

# SEMITIC AND INDO-EUROPEAN

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Volume 129

Saul Levin

*Semitic and Indo-European: The Principal Etymologies*

# SEMITIC AND INDO-EUROPEAN THE PRINCIPAL ETYMOLOGIES

WITH OBSERVATIONS ON AFRO-ASIATIC

SAUL LEVIN

*Distinguished Professor of Ancient Languages*

*State University of New York at Binghamton*

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TO THE REVEREND DR. JOHN PAIRMAN BROWN  
a very dear friend for nearly fifty years  
and a fine scholar  
from whose original research came the impetus  
for me to undertake this book

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## PREFACE

In case my scattered remarks from the introduction on (pp. 3-4, etc.) leave unclear the point of the dedication to my friend Jock Brown, let me explain it here in the preface. After my *Indo-European and Semitic Languages* came out nearly twenty-five years ago, he was the one reader that truly absorbed it, to the point of sensing where it most needed to be CORROBORATED. Moreover, in the course of his own studies he came upon the very corroboration that would serve the purpose (see 1.Ac), and he wrote it up concisely but demonstratively. If not for him, I might never have found this or any equivalent evidence myself. But through his discovery I began to realize how, and with what modifications, I should resume my research into the two language groups.

The whole experience, following the publication of *InEuSeLa*, makes me also understand PERSONALLY something about the history of scholarship over the millennia: that the invention of printing, however valuable for the potential enlargement of every writer's circle, has not basically changed the intellectual condition for the advancement of knowledge. Now, as always, a writer must communicate with the mind of some individual. Unless that occurs, it makes little difference how many (or how few) copies of the work make the rounds of bookstores, libraries, or — for that matter — modern electronic networks. And while the all-important individual reader may sometimes be a stranger, I see it as no accident that this time the one with whom I could FRUITFULLY share my research was an old friend.

Jock's help to me stretches out through the years since I started working on the present book. It is mentioned on many pages of the ensuing chapters, but there is still more to it. Lately he has proofread the entire text, catching numerous misprints that had eluded me, and has also contributed many pages of the indices, which he does much better than I could.

I am grateful to quite a few other learned friends besides. Among those whose remarks have enabled me to improve many sections are Gary Rendsburg, Carleton Hodge, Roy Kotansky, and — not least — Yoël Arbeitman. Illness stopped him from reading beyond 1.Ef in his photocopy of the original dot-matrix printout, but up to that point he annotated it copiously and wisely.

Without the loving support of my wife, it would have been very hard for me to sustain the effort of research, or to resume it after health emergencies. The children too (with whom we remain in close touch since they grew up and moved away from our area) have followed the progress of this book with interest and encouragement. Our son Daniel, being in the computer consulting business, often guides me in the use of the Macintosh word-processor; he says he has found it unusual for anyone of my age to learn successfully the operation of a computer.

Last summer my cousins in Seattle, Donald and Lois Celarier, were instrumental in giving me access to *Saggi di glottologia generale comparata* by Alfredo Trombetti, the one major predecessor whose writings I had not been able to consult. Through an improvement in the international network of bibliography, which Martin Raish of the library staff here at SUNY-Binghamton brought to my attention, I became aware that the University of Washington owns the second volume of that huge work. When I visited my cousins, their friend John Sundqvist, being a part-time student, kindly borrowed it from the library so that I could study it at leisure.

I noticed incidentally that Trombetti's *Saggi* had an odd, complex history of publication, which kept it from being listed in the standard bibliographies such as the *National Union Catalog*. After that vacation trip, with much exertion James Mellone, who is in charge of the inter-library loan department here, tracked down for me all the scattered fascicles of which the other volumes of *Saggi* consist. He requested them from one library after another that reported incomplete holdings of the series *Memorie della R. Accademia delle Scienze dell' Istituto di Bologna, Classe di Scienze Morali*. Finally, thanks to Mr. Mellone, I was able to locate almost everything pertinent to my research that Trombetti had noted before me, either in *Saggi* or in his briefer works.

I came to appreciate the kinship between Trombetti and me. Both of us, though growing up in a monoglot home, were devoted linguists from childhood on; we began by teaching ourselves French out of a book. But beyond that he surpassed me by far as an autodidact scholar; for he had come from a very poor, illiterate family and struggled long and hard to reach the rank of professor at the University of Bologna, whereas I had a comfortable childhood and a fairly smooth career afterwards. Much as I admire him, I must state that he somehow missed the details which have been crucial to me. Perhaps his searches through the languages of the whole world were too broad and ambitious. He never had time to learn any of the Semitic languages well enough for his own purposes; in particular, his mistaken conception of Hebrew phonology

kept him from grasping the most significant links to Indo-European. Still I wish I had come across his works much earlier.

I owe the most special thanks to Konrad Koerner, not only for the prompt acceptance of this book to join that renowned series, *Current Issues in Linguistic Theory*, but since then for sharing with me his expertise in laser printing, in which I am altogether a novice. Yola de Lusenet too, of the John Benjamins Publishing Company in Amsterdam, has given me much practical advice, together with encouragement, as I labored to produce the camera-ready pages. With their high standards they set a mark for me to improve my skill in typography. For without that my accomplishments in linguistic research cannot be brought to the eyes of readers; and no professional typographers, in Europe or elsewhere, are familiar with the gamut of characters — Greek, Sanskrit, Hebrew, Arabic, Cyrillic, phonetic — all necessary for the clear presentation of my comparative linguistic data.

Time after time, when the software or the laser printer or something else had me utterly baffled, I was rescued by Tom Blake, the computer genius of our university. Besides the fonts bought for my use by the university administration, he found several other fonts that are in the public domain and have served me better than any alternative. I could not have even begun this huge typographical job without having him on call; but eventually he got me to the point where I could sometimes find the solution to a typographical or electronic difficulty by myself. I also thank Mrs. Geraldine MacDonald, who directs the computer center and has made sure that for my long, slow task I should have full access to their equipment, even during vacations when the center was closed.

Since 1966, when the State University of New York Press decided to publish my *InEuSeLa*, I have experienced the revolutionary change in the production of books that require complex linguistic typography. A staff of five in Albany — later six — was kept busy for nearly a year, making the roughly eight hundred camera-ready pages of that book. Even so, with the Vari-Typer in my office I had to supply them with all the Hebrew and phonetics; item by item, these were pasted onto measured blank spaces by the staff in Albany. My colleague and friend, Prof. Khalil Semaan, generously copied out the Arabic for me on his typewriter; and an acquaintance was hired to do the same with the Sanskrit. These items too had to be pasted in.

Now it has also taken me nearly a year, working ALONE, to reformat for laser the entire dot-matrix draft of this book and to produce some five hundred camera-ready pages, containing a lot more Arabic and a considerable amount of Cyrillic. The electronic fonts serve far better than anything available to me in

the past. Notably, the Vari-Typer Hebrew — although on the whole clear and handsome — lacked accents; I called on Stanley Kauffman, the young graphic artist on our campus, to fill in thousands of accents by hand. But now I do all that myself on the word-processor. I still need Mr. Kauffman, though only for occasional odd characters, which occur on eight pages in all — a Syriac vowel-sign, an archaic Greek letter, an Ugaritic cuneiform character, etc.

On many pages something is less elegant than I would like, but my readers should understand how hard the typographical work has been. The phonetic fonts are especially troublesome. Though better than any other phonetic fonts within my experience, they are prone to uneven spacing. Moreover, they were designed only for 12-point lines; and while I have succeeded in enlarging them to 14 and reducing them to 10, or even to 8 when necessary, often the results are not very neat. So I have to make **LEGIBILITY** my first rule; if that is achieved, I ask everyone to excuse the letters that are too close together or too far apart, and whatever else may be ungainly.

S. L.

Binghamton, March 1995

## CONTENTS

<b>Bibliographical Abbreviations</b>	xvi
<b>Introduction</b>	1
<b>Chapter I: Non-verbal Nouns and Their Inflections</b>	13
1.A. Sem. (Arabic) {ḥawran} : IE (Gr.) ταῦρον ‘bull’	14
1.B. IE (Latin) <i>cornu(m)</i> : Sem. Akk. {qarnu(m)} ‘horn’	29
1.C. Sem. (Heb.) {ʔózen} : IE (OHG) [ʔ]oren ‘ear’	34
{ʕáyin} : (OEngl.) [ʔ]e(a)gan ‘eye’	
{ʕécem} : (Sanskrit) {asthán} ‘bone’	
1.D. IE (Gr.) δίδυμοι : Sem. (Aram.) {təʔuʷmeʔ} ‘twins’	44
1.E. IE (Skt.) {vít} : Sem. (Akk.) {bi-it} ‘house’	51
(Avestan) {vaēšəm} : (Hebrew) {báy(ə)ṯəḥ} ‘home(ward)’	
(Greek) Φοίκα δε : {ḃý(ə)ṯəḥ}	
1.F. Sem. (Arabic) {ʔarḍan} : IE (OEngl.) [ʔ]eorðan ‘earth’	58
(Hebrew) {ʕr(ə)cəḥ} : (Greek) ἔραζε ‘earthward’	
1.G. Sem. (Hebrew) {ʔāḏəm ṣḥ} : IE (Greek) χθών ‘earth, ground’	66
(Aramaic) {ʔāḏəmt-} : (German) <i>grund</i>	
(Hebrew) {ʔāḏəm} : (MiEngl.) <i>g(r)om</i> ‘man’	
1.H. Sem. (Arabic) {ʔisman} : IE (Ch. Slav.) {imě} ‘name’	77
(Aramaic) {šəməḥən} : (Avestan) {nāmān} ‘names’	
1.I. Sem. (Aram.) {Hæqleʔ} : IE (Latin) AGREI ‘fields’	86
: Sem. (Heb.) {Hac(ə)rēʔ} ‘enclosures’	
1.J. IE (Skt.) {gárbha m} : Sem. (Akk.) {qerbam} ‘womb’	93
(Arabic) {qalban} ‘heart’	
1.K. Sem. (Geʕez) {gʷərn} ‘threshing floor’ : IE (OE) <i>cweorn</i> ‘quern’	95
1.L. Sem. (Geʕez) {ʕəgʷl} ‘young animal’ : IE (Latin) <i>agnum</i> ‘lamb’	105
(Heb.) {kiš(ə)ḇot} : (OHG) <i>kilbur</i> ‘ewe-lambs’	
(Arabic) {jadyan} : (Latin) <i>haedum</i> ‘kid’	

1.M. Sem. (Heb.) {ʔāto(ʷ)ó(ʷ)ī} : IE (Latin) <i>asinōs</i> ‘asses’	119
IE (Gr.) χίμαρον ‘winterling goat’ : Sem. (Arabic) {Himāran} ‘ass’	
1.N. Recapitulation of Morphology	126
<b>Chapter II: Verbal Roots</b>	131
2.A. Bicons. IE (Gr.) (-)φ(-)ρ(-) : Sem. (Heb.) {(-)P(-)r(-)} ‘bear’	
Sem. {(-)ʕ(-)l(-)} : IE (Latin) <i>al-</i> ‘(go or raise) up’	
2.B. Biconsonantal Sem. (Heb.) {rēḏ} ‘go down’ : IE (Latin) <i>red-</i> ‘back’	138
{ceʔ} ‘go out’ : <i>sē-</i> ‘apart’	
{(-)š-ḫ(-)} : {(-)s-d(-)} ‘sit’	
2.C. Biconsonantal Sem. {(-)q(-)n(-)} : IE (-)ǵ(-)n(-) ‘(be)get’	146
(Akk.) {kimi} : (Gr.) -γέμε ‘seize’	
2.D. Biconsonantal Sem. {(-)h(-)w(-)} : IE (Skt.) {(-)b <sup>h</sup> av/ū} ‘be’	149
(Heb.) {(-)h(-)y(-)} : (Latin) (-)fiř(-)	
2.E. Bi- or tricons. IE (Gr.) ζῆ : Sem. (Heb.) {-Hyé <sup>h</sup> } ‘live’	153
βίος ‘life’ : {-Hyó <sup>w</sup> ī} ‘(to) live’	
(Skt.) {jīva} ‘living’ : (Aram.) {He <sup>y</sup> wó <sup>h</sup> } ‘animal’	
2.F. Biconsonantal Sem. (Heb.) {bóʔ} : IE (Gr.) βᾶ ‘he came’	156
2.G. Biconsonantal IE (Gr.) (-)δ(-)μ(-) : Sem. {(-)b(-)n(-)} ‘build’	161
βωμ- : (Heb.) {bōm-} ‘altar’	
(-)ν(-)μ(-) : {(-)m(-)n(-)} ‘count’	
2.H. Bi- or triconsonantal IE (Gr.) χρᾶ/ῆ : Sem. (Heb.) {qəróʔ} ‘call’	171
(-)χρα- : {(-)q(-)r(-ʔ)} ‘befall’	
2.I. Triconsonantal IE (Gr.) καὶ ἔτλη ‘and he endured’	177
: Sem. (Heb.) *{wayyīlél <sup>h</sup> } ‘and he hung’	
2.J. Bi- or tricons. Sem. (Heb.) {mōlúʷ} : IE (Gr.) πολυ- ‘full (-ful)’	179
{mōlóʔ} : (Latin) <i>-plē</i> ‘fill’	
2.K. Triconsonantal IE (Gr.) δολιχή, (Avestan) {darəga}	188
(Lith.) <i>ilgā</i> : Sem. (Heb.) {ʔərəkó <sup>h</sup> } ‘long’	
(Gr.) -δελεχ- : {ʔereK}	
2.L. Biconsonantal (-)p-T- ‘open’	191
2.M. Triconsonantal {br-K-} ‘wet, drench’	198
2.N. Triconsonantal IE (Skt.) {b <sup>h</sup> rāt} : Sem. (Aram.) {bəraq} ‘flashed’	203
(Russian) {sneg} : (Heb.) {-šlēḡ} ‘snow’	



2.O. Tricons. Sem. (Heb.) {gənəḇōṭ-} : IE (Gr.) κλέπος ‘stolen thing’	214
{gənūḇ(ə)ṭiʿ} ‘stolen’ : κρυψι- ‘hiding, hidden’	
2.P. Tricons. Sem. {(-)T(-)r(-)P(-)} : IE (Gr.) (-)δρ-π/φ- ‘tear, pluck’	220
2.Q. Tricons. Sem. (Heb.) {(-)ʔ(-)h-ḇ(-)} : IE (Gr.) ἄγαπ- ‘love’	222
{(-)r(-)H(-)m(-)} ‘love’ : (Skt.) {rām am} ‘lovely’	
2.R. Tricons. IE (Gr.) ἄγ-ρ- : Sem. (Arab.) {(-)H(-)š(-)r(-)} ‘gather’	227
ἄγορή : (Heb.) {ʿācōrōḥ} ‘gathering’	
Sem. (Heb.) {ʿācōrēt} : IE (Greek) ἑορτή ‘holiday gathering’	
Bicons. IE (Gr.) ἄγ€/ι : Sem. (Heb.) {ʿāšēḥ/ī} ‘do’	
2.S. Biconsonantal IE (Gr.) (-)λ€/οχ- : Sem. (Heb.) {-lēḡ-} ‘lie’	234
2.T. Triconsonantal {m-s/z/g} ‘mix’	237
2.U. Triconsonantal {(-)k(-)r(-)t(-)} ‘cut, hew’	239
2.V. Tricons. Sem. (Heb.) {Ḥar(ə)šé-} : IE (Gr.) χάρασσε ‘incise’	243
(Ugar.) {Hrṣt} : (Hitt.) {Ḫarašzi} ‘he/she plows’	
2.W. Triconsonantal Sem. (Heb.) {(-)z(-)B(-)H(-)} :	247
IE (Greek) (-)σφαγ- ‘slaughter’	
2.X. Bi- or tricons. Sem. (Heb.) {(-)Boʿš(-)} : IE (Latin) pud- ‘ashamed’	250
2.Y. Tricons. Sem. (Heb.) {ʔ-w(-)r(-)ʔ(-)} : IE (Latin) uerē- ‘fear’	259
2.Z. Tricons. Sem. (Heb.) {wōlōd} ‘child’ : IE (Russ.) {mólod} ‘young’	261
IE (Russ.) {moglá} : Sem. (Heb.) {yōkālōḥ} ‘she could’	
2.AA. Reduplicating Biconsonantal Sem. (Geʿez) {-kʷarākʷar, gergel}	272
: IE (Latin) circus, circulus ‘wheel, ring’	
2.BB. Tricons. IE (Skt.) {lih a ti} : Sem. (Arabic) {laʿiq a} ‘lick <sup>s/ed</sup> ’	275
2.CC. Tricons. Sem. (Arab.) {ʔanaḤati} : IE (Skt.) {āniti} ‘breathe <sup>s/d</sup> ’	277
2.DD. Review of Root Consonants	279
<b>Chapter III: Pronouns</b>	
3.A. Sem. (Heb.) {(ṣḥ)ʔšniʿ} : IE (Skt.) {-āni} ‘I’	297
3.B. IE (Skt.) {nō, naḥ} : Sem. (Heb.) {-nuʷ} ‘us, our’	298
(Arab.) {-nā}	302
3.C. IE (Latin) tē : Sem. (Heb.) {TE-} ‘you’	307
(Skt.) {-tḥa} :	[-tḥ]
3.D. Sem. (Akk.) {šuašū} : IE (Old English) swæs ‘his own’	325
3.E. Sem. (Heb.) {ʔo(ʷ)ṭōʷ} ‘him, it’ : IE (Gr.) αὐτό ‘it’	329
3.F. Sem. (Heb.) {hazzéḥ} : IE (Gr.) ὅδε (τό δε) ‘this’	345

3.G. Sem. (Aram.) {ʔillēk̄} : IE (Latin) <i>illic, illaec</i> ‘those’	360
3.H. Concluding Remarks on Pronouns	364
<b>Chapter IV: Prepositions</b>	366
4.A. Sem. (Heb.) {ʕēber} ‘across’ : IE (Old English) [ʔ]ofer > <i>over</i>	367
4.B. IE (OHG) <i>durec</i> ‘through’ : Sem. (Heb.) {dérek̄} ‘by way of’ (OEng.) <i>ðerh, þuruh</i>	377
4.C. Egyptian {Hnt(y)} : IE (Latin) <i>ante</i> ‘in front of’	382
4.D. IE (Gothic, Gr.) {ana} : Sem. (Akk.) {ana} ‘(up)on, to’	387
4.E. Sem. (Eblaite, Akk.) {in} : IE (Latin, etc.) <i>in</i> (Heb.) {bin} : (Ch. Slav.) {vən} ‘in’	390
4.F. Sem. (Heb., Aram.) {ʕad̄} : IE (Latin) <i>ad</i> ‘to, until’	393
4.G. Sem. (Akk.) {maḫri(š)} ‘before’ : IE (Gr.) μέχρ(ις) ‘until’	397
4.H. Concluding Remarks on Prepositions	399
<b>Chapter V: Numerals</b>	401
5.A. Sem. (Aram.) {šēt} : IE (Skt.) {ṣát} ‘six’ (Hebrew) {šē/šbaʕ} : (OEng.) <i>seofon</i> ‘seven’	402
5.B. The Displaced Numerals	412
Sem. (Aram.) {təreʔ} ‘two’ : IE (Skt.) {trī, tráya aḥ} ‘three’ (Hebrew) {téšaʕ} ‘nine’ : {dáša}, (Gr.) δέκα ‘ten’	
5.C. The More Problematical Displaced Numerals	424
Sem. (Heb.) {šəmoné <sup>h</sup> } ‘eight’ : IE (Latin) <i>nouem</i> ‘nine’ {ʔarbáʕ} ‘four’ : (Sanskrit) {pāñca} ‘five’	
5.D. Sem. (Heb.) {šéšeṭ} ‘six’ : IE (Latin) <i>sexte</i> ‘sixth’ (Aram.) {ʔ(ə)liṣy(ʔ)} : (Greek) τρίτωι, τριταίως ‘third’ {ʔaltíʔ} : (Latin) <i>tertī</i>	431
5.E. Sem. (Akk.) {ištēn} ‘one’ : IE (Skt.) {aṣṭá} ‘eight’ (Heb.) {ʕaštéʔ ʕəsré <sup>h</sup> } ‘eleven’ {sa hásram} ‘a thousand’	448
5.F. Egyptian {š(n)t} : IE (Skt.) {ṣatám} ‘a hundred’	451
5.G. IE (Gr.) ἄμφω(ι)ν : Sem. (Heb.) {ʔappōyim} ‘both’	452
5.H. Concluding Remarks	453
<b>Addenda</b>	456
<b>Indices</b>	459

## BIBLIOGRAPHICAL ABBREVIATIONS

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*AsDi* = *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*. University of Chicago Press, 1965-. Commonly abbreviated *CAD*.

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## INTRODUCTION

In some fundamental ways this book is different from *The Indo-European and Semitic Languages: An exploration of structural similarities related to accent, chiefly in Greek, Sanskrit, and Hebrew*, which I published in 1971 (henceforth abbreviated *InEuSeLa*). That was, throughout, a comparison of morphology, supported by vocabulary only to the limited extent possible on the basis of the knowledge I had then. But now I propose to focus the comparison on the vocabulary that embodies whatever is common to Semitic and IE morphology.<sup>1</sup> There is an important change, at least in emphasis.

The earlier book was, expressly, an exploration and dwelt at length upon many philological details because they bore upon the morphological comparisons — sometimes directly, sometimes indirectly. Such discussion will now be more limited. Often a footnote, or a mere bibliographical reference, will serve those readers who take an interest in the particulars of philology. But at least the first time that a word or a part of it is cited, a signal right after it will show its status:

√ Definitely known from one or more texts or from actual current usage.

† Doubtless available for use in the language, but apparently — through mere accident — unattested in the corpus.

§ Probably to be found somewhere in the corpus, but not accessible to me.<sup>2</sup> These other signals, before a word, indicate scholars' CONSTRUCTIONS, in descending order of value; they should never be omitted:

\* Methodically RECONSTRUCTED for a prehistoric or other unattested stage.

? Merely hypothetical; with no standing as evidence for comparative grammar.

?? Cited by me for the sole purpose of discreditation.

As in *InEuSeLa*, all transcriptions or transliterations from languages not written in the Latin alphabet are shown by curved braces {    }.

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<sup>1</sup> Mentioning the language groups now in the opposite order is intended only to avoid confusion between the titles of the two books. Neither "Indo-European and Semitic" nor "Semitic and Indo-European" should connote any sort of precedence or preference.

<sup>2</sup> Whatever I have only from a lexicon or a grammar will be marked either √ or §, depending on my judgement of the authors and their methods.

The material will be presented as systematically as its own nature allows, if not as systematically as in a comparative grammar of a long-recognised language group — namely a Semitic comparative grammar or an IE comparative grammar. When Meillet, for example, wrote his *Introduction à l'étude comparative des langues indo-européennes* (first published in 1903), he personally came close to knowing all that then appeared relevant in each of the languages.<sup>3</sup> Others before him had drawn attention to most of it; he had mastered it, and he excelled further in clear, orderly presentation. I am far from such thorough expertise in the philology of Semitic and IE languages, though appreciably closer now than I was while writing *InEuSeLa*.

At that time I did not see how extensively the shared morphology is embodied in certain items of shared vocabulary, above all in one word: the Greek ταῦρον<sup>∇</sup>, Latin *taurum*<sup>∇</sup>, Lithuanian *taūr̃q*<sup>§</sup> : Arabic ثَوْرًا<sup>∇</sup> {ṭawran} 'bull' (accusative singular) and at least three, possibly five other case-forms — genitive singular, nominative dual, genitive dual, nominative plural, genitive plural — plus a feminine derivative. All this will be set forth at the beginning of Chapter I. In *InEuSeLa* (119) I was aware of just one part of this: the nominative plural ταῦροι<sup>∇</sup> and its cognate in post-Biblical Hebrew and Aramaic. Had I known the rest and included it in *InEuSeLa*, that book would not only have deserved the unequivocal assent of the linguistic profession as a whole; it might even have forced the most reluctant and prejudiced ones to acknowledge the proof.

In retrospect I realize I was swayed too much by the circumstance that none of the Homeric Greek nouns showing the dual ending -οῦν<sup>∇</sup> (genitive or dative case) has a Hebrew cognate with {-ṣym}<sup>∇</sup> (terminal, or pausal), {-áyim}<sup>∇</sup> (non-terminal), or an Aramaic cognate with {-áyin}<sup>∇</sup>, nor conversely.<sup>4</sup> Since -οῦν : {-ṣym} was my prime exhibit, occupying many

<sup>3</sup> Hittite and the related languages of Anatolia had not yet been deciphered, nor had Tokharian come to light. Meillet's subsequent editions were not much changed to take account of these discoveries.

<sup>4</sup> The closest thing in Greek to קַרְנַיִם<sup>∇</sup> {qarnṣym} 'horns' and the Biblical Aramaic {qarnáyin} (in קַרְנַיִם<sup>∇</sup> 'and horns'; *InEuSeLa*, 38-39) is a later Attic form κερᾶτων<sup>∇</sup> (Aelian, *Historia animalium* 11.15), in which the {-t-} is certainly not cognate to anything in the Semitic forms, and the long vowel {-ā-} (established for the plural κερᾶτα<sup>∇</sup> by the meter of Euripides, *Bacchae* 921, and other passages of Attic poetry) cannot be simply a syllabic actualization of \*N. From the grammarian Theodosius of Alexandria, who used the

pages of Chapter I in *InEuSeLa*, I seemed to subscribe to a dubious principle: that subsidiary morphemes can be shared by languages without needing any particular nouns, verbs, etc., in common. As I see it now, that only APPEARS to be the case in the wake of prehistoric changes that have eliminated from one of the languages or language groups the cognate items of vocabulary (or restructured them morphologically) while the subsidiary morpheme that was originally shared survives as the cognate part of non-cognate words; e.g. ποδῶν<sup>v</sup>: רַגְלַיִם<sup>v</sup> {raglāyīm} ‘feet’ (*InEuSeLa*, 49-50).

My argument does not stand or fall with the word for ‘bull’, since each of the correspondences in endings turns up again in other nouns that are shared by certain IE and Semitic languages. But ‘bull’ does show a unique concurrence of all these: a perfect phonetic match, segment by segment; the same meaning; obvious antiquity; the most extended set of morphological correspondences. If we compare them with even the closest and most universally recognised correspondences within IE, like the word for ‘wolf’ (1.Ad), we are bound to note that major changes along each line of descent can be expected in words coming down from remote antiquity. So the transparency of the correspondences in ‘bull’ is a rare and precious exception. For on the whole we would expect that the forms surviving in the two language groups, even if originally identical, have been disguised by phonetic or semantic shifts in one group or both. If the laws underlying such shifts are recoverable, it is only by proceeding cautiously, step by step, from the least ambiguous cases. Heuristically then we have some right to regard the best parallels — ταῦρον : {ḫawran}, etc. — as merely the tip of an iceberg, suggesting a much greater mass of hidden correspondences.

For the progress I have made since 1971, most of the credit goes to the research of one man, John Pairman Brown. We have been friends for nearly fifty years; and while concentrating upon the contacts in the historical period and in the immediate prehistory, he has made discoveries of fact and of principle that illuminate the more remote times just as well. Here, in this book, dozens and dozens of pages incorporate something important that I learned from

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noun κρέας<sup>v</sup> ‘meat’ as his model in his untrustworthy paradigm of the dual (which was then obsolete): τοῖν κρεάτοιν κοινῶς [i.e. in the ‘common’ dialect], τοῖν κρεάτοιν ἰωνικῶς [‘in Ionic’], τοῖν κρεάτοιν ἁττικῶς [‘in Attic’] (35.24 Hilgard), we could infer a theoretical “Ionic” form \*κεράοιν ‘horns’, which is not found in any text and can hardly be authentic in any dialect. If real, it would correspond — segment by segment — to the Hebrew {qarnāyīm}, Aramaic {qarnāyīn}.

him. Although my indebtedness to him is mentioned quite a few times, that is far short of the whole.

I wish there were many others to thank, besides him and (more recently) Gary Rendsburg. Notwithstanding my best efforts, in *InEuSeLa* and in articles since then, the researchers — even the ones who praised *InEuSeLa* as a breakthrough — evidently have yet to be convinced that morphological correspondences (including vowels and accent) in the most certain items of common vocabulary are easier to pin down than correspondences of bare consonantal roots. Not perceiving this has deprived Hermann Möller's followers — notably Albert Cuny and now A. R. Bomhard — of the success to which their methodical diligence would have entitled them, if methodical diligence were enough.<sup>5</sup> I wish there were someone besides me to write the present book; but no successors able to evaluate my material, and to contribute their own, are anywhere on the horizon.

The facts that are brought out in *InEuSeLa* and now here do not fit comfortably within either the Indo-Europeanists' or the Semitists' conception of the prehistoric development of their languages. The rethinking, or the re-education, to take cognisance of such facts is not easy. I can understand the psychological resistance to the upsetting facts, although intellectually it is indefensible. They are so fundamental that — unless somehow invalidated or, failing that, ignored — many would take them for evidence of a single original source, "proto-Nostratic".

To that, however, I am not committed. I consider it unsettled whether at a very remote time proto-IE and proto-Semitic had a common forerunner, or on the contrary they were originally quite separate. But anyhow there were important prehistoric periods of perceptible contact, not so far back in the past, and probably recurrent rather than continuous (cf. Mayer, *RiPrRa*, 77 ff). We shall attempt a relative chronology insofar as some items of shared vocabulary or morphology are demonstrably or at least probably older than others.

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<sup>5</sup> If Bomhard (*ToPrNo*, 179) had not been so sure that "there appear to be relatively few similarities in the morphology of Proto-Indo-European and Proto-Afroasiatic," he would not have had to stake everything on a set of consonantal equivalences that rules out in advance such promising parallels as Akkadian {qarnu(m)}<sup>√</sup>: Latin *cornu(m)*<sup>√</sup> 'horn' (see 1.B). F. Aspesi, "Possibilità e limiti di un' odierna fonematica storico-comparativa camito-semito-indoeuropea," *Atti del Sodalizio Glottologico Milanese*, 21 (1979/80), 81-87 (esp. 83), has indeed found my observations in *InEuSeLa* "anche interessanti", but not enough so that he, or his collaborators in the *Seduta Straordinaria* "Giornata di Studi Camito-semitici e Indoeuropei", cited or followed up any of the numerous morphological parallels adduced in *InEuSeLa*.

The results of Möller's research — and that of his direct successors — never struck me as sufficient to establish the Nostratic super-family and the proto-Nostratic language which they aimed at, embracing IE and Semitic together with its African relatives. So I am *a fortiori* skeptical of Illich-Svitych's research (*OpSr*). He vastly enlarges the super-family to take in also Kartvelian, Uralic, Dravidian, and Altaic, and thus to cover a great expanse of Asia — east all the way to Korea and south to the tip of India. The etymological data, which he gathered with such admirable diligence, I draw upon gladly and gratefully, insofar as they are cogent (see my *DiQuQu*); but his enterprise on the whole suffers from too much vagueness, on both the phonetic and the semantic side. His Nostratic has moved well beyond Möller and Cuny; indeed his redefinition of "Nostratic" is what the linguistic profession now understands the term to mean, although only a minority of the comparative linguists — and of the Indo-Europeanists in particular — accepts this Nostratic super-family as valid.

In his attempt to demonstrate the original kinship of those enormously varied languages, Illich-Svitych could not help but push the age of their proto-Nostratic source far, far back into the dim past. So his method of comparative linguistics has yielded few solid results. I would not take a defeatist stand, arguing that very little of the remote prehistory of languages can ever be recovered; but I prefer to focus upon clearly, not vaguely comparable data, such as Greek τῶρον : Arabic {ṭawran} (mentioned above). These take us back to a less remote prehistorical age, before the known IE and the known Semitic languages emerged, but when they were taking shape.

The conceptions of prehistoric IE that the present Indo-Europeanists entertain can scarcely be fitted within Illich-Svitych's framework of Nostratic, especially the vocalic part of it. But those conceptions can accommodate, without being revolutionized, the comparative data from Semitic; indeed, some of the most stubborn problems of IE will thereby be clarified. The predominant party among the Indo-Europeanists has long since embraced the theory of laryngeal consonants; that at one stroke does much to unite the phonology of the two language groups. Möller, as much as any one scholar, or more, was the architect of that theory;<sup>6</sup> he arrived at it by applying the principles of Semitic phonology to the IE data. It is strange how those who owe so much to his reconstruction

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<sup>6</sup> See Oswald Szemerényi, "La théorie des laryngales de Saussure à Kuryłowicz et à Benveniste: Essai de réévaluation," *Bulletin de la Société de Linguistique de Paris*, 68 (1973), fasc. 1, pp. 1-25, esp. 11: "le véritable fondateur de la théorie laryngale est le savant danois Hermann Möller."

of the prehistoric IE laryngeals can ignore all of his IE-Semitic etymologies that embody them.<sup>7</sup> His method had some serious flaws; yet in the main he was on the right track (Levin, *SeEv*, 249-251).

For Semitists to face the relevant IE evidence will take more wrenching, because they have nearly all committed themselves to the large grouping traditionally called Hamito-Semitic — more recently, Afro-Asiatic or Afrasian; and they therefore reason that any link to IE must be more distant. Within Afro-Asiatic what is common to any Semitic and Chadic languages is particularly scant, though this may be due to the circumstance that no Chadic languages were recorded until recent times; even Hausa, the most widespread and influential among them, has been written for only the last two hundred years or so. Whatever the cause, Semitic shares much more morphology and vocabulary with IE, as will be shown in the ensuing chapters.<sup>8</sup> I hasten to add that the evidence is found in the ANCIENLY ATTESTED languages of each group; if we had only the modern ones, we would be hard put to arrive at the idea of an IE family — let alone any further ramifications.

The other language groups assigned to the Afro-Asiatic super-family have more that links them to Semitic; the southern branches, however, pose grave problems of classification. The Cushitic (which are attested no earlier than the Chadic) do not constitute an indisputably coherent lot. I lack the competence to say anything for or against splitting off Omotic, or on the other debates over these languages of East Africa. Whether to classify Beja (= Beḍaue) as Cushitic or something else,<sup>9</sup> does concern me, inasmuch as this language is

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<sup>7</sup>*Semitisch und Indogermanisch, Teil 1: Konsonanten* (Kopenhagen: H. Hagerup, 1906; repr. Hildesheim: Georg Olms, 1978); *Vergleichendes indogermanisch-semitisches Wörterbuch* (Göttingen: Vandenhoeck & Ruprecht, 1911). See 1.If, 2.Ra.

<sup>8</sup> While this has been my main field of research, by no means would I imply that other comparisons are not worthwhile. On the contrary, I take particular satisfaction in having written "An Accentual Correspondence between Hebrew and Hausa," *Forum linguisticum*, 4 (1980), 232-240.

<sup>9</sup> Otto Rössler, "Verbalbau und Verbalflexion in den Semito-hamitischen Sprachen: Vorstudien zu einer vergleichenden Semito-hamitischen Grammatik," *ZeDeMoGe*, 100 (1950), 491-496; English tr. by Yoël Arbeitman in *Bono homini donum: Essays in historical linguistics in memory of J. Alexander Kerns*, II (Amsterdam: John Benjamins, 1981; CuIsLiTh, vol. 16), 718-724. Also see Andrzej Zaborski, *Studies in Hamito-Semitic, I: The verb in Cushitic* (Universitas Jagellonica, Acta Scientiarum Litterarumque CCCXCVII; Schedae Grammaticae, Fasciculus XLVIII [Cracow, c. 1974]), 13-28, 163-165; Robert Hetzron, "The Limits of Cushitic," *Sprache und Geschichte in Afrika*, 2 (1980), 96-99; Christopher Ehret, "Proto-Cushitic Reconstruction," *ibid.* 8 (1987), 7 ff.



reported to have the closest and most extensive correspondences of verb morphology to Semitic, and specifically to Arabic:

	Beja	Arabic
'he wrote'	<i>íktib</i> √	يَكْتُبُ √ {yaktub}
'she wrote'	<i>tíktib</i> √	تَكْتُبُ √ {taktub}
		=
'you (m. sing.) wrote'	<i>tíktiba</i> √	تَكْتُبُ √ {taktub}
'you (f. sing.) wrote'	<i>tíktibi</i> √	تَكْتُبِي √ {taktubi <sup>y</sup> }
'I wrote'	<i>áktib</i> √	أَكْتُبُ √ {ʔaktub}
'we wrote'	<i>níktib</i> √	نَكْتُبُ √ {naktub}
'they wrote'	<i>ektíbna</i> √	يَكْتُبْنَ √ {yaktubna} (fem. only) <sup>10</sup>
'you (pl.) wrote'	<i>tektíbna</i> √	تَكْتُبْنَ √ {taktubna}    "    "

The morphological correspondences that have been brought to light are mostly pronominal affixes. Within that limitation they are impressive indeed; Arabic here shows nearly as much in common with Beja as it does with Hebrew, Aramaic, and the rest of Semitic.

Being without personal knowledge of the African languages (apart from a little Egyptian), I have relied on Leo Reinisch's chosen paradigm.<sup>11</sup> The verb-root itself was doubtless borrowed from Arabic into the neighboring non-Semitic area of Africa rather recently, along with the civilized practice of writing. But for that matter he considers all triconsonantal verbs in Cushitic to be borrowed from Semitic.<sup>12</sup> The Arabic forms are traditionally called "jussive",

<sup>10</sup> The Arabic masculine plural forms have no Beja cognates; likewise the Arabic dual. Note also the discrepancy in 'you' (m. sing.): Beja has a distinct ending *-a*, whereas the Arabic {taktub} is identical with the 'she' form.

<sup>11</sup> "Die Bedauye-Sprache in Nordost-Afrika. III," *Sitzungsberichte der philosophisch-historischen Classe der Kaiserlichen Akademie der Wissenschaften*, 130. Band (Wien, 1894 [1893]), Abhandlung VII, 56. I have, however, corrected an inaccuracy in his Arabic (probably a misprint). According to R. A. Hudson, "A Structural Sketch of Beja," *African Language Studies*, 15 (1974), 133, the 'I', 'he', and 'they' forms begin with a glottal stop: ʔa-dbil √ 'I collected', ʔi-dbil √ 'he collected', ʔi-dbil-na √ 'they collected'. However, in "An 'Item-and-paradigm' Approach to Beja Syntax and Morphology," *FoLa*, 9 (1973), 507-508 — using a simpler notation — Hudson omits the glottal stop.

<sup>12</sup> "Alle dreiradicaligen verba können fast allgemein als semitische lehnwörter bezeichnet werden" (Reinisch [above, note 11], 42).

which might sound as if the meaning were far from the perfect 'he has written' or 'he wrote', etc.; but actually these "jussive" forms are used with the negative  $\text{לֹא}$  {lam} in a definitely past or perfect sense.

Such impressive recurrence of the Semitic morphemes in certain other Afro-Asiatic languages has generally been attributed to proto-Afro-Asiatic, in distant prehistoric times. But some of it, at any rate, may be due to more recent diffusion, (say) from the southernmost Arabs living in the Sudan, or from the Semitic Ethiopians; Arabia itself is not far off.

The Berber languages have somewhat fewer correspondences to Arabic than Beja has, but the cognate morphemes are still extensive enough (Cohen, *EsCo*, 43-44). Those of Hausa and some other Chadic languages correspond to the 'he' and 'she' prefixes only. Egyptian has none; but it does show, among other things, strong correspondences to the Semitic noun with possessive suffixes (cf. **1.Jb**).

	Egyptian	Akkadian	Hebrew
'my inside, my midst'	{q3b.i} §13	{qer-bi}√	{qirbī}√ in בְּקִרְבִּי√
'our ...'	{q3b.n} §	{qé-re-eb-ni}√	{qirbénu} " בְּקִרְבָּנו√
'your (m.s.)'	{q3b.k} §	{qé-reb-ka}√	{qirbék} " בְּקִרְבְּךָ√
'your (f.s.)'	{q3b.t} §	{qé-reb-ki}√	{qirbék} " בְּמִקְרִבְךָ√
'your (m.pl.)'		{qerebkun(u)} §	{qirbakém} " בְּקִרְבָּם√
	{q3b.tn} §		
'your (f.pl.)'		{qerebkin(a)} §	בְּקִרְבָּנָךְ† {qirbakén}
'his ...'	{q3b.f} §	{qer-bi-šu}√	בְּקִרְבּוֹ√ {qirbó}√
'her ...'	{q3b.s} §	{qé-reb-ša}√	{qirbóh} in בְּקִרְבָּהּ√
'their (m.)'		{qer-bi-šu-nu}√	בְּקִרְבָּם√ {qirbóm}
	{q3b.sn}√		
'their (f.)'		{qé-reb-ši-in}√14	בְּקִרְבָּנָה√ {qirbén}√

<sup>13</sup> The hieroglyphic character transcribed {3} is a drawing of the vulture. The sound it stands for is problematical but corresponds to the Semitic {r} in quite a few cognates. Cohen (*EsCo*, 76, 126, 178) and others have equated it with the glottal stop {ʔ} (which he unfortunately transcribes ʔ).

<sup>14</sup> In view of my meager knowledge of Akkadian, I have as much as possible copied the forms as given in hyphenated syllabic transcription by *AsDi*, III, 216-227, and by Von Soden, *AkHa*, 914-915. For each slot, however, I have picked out one from as many as nine variants; my selection purposely makes the paradigm look somewhat more uniform than the

The prehistoric connections on which Afro-Asiatic rests — the connections between Semitic, ancient Egyptian, Berber, Cushitic, (Omotic) and Chadic — are much more obscure than those within Semitic, and may never be neatly clarified even though information about the modern languages of Africa will become more plentiful. While the facts allow, they do not impose a theory that there was a proto-Afro-Asiatic speech-community. If there was, to us it is far more shadowy than the proto-IE.<sup>15</sup> Therefore it must not block our vision so that we ignore the IE connections, whether to Semitic only or to others in the loose Afro-Asiatic group.

The verb paradigm (given on p. 7) of Arabic in Semitic and of Beja in Cushitic — if that is the proper classification — shows the strongest evidence of Afro-Asiatic kinship. It finds only a faint, questionable echo in IE (we shall take up the Greek σέ χρη<sup>ν</sup> : Hebrew שָׁחַח<sup>ו</sup> {ṣiḥḥ<sup>u</sup>} in 2.Hd, 3.Ca); but a certain noun paradigm, mentioned already (p. 2) and to be fully explained in Chapter I, shows an unmistakable Semitic-IE connection. And there are many others.

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raw data warrant. Where the syllables are not hyphenated {qerebkun(u), qerebkin(a)}, it is because *AsDi* and Von Soden give no example, but I have ventured to form these by analogy. By a convention among the Akkadianists, an accent above a vowel has no phonetic value; it merely distinguishes one homophonous syllabic character from another. Within reason I attempt in my transcriptions to show the same sound by one and the same letter, with a diacritic if necessary — no matter whether the specialists in one language diverge from the specialists in another; e.g. the Egyptologists favor *k*; the Hebraists and other Semitists are divided between *k* and *q*. Ideally the Egyptian hieroglyphs and the cuneiform characters ought to be cited too — not just a transcription — as I have given both the Hebrew and my transcription of it. I need to compromise, however, with the obstacles: I have a reliable command of some but not all of the pertinent scripts; some of them are inordinately hard to print; some, including the hieroglyphs and the cuneiform syllabary, represent the sounds rather clumsily or erratically, so that the transcription has to serve not as a mere Latin-letter equivalent of such-and-such in the original but as a digest of various sets of characters.

I use פֿ (ʔ) above a consonant to show fricativation, just as in Hebrew Bible manuscripts. Above a vowel, but closer to the letter, I use ¯ (macron) as in Greek to show length. I often insert a long vertical stroke | to mark a morpheme boundary (for which the Egyptologists use just a dot .).

<sup>15</sup> See the reservations of Meillet, summarized thus by Cohen, *EsCo*, 23-24 (along with bibliographical references): “il lui semblait que la parenté chamito-sémitique était beaucoup moins bien définie que la parenté indo-européenne, et au reste, il émettait l'idée que la notion de parenté linguistique avait des chances de ne pas être uniforme suivant les familles.” Those words have not lost their force in the decades since Meillet died.

We should not be pre-committed to one definite model or theory of prehistoric developments in language. Theorizing becomes easier, but not truer, if you posit proto-languages isolated from one another after such-and-such a time. But the known historical developments have been extremely varied and diverse. The source of the Romance languages and the source of the modern Greek dialects are as fully documented as any languages of the past. Furthermore we have much information about the extent of the contacts between Latin and the Attic κοινή in successive centuries. When Latium was first emerging into history, it was relatively, though not completely, out of touch with the Greeks, who had small urban settlements around the Bay of Naples. But as the power of Rome grew, the Latin language spread more and more, and at the same time the influence of Greek upon it grew enormously. Eventually that influence waned in the Christian era; but small bilingual areas endured in southern Italy and parts of the Balkan peninsula. Many effects of Greek, including ancient dialects other than Attic, are traceable throughout Romance, perhaps most conspicuously in those lingering bilingual areas. Conversely, numerous effects of Latin are traceable in modern Greek, besides many subsequent borrowings from Venetian, Genoese, and other Italian dialects and many from French. We need not posit, in prehistoric times, empires like the Roman nor great creative civilizations like the Greek; but prehistoric societies, being much less populous, could have been strongly swayed by influences proportionate to their size.

The evidence for the correspondences is here presented to the reader's eyes, but linguists cannot afford to forget that the correspondences themselves are AUDIBLE. Although changes over hundreds or thousands of years can make an original cognate unrecognisable — as the English [faɪv]<sup>√</sup> sounds not at all like the French [sɛk]<sup>√</sup>, both being traceable to a prehistoric IE \*pénk<sup>w</sup>e<sup>16</sup> — still it is the sounds that matter; for linguistics the letters and diacritical marks are just devices to catch and evoke the sounds. The success that I have had in ferreting out cognates, sometimes across wide gulfs in space and time, is due mainly to my obsessive fondness for the words spoken, not

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<sup>16</sup> Even within Romance, the French [fe]<sup>√</sup> 'fairy' (> English fay<sup>√</sup>) in no way reminds us of the Spanish [áda]<sup>√</sup>. The spellings *fée*<sup>√</sup> and *hada*<sup>√</sup> preserve something more of the former phonology, and the Italian *fata*<sup>√</sup> makes the etymology absolutely clear. This feminine singular noun is from the Latin neuter plural *fāta*<sup>√</sup> (the neuter pl. was originally collective and not distinct from the fem. sing. in morphology).

just written. Past pronunciation can at best be approximate, but if you do come close, it will make a crucial difference for recalling “Where else have I heard something like this?” I confess, however, that many of these cognates I had failed to recognise in spite of the recurrent pattern of sound, until finally it came through to me.

Because of my age (I was born in 1921), future progress — after the conclusion of my present project — will depend on me little if at all. It scarcely behooves me to set the qualifications for any future researchers, apart from this obvious point: they should know languages that I do not, while if possible knowing better than I do the languages on which most of the comparisons in this book rest.

This volume presents the main etymological evidence upon which to rest a comparative grammar of Semitic and Indo-European. For the five long chapters contain the key examples of morphological correspondences, afforded by nouns, verbal roots, pronouns, prepositions, and numerals. Those are the primary data upon which, in a subsequent volume, I plan to treat systematically the grammatical structures common to Semitic and IE; there the subsidiary data that corroborate or further clarify those correspondences will be cited. That will be followed by an attempt to trace the prehistoric development of the phonetic correspondences, with some emphasis upon the consonants.

In that future volume I will also include syntactical correspondences, especially the two-word phrases. For a combination such as

Latin *cornū taurī*<sup>√</sup> : Arabic {qarnu ḥawrī}<sup>√</sup> ‘a bull’s horn’ (1.Bd)  
is valuable in much the same way as

Greek Δι(φ)ὸς θυγάτηρ<sup>√</sup> ‘daughter of Zeus’

Sanskrit दि वो दु हि तः<sup>√</sup> {divō duhita<sup>r/h</sup>} ‘daughter of heaven’<sup>17</sup>

within IE, or — within Semitic —

<sup>17</sup> I.e. Dawn (vocative, unaccented along with the genitive dependent upon it). In the nominative case, Δι(φ)ὸς θυγάτηρ

दि वो दु हि ता<sup>√</sup> {divō duhitā}. See Schmitt, *DiDi*, 169-173.

Hebrew וְלֹא תִזְבְּחוּ {wəlóʔ ʔizbəHuʷ} ‘and you (pl.) shall not sac-  
 Aramaic וְלֹא תִדְבְּחוּ {wəlɔʔ ʔidbəHuʷn} rifice’ (II Kings 17:35)  
 Arabic وَلَا تَذْبَحُوا {walā taðbaHuʷ(?)}.<sup>18</sup>

Those Greek and Sanskrit expressions are the most concrete evidence of a real, not just a theoretical IE language in prehistoric times; and likewise, although these Aramaic and Arabic expressions happen to be taken from translations of the Hebrew Bible, the three cited phrases are evidence of a prehistoric common Semitic language, from which the attested languages drew these prohibitory words. The IE-Semitic combinations (which are naturally much sparser than those within IE and those within Semitic) testify, if not to a common prehistoric language, at least to prehistoric language-communities in truly intimate contact.

My procedure in the ensuing chapters will be to present, in whatever detail becomes necessary, the items of vocabulary that are the primary (or, at least for us, the most accessible) bearers of one or more morphological parallels. The more systematic exposition of morphology, which I consider the heart of comparative grammar, will be reserved for the volume to be completed and published later.

Starting with VOCABULARY THAT EMBODIES THE SHARED MORPHOLOGY is the most notable advance of the present volume, both beyond my predecessors — whose preoccupation with vocabulary and phonology kept them from touching the most important morphology — and beyond my own *InEu SeLa*, which concentrated upon morphology regardless of whether or not I found it embodied in cognate vocabulary. So this is to be the most solid, concrete comparison between IE and any other group of languages.

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<sup>18</sup> The Aramaic verb is also attested in another vocalization, תִּדְבְּחוּ (ṭāðəbbəHuʷn), which belongs to the “intensive” conjugation and does not correspond to the Hebrew and the Arabic. I cite Hebrew in the familiar notation of Tiberias; but Aramaic is more of a problem: Aramaic with the Tiberias notation is properly attested only in a few pages of Daniel (2:4-7:28) and Ezra (4:8-6:15, 7:12-26). For any Aramaic forms that do not occur in that meager Biblical corpus, I must resort to the Targum, the Aramaic translation of the Hebrew Scriptures (which are nearly a hundred times the volume of the Biblical Aramaic), but the authentic mss. of the Targum come equipped with the supralinear “Babylonian” notation, and that happens to be, in most respects, less thorough and less accurate.

## Chapter I

### NON-VERBAL NOUNS AND THEIR INFLECTIONS

The word for ‘bull’, Arabic ثَوْرًا {ṭawran} : Greek ταῦρον (in the accusative singular), if not the weightiest of all etymologies for proving that Semitic and IE are intertwined, is certainly the most obvious starting-point. To be sure, Hebrew מָלֵא {mālú} ‘full’ : Greek πολυ- ‘-ful’ has much broader ramifications; but belonging to a verbal root, it requires a more technical analysis than non-verbal nouns, and so is deferred to the next chapter (2.J). Some unquestionable cognates, such as Hebrew כֶּתֶן {kəṭōn|ēṭ} : χιτών ‘tunic’ and :יָרֵךְ {Ḥərú‘c} : χρῶς|ός ‘gold’, are not treated here because they show no comparable inflections; they will be studied for their phonology in the sequel to this volume. Others, such as {gəməll|e} ‘camels’ (construct) in :גַּמְלֵי {gəməll|e} : κάμηλ|oi ‘camels’ (nominative), Latin *caball*|ī ‘work-horses, nags’ (nominative) with a comparable plural morpheme, will be reserved for the appropriate chapter on morphology in that sequel. Nouns like these, in the vocabulary of traders, must have passed from one language to another as civilization spread. They are, in a broad sense, cognate words, though they do not go back to the origin of both languages. In our study, however, the most relevant cognates belong to an older stage in the development of the vocabulary.

