá-rku-wa-a+ 62—63, 141,
 151, 215
 pá-rku-nu-u+ 63, 63n37
 parku-ye- 14n10, 63
 parkui- 13n10, 63, 63n37, 215
 pá-rku-wa-a-it 63, 151
 pá-rku-wa-an-zi 63
 pá-r-aš-+/pár-š+ 56, 89
 NINDA pá-rša- 89, 217
 pá-rša-(a-)i+/pár-ša-i-i+ :
 pá-rša-(a-)a+ 89, 217

pár-ša-i-iz-zi 89
pár-ši-(ia)-a + 55—56, 212
pár-ši-na * 89
pár-ši-it-ta-ri 56
pár-aš-na-a-i + : *pár-ša-na-a-a* +
 88—89
pár-šu-wa-ni 56n31
pa-a-ši 258
pasihai- 151
pa-aš-ku-: *pa-aš-ku-w* + 57, 212
pa-aš-ku-ši 212
pa-aš-ku-ut-ta 212
 “*paškuwai-*” (false norm.) 183
pa-aš-ku-wa-an-zi 212
pa-aš-ku-i-i + 57, 183, 212
pat(a)- 70
 (^{GIS})*patalḫa-* 90, 217
pa-tal-ḫa-e + 89—90, 160, 198,
 217
 **pa-tal-li* + 70
pa-tal-li-ia-a + 70, 90
 “*pattalje-*” (false norm.) 70
pí-e + (: *pa-a* +) 36, 96 (< **per*),
 108, 133, 151, 184, 184n29,
 208, 212
pí-(e)-ḫu-da-an-zi 22
pí-(e)-ḫu-te-(i=) + : *pí-e-ḫu-da-a* +
 36, 131—132, 133, 159,
 214n13, 223, 225, 226, 227,
 227n30
pí-(e)-ḫu-te-iz-zi 22, 118n39
pí-e-i-mi (for **pí-i-e-mi*?) 29n12
pí-(i-(e))-i + : *pí-e-ia-(a=)* +
 29—31, 208—209
Piha-walwi- (Luw. in Hitt.) 12
pí-ia-na-(a)-i + 101, 124
pí-eš-ši-(i-(e))-i + :
pí-eš-ši/še-ia-(a=) + 34—37,
 108, 151, 184, 201, 205
pí-eš-še-ad-du 130
pí-eš-kán-du 112
pí-iš-kán-du 112

pí-iš-kán-zi 110
pí-iš-kat-ten 112
pí-iš-kat-te-ni 110
pí-i]š-ki-it-ten 112
pí-iš-ki-id-du 111
pí-e-ta-i 108
pí-e-da-an 9, 10
pí-ir: oblique *pár-n* + 175, 197
pitta * (noun) 90, 217
píd-da-a + / *pít-ti-i(a-a)* + 230,
 244—245
píd-da-a-i 244
pidda- 19
píd-da-(a)-i + ^{mi} 90, 217
pít-te-nu-uz-zi 244n14
^{Lu}*pít-ti-ia-an-t* + 244 *passim*
pít-ti-ia-an-zi 244 *passim*
pít-ti-nu-(u=) + ^{mi} 244
pít-ti-nu-an-zi 244n14
pít-ti-nu-uz-zi 244n14
píttul(a)- 70, 71n42 (*píttul-*
 neut.)
pít-tu-li-a = / *ia* + 70
píttuliya- c. 71n42
 **piyana-* 101
pu-ta-li-ia-a + 71
pu-ut-ki-i-e-i + 77
pu-u-wa-(a)-i + 152
-r > zero 96
 syncope 227
ša-aḫ-ḫa-an + 162
ša-a-ḫi-iš-kat-ta-ri 112
ša-a-i + : *ša-a-a* + 86
ša-a-ak + : *ša-ak* + : *še-ik* + ^{hhi} 101
sagai- c. see *ša-ga-i-[i]š*
ša-ga-i-[i]š 71, 215
ša-a-ki-i + 71, 215
ša-ak-ku-ri-ia + 71
ša-a-ku-wa-a + (*šakuwa-*) 106, 212
ša-ku-wa-ia 106
ša-ku-wa-i-e-i + :
ša-ku-(u)-wa-(a)-a + /

ša-ku-wa-ia + 106
ša-ku-wa-i-e-it 106
ša-(a)-jak-ta-(a)-i + 97, 101—102
ša-al-la-nu-uš-kat 111, 114
šal-la-nu-uš-ki-ir 111
ša-al-la-nu-uš-ki-ir 111
šalli 72
šal-li-ia-it-ta 37, 72
šal-li-i +, *šal-li-ia-i* + 72
šal-li-it-ta-ru 37, 72
ša-li-iz-zi 72
ša-an-ḥi-iš-kat-te-ni 110, 114
ša-an-ḥi-iš-ki-u-wa-an 113
ša-an-ḥi-iš-ki-u-e-ni 110, 114
ša-an-na-a + ^{hhi} 162, 205
ša-an-na-a-i 205
šar-ḥ +? 127
šar-ḥi-i-e-i + 77, 127, 127n62
šarku 81, 216
šar-ku-e-i + / *šar-ku-u* + :
šar-ku-wa-a + / *ša-ra-ku-wa-a* + 81,
 216
šar-ku-ut-ta 81
šar-la-a-i + 'extol' 108—109
šar-ni-ik-zi 69n41
šar-ni-in-ki-eš-ki-u-e-ni 110
šar-ra-aš 127
šar-ra-aš-ki-it-ta 112, 127
šar-ra-at-ta 33, 126
šar-ra-at-tu-ma 33, 126
šar-ri-(e)-i + : *šar-ra-a* +
 126—127, 223, 228—229
šaru 82, 216
ša-ru-u-e-i + / *šar-wa-i* + 82, 216
ša-aš-nu-uš-ga-at-te-ni 110, 205
ša]-aš-nu-uš-ki-it-ta-ni 110
še vs. *ši* (syllabary signs) 130
 + (*š*)-*še* 130
 + (*š*)-*ši* 130
šeḥur neut. 72, 201, 205, 214,
 227n30
še-ḥu-ri-e-i + 72, 214

še-e-ir 109, 163
še-eš-ki-ia-aḥ-ḥu-ut 113
še-eš-ki-u-wa-an 113
 + *š-ši-i* + : + *š-ši-ia* + 36, 37n18,
 72, 73n44, 184
ši-pa-an-za-kán-du 21, 21n3
ši-pa-an-du-wa-ni 266
 *šippa 102
ši-ip-pa-a-i + : *ši-ip-pa-a* + 102,
 162
ši-ip-pa-an-ta-an-zi / *iš-pa-an-ta-an-zi* 266
ši-ip-pa-za-ki-u-wa-an 113
ši-ip-pa-za-ki-u-wa-an 114
ši-it-ta-ri-i + / *ši-ia-at-ta-ri-i-e-i* + :
ši-ia-at-ta-ri-ia + 72—73, 214
 *ši-ia-at-tal-la 72
 *ši-ia-at-tal-li 72
ši-ia-at-tal-li-ia-a + 72
siyannas 73n44
*siyatar** 73, 73n44
 *siyatar*a*/i- 73
spand-ska-ntu 21
 + *š-ki-(e)-* + : + *š-ka* + / + *š-ga* + 20,
 22n4 (-*ske* - : -*ska*-),
 109—115, 135
 -*ssa* - : -*ss*- 265—267 *passim*
šu-ul-li-(i=) + : *šu-ul-la-(a=)* + /
šu-ul-li-ia-a + 120—121, 202
šu-un-na-(a=) + ^{hhi} 38, 38n20
šutae 97
šu-ut-ta-ru 83
šu-ut-ta-ti 83
šu-ú-i + / *šu-ú-i-e-i* + : *šu-wa-a* +
 82—83, 136, 228
šu-ú-ni-(e)-i + : *šu-ú-ni-ia-a* + 38,
 141, 201, 202
šu-wa-ia-u-un 39 (39n21),
šu-wa-i-i + : *šu-wa-ia* + 38—39,
 92, 136, 210
 + *t-ta* (< **te*) 114
 = *te-(i=)* + : -*ta/da-(a=)* + verbs