But their correspondence, proceeding thus from an earlier time, is liable to be disguised by phonetic changes over the millennia, especially in the consonants. The usable or detectable cognates are those which retain, down to the epoch of their attestation, enough phonetic as well as semantic similarity. The sounds must be close, or at least recognisably related, in segment after segment, so that the structure of the entire word matches well. This will be manifest in {ṭawran} : ταῦρον ‘bull’ and in the following:

Latin *cornu(m)*<sup>√</sup> : Akkadian {qarnu(m)}<sup>√</sup> 'horn' (1.B),

Arabic أَرْضَا<sup>√</sup> {ʔarḏan} : Old English [ʔ]eorḏan<sup>√</sup> 'earth' (1.F),<sup>1</sup>  
and scarcely less obvious in

Hebrew יָרֵן<sup>√</sup> {ʔózen} : Old and Middle High German [ʔ]oren<sup>√</sup> 'ear'  
or in the other organ that is its natural counterpart:

Hebrew יָיִן<sup>√</sup> {ʔáyin} : Old English [ʔ]eagan<sup>√</sup> 'eye' (1.C).

The correspondence is somewhat harder to discern in the rest of the etymologies in this chapter, but still impressive when analyzed. In the other word for 'earth' or 'ground'

Hebrew אֲדָמָה<sup>√</sup> {ʔăḏom|ṣḥ} : Greek χθών<sup>√</sup> (1.G)

my effort to relate the Semitic forms to the IE is justified all the more because these Semitic parallels resolve some long-standing difficulties WITHIN IE etymological research. Nearly the same applies to

Arabic إِسْمًا<sup>√</sup> {ʔisman} 'name' (accusative) :

Church Slavonic имя<sup>√</sup> {imē} (1.H).

The nature of comparative grammar is such that some etymologies are less conclusive than others. But we must not misapply the metaphor of the chain and its weakest link so as to discredit the evidence for the strongest etymologies.

**1.A. Sem. (Arabic) {ḡawran} : IE (Gr.) ταῦρον 'bull'**

**1.Aa.** More than a century and a half has gone by since August Friedrich Pott wrote, "[Breton] tarv, tarô (taureau; vgl. Altkelt. Adelung, Mithr. II. p. 72); Gael. tarbh, a bull; Böhm. [= Czech] tur, Auerochs; Chald. [= Aramaic] תִּרְּרִי bos; Dän. tyr (Stier, Ochs, Rind), Lat. tauro[-]."<sup>2</sup> His inconspicuous remark did not pass unnoticed; especially after his successors brought in the Arabic {ḡawr}<sup>√</sup>,<sup>3</sup> the cognate was manifest and acknowledged by the more open

<sup>1</sup> These three etymologies are the ones mentioned in J. P. Brown's letter to the New York Times, Dec. 7, 1987 (p. A30), calling public attention to my research.

<sup>2</sup> *Etymologische Forschungen auf dem Gebiete der Indo-Germanischen Sprachen*, II (Lemgo: Meyer, 1836), 189.

<sup>3</sup> They disregarded, however, the case-endings: nominative ثَوْرٌ {ḡawrun}, genitive ثَوْرٍ {ḡawrin}, accusative ثَوْرًا {ḡawran}.



minded Indo-Europeanists, or at any rate not opposed for any stated or cogent reason.

**1.Ab.** The recent authorities Gamkrelidze and Ivanov (*InEu*, II, 872), following Illich-Svitych (*DrInSeJaKo*, 3, 10; cf. Dolgopolsky, *InEuHo*, 14), diagnose this word as a Semitic loan in proto-IE: A Semitic fricative consonant was bound to change to a mute (or plosive) in any prehistoric IE language that lacked such a fricative, but no phonological cause is discernible for the opposite change — an IE mute becoming a fricative when it passed into Semitic.<sup>4</sup> Thus [ḫ > t] is like the Spanish *Filipino*<sup>√</sup> becoming *Pilipino*<sup>√</sup> in Tagalog [f > p]. I follow the usual opinion among Semitists that in the word for 'bull', as in many others, the Arabic ث {ḫ} preserves a prehistoric sound, which was modified to [t] in Aramaic, [š] in Hebrew and Akkadian, [s] in Geʿez (*InEuSeLa*, 323-326, and **1.Ac**, note 10).

I would add that -au- also, rather than the normal IE -eu- or -ou-, points to a borrowing, most likely after [aw-] had developed from proto-IE \*h<sub>2</sub>e-.<sup>5</sup>

ܐܘܪܐ {tawr|oʾ} '(the) bull', in the Jacobite or West Syriac dialect of Aramaic, matches exactly the sounds of Greek and Latin [taur-]. In Nestorian or East Syriac it is ܐܘܪܐ {tawr|ʾ} (see **1.Da**, note 71). The suffix, called "emphatic" in modern grammars of Syriac, served in Biblical Aramaic

<sup>4</sup> The essential reasoning of these scholars may be valid on this point, whether or not we go on to agree with the theory that makes this IE consonant aspirate: "H-e. t<sup>h</sup>auṛo-". Möller also (*Seln*, 240) had regarded the IE forms, except for the Old Norse *þjōrr*<sup>√</sup>, as a borrowing from early Aramaic (in *VeInSeWö*, 255, he stated it somewhat differently). Arabic has the same initial consonant as Norse; Ugaritic also has {ḫr}<sup>√</sup> (though we lack definite phonetic information about the character transcribed {ḫ}). It is tempting to take this match for a confirmation of the recent view that the Germanic languages, although attested later than Sanskrit, Avestan, Greek, and Latin, preserved an earlier prehistoric phonology in their plosive and fricative consonants. The Semitic evidence will contribute significantly to clarify this current issue within IE phonetics over the revision of "Grimm's law", which held that IE (Greek, Latin, etc.) t > Germanic þ — granted that this particular word is unrepresented in Germanic outside of Scandinavia. See Toby D. Griffen, *Germano-European: Breaking the sound law* (Carbondale: Southern Illinois University Press, 1988), especially 167-172.

<sup>5</sup> See my review of Bomhard, *ToPrNo*, in *Diachronica*, 2 (1985), 101-102. Bomhard, 216 (following Cuny, *InÉtCo*, 68), considers the word proto-Nostratic. Other scholars, not believing that anything earlier than proto-IE can be recovered or reconstructed, are bound to take this for a loan-word.

Symbolizing a prehistoric vowel as \*e should commit us, however, only to a front- rather than a back-articulation of the tongue; under the influence of the laryngeal consonant it might well be a nearly wide-open [æ].

(𐤁𐤓𐤕𐤌† {toʷr|ʕ}) as the definite article: ‘the bull’. It appears cognate to the pausal form of the Arabic accusative [βawr|ā]§ (1.Ae, note 18; Levin, *DeAr*, 7-9).

**1.Ac.** No one oversight in the history of comparative linguistic research has set the science back as much as not noting the accusative singular case-ending {-an}√ in Arabic : -ov√ in Greek, -um√ in Latin, -q√ in Lithuanian.<sup>6</sup> The pioneer Pott can of course be excused for concentrating on roots or stems to the exclusion of endings, and even for neglecting the use of the hyphen to call attention to it. But if only it had been remarked, within the generation after him, that Semitic has something beyond the bare {βawr} to match the IE inflections! There is no telling what rapid progress might have ensued in that golden age of IE linguistics. As it is, we must be grateful to Brown (*SaCu*, 170) for pointing out in 1979 the dual forms, the Greek nominative ταῦρω√ (also accusative) and the Arabic genitive or accusative {βawrayn}√. That is what has led me to formulate this partial but still momentous paradigm:<sup>7</sup>

(1) Accusative singular

Gr. ταῦρον, Oscan TAYPOM√, Latin *taurum*, Lith. *taūrą*, Sanskrit {-am}√, Hittite {-an}√<sup>8</sup> : Arabic {βawran} (absolute), Ancient South Arabian {βwrn√, βwrm√}, Akkadian {šūram}§.

(2) Genitive singular

Latin *taurī*√, Gaulish TARVI† (1.Ak) : Arabic [βawrī]§ (pausal poetic substitute for ثَوْرٍ√ {βawrin}); Caspari – Wright, *GrArLa*, II, 368-369), Akk. {šūri(m)}√.

(3) Nominative dual

Gr. ταῦρω, Lith. *taurū*†, Old Church Slavonic *roypa*† [tura], Vedic Sanskrit {-ā}√ : Arabic ثَوْرَا § {βawrā} (construct only), Akk. {šūrā}†.

(4) Genitive dual

Arabic (absolute only) ثَوْرَيْن√ {βawrayn} (pausal),<sup>9</sup> Akk. {šūrēn}† (As-

<sup>6</sup> As in Polish, the subscript mark stands for nasalization of the vowel.

<sup>7</sup> The feminine derivative Ταυρά√ at the end of it was also pointed out by him (*EtPa*, 95).

<sup>8</sup> This noun is not found in Sanskrit or Hittite, but the ending is well represented by many other nouns.

<sup>9</sup> The Ancient South Arabian genitive dual {βrnhn}√ — A. Jamme, *Sabaeen Inscriptions: From Maḥram Bilqīs (Mārib)* (Baltimore: Johns Hopkins [1962]), 49 (no. 567, line 8) — seems vaguely cognate, but puzzling.

syrrian dialect) : Gr. ταύρου<sup>†</sup>.

(5) Nominative plural

Gr. ταῦροι<sup>†</sup>, Latin *taurī*<sup>†</sup> (TAVREI<sup>†</sup> in early Latin), Lith. *taurāi*<sup>†</sup>, OCS *тоури*<sup>†</sup> [turi] (Levin, *PrInEuThDe*, 119-122).

Construct plural

Aramaic *ܬܘܪܝܐ*<sup>†</sup> {to<sup>w</sup>re<sup>y</sup>} (post-Biblical = Biblical *ܬܘܪܝܐ*<sup>†</sup>), Heb. *שׁוֹרֵי*<sup>†</sup> {šo<sup>w</sup>re<sup>y</sup>}.

(6) Genitive plural

Gr. ταύρων<sup>†</sup>, early Latin TAVROM<sup>†</sup>, Lith. *taurū*<sup>§</sup>, Skt. {-ān<sup>m</sup>}<sup>†</sup>, Hitt. {-an<sup>m</sup>}<sup>†</sup> (rare); cf. Arabic *ثِيْرَان*<sup>†</sup> {ṯi<sup>y</sup>ran} 'a lot of bulls' (pausal), Akk. {-ānu, -āni}<sup>†</sup> (Von Soden, *GrAkGr*, 81).

(7) Feminine derivative

Gr. Ταυρώ<sup>†</sup> (epithet of the goddess Artemis); cf. Latin *taurā*<sup>†</sup> '(sterile) cow' : early Aramaic *ܬܘܪܗ*<sup>†</sup> {swrh}<sup>†</sup><sup>10</sup> 'cow' = Bibl. Aram. *ܬܘܪܗ*<sup>†</sup> {to<sup>w</sup>rṣ<sup>h</sup>}<sup>†</sup>, Phoenician *Θουρώ*<sup>†</sup> (goddess or divine cow).<sup>11</sup>

<sup>10</sup> The initial letter *שׁ* may have been stood for the fricative {ḥ}, rather than {š} (or {s}). Only from Ethiopic (Ge'ez {sor}<sup>†</sup>) have we definite evidence of the sibilant [s] in this word.

<sup>11</sup> Besides Brown – Levin, *EtPa*, 95, see Levin, *PrInEuThDe*, 112-140; *CoGr*, 155; *FuOtKe Wo*, 166-167; *DiQuQu*, 413-414). Some Arabic dictionaries, though not the most reliable ones, give a feminine noun *ثَوْرَة*<sup>†</sup> {ḥawratun} 'cow', which would then have a pausal pronunciation \*[ḥawrah]. However, the usual meaning of this noun, as my colleague Khalil Semaan informs me, is 'excitement'. — We might also compare

(8) Nominative singular in early Latin TAVRV<sup>†</sup>, TAVRO<sup>†</sup> : Arabic *ثَوْر*<sup>†</sup> {ḥawru} (construct only), Akkadian {ṣu-u-ru}<sup>†</sup>. The -s that is the nominative singular case-ending in this and other declensions of classical Latin was freely omitted in the pre-classical period (*InEuSeLa*, 319-321). -u(s)<sup>†</sup> developed from the earlier -o(s)<sup>†</sup>, which is closer to the other IE case-forms and matches the Greek -os<sup>†</sup>. The [-u] as a nominative singular ending is briefer than any of the seven endings listed above, and in Latin the same vowel comes also in the accusative singular. These two circumstances incline me to put more weight on the -u(m) of *cornu(m)* : Akkadian {qarnu(m)} 'horn' (1.Bb).

(9) With no suffix, the Greek vocative ταῦρ<sup>†</sup>, eliding the final vowel in ταῦρε<sup>†</sup> before a word that begins with a vowel : Arabic *ثَوْر*<sup>†</sup> {ḥawr} before a pause. These, however, are OPPOSITE placements. ταῦρ- in the compounds ταυρελάτης<sup>†</sup> 'bull-driver', ταυραφέτης<sup>†</sup> 'bull-releaser' (in the arena), where the second member begins with a vowel (otherwise ταυρο-<sup>†</sup>), is functioning like the Arabic genitive before a pause, but otherwise the Arabic genitive calls for the vocalic ending {-i}<sup>†</sup>.

### 1.Ad. Several observations on these data are warranted.

Within the great system of noun-inflection, the dual is the sub-system with the most correspondence between Greek and the Semitic languages. No one would argue that the Greek declension is more like the Arabic than like the Sanskrit in the singular or the plural; but in the dual it is, for there Sanskrit has only one correspondence:

vocative singular	λύκ ε <sup>√</sup>	वृ क <sup>॑</sup> <sup>√</sup>	{vṛk a} 'wolf'
nominative "	λύκ ο <sub>S</sub> <sup>√</sup>	वृ क <sup>॑</sup> : <sup>√</sup>	{vṛk aḥ} ({-as}) before {-t-} or {-t <sup>h</sup> -}) <sup>12</sup>
accusative "	λύκ ο <sub>V</sub> <sup>√</sup>	वृ क <sup>॑</sup> म् <sup>√</sup>	{vṛk am}
genitive "	λύκ ο <sub>LO</sub> <sup>√13</sup>	वृ क <sup>॑</sup> स्य <sup>√</sup>	{vṛk asya}
NOM./ACC. DUAL	λύκ ω <sup>†</sup>	वृ का <sup>॑</sup> <sup>√</sup>	{vṛk ā} <sup>a</sup>
acc. plural	λύκ ο <sub>US</sub> <sup>√</sup> [-ōs]	वृ का <sup>॑</sup> न् <sup>√</sup>	{vṛk ān} ({-āns} before (in many dialects -ON <sup>S</sup> <sup>√</sup> ) {t-} or {-t <sup>h</sup> -})
dat./inst. pl.	λύκ ο <sub>LS</sub> <sup>√</sup>	वृ कैः <sup>॑</sup> <sup>√</sup>	{vṛk āiḥ} ({-āiS} before {t-} or {-t <sup>h</sup> -})
genitive "	λύκ ω <sub>V</sub> <sup>√</sup>		{-ām} <sup>√</sup> rare in this de- clension

<sup>a</sup>See footnote <sup>14</sup>

<sup>12</sup> See my *RoInEu*, 551-554.

<sup>13</sup> Only in Homeric Greek.

<sup>14</sup> The {-ā} ending of the nominative/accusative dual is exclusively Vedic. The alternative ending in Vedic, and the sole one thereafter, is {-āu} as in वृ काँ<sup>॑</sup> <sup>√</sup> {vṛk|āu}. (On the pronunciation of this diphthong see *InEuSeLa*, 152.) Whether it too has a Semitic counterpart depends on our interpretation of the Hebrew ending ַל in ַלַּחֲוָה<sup>√</sup> {yṛḥw} 'months' four times in the Gezer "calendar" inscription and {ydw} 'hands' (in ַלַּיָּדַי<sup>√</sup> 'and hands') once in the {kəṭīṣḇ} or 'written' text of the Bible (Ezekiel 1:8; see my "Reply to Oswald Szemerényi," *GeLi*, 15 [1975], 198). The context clearly shows the meaning to be dual construct, and the syntax allows us to take the noun with the {-w} as a vestige of the NOMINATIVE dual in a language nearly devoid of cases. The probable Akkadian cognates are {warḫā, arḫā, urḫā}<sup>§</sup> and {i-da-a}<sup>√</sup> 'arms' (Arabic يَدٌ<sup>√</sup> {yadā} 'hands'). It cannot be settled whether a normal Hebrew cognate, with the unwritten vowel [o] corresponding to the Akkadian and Arabic [ā], would have had — in the Gezer inscription — the letter ַל {-w} or — as some

The startling prominence of Semitic connections to the Greek DUAL is an undeniable fact, whatever theories we may entertain as to the cause of them. The dual is relatively fragmentary or supplementary, and by its nature rare or lacking for many nouns. But of those nouns which are shared by Semitic and IE, a rather large proportion (as we shall see) do often occur in the dual. As they spread through much of the early (or pre-) Semitic and IE population, they are likely to have carried the dual more effectively than any other inflections.<sup>15</sup> It seems more than a coincidence that Sanskrit and the Iranian languages, besides having no noun cognate to ταῦρ-, have a genitive dual ending quite different from -οῦν, which within IE is peculiar to Greek.

**1.Ae.** The best match in the singular is the accusative, but it needs some further clarification. The -οῦν : {-an}, etc., is analyzable as two morphemes. The consonant in Greek is what distinguishes the accusative ταῦρον from the

scholars have argued — חָרַחֲרִי {-h}. But believing that it would have had to be the latter, they take חָרַחֲרִי to mean, not 'two months of', which fits the context perfectly, but 'his two months' or something just as absurd as that. The vocalization of the ending חָרַחֲרִי, as construct dual, might be either {-ō\*} cognate to Arabic, Akkadian, Avestan and Sanskrit {-ā}, Greek -ω, or else something more like the Sanskrit {-āu}. The argument against 'two months of', summarized by Donner – Röllig, *KaArIn*, II, 181-182, and John C. L. Gibson, *Textbook of Syrian Semitic Inscriptions*, I (Oxford: Clarendon Press, 1971), 3, illustrates all too well the foibles of scholarship, sacrificing the plain sense of the text (which the early commentators grasped) to mere theories of diachronic phonology and orthography. Unless blinded by those theories, everyone should have perceived the simple arithmetic as well as grammar: 4 חָרַחֲרִי items, 4 חָרַחֲרִי items (singular, without the suffix חָרַחֲרִי); hence 'two months of gathering, two months of sowing, two months of aftermath (?), a month of flax-cutting, a month of barley harvest', etc. — amounting to 12 months. At least a couple of fairly recent authorities have seen the light: Charles-F. Jean – Jacob Hofstijzer, *Dictionnaire des inscriptions sémitiques de l'ouest* (Leiden: E. J. Brill, 1965), 111; Gary Rendsburg, "Dual Personal Pronouns and Dual Verbs in Hebrew," *Jewish Quarterly Review*, 73 (1982), 53.

<sup>15</sup> One classical Greek myth celebrates that otherwise lost age: the hero Jason had to yoke two fire-breathing bulls and plow a field (Apollonius 3.1296 ff.; ταῦρω, 3.410, 496). Such powerful, refractory creatures were enslaved by a mighty man, before it occurred to anyone to tame them by castration while still calves. The cognate in many languages, including Hebrew, refers much of the time to castrated beasts; however, the law in Exodus 21:28-32, dealing with any שֹׂרֵץ<sup>√</sup> {šō'r} that gores a man or woman to death, would seem to apply rather to the uncastrated bull. In Akkadian also, as G. Rendsburg informs me, the "goring ox" mentioned in the Code of Hammurapi must be an uncastrated bull.

nominative singular ταῦρος<sup>✓</sup>. The same applies to any masculine noun of this type, the thematic, and to thematic feminine nouns also. In neuter nouns, however, such as δῶρον<sup>✓</sup> 'a gift', the -ον is maintained in a nominative or subject function as well as in an accusative or object function, as though the inanimate thing were a mere object morphologically, unelevated even when it is treated syntactically as a subject (Levin, *CaNoPr*, 449-450). The definite article in Greek, mainly after Homer — τὸν ταῦρον<sup>✓</sup>, τὸ ταῦρος<sup>✓</sup>, τὸ δῶρον<sup>✓</sup> — does not affect the {-n} as it does in Arabic, nor any other case-ending (Levin, *DeAr*).

In Arabic the nominative is distinguished by a different vowel, not by a consonant: {ḥawrun}. That consonant {-n} is omitted in the vocative, or in any construct form, or when the definite article is prefixed:

أَلْتَّوْرُ<sup>✓</sup> {ʔaḥḥawru} 'the bull' (nominative),

أَلْتَّوْرِ<sup>✓</sup> {ʔaḥḥawri} (genitive),

أَلْتَّوْرَ<sup>✓</sup> {ʔaḥḥawra} (accusative).

In Akkadian, as in Latin, Sanskrit, and related IE languages, the nasal consonant is -m. But Akkadian (like Latin, Oscan, Lithuanian, and Slavic) has no definite article, and in the construct state (followed immediately by the possessor) drops not only the nasal but also the vowel {-u}, {-i}, {-a} right before it that shows nominative, genitive, or accusative case. Whereas {ḥawran} in Arabic is 'a bull', {šūram} in Akkadian is (from our Occidental point of view) either 'a bull' or 'the bull', but only in the early texts. Thereafter — i.e. in the great bulk of the Akkadian corpus — {-am} gives way to {-a} (and {-um} > -u; {-im} > -i) with no change of meaning, so that {šūra}<sup>§</sup> is either 'a bull' or 'the bull' whereas the Arabic أَلْتَّوْرُ<sup>✓</sup> {ḥawra} is '(so-and-so's) bull'.

The meaning of the -n : -m morpheme is somewhat elusive. Möller, besides his other great services, deserves credit for suggesting that Arabic and Akkadian share it with many IE languages.<sup>16</sup> I would formulate its meaning as AN OBJECT NOTED by the speaker.<sup>17</sup> At any rate it is no mere accident that the extremely close resemblance is located in the ACCUSATIVE singular.

<sup>16</sup> "Die gemein-indogermanischen-semitischen Worttypen," *ZeVeSp*, 42 (1909), 179-180; cf. my *InEuSeLa*, 167.

<sup>17</sup> Prof. Carleton Hodge (in a letter to me) lays emphasis upon the lack of any meaning of indefiniteness in the Akkadian {-m}. Something about it, however, excludes this {-m}, as

“Accusative case” is the traditional label for the complement of most verbs, as “nominative” is for the subject and “genitive” for the possessor. In Arabic, right before a pause, [ḥawrā]<sup>§</sup> is pronounced instead of {ḥawran},<sup>18</sup> whereas the other two case-forms are usually reduced to [ḥawr]<sup>§</sup> and all three with the article prefixed become [(ʔaḥ)ḥawr]<sup>§</sup>. In a simple Arabic sentence, ‘a bull’ as object of the verb would stand AFTER the verb (and after the subject, if any), unless the word-order were changed for emphasis or “topicalization”. In Akkadian, however, normally it is the verb that comes last, and in any event the ending of the noun is not affected by its position in the sentence. The same holds for the early IE languages by and large, though not at all rigidly.<sup>19</sup> The congruence of the IE accusative with the Arabic {ḥawran} also is most perfect if we posit as normal the order object – verb (OV) rather than verb – object (VO) in both prehistoric IE and prehistoric Semitic.

**1.Af.** The correspondence in the genitive singular ending (**1.Ac2**) is weaker to this extent: Only by poetic license has Arabic a long vowel [-ī]<sup>√</sup> like Latin, instead of the normal [-i-n].<sup>20</sup> Many poetic licenses, in various languages, arise through preservation of an obsolete or obsolescent feature, or else are borrowed from the normal phonology or morphology of some related dialect; but we have no information about the basis for this one in Arabic. If the phonetic aspect of the correspondence were reduced to the first half of the Latin -ī

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well as the Arabic {-n}, from the construct state. A. Dolgopolsky, “Two Problems of Semitic Historical Linguistics,” in Kaye, *SeSt*, 1, 328-330, argues somewhat paradoxically that the original function of the nasal suffix was to express DEFINITENESS, rather than the opposite.

<sup>18</sup> The orthography of Arabic appears to be based upon some early, unidentified dialect — perhaps Nabataean — that had no final [-n] morpheme, unlike the dialect of Makkah (Mecca) that was afterwards standardized for the literary norm of all Arabia. (There are several other important discrepancies between the letters employed to spell Arabic words and the sounds indicated by superscript or subscript marks.) The pausal pronunciation [ḥawrā] (**1.Ab**) in-

deed accords with the unvocalized spelling ثورا [ḥwr?]; here the letter | {ʔ}, as often, indicates not the glottal stop but a lengthened vowel [ā]. Otherwise in the accusative singular the

| is contrary to the pronunciation [-an] and customarily omitted in transcriptions.

<sup>19</sup> Paul Friedrich, *Proto-Indo-European Syntax: The order of meaningful elements* (*Journal of Indo-European Studies*, Monograph 1 [1975]), 20-24, 31-34, 42, 45, 51, 53-56.

<sup>20</sup> ثورٍ [ḥawri], the construct state with short {-i}, which means ‘(so-and-so’s) bull’s’, is excluded from a pausal position and so has no alternant form in [-ī].

and the short vowel of the Arabic {-in}, it would then be minimal, though not negligible. The meager remains of Gaulish cannot show whether or not the -I was long, as it was in Latin; but in view of the many links between the Celtic and Italic languages, and their geographical closeness, we do not doubt that TARVI and *taurī* are cognate.<sup>21</sup> The less ancient of the Celtic languages have not preserved this genitive ending; at the most they retain the Umlaut effect of this front-vowel upon the vowel of the previous syllable: Old Irish *tairb*<sup>√</sup> (in contrast to the nominative *tarb*<sup>√</sup>).

From another point of view the correspondence of Arabic [ḥawrī] to Latin *taurī* (Gaulish TARVI) stands out because here the pattern of case-inflection characteristic of Semitic, with a vowel distinguishing each case, occupies a slot in an IE language. All the other case-forms of the Latin "second declension", plural as well as singular, are formed from the thematic vowel *o*/*e* plus a case-ending AFTER that syllabic nucleus; thus in early Latin:

	singular	plural
vocative	-E <sup>√</sup>	-EI <sup>√</sup>
nominative	-OS <sup>√</sup>	"
accusative	-OM <sup>√</sup>	-OS <sup>√</sup> [-ōs]
dative	-OI <sup>√</sup> [-ōi]	-EIS
ablative	-OD <sup>√</sup> [-ōd]	"
but genitive	-I <sup>√</sup> [-ī]	-OM <sup>√</sup>

Whether or not the two types of case-inflection originated quite separately in the remote prehistory of Semitic and IE, anyhow what we are able to study is their INTERSECTION or overlapping.

**1.Ag.** While Arabic shows the cases of nouns more than any other Semitic language, it goes in for pluralization very little. The "broken plurals" are really collectives, in their formation quite different from the Akkadian, Hebrew, and Aramaic plural, and in their syntax usually feminine singular, as shown by any agreeing adjective, pronoun, or verb (cf. **4.Cc**, note 42). It seems no accident that the most plausible link is between one type of "broken plural" in {-ān}<sup>√</sup> — namely {ḥi'rān} — and the IE genitive plural, rather than any other case, because the genitive plural is least related morphologically to the other cases.<sup>22</sup>

<sup>21</sup> On the metathesis of consonants, see **1.Ak**.

<sup>22</sup> {ḥi'rān} '(a lot of) bulls', the pausal form of the Arabic "broken plural", is not necessarily genitive — it could be nominative; but nearly any noun serving as the subject of a



Like many other Arabic nouns, 'bull' forms several "broken plurals", not quite equivalent in meaning: {ḥi'rān} signifies 'a lot of bulls',

in contrast to ثَوَارٌ {ṭawār|un} 'a few bulls' (nominative;

gen. ثَوَارٍ {ṭawār|in}, acc. ثَوَارًا {ṭawār|an}).

This distinction between 'a few' and 'many' is not surprising in a language that regularly distinguishes the dual also. But besides {ṭawār(un)} and {ḥi'rān(un)}, the dictionaries give ثَيْرَةٌ {ḥi'rat(un)} as 'a few bulls', and still other forms as 'many bulls':<sup>23</sup> ثَيْرَاتٌ {ḥiyarat(un)}

ثَوَرَاتٌ {ḥiwarat(un)}

ثَيَارَةٌ {ḥiyārat(un)}

ثَيَارٌ {ḥiyār(un)} (Lane, *ArEnLe*,

304); between these the difference in sense must be quite subtle, if perceptible at all.<sup>24</sup>

The last of them, which is pronounced [ḥiyār] in a pausal position, bears a fair resemblance to the Hebrew plural absolute שָׁוְרִים {šawōr|im}, minus the Hebrew plural suffix {-im}.<sup>25</sup> However, the Arabic long vowel {ā} normally corresponds to {o(ʷ)} in Hebrew, rather than to {ɔ}, which should as a rule be equivalent to the short vowel {a} in Arabic. Many Semitists maintain that Hebrew plurals of the {šawōr|im} type consist of an original "broken plural" with the suffix {-im} added somewhat redundantly, by way of

sentence, a nominative function, is less likely to occur in a pausal position. In any other position the nominative is ثَيْرَانٌ {ḥi'rān|un} and the genitive ثَيْرَانٍ {ḥi'rān|in}; the accusative ثَيْرَانًا {ḥi'rān|an} would remain distinct in pause, [ḥi'rānā] (like the accusative singular [ḥawrā], 1.Ae).

<sup>23</sup> The old-fashioned English expression *many a bull* may help us to sense the elusive logic of treating a PLURALITY as grammatically singular; e.g. *Many a bull was killed*.

<sup>24</sup> Here I benefit from the advice of my colleague, Dr. R. Kevin Lacey.

<sup>25</sup> The vocalization with {i} in the first syllable encourages the substitution of the homorganic ي {y} for و {w} in several of these "broken plural" forms, but not invariably.

{-i'n(a)}, the Arabic cognate of the Hebrew {-im}, is limited to what the grammarians call the "sound plural" (genitive/accusative), mainly of certain participles, whose vowel pattern is not affected by this suffix.

double characterization. Short {a}, inserted before the last consonant of the root, does indeed function (though much less frequently than {ā}) to produce a “broken plural” in some Arabic nouns, along with another change in the vowel before the previous consonant (Caspari – Wright, *GrArLa*, I, 199-205, 224); no such nouns, however, have the structure {CVCC} in the singular, as exemplified by the Arabic {ḫawr} (Hebrew {šóʿr}).<sup>26</sup>

**1.Ah.** A parallel emerges between the two plural and the two dual cognates: the IE nominative plural and dual have Semitic counterparts that are construct, while the IE genitive plural and dual, which end in a nasal consonant, have Semitic counterparts that are absolute. Why are the nominative absolute and the genitive construct unrepresented? The thread linking IE and Semitic becomes more palpable if we posit a typical word-order in early IE like the Semitic, with the nominative word coming BEFORE the genitive or possessive one (cf. the conclusion of **1.Ae**).

**1.Ai.** Whatever may have been the prehistoric origin of the six Greek inflected forms (ταῦρον, ταύρω, ταύροι, ταῦροι, ταύρων, Ταυρώ) and their Semitic counterparts, we need not maintain that they all originated together. The feminine Ταυρώ, in particular, may well have been formed WITHIN Greek, whether in contact with Aramaic and Phoenician or independently, much later than all the masculine forms. *Taura* likewise could be a formation within Lat-

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<sup>26</sup> See Joseph H. Greenberg, “Internal *a*-Plurals in Afroasiatic (Hamito-Semitic),” *Afrikanistische Studien* (Deutsche Akademie der Wissenschaften zu Berlin, Institut für Orientalforschung, Nr. 26, 1955), 189-204, for examples from numerous “Hamitic” languages of Africa. Gary Rendsburg directed me to this article.

One Arabic noun of the basic vocabulary, meaning ‘son’, consists of a biconsonantal root which in the singular has no inherent vowel (as there is none between the second and third consonants of {ḫawr} : {šóʿr}). It forms its plural just like {šawwāʾim} and many other Hebrew nouns:

Singular: عِيسَى ابْنُ مَرْيَمَ √ {ʿīṣāʾ(ʿ) (ʾ)bn|u maryama} ‘Jesus, son (nominative construct) of Mary’ (Qurʾān 4.169[171], etc.; cf. بَنِي √ {bən|iʿ} ‘my son’ : اِنِّ اَبْنِي √ {ʿinna (ʾ)bn|iʿ}) ‘behold my son’, 11.45[47]);

plural: بَنِينَ √ {baniʿna}, translating בְּנֵי √ {boniʿm}, in Gen. 5:4,7, etc., “and he begat sons” (the Aramaic Targum Onqelos has בְּנֵי √ {bənīʿn}).

in. But at any rate Semitic and IE shared a morphological procedure for creating a feminine alongside a primarily masculine noun.

To posit a primeval connection, followed by a total, permanent separation, would be "Nostraticism" with a vengeance.

**1.Aj.** On the IE side the morphological correspondences, exemplified by this one noun, are concentrated in the "thematic" declension (traditionally called the "second" in Greek and Latin). Even there it is much less than the full declension. But, for that matter, even among the main IE languages the declension corresponds only in part, in either the singular or the plural (let alone the dual). From comparing the declensions in Greek with one another or with Sanskrit, Latin, etc. (see **1.Ad**), the most reasonable conclusion is that in prehistoric IE there had been no neat pattern of eight cases — vocative, nominative, accusative, instrumental, dative, ablative, genitive, locative — as many have supposed, but several partial, competing patterns, and that the actual declensions were pieced together, rearranged, and restructured somewhat differently in each language (Levin, *PrInEuThDe*).

**1.Ak.** The metathesis [-rw-], on the IE side, is evident only in the Gaulish *TARVOS*<sup>✓</sup> (nominative) and the reflexes in later Celtic languages (Old Irish *tarb*, etc.). In Semitic the word never shows metathesis. But we cannot disregard the metathesis as merely a Celtic peculiarity; for it appears also in the Finnish and Estonian *tarvas*<sup>✓,27</sup> besides the loan-word *tarfr*<sup>✓</sup> 'ox' or 'steer' in Old Norse. I know of no other phenomenon that points to direct prehistoric contact between Celtic and Finnic (or Fennic) languages, when there were Celts living well to the east of Gaul and not very far from Finnic territory. On the other hand, *tarvas* could have been borrowed, with metathesis, from the Lithuanian *taūras* (or the like in some related but unattested Baltic language); for such metathesis is common in Finnish loan-

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<sup>27</sup> Here, as in Lithuanian and Slavic, the word refers to the wild aurochs (or bison? — differences between the dictionaries leave some doubt which species they mean), rather than the domestic bull. However, *Nykysuomen Sanakirja* (Porvoo: Werner Söderström [1980]), III, 579, while defining *tarvas* as 'villi härkä' (= 'wild ox'), quotes the *Kalevala*: "takalappi tarvahalla" 'back-Lapland [plowed] with a *tarvas*'. That may be just a poet's fancy; for he also says, two verses earlier, "pohjola porolla kynti" 'the north plowed with a reindeer' — which seems, at best, a prophecy of the extension of agriculture to northern Finland in more recent times. I thank Prof. Raimo Anttila of UCLA for his invaluable help.

words from that quarter.<sup>28</sup> We have no absolute evidence that the original order was [-wr-], or that it was [-rw-], or that at the earliest stage there was an alternation. I favor Gamkrelidze and Ivanov's argument (1.Ab) that the Arabic and Norse *ḥ-* represents an earlier stage than *t-*; I am less sure, however, that the word spread from the south northward.<sup>29</sup>

The metathesis is taken by Ernout – Meillet, *DiÉtLaLa* (s.v. *neruus* and *taurus*), as a characteristic of “vocabulaire ‘populaire’,” contrasting implicitly with the language of the aristocracy.<sup>30</sup> They point to the -*a-* as another such

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<sup>28</sup> Anttila points out (by letter) that the Lithuanian word *taurė* √ ‘goblet’ (which is clearly derivative from *taūr[as]*) became *torvi* √ ‘(drinking) horn’ in Finnish. Finnish also has *teuras* √ ‘beast for slaughter’; glossed ‘schlachtvieh’ by De Vries, *AlEtWö*, 614. He derives it from the Norse *fiórr*; but Anttila prefers a derivation from the Germanic \**tebras* (attested in Old High German as *zēbar* √ ‘victim’).

The Old Norse *fiórr*, in spite of the intermediate geographical position, does not reflect the metathesis shared by Gaulish to the south and Finnish and Estonian to the east. The relation of the IE *taur-* (*ḥ-* in Norse) to the Germanic word beginning with *st-* is problematical and disputed: *stiórr* √ in ON (very rare), {*stiur*} √ in Gothic (where it translates μόσχος √, μόσχον √ ‘calf’), *steor* √ in Old English (> *steer* √), etc. (On the so-called “*s-* mobile” see Pokorny, *InEtWö*, I, 1010, 1083). At any rate, the *st-* forms, including the Avestan {*staorəm*} √ ‘ox’ (or other draught animal; accusative case), point to a likely variation within the IE realm as to the initial consonant — with or without a preliminary sibilant. On the other hand, Gaulish along with the non-IE Finnish and Estonian exhibits — in contrast to the rest of IE and to Semitic — an unmistakable variation in the post-vocalic consonant- group [rw : wr].

<sup>29</sup> Levin, *SeEv*, 253-255. The Indo-Europeanists vary widely in their willingness to entertain even the most obvious case of vocabulary shared with non-IE languages. Take Chantraine, *DiÉtLaGr* (1968), s.v. ταύρος: “Il n’y a pas lieu de rapprocher les termes germaniques avec initiale *st-* et vocalisme *-eu-*, cf. got. *stiur*, v.h.all. *stior* ‘taureau’ (cf. aussi avest. *staora-* ‘gros bétail’); encore moins, pensons-nous, d’évoquer les formes sémitiques, accadien *šūru*, aram. *tōr*, hébr. *šōr*, et de supposer, soit un emprunt à l’indo-européen par le sémitique, soit un emprunt au sémitique par l’indo-européen, ou encore deux emprunts parallèles à une source commune.” This was intended, unmistakably, as a dissent from the relative open-mindedness of Frisk, *GrEtWö*, a few years earlier: “Ähnliche Formen begegnen auch im Semit.: akkad. *šūru*, aram. *tōr*, hebr. *šōr*. [Both Frisk and Chantraine fail, alas, to cite the Arabic {*ḥawran*} (accusative), whose similarity to ταύρον is overwhelming; see 1.Ac.] Wenn die Ähnlichkeit nicht zufällig ist, muß Entlehnung stattgefunden haben, u. zw. entweder vom Idg. ins Semit. oder umgekehrt oder endlich aus einer gemeinsamen Quelle.”

<sup>30</sup> Besides *neruus* √ : νεῦρον √ ‘sinew, muscle’, Latin shows the order [rw] contrary to Greek in *paruus* √ : παῦρος √ ‘little’, and similarly *aluus* √ ‘belly, cavity’ : αὐλός √ ‘tube, pipe’. Why Latin has, on the other hand, *taur-* just like ταυρ-, defies explanation. That this

trait. This adds a socio-linguistic dimension to our inquiry, increasing the possibilities and the complications. The firmer the norm of speech within a community, the more clearly the cognates to other languages will stand out; but linguistic researchers should never forget that languages on the whole tend much more toward variation than uniformity. Where *r* is involved, the LIKELIHOOD if not the fact of a very ancient metathesis seems inherent in the nature of speech.

The Old Norse *tarfr* has been considered a loan-word from Celtic.<sup>31</sup> I should think that Finnish was just as likely a source.

**1.AL.** The Finno-Ugrian languages have an elaborate system of cases, some of them functioning like IE cases and a few of them similar even morphologically (Levin, *PrInEuThDe*, 124-125). Apart from the nominative singular *tarvas* : Lithuanian *taūras* and Gaulish TARVOS, Finnish has a genitive/accusative singular *tarv|aan* §; cf. the Lithuanian accusative *taūr|ą* (**1.Ac**, note 6) and its IE and Semitic cognates. In the instrumental plural the ending corresponds only in part: Finn. *tarv|ain* §, Lith. *taur|ais* §.

**1.Am.** Measured against IE, the Semitic system of case-inflection is nearly rudimentary. However, the cases that Akkadian and Arabic show<sup>32</sup> constitute an impressive link to IE, unparalleled in any Afro-Asiatic languages apart from Semitic. The proof that ancient Egyptian (before the Coptic period) lacked cases, as the modern Berber, Cushitic, and Chadic languages do, is incomplete because of the defective hieroglyphic and demotic scripts; so I would not rule out all possibility that the cases were widespread in "Nostratic" thousands of

Latin word could be a relatively late prehistoric borrowing from Greek, seems quite improbable; but the more comprehensive word for the species (not exclusively the adult male) *bōs* √ : βοῦς √ poses a phonetic problem also, though of a different sort. Some influence upon Latin, if not from Greek, then from a geographically closer IE language, must be involved in both words. Besides *DiĒtLaLa*, see J. Vendryès, "Latin *ueruēx* (*ueruīx*), irlandais *ferb*," *MéSoLi*, 12 (1901), 41.

<sup>31</sup> Alexander Jóhannesson, *Isländisches etymologisches Wörterbuch* (Bern: Francke, 1956), 1202; De Vries, *AIErWö*, 582.

<sup>32</sup> Ugaritic too, but very meagerly because only with the glottal stop does any vowel-quality come through the Ugaritic adaptation of the cuneiform script — divested of its syllabic principle — to serve as a consonantal alphabet. Ge'ez has the old accusative ending {-a} √, sometimes still serving to show that the noun is either the object of the verb or else in the construct state.

years ago but subsequently disappeared in all these African languages, inas-much as cases have indeed waned throughout IE (least in Baltic and Slavic). Anyhow the evidence that is accessible warns us not to confine Semitic comparative grammar within Afro-Asiatic, as though there were no Semitic-IE connections. In the realm of noun morphology the fullest connection appears in the dual: There the IE languages developed less complicated case-inflection than in the singular and the plural; there the Semitic languages — at least some of them — are on virtually the same footing as Greek.

**1.An.** The animal itself, as no other, has commanded not only the attention but the wonder of a large part of mankind for thousands and thousands of years (Brown, *SaCu*, 163-168). We cannot recapture what name the cave painters of Lascaux (c. 15,000 B.C.) had for it, nor discern whatever changes in nomenclature may have been occasioned by the subjection of the wild beast to human control during the subsequent but still very remote millennia. Even now, the adult male — unless it has been castrated — is only half-tamed at best. In Spain, above all in the city of Pamplona, every year the struggle between man and the *toro*<sup>√</sup> (< *taurum*) is re-enacted ritually, with great danger to the human participants and certain death to the bulls. The antecedents of this amazing custom must go back to uncivilized pre-Christian times, although the early documentation from within Spain is meager. All in all, the import of this word for linguistics is but a reflection of the significance of the bull to human society.

**1.Ao.** {*ḡawr-*} : *ταυρ-*, with the cognates, is not pan-IE; but it is enough — when combined with the endings, singular, dual, and plural — to show that the prehistoric evolution of IE was not isolated from Semitic, even if there were no other noun to confirm it. In fact there are quite a few such nouns, which we shall take up in the rest of the chapter. Some of them illustrate one or more of the same endings; some will bring in endings not found in [*ḡawr-*].<sup>33</sup>

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<sup>33</sup> Louis Deroy, "Tityre et les moutons des inventaires mycéniens," *La parola del passato*, 17 (1962), 421-435, has made a good case for analyzing *ταυρ-* as virtually an Ablaut of the second syllable in *τήτυρ-* and *σάτυρ-*, which in origin meant 'he-goat' and 'ram' respectively. (In the extant texts the *σάτυροι*<sup>√</sup> or — mainly in Doric — *τήτυροι*<sup>√</sup> figure as mythical, half-anthropomorphic beings of the wild. Perhaps this was based on the behavior of the he-goat and the ram BEFORE the era of domestication.) Deroy reasons that the *τή-* and *σά-* re-

**1.B. IE (Latin) cornu(m) : Sem. (Akk.) {qarnu(m)} 'horn'**

The word for 'horn' is as pan-Semitic as {ḫawr-} and its cognates, and not far short of being pan-IE too. Since the ancient IE languages were much more numerous and widespread, it is no wonder that they showed somewhat less uniformity. Gamkrelidze and Ivanov (*InEu*, II, 876) view the Semitic \**ḫarn-* (*ḫ* and *q* being equivalent transliterations of the Semitic emphatic consonant) as a borrowing from IE, because \**ḫ*<sup>[h]</sup><sub>ḫ</sub>-*n*-had been formed within IE from \**ḫ*<sup>[h]</sup><sub>er-</sub> 'top, head'. Before them Möller (*VeInSeWö*, 121) noted this etymology and credited it to M. Andreas Helvigius, who lived much earlier than Pott (1.Aa).<sup>34</sup>

**1.Ba.** Aramaic and Hebrew show no dual form of תֹּרַר† {to<sup>w</sup>r}, תֹּרַר<sup>ל</sup> {šó<sup>w</sup>r}, as the dual in these languages is mainly limited to certain nouns — by no means all — that designate a natural pair. But the dual

Aramaic	{qarnáyin} in תֹּרַרִין 'and horns'
Hebrew	תֹּרַרִים <sup>ל</sup> {qarnáyim} 'horns' ( <i>InEuSsLa</i> , 38-39)
pausal	תֹּרַרִים {qarnōyim}
Arabic	قَرْنَيْنِ <sup>ل</sup> {qarnayn} (genitive or accusative dual) <sup>35</sup>
Akkadian	{qá-ar-nim/ni-in} <sup>ل</sup> <sup>36</sup>

illustrates the regular correspondence within Semitic. Only Greek on the IE side shares this ending. The attested Attic form is κεράτων (genitive or dative; see Introduction, note 4); the -ᾶτ- part, of course, does not correspond to the

flect the words for 'goat' and 'sheep' in a pre-Hellenic language of the Aegean. τ(α)υρ- would thus mean 'male', and — I would add — ταυρ- the male beast *par excellence*.

<sup>34</sup> *Etymologiae, sive origines dictionum Germanicarum* (Francofurti, 1611), 162. Bomhard (*ToPrNo*, 179, 224, 244) has rejected this as incompatible with his reconstruction of the pre-historic development of velar consonants, and does not discuss the semantic link between 'horn' and 'bull'. See my review of *ToPrNo* in *Diachronica*, 2 (1985), 100, and Illich-Svitych, *MaSrSl*, 348; Mayer, *RiPrRa*, 98-99.

<sup>35</sup> Rhyming with {ḫawrayn} 'bulls' in a couplet quoted by Ibn Manẓūr (1232-1311/2) in his dictionary, لِسَانُ الْعَرَبِ {lisānu (ʿ)lʿarab}, s.v. قرن (Beirut, 1955), XIII, 333, col.

A. The non-pausal form is قَرْنَيْنِ<sup>ل</sup> {qarnayni}.

<sup>36</sup> Only the Old Assyrian dialect, which is rather meagerly recorded, can be expected to show what is transcribed {-ēn}, with a vowel-sound somewhat closer to the [aj] of other Semitic languages.

Semitic {-n-}. Homeric Greek shows an undoubtedly earlier form of the ending, -οῦν, but none of the eleven Homeric words that manifest this ending has a Semitic parallel.<sup>37</sup>

**1.Bb.** Apart from the dual ending, the word for 'horn' is uniquely valuable to comparative linguistics for displaying a nominative singular ending:

Latin *cornū* <sup>√</sup>, rarely *cornum* <sup>√</sup>: Akkadian {qá-ar-nu-um} <sup>√</sup>

(= {qarnum}) later {qar-nu} <sup>√</sup>

Arabic قَرْنٌ <sup>√</sup> {qarnun} 'a horn' (absolute)

قَرْنٌ <sup>√</sup> {qarnu} '(so-and-so's) horn'

أَلْقَرْنُ {ʔalqarnu} 'the horn')

The noun being neuter in Latin (as generally in IE), the same form is either nominative or accusative (cf. Levin, *PrInEuThDe*, 135, note 60). That is never so in the singular of those Semitic languages which distinguish between the cases; for there are no neuter nouns in Semitic. This one, like most other paired parts of the body, is feminine; and it affords perhaps the clearest perspective upon the process whereby a certain gender agreement was established: feminine in Semitic (though the noun has no characteristically feminine suffix) but neuter in IE.

If in Latin we had only *cornum*, we might pass it off as merely a confirmation of the correspondence already noted in the accusative singular of the masculine (**1.Ac1**):

*taurum* (in early Latin TAVROM<sup>†</sup>), Oscan TAYPOM, Greek ταῦρον :

Akkadian {šūram},

Arabic {ṣawran},

and therefore parallel rather to the Semitic accusative:

Akkadian {qá-ar-na-am} <sup>√</sup> (= {qarnam}, Arabic قَرْنًا <sup>√</sup> {qarnan}).

But *cornū*, as well as the genitive singular *cornūs* <sup>√</sup>, nominative/accusative plural *cornua* <sup>√</sup>, etc., argues that even in the earliest Latin it would have been -NVM (not <sup>??</sup>CORNOM, like a noun of the "second declension") alternating

<sup>37</sup> *InEuSeLa*, 94-98, and Levin, *PrInEuThDe*, 117, 121. Möller (*VelInSeWö*, xiii-xiv) noted a correspondence in dual endings: "idg. -oj- (in gr. -οῦν avest. -aēbja, idg. -oj- Endung des Nom. Akk. Du. n[eut.]) = semit. -aj (im Casus obliquus, arab. -aj althabyl. und hebr. -ē (so im Stat. construct.), arab. -ajini hebr. -ajim ababyl. -ēn (Stat. absol.))"; but he was not struck by the particular closeness of -οῦν to certain Semitic endings, Hebrew {-ʔyim} and Aramaic {-áyin}.



with -NV. The vowel is part of the stem *cornu-*, not limited to the nominative (and accusative) singular. The only evidence for a {qarnu-} stem in Semitic — not just {qarn-} plus a nominative singular ending — is the Akkadian plural {qarnū}<sup>37</sup>, principally but not exclusively nominative. The match between IE and Semitic in the function of the *u* is less than in the function of the “thematic” vowel:

accusative singular	Greek ταῦρον, Sanskrit {-am}, Arabic {ḥawran}
genitive dual	ταύροι {ḥawrayn}
nominative plural	ταῦροι cf. Aramaic {to <sup>w</sup> re <sup>y</sup> }
and its lengthened counterpart:	
nominative dual	ταύρω {-ā} Arabic {ḥawrā}
genitive plural	ταύρων {-ām} cf. " {ḥi <sup>y</sup> rān}

In the Arabic nominative {qarnun}, just as we saw in the accusative {ḥawran}, the {-n} functions as an indefinite article. The nasal consonant in Akkadian and in Latin has no such function. When in the course of time the Akkadian {-m} dropped out, the meaning appears not to have been affected at all; the change was phonetic, not morphological. In Latin the meaning of the rare *cornum* does not differ at all from the usual *cornū*.<sup>38</sup>

**1.Bc.** The accented vowel [ɔ] in *cornū/cornum* and the Germanic cognates is like the Hebrew pausal (or terminal) קָרְנִי {qṣren}, and also like the Arabic vowel; for {qa-} is actually pronounced [qɔ-], as the “emphatic” — i.e. velarized — consonant deflects the vowel toward the back of the mouth (Caspari – Wright, *GrArLa*, I, 8; cf. **1.Ci**). The [e] in κέρας<sup>39</sup> is close to the Hebrew non-pausal and the Aramaic קֶרֶן {qéren}.<sup>40</sup> So far this sounds as

<sup>38</sup> Many Indo-Europeanists have posited \**cornū* for the nominative/accusative singular; but the metrical evidence, as far as it goes, is all against it for the historical period. To be sure, the great majority of occurrences of *cornū* in verse are ablative (where -ū would be out of the question).

<sup>39</sup> The -a- could reflect either \**n* or a laryngeal; see my review of A. Nussbaum, *Head and Horn in Indo-European*, in *GeLi*, 27 (1987), 108-109.

<sup>40</sup> Some Semitists have doubted the authenticity of {qéren} IN ARAMAIC, because the usual Aramaic counterpart to the Hebrew {CéCeC} is {CəCəC}; e.g. Hebrew נֶשֶׁר {néšer} : Aramaic נֶשָׂר {nəšār} ‘eagle’. But this Aramaic vocalization of {qéren} is not — as they imagine — due to contamination from Hebrew. Rather it is one of the few nouns in Aramaic, along with such basic words as קֶבֶן {ḥēben} ‘stone’ (2.Le) and מֶלֶךְ {mēlēḥ} ‘king’, which have preserved their accent upon the vowel following the initial consonant and

if the varying [ʕ̥], so characteristic of Hebrew, had SEPARATE IE correspondences. However, we must immediately add that on the IE side the Latin short *o* seems not to correspond normally to *o* in Germanic, unless it represents a prehistoric IE sonant: Old Norse, Old English, etc., *horn*<sup>√</sup> from *\*k<sub>ṛ</sub>n-* (with the same vocalic nucleus as in the Sanskrit cognate शृङ्गं मू<sup>√</sup> {śṛṅgam}).<sup>41</sup> The Semitic open vowels — {qarn-} in Arabic, Akkadian and the Hebrew and Aramaic forms accented on a suffix, besides {qéren} and {qōren}, and Geʿez {qarn}<sup>√</sup> — all point to a contact with something other than *\*k<sub>ṛ</sub>n-* in IE. If *\*k<sub>ṛ</sub>n-* was indeed the source of the Latin *corn-* and the Germanic *horn*<sup>√</sup>,<sup>42</sup> then the change from *\*ṛ* to something more open (which I would symbolize *\*Ar*) must have been accomplished in that IE area from where Semitic got {qArn-}. Objectively, the western IE languages<sup>43</sup> have more affinity to the Semitic form of this word than to the other IE forms.

have thus escaped merger with the prevailing class of Aramaic nouns, exemplified by בָּשָׂר<sup>√</sup> {bəšār} 'flesh' (Hebrew בָּשָׂר<sup>√</sup> {bəšār}); {bəšār} serves in Hebrew only as the construct form '(so-and-so's) flesh'.

<sup>41</sup> The {-gam} part, to be sure, does not correspond to anything in Germanic. (The Sanskritists transliterate the initial consonant ś (formerly ç); but the sound was evidently just as in the English *she* — Hebrew שֵׁ, Arabic ش.)

<sup>42</sup> I do not understand why the Indo-Europeanists derive the -o- of ALL the Germanic languages (written {au} in Gothic only, through a peculiar convention of Wulfila's alphabet) from a proto-Germanic *\*u*, which seems to deny the correspondence of the Germanic vowel to the Latin -o-.

<sup>43</sup> *Corn*<sup>√</sup> 'horn' in Irish, Welsh, and Cornish (spelled *korn*<sup>√</sup> in Breton) has often been diagnosed as a borrowing from Latin; e.g. Ernout – Meillet, *DiÉtLaLa*, s.v. *cornū*. For that to have happened to such a basic item of the vocabulary, we might invoke (*exempli gratia*) the following explanation: *carn*<sup>√</sup>, *karn*<sup>√</sup> in the same Celtic languages acquired, partly through accidental homophony, a great variety of meanings, including 'cairn' (which in English is a borrowing from the Gaelic of Scotland). So, as a partial remedy, a form with the vowel -o- instead of -a- was taken over, if not from Latin, then from some aberrant, unidentified Celtic dialect, for the primary meaning 'horn'. One attested meaning of *carn*, *karn* — namely 'hoof' — is considered an inherited cognate of *cornū*, though with a semantic shift; the horn and the hoof are the external hard parts of the animal (as Gary Rendsburg has pointed out to me). For Hesychius has a gloss κάρνου· τὴν σάλπιγγα Γαλάται<sup>√</sup> 'the Gauls (= Galatians?) [call] the trumpet [kárnon]', testifies to {karn-} in ancient Celtic — presumably a horn hollowed out — earlier than any of the Celtic languages whose literature is preserved.

The rare Old and Middle English spelling *heorn*<sup>√</sup>, besides the usual *horn*, will be taken up again when we come to [ʔ]eorfe<sup>√</sup> : Hebrew {ʔē/šrec}<sup>√</sup> 'earth'. It bespeaks an unsteadiness in vowel articulation more noticeable in Old English than in any other IE language, but comparable to the alternations in Hebrew.<sup>44</sup>

**1.Bd.** Although fewer case-forms of {qarn-} than of {ḫawr-} have IE cognates, there is one striking combination:

Arabic {qarnu ḫawrī}<sup>†</sup> 'a bull's horn' [qɔ-],

Latin *cornū taurī*<sup>√</sup> " " " ([kɔ-], Vitruvius 9.4.2).<sup>45</sup>

This is closer than

either Arabic {qarnu ḫawrī}

to Hebrew קֶרֶן שׁוֹר<sup>†</sup> {qéren šóʔr}

قَرْنُ شَوْر<sup>‡</sup> {qarnu ḫawr(in)}

or Latin *cornū taurī* to Greek κέρας ταύρου<sup>§</sup>.

Here is the first such combination that I can present; quite a few more are coming. They cannot be accidental — even less than the matching individual words with their inflections can be accidental (Levin, *DiQuQu*, 411-413; *CoGr*, 157).

While the distribution of the two words is not quite the same throughout IE<sup>46</sup> (as it is the same for both of them in Semitic), they do go together — broadly speaking. For the horns are the most conspicuous part of this creature, and the most menacing. The verbal expression of this natural association is attested as early as the Ugaritic {bhm qrn m / k m.ḫr m}<sup>√</sup> 'on them [are] horns like bulls' (Gordon, *UgTe*, 181, no. 75.I.30-31; cf. Deut. 33:17); also in Greek ταυρόκερον θεόν<sup>√</sup> 'a bull-horn[ed] god' (i.e. Dionysos; Euripides, *Bacchae* 100; see Brown, *SaCu*, 169-173).

<sup>44</sup> *The Middle English Dictionary*, ed. by Sherman M. Kuhn and John Reidy, is methodologically wrong to dismiss *heorn*, and *hern*<sup>√</sup> too, as mere "errors" — as though anyone in the twentieth century could somehow be sure that these spellings with -eo- and -e- did not represent any real pronunciation (cf. 1.Ff).

<sup>45</sup> This occurrence is ablative, but *taurī laeuum cornū*<sup>√</sup> 'the Bull's left horn' in Cicero, *Aratea* fr. 30, is nominative. The plural *cornua taurī*<sup>√</sup> 'a bull's horns' occurs quite often as a metrically convenient close of a verse (*cornua* nominative in Ovid, *Fasti* 3.499, accusative in *Metam.* 2.80, 9.186, Martial 2.43.5, etc.).

<sup>46</sup> In English, for example, we say a *bull's horn*.

**1.Be.** Prof. Alan Corré, in an unpublished paper, has drawn attention to the twofold anomaly of *cornu* WITHIN LATIN: the lack of case-inflections in the singular (apart from the genitive *cornūs*), and the extreme paucity of other nouns declined like it (neuters of the “fourth declension”) — only *genu*<sup>✓</sup> ‘knee’ is common. He infers, “Clearly this is a loan from West Semitic, and its endings are an attempt to accommodate it to the Latin case system. Note the *o* vowel. This reflects the allophone of *a* that Semitic used in the environment of the pharyngeal *q*...”

His argument is strong, if not conclusive; I would modify it only a little: *cornu*, more likely than not, had a Semitic source almost identical with the Arabic and Akkadian nominative {qarnu} [qɔ-]. We can only speculate upon the sociolinguistic circumstances that would have favored the spread of this word into the prehistoric homeland of the Latins (as well as other western Indo-Europeans). I suspect it went with the spread of words for ‘bull’ and other animals with the genitive ending that we have seen in *taurī* (Arabic {ḡawrī}). That ending, anomalously ousting the vowel [O] in one slot of the “thematic declension”, is characteristic of Latin and certain Celtic languages, but alien to the rest of IE.<sup>47</sup>

**1.C. Sem. (Heb.)** {ʔózen} : IE (Old High German) [ʔ]oren ‘ear’  
                                   {ʕáyin} : (Old English) [ʔ]e(a)gan ‘eye’  
                                   {ʕécem} : (Skt.) {astʰān} ‘bone’

**1.Ca.** In the Semitic languages the {n} in these words, as well as in {qʕ/ʕren, qarn-}, seems as firmly a part of the root as the first two consonants. But a comparison with IE reveals it to be suffixed; and what the three nouns have semantically in common suggests THE ORIGINAL MEANING OF THE *n*, ‘PAIRED’.<sup>48</sup> The Greek neuter κέρας ‘horn’ might go back to a prehistoric \*kérn-, but a laryngeal consonant could just as well be the source of the *α*; and derivative words in various IE languages, such as Latin *ceruus*<sup>✓</sup> ‘stag’, certainly had no *n*. So a morpheme (not necessarily a word) \*kVr ‘horn’ must have existed prehistorically. The rare Egyptian word {kr.ty} ‘horns’, recorded only from the “New” Kingdom (after c. 1500 B.C.), testifies to nearly the same thing; for {-ty} is a feminine dual ending. Also in Kafa

<sup>47</sup> A. Meillet, *Esquisse d'une histoire de la langue latine* (Paris: Klincksieck, 1966 [essentially repr. from 2d ed.; Hachette, 1931]), 26-27; Levin, *PrInEuThDe*, 135-136.

<sup>48</sup> See *InEuSeLa*, 343, and my review of Nussbaum (1.Be, note 39), 110.

(a Cushitic language) *qarō*<sup>√</sup> 'horn' is biconsonantal (Leslau, *CoDiGe*, 442). So the -*n* would be a sort of CLASSIFYING suffix.

**1.Cb.** Among the IE languages, the *n* in the other two words is less widespread than in 'horn'; on the IE evidence no one would take it for part of their root. Closest to the Hebrew יָרֵן<sup>√</sup> {ʔózen} are these Germanic forms:

Old (and Middle) High German [ʔ]oren<sup>√</sup> (genitive/dative singular),

Gothic {ausin}<sup>†</sup> (dative singular).

The word for 'ear', nearly throughout IE, reflects *\*H-ws*; but outside of the nominative/accusative singular, it reflects *\*H-wa(-)n* in Germanic, and probably in Homeric Greek too.<sup>49</sup>

The initial laryngeal consonant is not pure theory; it exists in modern German as the glottal stop, unwritten but pronounced, at the beginning of *Ohr*<sup>√</sup> [ʔōr], and vestigially in some closely related languages, including English. In former centuries, to judge from a rule of alliterative poetry, a glottal stop (or some such consonant) was pronounced regularly in words written with an initial vowel; for otherwise there would have been NO RECURRENT SOUND, given that any and every vowel was acceptable without restriction.<sup>50</sup> To specify the quality of the prehistoric IE consonant beyond the mere cover-symbol *\*H*, the Indo-Europeanists put weight upon the actual vowel *a-* in the Latin *auris*<sup>√</sup> (*aus|cultā*<sup>√</sup> 'listen'), Lithuanian *ausis*<sup>√</sup>, etc., and distinguish the consonant as *h*<sub>2</sub> (which favored a wide-open mouth; see **1.Ab**). The present etymology, and some others, give us reason to treat this laryngeal as most like the Semitic glottal stop {ʔ}, though the indications are not decisive.

**1.Cc.** Between the initial sound and the final -*n*, Gothic shows evidence of two IE consonants, -*us-*. The *s* is certain; but because AY in the Gothic script (derived from the Greek alphabet) appears to be used ambiguously and to stand often for [o] (or [ɔ], see **1.Bc**, note 42), we could scarcely be sure of the *u*,

<sup>49</sup> The genitive singular ὠυα|τοϚ<sup>√</sup>, nom./acc. plural ὠυα|τα<sup>√</sup> ([oua-] < *\*Hewsp*). The hyphen - in my formulas *\*H-ws* and *\*H-wa(-)n* indicates a vowel pronounced between two consonants; (-) indicates that a vowel may or may not be pronounced there.

<sup>50</sup> In the Old Saxon poem *Heliand* 2609 "erl mid is ôrun" ('a nobleman with his ears') [ʔ]erl and [ʔ]ôrun (dative plural) alliterate. See my article, "The Glottal Stop in the Germanic Languages and Its Indo-European Source," *GeLi*, 24 (1984), 233-235.

were it not for the Latin and Lithuanian forms.<sup>51</sup> Most of the early IE languages have no *ʔ* in this word but only a back-vowel. The same is so throughout Semitic, where the prevalence of the triconsonantal word-structure would have militated against the most vulnerable of the four consonants in *\*ʔ u Z n*. I am tempted to posit a prehistoric variation between *ʔ* and *u*; so the prototype of both the Semitic and the IE forms should be symbolized *\*ʔUZ(n)* — the root being not strictly triconsonantal. For the middle part of it was liable to be actualized as the nucleus of a syllable; and the extra consonant at the end was a classifier, meaning ‘paired’.

The precise quality of the sibilant after that *\*U* is hard to pin-point. I provisionally symbolize it with a capital *\*Z* (i.e. some sound more or less similar to [z]). Strictly within Semitic,

Hebrew	{ʔóZEN}
Ugaritic	{ʔuɖn}√
Akkadian	{ú-zu-un}√ (construct)
Aramaic	{ʔoʷdæn} in ܐܕܢܐ√
Arabic	أُذْنٌ√ {ʔuðnnun} (nominative) <sup>52</sup>
Geʿez	{ʔəzn}√

the prototype would appear to have been just like the Arabic {ʔuðn-}, or nearly so, since Arabic (as well as Ancient South Arabian) maintains a distinct phoneme that has merged with {z} in Hebrew, Akkadian, and Ethiopic but with {d/ð} in Aramaic and usually with {d} in Ugaritic.<sup>53</sup> The IE languages

<sup>51</sup> The Greek spelling οὖς√ leaves the inheritance of a [u] sound uncertain; more often than not, the digraph ου in our “silver age” spelling (from the 4th century B.C.) represents what had been a plain long vowel [ō]. An earlier Attic inscription has ΟΣ√ ‘ear’ (in a figurative sense), which indicates a monophthong, not a diphthong.

<sup>52</sup> أُذْنٌ√ {ʔuðnin} (genitive), أُذْنٌ√ {ʔuðnan} (accusative); cf. 1.Aa, note 3.

<sup>53</sup> Between the Arabic voiced interdental fricative [ð] and the Aramaic fricative [ð̌] the difference must have been slight. The latter was only a positional allophone of the plosive /d/, and therefore — like the post-vocalic *d* in Spanish *dedo*√ [déďo] ‘finger’ — articulated probably by the tongue against the back of the upper teeth, rather than between the upper and lower teeth.

The Egyptian verb {kɖn}√ ‘represent’ is followed by the EAR determinative, which has suggested to Egyptologists that the language once had a word for ‘ear’ cognate to Semitic. The known word for it, however, is {msɖr}√, enhanced by the same determinative. {ɖ} serves to transcribe the reed hieroglyph, which is considered a glottal stop [ʔ] like the Hebrew ʔ

have either *s* or a related sound easily derivable from it; none of them show [z] in this word, but \*[z] must have been a stage on the way from \**s* to *r* in Latin and most of the Germanic sub-group, as exemplified by Old High German *oren*. So in the prehistory of certain (not all) Germanic languages something virtually identical with the Hebrew {ʔózen} was pronounced.

These forms that end in [-n] are the ones that match most exactly. They have no further suffix; and the second syllable, closing with that consonant, is unstressed. In essence, the vowel of that syllable serves to make the nasal sound readily pronounceable; its quality may hardly matter otherwise, and from the Geʿez writing {ʔəzn} there appears to be in that language nothing distinguishable for a vocalic [-ŋ]. But in Hebrew and Aramaic, as well as in Old High German, the script indicates a FRONT-VOWEL {e}, {æ}, or *e* respectively, not a back-vowel.

**1.Cd.** However amazed we feel at this discovery of \*[ʔózen] in prehistoric Germanic — just like the recorded Hebrew word — we must not jump to conclusions. There are quite a few possibilities. But one idea is to be definitely ruled out: that the identity arose through sheer coincidence. It is too RAMIFIED for that, too much tied in with IE and Semitic morphology and a particular sub-field of basic vocabulary, the paired body-parts. The question is not WHETHER the Hebrew {ʔózen} along with its Semitic cognates and the OHG [ʔ]oren along with its IE cognates had a common origin, but WHAT SORT of common origin.

Can [ʔózen] be simply a survival in particular Semitic and IE languages from a much earlier time when their forerunners were closely in touch — or even when it was one common forerunner, a proto-language from which they evolved? A lot depends on the [z]. The most coherent genealogy would posit \**ǵ* furthest back in time, which was preserved in Arabic but changed to either {z} or {d} in the other Semitic languages, and to *s* in IE because *s* was the only available fricative akin to the dental series. The logic of phoneme theory, however, allows or even obliges us to reckon with VARIABLE ARTICULATION of that \*/ǵ/. In prehistoric IE, where no phoneme \*/z/ was opposed to \*/s/, the \*/s/ in an intervocalic position must have been especially prone to allophonic

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(cf. 3.Aa, note 3). Trombetti, *InSeFo*, 41, compared this Egyptian {ǵdn} and the Semitic word for ‘ear’, including “hebr. *ōzen*,” to “indog. *ous-n-* in gr. οὐατα [‘ears’],” but with no mention of the Germanic forms most like the Hebrew {ʔózen}.

voicing, \*[z] — the vowels being voiced by nature or definition; and in the forerunners of those Semitic languages where \*/ð/ merged with \*/z/, a tendency must have developed quite early to pronounce the \*/ð/ nearly as \*[z].<sup>54</sup>

**1.Ce.** The IE forms of the word for 'eye' are still more varied than for 'ear'. Most of them are derivable from \*ok<sup>w</sup>-, either with just a case-ending or with one or more extensions before the case-ending. The initial \*o-, furthermore, has been explained by \*h<sub>3</sub>, the laryngeal consonant that hypothetically favored rounding of the lips or a backward movement of the tongue. The Semitic consonant {ʕ} in Hebrew עַיִן {ʕáyin}, etc., differs indeed from the glottal stop in {ʔózen}; to that extent Semitic confirms the Indo-Europeanists' differentiation of \*h<sub>3</sub> from \*h<sub>2</sub>, but the {ʕ} has no noticeable tendency to favor a back-vowel.<sup>55</sup>

A trace of a consonant turns up in early Germanic alliterative verse (**1.Cc**): in Old English the genitive plural *eagena*<sup>∇</sup> in the second half of the verse alliterates with *atol ylðo* 'wretched old-age' in the first half (*Beowulf* 1766); the dissimilar vowels *a- y- ea-* put the burden of recurrent sound upon an unwritten consonant. Whether it was the same unwritten consonant in this word as in 'ear', we cannot say from any direct evidence (cf. Levin, *SeEv*, 253). Certainly in modern German the glottal stop in [ʔ]Auge<sup>∇</sup> is the same as in [ʔ]Ohr; but it might be worthwhile to study all the Old English verses with vowel-initial words instead of alliteration, and to see whether there are any restrictions. For I notice that *ylðo* too, or rather the adjective *eald*<sup>∇</sup> (> *old*<sup>∇</sup>) that it is derived from, has a Semitic cognate with {ʕ-} (**2.Af**); it would be

<sup>54</sup> Illich-Svitych, *MaSrSl*, 370, has a very brief entry: "ухо ['ear']: и.-е. \*Heus- 'ухо' (Pok[orny] 785) — с.-х. \*(h)m/š/ 'ухо, слышать ['to listen']' (кушит.; Cerulli St. 3, 87-88)." The Semito-Hamitic part of his etymology is limited to Cushitic. In Enrico Cerulli, *Studi etiopici*, III (Roma: Istituto per l'Oriente, 1938; repr. 1963), 87-88, what I find most relevant is "wēs v[erbo] udire ['to hear']". (Voce del linguaggio regale). Trattasi molto probabilmente di una voce arcaica ... Sidama dell' Omo: bad[ditu] wašē 'orecchio' ['ear'] ...". Oddly Trombetti (*SaGI*, III, 106) under the root "to orecchio" cites "Indoeur. au-s-e ou-s-orecchio : Latino auri-s = Lituano ausi-s, Greco οὖς ecc.; cfr. Semitico u-š-n e specialmente III [= Caucasian] Lazo uži" (cf. 1.Cc, note 53).

<sup>55</sup> To be sure, this letter (originally a drawing of an eye) was used by the Greeks to stand for their vowel O (the initial sound of ὀφθαλμός<sup>∇</sup> and ὄμμα<sup>∇</sup> 'eye'). Possibly the acrophonic name, in a Phoenician dialect, was pronounced \*[ʕOyn] or something like that. The Hebrew pausal form of the word for 'eye' is עַיִן<sup>∇</sup> {ʕáyin}; but the letter-name has never been pronounced thus, as far as we can tell from our information about Hebrew schooling.



amazing if Old English verses were to show a residual distinction between \*[ʕ-] words and \*[ʔ-] words.

**1.Cf.** The difficulty of this Semitic-IE etymology lies in the middle of the word, but this also involves the discrepancy between Germanic —

	Gothic	ONorse	OHG	OSaxon	Old English
nom./acc. sing.	{augo}√	<i>auga</i> √	<i>ouga</i> √	<i>ôga</i> √	<i>eage</i> √, <i>ege</i> √
genitive sing.	{augins}†	"	<i>ougen</i> §, <i>ougin</i> §	?	<i>eagan</i> √, <i>egan</i> √
dative sing.	{augin}†	"	"	"	<i>ôgon</i> √ " "

— and the rest of IE. The Old High German *oug-* is least discordant from \*okʷ; it would only require a metathesis of the labial and velar elements, \*k and \*w (or \*ʷ) respectively, besides the second Germanic sound-shift (peculiar to High German) on top of the first one — which ought to have left the rest of the Germanic languages with *h*, a velar fricative [x] (or [ħ]). The problem for the Germanicists and other Indo-Europeanists is evident, but no solution. The prehistory of this word must have been unusual.<sup>56</sup>

Semitic can throw some light on it. The middle consonant {-y-} is quite unlike a voiceless labio-velar \*kʷ, but closer to the voiced velar -g-. In Old English *e(a)ge* this letter probably stood not for a plosive [g] but a fricative or a semi-vowel, especially in an intervocalic position. How early it began to be pronounced as a semi-vowel, just like the Semitic {y}, is hard or impossible to determine; the letter *g* continued to be written well into the Middle English period, even as late as the fifteenth century, though gradually superseded by *i* or *y* (*eie*√, *eye*√ among many other spellings).

Of all the Germanic languages, OE *e(a)ge*, *e(a)gan* is closest to the Semitic, whereas OHG *ouga* is closest to the rest of IE. Möller posited, in both pre-Semitic and pre-IE, a root \*Y-ǵ- or \*Y-ǵ̃- suffixed by *n-* (*VeInSeWö*, 181);<sup>57</sup> his *ǵ* seems to stand for the affricate in the modern English word *age* (cf. *VeInSeWö*, xx, note 6), his *ǵ̃* possibly for the fricative [ž] in *azure*. Let it serve *exempli gratia*, until someone is in a better position to reconstruct an adequate phonology for such a demanding but perplexing enigma.

<sup>56</sup> A similar phenomenon in the Germanic prefix exemplified by Gothic {gǣmain}√ (: Latin *com*|*mūne*√); Walde – Pokorny, *VeWö*, I, 459.

<sup>57</sup> Cf. his *SeIn*, 225, 229, 320, where he had used a somewhat different phonetic notation. In *VeInSeWö*, 21, he treats the IE words for 'ear' quite differently from me, while Bomhard, *ToPrNo*, 252, treats the Semitic words for 'ear' also quite differently. Yahuda (*HeGr*, 257), however, has "יֵן אוֹז".

**1.Cg.** The ending of the Hebrew dual absolute עֵינַי<sup>√</sup> {ʿeʸn|ʒyim} ‘eyes’

(Arabic عَيْنَيْن<sup>§</sup> {ʿayn|ayn}

matches beautifully that of the Homeric gen./dative dual ὀφθαλμοῖν<sup>√</sup>

(Attic ὀφθαλμοῖν<sup>√</sup>).

But the long suffix {-tʰalm-} before that is altogether problematical,<sup>58</sup> and in any event unrelated to the Hebrew {-n-} in the corresponding position. On

the other hand אָזְנַי<sup>√</sup> {ʔʕzn|ʒyim}, ذَنَيْن<sup>§</sup> {ʔuðn|ayn} ‘ears’

corresponds to οὐάτ|οῖν<sup>√</sup> in the Ionic prose of Hippocrates (*De glandis* 1.494 Kühn), except for the [-t-] — better indeed than {qarn|ʒyim} ‘horns’ to the Attic κεράτ|οῖν (**1.Ba**). For the short -a- of οὐάτ|οῖν<sup>59</sup> can very well go back to \*[ŋ]. The pre-Homeric form would be approximately \*[(?)ōsptɔyin].

**1.Ch.** The eye and the ear are such natural counterparts that we cannot be surprised to find them interlocked in Semitic and IE etymology. Speaking of them in the same breath is most prominent in Hebrew, and secondarily — under the influence of the Bible — in European languages; e.g.

לֹא-תִשְׂבַּע עֵין לְרִאיוֹת וְלֹא-תִמָּלֵא אֶזְנוֹ מִשְׁמָע׃ {loʔ-ṯisbáʿ ʿáyin lirʔóʔf wəloʔ-ṯimmoléʔ ʔózen miššəmoáʿ} ‘no eye is satisfied with seeing, and no ear filled with hearing’ (Eccl. 1:8). The Greek translation presents ὀφθαλμὸς and ὄυς respectively. In earlier pagan literature these sense organs are movingly contrasted by Sophocles (*O.T.* 1384-1389), although without such precise parallelism of the clauses as in Ecclesiastes.<sup>60</sup> Armenian {akn}<sup>√</sup> ‘eye’ and {unkn}<sup>√</sup> ‘ear’ give a striking assonance.<sup>61</sup>

**1.Ci.** The Sanskrit words for ‘eye’ and ‘bone’ — both neuter — are inflected alike, in an archaic pattern as shown in this abridged table (whereas Sanskrit

<sup>58</sup> See Nussbaum (**1.Bc**, note 39), 206.

<sup>59</sup> As proved by the Homeric genitive singular ὀφθαλμός and nom./acc. pl. ὀφθαλμα (**1.Cb**, note 49).

<sup>60</sup> The idea for this paragraph, as well as the Biblical quotation, came to me from J. P. Brown. He cites also the recurrence in I Corinthians 2:9 and many echoes in English literature, including the parody in *A Midsummer Night's Dream* (4.1.211): “The eye of man hath not heard, the ear of man hath not seen...”

<sup>61</sup> Heinrich Hübschmann, *Armenische Grammatik*, I (Leipzig: Breitkopf & Härtel, 1897; repr. Hildesheim: Georg Olms, 1962), 413-14, 484.

has a quite different word कर्णः √ {kárṇaḥ} for 'ear'<sup>62</sup>:

		'eye'		'bone'	
nom./acc. singular	अक्षि	√ {ákṣi}	अस्थि	√ {ástʰi}	
gen./abl.	"	अक्षः	√ {akṣṇáh}	अस्थः	√ {astʰnáh}
locative	"	अक्षन्	√ {akṣán}	अस्थन्	√ {astʰán}

This makes it worthwhile to extend our IE-Semitic etymology with -n to 'bone' also. The alternation recalls the neuter singular in the early Germanic languages — e.g., Old English nominative/accusative [?]eage, other cases [?]eagan 'eye' (1.Cf) — although Old English has a single intervocalic consonant instead of the consonant-group {-kṣ-} of Sanskrit. The Hebrew {ʿáyin} also has a single intervocalic consonant, as we have noted. And the -n is revealed to be originally a suffix of some sort, in Semitic too as in Germanic and Sanskrit, where it turns up further in

सक्थ्ना √ {saktʰn|á} 'thigh' (instrumental)

दोषणी √ {dōṣāṇ|ī} 'forearm' (nom./acc. dual),

in contrast to the nominative-accusative singular सक्थि √ {sáktʰi}, दोः √

<sup>62</sup> Especially the dual of this कर्णौ √ {kárṇā} (nominative/accusative) seems amazingly

like a borrowing from the Semitic word for 'horns' — Arabic nominative construct قَرْنًا √ {qarnā}, Akkadian also {qarnā} in {qar-na-a-šā} √ 'her horns' (of a scorpion; *AsDi*, XIII, 137). At all events, the lack of any reflex of the otherwise pan-IE word for 'ear' in Sanskrit — which is, on the whole, the most conservative of the IE languages — poses an enigma; did some taboo arise, perhaps, among the precursors of the Brahmin priests? Avestan has it in the nominative dual {uṣi} √, along with the other word {karənō} √ in the singular. The semantic shift, though I know of no other case quite like this, would not be hard to grasp, given the rough resemblance of some animals' horns to the ears of other animals and of some people — something sticking out of both sides of the head near the top. The two organs have in common that in many languages either the word for 'horn' or the word for 'ear' gets used also for 'handle', especially when paired. The Sanskrit {kárṇaḥ} is thus used; so is *carn* in Welsh, which among other things means 'hoof' but is thought to have been 'horn' originally (1.Bc, note 43). An etymology embracing the Sanskrit and Welsh forms is given by Walde – Pokorny, *VeWö*, I, 412, but tacitly abandoned by Pokorny in his subsequent independent reworking (*InEtWö*).

{dōḥ}.<sup>63</sup> But without the Semitic-IE comparison we would hardly have sensed the meaning ‘paired’ (1.Ca).

Now the Semitic word for ‘bone’ —

עֵצָהּ {ʿécem} (pausal עֵצָהּ {ʿəcem}) in Hebrew —

stands in nearly the same relation to the Sanskrit {asthān} as Hebrew {ʿáyin, ʿýyin} ‘eye’ to Sanskrit {akṣān} (Möller, *VeInSeWö*, 192; Yahuda, *HeGr*, 541, etc.). The “emphatic” consonant ע, which I transcribe {c},<sup>64</sup> is more complex than most others in its articulation, the evidence for which is varied and not easy to sum up. For the present comparison with the Sanskrit {-st<sup>h</sup>}, the relevant phonetic points are the pronunciation of ע by many Jewish communities as an affricate [ts] (Steiner, *AfSa*), and the velarization of it in the Arabic Jewish communities, just as they pronounce the cognate consonant in Arabic (the same letter, but shaped ع) as a velarized fricative.

The last feature differs from the Sanskrit aspiration of थ {t<sup>h</sup>}; but in both languages the result is the “marking” of a certain set of voiceless consonants, by aspiration in Sanskrit, by “emphasis” in Hebrew. It seems more probable that in this word the Semitic “emphatic” came from an IE consonant group — something like the Sanskrit {-st<sup>h</sup>} — than vice versa. For the word was thus assimilated to a triconsonantal Semitic structure {ʿ-c-m}, like {ʿ-y-n} ‘eye’ and {ʔ-z-n} ‘ear’. In other Semitic languages there is a different “emphatic” (except for the Akkadian {e-ce-em-tum}<sup>√</sup> with the feminine marker {-t-}; cf. 1.Fc): Arabic عَظْمُ <sup>√</sup>{aẓm|un}, Geʿez {ʿaḏm}<sup>√</sup>, Ugaritic {ʿzm}<sup>√</sup>; the Aramaic עֲצָמָא <sup>√</sup>{ʿTm}, however, means ‘thigh’.

**1.Cj.** This Semitic noun is feminine in Hebrew, like most paired parts of the body. But while many of the bones are indeed paired, the pairing of bones is less obvious than of eyes, ears, or horns; and that may have contributed to the replacement of \*-n — if originally present — by {-m}.

<sup>63</sup> The shorter dual form दो षी <sup>√</sup>{dōṣī}, without {-an-}, also occurs; Otto Böhtlingk and Rudolph Roth, *Sanskrit-Wörterbuch* (St. Petersburg: K. Akademie der Wissenschaften, 1855-75; repr. Osnabrück: Otto Zeller, 1966), III, 782.

<sup>64</sup> The Semitists symbolize “emphasis” by a dot underneath: ʿ.

Hittite among the IE languages preserves an initial consonant in {Ḫaštai}<sup>√</sup> (nom./acc. and dat./loc. sing.).<sup>65</sup> How similar it was to the Semitic guttural {ʕ} can scarcely be determined;<sup>66</sup> but the initial vowel o- in Greek ὀστέον<sup>√</sup>,<sup>67</sup> Latin ōs<sup>√</sup> suggests the same IE laryngeal as in *oculus*<sup>√</sup> 'eye' and in ὄσσε<sup>√</sup> (nom./acc. dual), ὀφθαλμός, ὄμμα, besides the Old High German [ʔ]ouga/en, Old Saxon [ʔ]ôga/en, and at least the Germanic forms recognisably are cognate to Hebrew {ʕá/zyin} and similar words with this guttural {ʕ-} (the Arabic ع) elsewhere in Semitic. While no such word for 'eye' has turned up in Hittite,<sup>68</sup> the evidence on hand is enough to corroborate an original agreement between Semitic and prehistoric IE on the initial sound of the cognate words for 'bone' and 'eye'.<sup>69</sup>

**1.Ck.** The Church Slavonic feminine noun *костъ*<sup>√</sup> {kostǝ} 'bone', which has close cognates throughout the Slavic languages, affords another version of the

<sup>65</sup> The Hittite genitive {Ḫaštiyaš}<sup>√</sup> and instrumental {Ḫaštit}<sup>√</sup>, with {i}, seem based upon the stem that in Sanskrit shows up as the nom./acc. {ásthī} but not in the genitive {astʰnáḥ}. The {-ai} of the other Hittite cases sounds like a different Ablaut grade of {i}.

<sup>66</sup> Hittite was written in essentially the cuneiform syllabary of Akkadian, which had in turn taken it from Sumerian. The Akkadian {Ḫ} is cognate not to {ʕ} in the other Semitic languages but to the Arabic ح {Ḫ} and partially to the Hebrew and Aramaic פ {Ḫ} (Ḫ in proper names of the Septuagint); e.g. the word for 'ewe' or 'ewe-lamb', Akkadian {laḫ-urum}<sup>√</sup>, Arabic رَحْلٌ<sup>√</sup> {raḫil|un}, Hebrew רַחֵל<sup>√</sup> {rḫél}, Aramaic {ræḥl-} (with suffixed article) in וְכַרְחֵל<sup>√</sup> 'and like a ewe-lamb'. {rḫél} is also the name of Jacob's wife; cf. LXX Παχήλ<sup>√</sup>, Targum רַחֵל<sup>√</sup> {rḫél}.

<sup>67</sup> ὀστέον (contracted in Attic to ὀστούν<sup>√</sup>) has the non-aspirate [t]. Indeed στ : Skt. {stʰ} is so frequent as to constitute a regular if surprising correspondence, attributable to a natural tendency to deaspirate right after [s]. Thus speakers of English pronounce *tone*<sup>√</sup> [tʰ-] but *stone*<sup>√</sup> [st-], without being aware of either the aspiration or the lack of it.

<sup>68</sup> Hittite {šakuwa}<sup>√</sup> 'eyes' has been connected to the Germanic verb 'see', which has problematical IE cognates; Pokorny, *InEtWb*, I, 898. An alternation between \*sekʷ- and \*Hjekʷ- (> Skt. {aks-}, Lat. *oculus*<sup>√</sup> 'eye'; Gr. ὀπ-, modified phonetically in ὀφθαλμός and ὄμμα<sup>√</sup> 1.Ce, note 55) seems to me quite possible. For the singular the Hittite texts show only the Sumerian ideogram {IGI}<sup>√</sup>; what Hittite word it stands for, remains undetermined.

<sup>69</sup> The second element in the Latin compound adjectives *atr|ōx*<sup>√</sup> 'looking dark(ly)' and *fer|ōx*<sup>√</sup> 'looking wild' (genitive *atr|ōcis*<sup>√</sup>, *fer|ōcis*<sup>√</sup>) seems to be the same IE noun (cf.

IE word; the Latin *costa*<sup>√</sup> ‘rib’ is very similar too, apart from a different feminine suffix. This has sparked a controversy among Indo-Europeanists over a possible prefix \**k-* (see Ernout – Meillet, *DiÉtLaLa*, as well as Walde – Hofmann, *LaEtWö*). There are attractive parallels to *kost-* in several Afro-Asiatic languages (Illich-Svitych, *MaSrSl*, 345; Trombetti, *SaGl*, 55), including Arabic قَصْ<sup>√</sup> {qacc|u n} ‘breast-bone’. The Egyptian word for ‘bone’ is {qs}<sup>√</sup> (kac<sup>√</sup> in Coptic); and Cohen (*EsCo*, 124) further cites “BERB[ère] *iḥs*, *igs* ‘os’,” and “HA[oussa] *kašī* ‘os’.” In this word the Arabic strengthened consonant ص sounds like an assimilation and partial simplification of a prehistoric consonant group, the components of which remain distinct — however modified — in the modern Russian *кость* [-stʲ].

Besides the phonetic similarity between Latin [kɔst-] and Arabic {qacc-}, the two languages share a semantic restriction to one region of the body. For ‘bone’ in general they have *os* (genitive *oss|is*<sup>√</sup>) and {ʕazm|u n} respectively. Whatever morphological relationship may once have existed between the general and the more specific noun, it is imperceptible in these attested words. Possibly the evidence from other Chadic languages, which up to now are less well investigated than Hausa and much less accessible, will throw unexpected light upon this obscure problem, located far away in Europe and Asia.

**1.CL.** To take a somewhat clearer comparison, the {-n} of ‘eye’ in the Semitic languages behaves as part of the root; keeping strictly within them, we would have no reason to call it a suffix. The Cushitic word for ‘eye’, however, has -*l* instead of -*n* at the end: Bilin ʕil<sup>√</sup>, Quara and Khamir el<sup>√</sup>, Afar and Somali il<sup>√</sup> (Leslau, *CoDiGe*, 80-81). The first of these is close enough to Geʕez {ʕayn}<sup>√</sup> and its Semitic cognates to warrant an Afro-Asiatic etymology. The others, while lacking the initial consonant ʕ-, confirm that the word is widespread in Cushitic. So the evidence, reaching all the way from Cushitic Africa to Germanic Europe, leads to the conclusion that the consonant at the end of this word, and of certain others referring to parts of the body, originated as a suffix.

**1.D.** *IE (Gr.)* δίδυμοι : *Sem. (Aram.)* {təʔuʷmeʔ} ‘twins’

**1.Da.** The Greek word for ‘twins’ is obviously IE in its structure — although, paradoxically, it has no recognised IE cognates:

The base -δύ- is the pan-IE 'two';

δι- is a normal reduplicating syllable, quite appropriate semantically, and consists of the same consonant + [i] (perhaps \*[dwi-] prehistorically);

-μο- at the end of certain numerals makes them ordinal, in particular the CLIMACTIC ones (in Latin *prīmus*<sup>√</sup>, *septīmus*<sup>√</sup>, *decīmus*<sup>√</sup>, as well as superlatives;<sup>70</sup> in Greek ἑβδομος<sup>√</sup> 'seventh', πρόμος<sup>√</sup> 'leader').

The singular form of this Greek word δίδυμος<sup>√</sup> was often used as a given name; we may gloss it 'Second' or 'Secondest' in a special context, when the parents had a name ready for a new-born boy, typically that of his deceased grandfather, but were surprised to get another son on top of that one.<sup>71</sup>

The Semitic languages have a word for 'twins' of anomalous, variable structure. Nearly the closest to the Greek δίδυμοι<sup>√</sup> phonetically is the Hebrew תְּאִמֵּי צִבְיָה<sup>√</sup> {təʔoʷmeʸ cəḇiyyā<sup>h</sup>} 'a gazelle's twins' (Cant. 4:5); when

the verse is repeated later in the book (7:4), these words are תְּאִמֵּי צִבְיָה<sup>√</sup> {təʔōméʸ cəḇiyyā<sup>h</sup>}. The inconstancy recurs in the Aramaic translation:

תְּאִמֵּי<sup>√</sup> {təʔoʷmeʸ} in 4:5,

but תְּאִמֵּי<sup>√</sup> {təʔuʷmeʸ} in 7:4, with a vowel most like the Greek -υ- ([ü] in Attic and probably Ionic, [u] in other dialects). In both Semitic languages the construct ending {-eʸ} could be either plural or dual; but the absolute תְּאִמֵּי<sup>√</sup> {təʔoʷmīʸm} (Gen. 38:27),

תְּאִמֵּי<sup>√</sup> {təʔoʷmīʸm} (25:24) is definitely plural in form. So too the

<sup>70</sup> See my article, "The Superlative in Latin and the Romance Languages" in *Views on Language*, ed. by R. Ordoubadian and W. von-Raffler Engel (Murfreesboro, TN: Inter-University Publishing, 1975), 229.

<sup>71</sup> Θωμάς ... ὁ λεγόμενος Δίδυμος (John 20:24) illustrates the semantic identity of the name in Aramaic (Biblical Aramaic תְּאִמֵּי<sup>√</sup> {təʔoʷmā<sup>s</sup>} + the Greek nominative singular {-s}) and in Greek. The Syriac gives his name likewise as תְּאִמֵּי<sup>√</sup> {t(ə)ʔoʷmā<sup>s</sup>} and then translates Δίδυμος by תְּאִמֵּי<sup>√</sup> {t(ə)ʔōʷmā<sup>s</sup>}. (Syriac — i.e. the Aramaic of certain Christian churches — is written in the same twenty-two-letter alphabet as the earlier Aramaic, but normally in cursive lettering that runs the letters together and disguises their individual features — somewhat as our *g* is scarcely recognisable as the same letter as *G*. Here I go back to the ancient separate lettering, but keep the medieval Syriac pointing for the vowels.)

Greek δίδυμοι is plural — nominative plural.<sup>72</sup> The nominative (or accusative) dual is διδύμω<sup>√</sup>. The Hebrew and Aramaic singular, unsuffixed, cannot be safely reconstructed; probably it too was variable — certainly the Akkadian is (Von Soden, *AkHa*, s.v. “tū(?)amu(m)”).<sup>73</sup> 𐤏𐤕𐤍<sup>√</sup> {tʔm} as a man’s name (like Δίδυμος) occurs in a Phoenician inscription from Citium (Kition) in Cyprus; here the Phoenician alphabet gives no indication whatever of vowels.<sup>74</sup>

**1.Db.** To uphold the consonantal correspondence δ-δ- : {t-ʔ-}, this Greek-Semitic etymology depends on the theory of Gamkrelidze and Ivanov, and of Paul Hopper, that the prehistoric IE forerunner of the recorded *d* (like the *g*) in most IE languages was a voiceless but glottalized plosive which they symbolize \*tʰ (I prefer \*tʰ, with a miniature ʔ superscript).<sup>75</sup> The reduplicated δ-δ- would thus go back to \*tʰ-tʰ-, which phonetic components were still perceptible when the word spread among the Semites. They did not render it by their “emphatic” voiceless dental plosive ٤ (Arabic ط), which the Semitists symbolize *t* — the dot standing for velarization in Arabic, glottalization in Ethiopic;<sup>76</sup> in the more ancient languages of the Semitic group the phonetic quality of “emphasis” is undetermined and may never be recoverable (cf. **1.Ci**). But at any rate the {t-ʔ-} of Hebrew, Aramaic, and Arabic strikes the ear as a simplification of \*tʰ-tʰ-, since Semitic languages do not, in general, allow nouns to begin C<sub>1</sub>VC<sub>1</sub>V-.<sup>77</sup>

<sup>72</sup> The Hebrew ٲٲ𐤏𐤕𐤍<sup>√</sup> {təʔoʷm|ʕy}, with a phonetically similar ending, means ‘my twins’ (*InEuSeLa*, 134-135).

<sup>73</sup> In post-Biblical Hebrew the 𐤏𐤕𐤍<sup>√</sup>, which is pointed 𐤏𐤕𐤍 — i.e. {təʔoʷm} — in most dictionaries, for the absolute as well as the construct state. But I know of no evidence that the absolute was this rather than \*{təʔoʷm}.

<sup>74</sup> Donner – Rollig, *KaArIn*, I, 8 (no. 35.3); II, 53. This information, like so much else, I owe to J. P. Brown.

<sup>75</sup> Gamkrelidze – Ivanov, *InEu*, I, 35-45; II, 844-845; Hopper, “Glottalized and Murmured Occlusives in Indo-European,” *Glotta*, 7 (1973), 141-166; “Indo-European Consonantism and the New Look,” *OrBuln*, 26 (1977), 57-72; also Levin, *SeEv*, 255-257.

<sup>76</sup> My transliteration {T} avoids using a diacritical dot, since I wish to limit my diacritics to certain Semitic consonants that are written with diacritics in the original script.

<sup>77</sup> A different simplification or dissimilation of the reduplicated consonants may be in the national name 𐤏𐤕𐤍<sup>√</sup> {ʕədoʷm}, identified as Jacob’s TWIN whom he supplanted (Gen. 25:30, 36:1, etc.). The difference could be due to a later time of borrowing or to the phonolo-



In an etymology that involves no reduplication — and hence no tendency to dissimilatory simplification — the Greek verbal root δρ-π-<sup>√</sup> 'tear, pluck' corresponds to the Hebrew (and Semitic) טַרַף<sup>√</sup> {T(-)r-P(-)} (2.P). This supports the inference that also in δ-δ- : {t-ʔ-} the consonants go back to something like \*[tʔ-tʔ-].

The strongest argument, in my estimation, for the theory of the prehistoric glottalized plosives comes from the pattern of inherited IE roots, which excludes anything like the Sanskrit {d-g-} or the Greek γ-δ-. If the prehistoric language had these plain voiced plosives, there would appear to be no phonological cause for avoiding a sequence that is not at all difficult to pronounce — judging broadly from modern experience and from the languages of the world. But if instead there was a glottalic component in the FORERUNNER of these consonants, the recurrence of that phonetic feature might well have been

gy of a different Semitic dialect (of which we otherwise know nothing), or even to a transitional phonology within the IE source-community, as the \*tʔ was yielding *d* but more than one articulation was still current there, and thus available for divergent adaptation by the Semites. (For this last suggestion I am indebted to Paul Hopper himself.)

The twofold Hebrew etymology given in Gen. 25:25-30 derives {ʔəḏōʷm} first from אֶדְמוֹן<sup>√</sup> {ʔəḏmoʷnʔ} 'reddish', his color at birth (אֶדְמוֹן<sup>√</sup> {ʔəḏōm} means 'red'), and secondly from אֶדְמוֹן<sup>√</sup> {hʔəḏōm} 'the red (stuff)' that Jacob cooked up and served him at the price of his birthright. This argues that my interpretation of {ʔəḏōʷm} as 'Twin', especially SECOND Twin', was inaccessible to the author, or else unacceptable; it would have implied that Jacob had prior rights BY BIRTH, which is contrary to a recurrent theme of the book that the first-born — not only Edom (or Esau) but Ishmael (17:18, 21:10), Reuben (35: 22, 49:3-4), and Manasseh (48:13-20) — loses, in one way or another, the advantage of his father's natural partiality toward him. (For an alternative etymology, see 1.Gh.)

Another patriarchal name that seems to reflect the same etymon as διδυμ-, but maintains the reduplication of the voiced dental, is found twice in a partly similar context:

וַיִּבְנֶי רַעְמָה שְׁבָא וְיָדָן {uʷbənəʔ rəʕmōʃ ʃəbōʔ uʷ|dādn} 'and the sons of R.

[were] Sh. and Twin' (Gen. 10:7);

וַיִּבְנֶי יִלְדָּא אֶת-שְׁבָא וְאֶת-יָדָן {wəyqʔʃn yōlād ʔet-ʃəbōʔ wəʔet-dādn}

'and Y. begat Sh. and Twin' (35:3).

Both genealogies can be located in Arabia; so the {-n} instead of {-m} would fit a characteristic though not invariable difference between Arabic and Hebrew. The fricativation of ㄱ [D] after a vowel is characteristic of Biblical Hebrew (and Aramaic) as recorded by the medieval readers; how far it goes back in antiquity is hard if not impossible to determine (1.Eb). The name {ddn}<sup>√</sup> is attested in the modest corpus of Ancient South Arabian, but no common noun that means 'twin'.

uncomfortable (a sort of “tongue-twister”), and so we posit that it was obviated by deglottalizing one of the consonants. Only in a strongly motivated reduplication might an identical glottalized consonant be repeated. Hence διδύμ-, which reinforces the meaning of ‘two’, was acceptable in the prehistoric evolution of Greek. But in the Semitic languages, where the word for ‘twin(s)’ showed no connection to the Semitic word for ‘two’, the repeated \*[tʰ-tʰ-] was destined for simplification to {t-ʔ-}.

**1.Dc.** Besides the correspondence of Greek nominative plural διδύμοι to Hebrew construct plural {təʔoʷm|éʸ},<sup>78</sup> Aramaic {təʔoʷm|éʸ, təʔuʷm|éʸ}, some other case-forms of διδύμ- have cognates similar to those of ταυρ- ‘bull’ (**1.Ac**):

accusative singular	διδύμον <sup>√</sup>	Arabic	تَوَّامًا <sup>√</sup> {tawʔam an} <sup>79</sup>
nominative dual	διδύμοω		تَوَّامَا <sup>√</sup> {tawʔam ā} <sup>79</sup>
genitive	" διδύμοων <sup>†</sup> , ΔΙΔΥΜΟΙΥΝ <sup>√80</sup>		تَوَّامِينَ § {tawʔam ayn} <sup>79</sup>

<sup>78</sup> The discrepancy in accent between the Greek and the Hebrew is of less consequence because of a Hebrew rule that any construct form differing from the absolute is proclitic: often it picks up a SENTENCE ACCENT at an interval of one syllable or more before the accent of the next word; otherwise it gets hyphenated to that word and has no accent itself. The recessive accent of διδύμοι and the great majority of Greek words is, in its way, also the MINIMAL accentuation.

<sup>79</sup> Or تَوَّامِينَ, تَوَّامَا, تَوَّامًا. The Hebrew plural adjective תִּוָּאֲמִים {təʔ-ʔəm|íʸm} ‘matching’ (Exodus 36:29; תִּוָּאֲמִים {təʔəm|íʸm} in 26:24) corresponds more exactly to the Arabic word for ‘twin’ than {təʔoʷm|íʸm} does. The vocalization of this adjective, with {-oʷ-} or {-o-}, could be taken for a participle; but no related verb forms are found. The Arabic {tawʔam-} cannot be a participle.

I must give Möller credit for seeing διδύμος as cognate to the Semitic forms (*VeInSWö*, 39, 50, 72-73); but under his analysis the word crumbles into a root \**ey*: A-*y*-m- and incoherent prefixes. Trombetti, *SaGl*, II, 105, compares the Arabic with “lo Hausa *tauai* gemello [= ‘twin’], che non vi è nessuna ragione di credere derivato per prestito dall’ Arabo.” Furthermore (II, 406) he brings in more distant African languages: “Watchandies *a-taua-ra* 2 [= ‘two’] .... Ottenoto [= Hottentot] *t’koa-m*, *t’ga-m*, Boschimano [= Bushman] *t’ku*.” He does not connect the Semitic word for ‘twin’ with anything IE; but mentioning two possible morphological divisions of the Greek word, *dí-dumo-* or *dídu-mo-* (II, 149), he compares the latter to “Pul [a language of central Africa] *dido* 2.” I am grateful to him for calling my attention to λιμένες ἀμφιδύμοι<sup>√</sup> ‘two-fold harbors’ (*Od.* 4.845-846).

<sup>80</sup> -οιυν is Arcadian dialect (*InEuSeLa*, 37). The Attic feminine διδύμαιν χειροῖν<sup>√</sup> ‘with twin hands’ (Sophocles, *El.* 206) has a dative (instrumental) rather than a genitive function.

**1.Dd.** The relative rarity of twins has naturally won them disproportionate attention. Yet, while there must always have been nearly as many twin girls born as twin boys, they are very seldom mentioned in any ancient sources. Evidently some bias was at work, whether it consisted in not raising female twins or merely not talking about them. Anyhow, for our present inquiry the upshot is that we have little material for studying the feminine form of this noun, and most of the instances refer not to human females but some other pairs whose femininity (at least from the modern point of view) is purely grammatical. To be sure, the Arabic feminine <sup>”</sup>تَوَّامَةٌ or <sup>”</sup>تَوَّامَةٌ {tawʔamatun} (nominative singular) is well attested; and its pausal form [tawʔamah]† — with the [-ah] ending — would more or less correspond,

morphologically, to the Greek δίδυμ|ῆ (occurring also as a woman's name) or, in the Doric dialect, δίδυμ|ᾱ (definitely attested in the genitive δίδυμᾱς<sup>ν</sup>). The Akkadian feminine is as highly variable as the masculine (cf. **1.Da**); {tu-ʔa-ma-tum}<sup>ν</sup> comes closest to the Arabic nominative singular. But Akkadian never shows any cognate to the Arabic pausal form of the feminine — i.e. to the Arabic feminine that corresponds to the Hebrew feminine singular absolute. We find <sup>ν</sup>תאומה 'a female twin' in post-Biblical Hebrew; in the Bible it would be pointed תֹּאֲמָה {təʔoʷmá<sup>h</sup>} (cf. **1.Da**, note 73).