225
da-a-ah-ḥé 265
da-a-i : *da-a*+^{hhi} 109, 158, 247,
 268
dakk^{hh} 230n34
da-aš-ki-e-u-ē-n[i] 110
da-aš-ki-iz-zi 108
da-a-i : *ti*-(*i*=)+^{hhi} 21n2, 36,
 37n18, 42, 59, 110, 209, 210,
 223, 225, 247
ta-(*a*)-*i*-*i*+ (: *ta*/*da*-(*a*)-(*i*)-*ia*+
 39—41, 106, 136, 210, 253
ta-(*a*)-*i*-*iz-zi* 21
ta-ia-zi-il+ 21, 40
 **dai-xa-i* 21n2
 **dāy-e-i* 21n2, 43
dākk^{hhi} : *tekkuss(i)ye*- 67,
 215n14
ták-ka/ga-li-i=*e*+ :
ták-ka/ga-li-ia-a+ 73
tággani- 73n45
taksanna^{hhi} 266
ták-ša-an-ni-i+ / *ták-ša-at-ni-i*+ :
ták-ša-at-ni-ia-a+ 66, 73,
 73—74, 214
ták-ša-an-ni-iš-ki-it 111
taksatar 73 *passim*, 266
takšul- 90
ták-šu-ú-la-a-e+/*ták-šu-la-i*+ 90
^{LU}*takšulaš* 90
-ttalla- 72, 72n43
tal-li-i-e-i+ 41
daluki- 18
dammešḥa- c. 91, 217
dam-me/mi-iš-ḥa-(*a*)-*i*+ :
dam-me/mi-iš-ḥa-(*a*)-*a*+
 90—91, 217
da-me-eš-kat-te-ni 110
tameumma- 226n28
dampuēšš- 14n10
ta-a-ni-i+? 78—79
ta-a-ni-iz-zi (OH; likely a

misreading for *ta a-ni-iz-zi*) 79
 + (=t)-*ta-ni* 114
dankui- 13n10
dannatta- (*tannatta*-) 135, 185,
 222
dannattahḥ- 135, 185, 218
ta-an-na-at-te-i+ 135, 185, 218,
 219, 222
dannattes- 219
ta-pár-na-a+ 158
tar-ḥ+ 127
ta-ri-ia-a+ 57, 209, 211
ta-ri-ia-at-ta 208
tar-kum-ma-i+, *tar-kum-mi-ia-i*+ :
tar-kum-mi-ia-a+ 102, 164
 (G^{IS})*tarma*- c. 91, 217
tar-ma-a-an-zi 21, 91
tar-ma-(*a*)-*e*/*i*+ : *tar-ma*-(*a*)-*a*+
 91, 146, 151, 164, 217
tar-ma-e-mi 21, 91
tar-ma-iš-ki-mi 91, 109
tar-ma-a-iz-zi 21, 91
tarna^{hhi} 120
tar-ra-a+ 128—129
tar-aš-ki-iz-zi 109, 114
tar-aš-ki-u-en 111
tar-aš-kán-zi 111
tar-ša-an 266
tar-ši-kán-zi 110
tar-ši-ik-kán-zi 111
tar-ši-ki-mi 109
tar-ši-ik-ki-ši 22
tar-ši-ki-iz-zi 109, 113
tar-ske-si 22
tar-šu-wa-an-zi 266
tar-u[k-zi 63n37
da-aš-ki-e-mi 109
da-aš-ki-e-ir 111
da-aš-ki-ir 111
te-i+ : *ta-r*+ / *da-r*+ 57, 209,
 211, 225n27
te-e-eh-ḥé 18, 21

te-ik-ku-uš-š+ * 74, 215n14
te-ik-ku-uš-ši-e-i+ 74, 215
+ (=t)-ten/ + te-en 114
te-*ip-nu-uš-ki-te-ni* 110
teripp^{mi} 186
di- 21n2, 37n18
ti-an-zi 210
ti-en-zi 210
ti-ia-an-zi 210
ti-i((e)-i)=+ : *ti-(i)ia(-a)=*^{mi}
 41—43, 210, 211
ti-(ia-)an-zi 21n2, 37n18
ti-(i)ia-(a-)an-t+ 210
ti-i-en-zi 210
**di-ske-s* 21
**di(y)-ant-i* 21n2
(^{Uzu})tita(n)- 165
ti-it-ḥi-iš-ki-it-ta 122
ti-it-ti-(ia-)a+ 58, 209, 211, 245
tuhus(s)ye- (LH) 163
tuppi- neut. 74
tu-pf-i+ : *tup-pf-a*+ 74, 153, 178,
 193
tūri- (^{GI}ŠUKUR) 64, 215
tu-(u-)ri-(e)-i+ : *tu-u-ri-ia-(a)=*
 63—64, 215
tu-uš-ki-iš-kat-ta-ru 113
tu-wa-ar-na-zi 203, 204
tu/du-wa-ar-ni-(i)=+ :
tu/du-wa-ar-na-(a)=+ /
tu-wa-ar-ni-ia+ 121—122,
 158, 199, 202, 203n2
du-wa-ar-ni-iz-zi 121, 202n1, 203
u-stem nouns 136
+u-en 114
+u-e-ni 133
u-e-iz-zi 31n13
u-i-e-it 29n11
u-i-e-iz-zi 29n11
+u-ni 133
u-uh-ḥi 201, 205
+(u-)wa-ni 114

ú(-u)+ 36, 86, 108, 133, 137,
 145, 208, 211n10
ú-an-zi / *ú-wa-an-zi* 85, 136
ú-(e)-i+/*ú-e*+/*ú-i-i*+ :
ú-wa+/*ú-(wa-)a*+ 84—86, 108,
 136, 145, 145n9, 196,
 211n10, 214n13
ú-e-eh+ : *wa-ḥ*+ 141
ú-e-mi-(e)-i+ : *ú-e-mi-(ia-)a*+
 43—44, 136, 189, 196, 199,
 210—211
ú-e-mi-e-iz-zi 44
ú-e-mi-e-it 205
ú-e-mi-ia-at 205
ú-e-mi-iz-zi 21
ú-e-mi-(ia-)an-zi 21
ú-e-mi-ia-iz-zi 37, 44
ú-en-zi 21, 85
ú-e-ri-i+ : *ú-e-ri-ia-a*+ 57—58,
 77, 140, 211
ú-e-ri-ti-ma-a+ 135
ú-e-ri-ti-ma-an 135
ú-e-eš(-š)=^{na} 129—130, 221,
 223
ú-e-ši-i+ : *ú-e-ši/še-ia-a*+ 64, 215
ú-e-še-ia-at-ta 64n39, 208
ú-e-eš-kán-ta 112
ú-e-eš-ki-it-ta 112
ú-e-eš-ša-an-ta 168
ú-e/i-šu-(u-)ri-ia-(a)=+ 74—75,
 168
 “*ú-e-da*” (misreading for *ú-e-it*)
 128
ú-e-te-(i)=+ : *ú-i-ta-a*+ / *ú-e-da-a*+
 134, 142, 195, 223, 227
ú-e-iz-zi 21, 145n8
ú-i-la-a-nu-uš 138
ú-i-il-na-(a)aš 138
ú-i-iš-kán-ta 112
ú-iš-[k]i-it-ta 112
ú-i-ia-iz-zi 37
ú-i-ia-iš-ki-mi 109

ú-i-e-i+/u-i-e-i+ : ú(-i)-ia-(a=)+

29—31, 208—209

ú-iš-kán-da-ri 113

ú-iš-kán-ta-ru 113

ú-iš-ki-it-ta-ru 113

ú-i-iš-ki-it-ta-at 113

*ú-e/i-da/ta- 103

ú-i-da-a-i+ : ú-e/i-da/ta-a(-)+

102—103, 142, 167

ú-iz-zi 18, 84

ú-li-li-iš-ki-id-du-ma-at 113

ú-me-ni 201, 206

uppa(i)^{hhi} 166, 197

"uppiē-" (false norm.) 166

ur-ki-ia-i+ 44, 91

"urkīē-" (false norm.) 91

urkiya.* 91

uš-ša-ni-ia-(a=)+ 75, 124—125

uš-ne-e+* 75, 125, 137, 218, 222

uš-ne-eš-kat-ta 112

uš-te-ni 201

ud-da-ni-ia-a+ 75, 214

uttar see ud-da-a-ar

ud-da-a-ar / ut-tar 61n35

ú-uš-ki 111

+u-uš-š+ (< *-us- : *-wos-) 67

(ú-)uš-ši/še-i+ : (ú-)uš-ši-(ia-)a+

34—37, 201

ú-ši-e-it-ta (to ú-e-ši-i+, etc.) 64,

65n40

ú-wa-an-ši-ki-u-en 111

ú-wa-an-zi 21

ú-wa-an-zi (to u^{hhi} : aus^{zi}) 201,

206

ú-wa-ri-te-i+ : wa-ri-ta-a+

134—135, 218, 222—223

ú-wa-te-(i=)+ : ú-wa-ta/da-a+ 36,

132—134, 167, 198n38, 223,

225, 226

Walwa-ziti- (Luw. in Hitt.) 12

wa-ag-g+ 76n49

wa-ag-ga-a-ri (mid. prs. sg. 3)

76n49

wa-ag-ga/qa-ri-ia-(a=)+ 75, 214

wa-ak-ši-ia-(a=)+ 76n49

wa-ak-ši-ia-zi (LH) 76n49

walḥ- 204 *passim*

walkwa- 105

wallai^{hhi} 167, 188, 197

"wallīē-" (false norm.) 167

wa-al-lu-uš-ki-id-du-ma-at- 113

wa-al-lu-uš-ki-u-an 113

+wa-ni 133

wa-ap-pi-ia+ 44

+wa-r+/+wa 58, 211

warsa- 76

wa-ar-ši-ia-a+ 76

wa-a-š+^{hhi} 125, (wās-) 222

wa-aš-še-i+/wa-aš-ši-(e-)i+ :

wa-aš-ša-a+/wa-aš-ši-ia+

129—130, 137, 168, 198n38,

200, 206—208, 220, 221,

223, 224, 224n26

wa-aš-ša-an-zi 22, 104, 129

wa-aš-ša-a-ši 130

wa-aš-še-iz-zi 22, 129

wa-aš-ši-e-iz-zi 130

wa-aš-ši-ia-an-zi 130

wa-aš-ši-ia-zi 130

wa-aš-ši-iz-zi 130

wa-aš-ta 130

*wade- : *wada- 133

wer.* : wer(i)ye- 77; see also

ú-e-ri-i+, etc.

wes- 65n40

wesi- c. 65, 215

westara- c. 65n40

wesurye- see

ú-e/i-šu-(u-)ri-ia-(a=)+

-ye- : -ya- see +i-(e-)i=

/+i-e-(e-)+, etc.

za-a-ḥi 77n51

zahh- 77, 77n51, 211

zahhāi- c. 77, 215

za-ah-hi-ia-at-ta 208
za-aḥ-ḥi-(e)-i+ : *za-aḥ-ḥi-ia-(a=)* +
 76—77, 211, 215
za-aḥ-ḥi-eš-ki-nu-un 111
za-aḥ-ḥi-iš-kán-ta 112
za-ma-kur+ 104
 **zammura*- 103-104
za-am-mu-ra-(e/a)-i+ :
za-am-mu-ra-a+ 103—104
za-ap-pi-ia-a+ 79
zi/zé-e-(i=) + 123, 203
 “*zi je*.” (false norm.) 203
zi-ik-kán-te-eš 113
zi-ig-ga-an-zi 111
zi-ik-kán-zi 111
zi-ik-ki-eš 21
zi-ki-e-it 111
zi-ki-e-ú-e-n[i] 110
zi-ik-kán-t+ 115
zi-ik-ki-iz-zi 109
zi-in-na-i 123
zi-in-na-an-zi 22, 122
 “*zinne*.” (false norm.) 123
zi-in-ni-i+ : *zi-in-na-a+* 122, 202
zi-in-ni-it 22, 122
É siyannas (=É NA₄ KISIB) 73
 **LUGAL-u-iz-zi-* 66
LUGAL-u-iz-zi-i+ 66
 G¹⁸*SUKUR* see *tūri-*
TI-eš-zi 17, 236
 P¹*UTU-uš* 236

Palaic

a-ḥu+ 153
a-ni-i+/a-ni-e-i+ : *a-ni-(i-)ia+*
 140, 144, 195, 199, 209
a-aš+ : *a-š+* 139, 142
az-zi-ki+ 140, 143
ḥa-pa-ri-(i=) + 141
ḥu-uš-ši-i-i+ 141
iš-ka+ 141—142
i-ú 142n4, 145, 196, 226n29

ki-i-tar 96
lu-(u-)ki-(i-)i+ :
lu-ki(-in/i)-lu-ki-(i-)e+/i+ 141
ma-li-t+ 183
pa-ar-ku-i+ / *pár-ku-i+* 141
ši-(i-)i+ 142
šu-ú-na-a+ 140, 141, 201, 202
ták-ku-wa-a+, *ták-ku-wa-ga+* 142
ta-a-(az-)zu-(u=) + 140
ú-e-ir+ 140
ú-e-ir-ti 58, 211
ú-i-te+/ú-i-ti+ 142
wa-ḥa-ri-ia-a+ 142

Proto-Luwian

**a* 10
 **adtu* 169
 **a-ya*- 207
 **ā-* (< PA **yā-*) 174, 207
 **ha* 257
 **i*- 13
 **kwalās* 148
 **muwa*- 34
 **pa* 184n29
 **piha*- 185
 **sar* 109, 163
 **wasu*- 189
 **wásuwati* 189

Cuneiform Luwian

-a- (thematic) 12
-a (neut. pl. nom./acc.) 12
a-aḥ-ḥa 9
a-(a-) + 142, 143, 170, 192, 196,
 199, 206, 212
a-a/i-ia-(a=) + see *a-(a-)* +
aggati- 179
akkussa- 179
a-ku-wa-a+ 153, 199
a-ku-wa-an 153
am-ma-ša-t[a] 154
am-ma-aš-ši- : *am-ma-aš-ši-ia-a+*