Much rarer, naturally, than δίδυμοι 'twins' were τρίδυμοι<sup>ν</sup> 'triplets', in real life and in the mentions by Greek authors. The latter was of course formed by substituting τρι- 'three-' for δι- 'two-'.

**1.De.** Between Greece and the Semitic territory a cognate that means 'twin(s)' may be indirectly attested, for some IE language of Asia Minor, in the name of a mountain. The most relevant text is by the geographer Strabo 12.8.11(575), describing the island city of Cyzicus in the Propontis (now called the Sea of Marmora): τῆς δὲ πόλεως τὸ μὲν ἔστιν ἐν ἐπιπέδῳ, τὸ δὲ πρὸς ὄρει καλεῖται δ' Ἀρκτων ὄρος. ὑπέρκειται δ' ἄλλο Δίνδυμον μονοφύες, ἱερὸν ἔχον τῆς Δινδυμήνης μητρὸς θεῶν, ἴδρυμα τῶν Ἀργοναυτῶν<sup>ν</sup> 'Some of the city is on a plain, the rest by a mountain; it is called Bears' Mountain. Above it lies another single[-peaked] mountain {dándumon}, having a temple of the Dindymene mother of the gods, a foundation of the Argonauts.' This second mountain then was (so to speak) the twin of the nearer one.

However, the geographical poet Philostephanus, in a lost work, explained the name somewhat differently, according to a scholium on Apollonius, *Argonautica* 1.985: Δίνδυμον δὲ ὄρος Κυζίκου ἱερὸν τῆς Ῥέας, διὰ τὸ διδυμούς μαστοὺς ἐν αὐτῷ ἀνῆκειν, ὥς φησι Φιλοστέφανος, οὕτω προσ-αγορευθέν<sup>71</sup> ‘{dindumon}, a mountain of Cyzicus sacred to Rhea, so called because in it twin breasts reach up to a point, as Philostephanus says.’ Cyzicus was a Greek city in historical times, but the name of the mountain could go back to pre-Greek settlers.

The more famous temple of the Δινδυμήνη mother goddess was far inland, in Phrygia on the border of what was later Galatia — a non-Greek region before Alexander the Great, and quite a bit closer to Syria. There too the mountain was Δίνδυμον (the present Turkish name is Günüşü Dağ). It is southwest of Ancyra (now Ankara); and it has a double summit, as the learned traveler Karl Humann remarked (“seine beiden Gipfel”).<sup>81</sup>

As western Asia Minor was gradually Hellenized and the languages other than Greek declined, the non-Greek place-names that resembled the Greek διδυμ- were liable to be interpreted as meaning a ‘twin’ of something or other. It is hard to say whether Δίδυμα<sup>72</sup> (neuter collective), the site of a famous oracular temple of Apollo south of Miletus near the Aegean coast of Asia, was an originally Greek toponym or a Carian toponym reinterpreted as Greek (several other Carian place-names end in -υμα), and whether — if it was originally Carian — it had been [dind-] before undergoing Hellenization.

Arguing tentatively that the mountain Δίνδυμον meant ‘twin’ in Phrygian (or perhaps some other language of the region), we would have a valuable geographical link between the Greek διδυμον and the attractive Semitic cognates.

<sup>81</sup> *Reisen in Kleinasien und Nordsyrien* (Berlin: Dietrich Reimer, 1890), 31-32 and Karte I. This information I owe to J. P. Brown.

Still another mountain in Mysia, now Murad Dağ about half-way in between those two, is the source of the river Hermus, as described by Herodotus (1.80.1): ἕξ ὄρους Τροῦ μητρὸς Δινδυμήνης ῥέον<sup>73</sup> ‘flowing from a mountain sacred to mother Dindymene’ — which Strabo 13.4.5(626) follows almost to the letter. Neither ancient author identifies the mountain by name otherwise, but many modern ones call it *Dindymos*. I do not find this ending attested in Greek; it may be based on Pliny the Elder’s *mōns Dindymus*<sup>74</sup> near Cyzicus (5.32[142]), but the Latin noun ‘mountain’ is masculine, whereas ὄρος is neuter. To be sure, -ον serves also for the accusative singular masculine, as in διδυμιον ‘twin’ (nominative διδυμός). Anyhow W. v. Dies’s description of Murad Dağ does not mention twin peaks; “Von Pergamon über den Dindymos zum Pontus,” *Ergänzungsheft* No. 94 zu *Petermanns Mitteilungen aus Justus Perthes’ Geographischer Anstalt* (1889), 44-47 and Blatt I.

It is also intermediate phonetically to a limited degree: the pattern [CVCC-] is shared by [dind-] and the Arabic {tawʔaman}, whereas the Greek [did-] is only [CVC-]. But the sounds [n : w] are dissimilar, though both are classed as resonants. Only a sort of methathesis could account for the Arabic semi-vocalic consonant [w] representing the vowel [u] in the next syllable; the [n] would be due to epenthetic anticipation of the other nasal sound [m], making the Phrygian reduplication [din-dum-] fuller than the Greek [di-dum-].

**1.Df.** If cognates of the Greek δίδυμ- definitely existed in the lost (or nearly lost) languages of ancient Asia Minor, we could cite them to lessen the paradox of this structurally IE word being represented in Semitic but not in any other known IE language. As the evidence stands, I can only characterize it as a REGIONAL word, perhaps associated with a particular sort of patrilinear family (cf. **1.Da** and **1.Db**, note 77). The link between the Greek δίδυμ- and widespread Semitic forms would further suggest there was a significant amount of migration and intermarriage, involving some influential if not necessarily numerous persons.<sup>82</sup> Also another sort of contact, between certain IE and Semitic herdsman or livestock raisers, could have spread an IE word for 'twin', at first in reference to animals; for indeed twin calves, lambs, and kids are less infrequent than human twins (**1.Lc**).

**1.E.** IE (Skt.) {vít} : Sem. (Akk.) {bi-it} 'house'  
 (Avestan) {vaēsaēm} : (Heb.) {בַּיִת} 'home(ward)'  
 (Gr.) φοῖκα|δε : {בֵּית} 'house'

**1.Ea.** The word for 'house' can first be presented in the Arabic and Greek accusative singular بَيْتٌ {baytan} : οἶκον. The ending recalls that of {ḡawran} : ταῦρον exactly (**1.Ac1**);

<sup>82</sup> Before me Alan D. Corré, in a brief article, suggested an IE origin of the Semitic word for 'twin', citing most pertinently the Latin *du-*; "Two Notes on the Semitic Lexicon," *Studies in the Bible and the Hebrew Language, offered to Meir Wallenstein on the occasion of his seventy-fifth birthday*, ed. by Chaim Rabin et al. (Jerusalem: Kiryat Sefer Ltd., 1979), 303-304. Still more briefly, A. B. Dolgopolsky, "A Probabilistic Hypothesis Concerning the Oldest Relationships among the Language Families in Northern Eurasia," in *Typology: Relationship and Time: A collection of papers on language change and relationship by Soviet linguists*, ed. and tr. by V. V. Shevoroshkin and T. L. Markey (Ann Arbor: Karoma Publishers, 1986), 27.

but the rest does not closely correspond except for the [y]. A few Greek dialect inscriptions have *FOIK*-<sup>√</sup> with an initial consonant [w-].<sup>83</sup> But other Semitic and IE languages show a much more exact phonetic correspondence.<sup>84</sup>

**1.Eb.** The most conspicuous phenomenon in Hebrew that resembles a case in Arabic, Akkadian, or IE is the {-<sup>h</sup>ʔ} suffix (unaccented) that means ‘-ward’ or ‘to’. With the suffix this word is

in the construct state	בְּיָמֵינוּ <sup>√</sup>	{bē <sup>y</sup> ʔō <sup>h</sup> }	‘to (so-and-so’s) home’
" " absolute	בְּיָמֵינוּ <sup>√</sup>	{bāy(ə)ʔō <sup>h</sup> }	‘home(ward)’ <sup>85</sup>
(pausal)	בְּיָמֵינוּ <sup>√</sup>	{bāy(ə)ʔō <sup>h</sup> }	"

Right after a vowel, the initial plosive consonant is fricativated: {bē<sup>y</sup>ʔō<sup>h</sup>}<sup>†</sup>, {bāy(ə)ʔō<sup>h</sup>}<sup>†</sup>, {bāy(ə)ʔō<sup>h</sup>} in בְּיָמֵינוּ<sup>√</sup> ‘and homeward’. The first of these, {bē<sup>y</sup>ʔō<sup>h</sup>}, sounds more like the Sanskrit वे शंम्<sup>√</sup> {vēśam}<sup>86</sup> than the Greek cognate οἶκον or even Φοῖκον; for the labio-dental [v-] is the very next thing to a bilabial fricative [β-] — often indistinguishable to the ear, whereas a semi-vowel is articulated differently enough.<sup>87</sup> To be sure, in no

<sup>83</sup> Also the meter of Homer calls for an initial consonant in this word, although the text has come down with no such letter written.

<sup>84</sup> Yahuda, *HeGr*, 13 & passim, was — to my knowledge — the first to propose this etymology, without (however) bringing in any IE language besides Greek. See Levin, *PrInEu ThDe*, 114-116.

<sup>85</sup> The absolute form has the idiomatic meaning ‘inward’, except sometimes when the definite article is prefixed. The parenthetical {ə} signifies uncertainty as to a transitional vowel-sound between the two consonants (see Levin, *DeAlRe*, 69-72). The sign <sup>√</sup> of the Hebrew Bible punctators stood for the lack of any vowel of RECOGNISABLE quality. In transcriptions it is customary not to represent it at all if (from our point of view) there was no vowel, but to render it by the symbol ə (or something else, less desirable) if there was an audible though indistinct vowel.

<sup>86</sup> The vowel transcribed {ē} here was a diphthong [ei] in ancient times (*InEuSeLa*, 152). There is no short [e] (or short [o]) in Sanskrit; so plain e and o are often used in transcriptions, on the assumption that a reader will know that in Sanskrit this can only stand for a long vowel.

<sup>87</sup> Phoneticians symbolize this bilabial fricative [β]. Their use of the Greek minuscule letters [β δ γ] for the voiced homorganic fricatives, and of [φ θ χ] for the voiceless ones, was suggested by a diachronic change in Greek phonology, as the ancient plosives turned into medieval fricatives and around the same time the capital letters gave way to minuscules. However, the medieval Greek fricatives presumably — and those of modern Greek certainly — are as freely used in a post-consonantal or an initial position as in a post-vocalic, whereas

ancient language, Semitic or IE, have we proof of a phoneme opposition /w ≠ v/ such as English has in *wile* ≠ *vile*; so the mere phonetic difference was less significant phonologically than it is in English and some other modern languages. The clearest evidence of [w-] (or [u-]) in ancient IE comes from Latin, as in the cognate *uīcum*<sup>√</sup> 'a clump of houses' (likewise accusative).

**1.Ec.** This noun, wherever found in any IE or Semitic language, is masculine. But the Sanskrit thematic masculine {véšam} (accusative;

nominative वे शः § {véšah}) looks as if derived

from a non-thematic feminine {viš-} —

nom. वि ङ्<sup>√</sup> {vít}, acc. वि शं म्<sup>√</sup> {višam} —

which means virtually the same and is much more frequent.<sup>88</sup> {vít} is most reminiscent of the Akkadian construct {bi-it}<sup>√</sup> 'house of' or '(someone's) house'. The Semitists take the cuneiform syllabic characters to stand for {bīt} rather than {bīt} in this word, although the scribes hardly ever wrote {bi-i-it} with the extra syllabic sign {-i-} and on the whole they seldom showed any long vowel differently from a short one (Von Soden, *GrAkGr*, 10-11). But a comparison with other Semitic languages has suggested that a former diphthong \*[ai] (or \*[ay]) was contracted to [ī], just as in {īn}<sup>√</sup> 'eye' (construct),

the truly homorganic fricatives of Hebrew and Aramaic are restricted to the post-vocalic (cf. the Spanish *bebe*<sup>√</sup> [beβe] 'drink'; 1.Cc, note 53). So the Greek plosive [b] as in βιβλίον<sup>√</sup> 'book' came to be pronounced [viv-]. To avoid confusion (since I cite ancient Greek so often in the customary minuscules, through which the ancient classics were transmitted), I prefer not to use the Greek letters as phonetic symbols. Instead, for the homorganic fricatives, I have taken over the superscript diacritic from the Biblical Hebrew and Aramaic notation: hence [b] for <sup>√</sup>b.

<sup>88</sup> The long vowel [ē] being originally or structurally a diphthong [ei]. The Brahmin grammarians termed this morphological process {guṇa}.

A Greek cognate -(f)ύκ-, which shares the "zero" grade of vocalism with {vis-}, may be in Δωριέες τε τριχάκες<sup>√</sup> 'and Dorians divided into three houses [= clans]' (*Od.* 19.177).

The -ā- of some scholars is based upon the mistaken scansion τε τριχάκες. Given a sequence of three naturally short syllables such as τρι-χά-ι-, the accepted poetic license in dactylic verse ~ ~ ~ was to lengthen the first syllable artificially rather than the subsequent ones. Chantraine, *GrHo*, I, 99-101, explains the metrical principle; but earlier, on p. 22, and perhaps unwittingly he went against it in discussing this very word, and in his *DiÉtLaGr*, s.v. τριχάκες, he comes out for an altogether different explanation of it: "dont les cheveux bondissent de toutes parts" (i.e. τριχ|άκες rather than τριχά|τες).

{ēn}<sup>§</sup> in the Assyrian dialect (cf. Hebrew {ʿáyin}, Arabic pausal عَيْنٌ § {ʿayn}, 1.Ce).<sup>89</sup> Anyhow the Avestan cognate of the Sanskrit accusative {vīšam} is {vīsəm}<sup>√</sup> (the cognate of the Sanskrit nominative {vīṭ} is unattested but thought to be \*{vīš}; Jackson, *AvGr*, 6, 82). The Old Persian cognate is {višam}<sup>√</sup>, referring to a royal or noble house.<sup>90</sup>

So a contact between Akkadian (or its immediate prehistoric forerunner) and some type of Indo-Iranian could easily have transmitted a word with this vowel, whether long or short.<sup>91</sup> The Akkadian accusative, in earlier times (1.Ae), was {bi-tam}<sup>√</sup>, which can safely be adjudged to have [ī] because the nominative {bi-i-tum, bi-i-tu}<sup>√</sup> is well attested with the extra character (*As Di*, II, 282 ff.). While Akkadian {bītam} is not quite as close a match to

the Sanskrit {vīšam}

as Akkadian {bīt} or {bīt} is to Sanskrit {vīṭ},

the two correspondences together would carry a lot of weight, even without anything in Greek and Latin or in the other Semitic languages.

Both Sanskrit nouns that mean 'house', {viš-} and {vēša-}, are considered to be from a verb-root {viš-} 'go in' (imperative वि श <sup>√</sup> {viša}). Semantically this seems quite possible, though not compelling. In any event the verb, which is not represented outside of Indo-Iranian, has nothing to do with

<sup>89</sup> For Assyrian there is evidence of a vowel differing in quality from [i] and customarily transcribed e. It is considered to be more open than [i]; for it also occurs sometimes as an alternant to {a}. We must not expect much phonetic precision or certainty when dealing with a lost language of the past, recovered through decipherment of a script that is very inadequate and often bewildering.

<sup>90</sup> The Old Persian cuneiform script does not distinguish long [i] from short. The modern scholars try to, on the basis of Avestan and Sanskrit cognates.

<sup>91</sup> The Latin *ī* in *uīc-* (also written *VEIC-*, *VEC-*, *VEQ-* in a few inscriptions) is undoubtedly cognate to the Greek diphthong *οι*, just as in *uīnum*<sup>√</sup>: (F)οῖνον<sup>√</sup> 'wine' (nominative masc. (F)οῖνος<sup>√</sup>; genitive (F)οῖνου<sup>√</sup>, FOINO<sup>√</sup> in the Doric dialect of Crete). Hieroglyphic Luwian, however, has {wiyana-}<sup>√</sup>. The most pertinent Semitic cognates to (F)οῖν- are the pausal יֵינ <sup>√</sup> {yēyin} in Hebrew and {wayn}<sup>√</sup> in Geʿez; any initial {w-} of the other Semitic languages is normally represented by {y-} in the northwestern ones — Hebrew (and Phoenician), Ugaritic, Aramaic. This word, belonging to Mediterranean agriculture, is commonly thought to be neither Semitic in origin nor IE, although there is no evidence as to its ultimate source in some other language. At any rate, unlike 'house', it does not involve an initial [b-]; nor is it found in Iranian or Indic, where the Latin (and Greek) *u-* would be represented by {v-}.



the Semitic word for 'house'. From the perspective of Semitic and most of IE, we have a non-verbal noun.

**1.Ed.** Besides {vēša-} 'house', Sanskrit has the more frequent {vēśá-} <sup>√</sup> differing phonetically only in accent but meaning 'vassal, henchman' or 'neighbor' (cf. Latin *uīcīn*|*u m* <sup>√</sup> 'neighbor' from *uīc*|*u m*). For our comparison between IE and Semitic this {vēśá-} would be irrelevant, were it not that

the Avestan cognate {vaēsəm} <sup>†</sup> (accusative singular;  
nominative singular {vaēsō} <sup>√</sup>) —

which could correspond to either {vēšam} or {vēśám} as no accentuation is recorded in Avestan texts — is found only with the meaning 'henchman' (not 'house'). Phonetically {vaēsəm} is closer than any other IE form to

Hebrew {ḅáy(ə)ṭōḥ};

the diphthong transcribed {-aē-} must have been almost the same sound as the Hebrew {-ay-}, and the two fricative consonants very close also {v- : ḅ-; -s- : -ṭ-}.

To account for one language echoing another not intimately related to it, the likeliest "scenario" of prehistoric events runs thus: As the nomadic Semites slowly shifted to a settled life, some of them picked up the Iranian form of this IE noun, adjusting it to their own phonology. The labio-dental [v] became [ḅ] in any Semitic dialect where this bilabial fricative was available as a positional, post-vocalic allophone of /b/; otherwise the Semites would pronounce the word with a bilabial voiced plosive [b]. That the Iranian [s] became [ṭ/t] in Semitic, seems to require that we posit a Semitic dialect with no plain [s] at that time (*InEuSeLa*, 325-333). But the Old Persian {v i ḅa m} '(royal) house' points to the existence of an Iranian dialect with an interdental fricative in a related word, if the decipherment of the cuneiform script is right on this detail. The Hebrew {ḅáy(ə)ṭōḥ} would thus be a minimally modified Semitic borrowing from an Iranian \*[vayḅ-]. Aramaic too has {ḅay(ə)ṭ-} in ܒܝܬܐ <sup>√</sup> 'his house', etc.

Our knowledge of the plosive/fricative alternation in these two Semitic languages comes chiefly from the medieval Massoretic pointing of the original Scriptures, as well as the Nestorian pointing that was added to the Syriac version somewhat earlier (although the Syriac text itself documents a later stage of the Aramaic language than the Aramaic passages in the Hebrew books of Ezra and Daniel). How widespread the alternation may have been in the ancient Semitic languages — and how early — is virtually inaccessible, except for

Plautus' rendering of it in Phoenician (or Punic) about 200 B.C. by means of the Latin letters *ph-* for the plosive and *-f-* for the fricative.<sup>92</sup> Arabic evidently did not share in it, to judge from the plosives [b] and [t]. The word in Arabic often refers to a tent, since the Arabs were slower than other Semites to give up the nomadic tradition, and even now some Bedouin among them still live in tents.<sup>93</sup>

**1.Ee.** Could this word have diffused in the opposite direction, from prehistoric Semitic into IE? After all, some of the Semites are known to have had houses at least as early as Indo-Europeans, if not earlier. But a Semitic source for the etymon will not work: whether or not the IE noun is really from an IE verb-root (**1.Ec**), the Greek form of the noun *Φουκ-* and the Latin *uīc-* [wīk-] can scarcely come from a Semitic noun *\*b<sub>h</sub> ʕ<sub>a</sub>y t<sub>i</sub>-*. We might conceivably account for the *u-* by positing that the word entered IE at a time when there was no *\*b* — a widely accepted theory that we shall often have to reckon with. But the Greek and Latin [k-] can hardly have developed out of a dental plosive or fricative.

The striking difference, within IE, between the *centum* [k-] and the {sa-təm} languages (so named from the word for 'a hundred' in Latin and Avestan respectively)<sup>94</sup> has drawn much attention to the velar plosives corresponding to sibilants. And the study of sound-changes historically recorded, as in the Romance languages — Italian *cento*<sup>√</sup> [č-],

Spanish *ciento*<sup>√</sup> [ɸ-],

French *cent*<sup>√</sup> [s-], etc. —

has led to the conclusion that [k] can readily change to a sibilant over a long period, but not the converse. So the Sanskrit {-ś-} in {vēśam, vēśām} and

<sup>92</sup> *InEuSeLa*, 321-332. See E. A. Speiser, "Hurrians and Hittites," in *The World History of the Jewish People*, 1st series, I (Rutgers University Press, 1964), 160; he attributes fricativation in Aramaic and Hebrew to the influence of an old Hurrian substrate in the population of the region. I am tempted to posit that the identification of the fricatives of these Semitic languages with the Old Persian fricatives came about in the period of the Persian empire (6th to 4th century).

<sup>93</sup> On the social import of this key term in early IE, see Benveniste, *VoIn*, I, 293-311.

<sup>94</sup> In Sanskrit it is श त म्<sup>√</sup> [śatām] (**5.F**).

the Avestan {-s-} in {vaēsəm} show a later development than the Greek and Latin [-k-]; and the Semitic {-i/t} still later.<sup>95</sup>

However, it may be relevant that within Semitic a few verbal roots have a consonant alternating between {t} (or {t̄}) and {q}, as illustrated by the Hebrew פָּתַח-פִּיךָ {pəṭaḥ-pīʾkə} 'open your mouth' (Pr. 31:8,9),

פָּתַח עֵינֶיךָ {pəqāḥ ʕeʾnēʾkə} 'open your eyes' (Pr. 20:13; cf.

2.La, note 128);

שָׁתַּהּ {šəṭṭuʰ} 'drink' (pl.; Cant. 5:1, etc.),

הַשְׁקוּ הַצֹּאן {ha|šq|uʰ haccóʾn} 'water the flock' (Gen. 29:7).<sup>96</sup>

1.Ef. The {-כָּה} ending of the Hebrew {בָּאָה(א)לֵכָה, בָּוָה(א)לֵכָה} does not correspond to the Arabic accusative {baytan} — let alone the IE accusative forms in {-am} (Sanskrit), {-əm} (Avestan), -ον (Greek), etc.<sup>97</sup> But in a conjuncture such as בָּא הֵיכָלָא {báy(ə)lēḥ bbóʾ} 'inside he came' (2.F), this suffix shows a latent nasal;<sup>98</sup> for at the beginning of the next word the

<sup>95</sup> As for the Old Persian {-f-}, cf. the Castilian *vecino* {be βino} 'neighbor' from Latin *uicīnum* {wik-}. The Latin semi-vocalic consonant *u* in an initial position as in most other environments, developed into the Romance labio-dental fricative [v]; but in Castilian it merged with the Latin and Romance *b* perhaps because a non-IE substratum in Castile (presumably Basque) could not accommodate a phoneme-opposition /b ≠ v/. Instead Castilian came out with an allophonic alternation between bilabial plosive [b] and bilabial fricative [β], mainly right after a vowel — and similarly with the other voiced consonants [d/ð, ɡ/ġ] (1.Eb, note 87). So *mi vecino* 'my neighbor' is [miβeβ-]. The unusually well documented history of the Latin and Romance sounds enables us here to theorize intelligently about prehistoric IE and Semitic phonology, if only *exempli gratia*.

<sup>96</sup> These verb-roots were brought to my attention by Gary Rendsburg. The prefix {ha-} is causative, 'make the flock drink' (cf. the English causative *drench*).

<sup>97</sup> The Arabic pausal accusative form, however, is pronounced [baytā] (1.Ae). In general, Arabic and Hebrew pausal forms correspond more obviously than non-pausal; see Levin, *CoHeAr*. For the Ugaritic cognate of Hebrew {-כָּה}, see 1.Fg, note 112.

<sup>98</sup> The attested combination most like this is הָרָה וְהָרָה {héré nnóuʰ} 'mountainward they fled' (Gen. 14:10). Hebrew prose idiom seems to call for the prefixed article with the word for 'home'; e.g. הָבֵיטָא הַבָּיְתָה {wayyabóʾ habbáy(ə)lēḥ} 'and he came inside' (II Kings 9:6) — except in the construct state:

וַיָּבֹאוּ יְהוֹרָה וְאֶחָיו בֵּיתָהּ יוֹסֵף {wayyabóʾ yahuʰdšʰ wəʔehʰw bēʾlēḥ} 'and Judah came and his brothers to Joseph's house' (Gen. 44:14).

doubled or strengthened consonant appears to be the regular Hebrew reflex of \*[-N]: [-ɔbb-] < \*[-ɔ<sup>N</sup> b-].

The IE accusative form is sometimes sufficient to convey the same meaning; e.g. (F)οἶκον ἔλεῦσεται<sup>✓</sup> 'he will come home'.<sup>99</sup> So (F)οἶκον βῆ† — or (F)οἶκον βᾶ† outside of Ionic and Attic — tending to be pronounced [-mb-] with partial assimilation rather than [-n b-], would correspond to

Hebrew {báy(ə)ṭōbbō<sup>?</sup>} —

i.e. in Greek [wóikomb<sup>ē/ā</sup>] —

segment by segment,<sup>100</sup> and would mean very nearly the same thing, 'home he came'.

More often Greek has (F)οἶκαδε<sup>✓</sup> (FOIKAΔE<sup>✓</sup> in a Delphian inscription) or (F)οἶκον δέ<sup>✓</sup> 'home(ward)',<sup>101</sup> with a suffix that later on we shall study minutely (1.Fg). The Greek -α- has been explained as either an anomalous neuter plural accusative, although the noun is masculine, or else as an accusative singular < \*-N attached to a non-thematic base [woik-]. The Hebrew parallel {bṛṣy(ə)ṭō<sup>h</sup>} is relevant insofar as it brings in the possibility of an ending with a weak laryngeal rather than a nasal, or with a non-nasal actualization that alternates with a nasal actualization such as we found, at least vestigially, in {báy(ə)ṭōbbō<sup>?</sup>} < \*[-ɔ<sup>N</sup> b-].

**1.F. Sem. (Arabic)** {ʔarḏan} : IE (Old English) [ʔ]eorðan 'earth'

(Heb.) {ʔr(ə)ṭō<sup>h</sup>} : (Gr.) ἔραζε 'earthward'

**1.Fa.** A noun of feminine gender, occurring throughout Semitic and Germanic but lacking in most of the IE realm, presents a distribution so startling as to invite the suspicion that this is no real cognate. But any such suspicion is dis-

<sup>99</sup> The Latin synonym *domum*<sup>✓</sup> 'home' is constantly used thus — e.g. *domum uēnit*<sup>✓</sup> 'home he came'; but most nouns, including *uīcum*, normally require a preposition *ad* or *in*, unless the name of the village is given: *Hannibalem trādit ... hinc Amiternum Forulōsque uīcum uēnisse*<sup>✓</sup> 'he reports ... that from here Hannibal came to Amiternum and [the] village Foruli' (Livy 26.11.11).

<sup>100</sup> When the Greek β is shown by IE cognates — in this instance the Sanskrit गा त्र<sup>✓</sup> {gāt}, etc. — to be from an original labio-velar, it corresponds recurrently to a Semitic [b].

<sup>101</sup> ἔβαν (F)οἶκον δέ 'they went home' (Il. 1.606, 23.229, Od. 1.424, 14.87), evidently a recurrent combination. {wo-i-ko-de}<sup>✓</sup> and {wo-ko-de}<sup>✓</sup> in Linear B script have been interpreted as pre-classical occurrences of this word in Greek. Unfortunately the context in both tablets (As 1519 from Knosos and Of 36 from Thebes) is too meager and ambiguous to furnish any verification.

pelled by the derivatives surviving in Greek, not only ἔραζε<sup>√</sup> 'earthward' but the compound ἑρεσιμήτηρ<sup>√</sup> τὴν γεωμετρίαν<sup>√</sup> 'earth-measurement', recorded in the lexicon of Hesychius<sup>102</sup> (*InEuSeLa*, 339-347; Möller, *VeInSe Wö*, 69, 72; Mayer, *RiPrRa*, 98). ἔραζε and ἑρεσι- are debarred from evincing gender through any agreement. But the rare ἔρα<sup>√</sup> (nominative), ἔραν<sup>√</sup> (accusative), ἔρας<sup>√</sup> (genitive) — all three forms known only from glossaries or etymologies — must be a feminine noun of the "first declension", cognate to the equally rare Old High German *ero*<sup>√</sup> of uncertain gender, which coexisted with the familiar *erda*<sup>√</sup>. The Semitic forms have an "emphatic" consonant after the {r} and thus are not comparable to ἔρα : *ero*, except for the Aramaic ܐܪܥܐ<sup>√</sup> {ʔārāʕ}. This peculiar guttural reflex {ʕ} of the Semitic "emphatic" has more affinity to a vowel in Greek than to a consonant (cf. 1.Ce).<sup>103</sup>

The closest match in consonants is between the Arabic accusative أَرْضًا<sup>√</sup> {ʔarḏan} and the Old English accusative/genitive/dative [ʔ]eorḏan<sup>√</sup>, also spelled *eorþan*<sup>√</sup> (nominative [ʔ]eorðe<sup>√</sup> or [ʔ]eorþe<sup>√</sup>); for in Old English there was only an allophonic difference between voiced and voiceless fricatives. The glottal stop symbolized [ʔ] (which is a device recently introduced by

<sup>102</sup> Needlessly emended to ἑρησιμετρίην by Kurt Latte in his ed. (Copenhagen: Munksgaard, 1966), II, 188, in spite of another entry μήτρα [emended from μητέρα] ... ὁ κλήρος ὑπὸ Σολέων, ὡς Κλείταρχος<sup>√</sup> 'the lot [i.e. portion of farm land] by the people of Soli [is called] μήτρα [i.e. measure(ment)], as Clitarchus says' — besides an entry in a fragmentary glossary,

ΜΗΤΡΑΙ ΕΝ ΤΑΡΣΩ ΚΑΙ ΣΟΛΟΙΣ ΤΑΣ ΔΕΛΤΟΥΣ ΕΝ ΑΙΣ ΑΝ[αγραφοῦσι? τας]  
ΟΙΚΙΑΣ ΜΗΤΡΑΣ ΠΡΟΣΑΓΟΡΕΥΕΣΘΑΙ Α... ΚΑΙ ΔΗΜ[..... Αριστοτε]  
ΛΗΣ ΕΝ ΤΗ ΣΟΛΕΩΝ ΠΟΛΕΙΤΕΙΑ<sup>√</sup>

'μήτραι: Aristotle in the *Constitution of Soli* [says] that in Tarsus and Soli the tablets on which they inscribe[ʔ] the houses are called μήτραι....'; *The Oxyrhynchus Papyri*, Part XV (1922), 158, no. 1802.58-60. Sanskrit furthermore has an exact cognate of this feminine noun: मा त्री<sup>√</sup> {mātrā} 'measure'. Why Latte wanted ἑρησι- instead of ἑρεσι- is quite unfathomable.

<sup>103</sup> This was just lately pointed out to me by Dr. Roy Kotansky. This rare form {ʔārāʕ} (only in Daniel 2:39) means 'below' or 'lower'; but ܐܪܥܐ<sup>√</sup> {ʔarʕ|ʕ}, with the suffixed definite article, is frequent and means 'the earth, the land' as we would expect from the Semitic cognates. ʔܐܪܥܐ<sup>√</sup> {ʔærʕ|iʔ} 'my country' translates the Hebrew ʔֶרֶץ<sup>√</sup> {ʔarc|iʔ} (Arabic أَرْضِي<sup>√</sup> {ʔarḏ|iʔ}); in Biblical Aramaic it would be ܐܪܥܐ<sup>√</sup> {ʔarʕ|iʔ}.

phoneticians)<sup>104</sup> was of course not written in *eorðan* or any other Old English word; but that a consonant was pronounced before the initial vowel is a fair deduction from the pattern of alliteration in many verses of *Beowulf*; e.g. in 802 *eorþan* alliterates with *ænig* and *irenna* (cf. 1.Cb; Levin, *SeEv*, 250-251). Moreover, in the modern German *Erde*<sup>∇</sup> the glottal stop is perfectly audible, as it is in Arabic; so it must have been [ʔ]*erda* in Old High German.

{*erkir*}<sup>∇</sup> (genitive {*erkri*}<sup>∇</sup>), the Armenian word for 'earth', is undoubtedly cognate (Pokorny, *InEtWö*, I, 332); but the phonetic or morphological details are obscure. Armenian {*erk-*} is notorious for corresponding in an amazing manner to the *d-* of other ancient IE languages in {*erku-*}<sup>∇</sup> 'two':

Latin *duo*<sup>∇</sup>, Greek *δύο*<sup>∇</sup>, etc.

Trombetti also cites from Arci (a modern non-IE language of the Caucasus), "Arci '*ar-šī*, ERCKERT *ar-šši* terra" (*SaGl*, III, 21).

**1.Fb.** In the absence of an outright Greek cognate to the Germanic and the Armenian noun (notwithstanding *ἔραζε* and *ἑρσειμήτηρην*), and the paucity or total absence of reflexes in the rest of IE territory, we can scarcely doubt that an important item of vocabulary somehow lost out. For all we know, it may never have been pan-IE; but it was shared by a considerable part of the IE group and by Semitic. Moreover, Earth was a goddess among the early Germans, according to Tacitus (*Germania* 40.2-3), who mentions seven tribes that worship her in common: "Nerthum [!], id est Terram mātrem, colunt."<sup>105</sup> This word — *erthun*<sup>∇</sup>, *erdon*<sup>∇</sup> (accusative) in Old Saxon — may have been lost outside of Germanic through the upsurge of a more male-

<sup>104</sup> It was created as a deliberate modification of ' the Greek "smooth breathing", which earlier linguists had mistakenly identified with the Hebrew **שׁ** and the Arabic **أ**. The Greek mark (shaped ' in ancient times) was really just a negative sign, to show no [h-] with an initial vowel. The modern shape of the Greek "rough breathing" ' (a corruption of the ancient ' ) was rather arbitrarily applied to the Hebrew consonant **שׂ**, Arabic **ع**; it is gradually being replaced by the deliberate modification **◌̣** (which is not yet widely available in printers' fonts).

<sup>105</sup> The *N-* cannot be reconciled with 'earth' in any known Germanic language; hence many editors have emended to *Herthum* or *Hertham*, and even identify her abode with the lake called Herthasee on the Baltic island of Rügen. (The *H-* could be, in origin, an effort to represent in the Latin alphabet a distinctly audible glottal stop [ʔ]). Others consider the *N-* authentic and compare *Niörðr*<sup>∇</sup> in Norse literature, but that is less likely; for he was a god, not a goddess. Something has contaminated our ancient source, but not so badly as to cast grave doubt on the statement that THOSE SEVEN TRIBES WORSHIPPED MOTHER EARTH.

dominated society.<sup>106</sup> The Germanic word, with vestigial outcroppings in Greek and striking cognates in Semitic, can with some justification be called PRE-IE (Levin, *FuOtKeWo*, 168-189). But I consider it premature to place confidence in any such label, when the facts to guide our appraisal of prehistoric communities are so sparse.

While the feminine gender in Semitic as well as Germanic goes obviously enough with the likeness of the earth to a fruitful womb, there is little evidence that to the early Semites also the earth was a GODDESS. One Ugaritic tablet {ʔ<sup>arc</sup> w šmm š}<sup>√</sup> 'Earth and Heaven, a sheep (or goat)' (Gordon, *UgTe*, 366-367) has been understood to mean a sacrifice to the two divinities. Hebrew and Arabic have nothing like this; their literature, to be sure, is inspired by a powerful monotheism that would have rejected or precluded any worship of the earth. But that will not account for the lack of it in the Akkadian texts, which copiously record a polytheistic religion (*AsDi*, s.v. erṣetu).

**1.Fc.** Feminine gender shows in referential pronouns and in agreeing adjectives and verbs — verbs, however, only in Semitic. Also the Akkadian {er-ce-tum}<sup>√</sup> (nominative), {er-ce-tim}<sup>√</sup> (genitive), {er-ce-tam}<sup>√</sup> (accusative), {er-ce-et}<sup>√</sup> (construct) has a feminine marker {-et}, unlike the other Semitic languages; and in the early Germanic languages some vowel endings mark this noun as feminine. Only the Old Norse *iorḏ*<sup>√</sup> is without an ending; and the very lack of it is considered a reflex of a prehistoric vocalic ending.<sup>107</sup> In the other languages, of which some have -a for the nominative and some -e, the vowel is more or less ambiguous as to gender. For example, in Old English the feminine gender of *eorðe* (nominative), *eorḏan* (other cases) emerges from the use of the latter form in accusative constructions, as in *se ælmihtiga eorḏan worh[te]* 'the Almighty wrought earth' (*Beowulf* 92), besides other syntactical indications such as the feminine form of the definite article: *seo*

<sup>106</sup> By Marija Gimbutas' theory, for which she adduces mainly archaeological evidence, a matriarchal culture with a mother goddess for its chief symbol was transformed into a patriarchal one by the Indo-Europeans; *The Goddesses and Gods of Old Europe, 6500-3500 BC: Myths and Cult Images*, 2d ed. (London: Thames and Hudson [1984]), 152-215, especially 196: "As a supreme Creator who creates from her own substance she is the primary goddess of the Old European pantheon. In this she contrasts with the Indo-European Earth-Mother, who is the impalpable sacred earth-spirit and is not in herself a creative principle; only through the interaction of the male sky-god does she become pregnant."

<sup>107</sup> Adolf Noreen, *Altnordische Grammatik I. Altisländische und altnorwegische Grammatik unter Berücksichtigung des Urnordischen*, 3d ed. (Halle: Max Niemeyer, (1903), 227-229.

*eorðe*<sup>√</sup>. An -e noun can be either feminine or neuter; but if it is the latter, the -e will also serve for the accusative (as in *eage* 'eye', **1.Cf**).

**1.Fd.** The Old English endings -e (nominative), -an (other cases) conform to the pattern of the "weak" declension. The Old Saxon and Old High German counterparts are -a (nominative), -un (other cases); but in these two languages the word more often shows case-forms from another declension, with purely vocalic endings. Furthermore the vowels, doubtless unstressed, vary inordinately — all the vowel-letters except *i* being represented in the texts; in actual pronunciation the sound must have been well on the way to the [ə] of Middle and modern High German, which is uniformly written *e*. The use of -V and -Vn endings in the Germanic languages cannot be correlated at all with the distribution in Arabic of

nominative	أَرْضُ <sup>√</sup> {ʔarḏun}	أَرْضُ <sup>√</sup> {ʔarḏu}	أَلْأَرْضُ <sup>√</sup> {ʔalʔarḏu}
genitive	أَرْضِي <sup>√</sup> {ʔarḏin}	أَرْضِي <sup>√</sup> {ʔarḏi}	أَلْأَرْضِي <sup>√</sup> {ʔalʔarḏi}
accusative	أَرْضًا <sup>√</sup> {ʔarḏan}	أَرْضًا <sup>√</sup> {ʔarḏa}	أَلْأَرْضًا <sup>√</sup> {ʔalʔarḏa}
	'a country'	'(someone's) country'	'the earth'

That is no wonder; for the meaning 'a country' is hardly ever found with this word in Germanic (see **1.Ga**). Old Norse, furthermore, has no *iorð-* forms from the {-n} declension, and in Gothic only the dative {airþai} is attested.

The one good match that extends to an ending,

Arabic {ʔarḏan} : OE [ʔ]eorðan

has, at best, only a residual significance for comparative grammar: IF both the Arabic and the Old English form go back to a common proto-form, what they share in function or meaning is somewhat vaguer than the accusative singular ending in {ḡawran} : ταύρον, *taurum*, *taŭrq* (**1.Ac1,e**), since the Old English -an serves for genitive and dative too — the realm of the Arabic {-in}.

Roy Kotansky has also called to my attention a rare Greek noun, attested mainly in a verse of the comic poet Pherecrates (fr. 58 Kassel – Austin):

τὸν ἱδρώτα καὶ τὴν ἄρδαν ἅπ' ἐμοῦ σπύγγισον<sup>√</sup>

'Sponge the sweat and the dirt off me', where the phonetic resemblance of the Greek accusative form ἄρδαν to the Arabic {ʔarḏan} is astonishing. Because of the homely context appropriate to a comedy, I guess this word — with its feminine gender — probably came into Greek as slang from a Semitic language. In standard Arabic (to judge from many dictionaries) the word for



'earth' takes in 'soil' but scarcely mere 'dirt'. The meaning 'dirt' or 'stain' in Greek is given by a gloss of Hesychius, ἄρδα μολυσμός.

**1.Fe.** The Arabic genitive ending {-i} (rather than {-in}) offers an attractive parallel to the -i- in the Greek compound ἔρεσιμήτηρην 'measurement of the earth'. The position, however, of the Arabic genitive — and its cognates in every Semitic language — is the opposite of ἔρεσι-: it has to come AFTER the governing noun. This discrepancy between Semitic word-order and the order of IE compounding will recur in several other correspondences that we shall study.

**1.Ff.** An intriguing phonological, non-morphological parallel shows up plainly in

non-pausal    ʔ ʔ ʔ ʔ ʔ<sup>√</sup>    {ʔérec}

OE [ʔ]eorþe : Hebrew

pausal    ʔ ʔ ʔ ʔ ʔ<sup>√</sup>    {ʔérec}

with prefixed article    ʔ ʔ ʔ ʔ ʔ<sup>√</sup> {həʔérec} (*InEuSeLa*, 350).

In Germanic linguistics the *eo* has been treated as the "breaking" of a proto-Germanic monophthong \**e*, preserved in Old High German and Old Saxon;<sup>108</sup> but the Norse *io* is a phenomenon similar to *eo*: [iø] differs only in that it is definitely a "rising" diphthong, such as is found more widely among the languages of the world than [eo].

A prehistoric background, quite other than that plain proto-Germanic \**e*, is suggested by the Hebrew alternation between {*e*} and {*ɔ*}: namely, that these languages, so far apart on the map, preserve the reflexes of a remote prehistoric phonology with blurred or wobbly vowels, not yet phonemicized as monophthongs. Old English would thus be the most backward or conservative, at least of the Germanic languages, in its retention of varying vowels — even Old

<sup>108</sup> The Gothic *Al* probably stood for a monophthong in many words; for Wulfila modeled his alphabet mainly upon the Greek, in which by his time (c. 311-383) the ancient diphthong had largely, if not completely, merged with *E* and thus become a monophthong. So {airþa}<sup>†</sup> probably had the same or nearly the same vowel [e] in the first syllable as Old High German and Old Saxon. The other Greek diphthong *AΥ* never merged with *O* but has come out [av] in modern Greek, or [af] before a voiceless consonant. Yet Wulfila treated this digraph on the analogy of *Al*; hence {haurn}<sup>√</sup> 'horn' (1.Bc, note 42). Perhaps he was influenced here by a trend in Latin toward monophthongization; for in Italian the Latin diphthong indeed became [ɔ] — e.g. *tòro* <sup>√</sup> < *taurum*.

Norse having advanced a little more toward stability (Levin, *VePrPh*, 222). The *eo* emerges often before *r* + another consonant, and in some other environments that to a large extent fit the IE structure most compatible with the Semitic pattern for triconsonantal roots.<sup>109</sup> Even so, the *eo* is less widely distributed in Old English than the { $\acute{e}/_3$ } alternation in Hebrew, and not all instances fall within definite rules. Each case of an apparent cognate illustrating *eo* : { $\acute{e}/_3$ } has to be studied individually and has its own unique importance.

{ $\text{ʔ}/_3\text{r}\acute{e}\text{c}$ } is noteworthy for being the only such Hebrew noun in which the {- $\text{c}$ -} is not exclusively pausal; so this positional allophony is more complex than the usual Hebrew { $\acute{e}/_3$ }. The documentation of vowel-allophony comes mainly in the medieval pointing (which, by coincidence, was nearly contemporary with the writing-down of English, earlier than any other Germanic language except Gothic). But there is also some prior evidence of it from a rabbinical source, focusing upon this very word, which asserts that the two-fold pronunciation of  $\text{יָרַע}$  is “a ritual of Moses from Sinai” — i.e. a custom from time immemorial (*InEuSeLa*, 360-361).

The wavering is not the same in Old English as in Hebrew: Old English has BOTH the front- and the back-vowel pronounced, one sliding into the other, whereas in Hebrew it is EITHER one or the other, depending on the environment before the { $\text{ʔ}$ -} or after the {- $\text{c}$ }. But the two kinds of wavering have in common not only the quality of the front- and the back-vowel but also a sort of negative phonological rule: The meaning does not depend on one stable vowel-sound.

**1.Fg.** The Homeric Greek  $\epsilon\text{ργα}\zeta\epsilon\text{ν}$  ‘earthward’ is restricted to the end of the verse — an archaic survival, occurring in formulae right after two verbs ‘fell/falls to the ground’ and ‘poured on the ground’, where the usual synonym  $\chi\alpha\mu\acute{\alpha}\zeta\epsilon\text{ν}$  is metrically inconvenient because of its initial consonant (*InEuSeLa*, 345-346; Levin, *HoHu*, 209, 214). The Hebrew pausal form is  $\text{יָרַע}$  { $\text{ʔr}(\text{ə})\text{c}$   $\text{c}^{\text{h}}$ }. Is this a segment-for-segment cognate, the Greek front-vowel  $\epsilon$  corresponding twice to the Hebrew back-vowel { $\text{c}$ }? The Hebrew non-pausal

<sup>109</sup> For details see Campbell, *OlEnGr*, 54-57. The Old English vowel *eo*, although never written with an accent, was undoubtedly stressed, like the Hebrew { $\acute{e}/_3$ }. For in Middle English, when accentual versification replaced alliterative, the beat clearly came on the first syllable, as in “Er any foot he myghte on erthe gon” (iambic pentameter; Chaucer, “The Franklin’s Tale” 1103).

𐤀𐤆𐤊𐤍<sup>10</sup> {ʔár(ə)ɔʔ<sup>h</sup>} is relevant in that here again we have an alternating vowel {áʕ}. ἔραζε is very rare in a non-pausal position (Hesiod, *Op.* 421; Aeschylus, fr. 159; never in Homer); yet the Greek language never manifests the sort of positional or *sandhi* alternation of vowels that is so notable in Hebrew and so peculiar (cf. *InEuSeLa*, 94-99).

The first four letters of ἔρεσιμήτην [eres-] match {ʔérec}  
more closely than ἔραζε matches {ʔr(ə)ɔʔ<sup>h</sup>}.

Whether to entertain a correspondence of the final -ε to {ɔ} (or {ɔʔ<sup>h</sup>}) depends on the uncertain phonetic character of the consonant -ζ- before the -ε and -ʕ- before the {ɔ}. ζ in Attic was [zd] from most indications (*InEuSeLa*, 121-122, 312, 344-421), until it changed to [zz] around the fourth century B.C. (Threatte, *GrAtIn*, I, 546-549). But there is serious reason to doubt that it was so in Homeric Greek too:

Whereas Attic Θήβαζε<sup>11</sup> ‘to Thebes’ clearly consists of

Θήβαῖς<sup>12</sup> (accusative plural)<sup>110</sup> + -δε,

it is written Θήβαοδε<sup>13</sup> in the text of Homer —

which implies that the sound of ζ differed from σδ, and therefore that ἔραζε is not [érazde] — i.e. [éras + -de]. Some scholars have interpreted ζ as [dz]; and that would be very close to the pronunciation of ʕ as an affricate [ts], which prevails among the Jewish communities in modern times and moreover has been traced back not only to antiquity in Hebrew but even to several cognate Semitic languages.<sup>111</sup> By this argument, ζ — except for voicing — would stand for nearly the same sound as ʕ.

Even so, the Greek -ε is not necessarily a morpheme cognate to the Hebrew suffix {-ɔʔ<sup>h</sup>} ‘-ward’.

For it is possible that ἔραζε arose from something like [éradz + -de]. We must leave this unsettled; but the one noun ‘earth’ was doubtless prominent in establishing the ‘-ward’ suffix in both languages.<sup>112</sup>

<sup>110</sup> This city-name, like many others in Greek and Latin, is grammatically plural. In this particular name the semantic basis for the plural form escapes us.

<sup>111</sup> Steiner, *AfSa*; and A. Cuny, “Essai sur l’évolution du consonantisme dans la période du sémitique commun,” *MéSoLi*, 15 (1908), 1-31, especially 13, “Le phonème c(ʔ) du sémitique commun”.

<sup>112</sup> In the early and rather meager corpus of Ugaritic, {ʔarch}<sup>14</sup> ‘earthward’ is one of the words that show up with a cognate {-h} to this Hebrew suffix, vocalized {-ɔʔ<sup>h</sup>}.

- 1.G. Sem. (Heb.)** {ʔăḏōm|ṣḥ} : **IE (Gr.)** χθών 'earth, ground'  
**(Aram.)** {ʔăḏămt-} : **(German)** grund  
**(Heb.)** {ʔăḏōm} : **(Middle English)** g(r)om 'man'

**1.Ga.** A different word for 'earth' is much better represented in IE, but on the Semitic side only in the Hebrew אֶרֶץ {ʔăḏōmṣḥ}

and Aramaic ארמץ {ʔăḏămtṣ} (with suffixed article; see Addenda, p. 456). Having written about this at some length since *InEuSeLa* (see Levin, *Ho Hu*)<sup>113</sup> I will not repeat all of the same points; but I am now ready to go beyond anything previous, particularly in regard to the Germanic languages, including English.

Even before the Semitic evidence was brought in, Indo-Europeanists had to cope with the initial consonant-group,

exemplified by the Greek poetic word χθών<sup>√</sup>,

and its simplification as in χαμ|αί<sup>√</sup> 'on/to the ground'

(which is far more frequent than ἔραζε). The discovery of Hittite and Tokharian in the twentieth century has added some startling forms:

Hittite {te-e-kan}<sup>√</sup>

Tokharian A {tkam}<sup>√</sup> (genitive {tkanis}<sup>√</sup>)

Tokharian B {kem}<sup>√</sup>.

The last of these fits readily into the previously accepted IE etymology; but the other two are so disconcerting to it that certain Indo-Europeanists would not accept them as cognate to the {k<sup>h</sup>t<sup>h</sup>-} of Greek and the {kṣ-} of Sanskrit. Those who did, have handled the metathesis by positing that dental + velar changed to velar + dental, rather than the reverse; for in the languages of the world [KT] is far more frequent than [TK], and therefore more likely to be the outcome of a change in articulation than the uncomfortable cause of a change.

<sup>113</sup> The IE-Semitic etymology was previously noted by Trombetti, *InSeFo*, 35; Mayer, *RiPrRa*, 99; and Linus Brunner, *Die gemeinsamen Wurzeln des semitischen und indogermanischen Wortschatzes* (Bern: Francke [1969]), 175. Trombetti, however, in his later work, *Sa Gl*, III, 20-22, brings under one root "ki, kje terra.... Bantu kje, n-kje.... Camitosemitico. Afar er-kē.... Sem. ar.k e ar-ṣ ... Aram. āra' [cf. 1.Fa] e arḳ- [{ʔarqṣ'} in

אֶרֶץ]..... Indoeuropeo.... a. Slavo zemlja, Lit. Žemė ... Frigio ζεμελω.... Greco χθών, Latino humus.... Armeno er-ḳi-r terra...." He adds, "Il termine iniziale caratterizzato da r in II [Hamito-Semitic], III [Caucasic] e IV [Indo-European] è una parola significante essa stessa 'terra, luogo': a) Basco erri Land — Greco ἔρα terra, a. Ted. [= Old High German] ero.... b) Germ. erthā- Erde, a. Irl. [= Old Irish] co-art landholder, es-ert landless man...."

The Semitic forms show a different though understandable treatment of a prehistoric  $*C_1C_2$ - most like the Greek {k<sup>h</sup>t<sup>h</sup>-}, but simplified by reducing the first consonant to the minimal consonantal actualization: a glottal stop [ʔ]. That is a voiced sound, however, and the dental consonant is voiced also (cf. the etymologies in 2.Lc). Furthermore, as Hebrew and Aramaic have no tight initial consonant-groups,<sup>114</sup> a minimal vowel is part of the articulation of the glottal [ʔ]; and this vowel-sound entails in both languages the fricativation of  $*d$  to [d̪].