47, 153—154, 199
 *-an (c. sg. nom.) 12
 -an (neut. sg. acc.) 12
 -an (neut. sg. nom.) 12
 an-ni- 13
 a-(a-)an-ni-(i)- :
 a-ni-(e-)ia-(a=) + 143—144,
 195, 199, 209
 an-ni-ia-ti 13
 *-anzi (c. pl. nom.) 12
 a-pa-a = 9
 ap-pa-ra-an-ti-en 12n7
 ap-pa-ra-an-ti-in 12n7
 a-(a-)ri-i+ : (a-)a-ri-ia(-a) + 154,
 197
 [arminzi]: see ^DEN.ZU-in-zi
 a-ar-ši-ia-a + 154—155, 199,
 231, 238
 (a-)aš+ : a-š+ 142
 -assi- 164
 a-d+ / a-z+ 142
 *a-ta/da-r(i)+ (noun) 155
 a-ta/da-ri-(i=) + 155, 199
 =a-ti 13
 a-ú-/a-w+ 145
 a-ú-i+/a-wi+ (: a-wi-ia-a+?) 144,
 145n9, 171, 196
 awimi 144, 156
 a-ú-i-ti 144, 145n8
 az-tu-u-wa-ri 143
 az-za-a+ 143
 -e- (< PA *-a-) 12
 (e-)el/il-ḫa-(a-) + 147, 199
 el-ḫa-ú-i 12n7, 147
 [ə] (< PA *-a-) 12
 ḫal-li-eš-ša 12n7
 ḫal-li-iš-ša 12n7
 ḫal-ta-a+/ḫal-ti-i+ 145, 197
 ḫa-an-da-a+ 155, 217
 ḫa-(a-)pí+ : ḫa-pa-(a-/i-)i+ 146,
 198
 ḫar-wa-an-ni-i+ 155, 171, 199,

214
 ḫa-aš-pa+ 146, 199
^{Giš}ḫattara/i- 156, 217
 ḫa-at-ta-ri-i+ 155—156, 217
 hawi- 258
 ḫu-u/i-ḫu-i-ia-(a=) + 156
 ḫu-u-i-ia-(a=) + 156, 197
 ḫu-u-i-ia-mi 156
 huit-* 237 *passim*
 hu(i)tum(ma)nahi 237
 huidumar 237
 huidwali- 237
 -i- (< PA *-a-) 11
 i(-i)+ : i-ia-a+ 144, 171, 196
 il-ḫa-ti 12n7, 147
 i-li-il-ḫa-a+ / e-li-el-ḫa-(a-) + 147
 -in (c. sg. acc.) 12
 -inzi (c. pl. nom.) 12
 -iš (c. sg. nom.) 12
 iterative in -za- (Melchert) 156
 kán-ga-ti+ : ga-an-ga-ta-(a-)i+
 147, 198
 kap-pí-la-al-li-iš 156
 kap-pí-la-az-za-a+ 156, 197
 kat-mar-s+* 147
 kat-mar-ši-i+ 147, 199
 ki-(i-)š(a-a)+ 97, 156—157, 182,
 199
 “kiša(i)-” (false norm.) 157
 *kulan(a)- 157
 ku-la-(a-)ni-(i=) + 148n10, 157,
 214
 ku-u-la-aš 148
 kuwal- : kul- 148
 *k(u)wala- 148
 *kwala-ye- 148
 ku-wa-li-i+ : ku-(wa-)la-i+ 148,
 198
 l- : Hitt. t/d- 158
 la-(a-)a+ 109, 158
 la-aḫ-ḫi-i+ 157—158
 la-ḫu-ni-i+ : la-(a-)ú-na-i+ 147,

157, 198
la-pár-na-a + 158
la-(u-)wa-ar-ri-(i=) + 158, 199,
 202
la-u-wa-ar-ru-na 158
li-(i-)-la-a + 158, 217
li-la-i + : *li-la-a* + 158, 198n38,
 217
lu-u-wa-a + / *lu-ú-u* + 147
ma-a-la-ḥu-u + : *ma-al-wa-(a-)a* +
 157, 158—159, 199
malahuta (< **malawata*) 159
ma-a-li + 148
ma-li + : *ma-la-a-i* + 148, 198
ma-al-li-(i-)t + 183, 215
ma-am-ma-al-ḥu-u + :
ma-am-ma-lu-wa + 159
-man- 164
ma-na-a + 149, 175, 199, 200,
 229
ma-ar-ša + 159, 198n38, 199
mar-ša-aš-ša 159
mi-im-ma-a + 159, 199
-n- stem nouns 11
-nt- stems 11
pa-(a-) + 212
pa-a-ḥu-u-ur 157, 160
pal-ḥa-a-a + 160
pa-ap-pár-ku-wa-a + 150, 198,
 199
pa-ap-pár-ku-wa-at-ti 149
"pappaš-" (false norm.) 160
pa-ap-pa-ša-a + 160, 199
pár- + / *pa-ra-a* + 149—150, 199
pa-ra-ad-du 150
pár-ku-wa-i + 149, 150
pár-ku-wa-i-mi-in-zi 150
pár-n + 175
pa-ar-ri-i + : *pa-ar-ri-e* + / *pa-ri-ia* +
 150, 198
pár-du 150
pa-ši-ḥa-(a-)i? + : *pa-(a-)ši-ḥa-a* +

151, 199
 **patalḥa-* 160
pa-tal-ḥa-(a-)i + 160, 198
pa-wa-ar-i + 157, 160—161, 199
pt-ḥa- + 161 *passim*
pt-ḥa-i + / *pt-ḥa-a* + 161, 184, 198
piḥa(i)mmi- 161
pi-pi-iš-ša + 143
pu-tal-li-i + 151—152, 198
pu-(u-)wa-(a-) + 152, 199
*šā-*ⁱ 163
ša-aḥ-ḥa-an + 162
 **ša-(aḥ-)ḥa-ni-i/e* + 161—162
ša-(aḥ-)ḥa-ni-i/eš-ša-a + 162
ša-na-a-e + / *ša-an-na-i-i* + 162,
 176, 201, 202, 205
 **šap-pa-* + (noun) 162
šap-pa-a + 102, 162, 199
šar-la-(a-)i- + / *i* + 162—163
ša-aš-ša + 163, 197
-tta 9
ta-ḥu-ši-ia-a + 163, 199
-talli- (:Hitt. *-talla-*) 72
ta-pár + 143
tar-kum-mi-i + 164, 199
tar-mi- + : *tar-ma-i* + 146, 164,
 198, 198n38, 205, 217
tar-mi-iš-ša-an-du 164
tar-pí-(i-) + 187
ta/da-(a-)ta-(ar-)ri-(ia-)a + *
 164—165, 188, 209, 211
ta-ti- 13
ta-ti-ia-ti 13
dawalli- * 152
da-wa-al-li-i + 152, 198
dawi- 152
ti-ia-am-mi-eš 12n7
ti-ia-am-mi-iš 12n7
ti-ta-i(i=) + * 165, 198, 198n38
ti-ta-i(im-)me-iš 165, 194
ti-i-ta-an + 165
"tümma(n)taimma/i-" (false