Although odd from a strictly IE point of view, this drastic modification [ʔVd̪-] suggests how something within Germanic, which had not even been considered before me, can be derived from the same IE prototype as

Greek χθ- and Sanskrit {kṣ-} (as in च मि<sup>√</sup> {kṣám|i}, locative).<sup>115</sup>

The gr- in Old English, Saxon, Frisian, and Norse *grund*<sup>√</sup>, OHG *grunt*<sup>√</sup> (with the "second Germanic sound-shift" in the consonant at the end),<sup>116</sup> or Middle Dutch *gront*<sup>√</sup>

now appears to be an easily pronounceable modification of the prehistoric  $*C_1C_2$ -. The Germanic [-r-] is more drastically modified than the fricative [-ð-] of Hebrew and Aramaic, while the Germanic [g-] is closer to [k<sup>h</sup>-] or [k-] than [ʔ-] is. Of all the gC<sub>2</sub>- clusters possible within Germanic, gr- is the most frequent, and presumably articulated with the least discomfort. For prehistoric Germanic we might posit an intermediate \*[gz-], reminiscent of Sanskrit {kṣ-} except for the voicing — and g is the regular Germanic counterpart to Greek χ [k<sup>h</sup>], though not to Sanskrit {k}. Throughout Germanic, apart from Gothic, r from  $*[z]$  abounds.<sup>117</sup>

<sup>114</sup> A lone exception in Hebrew is the anomalous feminine form of the numeral 'two', שְׁנַיִם<sup>√</sup> {šəyím}, שְׁתַּיִם<sup>√</sup> {štáyim} (*InEuSeLa*, 244).

<sup>115</sup> The Greek dative χθου<sup>√</sup> corresponds segment for segment, except for the accent.

<sup>116</sup> In Polish, Russian, and some other Slavic languages *grunt*<sup>√</sup> must be borrowed from High German; similarly in the Baltic languages. In modern High German it is spelled *Grund*<sup>√</sup>, though pronounced [-t] — except (as Gary Rendsburg informs me) that it is [-d̪] in the dialects of Switzerland and of East Prussia.

<sup>117</sup> Pokorny (*InEtWö*, 414-416), who rejects the Hittite and Tokharian cognates, treats this as one of the two IE roots that begin with *ghd-*, the other being represented in Greek by χθές<sup>√</sup> 'yesterday'. (He continually omits the asterisk for prehistoric IE.) Certainly there are no other well attested Greek words beginning with χθ-. The Sanskrit consonant-group {kṣ}, however, has several other IE sources.

Moreover the semantic match is amazing: the exact nuance expressed by  $\text{שָׂדֶה-קֹדֶשׁ}$   $\{\text{ʔad(ə)maʔ-qóðeš}\}$  'holy GROUND' (Ex. 3:5, cf. Zech. 2:16), where the near-synonym  $\{\text{ʔérec}\}$  would not do in Hebrew nor *earth* in English (and the other Germanic languages).<sup>118</sup>

**1.Gb.** In this word for 'earth' Germanic has no simplification to a single initial consonant, as in  $\chi\alpha\mu\alpha\iota$  or Latin *humus*<sup>↓</sup>, etc. But in the cognate word for 'man' — which is  $\text{אָדָם}$   $\{\text{ʔádóm}\}$  in Hebrew

and manifestly related to  $\{\text{ʔādómś}^{\text{h}}\}$  —

Germanic shows the simplification *g-*, exemplified by

Gothic and Old English *guma*<sup>↓</sup>,

OHG *gumo*<sup>↓</sup>, *gomo*<sup>↓</sup>,

Norse *gume*<sup>↓</sup>.

But Middle English, besides *gum(e)*<sup>↓</sup>, *gom(e)*<sup>↓</sup>,

has *grom*<sup>↓</sup>, *grome*<sup>↓</sup> — now *groom*<sup>↓</sup>

with limited reference either to a horse-tender or to a '(bride's) man'. The obsolescence of *gum(e)*, *gom(e)* and variants around the fifteenth century entailed the replacement of *brydgum*<sup>↓</sup> (OE)

by *brydegrome*<sup>↓</sup>, *bridegrome*<sup>↓</sup>, *bridegroom*<sup>↓</sup>

(the only form still current).

The etymology of this *gr-* word, lacking in Old English, has never been found hitherto. In Middle English the *gr-* and the *g-* forms are interchangeable, almost if not quite totally, although that fact is disguised by the arrangement of citations in the great *Middle English Dictionary* (G, 232, 387-388), apparently on the assumption that the original or earliest meaning of *grom(e)* was 'an infant boy'. In none of the citations from before 1300 does the context require such a narrow interpretation. The bulk of the evidence comes from the fourteenth century; at that time, if not earlier, there was scarcely any area of meaning where *gr-* could be used but not *g-*, or vice versa, even by the same author. For in the English version of the *Roman de Guillaume de Palerne*, 'a Greek'

<sup>118</sup> When the Hebrew Scriptures were translated into Greek,  $\chi\theta\acute{\omega}\nu$  as a purely poetic word was very seldom used to render  $\text{אָדָם}$ ; an odd instance of it — in the genitive  $\chi\theta\acute{\omega}\nu\acute{o}\varsigma$ <sup>↓</sup> — comes in I Kings 14:15 (also in Aquila's translation of Gen. 2:7, as he often drew upon the Homeric vocabulary).

(*uns griex*) is referred to once as "a grom of grece" (1767) but the same person later as "a gome of grece" (2157).<sup>119</sup>

Every language, whether IE or Semitic, that has the afore-mentioned word for 'man' has also a more honorific word to apply to a male adult, one in good standing on the whole. The Latin singular noun *homō*<sup>✓</sup> very seldom refers to a woman,<sup>120</sup> but is much used of a man in contexts where *uir*<sup>✓</sup> 'man' — in the narrower sense — was not quite appropriate because the speaker was talking about something other than the man's masculine qualities. {ʔaddm} and **אִישׁ**<sup>✓</sup> {ʔiʃ} 'man' in Hebrew hardly overlap at all. {ʔdm}<sup>✓</sup> in Ancient South Arabian is reported to share a semantic restriction somewhat similar to our word *groom* — i.e. 'vassal' ('man' as subordinate).

This and the Ugaritic {ʔadm}<sup>✓</sup> 'mankind' are true Semitic cognates of the Hebrew {ʔaddm}.<sup>121</sup> The Biblical word, however, interpreted as a proper name 'Adam' — the progenitor of the human race — spread to nearly all Semitic as well as European languages during the Christian era.

### 1.Gc. By juxtaposing

Aramaic {ʔādæmt-} 'ground' and Hebrew {ʔaddm} 'man'

to Greek χθών

χαμ-

Latin *humus*

*homō*

Sanskrit {kṣam-}

Tokharian A {tkam}

Tokharian B {kem}

Germanic

*guma*

besides

*grund*

Middle English *grom(e)*

we show (1) how the unwieldy initial cluster \*C<sub>1</sub>C<sub>2</sub>- was liable to various bi-consonantal modifications (including even the Germanic *gr-*), as well as to simplifications (among them the Germanic *g-*);

<sup>119</sup> *The Romance of William of Palerne* (otherwise known as the *Romance of "William and the Werwolf"*), translated from the *French at the command of Sir Humphrey de Bohun*, about A.D. 1350, ed. by Walter W. Skeat (Early English Text Society [Extra Series, 1]; London, 1877), 62, 74.

<sup>120</sup> Unlike the singular *άνθρωπος*<sup>✓</sup> in Greek, which does freely refer to a person of either sex, almost always with an implication of contempt.

<sup>121</sup> Among the Ethiopic languages, Tigre has *ʔaddam*<sup>✓</sup> 'men, people' (Leslau, *CoDiGe*, 7).

(2) how the end of the feminine word in certain languages got a sort of feminine marker.

Only Greek — and the two Tokharian dialects, if taken together — show both  $C_1C_2$ - and a simplification of it in the word for 'ground'. Only English shows both  $C_1C_2$ - and a simplification of it in the word for 'man'.

From no other IE word for 'ground' — no matter from what root — is there a derivative that designates 'man'. This generalization is most pertinent for a comparison with Semitic. For the association between man and the ground is peculiar to certain cultures, by no means universal. In Latin of the classical period it lingered only as a scholarly guess, for lack of any clear morphological relation of *homo* 'man' to *humus*.<sup>122</sup> In the Hebrew Bible, however, the etymological connection was clear, and Genesis 2:5,7 plays upon it: "And there was no man {ʔəḏōm} to work the ground (אֲדָמָה {həʔəḏōmā}).... And the LORD God shaped Man (אָדָם {həʔəḏōm}) , dust from the ground {həʔəḏōmā}...." The earth — or rather the ground — as something to tend is {ʔəḏōmā}, not {ʔērec} (Gen. 4:2, Zech. 13:5, Pr. 12:11, 28:19, Is. 30:24); and {ʔəḏōm} is man in the role of tending it, as a husbandman rather than a hunter.<sup>123</sup>

Present speakers of English have not the slightest sense of a semantic connection between *groom* and *ground*<sup>v</sup>. Likewise, in the Middle English texts accessible to me, no aboriginal connection can be detected. These, to be sure, date from some two thousand years later than the Hebrew Bible. Moreover the morphological link between a masculine and a feminine noun, which is so striking in Hebrew (cf. 1.Gg), was quite gone from English by that time; the *-d* at the end of *ground* was no longer a morpheme.

<sup>122</sup> This was among the many etymologies ridiculed by Quintilian (1.6.34): "Shall we also allow man (*hominem*) to be so called because he is born of the ground (*humō*) as though all animals had not the same source or those first mortals set up a name for the earth (*terrae*) before one for themselves?" The modern Indo-Europeanists have, in effect, answered Quintilian's challenge by contrasting earthly man not with other earthly beings but with the heavenly gods; e.g. A. Meillet, "Les noms du 'feu' et de l' 'eau'," *MéSoLi*, 21 (1920), 255, and Porzig, *GLnSp*, 208.

<sup>123</sup> From Gary Rendsburg I learn that other ancient sources, Mesopotamian and Egyptian, connect man with the ground; but these lack the ETYMOLOGICAL connection that is evident in Hebrew and Latin.



**1.Gd.** The {-t-} of אַרְבָּעָה, which occurs in the Targum (the Aramaic translation of the Hebrew Scriptures, **1.Ga**) and would doubtless have been pointed אַרְבָּעָה† {ʔədæmtʃ} if it occurred in Biblical Aramaic,<sup>124</sup> is plainly a feminine marker; it recurs endlessly in Aramaic feminine nouns and adjectives. *Grund* also is feminine in Old Norse and in some Middle and modern High German dialects. Both for the speakers and for the IE researchers up to now, the -d is an UNRECOGNISED VESTIGE of feminine gender, although Old Norse has, besides, a neuter *grunn*<sup>√</sup> 'shoal' and a masculine *grunnr*<sup>√</sup> '(sea-)bottom' (nominative; accusative *grunn*<sup>√</sup>), which ought to suggest that the -d has somehow a feminine function. In the rest of the Germanic languages (including English until grammatical gender died out) the noun is masculine. Without attention to Semitic, it would be virtually impossible to connect the *gr-* words for 'ground' and 'man' of Germanic to their IE cognates (cf. Pokorny, *InEtWö*, I, 414-416, 459).

The Hebrew construct {ʔad(ə)m|at} '(so-and-so's) land' bears a fair resemblance to *hum|us*<sup>√</sup> 'ground', the Latin nominative singular. In early Latin, which is meagerly recorded, it would have been \*-OS, to judge from many other nouns of the "second declension"; and the Hebrew construct, when followed immediately by an accented possessive suffix as in אֶרֶץ־יִשְׂרָאֵל<sup>√</sup> {ʔad(ə)m|it|ir} 'my land' (with {-it-}), has the same or nearly the same vowel as the early Latin.<sup>125</sup> The feminine gender of *humus* is a striking anomaly in this declension (where the vast majority is masculine) and must have a semantic cause: in this instance, a lingering archaic sentiment of INHERENT fertility, just like the feminine gender of *mālus*<sup>√</sup> 'apple-tree', *pirus*<sup>√</sup> 'pear-tree', and most other trees (Levin, *PrInEuThDe*, 130-131).

The feminine ending of the Hebrew absolute {ʔādəm|it} is most like what we observed in Ταρῶ [-ῖ] (**1.Ac7**). It may also correspond, more distantly, to the Greek -ή (-ᾱ outside of Ionic) and Sanskrit {-ḥ} (**1.Dd**). The

<sup>124</sup> Many editions of the Hebrew Bible used to give the accompanying Targum also with this familiar Tiberias pointing (mainly sublinear). But recent research has proved that no early mss. show the Targum thus; the codices from Tiberias do not include the Targum at all (though it may well have been recited there from memory). For the authentic text of the Targum we must rely on mss. with the supralinear "Babylonian" vocalization, which was actually maintained longer in Yemen than in Iraq.

<sup>125</sup> We recall, further, the correspondence between the Hebrew and Aramaic construct plural in {-e'} and the early Latin nominative plural in -EI (Greek -οι).

feminine ending in Lithuanian *žėmė*<sup>126</sup> is of problematical origin from the Indo-Europeanists' point of view;<sup>126</sup> and its relation to Slavic forms, such as the Church Slavonic and Russian землѧ<sup>127</sup> {zemlĭá}, is likewise problematical. Many Slavic languages show forms with no *-l-*; e.g. Polish *ziemia*<sup>128</sup>.

**1.Ge.** The Slavic {z-m-} and Lithuanian *ž-m-* have regular cognates in the more ancient IE languages. Furthermore the Slavic {zemlĭá}, including the consonant {-l-}, has close cognates in certain of them, at least on the phonetic side; the semantic match is more problematical. The Greek heroine Σεμέλη<sup>129</sup> (Σεμέλᾱ in dialects other than Attic and Ionic), one of Cadmus' daughters and mother of the god Dionysos, is conjecturally identified as the earth-goddess of the Thracians in the southeastern part of the Balkan peninsula or the Phrygians in Asia Minor.<sup>127</sup> The Greek letter Σ- does not prove that in the Thracian or the Phrygian language the word began with a voiceless [s-] rather than [z-]; for the Greek alphabet had no better way to represent [z] before a vowel until the fourth or third century B.C., when the consonant-group [zd], written Z, was simplified in pronunciation (**1.Fg**).

Phrygian grave-inscriptions, subsequently written in the Greek alphabet (during the early centuries of the Christian era) and easy enough for us to read but still not fully deciphered, furnish many examples of the word ΖΕΜΕΛΩΣ<sup>129</sup> in a formula cursing whoever may violate the grave. It is coupled with ΔΕΩΣ<sup>129</sup> in a context where 'Be he accursed in heaven and earth' would make less sense than 'Be he accursed of gods and men'.<sup>128</sup> Also in favor of the latter interpretation is a gloss of Hesychius, ζέμελεν· βάρβαρον ἄνδράποδον· Φρύγες<sup>129</sup> 'The Phrygians [say] ζέμελεν [for a] foreign slave', which implies that ζέμελεν meant 'man' — although an insulting synonym for 'earth', such as 'dirt', is not out of the question.<sup>129</sup> Either way the Phrygian ΖΕΜΕΛΩΣ would be an

<sup>126</sup> Pr. Skardžius, "Zur Entstehung des *ẽ*-Ausganges im Litauischen," *Zeitschrift für slavische Philologie*, 23 (1955), 171-176; Ernst Fraenkel, "Zur griechischen Wortforschung," *Glotta*, 34 (1955), 302-303.

<sup>127</sup> See O. Jessen in W. H. Roscher (ed.), *Ausführliches Lexikon der griechischen und römischen Mythologie*, IV (Leipzig: B. G. Teubner, 1909-15; repr. Hildesheim: Georg Olms, 1965), 664-667.

<sup>128</sup> Haas, *PhSp*, 92-94. Nevertheless Alfred Heubeck's review, in *InFo*, 39 (1967), 582, still prefers 'bei den θεοὶ οὐράνιοι und καταχθόνιοι' — i.e. 'gods heavenly and underground'; cf. Calder, *ColnNePh*, 206-208.

<sup>129</sup> ἄνδράποδον, being a Greek NEUTER noun, does not show whether ζέμελεν was vocative, nominative, or accusative in the Phrygian language.

approximate cognate to the Greek adjective χαμαλούς<sup>√</sup> 'lowly, humble' (accusative pl. masc.).

The three consonants {zml},<sup>130</sup> in Slavic and Phrygian (perhaps Thracian too), may be yet another metathesis, this one moving the [m] to the middle position. The other two consonants, no longer in contact with each other, are articulated quite differently {z-l}

from the Greek [kʰ] and [tʰ] in χθών and

their Sanskrit counterparts in {kṣámi} (locative),

क्षमः <sup>√</sup> {kṣmáh} (genitive or ablative;

also क्षमः <sup>√</sup> {jímáh}, रक्षः <sup>√</sup> {gmáh}).

I make bold to suggest that the {l} could have come from a sound within the root. The so-called extensions or enlargements of roots are a long-standing puzzle of IE morphology, especially those extensions that add no perceptible meaning, nor even any classification that we can make out.<sup>131</sup> So it seems to me plausible that some extensions, and this one in particular, originated through metathesis of consonants in the root. The structural similarity of Σεμέλη to νεφέλη<sup>√</sup> 'cloud' (Latin *nebula*<sup>√</sup> 'mist, cloud') has often been remarked — i.e. {CeCéĒ}; and several cognates of the latter evince more than a biconsonantal IE root \*n-bʰ, e.g.

Lithuanian *debesis*<sup>√</sup> or *debesys*<sup>√</sup> 'cloud',

Latin *nūbēs*<sup>√</sup> 'cloud',

Greek γνόφος<sup>√</sup>, δνόφος<sup>†</sup> 'gloom' (plural δνόφοι<sup>√</sup>),

making the -l- of νεφέλη : *nebula* a likely manifestation of a consonant on the order of *D*, extruded from the root.<sup>132</sup> In Σεμέλη, {zempljá}, ZEMEΛΩΣ the initial consonant and the {l} preserve some phonetic features and modify others that are reflected differently in the Greek [kʰtʰ] of χθών and the Hebrew {ʔ-ḏ} of {ʔədəm<sup>ḥ</sup>} and {ʔḏóm}.

**1.Gf.** Besides the Phrygian ZEMEΛΩΣ, the word for 'man' in several IE languages has something after the *m*. Latin, Germanic, and early Lithuanian are

<sup>130</sup> Besides the usual ZEMEΛΩΣ there are instances of ΣZEMEΛΩΣ<sup>√</sup>, [ζ]IMEΛΩΣ<sup>√</sup>, [ζ]OMOLΩ<sup>√</sup>; also ΔΙΩΣ<sup>√</sup>, ΔΙΟΣ<sup>√</sup>. To judge from the meager corpus, the Phrygians wavered in applying the Greek alphabet to their language and did not arrive at an orthography.

<sup>131</sup> The most influential essay on this subject is by Benveniste, *OrFoNo* (3d printing; Paris: Adrien-Maisonneuve, 1962), chapter IX "Esquisse d'une théorie de la racine" (147-173). I admire this famous chapter, but with some reservations.

<sup>132</sup> See Addenda, p. 456, and Walter Petersen, "Some Greek Examples of Word-contamination," *AmJoPh*, 56 (1935), 57-59.

nearly in agreement on 'man', according to an archaic type of IE declension:

	Latin	Gothic	Old English	Lithuanian
nominative <sup>133</sup>	<i>homō</i>	{guma}√	<i>guma</i>	<i>žmuō</i> √ <sup>134</sup>
accusative	<i>hominem</i> √	{guman}†	<i>guman</i> √	<i>žmúnj</i> √ <sup>135</sup>
genitive	<i>hominis</i> √	{gumins}†	"	
dative	<i>hominī</i> √	{gumin}√	"	

The *-n* is the same sound as the indefinite article in Arabic, but there it is suffixed to the nominative as well as the other cases.<sup>136</sup> The semantic side of the parallel is not at all obvious; and the possibility cannot be dismissed that the *n* in *homin-*, *guman*, *žmúnj* is due to a metathesis, like ZEMEA- in Phrygian but resulting in the actualization of the dental consonant as [n] rather than [l], since these two consonants alternate in many languages. Such extensive mutation of consonants is most credible in a very old word, exposed to diverse phonological developments over thousands and thousands of years. It is noteworthy that all these forms with *n*, as well as those with the Phrygian and Slavic ones with [l], show a single initial consonant, not a consonant-group *C<sub>1</sub>C<sub>2</sub>-*; so the third consonant may have been derived from what was originally *C<sub>2</sub>* in such a consonant-group.

As we entertain this possibility, it has implications for the emergence of *grom(e)* in Middle English, AFTER the loss of the Old English case-ending *-n*. What was written *goma* in Old English may have sometimes been pronounced with not a plain [g-] but an odd [G-] sound, affected by the ancestral *C<sub>2</sub>* but eluding representation in the Latin alphabet, even as supplemented with runic letters. As long as the nominative \**G—a* alternated with *g—an* in the oblique cases, some affinity might linger between the *-n* and the odd feature

<sup>133</sup> The prehistoric form that Indo-Europeanists reconstruct for these vocalic endings of the nominative case is \*-ōn. Their evidence for an actually pronounced nasal sound is indirect and very thin.

<sup>134</sup> *-uo* is a diphthong.

<sup>135</sup> *j* used to be pronounced as a nasalized vowel, but no longer in standard Lithuanian. On the lack of other case-forms in the singular, see Alfred Senn, *Handbuch der litauischen Sprache* (Heidelberg: Carl Winter, 1957-66), I, 139; II, 171 (note 9), 278.

<sup>136</sup> The Hebrew אָדָם, however, went into Arabic as a borrowed proper noun, without its everyday non-mythical meaning 'man', and as such got the usual Arabic treatment: no suffixed indefinite article {-n}, and only two case-forms, nominative *ʾādamu* {ʾādamu} and genitive/accusative *ʾādama* {ʾādama} 'Adam' (1.Gb).

in the \*G-, if not \*[gʷ] (cf. 1.Ga), perhaps \*[gʷn],<sup>137</sup> and thus maintain the oddity; but when that -n disappeared, the way was clear for a shift from \*G- to the available and straightforward gr-.

**1.Gg.** In a few Biblical passages the bare form {ʕǝḏḥm}, without the feminine marker, can be understood as ‘earth’ rather than ‘man’. Most notably in Proverbs 30:14, a verse with synonymous repetition in the second half, {ʕǝḏḥm} appears to be chosen deliberately as the synonym of {ʕērec}. That is much like the unsuffixed χθών (χθον-<sup>√</sup> before any case-ending). But otherwise the Semitic evidence, as far as it goes,

seems to make the masculine {ʕǝḏḥm} ‘man’ primary

and the feminine {ʕǝḏḥm<sup>h</sup>} ‘earth’ or ‘ground’ a derivative.

Or, to put it another way, there is the same word for ‘man’ and ‘ground’ except insofar as the divergence between the two is expressed by the differentiating morpheme {-ḥ<sup>h</sup>}.<sup>138</sup> This morpheme, added to many other nouns, contributes the meaning ‘female (of the same kind)’,

as in מִרְּיָוָה {su<sup>w</sup>ḥ<sup>h</sup>} ‘mare’, {pṛḥ<sup>h</sup>} in מִרְּיָוָה<sup>√</sup> ‘the heifer’

from יָוֶה<sup>√</sup> {su<sup>w</sup>ḥ} ‘horse’, רֶפָּח<sup>√</sup> {pṛ} ‘bullock’.

Such a paradigm of female to male, however, may not yet have been fully established so as to interfere with a VAGUELY MEANINGFUL connection already existing between ‘man’ and ‘earth’. This word for ‘man’ — not only in Semitic but in the IE cognates too — does not become ‘woman’ by adding a suffix, except in Baltic: Lithuanian žmonà<sup>√</sup> ‘woman’.<sup>139</sup> Instead the grammatically masculine {ʕǝḏḥm} implicitly — and explicitly in Genesis 1:27 — takes in the female part of mankind.

<sup>137</sup> Cf. the alternation in Greek between the nominative θρίξ<sup>√</sup> [tʰríks] ‘hair’ and the accusative τρίχα<sup>√</sup> [tríkʰa] (genitive τριχός<sup>√</sup>, dative τριχί<sup>√</sup>), according to Grassmann’s “law” of dissimilated aspirate consonants, or in French between the singular œil<sup>√</sup> [œy] ‘eye’ ([œlʰ] until the last century) and the plural yeux<sup>√</sup> [yø], where the [y] in both goes back to a palatalization of the Latin [k] in the accusative sing. *oculum*<sup>√</sup> and the accusative pl. *oculōs*<sup>√</sup> respectively: *oculum* > *œil*; *oculōs* > *yeux*.

<sup>138</sup> The pre-accentual vowel {-ḥ} in {ʕǝḏḥm} and in thousands of other Hebrew words (but not all) is reduced to a minimal vocalic transition {-ǣ-} after a laryngeal consonant, {-ə-} after any other consonant) whenever the next syllable loses its accent to any accented suffix.

<sup>139</sup> For all the arguments that Σεμέλη was an earth-goddess (1.Ge), the Greek myth leaves room for a contrary interpretation that her name, morpheme by morpheme, could have meant ‘human, female’. The myth certainly emphasizes her mortality.

**1.Gh.** In Hebrew, besides {ʔəḏōm} ‘man’ and {ʔəḏōmṣḥ} ‘earth, ground’, we have seen the ethnic name {ʔəḏōw̄m} (**1.Db**, note 77) with the same three consonants but interpreted as meaning ‘Twin’. In the Greek cognates, however, the consonants are quite different:

χθ-ν (χ-μ-) ‘earth, ground’,  
δ-δ-μ- ‘twin’.

Strictly within Hebrew, this is a case of partial homophony, since the vowels distinguish the ‘Twin’ word. Or {ʔəḏōw̄m} may represent the Edomites’ own pronunciation of the word for ‘man’, applied specifically to themselves as many ethnic entities have done. For our comparative study it poses a warning that the separate data in a historically recorded language are liable to point AMBIGUOUSLY to a multiplicity of possible prehistoric sources. It needs the CONTROL of data coordinated from other languages to detect the valid connections. In some cases the validity of the connections will remain quite doubtful.

**1.Gi.** The {-ōm} of Hebrew {ʔəḏōm} and Latin *homō* are identical,<sup>140</sup> and the {-ōm-} of {ʔəḏōmṣḥ} is close to the -um- of *humus*. But the consonants before that vowel, if they go back to a prototype shared by Semitic and IE, have diverged enormously. We return to the difficulty that the decipherment of Hittite and Tokharian added to this etymology (**1.Ga**). In particular, {tkam} in the “A” dialect of Tokharian stands out with such an untoward group of initial consonants as to imply that it is an odd survival, little altered from the prototype. But among the other IE phenomena the Greek {k<sup>h</sup>t<sup>h</sup>-}, the Sanskrit {kṣ-}, possibly the Germanic *gr-*, as well as the Semitic {ʔ-ḏ-}, agree to this extent at least: the SECOND consonant can be explained as a reflex of \*T. All in all, I see no sound basis for positing a UNIFORM prototype with \*TK-, so as to make \*KT- only a secondary metathesis. Rather, as far back as we can trace, the two consonants were unstable in their position and in their articulation.

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<sup>140</sup> No accent is WRITTEN in Latin, but all the evidence establishes that an accent was pronounced on that syllable. Upon that accent in the first syllable depends the variable quantity of the final vowel, as the ancestrally long -ō was liable to be abridged in a post-accental position.

The vowel in Middle English *grom* was probably less open — [ō] rather than [ɔ] — and thus destined to become [ū] in early modern times.

**1.H.** Sem. (Arabic) {(?)isman} : IE (Ch. Slavonic) {imě} 'name'  
 (Aram.){šəməḥən} : (Avestan) {nā mān} 'names'

The *m* in nearly all cognates of *homō* and *humus* is the stablest consonant, changing at most to *n*.<sup>141</sup> Furthermore, the Germanic "weak declension", exemplified by *guman* as well as the Latin and Lithuanian *-n-* stems (**1.Gf**), encourages us to analyze another noun in the very core of the vocabulary, with a similar inflectional pattern and a base that ends in *m*. The IE word for 'name' (Pokorny, *InEtWö*, I, 321) is so diverse from language to language

— e.g.	Latin	<i>nōmen</i> √
	Greek	ὄνομα√
	Hittite	{lāman}√
	Albanian	<i>emen</i> √, <i>emer</i> √
	Church Slavonic	имѣ√ {imě}
	Cornish	<i>hanow</i> √ —

that the Indo-Europeanists, while accepting all these as reflexes of one prehistoric word, are baffled to account for the highly irregular correspondence. Semitic — as well as Finno-Ugrian — needs to be brought in, particularly to account for the Slavic {i-} and the Celtic *h*-.

**1.Ha.** *Nōmen*, being neuter, differs in the nominative and accusative from *homō*, *hominem*; but the other cases match:

genitive *nōminis*√, *hominis*  
 dative *nōminī*√, *hominī*  
 ablative *nōmine*√, *homine*√.

The match extends on the whole to the Germanic languages, except for masculine instead of neuter gender in most of them; e.g.

OE *nama*√ or *noma*√ in the nominative,

*naman*√ or *nomān*√ in the other cases (like *guma*, *guman*, **1.Gf**).

The Latin *-ō-* would be expected to correspond to *-o-* in Germanic, but only Old English and Old Frisian show a variation between *-a-* and *-o-*; otherwise *-a-* is general in this word throughout Germanic. The Sanskrit cognate नमः√ {nāma} shows a perfectly regular correspondence to the Latin in sounds and in gender, and so does the Avestan {nāma}√.

<sup>141</sup> Only in the Sanskrit nominative नमः√ {kṣāḥ} is the prehistoric *m* or \**m̥* disguised as a vowel; and similarly in Avestan {zō}√.

But other IE languages have a vowel BEFORE the *n*:

Greek	ὄνομα (ὄονομα <sup>√</sup> in Ionic, <sup>142</sup> ONTMA <sup>√</sup> in Aeolic and Doric, but ENTMAKPATIDΑΣ <sup>√</sup> 'Mighty-in- <u>Name</u> 's Son', a
Phrygian	ONOMAN <sup>√</sup> (accusative?), [Spartan]
Armenian	{anun} <sup>√</sup> ,
Old Irish	ainm <i>n</i> - <sup>√</sup> (pl. <i>anman</i> <sup>√</sup> ),
Old Welsh	<i>anu</i> <sup>√</sup>
Old Breton	"
	but Middle Breton <i>hanu</i> <sup>√</sup> , <i>hanff</i> <sup>√</sup> ( <i>ha</i> -, not just <i>a</i> -!)
Cornish	<i>hanow</i> " " " "

Besides, Old Prussian *emmens*<sup>√</sup> (nominative), *emnen*<sup>√</sup> (accusative)<sup>143</sup> may contain the remains of *\*-nm-*, assimilated or metathesized.

**1.Hb.** From Hittite {lāman}<sup>144</sup>

Tokharian A{ñom}<sup>†</sup>, B{ñem}<sup>†</sup>,<sup>145</sup>

Ziryene and Votyak *n'im*<sup>§</sup> (Finno-Ugrian languages)<sup>146</sup>

Albert Cuny inferred a palatalized *n'* (which I would symbolize *\*n'*) in the forerunner of IE and Finno-Ugrian.<sup>147</sup> Others have attributed the Hittite

<sup>142</sup> *ov* is the usual spelling, from about 350 B.C. on, for what had been long [ō] earlier. In Homer's verse, where ὄνομα<sup>√</sup> is inconvenient because of the three short syllables, ὄονομα<sup>√</sup> could be considered just a poetic license (1.Ec, note 88); but ὄονομα is just as constant in the Ionic prose of Herodotus. Ionic inscriptions, however, have only ONOMA.

<sup>143</sup> Superseded by *vařdas*<sup>√</sup> in Lithuanian, *vārds*<sup>√</sup> in Latvian, which is all the more remarkable because the neighboring non-IE languages, Estonian and Finnish, have *nimi*<sup>√</sup> (cognates of which are widespread in Finno-Ugrian).

<sup>144</sup> The Hittite scribes usually wrote this word as the Akkadian ideogram {ŠUM} with only the ending {-an} representing the Hittite sounds. The length of the vowel in the first syllable is shown occasionally by writing an extra {-a}: {la-a-ma-an}<sup>√</sup>; but this was not a regular feature of the cuneiform script, either in Hittite or in Akkadian (cf. 1.Ec).

<sup>145</sup> Found in case-forms such as the nom./acc. pl. {ñomāntu<sup>√</sup>, ñemna<sup>√</sup>}; Van Windekens, *ToCo*, I, 327. {ñ} stands for a palatalized nasal, presumably as in the English words *angel*, *ancient*. On p. 70 he attributes the palatalization of *\*n* to a following front-vowel or semi-vowel in prehistoric IE; even {ñom} he derives from IE *\*nēm̃n*.

<sup>146</sup> The others in the Finno-Ugrian group have an unpalatalized *n*-, as in Finnish *nimi*.

<sup>147</sup> "Hittite *lāman* 'nom', tokh. *ñom*," *Mélanges offerts à M. Octave Navarre* (Toulouse: Edouard Privat, 1935), 105-107.



{1-n} to dissimilation pure and simple;<sup>148</sup> but in favor of Cuny it can be argued that the susceptibility to a certain manner of dissimilation depends upon some phonetic feature already present in the consonant which suffers dissimilation.

Cuny goes on to adduce Semitic forms such as the Hebrew  $\square\text{ז}$ <sup>√</sup> {šem}, whose [š] could well have developed from \*š [sʷ],<sup>149</sup> and even to posit that the proto-Semitic (or, as he calls it, "sémitique commun") \*š developed from \*nʷ. His \*nʷ/mi- would thus be the source of the Semitic as well as the IE and Finno-Ugrian forms. For corroboration he refers to the work of Edwin H. Tuttle, whose "Dravidian Researches" point indeed to \*snu.d (= \*snuḍ) becoming nōḍ- in Kamara, but hū-, sū-, and tū- in the three dialects of Tulu and sūḍ, sūr in Kui.<sup>150</sup> Tuttle reconstructed a consonant-group \*sn to account for the actual divergence among the Dravidian languages in regard to the initial consonant; but Cuny has some other sort of development in mind. A further search is necessary.

<sup>148</sup> The hieroglyphic Hittite {a-ta-ma-ī-na}<sup>√</sup> (accusative singular) and hieroglyphic Luwian {atimāi}<sup>√</sup> (nominative/accusative plural {atimana, atimā, atimāi}<sup>√</sup>) may be manifesting a different dissimilatory denasalization: [Vn-n] > [Vt-n] instead of [n-n] > [l-n]. Nasal-to-plosive is scarcely a more drastic process than nasal-to-liquid; for in an ancient Anatolian language what is transcribed {t} may have been voiced [d]. See Yoël L. Arbeitman, "Luwian za- and -sa (/z-za): How I have changed my mind (with ruminations on Palaic)," *Linguistique balkanique* (Académie Bulgare des Sciences), 35 (1992), 29.

The Lydian {ētamv}<sup>√</sup> (or ?{atamv}) has been brought in also — e.g. by Illich-Svitych, *OpSr* (1-3), 82, from Heinz Kronasser, *Vergleichende Laut- und Formenlehre des Hethitischen* (Heidelberg: Carl Winter, 1956), 63, cf. 228-229 — but other authorities object that it does not mean 'name' but 'order, instruction'; Alfred Heubeck, *Lydiaka: Untersuchungen zu Schrift, Sprache und Götternamen der Lyder* (Erlanger Forschungen, Reihe A, Band 9, 1959), 20, 65-68; Roberto Gusmani, *Lydisches Wörterbuch* (Heidelberg: Carl Winter, 1964), 108-109.

<sup>149</sup> This has happened over and over in the known history of languages; e.g. English *sure*<sup>√</sup> (the French rounded front-vowel [ü] being resolved into a rising diphthong [ʷu]), Italian *scimmia*<sup>√</sup> 'monkey' (< Latin *simia*<sup>√</sup>).

<sup>150</sup> *AmJoPh*, 50 (1929), 139. He uniformly wrote .d, .t (etc.) in preference to ḍ, ṭ. Typographical convenience is enough to justify that practice of his; but I wish he had not neglected to give us an English gloss along with this Dravidian (or proto-Dravidian) word; what does it mean?

The Cornish and Breton *han-*, in itself, could well go back to \*sVn-; for *h-* in the Brythonic sub-group often represents the *s-* of most IE languages.<sup>151</sup> But the lack of *h-* in the Old Welsh and Old Breton *anu* and of *s-* in the Irish *ainm* warns us of something more complex.

**1.Hc.** In the Albanian *emen* (South Gheg dialect; *emer* in standard Tosk) no *n* before the *m* is perceptible at all. Most remarkable are the Slavic cognates, typified by the Church Slavonic

nominative/accusative *имѧ* {imě},<sup>152</sup>  
 dative, etc. *имени*<sup>√</sup> {imeni}.<sup>153</sup>

Here is undoubtedly the Slavic counterpart to the Germanic "weak declension" as in the Gothic nominative/accusative {namo}<sup>√</sup>,  
 dative {namin}<sup>√</sup>.

But the Slavic vowel *i-* (like the Albanian *e-*) preserves no perceptible trace of the consonant *n*, which otherwise we would not hesitate to call proto-IE; nor does the *i-* bear any particular resemblance to the vowels before or after the *n* in the various IE languages outside of Slavic and Albanian. The disparity calls for a theory more powerful than the formulae current among the Indo-Europeanists.<sup>154</sup>

**1.Hd.** Though undoubtedly IE, the Slavonic {imě} ({ē} a nasal vowel) is actually more like the Arabic accusative *إِسْمًا* § {ʔisman}  
 or genitive *إِسْمٍ* § {ʔismin}

<sup>151</sup> The lenition or softening of *m* is most far-reaching in Brythonic. So the treatment of it in this word (*-u*, *-ff*, *-ow*) causes no surprise.

<sup>152</sup> The nasal vowel at the end is commonly transliterated *ę* on the model of Polish and Lithuanian orthography (**1.Ac**, note 6).

<sup>153</sup> The accent, at least in Russian, is on the first syllable: *имѧ*<sup>√</sup>, *имени*<sup>√</sup>. But Ukrainian *ім'я*<sup>√</sup>, *імені*<sup>√</sup> and likewise Byelorussian *імя*<sup>√</sup>, *імені*<sup>√</sup>.

<sup>154</sup> The difficulty is well put by Schmitt, *DiDi*, 91: "Die überlieferten Formen des 'Namen'-wortes der Einzelsprachen auf *einen* grundsprachlichen Nenner zu bringen, ist ein äusserst schwieriges Unterfangen, das bisher m. E. ... nicht gelöst worden ist." He goes on to posit "1. 'Vollstufe I' \*ǵ3énǵ3-m̥ > griech. ὄνομα, armen. *anun*,

2. 'Vollstufe II' \*ǵ3néǵ3-m̥ > altindoar. *nāman-*,

3. 'Schwundstufe' \*ǵ3nǵ3-m̥ > alür. *ainmn* resp. \*ǵ3nǵ3-m̥ > german. *namō*.

Die geforderte Suffixbetonung bei der schwundstufigen Wurzel zeigt besonders deutlich das Slavische, z. B. russ. *imjá* ..."; but see above, note 153, for the accent of this Russian word.

than any IE form outside of Slavic. Although we cannot *a priori* rule out mere coincidence producing [i + m + <sup>Vn</sup>/ē], the phonetic resemblance focuses our attention on the most instructive point: what the Slavic forms lack is the Semitic sibilant, just as they lack the IE *n* in that position before the *m*. The phonetic difference between *s* and *n* is the obstacle to a Semitic-IE etymology, though not insuperable. For within Semitic we find a clue relevant to IE also: here is a very basic noun that consisted of consonants not separated by any vowel.

The Arabic word, though written with the three letters {ʔsm}, has no vowel between {s} and {m}, and the glottal stop is pronounced only in the rare circumstance when it begins a sentence. Then indeed, according to the native grammarians, {ʔism-} is pronounced. Nearly all forms occurring in the Qurʔān are construct and non-initial; e.g. the accusative <sup>صَمَ</sup> {ʔsma} '(so-and-so's) name'; the letter *l* is not pronounced, and before the {s} there is only the vowel {a} or {i} or {u} from the previous word. When the article is prefixed, the vowel {i} is pronounced right after it: <sup>لِاسْمَ</sup> [lismu] 'the name' (nominative; 49.11); the morpheme 'name' is [sm/ism].

That correspondingly the vowel in Hebrew {šem} was merely to make a consonantal word pronounceable, appears from the forms with a possessive suffix, such as

<sup>שְׁמָהּ</sup> {šəm|śh} 'her name'

with minimal vocalization between {š} and {m}. For where the vowel is an inherent part of a noun, as in

<sup>עֵץ</sup> {ʕec|śh} 'her tree'

<sup>עֵץ</sup> {ʕec} 'tree'),

it suffers no such drastic reduction before the accented vowel of the suffix.

Aramaic has <sup>שׁוּמ</sup> {šum} with a quite different vowel,

but reminiscent of the Greek ONYMA.

Before a suffix it undergoes the same reduction to {šəm-} as in Hebrew:

'her name' is <sup>שְׁמָהּ</sup> {šəmæh} in the Targum

<sup>שְׁמָהּ</sup> {šəméh} 'his name' in Bibl. Aram.);

but in Aramaic even a more basic vowel is liable to that before an accented suffix.<sup>155</sup> {šum} in Akkadian, however, keeps its vowel almost invariable, regardless of any suffix added. Wherever the closed back-vowel is found in

<sup>155</sup> Contrast Aramaic <sup>יָדָהּ</sup> {yādéh} 'his hand' : Hebrew <sup>יָדָהּ</sup> {yādóʔ}. 'Her name' in Biblical Aramaic would be <sup>שְׁמָהּ</sup> {šəmáh}.

forms of the word for 'name', including the Greek ἄν|ώνυμ|ος<sup>156</sup> 'nameless', this quality was no doubt produced in anticipation of the consonant [m], to which [u] is most congenial.<sup>156</sup>

The essential phonemes of the word for 'name', common to Arabic, Aramaic, and Hebrew, are the consonants /Sm/. A vowel-sound is pronounced in between when no vowel before /S/ or after /m/ is there to make the consonant-group pronounceable. Early Aramaic inscriptions (written long before a notation for vowels was devised) have both 𐤌𐤍𐤌<sup>157</sup> {?sm} and 𐤌𐤍<sup>157</sup> {sm}.<sup>157</sup> 𐤌 is the same letter as the Arabic ل, the difference in shape being only a development of penmanship (no more pertinent to linguistics than the development of capital A to minuscule a in the Latin alphabet). The motive for writing the letter in early Aramaic, as in Arabic originally, was (I presume) to show a consonant-sound — a glottal stop, or something like it.

**1.He.** To sum up the confusing comparison of this Semitic root to the IE root: Besides the *m* that corresponds exactly, the Semitic glottal stop — liable to become silent in Arabic but attended anyhow by some vowel — is reminiscent of the initial vowel in many IE languages; the Arabic and the Slavic {i} is second only to the {m} in the phonetic closeness of the match. The Semitic {s/s} finds its best parallel in the Cornish and Breton *h-*, for which there is no explanation whatever within IE etymology. But from the other side the IE *n* finds no nasal counterpart in Semitic; at the most, the palatalized nasal {ñ} (< \*[nʲ]), which is clear enough in Tokharian, shares its palatal feature with the {š} that is fully authenticated in the main traditions of Scripture reading, both Hebrew and Aramaic.<sup>158</sup>

Suppose a proto-form included some — not all — of the features of these consonants \*?snʲm, how would it come out in the actually recorded lan-

<sup>156</sup> The same vowel is reported in two Cushitic languages: Hadiya *sum*<sup>156</sup>, Wolamo *sum-ta*<sup>156</sup> (but Bilin *šan*<sup>156</sup>, Beja *šem*<sup>156</sup>). In Geʿez and several other Semitic languages of Ethiopia 'name' is {səm}<sup>156</sup>; Leslau, *CoDiGe*, 504. The Cushitic forms originated, presumably, as borrowings from Semitic; otherwise Cohen, *EsCo*, ought to have treated this important item.

<sup>157</sup> Whether or not the 𐤌 at that time was [š], does not appear from any evidence. The same letter, 𐤌 in the much later Arabic penmanship, stood for [s]. We can theorize that one sound, rather than the other, went back further into prehistory in this word; but we cannot prove it.

<sup>158</sup> That it was so in Akkadian too, is a very indirect inference.

guages? Every which way. That is nearly what we find in fact, leading us back to such a jumble. To make it conceivable, we would go on to suppose that any vowels were altogether subordinate and unstable, and even that the consonants — other than the *\*m* — were rather vaguely articulated. I can believe it because this word is so very basic, and likely to have originated at a more remote time than almost any other. The startling differences between the recorded IE forms, especially when supplemented by the Semitic, give hints of how speech evolved, if not from its very rudiments, at least from the most rudimentary stage that may still be accessible to us.

All of *\*ʔ s nʸ m*, though not necessarily in that order, is needed to account for the diversity within IE and the Finno-Ugrian cognates, even if we were to leave Semitic out of it:<sup>159</sup>

(1) We must have *\*ʔ* — or some such weak consonant — to be the source for the component of lengthening in the vowel of Latin *nōmen*, Sanskrit {nā́ma}, etc.; also the initial vowel in Greek ὄνομα, Armenian {anun}, etc., would seem to go back to *\*ʔ*-attended by some vowel.

(2) The Cornish and Breton *h*- calls for a prehistoric *\*s*.

(3) The *n* is in most of the IE languages, as well as Finno-Ugrian (e.g. Finnish *nimi*).

(4) The palatalization [ʸ], besides being present in a couple of Finno-Ugrian languages — Ziryene and Votyak — helps to clarify the Tokharian {ñ} and even the Hittite {l-} in {lāman}.

(5) The *m* turns up in most of the languages, and in the rest is represented by a related labial.

The gravest difficulty that remains in this etymology is to explain the total lack of a Semitic counterpart to the IE *n* at or near the beginning of the word. The Arabic {-sm-} and the Hebrew and Aramaic {šm-} (followed by a possessive suffix — 'my name', 'your name', etc.) — suggest that a complex group of consonants as *\*[nʸm]* or *\*[nm]* would have been reduced to the [m] without any non-labial nasal such as the segment [n] of most IE languages. Besides that, although Luwian is classed as a very ancient IE language, the word for 'name', deciphered {atim|aī} (**1.Hb**, note 148), is closer to the phonetic structure of Arabic {ʔism-} than to anything IE with [nm] or — for that matter — to the Hittite {lāman} (a neighboring IE language in Anatolia).

<sup>159</sup> For another highly variable IE etymon with a stable Semitic cognate, see **2.Ka**.

**1.Hf.** I suggested in **1.Gf** that the *n* of the oblique cases in Latin *hominis*, Old English *guman*, etc., originated when a consonant from within the root was extruded in a sort of metathesis. That will apply also to the Latin nominative/accusative neuter *nōmen* and the other cases (*nōminis*, *nōminī*, *nōmine*), similarly in Germanic — e.g. the Old English *naman*. Especially the Hittite {*lāman*}, the Old Prussian *emmens*, *emnen*, and the Slavic, exemplified by Church Slavonic {*imē*, *imeni*} — with *n* or a nasalized vowel AFTER *m* — argue that this subsequent *n* did not arise through a separate morphological development, regardless of the sounds within the root, but came out of the primitive root. It did, however, become an important IE suffix.

**1.Hg.** The Egyptian {*rn*}<sup>√</sup> (Coptic *ρν<sup>√</sup>*; also *ρεν<sup>√</sup>*, *ρην<sup>√</sup>* in some dialects), with its {*r*} but no {*m*}, is still more divergent than the words for ‘name’ that we have surveyed up to now. However, we can hardly exclude it from our comparison, in view of the enormous variety of forms within IE, and of the complex links both to Semitic and to Finno-Ugrian. Supposing a remote prototype with two nasal consonants, we can more or less understand how dissimilation would produce the sequence [r-n]. At any rate this Egyptian [r-n] is less remote from IE than from Semitic.<sup>160</sup>

Illich-Svitych (*MaSrSl*, 323, 343) proposes a different Semito-Hamitic (actually just Semitic) cognate to his IE “\**nem*-, *nōm-n* ‘имя’ (Pok[orny] 321).” It is the verb-root \**nb*- ‘call’, which I find most clearly embodied in the Akkadian participle {*na-bu-ū*}<sup>√</sup> ‘called’ — hence ‘famous’ (*AsDi*, XI, 31-30, esp. 335).<sup>161</sup> Other forms too of this verb ‘call’ or ‘name’ occur copiously in Akkadian, but not a noun ‘name’ from the same root; for that, Akkadian uses either {*šum(u)*}, cognate to the Aramaic {*šum*}, Hebrew {*šēm*}, etc., or else something quite unrelated etymologically.

Now Illich-Svitych operates within narrow rules of phonology: His proto-Nostratic \**m* (labial nasal) may, in Altaic, either remain or change to the voiced labial plosive *b*; however, in the interior of an Altaic word he allows only *-m*- with no alternative. In Semito-Hamitic (= Afro-Asiatic) it remains *m* or — questionably — becomes *b*.<sup>162</sup> This etymology, involving a Semitic \**nb*- and an IE \**n-m*-, must have been one of those which led him, with

<sup>160</sup> The idea for this paragraph comes from Gary Rendsburg.

<sup>161</sup> The Hebrew cognate נִבִּיָּא<sup>√</sup> {*nōbīʔ*} means ‘prophet’ — i.e. called by God.

<sup>162</sup> “\**m* > и.-е. *m*; алт. *m*-, *b*-, *-m*-, урал. *m*; драв. *m*; картв. *m*; с.-х. *m*, *b* (?)”

some uncertainty, to posit a possible change from nasal to plosive. It places no strain upon the initial \**n-*. But on the other hand it leaves, WITHIN IE, extreme permutations of that \**n-* to be reckoned with; for otherwise there is no accounting for the {i m -} instead of \**nem-* in Russian and other Slavic languages — besides the complications we have noted in other branches of IE. Nor will a simple \**n-* do for Uralic (i.e. Finno-Ugrian). So it seems to me more reasonable, at least for this one very basic etymology, to entertain a bold range of phonetic variants in the early period of contact between the developing language-groups.

**1.Hh.** We step on firmer ground when we turn from the root to the plural ending. The neatest match is

the Aramaic plural absolute ܫܡܗܝܢ<sup>√</sup> {šəməḥōn} :

Avestan {nām|ān<sup>√</sup>, nām|āni<sup>√</sup>}

{ā} standing for a nasalized vowel), which is either nominative or accusative plural — this noun being neuter in the more ancient IE languages. {nāmān} also served as a general plural case after the period of the Gāthās, which are the oldest Avestan literature. The Sanskrit cognate is नामाणि<sup>√</sup> {nāmāni}, nominative/accusative plural. Only a few very short Aramaic nouns have the disyllabic plural suffix {-ḥōn}; otherwise it is {-ōn}<sup>√</sup> (in Biblical Aramaic always accented). The {h}, however scarce, is fascinating as an unmistakably consonantal manifestation of something that went into the genesis of full, stable vowels. In Semitic, where there are no neuter nouns, this one is masculine; but most Aramaic nouns that take the plural ending {-ḥōn, -ōn} are feminine.

The Aramaic plural construct '(so-and-so's) names', which occurs oftener than the absolute, is ܫܡܗܝܬ<sup>√</sup> {šəməḥōt}, whose ending resembles — rather vaguely — the Greek -ατ|α in ὀνόματα<sup>√</sup> 'names'. No other Semitic language agrees morphologically with this Aramaic distinction between the absolute and the construct. In Hebrew

both שְׁמוֹת<sup>√</sup> {šəməḥōt} 'names' (absolute)

and שְׁמוֹתַי<sup>√</sup> {šəməḥōt} " (construct)

are more like {šəməḥōt}, the Aramaic construct, than like the absolute {šəməḥōn}.

**1.I. Sem. (Aram.)** {Hæqle<sup>√</sup>} : **IE (Latin)** AGREI 'fields'  
 : **Sem. (Heb.)** {Hac(ə)rē<sup>√</sup>} 'enclosures'

Within IE this word for 'field' ranks among the surest etymologies, and is of great import for the prehistory of culture — as the Latin expression *agrī cultūra*<sup>√</sup> reminds us. So if we can establish that it had a Semitic cognate, it will be momentous. I am now able to go far beyond *InEuSeLa*, 118 ff.