norm.) 165
tumman(t)- 165
tu-um-ma-an-te-i+
 / *tu-u-ma-an-ti-i+* 143, 165,
 199
tu-u-um-ma-a-ta-i-i+ * 165, 198,
 200
tu-u-um-ma-a-ta-i-im-mi-iš 165
 **du-ú-pa-* + 153
du-(ú-)pi+/du-(u/ú-)pa-i+ 74,
 143, 152—153, 178, 193,
 198
du-ú-wa-a+ / *tu-u-wa-a+*
 : *du-ú-u+* / *du-ú-wa-a+*
 165—166, 197, 199, 200
u-wa-ni-i-ta-i+ 167—168, 198
ú-i/wi-š-i- : *ú-i-ša-i+* 168, 198
ú-l+ * (*ú-la-a+* *) 167, 188, 200
ú-la-an-ti-iš 167
ú-na-i-i+ 166, 201, 202
ú-pa-(a-) / *(u-)up-pa-a+* 145n9,
 166, 197
ú-wa-ta-a+ 145n9, 166—167,
 198n38, 223
wa-al-li-i+ 167, 188, 197
walwa- 105
wa-ni-i-ti-i-iš 167
^{NA}₄ *wanni-* 167
wa-aš-ḥa 168
wa-aš-ša-a+ 168, 198n38, 200
wa-a-šu-i+ 14n10
^{UZU} *za-a-ar-za* 189
 EN-aš 12
 **EN-iš 12
^DEN.ZU-in-zi 12
 traces of feminine, 7f.
 KASKAL^{HIA} *wa-an-za* 171
^dU *ḪI.ḪI-aš-ši-* 161n15
^dU *pi-ḥa-aš-ša-aš-ši* 161n15
 Hieroglyphic Luwian
á-à+ 170, 192, 196, 206, 212

á-ia+ 170, 192, 199, 212
 (INFRA) *á-ka-* + 179, 200
á-ka-ha 179
á-s+ 169
*ashar-** 179
 “308”-*á-sa-ha-ra/i-* + 179, 199,
 214
 “308”(=Laroche 350)-*á-sa-ha-*
ra/i-mi-sà(-) 179
á-sá-ta 169
á-t+ 169
a-ta-ṣ-ma-za 260
á-tà-tu [adantu] 169
á-w+ 171
á-wa/i-(i-) + 170—171, 196
 PES-*wa/i-(i-)* + 170—171
 PES-*wa/i-i* 171
 (LITUUS)-*á-za-* + 179, 199, 200
Á-za-ti-i-wa/i-tà-sà 179
á-za-tu [atstu] 169
 “VIA”-*wa/i-na* 171
 VIA-(*ha-ra/i-*)*wa/i-ni-(i-)* + 155,
 171, 199, 214
ha-t+ 172, 173
*hatali-** 173
 (Meriggi) *l l-ha-ta-li-(i-)* +
 172—173
ha-ta-ma 172
ha-ta-ta 172
 (LOQUI)-*ha-ti-(i-)* + */ha-ra/i-(i-)* +
 172, 199, 211
ha-tu-(á-)-ra/i-(i-) + 172
ha-zi- + 50, 172, 174, 197
ha-zi-mi-na 172
 (PES₂)-*hwi-hwi-sà-* + 180
hwi/a-i(a)- + 180
hwi/a-i(a)-ta 180
hwi/a-i(a)-tu 180
 (PES₂)-*i+* : *i/ia+* 170—171, 196
i-sà-nu+ 169
 SOLIUM-*i-sà-nu-ha* 169
 SOLIUM-*i-sà-nu-wa/i-ha* 169

i-zi-(i)- : i-zi-ia + 173—174,
197

*314 *kat*- 187n30

ARHA OCCIDENS? -lá/i/u-si-ta
182

ARHA *la-tà-* + / *la-ra/i-* + 10n6,
180, 200

la-ra/i-à-nú- + 10n6, 180

LEGERE = (Meriggi) 42.1 182
lenition 10n6,

ARHA (LEGERE) *li-sá/(sa_g)* +
(*lis(a)-*) 97, 181—182, 200

"PANIS"-*ma-li-ri-i-* + 183, 199,
215

**malit*- 183

LITUUS-*na* + 174—175, 199,
200, 229

LITUUS-LITUUS-*na-i* 149

-*nu*-stems 169

parna-* 197

(DOMUS.)CRUX-*pa-ra/i-na-wa* +
175, 193

DOMUS-*na-zi* + (*parnazi-*) 175,
194, 197

DOMUS-*pa-ra/i-ní* 175

"CULTER"-*pa-ra/i-tu-ni-(i)-* +
183, 199, 214

pa-sa-ia + 151, 184, 199, 201,
205

pa-sà-kwi/a- 57, 183, 197, 199,
212

passive construction 184—185
(VERERI)-*pi-ha-* + 184

pi-ia-i 192

(SA₄-)*sa/sá-ni/nf-(i)-* + 162,
175—176, 201, 202, 205

passim

sa_g = (Meriggi) 127.5

ta-¹ 186

ta-ia 158

AEDIFICARE-MI/*ta-ma* + 176,
200

ta-ma-ta 176

(VASTUS-)*ta/tá-na-tá/ta-* + 185,
198, 200—201, 218

ta-ra/i-p + 186

*382 *tarap*- 187n30

"CRUX"-*tara/i-pa* 187

tarapa/i ta-¹ 187

(PES₂.PES-)*tara/i-pa* +
185—186, 199

tara/i-pa-i-mi-i-sa 186, 187

PES₂(PES)-*tara/i-pi-(i)-* +
185—186, 199

ta-ra/i-pu-n + 186

MALEDICERE-*tá/ta-tara/i-ia* +
188, 199, 211

-*ti-sa* 175

tumanti- 178, 199

AUDIRE+MI-(*ma*)-(ti)-(i)- +
165, 176—177

tumaTa- 178, 198, 200

AUDIRE-*ta-* + 176—177

AUDIRE-*ta-à-ra/i-nu* 177

AUDIRE-*ta-ra/i-ru* 177

("X")-*tu-pi-(i)-* + 74, 178, 193,
199

PONERE-MI-*tu-wa/i-i* 191, 197

tu-wa/i-tara/i- 150n11, 260

LITUUS-*u-na-nu* + 178, 205

LITUUS-*u-na-nu-ta* 178

LITUUS-*u-ni* + 166, 178, 202

u-pa-i 191, 197, 205

MORI-*wa/i-la-* + / *wa/i-ra/i-* + 167,
188

ARHA *wa/i-la-mi-na-á* 188

ARHA *wa/i-la-u-ta* 188

BONUS-(*wa/i-*)*li-ia-* 167, 188,
197

wa/i-mi-LITUUS- + 189, 196,
199, 210

ARHA MORI-*wa/i-wa/i-ri-i-ta-ti*
188

wa/i-su- + / *wa/i₄-sú-* + 189, 199

za-ra/i-ti- + 189—190, 198
za-ra/i-za 189—190
za-ra/i-za- + * 189—190
zú-wa/i-ni- 14n10
 CORNU 186—187
 SCALPRUM 186—187

Lycian

a/e- : *ai-* 191—192, 199, 212
-a- 9n4
abaija 9
a-di 10n6
-adi 13
*asaxlaza** 193
-(a)za 193
āne/-ēne/-ēni 8
ebe- 9
ebeija 9
ēke 9
ēni 13
epirije- 10n5
epñ 194
epri- 10n5
esbe- 10n5, 13
-(e)zi 193
ha-di 10n6
ipñ 194
izre- 13
kbatr- 150n11, 260
kuma 193
kumaza 192, 193
kumazi 192
kumazu 192
kumezi- : *kumezei-* 192, 193
kumezijē 192
la- 167, 194
lada- 8, 10, 10n6, 181
lenition 10n6
me 9, 9n4
mē 9
ne/nē 9
ñte/ñta 9, 243n12