**1.Ia.** The word is by no means pan-IE.<sup>163</sup> In the accusative singular,  
 Greek ἀγρόν<sup>√</sup>  
 Vedic Sanskrit अज्रं † {ájram} (differing in accent from Greek)  
 Latin agrum<sup>√</sup>  
 Gothic {akr}<sup>√</sup>, OEng. [ʔæcer<sup>√</sup>] (> acre<sup>√</sup>),  
 German [ʔAcker<sup>√</sup>, etc. (cf. 1.Cb,e,Fa).

On the Semitic side,

Akkadian {eq-lam}<sup>√</sup> (acc. sing.)  
 Arabic حَقْلًا<sup>√</sup> {Haqlan} " " furnishes a fairly good match;  
 also Aramaic ܠܗܩܠ<sup>√</sup> {Həqæl} with no case-ending.<sup>164</sup>

We can even guess that the word moved from the "Fertile Crescent" to IE territory chiefly in the north, as the cultivation of cereals spread. The Semitic {l} would have become {r} in an Indo-Iranian language, where {l} is rare or lacking. That it is *r* in European languages too, seems explicable if they got it by way of an IE language of Asia with no [l].

The "emphatic" velar plosive {q} is, on the other hand, closer to the European velar plosive [g] (voiced) or [k] (voiceless) than to the Sanskrit affricate [j]. If the "emphatic" in the northern Semitic area was pronounced with glotalization, as it surely is in Geʿez {Haql}<sup>√</sup> (cf. 1.Db), that would fit well with the theory of Gamkrelidze and Hopper about the IE \**g* being in origin \**k*?. It

<sup>163</sup> Pokorny (*InEtWö*, I, 6), among others, derives this noun from a verb-root \**ag-*; but the actual meaning of the verb-root in various languages (see 2.Rb) is so broad and loose as to preclude either verification or refutation.

<sup>164</sup> The Aramaic, in Greek letters, occurs in a place-name ΑΚΕΛ|ΔΑΜΑ ΤΟΥΤ' ἔστιν χωρίον ῥαίματος<sup>√</sup> (Acts 1:19; in the Vulgate *Acel|dama hoc est Ager sanguinis*<sup>√</sup> 'field of blood'). — Cohen, *EsCo*, 77 (partly followed by Bomhard, *ToPrNo*, 261), called attention also to Berber words: "to[uareg] so[us] *akāl* 'terre, terrain, pays' ... so[us] *igar* 'champ', peut-être emprunt au latin.... Mot voyageur? Sumérien *agar* 'territoire irrigué'; partiel en i.e., par ex. latin *ager* 'champ'." See also Levin, *PrInEuThDe*, 114, 120-121, 127, 138.



would mean that a Semitic [kʷ] was taken into prehistoric IE with no immediate change and only later developed into [g].

The Akkadian vowel transcribed {e} is of uncertain phonetic quality, since the evidence for it in a long extinct language is very indirect. Also uncertain is whether the Semitic initial consonant — clearly recorded in Arabic and Aramaic — was lost in Akkadian or still pronounced but ignored by the syllabic script of Sumerian origin.

As in {toʷreʸ} 'bulls' (1.Ac5,h) and {təʷuʷmeʸ} 'twins' (1.Da), now again the Aramaic construct plural **ܬܪܬܝܢ**ʷ {Hæqleʸ} '(someone's) fields' is reminiscent of the Greek nominative plural **ἄγροί**ʷ and still more of the early Latin AGREIʷ.

**1.Ib.** Before we simply accept this etymology, or the part of it propounded so far, a Sumerian word {a-gâr}ʷ gives us pause. Is this the real source of the IE forms, leaving the Semitic {eq̄lam, Haqlan, Həq̄æl} irrelevant? Or less drastically, is the Semitic {Hql} root a reflex of the same etymon behind the Sumerian and the IE, but a divergent reflex? We scarcely have the means to decide. Akkadian, besides using the Sumerian {a-gâr/a-gâr/a-gara}ʷ as an ideogram, also has a word {u-ga-ru}ʷ 'farm-land', which Von Soden reasonably takes for a borrowing from Sumerian.<sup>165</sup> {Haql-} could then be the outcome of a much earlier borrowing from Sumerian; or perhaps Sumerian {agar} and Semitic {Haql-} were drawn independently from some quite unidentified source in the region.

Sumerian was the most ancient language of civilization, in the sense of being written down centuries before any other known to us; however, the early documents are meager. Besides, our access to the sounds is very indirect, and problematical in many details if not altogether. So we should not take the trans-

<sup>165</sup> He lists it as "**ugāru(m)**" (*AkHa*, 1402), but none of his citations appear to justify the long vowel. His "**(a-da-ar =) a-gâr = û-ga-ru/rû**" unexpectedly throws light on an anomaly in the Armenian word for 'field': {art}ᶜ "avec un *t* ∪ énigmatique"; A. Meillet, *Esquisse d'une grammaire comparée de l'arménien classique* (Vienne: PP. Mekhitharistes, 1936), 101. Both the Armenian {art} and the Sumerian {a-da-ar} seem to reflect still another form of the primeval etymon.

Gary Rendsburg adds to this etymology the name of the city {ᶜgrt}ʷ (written {u-ga-ri-it}ʷ in the Akkadian syllabary).

cription {a-gàr} as immediate evidence for a voiced velar plosive [g]. It may be premature to conclude from

Sem. {eqlam, Haqlan} : IE *agrum*, ἄγρον, {ájram}  
 {Hæqle<sup>y</sup>} : AGREI,<sup>166</sup> ἄγροί

that this word was definitely in the core of vocabulary carrying a common morphological heritage.

**1.Ic.** This word for 'field' is conspicuously absent from Hebrew, where its place is taken by חֵטֶף {šəḏé<sup>h</sup>}. Cognates of {šəḏé<sup>h</sup>} are recorded in Phoenician and Ugaritic — with only the first two consonants being written, according to their way of handling the alphabet. Further Semitic cognates are more questionable, in particular the Akkadian word for 'mountain' or 'steppe': {ša-du-um, ša-du-u}<sup>✓</sup>, etc. (nominative)

{ša-ad-wi-im, ša-du-ú-i, ša-di-im, ša-di-i}<sup>✓</sup>, etc. (genitive).<sup>167</sup>

A possible cognate in Slavic — e.g. Old Russian садъ {sadə}<sup>✓</sup><sup>168</sup> 'garden' — is attractive. On the phonetic side it is close to the Akkadian {šadû(m)}, as the {-ə} represents a prehistoric \*[u], and the vestigial Russian locative form в саду<sup>✓</sup> {v sadú} 'in the garden' preserves this vowel down to the present. The meaning 'garden' fits the Hebrew 'field' somewhat better than 'mountain, steppe'. This Slavic word has no likely IE relatives. The connection of it with Semitic may stand up, even without any further corroboration; however, it tells us little or nothing about morphology.

**1.Id.** The Hebrew חֵטֶף {Həcér} means 'an enclosure', usually a courtyard, occasionally an unwallled village (Lev. 25:31), never explicitly a field for growing a crop — although fruit-trees might be planted in it (Ps. 92:13-15). What it has in common with the IE is a little vague: the ground that a certain man or certain people have taken over for their sole use. The Sanskrit

<sup>166</sup> The Latin genitive singular *agrī*<sup>✓</sup>, which continues the AGRI<sup>✓</sup> of the early period, would also correspond to a pausal pronunciation [Haqlī]<sup>†</sup> in poetry of the Arabic gen. sing.

حَقْل<sup>✓</sup> {Haqlin} (1.Ac2).

<sup>167</sup> See W. H. Propp, "On Hebrew *šāde(h)*, 'highland'," *Vetus Testamentum*, 37 (1987), 230-233.

<sup>168</sup> Only after the great revolution of 1917 was the spelling modernized to сад<sup>✓</sup>, eliminating the vowel that had been silent for centuries (like the final -e in English). Even the reformed spelling does not show the devoicing of the final consonant [sat].

{ájra-}, found only in the Rigveda, is closest in meaning; it belongs to a PRE-AGRICULTURAL setting: flat land not covered with trees or scrub.<sup>169</sup>

The affricate {j} is fairly close in sound to the Hebrew צ {c} (1.Fg). Phoenician, being a dialect of the same language as Hebrew, is identical: 𐤆𐤊𐤏 {Hcr}, so far as the consonantal script shows. Ugaritic has {Hṣr}<sup>√</sup> and {HTr} (in {lHTrh}<sup>√</sup> 'for his court'), the middle consonant being the one normally cognate to the Arabic ح and ط respectively, if the decipherment of Ugaritic is right on these points. {HTr} suggests a possible relation to Sumerian {a-da-ar} and Armenian {art} (1.Ib, note 165).

However, given that in the recorded pronunciation of Geʿez the cognate to Hebrew צ is [tʰsʰ] or [sʰ] (Steiner, *AfSa*, 82-83), and that one or both of these pronunciations may well have been current in the northern Semitic languages of early antiquity, I would posit a simple phonetic change between the prehistoric IE source of 𐤆𐤊𐤏 and the much later attested Hebrew pronunciation of it with the affricate [-ts-]: Along the way, the prehistoric IE \*[-kʰ-] became assibilated or affricated, probably first to \*[-tsʰ-], then to \*[-sʰ-] in part but not all of the Hebrew territory; for both \*[sʰ] and [ts] could readily arise from \*[tsʰ] through simplification, but hardly [ts] from \*[sʰ]. Aside from the glottalic feature, this sort of change is amply documented in the history of certain languages; before a front-vowel the Latin [k] (written *c*) changed to [ts] throughout the western Romance territory, and subsequently to [s] in most of it (1.Ee).

This affrication of a plosive, as I diagnose it in the Semitic loan-word from prehistoric IE, need not be dissociated from the Indo-Iranian development that resulted in the Sanskrit {j}.

A rectangular shape can be posited for the {Həcér} in many Biblical passages. The Latin *ager*<sup>√</sup> too, being often a field measured out, was at least ideally rectangular, even if not so in practice most of the time. Our word *acre* (OE *æcer*), from the same etymon as *ager*, owes its present meaning — as a measure of ground — to a LASTING ASSOCIATION WITH RECTANGULARITY.

**1.Ie.** On the morphological side this etymology, if it can be sustained, has the advantage of two formations of the Hebrew construct plural, both with paral-

<sup>169</sup> Hermann Grassmann, *Wörterbuch zum Rig-Veda* (Leipzig: F. A. Brockhaus, 1873; repr. Wiesbaden: Otto Harrassowitz, 1964), 23.

rels to the IE nominative plural. One of them,

אָרַעִי<sup>√</sup> {Hac(ə)rē<sup>y</sup>} : Latin AGREI, Gr. ἄγροί,

is just like what we have already seen several times. But

אָרַעִי<sup>√</sup> {Hac(ə)rō<sup>w</sup>t} : Skt. अञ्जः<sup>√</sup> {ájrāḥ} is new.

I cite the Sanskrit from the {pada} text, the secondary one that analyzes each verse into its separate words. In the primary or {saṁhitā} text for recitation, the ending is inherently variable; but the word is rare in the corpus, and just one *sandhi* form is actually quotable: {ájrā}<sup>√</sup>. If it happened to be followed by a word beginning with {t-} or {t<sup>h</sup>-}, the ending would be {-ās}<sup>√</sup>, which is most like the Hebrew {-o(ʷ)t}<sup>√</sup>; hence {ájrās}<sup>†</sup> : {Hac(ə)rō<sup>w</sup>t}. The Indo-Europeanists have considered this Sanskrit ending {-ās} and the Old English -as in [?]acras<sup>√</sup> (> acres<sup>√</sup>) to reflect the proto-IE nominative plural of nouns, whereas the proto-IE source of the Greek -οι and Latin -EI (later -ī) was limited to pronouns. However, Sanskrit has it in nouns too, in certain cases other than the nominative; e.g. (*InEuSeLa*, 124-126)

the locative plural अञ्जेषु<sup>√</sup> {ájrēṣu} ((ē) = [ei]),

cf. Gr. ἄγροισι<sup>√</sup>, Lat. AGREIS<sup>√</sup>.

Aramaic has not only {Hæql|e<sup>y</sup>} for the construct plural (1.Ib)

but also the rarer {Hæql|ōt} in אֲרָעָם<sup>√</sup> 'their fields'.

The absolute plural that is the counterpart to {Hæql|ōt} is

אֲרָעָם<sup>√</sup> {Hæql|on} 'fields'. The latter ending is phonetically

like the Gr. gen. pl., as in ἄγρ|ῶν<sup>√</sup>; otherwise, however, the parallel seems slender and limited to word-order: Given a syntagma of just two words, Semitic requires the construct to come before the absolute, whereas IE may somewhat favor the nominative preceding its genitive modifier or adjunct (cf. 1.Ah).

1.If. The Latin and Umbrian nominative singular *ager*, with no case-ending, seems to correspond fairly well to Heb. {Hōcér} (absolute singular)

and the construct אָרַעִי<sup>√</sup> {Hācār} '(so-and-so's) enclosure'.<sup>170</sup>

The accent, to be sure, is obligatorily recessive in Latin [āg-]. However, the

<sup>170</sup> The Umbrian nominative plural would be \*AGRVR, cognate to Sanskrit {ájrās}

lack of an ending like the Greek -ος in ἁγρός<sup>∇</sup> (Sanskrit {-aḥ}<sup>∇</sup>) may be due to a development within the Italic group of IE;

for the earliest Latin has SAKROS<sup>∇</sup> 'holy' (or 'cursed'), where the classical form would be *sacer*<sup>∇</sup>; so *ager* too could well have

developed from an unrecorded \*ACROS,<sup>171</sup> nearly if not quite identical in pronunciation with the Greek ἁγρός.

The data regarding the presence or absence of the nominative ending differ in detail from one Italic language to another. We cannot rule out the possibility that *ager* went back to the earliest Italic, or developed in Umbrian before Latin; perhaps it coexisted with \**agros* for a time.

**1.Ig.** Apart from the semantic imprecision of this etymology — IE 'field' : Hebrew (and Ugaritic) 'enclosure, court' — we wonder how to account for the phonetic difference in the middle consonant particularly. Can the Hebrew {Hac(ə)-}, for example, be from an IE source \**Hagr-*, or something more like \**Hajr-* with an affricate as in Sanskrit? The latter becomes more plausible, in view of the plural ending in {Hac(ə)r|ó<sup>w</sup>t̥} : {áj<sup>r</sup>|ās}, than any alternative,<sup>172</sup> such as that {Həcér, Hăcár, Hac(ə)ró<sup>w</sup>t̥} in other Semitic languages have no relatives outside of Semitic or Afro-Asiatic, or that the only external link is to the Sumerian {agar}; for Sumerian has no such plural formation.

I conclude, then, that this Hebrew word was probably borrowed from a prehistoric IE language on the order of Sanskrit (or Avestan), whereas the Sanskrit {áj<sup>r</sup>am} (accusative) and its IE cognates — Latin *agrum*, Greek ἁγρόν — were borrowed earlier from a prehistoric Semitic language on the order of Akkadian or Arabic, the ones which show a cognate ending: {eq|am, Haql|an}.

**1.Ih.** Because of the phonetic gap between Sumerian {agar} and Akkadian {eq|am}, we can hardly look upon this as a straightforward borrowing by the Semitic population from the neighboring culture, which — along with

<sup>171</sup> At the time that K was still normally used in Latin for the voiceless plosive, the third letter of the alphabet — C (as yet without the differentiating stroke, G) — served as in Greek for the voiced sound.

<sup>172</sup> Möller, *VeInSeWö*, 2, is the great proponent of this IE-Semitic etymology (followed by Cuny, *InÉtCo*, 81-82, 140; Illich-Svitych, *DrInSeJaKo*, 4, 8), in contrast to Cohen and Bomhard, who are drawn to link *ager*, etc., with {Haql} (*haql* in their notation; **1.Ia**, note 164).

many other skills — was more advanced in farming. If there was some intermediate language, we are quite unable to identify it. But Akkadian has still another noun {ik-ka-ru-um}<sup>√</sup> ‘plowman, farmer, bailiff’ that sounds a little more like {agar} except for the doubling of the consonant {-kk-}.<sup>173</sup> {ik-karu(m)} translates the Sumerian word {en-ga-ar}, which actually occurs very often in the midst of the Akkadian texts. The scholars who have deciphered the cuneiform script feel certain that while the texts were pronounced entirely in Akkadian, the Akkadian scribes still adhered somewhat ideographically to the old, established Sumerian model: Rather than writing out their own language phonetically, whenever the words as written in Sumerian characters came to mind, they would write them so. Sometimes the Akkadian word itself has a nasal at the end of the first syllable {in-qa-ru(m)}<sup>√</sup>, which evinces Sumerian influence upon the sound of the word, not just upon the writing of it.

The same noun turns up in Hebrew as אֶקָרַר {ʔikkôr}. That it was borrowed, no doubt directly from Akkadian, seems obvious because the pattern

{C<sub>1</sub>iC<sub>2</sub>C<sub>2</sub>ʕC<sub>3</sub>} is no more normal in Hebrew than

{C<sub>1</sub>iC<sub>2</sub>C<sub>2</sub>aC<sub>3</sub>|u(m)} in Akkadian (Von Soden, *GrAkGr*, 61-62).

Arabic أَكَّارٌ {ʔakkār|u n} ‘plowman’ conforms precisely, if paradoxically, to the Akkadian pattern for occupations,

exemplified by {šarrāq|u m}<sup>√</sup> ‘thief’

(Hebrew גַּנָּב {gannāḇ}, cf. 2.Od, note 191).

So {ʔakkārūn} must have come into Arabic through borrowing; for the native pattern would have called rather for {C<sub>1</sub>āC<sub>2</sub>iC<sub>3</sub>|u n}, identical with the active participle, as in

سَارِقٌ {sāriq|u n} ‘thief’ = ‘one stealing’,

كَاتِبٌ {kātib|u n} ‘writer, scribe’.

The Arabic verb أَكَّرَ {ʔakara} ‘he (has) plowed, tilled’, which appears to be unparalleled in the other Semitic languages, must accordingly be DENOMINATIVE, formed within Arabic from the borrowed noun. Also

أَكَارَةٌ {ʔakarat|u n} ‘plowmen’, the “broken plural” of {ʔakkārūn},

is formed as if the singular were \*{ʔākīr|u n}

(cf. سَرَقَةٌ {saraqat|u n} ‘thieves’, كَتَبَةٌ {katabat|u n} ‘writers’).

<sup>173</sup> Spellings with {-qq-} or {-kq-} are also found; *AsDi*, VII, 49-53. — Cf *uīlicus* <sup>√</sup> in Latin.

The plural of the Akkadian noun is {iq-qa-ra-tum, ikqa-ra-tu<sub>4</sub>}<sup>√</sup>, which manifests a type of pluralization partially akin to the Arabic.<sup>174</sup>

Thus a noun of non-Semitic origin was gradually, but incompletely, adapted to the morphology of more than one Semitic language. Akkadian borrowed {ikkar-} or {iqqar-} 'plowman' probably later than {eq-l-} 'field', and not from the very same source or by the same route.

**1.J. IE (Skt.) {gárb<sup>h</sup>a m} : Sem. (Akk.) {qerbam} 'womb'**  
 (Arabic) {qalban} 'heart'

**1.Ja. My predecessors** — Möller (*VeInSeWö*, 91, 101), Cuny (*InÉtCo*, 113), Bomhard (*ToPrNo*, 246) — have inferred a Nostratic etymology behind the Sanskrit {gárb<sup>h</sup>a-} and its IE cognates. But it is J. P. Brown that has called to my notice the excellent structural match

Sanskrit ग र्भ म्<sup>√</sup> {gárb<sup>h</sup>a m} (accusative)

Arabic قَلْبٌ<sup>√</sup> {qalban} "

To be anatomically precise, the Sanskrit and the Arabic noun — both masculine — refer to two different organs, 'womb' and 'heart' respectively. But in spite of this actual and important divergence, either organ can easily be esteemed the inner part *par excellence* of the body, the one whose throb demands the most attention. So a looser sense 'the inside' may well be older than the specification that the Sanskrit and Arabic dictionaries list first. Anyhow 'womb' or 'heart' — taken strictly, literally — has never been the EXCLUSIVE meaning in any period of recorded history.

**1.Jb. Since {l} is infrequent in Sanskrit and {r} generally corresponds to the /l/ of other IE languages, the correspondence of {r} to the Arabic {l} in this word would pose no difficulty in and of itself. However, Akkadian has {qerb-} 'inside', which admits rarely of the meaning 'womb':**

{tiāmat ati nabnīt qer-bi-šú}<sup>√</sup> 'Tiāmat and the creatures of her womb (?)'. {qerbi-} is genitive.<sup>175</sup> The accusative {qerba} occurs occasionally: {qé-er-

<sup>174</sup> Von Soden, *GrAkGr*, 77-78: "Den Pl. auf -ātun bilden ferner sehr zahlreiche Substantive, die im Sg. keine Fem.-Endung haben.... 4) Bezeichnungen von einzeln arbeitenden Befruhen (z.B. *ikkārum* 'Landmann', Pl. *ikkārātum* ...)."

The plural, in some texts from Nuzi, refers to plow-oxen rather than men.

<sup>175</sup> *AsDi*, XIII, 227. The possessive {-šú} would normally be 'his'. {qerbī tum}<sup>√</sup> with a feminine suffix {-it} means 'womb' more often.

ba}√ ‘inside’, {qé-er<sub>4</sub>-ba-šu}√ ‘inside it’ (ibid., 222). But the construct {qereb}√, with no case-ending, is the one that prevails before either a noun or a possessive suffix.

If the corpus of early Akkadian (cf. **1.Bb**) — before the loss of the final consonant {-m} — were much larger, we might look for

an accusative singular {qerbam}† in the meaning ‘womb’,  
exactly like the Sanskrit {gárb<sup>h</sup>am}.

The Hebrew cognate is {qéreb}, mainly in combination with a preposition-

al prefix: בְּקֶרֶב√ {bəqéreb} ‘inside’,

מִקֶּרֶב√ {miqqéreb} ‘from inside’, or with the definite article:

הַקֶּרֶב√ {haqqéreb} ‘the inside (of a sacrificial beast)’.<sup>176</sup>

The Egyptian {q3b}√ means the same as the Hebrew. Although according to Cohen (*EsCo*, 126) no other branch of Afro-Asiatic shares in this etymology, it is of great importance for showing an extensive morphological parallel between Egyptian and Semitic in the possessive suffixes, plural as well as singular (Introduction, p. 8 and note 13). The Egyptian character transcribed {3} corresponds often to a Semitic {r}; but since Egyptian has no {l}, we would not rule out a correspondence of {q3b} to the Arabic {qalb-}. Indeed, Carleton Hodge considers {3} the Egyptian counterpart to Semitic {l}.

Arabic also has many words formed from the pan-Semitic root {QRB} ‘near’, which appears problematically related to the words for ‘inside’ that we have been considering, and perhaps also to {qalb-} ‘heart’. Given the phonetic similarity, the semantic gap between ‘near’ and ‘inside’, or even between ‘near’ and ‘heart’, is not insuperable; but it remains unsettled. The Semitic ‘near’ words, however interesting, do not bear directly upon our IE comparison.<sup>177</sup>

**1.Jc.** The Sanskrit {gárb<sup>h</sup>am} ‘womb’ and its Avestan equivalent {garəbəm}√ would neither set the Arabic {qalban} ‘heart’ ahead of the Akkadian {qerbam} ‘inside’ (rarely ‘womb’) as the likelier Semitic cognate, nor reject

<sup>176</sup> My comparison in *InEuSeLa* (339) of {qéreb} to Old Saxon *herta*√ ‘heart’ (Latin *cordis*√) involves more difficulties. I no longer champion it, but in the subsequent volume I mean to reconsider the phonological arguments pro and contras.

<sup>177</sup> Geʿez {qalb}√ ‘thought, wish’ is diagnosed as a borrowing from Arabic by Leslau, *CoDiGe*, 427.



{qalban} altogether, given the rarity of {l} in Sanskrit and its total absence from Avestan. However, the IE cognates (Pokorny, *InEtWö*, I, 473) — above all the Greek δολφόν<sup>†</sup> 'womb' — definitely favor {qalban}, at any rate on the phonetic side. This rare Greek word is attested in an unambiguous gloss of Hesychius:

δολφός<sup>·178</sup> ἡ μήτρα<sup>√</sup> 'the womb'; also the everyday Attic word ἄδελφός<sup>√</sup> (nominative), ἄδελφόν<sup>√</sup> (accusative) 'brother' is safely etymologized to have meant originally 'from the same womb'. The famous place-name Δελφοί<sup>√</sup>, a plural noun, must have been 'Wombs', perhaps from some topographical feature; the singular Δελφός<sup>√</sup>, Δελφόν<sup>√</sup> is found only in the sense of 'a Delphian', not 'a womb'.

The phonetic correspondence of δολφόν to {gárb<sup>h</sup>am} is perfect, except for the accent. The δ corresponding to {g} bespeaks a prehistoric IE labio-velar, which is confirmed by ΒΕΛΦΟΝ<sup>√</sup> instead of Δελφόν, and the like, in Boeotian dialect inscriptions. The Semitic {q} is exclusively velar, like the Indo-Iranian {g} — unless a cognate were to turn up somewhere in the Ethiopian branch of Semitic, where labio-velars have developed or rather (though few Semitists believe it) they have been preserved from remote antiquity (1.Ka,La).

Variation between {l} and {r} is not typical of Semitic,<sup>179</sup> as it is of certain languages within IE. I hesitate whether to take Arabic {qalban} : Akkadian {qerbam} for a vestige of such variation, lingering within early Semitic; for this is no clear-cut manifestation of the same word undergoing phonetic divergence. {qalban} and {qerbam} differ in meaning also; they may or may not go back ultimately to one etymon. If they do not, then one or the other would still have the IE cognates {gárb<sup>h</sup>am, garābām, dolp<sup>h</sup>ón}.

**1.K. Sem. (Geʿez)** {g<sup>w</sup>ärn} 'threshing floor' : IE (OEng.) cweorn 'quern'

**1.Ka.** Among the few words for artifacts that afford an IE-Semitic etymology, the one that means 'hand-mill' in northern European languages but mostly 'threshing floor' in Semitic is of particular importance because of the initial

<sup>178</sup> Exactly cognate to the Sanskrit nominative ग भ्रं<sup>√</sup> {gárb<sup>h</sup>ah} (apart from the accent);

also स ग भ्य<sup>√</sup> {sá|garb<sup>h</sup>yah} 'brother' : Homeric ἄδελφός<sup>√</sup>.

<sup>179</sup> Brockelmann, *GrVeGr*, I, 137, gives a couple of instances within Arabic, to which Gary Rendsburg has called my attention.

labio-velar consonant. Outside of Ethiopia, the Semitic languages are said to have no labio-velars; at least the evidence is negative, whether from the modern Arabic dialects,<sup>180</sup> or from the Hebrew, Aramaic, and classical Arabic script together with the oral traditions that have preserved the sounds of these ancient languages more or less accurately. Furthermore the decipherment of the still more ancient Akkadian and Ugaritic, while necessarily leaving many details of pronunciation uncertain, shows no labio-velar distinct from velar.<sup>181</sup>

So the leading Semitists, up to now, have been able to treat the Ethiopic labio-velars as a peculiar regional development, due to contact with neighboring non-Semitic languages — as though there were no Semitic (or proto-Semitic) labio-velars — in spite of Grimme's substantial arguments to the contrary.<sup>182</sup> But this one etymology, which he cited among many others, is enough to prove that the oldest of the attested Ethiopic languages has a labio-velar cognate not only to a plain velar in other Semitic languages — e.g.

Hebrew גִּרְיָן {gōren}<sup>183</sup> —

but also to the Germanic [k<sup>w</sup>]: Old English *cweorn*<sup>√</sup>, *cwyrn*<sup>√</sup>, etc.,  
 Old Norse *kvern*<sup>√</sup> (mod. Icel. *kvörn*<sup>√</sup>),  
 OHG *quirn*<sup>√</sup>.<sup>184</sup>

<sup>180</sup> Cohen, however, remarks, "il se rencontre quelquefois des labiovélares ... dans certains parlers arabes" (*EsCo*, 129). Examples in Hubert Grimme, "Theorie der ursemitischen labialisierten Gutturale," *ZeDeMoGe*, 55 (1901), 412-413.

<sup>181</sup> The term LABIO-VELAR, long established in the linguistic profession, is unfortunate in that it suggests the labial component comes first, the velar second — quite contrary to the phonetic facts.

<sup>182</sup> A typical statement in Edward Ullendorff, *The Semitic Languages of Ethiopia: A comparative phonology* (London: Taylor [1955]), 83: "Reinisch asserts that the labio-velars are 'ureigentümlich' to the Cushitic languages and that the Ethiopian Semites must have borrowed these sounds from Cushitic, because they do not exist in any other Semitic language. Therefore, the Ethiopians could only have adopted the labio-velars after their migration into Abyssinia."

<sup>183</sup> *ZeDeMoGe*, 55 (1901), 446. All of Grimme's long article was summarily dismissed by Brockelmann, *GrVeGr*, I, 124. An even briefer treatment of the Ethiopic labio-velars by Sabatino Moscati et al., *An Introduction to the Comparative Grammar of the Semitic Languages* (Wiesbaden: Otto Harrassowitz, 1964), 38.

Möller (*VeInSeWö*, 99-100) treated this IE-Semitic etymology somewhat diffusely. Cuny, however, nearly caught the importance of the labio-velar shared by Ethiopic and Germanic (*InÊtCo*, 116-117); also Illich-Svitych, *DrInSeJaKo*, 5, 9-10, and Dolgopolsky, *InEuHo*, 15-16. It was J. P. Brown that prompted me to work this out in detail.

<sup>184</sup> Recorded in Gothic only in the compound {asiluqairnus}<sup>√</sup>, translating λίθος μυλικός<sup>√</sup> 'millstone' (Mark 9:42).

The word in Geʿez, sparsely attested, varies between {gʷər̥n}<sup>√</sup>, {gorn}<sup>√</sup>, {gurn}<sup>√</sup>, and {gʷər̥nā}<sup>√</sup> (Leslau, *CoDiGe*, 203).<sup>185</sup> Leslau does not profess to list them in chronological order, which — if established — might be a valuable clue to the direction of phonetic change, whether [gʷ > g] or (less likely) [g > gʷ], or possibly a phonetic variation between [gʷ] and [g] throughout the history of the Geʿez language. The form given first by Leslau and transcribed gʷər̥n by him is the only one cited by other authorities (who render the same Geʿez characters variously).<sup>186</sup> It bears an uncanny resemblance to the modern English *quern*<sup>√</sup>, which survived at least into the nineteenth century in backward regions of Scotland and Ireland where the housewives still used hand-mills.<sup>187</sup> In rural Iceland the *kvörn* has lasted nearly if not quite to our time.

**1.Kb.** The modern Ethiopic languages are not reported to have this word. Some Cushitic languages have a cognate or derivative: Bilin *wārānā*<sup>√</sup> 'threshing floor', Khamir *wārna*<sup>√</sup> — which hardly supports the theory that the Geʿez [gʷ-], under Cushitic influence, developed from [g-], but rather that an original [gʷ-] was simplified in these Cushitic languages to [w-] but to [g-] sometimes in Geʿez.

Of the Semitic cognates of {gʷər̥n, gorn, gurn} the Hebrew {góren} is the earliest with documented vocalization. The Ugaritic {grn}<sup>√</sup>, recorded still earlier, agrees with it as far as the consonantal script can show.

While the Old English diphthong in [ʔ]e<sup>o</sup>rðe 'earth' corresponds to the Hebrew alternating vowel in {ʔé/ýrec} (**1.Ff**), *cweorn* corresponds to {góren} in a different way: The closed back-vowel {-o-} reflects the influence of a prehistoric

<sup>185</sup> The ordinary expression for 'threshing floor' or 'threshing field' is {ʿawda ʔəkl}<sup>√</sup> (literally 'grain circle'; Leslau, *CoDiGe*, 15, 77), which I find in all the Biblical passages that I have been able to check. The Geʿez version was not made directly from the Hebrew, which the Ethiopian Jews and Christians knew hardly at all; so the Hebrew cognate גרן was not in front of the translators to remind them of their word {gʷər̥n}.

<sup>186</sup> Leslau himself made it gʷər̥n in *Ethiopic and South Arabic Contributions to the Hebrew Lexicon* (University of California Publications in Semitic Philology, vol. 20, 1958), 15-16; gʷeren in Grimme's transcription.

<sup>187</sup> Also *quern* in Old Frisian and Old Saxon.

labial component accompanying the {g-} and corresponds to the Geʿez {-wə-}.

The Arabic جُرْنٌ <sup>جُرْنٌ</sup> {jurn|un}, in turn, is phonetically a quite regular cognate to {góren} and {gʷərən}; but the meaning in classical Arabic is not ‘threshing floor’, as in Hebrew and Geʿez, but “A hollowed stone [or stone basin] from which the [ablution termed] وَضُوْءٌ <sup>وَضُوْءٌ</sup> is performed”.<sup>188</sup> It is modern Arabic that exhibits the meaning “A stone mortar in which things are pounded” — i.e. something like a quern — and so confirms that this Semitic word goes back to the same etymon as the IE word whose proto-IE source is reconstructed by Pokorny as \*gʰr̥-nu- or \*gʰer̥nu- (*InEtWö*, 1, 476-477).<sup>189</sup> The match in meaning must be a prehistoric heritage, unless we posit that some later contact — around the seventh or eighth century of the Christian era, between a newly arrived Arabic population and (say) the Vandals in northwestern Africa or the Visigoths in Spain — could have given {jurn} (which is pronounced [ž-] in some dialects) the same meaning as {qairn-} had in Gothic.

**1.Kc.** From the distribution of the IE cognates of *cweorn*, *kvern*, etc., Porzig (*GlInSp*, 140-141) infers that this is the oldest IE word for ‘millstone’ or

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<sup>188</sup> Lane, *ArEnLe*, 414; the brackets are Lane’s, not mine. גֻּרְנָא <sup>גֻּרְנָא</sup> {gurn|oʔ} in Syriac (with what was originally the suffixed definite article) is similarly a basin; γούρνα <sup>γούρνα</sup> in Byzantine Greek is doubtless borrowed from some Aramaic dialect.

<sup>189</sup> The Akkadian {gurnu(m)} <sup>gurnu(m)</sup> (also {gunnu} <sup>gunnu</sup>) is defined as “adj[ective]; of average quality” by the *AsDi*, V, 139. None of the examples, however, show a feminine form, which a normal adjective would have (nor — for that matter — a plural form). Whatever its grammatical status, it contrasts with the Sumerian word for ‘fine’; and most often it comes after a Sumerian word for dates, oil, or beer. The meaning ‘average’ is also questionable: “i.GIŠ *gu-un-nu* ... ordinary oil (or: oil of inferior quality)”; and Benno Landsberger, whose handwritten *Materialen zum sumerischen Lexikon* (Rome: Pontificium Institutum Biblicum, 1937), 208-209, is referred to in this entry of the *AsDi*, glosses *gurnu*, *gunnu* once as “Bezeichnung minderwertiger [i.e. inferior] Sorten, ‘Lagerware’,” and a little further on as “Aus-schuß” (i.e. substandard, reject). My colleagues in the German department, Rosmarie Morewedge and Lawrence Wells, have given me precious help.

I suspect that this Akkadian word originally meant something like ‘(run of the) mill’ — though not in a genitive relation to the preceding noun. ‘Mill dates’ would then describe those fit only for pounding to a pulp or a paste, not for keeping whole until they are ready to be eaten. (Similarly nowadays, unsalable apples are crushed to make cider.) So {gurnu(m)}, a phonetically perfect cognate to the Arabic {jurnun}, indirectly supports the semantic interpretation that ‘mortar’ or ‘quern’ was the earliest meaning in Semitic, no less than in IE.

‘mill’. None of the cognates outside of Germanic has a labio-velar:

(1) The Lithuanian *gìrn*|a<sup>√</sup> ‘millstone’ and its plural *gìrn*|os<sup>√</sup> ‘hand-mill’ are closest to the phonetic simplification that we observed in Hebrew {górēn}, as well as two of the Geʿez forms {gorn, gurn}.

(2) The Sanskrit ग्रा ञ्मा<sup>√</sup> {grāv̥ ṇ |ā} (instrumental case; nominative ग्रा वा<sup>√</sup> {grāvā}), a millstone for pressing the Soma juice, has the same initial velar — the usual Indo-Iranian rendering of the IE labio-velar — but also what at least looks like a metathesis of the labial (fricativated to [v] according to our earliest information).

(3) The Slavic languages — e.g. Ukrainian жорно<sup>√</sup> {žórno|o} ‘millstone’ and its plural жорна<sup>√</sup> {žórno|a} ‘hand-mill’ — illustrate nearly the same phonetic relation to Lithuanian *gìrna* as Arabic {jurn} to Hebrew {górēn}. Indeed those Arabic dialects — notably in and around Syria — that have the sibilant sound [ž] for the *ج* instead of the affricate [jʃ]<sup>190</sup> come out with a pronunciation close to the Ukrainian genitive plural жорен<sup>√</sup> {žóren}.

(4) The Celtic languages of northeastern Europe have a different treatment of the IE labio-velar: Welsh *breuan*<sup>√</sup>, Old Irish *bráu*<sup>√</sup> or *bró*<sup>√</sup> (genitive *brón*<sup>√</sup>) ‘hand-mill’. The Welsh -u- is reminiscent of the Sanskrit {-v-}. The *b*- could be expected in Greek (as well as Oscan and Umbrian); but the word is unknown in the IE languages of the Mediterranean region, where the Greek μύλη<sup>√</sup> and the Latin *mola*<sup>√</sup> take its place.<sup>191</sup>

(5) The Armenian {erkan}<sup>√</sup> ‘millstone’ shows — as usual in this language — a more drastic divergence from the prehistoric form reconstructed on the basis of the other IE languages.

**1.Kd.** The geographical gap between {g<sup>w</sup>ər̥n} in Ethiopia and {górēn} in the northwestern Semitic region argues that the meaning they share — ‘threshing floor’ — goes back to prehistoric times, although probably not so far back as ‘hand-mill, quern’. Only in Egypt does the Arabic dialect share the meaning ‘threshing floor’ with Geʿez, Hebrew, and Ugaritic. It may be more than a co-

<sup>190</sup> Respectively [ʒ] and [dʒ] in the International Phonetic Alphabet.

<sup>191</sup> Old English *mylen*<sup>√</sup> (> *mill*<sup>√</sup>) and cognates in other Germanic languages are from the late Latin *molīna*<sup>√</sup>, originally formed as an adjective. See Pokorný, *InEtWö*, I, 716; Ernout – Meillet, *DiÉtLaLa*, s.v. *molō*.

incidence that only in that country is the Arabic ج pronounced [g] rather than [j] (or [ʒ]).<sup>192</sup>

The Arabic settlement in Egypt followed the death of Muḥammad and the Muslim conquest of lands beyond Arabia — much too late to explain how the meaning ‘threshing floor’ spread through Semitic territory from north to south, or from south to north. If anything, the Arabs — once they were in Egypt — may have picked up this meaning from a Semitic or other language spoken there, although that is not documented at all. The refugees who fled there from Judah around 600 B.C. (Jeremiah 43:2 ff.) brought the Hebrew language with them; but we have no indication that it survived for long. Jewish documents in Aramaic have turned up in Egypt from the Persian period (5th and 4th centuries B.C.); but this language, in turn, is not known to have survived the Hellenizing movement in Egypt under the rule of the Ptolemies. To be sure, a rural word stood a somewhat better chance of lingering in the vocabulary even of people who had otherwise gone over to Greek. The Aramaic cognate, admittedly, shows only the meaning ‘basin’ in the texts where it appears, dating from the Christian era (1.Kb, note 188). But the Jews who shifted from Hebrew to Aramaic could conceivably have carried over the Hebrew meaning of {gōren} ‘threshing floor’.

The circumstance that this meaning is not found in classical Arabic admits of a climatic explanation. Arabia proper, unlike Ethiopia to the south and the “Fertile Crescent” to the north, was (and is) unsuited to cereal agriculture, which would keep such a word in regular use. But classical Arabic has a related word of different vocalization, جَرِينٌ {jariˤn|un}, a place for drying dates.

**1.Ke.** The meaning ‘hand-mill’ or ‘millstone’, widespread in IE but much less in Semitic, was presumably older than ‘threshing floor’, which is limited to Semitic (and Cushitic). What links one to the other, however different, is — most obviously — the action of pounding the ripe grain. Also, a threshing floor — at least in early times — may have been an expanse of flat rock, some-

<sup>192</sup> F. Leemhuis, “Early Witness for a Fronted /g/ in Aramaic? The case of the Tell Fekher-ye inscription,” in *Scripta Signa Vocis: Studies ... presented to J. H. Hospers*, ed. by H. L. J. Vanstiphout et al. (Groningen: Egbert Forsten, 1986), 133-139, points to an ancient Aramaic dialect in which ܓ may have been articulated like the usual Arabic ج [j]. Gary Rendsburg has referred me to this article.

what reminiscent of a millstone though quite a bit larger. The distribution of the word reflects the advance of agriculture (cf. 1.Ia-b).

**1.Kf.** ‘Quern’ is feminine in all the old Germanic languages,<sup>193</sup> with or without a feminine ending. Old English has *cweorne*<sup>v</sup> besides *cweorn*. In Old Norse *kvern* the lack of a nominative ending *-r* (< \*-s) is indirect evidence of a prehistoric feminine ending (cf. 1.Fc). The Celtic forms are also feminine, although not containing a morpheme that carries gender with it. Lithuanian *gìrn|a* ‘millstone’ is explicitly feminine, and *gìrnōs* ‘quern’ is feminine plural.

Neuter gender prevails in the Slavic cognates. Ukrainian {žórno} ‘millstone’ is neuter singular, {žórna} ‘quern’ neuter plural. For Russian, to be sure, Vasmer (*RuEtWö*, s.v. “жѣрнов m. ‘Mühlstein’”) gives “жѣрна f. [singular] ‘Handmühle’”; but I have not found confirmation of this Russian feminine noun anywhere. The Sanskrit {grāvā} is masculine; in this language feminine gender is relatively sparse. Armenian is untypical of IE in being without gender.

The Semitic languages agree, at least on a typological plane, with Baltic and Celtic in distinguishing feminine from masculine gender in nouns syntactically and to a large extent morphologically, but being without any neuter nouns. Feminine gender, in a noun that does not denote a naturally female being, becomes an important support to an IE-Semitic etymology (1.Fa-c). Now the Syriac {gurnoʾ} is “generally fem[inine]” (Payne Smith, *CoSyDi*, 66). Hebrew dictionaries disagree about גִּרְנָה; for although it occurs thirty-two times in the Bible, the gender comes out only in one disputed passage:

בַּת־בֹּבֶל כָּגֹרֶן עֵת הַדְּרִיכָהָ<sup>v</sup> {bat-bōḇēl kəgōrēn ʕēt hidriʕkōśh} (Jer. 51:33). The {-śh} suffix ‘her’ of the last word refers either to גִּרְנָה ‘threshing floor’ — ‘Babylon’s daughter [is] like a threshing-floor [at] the time one has trodden her/it’ — or (less probably) to בַּת ‘daughter’ — ‘Babylon’s daughter [is] like a threshing-floor; [it is] time to tread her’. Feminine gender is well established in post-Biblical Hebrew — e.g. גִּרְנָה עֲגוּלָה<sup>v</sup> {gōʷrēn ʕāḡuʷlloʰ} ‘a round threshing floor’ (Sanhedrin 4.3).<sup>194</sup>

<sup>193</sup> Neuter, of course, in Middle and Modern English since the loss of grammatical gender.

<sup>194</sup> Certain other passages exhibit masculine agreement, as listed by Chayim Yehoshua Kasovsky in אוצר לשון המשנה (*Thesaurus Mishnae*), I (Jerusalem: Massadah Pub-

The Geʿez form {gʷər̥n|ā} has a feminine marker. Whether or not the other Geʿez forms, without {-ā}, manifest feminine gender in their agreements — with adjectives (like the Hebrew {gōʷr̥en ʕāḡuʷll|ʕḥ}), pronouns, and verbs — does not come out in Leslau (1.Ka and note 186). My own access to Geʿez is very limited; but I note August Dillmann’s statement that most nouns, with or without a feminine ending, can be used as either masculine or feminine,<sup>195</sup> and that the wavering is especially prominent in the EARLIER manuscripts — so it cannot be discounted as a recent deterioration of learning in the Ethiopian church.

**1.Kg.** The closest morphological parallel is in the accusative singular, between Arabic جُرْبًا {jurn|an} and Lithuanian gīrn|q̣ (the subscript indicating nasalization of the vowel). The difference in the Lithuanian nominative between -as (masc.) and -a (fem.) is neutralized in the accusative -q̣.

The Hebrew plural ending — {gʷr̥n|óʷt̥} in תְּרִיבִּיּוֹתֵי ‘the threshing floors’ (absolute) and especially תְּרִיבִּיּוֹתֵי {gʷr̥(ə)n|óʷt̥} (construct) — is reminiscent of the Lithuanian nominative plural gīrn|ōs. The resemblance to the Icelandic plural *kvarn|ar*̆, *kvarn|ir*̆ is less obvious but still valid; for -r regularly corresponds to the -s of many IE languages, including Gothic (though \*{qairnyus} is undocumented). The Hebrew plural {-óʷt̥} is usually associated with feminine gender in nouns (and invariably in adjectives). If we had none of the syntactical evidence about the gender of the singular noun {gōr̥en} that I have referred to in 1.Kf, the formation of its plural with {-óʷt̥} would still support an argument that this noun is probably feminine.

**1.Kh.** Offhand, we might have guessed that something so functional as a quern or a threshing floor would be a VERBAL noun. The other IE noun for ‘hand-mill’ (1.Kc) is indeed related to a verb-root, exemplified by

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lishing Co., 1956), 462; but in each instance it is feminine according to the best of the pointed codices — see Georg Beer (ed.), *Faksimile-Ausgabe des Mischnacodex Kaufmann A 50* (The Hague: Nijhoff, 1929; repr. Jerusalem [1968]).

<sup>195</sup> “Weitaus die meisten Nennwörter, mögen sie weibliche Endungen haben oder nicht, können sowohl männlich als weiblich gebraucht werden”; *Grammatik der äthiopischen Sprache*, 2d ed. (Leipzig: Hermann Tauchnitz, 1899; repr. Graz: Akademische Druck, 1959), 253.



Latin *molit*<sup>✓</sup> ‘he/she grinds’

Hittite {mallanzi}<sup>✓</sup> ‘they grind’

Sanskrit मृ ण <sup>✓</sup> {mṛṇa} ‘crush’ (imperative singular) —

the verbal forms from this root being more widespread than the nominal forms (Pokorny, *InEtWö*, I, 716-717). But our triconsonantal noun, whose IE-Semitic connection shows up so unmistakably in the Germanic [kʷ-rn] and the Geʿez {gʷ-rɲ}, has no verbal counterpart, not even a biconsonantal one.<sup>196</sup>

Nothing within Semitic is extant that could, with any likelihood, have served as a base to form this noun.<sup>197</sup> But the joint Semitic-IE etymology

<sup>196</sup> Möller (*VeInSeWö*, 99) cited what amounts to a biconsonantal correspondence between verb-roots: “sansk.... *ḡṛjati* [जी र्य ति {jīryati}] ‘wird morsch’ [i.e. becomes rotten]....

arab. *ḡaraṣa* [جَرَسَ] ‘fricuit, he ground (salt, grain) coarsely, not finely’....” The shared meaning, however, is pretty vague.

The Hittite verb {mall-} has a possible cognate in the Hebrew verb מָלַחַי {mal-lōʿṭiʾ} ‘I (have) rubbed’. It is attested, post-Biblically, in the active participle

מְלִילֹת <sup>✓</sup> {hammoʷlel mālilōʷṭi} ‘the one rubbing ripe [ears of wheat]’ (Maaseroth 4.5). The object, translated ‘ripe’, has the structure of a passive verbal adjective ‘rubbed’, formed from the same verb-root. Since מְלִילֹת occurs already in Deut. 23:26, we may detect some influence of Hittite or a neighboring IE language upon the Semites of the country, as they reaped a crop from the field. See also Möller, 165; Pokorny, I, 716-717, 735-736; Illich-Svitych, *MaSrSl*, 359.

<sup>197</sup> Gamkrelidze – Ivanov (*InJa*, II, 873-874) declare to the contrary: Заимствование из семитского в индоевропейский, а не наоборот, можно установить ввиду мотивированности основы в семитском, где имеется и глагольная форма наряду с именной ‘Borrowing from Semitic into Indo-European, not the opposite, can be established in view of the motivation for a basis in Semitic, where there is also a verbal form on a par with the nominal.’ That is an overstatement, although Arabic has indeed an evident triconsonantal verb-root جَرَنَ <sup>✓</sup> {jarana}, one meaning of which is “He ground grain ... vehemently” (Lane, *ArEn Le*, 414). It lacks verbal cognates in Semitic while the triconsonantal noun {jurn|un} has nominal cognates in Geʿez, Hebrew, Ugaritic, Aramaic, and possibly Akkadian. So {jarana} is better treated as a denominative verb than {jurn|un} as a verbal noun. The meaning ‘he ground’ is attributed to “the dial[ect] of Hudhey!”, whereas the related meaning of the noun “A stone mortar in which things are pounded” is qualified “In the present day” (cf. 1.Kb). The usual meaning of {jarana} is “He became accustomed, habituated, or inured, to a thing or an affair,” which seems a mere homophone of {jarana} ‘he (has) ground’. However, I

encourages us to analyze the [-n] as a morpheme, the one we discerned in the Semitic and Germanic words {qšren} : *horn*

{ʔózen} : [ʔ]oren ‘ear’

{ʔáyin} : [ʔ]e(a)gan ‘eye’ (1.Ca),

which have in common the classificatory meaning ‘paired’. This certainly fits the Lithuanian *gìrna* and Ukrainian {žórno} ‘millstone’ — i.e. a paired stone; for a quern would consist essentially of an upper and a lower stone. These languages use the PLURAL form to signify a hand-mill or quern, whereas the Germanic languages use the singular; but the pairing is in the physical thing itself either way, and so the -n is at least vestigially a classifier.

The Vedas, which are older than any other IE texts referring to a stone or stones used to crush something, mention only a ritual rather than a practical need — the Soma juice, not grain or other food. This may well reflect the biased interest of the early Sanskrit corpus; but at any rate the DUAL forms ग्रा वा णा √ {grāvāṇā}, ग्रा वा णौ √ {grāvāṇāu} (both nominative/accusative) evince a familiarity with the use of two stones — whether or not they were already being used upon grain.<sup>198</sup>

**1.Ki.** Pokorny and other Indo-Europeanists have derived this Sanskrit noun from the adjective गुरु √ {gurú} ‘heavy’, which is much more plausible than any alternative. From the Greek cognate βαρύ √ (besides the Latin *grau*|e √) it appears that the first {-u-} in {gurú} reflects the labial component in the prehistoric \*g<sup>w</sup>.<sup>199</sup> The second {-u} is clearly a morpheme; for it forms adjectives from roots (cf. **2.Jb**).

The Celtic word for ‘quern’ (**1.Kc**) —

Welsh *breuan*, Old Irish *bráu*, *bró* —

shows something cognate to the {-v-} in the Sanskrit noun {grāvā},  
and so to the second {-u} of the Sanskrit adjective {gurú},

sense some semantic connection between ‘he got used to’ (as I would venture to reword Lane’s gloss) and the Akkadian {gurnu(m)} ‘average’ = ‘routine’ (**1.Kb**, note 189).

I cannot accept Gamkrelidze – Ivanov’s argument that this noun was an IE borrowing from Semitic. If anything, the opposite is likelier, in light of **1.Ki**.

<sup>198</sup> J. P. Brown has called my attention to the explicitly dual ending of a quite different Hebrew word for ‘hand-mill’, מִלּוֹחַ √ {reḥ|áyim}.

<sup>199</sup> These are neuter singular nominative/accusative. Any other gender, number, or case requires one or more supplementary morphemes.

notwithstanding the geographical gap between India and westernmost Europe. But in the Semitic, Germanic, Baltic, and Slavic forms of the noun that we have cited, no labial consonant or vowel comes after the *-r-* and before the *-n*; and I see no need to posit that such a labial sound had been there during the IE prehistory of these languages. If anything, the opposite is likelier, in light of the next paragraph.