-ñte/-ñtē 9
 nouns in *-a-* 8
pādē 9, 13
pādēne 9
pādēneh 9
pede- 10n5
pibiti 191
pi(j)- 191
pijatu 191
pijētē 191
pu- 194
(p)puwe- 194
*prñn-** 175
*prñnawa** 193
prñnawa- 175, 192—193
prñnawā 193
prñnawu 193
prñnezi 193
ta-di 10n6
-te/-tē 9
tedi 13
ti 9, 9n4
"tibeija" 9n4
tidei- 194, 198
tideimi 194
ttli- : *ttlei-* 194
tubi- : *tubei-* 74, 193, 198
tuweti 191
ube-te 191, 197
umlaut 9, 10
 vowel harmony: see *umlaut*
*xaha-** 12n8
xahati 12n8
xba- : *xbai-* 194
xssadrapa 193
xssa ḏrapaza- 192, 193
xtta- : *xttai-* 195
xuwati 191

Lydian

-ani- 195, 209
-ā v 11

ān rē- 195, 217
 bir- 175
 ēn- 175
 f(a)- 195, 196 *passim*
 fakatvāmi- 196
 fakorfi- 196
 fēnani- 195
 -kat- 196
 -korfi- 195, 212
 -vāmi- 196, 199, 211
 vāna 167
 vici- 195, 223, 227

Proto-Indo-European

*a 11
 *-a (act. sg. pf. 1) 257
 *āg- 19, 229, 250
 *āg-e-ti 17, 229
 *āg-o-nti 17, 229
 *ākti 250
 *ar-- 209
 *āus-os-ŋ 267
 **a_{yer}- 203
 *-ā- factitive 257, 267
 *-ā 8, 11
 *-ām 11
 **-ātnō 8
 *bheg- 229
 *bheidh- 230
 *bhék"ti 250
 *bher- 222, 246n15
 *bhéreti 240, 246n15, 247
 *bhérēti (= *bhere-e-ti) 252
 *bherag- 63
 *bhg"énti 250
 *bhrgh- 212
 coefficients sonantiques (A, Q, E) 15
 *dé-d(ə)-ŋti 247
 *dé-dō-ti 247
 *dek"s- 215n14
 *dow-éye- 200
 *dō- 247

*dhé-dhē-ti 247
 *dhé-dh(ə)-ŋti 247
 *dheg"h- 229, 330n34, 249
 *dhég"hdhi 249, 250
 **dhég"h-ŋti 249
 **dhég"hdhi 249
 **dheh₁- 222, 223, 225, 225n27
 *dheu- 230
 *dhē- 36, 37n18, 247, 260
 *dhē-t 58n33
 *dhg"hdhé- 249
 *dhg"hénti 249, 250
 *dhñ-to-s 222
 *dhñ-tó-s 222
 *dhugatr- 150n11, 260
 **dhugh₂ter- 150n11
 **dh_{yérh}₁- 202
 **dh_y(e)rh₁-je- 203
 **dh_ynéh₁-ti 202
 disyllabic roots 15, 259—260
 *e : *o 17
 *-e- : *-o- (thematic vowel) 17,
 19, 245, 246, 250 (as
 "buffer"), 251
 **-eh₂ 8
 **eh₃ 9
 *e g"em-t 212
 *ei- / *i- 86, 197
 *em- 211n10
 *endo 9
 **en-h₂o 9
 *és- : *s- 19, 247, 252, 253, 260
 *és-e-ti 247, 252
 *és-te 262
 *eus- 230
 *éusti 250
 *-e-ye- 220
 *éy-e-to-i 207
 *éye- 17, 249, 266 *passim*, 268
 *ə 258 *passim*, 259 *passim*
 *æster- 258
 *əwés- 17, 248

**awés-e-ti* 231, 235 *passim*, 238,
245, 247, 248, 250
**awésonti* 250
**awés-s-m* 238
**awŕ--* 203
***aws-énti* 248
**ġenə-tor--* 259
**ġénti* 250
***ġneh₃*- 254 *passim*
**ġnē-* : **ġnō-* 256
***ġnēh₃-s-* 254, 255 *passim*
***ġnēs-* 254
**ġheu-* 230
**ġ"ā-* 247
**ġ"em-* 212, 251
**ġ"ém-e-ti* 235, 251, 251n21
**ġ"i-ġ"ā-ti* 247
**ġ"i-ġ"(ə)-nti* 247
**ġ"m-yé-* 212
**ġ"m-ye-ti* 212
***h₁* (E, ə₁) 15, 15n12, 34, 41
***Edónt-* 253
***Eed-* 253
***h₁ei-* / ***h₁i-* 197
***h₁éj-e-* 206, 208n7
***H₁éj-H₂au* (Eichner) 226
***ə₁es-* 253
***h₁néh₃-mŋ* 18, 253
***h₁ork-éjə-ti* 266
***H₁wedA₁-* (Puhvel) 51
***h_{1,3}ūē-dheh₁-* (Oettinger) 228
***h₂* 15
***h₂āġ-e-ti* 247
***h₂au-* 226
***h₂éuh₁-* (Barton) 235
***h₂ōreh₂-jé-* 24
***ə₂ryé-* 24
***h₂x-ūéh₂* 24,
***h₂wedh₂-* (Melchert) 51
***h₂uerh₁-* 203

***h₂ūlh₂-é-ti* 204
***h₃* 15, 48, 100,
***h₃élh₁-* 204
***h₃l-né-h₁-ti* 204
***h₃ŋ-jé-* 209
***h₃ón-es-* 209
***h₃or-eh₂-* 92
***id-mō* 9
**-i-* (nominal suffix) 268 *passim*
***ih₂* 11, 13-14n10
**-iyo-* 9n4
l-motion, 8, 11—13
***ji-jeh₁-mi* (Oettinger) 209
***kiw-ó-*
**ks-enti* 182
**kéi-* 32
**kŕd-* 67
***ky-ó-* 248
***k"else-* 240—241
**k"éls-ti* 240
**k"ŕs-* 240
***k"ŕs-é-ti*
**k"ŕs-ónti* 240
**leg-* 229
**les-* 97, 183
**leu-* 258
**leudh-* 230
**léuk-to--* 224
***léuk-e-* 220, 224, 234
**los-éye-* 183
**low-éyō* 258
**louk-éye-* : **louk-éyo-* 206, 224,
234
**loukéyeti* 250
**loukéyonti* 250
**luk-tó--* 224
**med-* 230
**medhu-ēd-i-* 268
***meh₁-* 227n30
***meh₂* 227n30
**melit-* 215
**mer-* 222

**mérs-e-* > **mórs-e-* 220
**mesg-* 230
***mn-eh₁-* 200n39, 229
***mn-eh₂-* 200n39, 229
**mŋ-yó-* 268
**mon-éye-* 200, 200n39, 229
"Motionsfemininum": see *l*-
motion.
**mōwā-* : **mū-* / **muw-* 34,
**mōwā-(i)ye-ti* 34
**mowā-s-* 34
***mug-eh₂-* 99
**muw-(i)yé-ti* 34
**-n*-infixing stems 19, 213
***nejh-e-t* (Eichner) 242
**nef-* 69
**nes-* 230
**-néu-* : **-nu-* 17, 19
**-n-ē-* (> Hitt. *-ni-*) 37n18
**nō-mŋ* 18
**-nti* 249
**o* 11
**o* 8, 9
**o* (3 sg. mid.) 246
**o-* 5n.3
***obho-* 9
**-ō* (directive) 9
**-ō* (1. sg. act.) 246
**pā-s-* 257
**pek"-* 229
**pek"ti* 250
**pelā-* / **plē-* / **pĭ-* (for **plā-*) 15
**pēlā-mŋ-* 259
**per* 96, 212
**perd-* 230
**pét-e-ti* 19, 244, 245
**pét-e-to--* 244, 245
**pét(°)ti* 250
***pē + (ji)jē-mi* (Oettinger) 209
**plb-e-ti* 247
**plb-o-nti* 247, 250
***pl-ph₂-ti* 258

**pk"énti* 250
**pleu-* 230
***plāno-* 15
**pĭno-* 15, 260
**pténti* 250
**-r* 5n3,
**-s-* 17, 213
**-s-* : **-és-* 48
**sag-* 101
**-se-* : **-so-* 267
**sed-* 247 *passim*
**seġh-* 229, 250
***seh₁-* 37n18
**séknti* 250
**sékāhi* 250
**sek"-* 230n35
***serh₂-e-* 229
**serp-* 230
**sē-* 37n18, 201, 205
***si-né-h₁-* 203
**si-séd-ti* 219, 240, 247
**stsetsi* 248
**stset(°)ti* 248
**stst(°)te--* 248
**si-zd-énti* 219
**sizdesi* 248
**sizdete--* 248
**si-zd-e-ti* 128, 219, 240, 247
passim, 248, 250
**si-zd-é-ti* 219
**si-zd-nti* 247
**sizd-o-nti* 247 *passim*, 250
**-ské-* (: **-skó-*) 17, 20, 22n4
**--sketi* 250
**--skonti* 250
***skó* 'be' (Watkins) 142n4
***sn-n-h₂-* 205
**so-* / **to-* 2
***soh₂-* 101
**sor-éye-* 229
*(s)*pék₂yeti* 249, 249n18, 250
*(s)*pék₂yonti* 249, 250

****spérdh-e** 242
***spond-éje-ti** 266
****sprh₁-é** 228
***sreu-** 230
***(s)táh₂je-ti** 41, 210n8
 statives in ***-ē-** (***-eḡ₁-**) 69, 128,
 216n16, 216n17, 219, 229
***stā-** 66, 247
****s-té** 262
****steh₂** 210
***(s)teh₂-ye-** 253
***(s)th₂-(i)ye-** 210
***stéu-ṇti** 18
***(s)teup--** 74n47
***stī-stā-ti** 247
***stī-st(ə)-ṇti** 247
****stw-énti** 18, 248
****stw-ó-** 248
 subjunctive 251—252
****suh₁-é-** 228
****suh₂-jé-** 39
***-t** 19
***te** 114
***ték-** 248n17
***terk^m-** 63n37
***té-tek-ti** 248n17
***té-ték-ṇti** 248n17
***-t-i** 19
****t[h₁-jé-** 41
***-to-** 5n3, 19
***-to-r** 19
***tors-éye-ti** 266
***tres-** 229
***tréseti** 235
***tyeg^m-** 229
***uḡhdhé-** 249
***uḡhénti** 249
***us-** : ***-wos-** 67, 215n14
***usénti** 250
****us-ó-** 248
***us-s-és** 267
****uēdh-eh₂-** 103

***wedh-** 103
***wédh-e-** 103
***weḡh-** 229, 249
***wéḡhdhi** 249
****wéḡhdhi** 249
***wéḡheti** 240, 247, 250
****wéḡh-ṇti** 249, 250
***wéḡh-onti** 250
***wéḡh-ti** 249
***weik-t** 213
***uējs-** ('dreheñ', Pokorny) 75
***welk-** 230
***wert-** 230
***wér-yo--** 211
***wes-** 130
****wés-e-** 220, 221 *passim*
***wes-no-** 222
***wés-to--** 224
***wéyes** 249n18
***weya-** 228
***wi-n-ék-ti** : ***wi-n-k-ént-i** 213
***wóid-e** 249n18
****wóid-h₂e** 249n18
****wóid-th₂e** 249n18
***wolā-** : ***wlē--** 204
****wós-e-ti** < ****wés-e-ti** 221,
 224n25
***wos-éye-** : ***wos-éyo-** 130, 200,
 206, 224
***-wṛ** 214, 214n13
***-ye-** : ***-yo-** 17, 136, 206, 267,
 268 *passim*
***yebh-** 229
****yeh₁-** 206—207
yeh₁-** / *ih₁-** 207
***yē-** / ***i-** 197
***yug-** 19
***zḡhénti** 250

Proto-Indo-Iranian

****čarša-** 240
***dhughətr-** 260

**kṛś-ánti* 241

**kṛśá-240*

**kṛśá-nti* 241

Indic (Vedic unmarked)

a-gan 212

ájanti 17

ájati 17, 229

a-dhvanī-t 222n22

-ana- 101

áya- 208n7

áy-a-te 207—208

arc-f- 268

árṣati 239

árṣanti 240

aspr̥dhraṇ 238, 242

éti 208n7

óṣati 230

ṛc 268

rjrá- 258

ṛś 211, 239 *passim*

ṛś-á-ti 239

ṛśánti 239—240

kar-aná-h 101

kár-ana-m 101

kartá- (*kṛt*) 97

kárś-a- 240

kárṣati 241

kṛś 268

kṛś-á- 240

kṛś-f- 268

ksiyáti 228

jani-tā 259

táksati 248n17

**tátasṭi* 248n17

tāsṭi 248n17

tiráti 228

tudáti-presents 204, 228 *passim*

tyájati 229

trásati 229

dáhati 229

duhitár- 150n11

duhitr- 260

ḍṛś 268

ḍṛś-áy-e 268

deva-yá- 221

Pāli *dhamma* 45

Pāli *dhamma-cakka-pavattana-*
suttam 45

dharma 45

dhávate 230

dhūr- (nom. sg. *dhūr*) 64n38

dhvanⁱ 222n22

dhvān-tá- 222n22

dhvrⁱ 202, 203n2

nagná- 258

námas- 215

namas-yá- 215

náya-ti 242

náya-te 242

násate 230

nāman- 253

pácati 229

pátati 244

pári-man 259

Skt. *pardate* 230

páśyati 249n18

Skt. *pārśni-* 89

pā-s-a-ti 257

pībati 247, 258

pībanti 247

pūr-ná- 260

Skt. *prñāti* 202n1

prñāti 202n1

právate 230

bhar-ti 246n15

bhi-sáj- 101

májjati 230

Skt. *marṣati* 221

Skt. *mita-* 97

mṛś 221

mṛsthās 221

mṛṣyante 221

Skt. *mūta-* 97

yajñā-yá- 218
yábhati 229
yudh 268
yudh-áy-e 268
**rócati* 220, 221, 234
rócate 220, 221
rocáyati 221, 224, 234
ródhati 230
vártate 230
várdhati 221, 224, 234
várdhate 221, 224
vás-a-ti 17, 234, 238
vasná- 222
vás-te 224
váhati 229
vā-ti 258
vās-áya- 200, 224
Skt. vid- 102
vī-tá- 228
ved-a 257
Skt. vaidya- 102
śatru- 216
śatrū-yá- 216
śaye 5n3
Skt. śete 5n3
śmaśru 104
sárpati 230
sákhā 215
sáhate 229
sīdati 247
sīdanti 247
suvāti 228 *passim*
sūté 228
sau-ti 228
stǵbhis 258
spárdh-a- 242
spárdhate 238, 241, 242
spǵdh- 242
sphurāti 228
srávati 230
hán-ti 258
hávate 230

hi-tá- 260
Gāthic Avestan
ufiā 44
daxš- 215n14
naēšaŋ 243
barətū 246n15
vaf- 44
star- 258