Now if this labial between *-r-* and *-n* were missing only in the Semitic cognates {gʷərn, góren}, etc., we could attribute it to the Semitic proclivity for triconsonantal structure in nouns (cf. 1.Cc). That such a tendency also affected some branches — at least — of IE, is a surprising thought, which deserves further investigation. The neat structural correspondence between Semitic and a central part of IE, while an eastern and a western branch of IE share a somewhat different, more complex structure, suggests that \*Cʷ-r(-)n(-) developed within the central IE region — probably while in contact with Semitic.

**1.L. Sem. (Geʿez) {ʿəḡʷl} ‘young animal’ : IE (Latin) agnum ‘lamb’**

(Heb.) {kiš(ə)ḇōṭ} :

(OHG) kilbur ‘ewe-lambs’

(Arabic) {jadyan} :

(Latin) haedum ‘kid’

**1.La.** To prove that the labio-velar correspondence between Geʿez {gʷərn} and Old English *cweorn*, etc., is no fluke but a priceless etymology, another word turns up in the same Ethiopic language with IE cognates that require a prehistoric IE labio-velar. {ʿəḡʷl, ʿəḡʷal, ʿəḡʷl}√ (Leslau, *CoDiGe*, 11) means ‘a young animal or fowl’.<sup>200</sup> In the modern Ethiopic language Tigre the labio-velar is simplified and the meaning specialized: {ʿəḡal}√ ‘calf’; likewise, except for the initial consonant, in most of the Semitic languages of Asia:

Arabic عَجَلًا√ {ʿijl|an} (accusative)

Phoenician עגל√ {ʿgl} (so in Ugaritic too)

Hebrew עֵגֶל√ {ʿéḡel}

(translated עֵגֶל√ {ʿeḡæl} in the Aramaic Targum).<sup>201</sup>

<sup>200</sup> This etymology is due to J. P. Brown, drawing upon Gamkrelidze – Ivanov, *InJa*, II, 872 (who leave out the Geʿez form, even while citing Illich-Svitych, *DrInSeJaKo*, 4, 11, but not 9-10), and upon Bomhard, *ToPrNo*, 263 (who includes the Geʿez with the labio-velar but is weak on the IE side). I have worked out the essential details.

<sup>201</sup> Presumably עֵגֶל√ {ʿéḡel} in Biblical Aramaic, just like Hebrew. In Aramaic inscriptions עגלא√ {ʿglʔ} ‘the calf’, with suffixed article.

However, in the Hebrew expression בֶּן־בְּקָרָה<sup>√</sup> {ṣēḡel ben-bəqār} (Lev. 9:2), the supplementary phrase 'son of [cattle] herd' implies that {ṣēḡel} by itself was not necessarily — or at least not originally — limited to the large species.

No recorded IE language shows a labio-velar in the word for 'lamb'; but the Indo-Europeanists, without any attention to Semitic, have long since postulated a prehistoric labio-velar on the basis of

	the velar in Church Slavonic	арѡ <sup>√</sup> {agně} (accusative)
	Latin	<i>agnum</i> <sup>√</sup> "
and	the labial in Greek	ἄμνόν <sup>√</sup> "
	Latin diminutive	<i>auillus</i> <sup>√</sup> (nominative), <sup>202</sup>

besides Celtic and Germanic forms that preserve neither the velar nor the labial component (Pokorny, *InEtWö*, I, 9). Particularly impressive is the Latin *-gn-* next to the Greek {-mn-}; as the words correspond so neatly, aside from the second letter — nominative *agnus*<sup>√</sup> : ἄμνός<sup>√</sup> — the labial {m} would be unaccountable without something like \*g<sup>w</sup> in the background.<sup>203</sup>

**1.Lb.** One prehistoric IE labio-velar was reflected by the Germanic [k<sup>w</sup>] as in Old English *cweorn*; but in the IE word for 'lamb' the Germanic evidence shows that it must have been a different IE labio-velar:

the Old English verb *eanian*<sup>√</sup> 'to bear young, to lamb'<sup>204</sup> —  
unlike *cweorn*

— has neither a velar nor a labial sound before the *-n-*. From the two Geʕez

<sup>202</sup> Attested only by the lexicographer Paulus Diaconus with the gloss *agnus recentis partus* 'a new-born lamb' (p. 14 M.).

<sup>203</sup> The labial comes out nasalized in Greek, instead of plosive, through partial assimilation to the ensuing [n]. In Latin too we have good though indirect evidence that *-gn-* was pronounced [-ɲn-], the velar voiced plosive becoming a velar nasal.

<sup>204</sup> If *eanian* were defined, for us, only by the Latin which it glosses: *eniti*, *parturire* (i.e. to give birth), that would not limit the verb to one species of animal. But the participle *eanigendum*<sup>√</sup> 'lambing' (dative pl.) definitely occurs in the context of 'flocks of sheep' (*eowedum sceapa*<sup>√</sup>, Ps. 77[78].70). Besides, the noun *ene*<sup>√</sup>, found only in Middle English, is clearly just a synonym for *lomb*<sup>√</sup> 'lamb' (Is. 40:11 in Wyclif's translation). The verb *ean*<sup>√</sup> '(to) lamb' is not quite obsolete, but in recent centuries has mainly given way to *yeam*<sup>√</sup> with the prefix *y-*. The latter verb has occasionally had goats for its subject, instead of ewes.

words {ʕəgʷl, gʷərn} and their Semitic cognates we would have no inkling of different labio-velars.

The third Semitic consonant {l} in Geʿez {ʕəgʷl}, Arabic {ʕijl|an}, etc., does not differ greatly from the *n* of the IE languages.<sup>205</sup> Many languages, after all, show examples of these two consonants alternating (see **2.Ne-g**, besides Gamkrelidze – Ivanov, *InJa*, II, 562, 872).<sup>206</sup>

The unwritten glottal stop at the beginning of Old English [ʔ]eanian, though not manifested in any alliterative verse, can be safely posited from the phonology of this and other Germanic languages (**1.Cb,e,Fa,Ia**). This weak consonant, not paralleled in *agnus*, *auillus* and ἄμνος, recurs in Geʿez {ʕəgʷl}, where — however — it varies with the more forcefully articulated {ʕ-}. The Semitic cognates have only the latter.

**1.Lc.** The most exact morphological correspondence is between the Arabic accusative singular in {-an} and the Greek in -όν, aside from the accent. Also the Latin nominative plural *agnī*↓, earlier AGNEI† (Greek ἄμνοί↓) recalls

the Hebrew construct plural עֲגֵלִים↓ {ʕəgléʸ} (cf. **1.Ac,h,Da**;

Aramaic עֲגֵלִי↓ {ʕəgleʸ} in the Targum).<sup>207</sup>

Furthermore, since ewes often bear twins, Greek should have the dual forms

ἄμνω† (nom./acc.),

ἄμνοιν† (gen./dat.),

parallel to Arabic

عَجَلَا § {ʕijlā} (nom. construct), عَجَلَيْن § {ʕijlain} (gen. absolute pausal).

The Hebrew dual absolute occurs in a place-name

עֵיִן עֲגָלַיִם {ʕéʸn ʕəgláyim} ‘Two Calves’ Spring’

<sup>205</sup> The first *l* instead of *n* in Latin *auil|us* does not count for much, because the ensuing *l* of the diminutive suffix would doubtless have sufficed to assimilate a prehistoric \**n* at the end of the base (see Levin, *PrInEuThDe*, 113, note 8).

<sup>206</sup> The Egyptian {ʕgny}↓, followed by a COW determinative, is glossed by Erman – Grapow, *WöAeSp*, I, 236: “Name einer Stadt bei Esneh (wo die Hathor als Kuh verehrt wird).” Granted that Egyptian has no letter transcribed {l}, the similarity to the Latin *agn-* is still impressive. However, we would like some other evidence to corroborate a meaning ‘heifer’ (or the like) for the Egyptian root {ʕgn}.

<sup>207</sup> The Latin genitive singular *agnī*↓ would correspond to the Arabic [ʕijlī]†, a pausal pronunciation of عَجَلٍ↓ {ʕijlin} used only in poetry (**1.Ac2**; Levin, *PrInEuThDe*, 113, 120, 125-29, 140).

(Ezek. 47:10).<sup>208</sup> Although the ending {-áyim} does not, in Hebrew, carry any restriction to the genitive case, this construction would indeed call for the genitive {-ayn} in Arabic, -οι(ι)ν in Greek.

**1.Ld.** The feminine derivatives, Latin *agna*<sup>√</sup> and Greek ἄμνη<sup>√</sup>,<sup>209</sup> cor-

respond to the Hebrew עֵגְלָה<sup>√</sup> {ʕēglā<sup>h</sup>} about as well, phonetically and morphology, as they do to each other — although they mean ‘ewe-lamb’ whereas the Hebrew means ‘she-calf’ or ‘heifer’, the same semantic divergence as in the masculine. In Greek the “second declension” forms ἄμνος, ἄμνόν, etc., sometimes have feminine agreement instead of masculine, and thus can refer to a ewe-lamb. So too in early Latin (though never in the classical period), *haec agnus*<sup>√</sup> ‘this ewe-lamb’.<sup>210</sup> This raises the question whether the nominative singular ending -ος can be cognate to the Hebrew feminine construct, exemplified by

שֶׁעֵגְלָתָּהּ בְּקָרֶךָ<sup>√</sup> {ʕēglā|át bəqór} ‘she-calf of [the] herd’<sup>211</sup>

(in Aramaic עֵגְלַת תּוֹרִין<sup>√</sup> {ʕægl|æt to<sup>w</sup>ri<sup>n</sup>}, Deut. 21:3).

The Hebrew {-cāl-} before a possessive suffix — {ʕēglōtī<sup>y</sup>} in בְּעֵגְלָתִי<sup>√</sup> ‘in/with my she-calf/heifer’ (Judges 14:18) — is closest in sound to -ος (cf. **1.Gd**). {ʕēglōtī<sup>y</sup>} ‘my she-calf’ would correspond to the noun in

ἡ ἄμνος ἡ ἔμνη<sup>†</sup> ‘my ewe-lamb’.

In view of the recurrent morphological parallel between the Greek (and IE) nominative and the Semitic construct,

plural Greek -οι (Latin -ei) : Hebrew, Aramaic {-e<sup>y</sup>}

dual -ω : Arabic {-ā} (nominative)

singular -ος : Hebrew, Aramaic {-āt},

Akkadian {-at} (regardless of case),

<sup>208</sup> Cf. the Homeric form ἄμν|οῖν<sup>†</sup>. However, ἵπποισιν<sup>√</sup> ‘horses’ and ἡμιόνοισιν<sup>√</sup> ‘mules’ are the only animals mentioned in the *Iliad* and the *Odyssey* with this dual ending (*IeEuSeLa*, 94-98). — {ʕe<sup>n</sup>} is the construct form of {ʕā/syīn} (**1.Ce,h**); the word for ‘eye’ serves also for ‘spring’.

<sup>209</sup> AMNE<sup>√</sup> in the old Attic alphabet. In Doric inscriptions AMNA<sup>√</sup> (= ἄμνᾱ).

<sup>210</sup> In the accusative case, both *agnum marem*<sup>√</sup> ‘a male lamb’ and *agnum fēminam*<sup>√</sup> ‘a female lamb’.

<sup>211</sup> As with the masc. {ʕēgl ben-bəqór} (**1.La**), the additional word to designate the herd of cattle — not the flock of sheep and goats — implies that {ʕēglāt} was not originally restricted to this species but might have been applied to a she-lamb, like ἄμνος or ἄμνη.

we may theorize that in the prehistoric age of an INCIPIENT inflectional system of nouns, partly shared by IE and Semitic, the syntax of simple sentences favored an INITIAL POSITION for the subject, or at any rate disfavored a final position for it, and put the possessor AFTER the thing possessed. Furthermore, GENDER was developing around the same time — the distinction of feminine from masculine in Semitic, and of both feminine and neuter from masculine in IE; so some morphemes were adapted similarly in the two groups of languages, other morphemes differently.

**1.Le.** The Hebrew feminine ending {-<sup>h</sup>} is shared by Aramaic, although not attested in this particular word. Feminine nouns in Ugaritic, however (and adjectives too), have only {-t} for the absolute no less than for the construct: {ʕglt}√ (likewise Phoenician ʕגלת†). In Geʿez the derived feminine is {ʕəgʷalt}√ (or {ʕəgʷəlt}√) for the absolute state; {-a} is added to form the construct.<sup>212</sup> Classical Arabic is intermediate, written with the letter ʾ (-h) but marked ʾ to be pronounced as though it were ت {t} except in a pausal position:

nominative	عَجَلَةٌ√ {ʕijlatun},	pausal pronunciation	[ʕijlah]
genitive	عَجَلَةٍ√ {ʕijlatin}	"	"
accusative	عَجَلَةً√ {ʕijlatan}	"	"

The Arabic construct — nominative عَجَلَةٌ√ {ʕijlatu}, genitive عَجَلَةٍ√ {ʕijlati}, accusative عَجَلَةً√ {ʕijlata} — cannot occur in a pausal position and always keeps the [-t-], as the Hebrew (or Aramaic) construct is always {ʕəglát}.

Both types of Semitic feminine ending have an IE parallel; but only for the former type — Hebrew and Aramaic {-<sup>h</sup>}, Arabic [-ah] — is the IE parallel unequivocally feminine, exemplified by the Greek -ή (-ḗ outside of Ionic and Attic). The other type — Hebrew and Aramaic {-at}, Arabic and Akkadian {-at-}, Geʿez {-t(-)} — is represented in IE by [-os] in Greek and the ear-

<sup>212</sup> The meaning, however, of the feminine is ‘calf, heifer’ (Leslau, *CoDiGe*, 11), whereas the masc. is ‘the young of any animal or fowl’ or even a human child (cf. 1.La). From ‘calf’ in Leslau’s gloss I wonder whether the feminine FORM may sometimes be applied even to a male calf (cf. 1.Kf, note 195).

The Agaw and Bilin word *gūal*√ ‘heifer’ (Cohen, *EsCo*, 86) is probably a borrowing by these Cushitic languages from Geʿez or another Semitic language of Ethiopia.

liest Latin, where it is compatible with feminine gender under special conditions, but more usually associated with the masculine or — as we are about to see — with the neuter.

**1.Lf.** The Hebrew word for 'lamb' is  $\text{שֶׁבֶט}^{\vee}$  {kéṣēš}  
or  $\text{כֶּשֶׁב}^{\vee}$  {kéṣēḇ} (much less often, and  
only in the Pentateuch).

The former, but not the latter, has clear Semitic cognates:

Akkadian {kab-su}<sup>√</sup> (nominative),<sup>213</sup>

post-Biblical Syriac  $\text{כܒܫܐ}^{\vee}$  {k-ḇšš<sup>ʿ</sup>} (uncertain vowel in  
the first syllable),

Arabic  $\text{كَبْش}^{\vee}$  {kabšun} (nom.) — which  
means, however, 'ram' rather than 'lamb'.

Both Hebrew forms are masculine, and both have a feminine derivative for 'ewe-lamb':

absolute  $\text{כִּבְשָׁה}^{\vee}$  {kiḇšāḥ}  $\text{כֶּשֶׁבָה}^{\vee}$  {kiṣḇāḥ}<sup>214</sup>

or {kaḇššāḥ} in  $\text{וְכִבְשָׁה}^{\vee}$  'and a ewe-lamb'

construct  $\text{כִּבְשָׁת}^{\vee}$  {kiḇšāt}  $\text{כֶּשֶׁבַת}^{\vee}$  {kiṣbat}.

The former, again, has a Semitic cognate, though only in Akkadian and specifically in the Assyrian dialect: {kab-su-tú}<sup>√</sup>, meagerly attested and with {-utu} instead of the expected {-atu}.

Surprisingly, it is the  $\text{כֶּשֶׁב}^{\vee}$  (כ/ח) rather than the  $\text{כֶּשֶׁב}^{\vee}$  (כ/ח) type that has IE, in particular Germanic, cognates. The Germanic neuter noun, exemplified by Old English *cealf*<sup>√</sup>, *cælf*<sup>√</sup>, *celf*<sup>√</sup>, *calf*<sup>√</sup> (as in modern English), stands for a different species of young animal. But Old English *cilfor*|*lamb*<sup>√</sup> 'ewe-

<sup>213</sup> In a late Assyrian text (in any other dialect of Akkadian we would expect {š}). Gary Rendsburg suggests that this {kabsu} — with {s} — was borrowed from Aramaic, and that the later Aramaic (Syriac) form with {š} was borrowed in turn from Arabic. In Biblical Aramaic, however, a quite different word is used:  $\text{אִמְרֵי}^{\vee}$  {ʾimmər|ʾiṇ} 'lambs' (the singular  $\text{אִמְר}^{\vee}$  {ʾimmær} is found in the Aramaic of the Targum). We would be hard put to guess what might have motivated a dialectally odd diffusion of a particular word for 'lamb' from one Semitic language to another. Granted that lambs were doubtless traded at times for something else, yet among the Semites generally this species of tame animal was surely a very basic part of the economy, rather than a specialty of certain dialect areas.

<sup>214</sup> Only in Lev. 5:6.



*lamb*' contains a segment-for-segment counterpart to {kišbaṭ},<sup>215</sup> provided we can account for the apparent discrepancy between *l* and {š}. Moreover, the Old High German plural *kilbur*<sup>216</sup> 'ewe-lambs' is still closer to the Hebrew construct plural  $\text{כִּשְׁבֹּטִים}$  {kiš(ə)ḇōṭ}<sup>217</sup> '(so-and-so's) ewe-lambs'. The Germanic *r* is the normal treatment (apart from Gothic) of an IE \*s in this and certain other environments that entailed voicing: \*s > \*z > *r*.

**1.Lg.** The odd sound of the letter  $\text{ש}$  in a considerable minority of Hebrew words has ended up as [s] in all Jewish pronunciations of Hebrew, and the punctators of the Bible in medieval Tiberias marked it  $\text{ש}$  in contradistinction to  $\text{שׁ}$  [š].<sup>218</sup> But what the sound was in antiquity, before merging with  $\text{ס}$ , is problematical. Richard Steiner has shown evidence for a consonant in between the lateral [l] and the sibilant (or fricative) [s].<sup>219</sup> This is clearest in a Greek

<sup>215</sup> I write this unattested construct form without an accent, because a Hebrew construct form either comes with no accent or (more often, if it is disyllabic) gets a sentence accent dependent upon the phonetic structure of the ensuing word, but its own phonetic structure — and in particular its vocalization — is based on being unaccented.

<sup>216</sup> In a gloss "Agne owi † [= uel 'or'] *kilbur* / Agni lembir"; Elias Steinmeyer and Eduard Sievers, *Die althochdeutschen Glossen*, III (Berlin: Weidmann, 1895; repr. 1969), 451. The OHG singular fluctuates: *chilburra* √, *chilpura* √, *chilbirra* √, *kilbira* √, *kilbra* √.

In Germanic a cognate to the Semitic  $\text{כִּשְׁבֹּטִים}$  persisted in reference to the females, but not to the males (1.Li). The neuter noun *lamb* √ (the singular of *lembir*) has no definite IE cognates outside of Germanic, although the Greek  $\epsilon\lambda\alpha\phi\mid\omicron\varsigma$  √ 'deer' (masc. or fem.) would match well phonetically (Pokorny, *ImEiWö*, I, 304). Frisk, *GrEiWö*, doubts the etymology  $\epsilon\lambda\alpha\phi$  : *lamb*; and Chantraine, *DiÉiLaGr*, does not even mention it. Pokorny (I, 473) relates *kilbur* to the Sanskrit {gārbʰah} (1.Jc, note 177).

<sup>217</sup> Cf. the attested  $\text{כִּשְׁבֹּטִים}$  √ {kiš(ə)ḇōṭ} (Gen. 21:28). That the structure of the absolute plural  $\text{כִּשְׁבֹּטִים}$  √ {kəšḇōṭ},  $\text{כִּשְׁבֹּטִים}$  √ {kəšḇōṭ} 'ewe-lambs' is further from the Germanic *kilb*-, is no wonder when you consider that livestock was of interest primarily as SO-AND-SO'S PROPERTY, rather than in the abstract. So, given that Germanic, like IE in general, does not share the Semitic distinction between the construct ('so-and-so's') and the absolute, the Germanic form stands a better chance of resembling the Semitic construct, which is more pertinent in such a noun, and to that extent is more likely to figure in effective communication.

<sup>218</sup> The Samaritans, however, pronounce every  $\text{ש}$  [š]. Murtonen, *EtVo*, 115, 120, gives the present pronunciation of the masc. as *kābæš*, *kēšeb* and the fem. as *kīšbæ*.

<sup>219</sup> *The Case for Fricative-laterals in Proto-Semitic* (American Oriental Series, vol. 59, 1977), especially 123-129, 137-143.

loan-word with no IE etymology, βάλαμον<sup>√</sup> ‘balsam, balm’ — not necessarily from a Semitic source, but the [-ls-] reflects a sound that appears as a single consonant in Hebrew: **בֹּשֶׁם**<sup>√</sup> {bóšēm}.<sup>220</sup>

Even more pertinent to the etymology

{kéšeḅ} : *cealf* (German *Kalb*<sup>√</sup>) — {kiš(ə)ḅot̄} : *kilbur*

is a certain nationality,

**כֶּשֶׂד**<sup>√</sup> {kéšed̄} in the singular (a nephew of the patriarch Abraham, Gen. 22:22)

plural **כְּשָׁדִים**<sup>√</sup> {kašd|iʾm} (much oftener),

which is translated Χαλδ|αῖοι<sup>√</sup> ‘Chaldeans’ (II Kings 25:13, etc.).

The Akkadian source of Χαλδ- and cognate of {kéšed̄} is {kaldu}<sup>√</sup>, the land of the Chaldeans; and this ethnic term in Arabic, down into Muslim times, varies between {-l-} and {-s-} — which points to an alternation between sibilant and lateral within the languages of ancient Mesopotamia, or else an intermediate sound in the language of the Chaldeans themselves.

**1.Lh.** The *CVCC* structure of *cealf*, etc., and of *cilf* conforms to an IE pattern for nouns, although no cognates of this noun outside of Germanic are reported. The IE phonological constraints upon the second consonant would certainly have favored *-l-* over a sibilant; for in that position a semi-vocalic consonant, which could form a sort of diphthong with the preceding vowel, was preferred. While the Semitic languages went in for a greater range of triconsonantal structures, there were still limits, notably in Akkadian (which reached its classic state much earlier than the rest). As Von Soden remarks, “Bei den dreikons[onantigen] Substantiven dieses Typs ist der 2. oder 3. Radikal fast immer ein *l*, *r*, *m* oder *n*, das ursprünglich gewiss ein Vokal war ...; selten statt dessen ’ [i.e. ʔ] vereinzelt *s* in *kaspum* ‘Silber’ ” (*GrAkGr*, 57).

**1.Li.** Neuter gender for baby animals, whose sex does not yet matter much, characterizes the Germanic languages. Certain of the suffixed forms, es-

<sup>220</sup> Interchangeably in the same verse (Ex. 30:23), **בֹּשֶׁם**<sup>√</sup> {bóšēm} and **בֶּשֶׁם**<sup>√</sup> {béšēm} with a different accented vowel. Here they both mean ‘scent’ without restriction to one spice; but in another passage (Cant. 5:1) **בֶּשֶׁם**<sup>√</sup> {bašom|iʾ} ‘my balsam’ contrasts with **מוֹרִי**<sup>√</sup> {moʾr|iʾ} ‘my myrrh’ (from {bóšēm} we would have expected \*{bašm|iʾ}, and from {béšēm} either \*{bašm|iʾ} or \*{bišm|iʾ}).

pecially in the plural, show a startling correspondence to the Semitic FEMININE. In the singular,

only the OE genitive *calfur*<sup>↓</sup> [k-] 'calf's' (anomalous, doubtless archaic)

recalls the Hebrew {kišbaṭ} '(so-and-so's) ewe-lamb' (construct sing.).<sup>221</sup>

The *r*, like the Semitic {T}, forms a stem, as is evident in the Old English nominative/accusative plural *cealfru*<sup>↓</sup>, *calfru*<sup>↓</sup>, etc. 'calves' (also *cealfur*<sup>↓</sup>, *calfur*<sup>↓</sup>),<sup>222</sup> and in the Hebrew with possessive suffix קִשְׁבֹּטִי† {kišbōṭi'iy} 'my ewe-lamb'.<sup>223</sup> The Hebrew plural in {-o(ʷ)t(-)} also admits of further suffixation: קִשְׁבֹּטַי† {kiš(ə)bōṭáy} 'my ewe-lambs'.

In Old English and Old High German the baby animals are indeed the core of this morphological class, neuter in gender and marked by a plural suffix with *r*:

OHG *kilbur* 'ewe-lambs', *kelbir*<sup>↓</sup> or *chalpir*<sup>↓</sup>, etc. 'calves'

*lembir* 'lambs' (1.Lf, note 216)

*farhir*<sup>↓</sup> 'pig(let)s'

*honir*<sup>↓</sup> or *huanir*<sup>↓</sup> 'chick(en)s'

*eigir*<sup>↓</sup> 'eggs'.<sup>224</sup>

The fact that young animals take the *r* plural is of capital importance for the prehistory of IE and Semitic, but has been obscured by subsequent — though opposite — developments in English and German. The *r* plural is gone from English, except for one striking vestige: *children*<sup>↓</sup> (see 2.Zd), while *-er* in German has spread to the majority of neuter nouns. The pastoral economy, as depicted in the early books of the Bible — in Genesis above all — helps us to pierce a grammatical enigma: How could a certain prehistoric morpheme become the mark of feminine gender in Semitic, especially of the feminine plural, but of neuter gender in IE?

The essential clue is that the Hebrews raised mainly the female calves, lambs, and kids, and only enough males as were needed for breeding, because the males were less useful and — unless castrated — more unruly (1.Ad, note 15). The owners would slaughter (or sacrifice) any other young male, or

<sup>221</sup> The usual OE genitive *cealfes*<sup>↓</sup>, *cælfes*<sup>↓</sup>, etc., seems — like most neuter nouns — to take its genitive ending from a masculine declension.

<sup>222</sup> Genitive pl. *cealfra*†, dative pl. *cealfrum*†.

<sup>223</sup> To cite an attested form, {ʕēḡlōṭi'iy} (1.Ld).

<sup>224</sup> Here I am able to advance beyond my argument in *SoSt*, 334-335. Also OHG *hrindir*<sup>↓</sup> 'cattle' is highly relevant.

else trade it for something they could not produce themselves (cf. **2.Wc**). So the young that remained in their livestock were mostly females, even though not yet functioning as such by reproducing and by giving milk. Something comparable to this, in the prehistory of the Germanic peoples — if not of all IE — eventuated in a neuter sub-category, not yet merged with the rest of neuter nouns at the stage attested by Old English and Old High German. In Semitic, however, as in the related African languages that are linked with it under the name Afro-Asiatic, no third category — distinct from the masculine as well as the feminine — ever developed.

**1.Lj.** Less enigmatic than the correspondence of Semitic feminine to Germanic or IE neuter is the correspondence of feminine to feminine. Whereas the OHG *kilbira*, *kilbra*, etc. (**1.Lf**, note 216) means the same as the Hebrew {kišbō<sup>h</sup>} ‘ewe-lamb’, another word *kalba*<sup>↓</sup>, *chalba*<sup>↓</sup>, *chalpa*<sup>↓</sup>, *calba*<sup>↓</sup> ‘she-calf’ (*Kalbe*<sup>↓</sup> in modern German) is a closer match to {kišbō<sup>h</sup>} morphologically.<sup>225</sup> The limited Gothic corpus has only the accusative plural feminine form {kalbons}<sup>↓</sup> — no neuter or masculine attested. The ending {-ons} entails a nominative singular {kalbo}<sup>†</sup> cognate to OHG *kalba*; the quality of the final vowel {-o} is actually closer to the [ɔ] in {kišbō<sup>h</sup>} than to [a].

Whereas *k-lb(-)* in German — *c-lf(-)* in Old English — stands for the young of two different species, the ox and the sheep, and {ʕəg<sup>w</sup>l} in Geʕez for any young beast, the meanings of both etyma have gotten specialized in most of the IE and Semitic languages where they are recorded, and divergently specialized at that. The trend was toward the more specific; but a study of the pertinent evidence, particularly from the earlier stages of several languages, has taken us back to glimpse a time of great flexibility in this sort of vocabulary.

**1.Lk.** The Semitic and — in part — IE name for another young animal, the kid, is restricted to the one species, mainly if not absolutely:

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<sup>225</sup> Since {kišbō<sup>h</sup>} occurs just once in the Biblical corpus, there is no telling whether Hebrew had an alternate form \*{kašbō<sup>h</sup>} with the open vowel in the first syllable — as displayed by {kišō<sup>h</sup>, kašō<sup>h</sup>}, the more frequent synonym with metathesis. The same two vowels show up in the German words for ‘ewe-lamb’ and ‘calf’ respectively, which have clear Old English cognates furthermore. So it would seem that in this word for a young animal both Germanic and Hebrew (if not the rest of Semitic) have inherited essentially the same vocalic alternation (cf. **2.Ze**).

Arabic جَدْيٌ<sup>↓</sup> {jady|an}, Latin *haed|u m*<sup>↓</sup> (accusative);

nom. جَدْيٌ<sup>↓</sup> {jadyun}, *haedus*<sup>↓</sup>; Levin, *PrInEuThDe*, 113, 120, 135).

The only clear IE cognates are Germanic:

Gothic {gaits}<sup>↓</sup> in its unique occurrence translates χίμαρος<sup>↓</sup> 'young billy-goat' (nominative, Nehemiah 5:18; cf. 1.Mf),<sup>226</sup> but in the other Germanic languages it is feminine and refers ordinarily to the adult that is milked; e.g. Old Norse *geit*<sup>↓</sup>,

Old High German *geiz*<sup>↓</sup> (also *gaiz*<sup>↓</sup>, *keiz*<sup>↓</sup>, *kaiz*<sup>↓</sup>;  
now *Geiß*<sup>↓</sup> [gais]).<sup>227</sup>

No Latin feminine *\*haeda* is found. In Arabic an utterly different word

عَنَاقٌ<sup>↓</sup> {ʿanāqum} (nominative) stands for the female kid. Similarly,

Akk. {ga-du-u}<sup>↓</sup> (nominative) is the male kid,

{ú-ni-qú, mu-ni-qu}<sup>↓</sup> the female (etymologically 'a suckling').

Since above all a goat was a thing to milk, and of little other use while alive, men would view and refer to a baby female quite distinctly from a baby male.

<sup>226</sup> Quite different in the Hebrew text: וְצִפְרִים<sup>↓</sup> {wəcipprím} 'and birds'. As Gary Rendsburg points out, וּצְפִירִים with a different vocalization could be understood as 'he-goats' in this passage; not only the construct plural וּצְפִירִים<sup>↓</sup> {cəpīré<sup>y</sup>} but the absolute singular {cəpīr} in וְצִפְרִי<sup>↓</sup> 'and the he-goat' and the construct singular וּצְפִיר<sup>↓</sup> {cəpīr} are found in the late books of the Bible (Dan.8:5,8,21, Ezra 8:35, II Chr. 29:21). This term for 'he-goat' replaced the more classical word שִׁעִיר<sup>↓</sup> {šəi<sup>y</sup>r} in 'and a he-goat' (Is. 34:14; etymologically 'a hairy one'), שִׁעִיר<sup>↓</sup> {šəi<sup>y</sup>r} (Lev. 23:19, etc.), שִׁעִירִי<sup>↓</sup> {šəi<sup>y</sup>rē<sup>y</sup>} (Lev. 16:5, etc.), and שִׁעִירִים<sup>↓</sup> {šəi<sup>y</sup>rím} in 'the he-goats' (16:7,8), probably because שִׁעִיר and its plural שִׁעִירִים became spoiled by the reference to certain mythical beings, the satyrs, whom the Israelites were forbidden to worship (Lev. 17:7; cf. 1.Ao, note 33).

<sup>227</sup> This etymology is treated by Gamkrelidze – Ivanov (*InIn*, II, 872), drawing upon Illich-Svitych, *DrInSeJaKo* (4, 8), who considered it an IE borrowing from Semitic (likewise Dolgopolsky, *InEuHo*, 14). — Möller (*VeInSeWö*, 128) connected this Semitic word instead to "lett. *kaza* abulg. [= Church Slavonic] *kozā* 'capra', *kozilū* 'caper, hircus', mnd. [Middle Low German] *hōken* ags. [Old English] *hēcen* 'haedus', or alternatively to "an. [Old Norse] *haðna* mhd. [Middle High German] *hatele* 'capra, haedus'."

In Hebrew, however,

besides the frequent masculine  $\text{גִּידִי}^\vee$  {gədiʸ}

(pausal in a toponym  $\text{גִּידֵי יָרֵךְ}^\vee$  {ʕéʔn gēdiʸ} ‘Kid[’s] Eye’ or ‘Spring’),<sup>228</sup>

the fem. too occurs:  $\text{גִּידֵי יְהִי}^\vee$  {gədiʸ uḡədiyyoʰ} ‘a he-kid and a she-kid’ (Menahoth 13.7).<sup>229</sup>

The masculine  $\text{גִּיד}^\vee$  is likewise found in Aramaic, but very seldom and not in a vocalized text.  $\text{ܢܝܕܐ}^\vee$  {gædy|ɔʔ} with a suffix — originally the definite article — is the usual rendering of the Hebrew {gədiʸ}. The Ugaritic {gdy}ʷ is the expected cognate to the Hebrew and Aramaic  $\text{גִּיד}$  and the Arabic جدى. The one Phoenician instance has a puzzling final letter: {gdʔ} in  $\text{גִּידֵי}^\vee$  ‘for a kid’.<sup>230</sup>

**1.LL.** Berber cognates of this Semitic word are given by Cohen (*EsCo*, 119). The closest to Semitic, and even more to the Latin *haed-*, Norse *geit*, etc., is the Tuareg *əḡəyd*ʷ. Only in Semitic are the second and third consonants in the order {dy}, but metathesis of [dy] to [yd] after a vowel is more likely than the opposite. IE root- and word-structure, at any rate, favored the placement of \*y so as to become the latter half of a diphthong, as in the Latin *ae* (AI in the pre-classical period).<sup>231</sup>

Tsung-tung Chang traces the Chinese word for ‘goat’ to an IE source:<sup>232</sup>

<sup>228</sup> Cf. **1.Cf,Ld.** In Old English the place could have been rendered, with some liberty, \**egan gæte*.

<sup>229</sup> The fem. sing. is not found in the Bible, but the fem. pl.  $\text{גִּידֵי יְהִי}^\vee$  {gədiyyot|áyik} ‘your kids’ (Cant. 1:8) evinces the likelihood of the sing. absolute  $\text{גִּידֵי}^\vee$  {gədiyyɔʰ}. The supralinear “Babylonian” notation shows different vowels:  $\text{גִּידֵי יְהִי}^\vee$  {gædyotæyik}.

<sup>230</sup> Donner – Röllig, *KaArIn*, I, 15 (no. 69.9). The inscription, though Punic (from the harbor of Marseille), is not from the later Punic period when  $\text{𐤏}$  stood just for a vowel sound.

<sup>231</sup> The change from writing AI to AE marked the first stage toward eventual monophthongization.

<sup>232</sup> *Indo-European Vocabulary in Old Chinese* (Sino-Platonic Papers, no. 7, 1988), 38, based on part of his German ms., which is not yet published. The third stage is early Mandarin (13th century); the fourth is modern Mandarin. Among the many Chinese words for animals and other vocabulary which he relates to IE, this is the only one I find relevant to Semitic also. But if someone were to compare Old Chinese with Semitic, regardless of IE, perhaps other items would turn up.

"A[lt]ch[inesisch]	ka:t
M[ittel]ch[inesisch]	kjat
N[eu]ch[inesisch]	kie <sup>3</sup>
Ch[inesisch]	ʃcie <sup>2</sup> , jie <sup>2</sup>

The first of these differs remarkably little from the Old English *gāt*<sup>1</sup>, as though the two languages, at some early point in their development, were headed in the same direction, however much they have diverged since then. Being ignorant of Chinese, I cannot judge the reliability of Chang's phonetic interpretation; since the same character has been written from ancient to modern times, the evidence of former pronunciation is very indirect.

**1.Lm.** If 'kid' occurred in the earliest Latin, the accusative singular would be *HAIDOM*<sup>†</sup>, a little closer than *haedum* to the Arabic {jadyan}. The genitive plural would also be *HAIDOM*<sup>†</sup> (replaced by the classical form *haedōrum*<sup>1</sup>), to which a likely Arabic cognate is the collective — or so-called "broken plural" — جَدْيَانٌ § {jidyān} 'a lot of kids' (pausal, cf. **1.Ac6,g**). The genitive singular *haedī*<sup>1</sup> corresponds best to Arabic [jadyī]<sup>†</sup>, the pausal pronunciation (limited to poetry) of جَدْيٍ<sup>1</sup> {jadyin} (cf. **1.Ac2**).

**1.Ln.** Metathesis, which I have invoked to account for the minor discrepancy between the Semitic {g-dy(-)} on the one hand and the IE (Latin) *HAID*-, (Norse) *geit* or Berber (Tuareg) *əgəyd* on the other,

seems to have worked more drastically within Germanic to produce in Old High German *ziga*<sup>1</sup> 'goat' out of *geiz*; the first and last consonants — or, from the Semitic point of view, the first and second — are still there, but switched around.<sup>233</sup>

The OHG diminutive or hypocoristic, applied at times to a full-grown goat, *zikkin*<sup>1</sup>, *zikin*<sup>1</sup>, *zicchin*<sup>1</sup>, *zicchi*<sup>1</sup> (> modern German *Zicke*<sup>1</sup> 'kid') has an OE cognate *ticcen*<sup>1</sup>, which is glossed *hedus* (the usual medieval Latin spelling of *haedus*). This recurrence of the hypocoristic geminate -cc- in Old English proves, even in the absence of an attested Old English cognate to *ziga* itself, that *ziga* must indeed have had cognates outside of High German.

<sup>233</sup> The descendant *Ziege*<sup>1</sup>, within the last few centuries, has nearly ousted *Geiß*.

Moreover a gloss in the Greek lexicon of Hesychius, δίζα·<sup>†</sup>αἶξ Λάκωνες<sup>ν</sup> 'The Laconians [say] δίζα [for] "goat",' shows an actual though geographically distant cognate to *ziga*. The ζ has raised doubt whether the word really belonged to a Greek dialect or to the Thracian language north of Greece: "Iakonisches ζ läßt sich mit dem deutschen g nicht reimen. Vielleicht ist Καύκωνες zu lesen? und das Wort thrakisch? Dafür spricht der Parallelismus der beiden thrakischen Personennamen Εβρου-τελμης Tomaschek III 7 und Διζα-τελμης ebd. 32. Zum Bocke: ἑβρος· τράγος ['he-goat'] Hesych paßt sehr gut die Ziege. Aber was heißt -τελμης?"<sup>234</sup> Before the classical age, however, the Καύκωνες — besides other non-Greek Indo-Europeans — inhabited parts of Greece, quite close to Laconia in fact. Except for what got incorporated in Greek, extremely little is left from either the ancient IE or the non-IE languages of the entire region. So the last word of the gloss may not be corrupt after all; δίζα could well have passed into Laconian Greek prehistorically from a neighboring Thracian population.

Still more surprising is the Aramaic {diʕct|ɔʔ} in אֲדִי־צִי־רִי<sup>ν</sup>, translating the Hebrew וְיִצְחָק־נִי־עֵי־יִי<sup>ν</sup> {wəyaʕālāt-Hén} 'and a graceful mountain nanny-goat' (Proverbs 5:19).<sup>235</sup> Although the species of animal is not quite certain, it must be some sort of wild goat or antelope. If this feminine noun occurred in Biblical Aramaic without the suffixed definite article, it would be אֲדִי־צִי<sup>†</sup> {diʕcɔʕ<sup>h</sup>}. There is some evidence for the Aramaic letter צ being pronounced [ts] and the Greek ζ [dz] (1.Fg), which would make δίζα and {diʕcɔʕ<sup>h</sup>} minimally different if the affricate sound prevailed during the undetermined period of contact when this word spread.<sup>236</sup>

<sup>234</sup> A. Fick, "Hesychglossen IV," *ZeVeSp*, 4 (1909), 148.

<sup>235</sup> I cite אֲדִי־צִי־רִי<sup>ν</sup> with the ill-attested Tiberias-style pointing of the older Targum editions, because Alexander Sperber, the editor of the standard Targum text with the authoritative supralinear vocalization, *The Bible in Aramaic* (4 vols. in 5; Leiden: E. J. Brill, 1959-1973), chose for some odd reason not to undertake work upon the book of Proverbs and most of the other Hagiographa, nor even to tell his readers where else they might look for a relatively reliable text; see his foreword to Vol. IV A.

<sup>236</sup> The Greek feminine ending -α, which entails recessive accent upon an earlier syllable, has no closer counterpart in Aramaic (or Hebrew) than {-ɔʕ<sup>h</sup>}. In the Laconian dialect δίζα would also be possible. — The Aramaic masculine {dɔʕc|ɔʔ} in אֲדִי־צִי<sup>ν</sup> translates the Hebrew וְיִצְמֵר־נִי<sup>ν</sup> {wəzəmər} 'and a [kind of] gazelle' (Deut. 14:5; καμηλοπάρδαλις<sup>ν</sup> 'gi-



**1.Lo.** Still another modification of the basic etymon, or of *geit* (its ON reflex) has been proposed to account for *kið*<sup>√</sup>

(the source, furthermore, of the Middle English *kid*<sup>√</sup>, *kide*<sup>√</sup>, etc., replacing the Old English *ticcen*).

But Pokorny, besides mentioning the Albanian *qith*<sup>√</sup>  
(which must be little different from the Norse *kið*),

notes how such a monosyllable could independently arise from an inarticulate cluck — “Lock- (oder Scheuch)ruf” (*InEuWö*, I, 409-410) — presumably the herdsman’s; so it would not depend on the prior existence of *geit* or the like. While accepting this argument of Pokorny, I would go on to suggest that the etymon behind the more ancient word for ‘kid’ — Latin *haed*-, Hebrew {*gāḏiʿ*}, etc. — also developed out of the same sort of cluck. This falls broadly under onomatopoeia, which has influenced the coining of animal names to a greater extent than most of the vocabulary.

The three etymologies for young animals, which we have pursued in the last few pages, are less instantly impressive than {*ḡawran*} : ταῦρον ‘bull’ at the beginning of the chapter; but taken together, they prove — if anything — an even deeper connection between certain prehistoric peoples engaged in animal husbandry. Linguistic data, however abstract, are bound to be rooted in some social context, some *Sitz im Leben*, which — with luck as well as methodical searching — we may bring to light, as we keep in mind the differences no less than the recurrences.

**1.M.** Sem. (Heb.) {ʔāto(ʷ)nó(ʷ)ṯ} : IE (Latin) *asinōs* ‘asses’

IE (Gr.) χίμαρον ‘winterling goat’ : Sem. (Arabic) (Himāran) ‘ass’

**1.Ma.** The Latin masculine noun *asin*|*us*<sup>√</sup> (nominative) ‘ass’ was borrowed relatively late in prehistory; for in older cognates, as revealed by IE correspondences, Latin has -*r*- instead of \*-*s*- between vowels — e.g.

*auris* : Lithuanian *ausis*, etc. ‘ear’ (**1.Cb**; Ernout – Meillet, *DiÉtLaLa*).

The Irish *asan*<sup>√</sup> and Welsh *asyn*<sup>√</sup> were, for certain, borrowed secondarily from Latin. The Germanic, Baltic, and Slavic forms —

Gothic {*asilu*}<sup>√</sup> (accusative), OHG *esil*<sup>√</sup>

Lithuanian *āsilas*<sup>√</sup> (nominative; accusative *āsilq*<sup>√</sup>)

Church Slavonic оѡлъ<sup>√</sup> {*osʹlǝ*} (nom./acc.), etc. —

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raffe’ in the Septuagint) at the end of a list of animals fit to eat — cud-chewing and cloven-hoofed.

may owe their *l* to the Latin diminutive or hypocoristic *asellus*<sup>✓</sup> (Gamkrelidze – Ivanov, *InIn*, II, 562); for *-ll-* < *\*-n l-* is a regular phenomenon within Latin (cf. **1.Lb**, note 205). Anyhow the Latin *asin-*,

along with the Armenian collective {išan|k̄}<sup>✓</sup> ‘the asses’

(Walde – Pokorný, *VeWö*, I, 133), has a clear cognate in the Semitic word

Aramaic ܐܬܐܢ <sup>✓</sup>{ʔəṭōn} ‘she-ass’,

Hebrew {ʔəṭōʷn} in ܐܬܐܢܐ <sup>✓</sup>‘the she-ass’,

not only in the base but in no fewer than four of the Latin case-forms:

acc. s. *asin|um*<sup>✓</sup>: Akkadian {atān|a m}†,<sup>237</sup> Arab. ܐܬܐܢܐ <sup>✓</sup>{ʔatān|a n}  
(-OM in early Latin)

gen.s. *asin|ī*<sup>✓</sup>: Arabic {ʔatān|ī}† (poetic pronunciation of  
ܐܬܐܢܐ <sup>✓</sup>{ʔatān|ī n} at the end of a verse; **1.Ac2**)

nom.pl. *asin|ī*<sup>✓</sup>: Aram. ܐܬܐܢܐ <sup>✓</sup>{ʔəṭōn|eʷ} (pl.; in Bibl. Aram. ܐܬܐܢܐ <sup>✓</sup>†  
(-EI in early Latin) {ʔəṭōn|éʷ} construct pl. only)

acc.pl. *asin|ōs*<sup>✓</sup>: Heb. ܐܬܐܢܐ <sup>✓</sup>{ʔəṭōn|ōṭ} (pl., absolute or construct)

ܐܬܐܢܐ <sup>✓</sup>{ʔəṭōn|ōʷṭ} " " " "

ܐܬܐܢܐ <sup>✓</sup>{ʔəṭōʷn|ōʷṭ} " " " "

**1.Mb.** Hebrew {ʔəṭōnóʷṭ} : Latin *asinōs* is a particularly neat match, and therefore a clue to when the word came into Latin, and how it cast off the Semitic restriction to the female sex.<sup>238</sup> The discrepancy in the vowel of the second syllable resulted within Latin from the stress accent on the initial syllable, which generally reduced the following vowel to *-i-*.<sup>239</sup> The word could well have entered Italy in the first millennium B.C. through Phoenicians not only trading but settled in North Africa and Sicily.

How early they fricativated the dental consoant ܐ after a vowel, is not clear from other evidence. The Latin voiceless sibilant *s* would have been a

<sup>237</sup> The nominative {a-ta-nu-um}<sup>✓</sup> is definitely attested in Old Akkadian.

<sup>238</sup> A long chain of etymologists, continuing down to the *OxEnDi* (s.v. “Ass”), derived *asinus* from ܐܬܐܢܐ, until the would-be scientific Indo-Europeanists saw fit to reject this excellent etymology — most of them tacitly (Walde – Hofmann, *LaEtWö*, explicitly but for no stated reason). Whereas Christian scholars through the centuries had been prejudiced in favor of nearly any purported derivation from Hebrew, their successors have suffered from the opposite prejudice; see Bernal, *BlAt*, I, 330-332, 344.

<sup>239</sup> E.g. *nouitās*<sup>✓</sup> ‘newness’, corresponding to Greek νεότης<sup>✓</sup> (Doric νεότᾱς<sup>✓</sup>) ‘youth’.

handy adaptation of a Semitic [ṭ].<sup>240</sup> In this word it was not caught up in the shift to [-r-], which changed — for example — the pre-classical Latin *arbosem*<sup>√</sup> 'tree' (accusative) to the classical *arborem*<sup>√</sup>. For doubtless the intervocalic *s* in such old Latin words was already voiced [-z-] on its way to become a lateral.

The identical vowel [ō] in the third syllable narrows down the period of transmission. It must have been before the time of Plautus; for then the Semitic feminine plural suffix sounded more like [-uṭ]: *alonimualonuth*<sup>√</sup> (*Poenulus* 930) 'gods and goddesses' (*deōs deāsque*, 950).<sup>241</sup> The Latins could equate the Semitic [-ōṭ] with the accusative plural of their "second" — i.e. masculine — declension, ever since the IE *\*-ons* was simplified to [-ōs] in prehistoric Latin.<sup>242</sup> The likeliest time for Latin to have borrowed this word is not much later than 500 B.C.<sup>243</sup>

<sup>240</sup> The fricativation of the labial פ, in the pronunciation of Carthage around 200 B.C., is attested by the Latin letter *-f* in the Punic verses of Plautus' comedy *Poenulus*: *liful*<sup>√</sup> (935) = Hebrew לִפְעָל † [lip̄ʕól] 'to do' (*faciendum*, 956) in contrast to the initial aspirate plosive [p<sup>h</sup>] in *pho*<sup>√</sup> (952) = הֵפֶה<sup>√</sup> [pó<sup>h</sup>] 'here' (*hīc*, 952; see *InEuSeLa*, 321).

<sup>241</sup> The Hebrew cognate of *alon|im* occurs in cult place-names, among them

מִזְבֵּחַ מִלֹּנִי<sup>√</sup> [ʔelō<sup>h</sup>n mo<sup>h</sup>ṛē<sup>h</sup>] or מִזְבֵּחַ מִלֹּנִי<sup>√</sup> [ʔelo<sup>h</sup>n|é<sup>h</sup> moré<sup>h</sup>] 'Teacher's (?) Oak(s)' (Gen. 12:6, Deut. 11:30). Before the rise of monotheism certain august trees were revered as gods. The Biblical word for 'god(s)' is אֱלֹהִים<sup>√</sup> [ʔēloh|í<sup>h</sup>m] (construct יְאֱלֹהִים<sup>√</sup> [ʔēloh|é<sup>h</sup>]); the masculine plural form serves even for a female divinity of the Phoenician city of Sidon (I Kings 11:33).

<sup>242</sup> As *-ONΣ*<sup>√</sup> was preserved in the Doric of Argos and Crete, the accusative pl. of ὄνος<sup>√</sup> 'ass' in that dialect must have been *ONONΣ*<sup>†</sup> (in Attic ὄνους<sup>√</sup> [-ōs], after 400 B.C. [-ūs]).

<sup>243</sup> It would not make much difference if, instead of this, the crucial identification was between the Latin nominative plural in *-EI* and something like the Aramaic {-e<sup>h</sup>}. For *-OS* co-existed with *-EI* nearly to the end of the pre-Christian era. We can hardly tell which plural ending or endings were used by the Semitic population nearest to Italy; for this word has not turned up at all in the meager corpus of Phoenician, though such a widespread Semitic word must have existed there too. In Hebrew the plural is consistently {ʔāto(ʷ)n|ó(ʷ)ṭ}, to the exclusion of {-é<sup>h</sup>} (construct pl.) and {-í<sup>h</sup>m} (absolute pl.). In Aramaic, however, it is heteroclitic: {ʔəṭon|e<sup>h</sup>} seems interchangeable with אֶתְנָן<sup>√</sup> {ʔəṭon|on} in the Targum; but with the suffixed article only אֶתְנָן<sup>√</sup> {ʔəṭon|æyy<sup>h</sup>} 'the she-ass', which belongs to the {-e<sup>h</sup>} paradigm — never אֶתְנָן<sup>√</sup> {ʔəṭon|ṭ<sup>h</sup>}, which would go with the {-on} paradigm (cf. 1.Hh).

**1.Me.** {-ó(ʷ)ṯ} is the usual pluralizer of feminine nouns in Hebrew, including those which carry no feminine marker in the singular. To the extent that this noun occurs in passages that exhibit agreement according to gender, it is exclusively feminine in each of the Semitic languages. An entirely different noun (חֲמֹר {Hāmóʷr} in Hebrew) designates the male ass. As in other terms for tame animals in many languages, this discrepancy bespeaks — at least originally — an important difference in the function of the two sexes, from their human master's point of view. The Bible, however, shows male and female asses being put to work interchangeably, although seldom are both {ʔāṯóʷn, ʔāṯó(ʷ)n-} and {Hāmó(ʷ)r(-)} mentioned in the same passage.<sup>244</sup> There is nothing to prove whether or not the plural of either noun ever implicitly included the other sex.

<sup>244</sup> Gen. 45:23: עֲשָׂרָה חֲמֹרִים {ʿāšorāḥ Hāmoríʿm} 'ten he-asses', followed by וְעֶשְׂרֵי אֲתֹנֹת {wəʿéšer ʔātonót} 'and ten she-asses'; evidently the criterion is their sex.