Young Avestan
karəša- 240
naiia- 242
raocaiiēiti 224
vanha'ti 234

Old Persian
a-nay-a-tā 242
dipī 74

Modern Persian
bad 10

Greek (Homeric unmarked)
ἀγει 17, 229
ἀγουςι 17, 229
**ἀει* 235
ἀείς, ἀέντος 258
ἄεσα 235 *passim*, 238
**ἄεσ-σα* 235
**ἄεω* 235
*ἄφηνι** 258
Doric 'Αθᾶνα 49n24
(Hesychius) ἀναυρος 203
ἀντί 257
ἄνω 9
**ἄρFā* 24
ἀρή 93
ἀστήρ 258
αὔρη 203
Myc. a-ta-na-po-ti-ni-ja 49n24
βαίνει 212
γενέ-τωρ 259

Myc. *de-me-o-te* 176
 δέμας 176
 ἔδῃ 200
 εἶρω 211
 ἔλκει 230
 ἔρπει 230
 ἐστί : εἰσί 260
 ἔτρεσα 235
 *ἔτρεσσα 235
 εὔει 230
 ἔχει 229
 θάνατος 185, 201, 222n22
 θανόντ- 185
 θέει 230
 θέ-μενος 260
 θνητός 185, 222
 θυγάτηρ 150n11
 θυγατρ- 260
 ἰάλλω 235
 ἱαυσα 235
 ἰαύω 235 *passim*
 ἰάχω 235
 ἱγμι 209
 ἰζει 247
 ἰζουσι 247
 Arc. *kat-arwos* 93
 κάτω 9
 λέγει 229
 Myc. *re-wo-* (< **lew-*) 258
 λοέω 258
 μαίνομαι 268
 μέδεται 230
 μέλιτ- 183
 μένος 268
 μῆν-ι-ς 268
 νέεται 230
 νέκυς 69
 νυκτ- 258
 ξέω 97, 182
 οἶδ-α 257
 οἷς 258
 οκνέω 221

δκνος 221
 ὀλε- 204
 ὀλετήρ 204
 ὀλετο 204
 ὀλλῦμι 204
 *ὀλνῦμι (< *ὀλνημι) 204
 ὄνομα 215, 253
 ὀνομαίνω* 215
 ὄρνις 258
 ὀστέον 258
 πεῖθει 230
 πέρδεται 230
 πέσε 245
 πετα- 245
 πέτεται 244, 245
 πίπτω 245
 πλέει 230
 ποδός 70
 πυργόω 137, 217
 πύργος 137, 218
 ρέει 230
 Att. (<Aeol.) Σαπφώ 215
 σέβεται 229
 σκέπτεται 249n18
 σπένδω 21n3
 τέκτ-- 248n17
 τέκτων 248n17
 τέρμα 217
 τίκτ-- 248n17
 τρέει (τρεῖ) 229, 235
 τρέπω 186, 268
 τροπέω 187, 268
 τρόπ-ι-ς 268
 Attic τύραννος 185
 φάτο 128
 φέβεται 229
 φέρτε 246n15
 φησί 128
 φιλέω 137, 220, 221
 φίλος 137, 221

Armenian

acē 229
barjr 212
dnem 202n1

Latin

-ā- factitive 257
agit 17, 229
agunt 17, 229
angō 71
argentum 258
arguō 105 *passim*
āra 12n8
bibit 247
bibunt 247
claudēre 219, 221
coquit 229
decet 215n14
docere 215n14
domāre 216
emō 211n10
-ē-re 220
erit 252
-ē-sce- "inchoatives" 219
fer 246n15
ferimus 246n15
fero 246n15
ferto 246n15
ferte 246n15
ferunt 246n15
fīdit 230
fumidus 223n26
fumus 223n26
genitor 259
guttur 68
im-mō 9
lauō 258
legit 230
lētum 204
margit 230
mon-e-ō 200, 200n39, 229
-nocuus 69
nouā-re 267

noxa 69
ōmen 95
onus 209
ōrō 24
os 258
ouis 258
paries, parietis 150
pāstor 257
petit 244
pluit 230
quis 258
quō 9
sāgax, sāga fem. 101
senēre 219
serpit 230
sinere 203
specio 249n18
specit/spicit 249n18
statuō 216
status 216
terminus 217
terram vertere / versare 186
timeo 223n26
timidus 223n26
torqueo : tortus 63n37
ūrit 230
uehit 229
uenit 212
uentus 258
uēnum 222
uēnus 222
uereor 223n26
uic-i-t 213
uī-men 228
ui-n-ci-t 213
OLat. uortit 230

Celtic (Old Irish unmarked)

agid 229
fedid 103
ibid 258
lān 260

nár 68

Proto-Germanic

**knējan(an)* 255

**knōjan(an)* 255

**wid-ana-* 228

**wi-n-d-ana-* 228

Gothic

bairht- 63

beidiþ 230

bi-windan 228

fairzna 89

ga-widan 228

liudiþ 230

milip 183

mitip 230

namnjan 215

namo 215

*-nisiþ** 230

-o- factitive 257

qimip 235, 251n21

sok-j-an 102

sweraiþ 218

swer-s 218

tau-j-an 200

-waddjus 228

wairþip 230

wis-i-þ 17, 234

Old Norse

meyrr 104

veggr 228

Old English

fetel 71

Modern English

bad 10

fetter 70

Old High German

fezzil 71

gi-wetan 228

lesan 183

Modern High German

Fessel 70

Wand 228

winden 228

Proto-Balto-Slavic

**ēd-i-* 268

**wed-e-* 228

**weis-ē-* 75

**wois--* 75

Baltic (Lithuanian unmarked)

bēga 229

dēga 229

Latv. *-dinā-* 227

dukter- 150n11

kasyti 182

kēpa 229

las-ý-ti 183

lēs-ti 183

smākras 104

vedū, vēda 103, 228

veika 230

vēža 229

Latv. *vidināt* 227

vīr-ti 203

Proto-Slavic

**petylja* / **petylja* 71

**po-* 96n53

**vichru* (false form) 75n48

**vichūrī* 75n48

**vichūrū* 75n48

Old Church Slavic

бѣжеть 229

ведѣ, ведеть 103, 228

ве҃теть 229

ви҃сѣти 75

влѣчетъ 230
 въпити 44
 вѣдѣ 1
 вѣмь 1
 жежетъ 229
 говеть 230
 оу-толити 41
 печеть 229
 плъ-нъ 260
 тъл-ѣ-жъ 41
 тъл-ѣ-ти 41
 ѡд-ъ 268
 -ѣ 1
 -ж 1
 жза 71
 жзѣкъ 71

Russian

видитъ 251
 вихоръ 75n48
 вѣхоръ 75n48
 вѣсь 75
 дастъ 251
 дать 251
 дѣ 58n33
 ебѣтъ 229
 лада 10, 181
 ладъ 10 n6, 181
 лелѣять 158
 подолъ 71
 сердиться 67
 сердце 67
 смурый 104
 сов-а-ть 228n32
 у-видитъ 251
 ударить : ударять 50
 узель 71
 узокъ 71
 узы 71
 чесать 182
 ѣсть 251
 ѣсть 251

Tokharian (B unmarked)

aśām 229
kñas- (A) 254
p(ā)- 96n53
yokām 153

Akkadian

tarkumanu 102

Arabic

targamatur 102

Aramaic and Hebrew

targum 102

Elamite

tuppi 74