Gen. 49:11,14: בְּנֵי אֲתֹנֹו {bəniʿ ʔātonóʷ} 'son [i.e. foal] of his she-ass' obviously has {ʔāton-} designating the mother, while יִשָּׂשכָר חֲמֹר גָּרֵם {yissə(ʰ)kār Hāmór gārem} 'Issachar [is] a bony ass' likens a man to a male beast of burden, rather than a female.

Zechariah 9:9: עַל-חֲמֹר וְעַל-עֵיר בֶּן-אֲתֹנֹוֹת {ʿal-Hāmóʷr wəʿal-ʿáyir ben-ʔātonóʷṯ} poetically equates 'upon an ass and upon a young ass, son of she-asses' (the fem. pl. is idiomatic in such Hebrew expressions).

In all three passages each word is used according to its sexual appropriateness. Once, however, in II Sam. 19:27, אֶחָבֶשֶׁת-לִי הַחֲמֹר וְאַרְכָּב עָלֶיהָ {ʿeḥbašəṯ-lī haHāmóʷr wəʿarkáb ʿaléʰa} 'I will saddle me [or 'let's saddle me'] the ass and ride upon her', the normally masculine noun has a feminine agreement.

Once in the Mishnah, dealing with freakish births, פָּרָה שִׁילָדָה כְּמִין חֲמֹר וְחֲמֹר שִׁילָדָה כְּמִין סוֹס {pārā ṣeyylāḏā kəmiṇ Hāmóʷr wəHāmóʷr ṣeyylāḏā kəmiṇ sōs} 'a cow that has borne something like an ass, and an ass that has borne something like a horse' (Bekhoroth 1.2), the second occurrence of {Hāmóʷr} must logically refer to a she-ass. Here the *Thesaurus Mishnae*, contrary to the Kaufmann codex (1.Kf, note 194), quotes וחמורה with the feminine suffix. As the ancient feminine noun אחוּן 'she-ass' dropped out of use, it is no wonder if a new feminine {Hāmóʷr|ṯ} was eventually formed from the masculine, on the model of {סוּס|ṯ} 'mare' from {סוּס} 'horse' (1.Gf).

Given that it would have been pointless for Latin to borrow both Semitic nouns, what favored the feminine over the masculine? Offhand we might theorize that the Semitic and Latin populations which were in contact talked about female asses more than male asses. If so, they were unlike the Bible, where {Hāmō(ʷ)r(-)} occurs nearly three times as often (94 to 34). So it is all the more likely that the advantage of the other word lay rather in its structure, congenial to Latin — especially its plural lending itself so readily to a Latin morphological interpretation as *asinōs*. The masculine gender that this entailed made no incongruity for the speakers of Latin, since it could simply follow the IE pattern of *equōs*<sup>∇</sup> 'horses', as well as other masculine nouns for animals of which both sexes are almost equivalently interesting or important to man.

**1.Md.** Within Latin, once this masculine noun was there, it was easy enough to form a feminine *asin*|*a*<sup>∇</sup>, just like *equ*|*a*<sup>∇</sup> 'mare', when necessary to specify a female of the species, not a male. But possibly it went the other way, so that the Aramaic ܐܣܝܢܐ<sup>∇</sup> {ʔāṣṭn|ṣ'} 'the she-ass', with the suffixed definite article (ܐܣܝܢܐ<sup>†</sup> {ʔāṣṭnṣ'}) in Biblical Aramaic, passed into Latin through some contact, and there the feminine meaning — which had been inherent in {ʔāṣṭn-} itself — was retained by locating it instead in the Latin suffix *-a*.<sup>245</sup> It would follow that the Latin masculine *asin*|*us*, etc., arose secondarily from the feminine. The rarity of the feminine *asina* does not in itself argue against such a sequence; for the prevailing pattern of Latin, which uses *equus*<sup>∇</sup> and *agnus* far more than *equa*, *agna*<sup>∇</sup> (**1.La-b**), is enough to account for the predominance of *asinus*.

The main reason for doubting that the Latin *-a* in *asina* came from the suffixed definite article is that this morphological peculiarity of Aramaic does not appear to have spread at all into the neighboring Semitic languages of Asia, not even while the populations themselves were speaking Aramaic more and more. So I can scarcely envisage such an Aramaic contamination affecting a region of Phoenician settlement closer to Italy but far from the Aramaic home ground (in Syria and the adjacent part of Mesopotamia). Individual Aramaeans may of course have participated in the movement to colonize the western Mediterranean; if we posit that they were active in introducing or — more likely, in improving — one kind of animal husbandry in Italy, we need not rule out an Aramaic source for *asina*.

<sup>245</sup> This idea I owe to J. P. Brown.

On the other hand, since Phoenician and Hebrew were mere dialects of the Canaanite language, we can more safely assume that most of what we find in Hebrew — which alone is documented on a large scale — had a close counterpart in Phoenician too. So I prefer to identify the Semitic etymon of Latin *asin-* with a dialectal form of {ʔāʔon|ó(ʷ)ṯ}.

**1.Me.** In the absence of written evidence before the rise of Latin literature (toward the end of the 3d century B.C.), archaeological evidence, if available — such as asses' bones found in roughly datable settlements — might serve to prove that the proximity or access of Semites to Italy really made some noteworthy difference in the utilization of this animal by the Italians. In that regard J. P. Brown conjectures that upon the introduction of sacks,

*saccī* √ (nom. pl.; SACCE† in early Latin) from a Semitic language —

{ʕaqqeʔ} (construct pl.) in Heb. שָׂקִים √ 'their sacks'

{ܣܥܩܥܝܐ} √ {σᾱqqeʔ|hoʷn} in the Aramaic Targum;

Greek σάκκοι √ —

the ass became the most economical means of transport on land: *asellus* ... *cum bisacciō* √ 'a little ass ... with a pair of saddle-bags' (Petronius 31.9).

**1.Mf.** حَمَارٌ √ {Himār|an} ' (male) ass' (acc. singular), the Arabic cognate of the Hebrew {Hāmóʷr} (**1.Mc**), bears a very close phonetic resemblance to Gr. χιμαρον<sup>s</sup> [kʰímār|on] 'winterling goat' (of either sex) — an infrequent word. The only sound that does not match quite acceptably is the vowel [a] of the second syllable, because of the discrepancy in length. The semantic difference is a graver consideration, but perhaps not insuperable. For there are some clear instances of a certain word referring to one kind of animal in Language A and a different kind in Language B; e.g.

Latin *caper* √ (accusative *caprum* √) 'he-goat'<sup>246</sup> :

Greek κάπρος √ (accusative κάπρον √) 'boar'.

In Homeric Greek it is sometimes combined with σῦς √, which is limited to the one species (like its English cognate *sow* √):<sup>247</sup> σὺς κάπρου √ (*Iliad* 5.783,

<sup>246</sup> Cf. the Hebrew {cōpíʔr} (**1.Lk**, note 226); however, the Hebrew initial consonant is not really similar to the Latin c-[k-] (cf. **1.Ln**).

<sup>247</sup> The Greek word σῦς, however, is not limited to the female sex (but in σὺν τῇ ἐπιβήτορᾳ κάπρου √ 'and a boar that mounts the sows', σν- does distinguish the females from καπρ- the male).

genitive case); so the Indo-Europeanists have conjectured that originally the etymon meant 'male beast' (Pokorny, *InEtWö*, I, 529) — though not necessarily applied to any and every male beast regardless of species.

Furthermore, the IE etymology of χίμαρ- shows that the cognates could refer to another kind of beast: Old Norse *gymbr*<sup>✓</sup> is a 'yearling ewe' (Pokorny, I, 426; Chantraine, *DiÉtLaGr*; Frisk, *GrEtWö*). This noun, referring to a beast that has not yet bred, is derived unmistakably from an IE word for 'winter', which appears in Greek as either a neuter noun χεῖμα<sup>✓</sup> or a masculine χεῖμῶν<sup>✓</sup> (Armenian {jmeɾn}<sup>✓</sup>); so the suffix manifests an archaic consonantal alternation {r/n} (cf. 2.Le). Within Greek the semantic connection between χίμαρος and the adjectives χεῖμεριος<sup>✓</sup> 'wintry', χεῖμερινός<sup>✓</sup> 'in winter' remained clear; it was a goat that had gone through one winter — hence bigger than a kid (ἐρίφος<sup>✓</sup>), but not yet furnishing milk.

A prehistoric IE word that meant 'winterling' (or more loosely 'yearling') could have passed prehistorically into Semitic, only to be applied to still another species — the ass. That animal, to be sure, is in its appearance, and in its value to man, much less like a goat than a sheep is, or even a hog. Neither do I find any indication that the Semitic forms — Arabic {Himār-}, Hebrew {Hāmōʾr}, etc. — referred particularly to a YOUNG ass in contrast to a fully mature one. So the connection to the IE word stands as unproved, though intriguing.

**1.Mg.** An internal Semitic etymology derives this noun from a root that means 'red' or 'brown', as in the Arabic adjective حَمْرٌ<sup>✓</sup> {ʔa|Hmar|u}. To that a parallel has been adduced: Spanish *burro*<sup>✓248</sup> < Greek πυρρός<sup>✓249</sup> 'flame-colored (?)' — some shade of red — via the early Latin borrowing *burrus*<sup>✓</sup>, which in the classical age is attested mainly as a man's cognomen (i.e. a nickname that stuck and even became hereditary). Accordingly *burrus* belonged to the more whimsical stratum of Latin usage, which makes the idea of its surviv-

<sup>248</sup> This word has come into English also (as a synonym or euphemism for ass<sup>✓</sup>, which has been spoiled for many people since *arse*<sup>✓</sup> became a homophone or near-homophone of ass). But still *burro* is used mainly in a Spanish or semi-Spanish setting such as the southwestern United States; otherwise people say *donkey*<sup>✓</sup>.

<sup>249</sup> Ludwig Koehler and Walter Baumgartner, *Lexicon in Veteris Testamenti libros* (Leiden: E. J. Brill, 1958), 310. However, they do not mention Latin *burrus*, the indispensable link between the Greek adjective and the Spanish noun.

al as the Spanish (and Portuguese) name for a domestic animal more plausible than we would otherwise suppose. The Romance scholars, perhaps for reasons that I cannot fathom, have preferred to derive *burro* from *\*burricus*, an unattested spelling of the rare Latin noun *buricus*<sup>250</sup>, some kind of small horse; in the Asturian dialect *burro* is said to mean ‘stallion’ rather than ‘ass’. However, *borro*<sup>251</sup> in Portuguese, which can hardly come from anything other than *burrus*, means ‘wether’ (a castrated male sheep), but in the dialect of Alemtejo the same word designates a young he-goat kept for breeding.<sup>250</sup>

Furthermore, in Latin itself, *rūsticī burram appellant būculam quae rōstrum habet rūfum*<sup>251</sup> ‘the peasants call a heifer that has a reddish snout *burra*’ (Festus, p. 28 Lindsay; Ernout – Meillet, *DIÉtLaLa*).<sup>251</sup> No doubt this sort of colloquial descriptive word was readily applied to various animals, often to the younger ones, which arouse in men a warmer, more tender feeling. That *burrus* was originally taken from a foreign language — namely Greek — seems to have encouraged, rather than checked, the tendency to use it loosely. So, in regard to Greek χίμαρ- : Arabic {Himār-}, I detect at least two possibilities, opposite to each other:

(1) that the Greek word for a young goat (no longer a kid) was borrowed from a prehistoric Semitic language closely akin to Arabic, where something much like {Himāran} referred primarily to the animal’s color, but in Greek it came to be understood as the animal’s age;

(2) that (as discussed in 1.Mf) within Semitic an IE word referring to the animal’s age ‘winterling’ — especially but not necessarily a goat — was shifted to quite another kind of animal, and lost its association with age but picked up an association with color.

### 1.N. Recapitulation of Morphology

**1.Na.** What we found in the word for ‘bull’ (1.A) has been confirmed and supplemented by the other non-verbal nouns. We have evidence for these inflections (citing the clearer examples of each):

<sup>250</sup> W. Meyer-Lübke, *Romanisches etymologisches Wörterbuch*, 3d ed. (Heidelberg: Carl Winter, 1935), 130 (#1413, 1416).

<sup>251</sup> Stanley Gevirtz, “Of Patriarchs and Puns,” *HeUnCoAn*, 46 (1975), 39, relates the Spanish *burro* and its feminine *burra*<sup>251</sup> to the Akkadian {būru}<sup>251</sup> (or {pūru}<sup>251</sup>) (see Von Soden, *GrAkGr*, 27-28) ‘young calf’ or occasionally the young of some other beast. Gevirtz cites one instance from *AsDi*, II, 342: {kīma bu-ru-im parsim <ša> imēri inaggag}<sup>251</sup> ‘he brays like the weaned foal of a donkey’. I owe this reference to Gary Rendsburg.



Greek δίδυμον : Arabic {tawṣaman} (1.Dc);  
 Greek Φοῖκον, Avestan {vaēsəm} : {baytan},  
 Hebrew {ḅay(ə)ṭṣ̄N} (1.Ea,d,f);  
 OPer. {viḅam} : Akkadian {ḅītam} (1.Ec-d);  
 Skt. {ájram}, Latin *agrum* : {eqlam},  
 Gr. ἄγρόν Arabic {Haqlan} (1.Ia);  
 Skt. {gárbham}, Av. {garəḅəm}, : Akk. {qerbam}  
 Gr. δολφόν 'womb' Arabic {qalban} 'heart' (1.Ja-c);  
 OE [ʔ]eorðan : {ʔarðan} (1.Fd);  
 Ch. Sl. {imě} : {(ʔ)isman} (1.Hd);  
 Lith. gūrnq : {jurnan} (1.Kg);  
 Latin *agnum*, Greek ἄμνον 'lamb' : {ʕijlan} 'calf' (1.La,c);  
 Lat. *haedum* : {jadyan} (1.Lk);  
 Lat. *asinum*, Lith. *āsilq* : Akkadian {atānam},  
 Arabic {ʔatānan} (1.Ma);  
 Greek χίμαρον 'winterling goat' : {Himāran} 'ass' (1.Mf-g).  
 Greek Φοῖκα|δε : Hebrew {ḅṣy(ə)ṭṣ̄N} 'homeward' (1.Ef);  
 cf. Gr. ἔραζε : {ʔšr(ə)cṣ̄N} 'earthward' (1.Fg).

Latin *agrī* : Arabic {Haqlī} (**1.Ib**, note 166);  
*agnī* ‘lamb’s’ : {ʕijlī} ‘calf’s’ (**1.Lc**, note 207);  
*haedī* : {jadyī} (**1.Lm**);  
*asinī* : {ʔatānī} (**1.Ma**).

Lat. *cornum* : Akkadian {qarnum}, Arabic {qarnun};  
*cornū* (-ū?) : Akk. & Arabic {qarnu) (**1.Bb-d**).  
 Lat. *humus* : Hebrew construct {ʔad(ə)mōl-} (**1.Gd**);  
 Lat. *agnus*, Greek ἄμνος 'lamb' : {ʔeglōl-} 'she-calf' (**1.Ld**).  
 (with no ending)  
 Lat. & Umbrian *ager* : Hebrew absolute {Hōcér},  
 construct {Hăcár} (**1.Ie-f**).

## Feminine (1.Ac7): Add

- Gr. διδύμη (Doric διδύμᾱ) : Arabic {tawʔamah} (pausal),  
 Hebrew {təʔoʷmʃ<sup>h</sup>} (1.Dd);  
 Gr. ἄμνη (Doric ἄμνᾱ) 'ewe-lamb' : {ʔeḡlʃ<sup>h</sup>} 'she-calf' (1.Ld);  
 Thrac. (Phryg.?) Σεμέλη,  
 Ch. Sl., Russian {zemljá} : Heb. absolute {ʔəḏomʃ<sup>h</sup>} (1.Gd).  
 Laconian Greek δίζα : Aramaic {diʔcʃ<sup>h</sup>} (1.Lm).  
 Gothic {kalbo},  
 Old High German *kalba* 'she-calf': Hebrew {kišbʃ<sup>h</sup>} 'ewe-lamb' (1.Lf).

## Nominative dual (1.Ac3): Add

- Greek διδύμῳ : Arabic construct {tawʔamā} (1.Dc);  
 Greek ἄμνῳ 'lambs' : {ʔijlā} 'calves' (1.Lc);  
 Sanskrit {káṛṇā} 'ears' (1.Ci, note 62) : {qarnā} 'horns'.

## Genitive dual (1.Ac4): Add

- Gr. ἄμφοῖν : Hebrew absolute {ʔappʔyim} 'both' (5.G),  
 Gr. κεράτων : Arabic absolute {qarnayn}, Aram. {qarnáyin}  
 (1.Ba) Hebrew {qarnʔyim};  
 Gr. θούατον (1.Cg) : {ʔuḏnayn}, {ʔɔznʔyim};  
 Gr. ἄμνοιν 'lambs' (1.Lc) : {ʔijlayn} 'calves', {ʔeḡláyim};  
 Gr. ΔΙΑΥΜΟΙΥΝ (Arcadian) : {tawʔamayn} (1.Dc).

## Nominative plural (1.Ac5): Add

- Gr. διδυμοί : Aram. (construct) {təʔuʷmeʔ} (1.Da);  
 Gr. ἄμνοί, Lat. AGNEI 'lambs': Heb. con. {ʔeḡléʔ} 'calves' (1.Lc);  
 Latin SACCEI : {šaqqeʔ},  
 Aram. (con.) {saqqeʔ} (1.Me);  
 Latin ASINEI : {ʔəṯɔneʔ} (1.Ma);  
 Gr. ἄγροί, AGREI : {Hæqleʔ} 'fields',  
 cf. Heb. con. {Hac(ə)rēʔ} 'enclosures',  
 Skt. {ájṛās} : {Hac(ə)róʷt},  
 Aram. con. {Hæqlɔʔ} (1.Ie).  
 Lith. *gīrnōs* : cf. Heb. con. {gɔr(ə)nóʷt} (1.Kg);  
 OHG *kilbur* : {kiš(ə)ḃot} (1.Lf).

Genitive plural (1.Ac6): Add

Latin HAIDOM : Arabic {jidyān} 'a lot of kids' (1.Lm).

Greek ἄγρῶν : Aramaic absolute {Hæqlōn} (1.Ie).

Aram. abs. {šəməḥən} : Av. nom./acc. & general pl. {nā mān} (1.Hb).

Accusative plural:

Latin asinōs, suggested by Heb. pl. {ʔātonó(ʷ)t̃} (1.Ma-c).

Classifying suffix [-N] 'paired'

Old English, etc. horn : Hebrew {qǝren}

Old High German [ʔ]oren : {ʔózen},

Old English [ʔ]e(a)gan : {ʕáyin} (1.Cb,e-f);

Sanskrit {ast<sup>h</sup>án} : {ʕécem} (1.Ch);

Ukrainian {žórno} 'millstone' : Arabic {jurn} 'mill' (1.Kb,h).

**1.Nb.** The accusative singular, as in Greek -ον : Arabic {-an}, is more copiously attested than any other ending shared by IE and Semitic languages. To prove this is not an isolated (and conceivably a fluky) correspondence, the genitive singular — Latin -ī : Arabic {-ī} — is of great import; but on the Arabic side we have scanty attestation, because only in poetry and only at the end of a verse can {-ī} replace the usual {-in}. Similarly, the precious evidence for perfect correspondences in the dual is sparse: The Greek nominative dual ταύρω 'bulls' occurs in one text, and the Arabic genitive dual {ḥawrayn} (pausal) just in one also. Their counterparts, the Greek genitive ταύρων and the Arabic nominative {ḥawrā}, must have been current in the respective languages — there is no reason to imagine the contrary; but I cannot document them anywhere in the corpus (1.Ac).

However large the corpus of these two languages, and of certain others from antiquity, it is not a cross-section of the total usage of each community. Some spheres of discourses are relatively well represented in the written texts that have survived; but many others are doubtless under-represented, or even missing altogether. The information we have enables us to extrapolate reliably, though on a small scale, back into the PREHISTORY of the languages. Thus a little of the experience that the peoples long ago shared comes to light through the cognate items of vocabulary — especially those items which include inflections; for they are the ones that prove there was more than merely casual or slight contact.

Each item definitely on record holds some positive CULTURAL significance, not always easy to pin down. From the occurrence of the dual ταύρω I infer (1.Ad, note 15) that in the third century B.C. the Greek poet Apollonius still recalled the former practice of yoking bulls. Although the entire category of dual forms, well before his generation, had almost completely given way to the plural in ordinary usage,<sup>252</sup> this did not bar him from bringing ταύρω into his epic *Argonautica*, which dealt with the mythical past and imitated the Greek of Homer half a millennium or more earlier than Apollonius. For either he knew ταύρω through texts — whether verse or prose — that have not come down to us; or else he formed it readily from ταυρ- + -ω, since the singular and the plural of ταυρ- were in the everyday vocabulary of all Greeks familiar with bulls. Either way, for our linguistic purpose, ταύρω is part of Apollonius' Greek heritage — not an innovation of his.

Somewhat differently, the lone occurrence of the Hebrew dual 'calves' in the place-name {עֵין עֶגְלָיִם} '(Two) Calves' Spring' (1.Lc) argues that the people of the vicinity must have had occasion to use the dual form of this word much oftener than other Hebrews. Though many place-names arise simply or spontaneously from the general vocabulary, once established they may well perpetuate a word or form that sinks into oblivion otherwise. In extreme but not infrequent cases a place-name has survived the total extinction of the language in which it originated.

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<sup>252</sup> The Jewish translators of the Scriptures, contemporary with Apollonius or later, uniformly used the Greek plural — even where the Hebrew noun is dual. They felt no such literary motive as he had to resort to old-fashioned Greek.

## Chapter II

### VERBAL ROOTS

The present topic is, at least theoretically, the most important in the book, but perhaps the most difficult. The roots, embodied in verbs, verbal nouns, and other verbal derivatives, are of generally similar structure in IE and Semitic, as also in the distantly related African languages. But since the roots consist fundamentally of consonants, and the consonants in all these languages are rich, complex systems, the possibly cognate roots are many but the demonstrably cognate ones few. Accordingly the ultimate genetic question becomes most elusive: Do some roots, if only a few, go back to a PRIMEVAL UNITY, or do they rather testify only to a sort of TYPOLOGICAL PHONETIC COMPATIBILITY so that individual roots could readily pass from languages of one group to another?

A root, as the term is most often used, is an abstraction from actual words related to one another in form along with meaning, but at the same time partly different. In the clearest cases the root is what all the related forms have in common (see Levin, *SyWr*, 505-514). But in some of the forms not all of the root may be present; and this aspect of the procedure of both the Semitists and the Indo-Europeanists is liable to verge upon the fictitious, unless the latency of part of the root in certain forms is accounted for on good phonetic grounds.

**2.A. Biconsonantal IE (Gr.)**  $(-)\phi(-)\rho(-)^1$  : *Sem. (Heb.)*  $\{(-)P(-)r(-)\}$  'bear'  
*Sem.*  $\{(-)ʕ(-)l(-)\}$  : *IE (Latin)* *al-* 'go or raise' up'

**2.Aa.** A root in the sense just described is not always distinguished from the briefest actual form.<sup>1</sup> The Latin imperative singular *fer*<sup>v</sup> is an example; for within Latin each and every related form includes these three sounds, plus some prefix or suffix or more than one suffix. A very simple derivative is the

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<sup>1</sup> The parenthetical hyphen at the beginning indicates that either a word may begin here or something may be prefixed. At the end it indicates similarly that either a word may end here or something may be suffixed. In the interior it indicates that some sound may come in between, but not always.

imperative plural *ferite*<sup>√</sup>. In Greek, however, rather than any form corresponding exactly to *fer*,

the imperative singular is φέρει<sup>√</sup> with the so-called thematic vowel -ει;

and its plural is φέρτε<sup>√</sup>,

although φέρτε<sup>√</sup> without the thematic vowel occurs also in the earliest literature.<sup>2</sup>

The related noun φόρος<sup>√</sup> 'a carrying' (specifically of a required contribution — hence 'tribute') shows how the root does not include an invariable vowel, as it does in Latin.<sup>3</sup> So far, the root in Greek may be formulated either as (-)φε<sub>ι</sub>/ορ- or as (-)φ-ρ-. To argue that it is (-)φερ-, we would have to hold (as many Indo-Europeanists do) that all the (-)φορ- forms are somehow secondary, derivative, or at least that (-)φερ- has the advantage of being most like the Latin *fer*.

The Sanskrit forms are, in the main, thematic like the Greek. The closest correspondence is illustrated by

the imperative sing. भ रं<sup>√</sup> {b<sup>h</sup>āra} (: φέρει)

and plural भ रं त<sup>√</sup> {b<sup>h</sup>ārata} (: φέρτε).

The non-thematic भ ति<sup>√</sup> {b<sup>h</sup>ārti} 'he/she bears' (cognate to Lat. *fert*<sup>√</sup>)

is a rare alternative to भ रं ति<sup>√</sup> {b<sup>h</sup>ārati} " " (thematic and usual)

and to बि भं ति<sup>√</sup> {bib<sup>h</sup>ārti} " " (reduplicated non-them.).

Instead of either [e] or [o], Sanskrit has the neutral vowel customarily transcribed {a} but really pronounced [ʌ] (as in the English word *punch*; *InEuSeLa*, 152). Sanskrit grammar has treated the root as भृ {(-)b<sup>h</sup>ṛ-}, which is certainly the briefest syllabic manifestation of it,

as in बि भृ म सि<sup>√</sup> {bi|b<sup>h</sup>ṛ|mási} 'we bear';

for Sanskrit, unlike Greek and Latin, has the vocalic [ṛ] (and in one root the vocalic [ḷ]). The Nāgarī script is less conducive to perceiving the root as just

<sup>2</sup> The dactylic meter ~ ~ ~ of Homer accommodates φέρτε (*Iliad* 9.171) much more readily than φέρτε — the latter only by elision, φέρτε<sup>√</sup> (17.718).

<sup>3</sup> The Latin noun *fōrs*<sup>√</sup> 'luck' has been etymologized to be a derivative from this root. That is semantically (as well as morphologically) possible, but unproved; see Ernout – Meillet, *DiÉiLaLa*.

two consonants; e.g. बि भ ति √ {bi|b<sup>h</sup>r|ati} 'they bear'

(in which the {a} is not thematic but part of the 3d person pl. ending (-ati) < \*-*nti*). In Greek this happens too, although the only verbal example with this root is a compound of rare occurrence,

the reduplicated ἔσπε|πει|ἀναί √ 'to bring into, to insert'.<sup>4</sup>

Without citing any Semitic cognate so far, but doubtless being influenced by our knowledge of Semitic languages and their grammar, we have shown from IE evidence that this pan-IE root is consonantal: it is not necessary that a vowel — let alone a particular vowel such as *e* — come between the consonants. The Indo-Europeanists' citation of this root as *\*bher-* ranks merely as a convention. It should not commit anyone to the vowel being as fundamental as the consonants.

**2.Ab.** The closest Semitic match to this particular IE verb is the Hebrew imperative singular פִּרְאֵךְ √ {pəré<sup>h</sup>} (masc.) : Greek φέρε. While Hebrew had no phoneme opposition between aspirate /p<sup>h</sup>/ and non-aspirate /p/, as Greek did (φ and π respectively), there is indirect evidence that the פ was on the whole aspirate [p<sup>h</sup>] like the English /p/ in most environments.<sup>5</sup> Semantically the root in Hebrew is limited to the bearing of FRUIT — and, by extension, human or animal offspring in abundance; it does not take in CARRYING, which is the most frequent reference in the ancient IE languages. The Biblical {pəré<sup>h</sup>} is translated 'be fruitful' (Gen. 35:11). Offhand we might infer that (-)פ(-) was a relatively late prehistoric borrowing from Greek or a phonologically similar IE language, and furthermore a borrowing within a small part of the semantic field as that field appears in IE. Such an inference, however, is shaky. This root is fairly widespread in Semitic, notably in Ethiopic (Geʿez

<sup>4</sup> The noun διφρος √ 'a two-carrier' — i.e. a chariot-board; later, a stool — has -φρ- in contrast to many other compounds that end in -φóρος √ (2.Ab).

<sup>5</sup> In the ancient translations of the Hebrew Scriptures into Greek, nearly every occurrence of the letter פ in Hebrew proper names is transliterated Φ (as פ and פ are transliterated Θ and X respectively). Also, before the era of the translations, certain phenomena of Hebrew spelling, especially the presence or absence of פ {h} at the end of a word, point to the pronunciation of פ פ פ as aspirate in most environments (1.Mb, note 240, and *InEuSeLa*, 573-584).

imperative singular masculine {fērī}§). Furthermore, Cushitic cognates (or borrowings) are found: Agaw and Bilin *frī*√ ‘bear fruit’.<sup>6</sup>

The Hebrew active participle *פֹּרֵה*√ {porē<sup>h</sup>} ‘bearing’ or ‘bearer’ (masc. sing., Deut. 29:17) is most like the Greek vocative -φόρε√ in compounds such as

υδριᾶφόρε√ ‘pitcher-bearer’ (Brown – Levin, *EtPa*, 83).

(*F*)οينوφόρε† ‘wine-bearing’ would correspond beautifully

ly to *יֵין פֹּרֵה*† {porē<sup>h</sup>yōyin} [p<sup>h</sup>],

except for coming in the opposite order. Likewise ‘nard-bearing’

ναρδοφόρε† : *נָרְדֵּה פֹּרֵה*† {porē<sup>h</sup>nérd}.<sup>7</sup>

This carries over into the Greek nominative plural and the Hebrew construct plural: (*F*)οينوφόροι† : *יֵין פֹּרֵי*† {porē<sup>y</sup>yōyin}

ναρδοφόροι† : *נָרְדֵּי פֹרֵי*† {porē<sup>y</sup>nérd}<sup>8</sup>

The other order in Greek compounds, illustrated by φερέοικοι√ ‘carrying [their] house(s)’, fits the order of the Hebrew, but the vowels [-e-e-] are the same as in an imperative or indicative verb.

The Hebrew feminine singular of the participle *פֹּרִיָּה*√ {poriyōy<sup>h</sup>}

is reminiscent of the Greek -φορίᾱ√

in compound nouns expressing an action; e.g. στεφανηφορίᾱ

(in the accusative στεφανηφορίᾱν√) ‘wearing a wreath’, νικᾶφορίᾱ√ ‘victory’

(literally ‘bringing of victory’; Doric dialect), λαμπαδηφορίῃ√ ‘torch-bearing’ (Ionic).

<sup>6</sup> Leslau, *CoDiGe*, 167; Cohen, *EsCo*, 169. Cohen’s citation of Egyptian “*pry* ‘fructifier’ ” does not seem warranted by anything in Erman – Grapow, *WöAeSp*, I, 518 ff.; but his “*npr* ‘céréale’ ” is well attested and may be relevant to this etymology if {n-} can be taken for a sort of prefix. (Carleton Hodge points out to me the Egyptian verb {prī}√ ‘go (or come) out’ and the related noun {pr.t}√ ‘fruit’ or ‘seed’.) Cohen had a further suggestion: “Rapport avec l’indó-européen (latin *frug-*)?” but not with *fer*. The French (and English) *fruit*√ is from the Latin verbal noun *fruct|us*√ ‘harvest, benefit, enjoyment’, based on the verb *fru|or*√ ‘I enjoy’; what we may now think is the FIGURATIVE meaning, as in the *fruit of my labor*, is etymologically closer to the basic sense of the Latin word.

<sup>7</sup> The correspondence of -< to {-e} will be studied in the sequel to this volume.

<sup>8</sup> Brown – Levin, *EtPa*, 87; the credit for this etymology belongs, by rights, not to me but to Brown. He was anticipated by Yahuda, *HeGr*, 42, who referred to Deut. 29:17 but without any attention to the vowel pattern {-o-e-}. The Latin cognates would be *uñiferi*†, *nardi-feri*† (fem. pl. *uñiferae*†, *nardiferae*†). The singular case-forms *uñifera*√, *nardi-ferum*√ are attested.



**2.Ac.** We saw, in the Latin *fer*, the root — with neither a prefix nor a suffix — functioning as an imperative singular. Nothing in Semitic is quite like that. The closest parallel, semantic as well as phonetic, is

the Hebrew jussive  $\text{יִפֶּר}^{\dagger}$  {yíṭer} 'let him/may he be fruitful'

and the causative imperative  $\text{הִפֶּר}^{\dagger}$  {héṭer} 'make fruitful'.<sup>9</sup>

{-ṭer} is almost identical in sound with *fer*; but its fricative articulation depends on coming right after a vowel (*InEuSeLa*, 324-325), whereas the Latin *f* — a labio-dental fricative, not a fricativated bilabial plosive — comes primarily in an initial position.

**2.Ad.** Bomhard (*ToPrNo*, 190) compares (-)פּר(-) not to *fer* and its many IE cognates, but to a different Latin verb, which in the imperative singular is *pare*<sup>†</sup> 'bear' only in the sense of giving birth. By his system of consonantal correspondences, the Latin *f* (Greek φ, Sanskrit {b<sup>h</sup>}, etc.) and the Semitic {p} (Arabic and Ethiopic {f}) cannot be from a common Nostratic source. So if they do correspond in a particular etymology, that would be due to some later contact, which Bomhard — like other Nostraticists — excludes in principle from his purview, just as he considers vowels intractable and in effect irrelevant.

The structural or morphological match between *pare*

and the Hebrew  $\text{פָּרַע}^{\vee}$  {pəré<sup>h</sup>} [p<sup>h</sup>]

is nearly though not quite as good as between φέρει [p<sup>h</sup>ere] and  $\text{פָּרַע}^{\vee}$ .<sup>10</sup>

Semantically the two correspondences are hard to rate against each other. For this Latin verb is unlikely to be used in the imperative mode; the Hebrew imperative (singular) comes up only because it fits into blessings (cf. Gen. 1:22,28, 8:17, 9:1,7). And outside of the imperative this Latin root has no Hebrew cognates that approach the neatness of -φόρει : {póre<sup>h</sup>},

-φóροι : {póre<sup>y</sup>},

-φορίᾱ : {poriyyó<sup>h</sup>}.

<sup>9</sup> The form actually quotable is the causative preterite  $\text{וַיַּפֶּר}^{\vee}$  {wayyēṭer} 'and he made fruitful' (Ps. 105:24).

<sup>10</sup> The Greek and the Hebrew correspond best when both are unaccented, as in the compound  $\text{πρόφερει}^{\vee}$  'bring forth' and the hyphenated  $\text{פָּרַע}^{\dagger}$  {pəre<sup>h</sup>}.

So I feel unable to settle whether (-) **פַּר** (-) is related to one IE root or to the other, or to both but at separate periods in prehistory, or to neither.

**2.Ae.** According to Möller (*VeInSeWö*, 34-35) and Bomhard (*ToPrNo*, 197), the Semitic cognate of *fer*, φέρει, {b<sup>h</sup>ara} is the root (-) **בָּרָא** (-) 'shape, create'.<sup>11</sup>

The Hebrew imperative sing. masc. **בָּרָא**<sup>√</sup> {bərɔʔ}

does not match the Greek imperative sing. φέρε very well in its vowels.

The active participle {boréʔ} in **בֹּרֵא**<sup>√</sup>

is most similar to the Greek -φóρε.

The unattested combination **בָּרָא יַיִן**<sup>†</sup> {boréʔ yɔyin} 'creating wine' or 'creator of wine' would be pretty close to the equally unattested compound (F)οινοφóρε (**2.Ab**). In my estimation this correspondence is somewhat less than satisfactory, but strong enough to raise the issue between competing etymologies. Must we choose between {póre<sup>h</sup>} and {boréʔ} as the cognate of -φóρε? Is neither alternative trustworthy?

We seem to need a criterion for picking out the valid consonantal correspondences, when they are not self-evident. Here is the criterion that commends itself to me, at least for the present: Whichever correspondence in the consonantal root is accompanied by a morphological correspondence, or by a better morphological correspondence, gets priority. On that basis {päre<sup>h</sup>} would have it over {bərɔʔ}. Furthermore, the {CəCé<sup>h</sup>} structure of Hebrew has several good parallels to IE imperatives, as we shall see in the ensuing sections (**2.Af-g**) and later in the chapter.

**2.Af.** Semitic philology is long accustomed to consonantal roots, partly because of Arabic and Hebrew writing. Also the guttural or laryngeal consonants

<sup>11</sup> Illich-Svitych, *OpSr* (b-Ḳ), 176-177, compares this IE verb to "с.х. *br* 'хватать, по-  
~~хват~~ать' " — i.e. to Semito-Hamitic (= Afro-Asiatic) \**br*- 'to seize, to catch' — which he bases primarily on an Akkadian verb "*b'r* (praet. -*bār*) 'повить' " and noun "*bā'iru* 'повей' " (i.e. 'hunter'). He brings in some modern South Arabian dialect forms, and still others from Berber, Cushitic, and Chadic; none of them, however, am I able to connect with any etymologies in Cohen, *EsCo*. Illich-Svitych further cites cognates in Altaic and (with a question mark) in Dravidian, and concludes rather paradoxically: "Исходное значение 'брати' сохраниено в алт., драв. и отчасти в и.е." — i.e. the original meaning 'to take' is preserved in Altaic, Dravidian, and partly in IE (he is referring to Slavic, as he has explained in an earlier paragraph). All this is quite a bit different from his earlier article, *MaSrSl*, 332, 361.

facilitate the doctrine of consonant roots; for instance the root (-)על(-) '(be) high', (-)על(-) '(go) up' has the two consonants quite undisguised throughout the verb-conjugation and the other derivatives, regardless of the great variation in the vowel between them, or even the absence of any vowel as in Hebrew מַעֲלֶה <sup>√</sup>{má|ʕl|jḥ} 'upward, higher'.

The likely IE cognate exhibits, in Latin,

the imperative *ale* <sup>√</sup>'nourish, raise up',

the participle *altus* <sup>√</sup>'raised up, tall',

and with a prefix *adultus* <sup>√</sup>, etc.;

a somewhat unsteady vowel represents all that may be left of a laryngeal consonant (see Bomhard, *ToPrNo*, 264). The Germanic cognate, to be sure — e.g. Old English *eald* <sup>√</sup>(> *old* <sup>√</sup>), Old High and Modern German *alt* <sup>√</sup> — has a pronounced though unwritten glottal stop [ʔ] (1.Cb,e). And the laryngeal theory derives all the historical IE languages from a proto-language having several laryngeal consonants. (See Addenda, p. 456.)

On the African side the Berber languages are not reported to have any laryngeal consonants, but the Cushitic are — at least some of them (Cohen, *EsCo*, 76-100 passim). In that regard Berber is rather like IE, while Cushitic is like Semitic. Ancient Egyptian, as deciphered by the Egyptologists, is full of laryngeal consonants; the vowels are unrecorded (except for their reflexes in Coptic) and presumably varied as much as in Semitic, or even more.

**2.Ag.** The Hebrew imperative מַעֲלֶה <sup>√</sup>{ʕälé<sup>h</sup>} 'go up' matches *ale* very well phonetically, but semantically it is more difficult. One Biblical passage with the causative form of this verb, 'and she raised (וַתַּעֲלֶה <sup>√</sup>{wattáʕal}) one of her cubs' (Ezekiel 19:3), helps to bridge the gap; for it could easily be translated *aluit* <sup>√</sup>,<sup>12</sup> and it is homophonous with the frequently occurring וַתַּעֲלֶה <sup>√</sup>'and she went up' of the simple conjugation.

The causative imperative הַעֲלֵה <sup>√</sup>{haʕälé<sup>h</sup>}<sup>13</sup> — i.e. the causative prefix {ha-} + {ʕälé<sup>h</sup>} — would correspond to *ale* neatly, apart from that He-

<sup>12</sup> The actual rendering in the Latin Vulgate is *eduxit*.

<sup>13</sup> Found in post-Biblical Hebrew; e.g. in the eighth of the famous Eighteen Benedictions: "and raise up perfect healing". The normal Biblical form of the causative imperative is הַעֲלֵה <sup>√</sup>{háʕal}; with an object-suffix {haʕälé|hu} in הַעֲלֵהוּ <sup>√</sup>'and send him up'.



**2.Bb.** For a verb in one language or group of languages to correspond to a prefix in another may be surprising, but — upon reflection — quite acceptable. A very short verb in Hebrew is often virtually compounded with another verb:

לָקַח-רָדָה<sup>√</sup> {lĕk-réd} (Ex. 19:24, 32:7), where {lĕk-} is 'go', the most general verb of motion, and the verb {réd} specifies the direction 'down';

בָּא-רָדָה<sup>√</sup> {lĕk-bó} 'go in' (Is. 22:15, Ezek. 3:4),

שׁוּב-רָדָה<sup>√</sup> {lĕk šúw} 'go back' (I Kings 19:20; cf. 19:15, Ex. 4:19), which would be *red|ī*<sup>√</sup> in Latin.

{lĕk} or *ī* by itself constitutes an imperative verb 'go', {šúw} by itself an imperative verb 'go back'; but *red-* is only an inseparable prefix 'back'. And while there is a Semitic verbal root {(-)r-d(-)}, the Latin counterpart does not function as a root. Thus Hebrew has an imperative plural רָדוּ {rădu<sup>w</sup>}; if used along with another verb, both are pluralized: בָּאוּ-רָדוּ {bóu<sup>w</sup> rădu<sup>w</sup>} 'go down in' or 'come down' (Joel 4:13); but the Latin plural ending *-te*, as in *īte*<sup>√</sup> 'go' or *redīte*<sup>√</sup> 'go back', is attached to *ī* 'go', not to *red-*.

The Hebrew imperative singular feminine רָדִי<sup>√</sup> {rădi<sup>y</sup>} (pausal רָדִי† {rădi<sup>y</sup>}), Arabic رِدِي<sup>√</sup> {ridi<sup>y</sup>}, sounds almost the same as *redī*; but it seems as if it must be by accident that this Semitic feminine suffix matches an IE verbal root which means 'go'. If {réd|i<sup>y</sup>, rid|i<sup>y</sup>} and *red|ī* had indeed a common source, I can scarcely conceive of how the [-i] part could ever have been so drastically reinterpreted on one side or the other, or on both sides. Yet the divergence between {réd, rid} and *red-* is much more credible. It only presupposes a time of such fluidity or flexibility that the [r-d] morpheme expressing a motion was not utterly committed to the grammatical category of the verb but was liable to be drawn into it.<sup>17</sup>

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seems a little closer semantically to the Semitic verb; the Egyptian verb {rd}<sup>√</sup> 'grow', however, appears unrelated.

<sup>17</sup> The etymology of the English adverb and preposition *down*<sup>√</sup>, if it were not well documented, would be at least as astonishing as my proposed etymology of {réd, rid} : *red-*. *Down* is from Old English *adūne*<sup>√</sup>, a somewhat irregular abridgement of *ofdūne*<sup>√</sup> 'off-down' — i.e. off a hill. (The modern English *dune*<sup>√</sup> was borrowed from the French across the Channel, which had gotten it from Flemish in that border region between Romance and Germanic languages. The wind-built dunes, hills of sand, along that eastern shore differ strikingly from the downs of England, although both words go back to the same

Returning to the Hebrew {lək-réd} ‘go down’, we can fairly propose an alternative to analyzing {lək} ‘go’ as a mere redundance; namely {réd} is what contributes the meaning ‘down’. Where {lək} is not expressed, as in **יָרַד בַּמַּחֲנֶה** {réd bammaHănē<sup>h</sup>} (Judges 7:9), the utterance can be understood as ‘Down into the camp!’<sup>18</sup>

## 2.Bc. The perfect of this Semitic verb —

Heb. **יָרַד** {yɔrād} ‘he has gone/come down’ (pausal **יָרַד** {yɔrɔd})

Geʿez {warada} “ “ “ “ “

Arab. **وَرَدَ** {warada} ‘he came/has come’ (esp. to a place with water), etc.

— is connected by Möller (*VeInSeWö*, 271; Cuny, *InÉtCo*, 170) to IE \**u-rt-*. The best IE examples are

Skt. **आवर्त** {ā|vart} ‘it has rolled’ (aorist with accented prefix {ā-})

Latin *uerte* {‘turn’ (imperative singular). [‘upon’]}

This kind of motion is compatible, or not greatly at variance, with the meaning in Semitic, where also it is not quite the same from one language to another.

Germanic etymon, found also in Celtic.) — In Khmer (Cambodian) the word {tə:} functions sometimes like the English verb ‘go’ and sometimes like ‘to’.

<sup>18</sup> The unaccented **יָרַד** {réd}, hyphenated to the next word, has exactly the same vowel-quality as the Latin *red-* [e]. The absence of the singular **יָרַד** from the Biblical corpus must be merely accidental; for the plural occurs: **יָרְדוּ-שָׁמָּה** {rədu<sup>w</sup>-šómmə<sup>h</sup>} ‘go down there’ (Gen. 42:2).

Although there is no instance in the ancient Hebrew corpus of **יָרַד** on the way to becoming a prefix (like **יָרַד הַלְתַּחֵם** in Moabite), this lack may be accidental; for I find a few occurrences of other short verbs functioning almost like prefixes:

**שֶׁלֶּה יָרַד** {šəlé<sup>h</sup> réš} ‘(go) up, seize [it]’ (Deut. 1:21; cf. 2.Ag);

**שָׁב שָׁב** {šəḇ šəḇ} ‘(go) back, lie down’ = ‘lie down again’ or ‘go back to sleep’ (I Sam. 3:5,6; in the Vulgate *reuertere dormi* [two imperatives], but more idiomatic Latin would have called for just the compound verb *redormī*, as in *redormīre* ‘to go back to sleep’; cf. Pliny, *Ep.* 9.36.3);

**שָׁב קַח-לְךָ מִלְּךָ אַחֶרֶת** {šəḇ qaḥ-ləḵó məgilló<sup>h</sup> aḥēreṯ} ‘(go) back, get you(rself) another scroll’ (Jer. 36:28); the Vulgate handles the preliminary verb as though it were merely an adverb: *ursum tolle uolumen aliud* ‘again take another scroll’; the meaning is close to the compound verb *re|cipe*.

Phonologically the correspondence is adequate, granted that the voiceless *t* of the ancient IE languages does not match the voiced Semitic consonant as exactly as the voiced *d* in *red-*. In Sanskrit, however, {ávard}√ is actually found where the next word begins with a vowel or a voiced consonant. The Hebrew {y-} poses no difficulty, since in Hebrew, Aramaic, and Ugaritic this always replaces the {w-} of Arabic, Akkadian, and Ethiopic at the beginning of a verb — and of a noun too, in general.<sup>19</sup> Morphologically, the unsuffixed Sanskrit {-vart} is a pretty good match to the Hebrew {yvrád} and the Arabic pausal [warad]§.

The thematic {-vártat} in नि व र्त्त त्√ 'it rolled down' means the same as {-vart} but has an explicit ending for the third person singular; and this recalls Arabic وَرَدَتْ√ {waradat} 'she came down (to the water)'. Gender in verbs sets Semitic off from IE; we must examine elsewhere whether this is merely an accidental similarity or originally the same morpheme in the forerunner of Sanskrit and the forerunner of Arabic, which later diverged in its grammatical function (Levin, *SeEv*, 258).

The Gothic cognates of Sanskrit {(-)vart(-)}, Latin (-)uert(-) — e.g. {warþ}√ 'he/she/it became' — show a voiceless fricative. In the other Germanic languages (attested later than Gothic) this is complicated by "Verner's law", which entails a voiced plosive wherever the accent in prehistoric IE followed this consonant instead of preceding it:

Old English	wearþ√ (like Gothic) <sup>20</sup>
but the plural	wurdon√ '(we/you/they) became'
and the adverb or preposition	toward√, toward√. <sup>21</sup>

<sup>19</sup> After the causative prefix the {w} appears in Hebrew too: הוֹרִיד√ {ho|réd} 'bring down'. In the Cushitic languages Bilin and Quara, wārād√ 'go down' is undoubtedly borrowed from Semitic languages of Ethiopia (Leslau, *CoDiGe*, 617).

<sup>20</sup> The alternate spelling with -ð instead of -þ points to a phonetic variation between voiced fricative and voiceless fricative. However, it was not yet phonemic, as it has become now that we pronounce *mouth*√ as a verb with /-ð/ to distinguish it from the noun with /-þ/.

<sup>21</sup> Cf. Latin *uersus*√ (earlier *uorsus*√) 'turned' or 'toward'. The -s- is the normal outcome in Latin of *t* at the end of one morpheme + *t* at the beginning of the next one (here the passive suffix); but it may be doubted whether the voiceless sibilant was really produced from a prehistoric sequence of two voiceless plosives.

For High German there are further complications:

singular *ward*<sup>√</sup>,

plural *wurtun*<sup>√</sup> (now *wurden*<sup>√</sup>, with leveling of the OHG consonantal alternation).

**2.Bd.** Comparative linguistics has customarily preferred to posit a SCHEMATIC UNIFORMITY of articulation in a reconstructed proto-language, and then a great deal of SUBSEQUENT DIVERGENCE in the prehistoric development of the recorded languages. To me the first part of this seems inherently improbable (see my *VePrPh*, 219-226, and *RoInEu*, 551-554). In the particular root that we have been studying, I am not ready to decide whether the exact correspondence of the Arabic {d} in the imperative {rid} to the Latin *d* in *red-* represents an unbroken tradition of voiced plosive articulation over the centuries (or millennia).

Nor would I decide in regard to the identical Arabic {d} in the perfect {warad(a)} (plural وَرَدُوا<sup>√</sup> {waradu<sup>w</sup>(?)}, whereas Old High German has *d* only in the singular but Old English has *d* only in the plural, and Sanskrit has {d} in {-vard} only when unsuffixed before an initial vowel or voiced consonant in the next word. Does this also point to an unbroken tradition in some other parts of the IE territory? All three of these IE languages have [d] alternating with another dental consonant: *t* (probably [tʰ]) in Old High German, {t} (non-aspirate) in Sanskrit, -*þ* or -*ð* in Old English. This last fricative must be nearly identical with the Hebrew {ḏ}. So the range of articulations in Semitic partly intersects the range of articulations in IE. We may not be able to establish how much of this variation goes back to a prehistoric period of contact, and how much must be developed later and independently.

**2.Be.** Another inseparable prefix of Latin, *sē-*<sup>√</sup> 'apart', has a possible Semitic cognate in the Hebrew verb נָצַח<sup>√</sup> {ce<sup>?</sup>} 'go out'. The combination <sup>?</sup>{leḵ-*ce*<sup>?</sup>} does not occur and may well have been blocked by something idiomatic that we are unable to pin down. Latin has many compound verbs such as *sē|cēde*<sup>√</sup> 'move aside, withdraw', *sē|pōne*<sup>√</sup> 'lay aside', though fewer than the compounds of *re(d)-*. *\*sēd|ī* 'go off' is unrecorded and doubtless obsolete in the recorded period; but its former existence is attested indirectly by the



derived noun *sēditiō*<sup>22</sup> 'a going-off' (but used only in a political context of withdrawal from civic order).<sup>22</sup>

According to Hebrew morphology {ce'} is a MINIMAL VERB-FORM; but it functions no less clearly as an exclamatory 'Out!' (like the exclamatory {rēḏ} 'Down!' 2.Bb) — e.g. in the curse upon David as he retreated from Jerusalem, מִן־הַדָּם שֶׁנֶּשְׂפָּקָה לָנוּ {ce' ce' ʔiʕš haddəmîʔm} 'Out, out, man of bloodshed!' (II Sam. 16:7). The correspondences {rēḏ} : *red*-<sup>23</sup> and {ce'} : *sē-* are the briefest we have entertained, no more than two consonants and the vowel between them; or instead of the second consonant, an extension of the vowel. I would consider that too little, especially in view of the semantic divergence — '(go) down' : 'back' and '(go) out' : 'apart' — were it not that the two correspondences are so similar to each other. The two together — that is what adds credibility.

That *red-* and *sē-* do not function in Latin as separate adverbs, nor even as prepositions, seems — offhand — to count against etymologizing a common source for them and for the Hebrew verb-roots {rēḏ} '(go) down', {ce'} '(go) out'. But it may, on the contrary, point rather to a very early prehistoric starting-point of the divergence, when the two morphemes in an ancestral language functioned in such a way that they could develop syntactically in either direction, as they did in Latin or as they did in Hebrew.

No other IE language has a prefix cognate to *sē-*. The Hebrew root, on the contrary, has many Semitic cognates; e.g., in the perfect tense, שָׁחַט {yḥṣṣ'} 'he went/has gone out' : Geʕez {wacʔa}<sup>24</sup> or {waḏʔa}<sup>24</sup>. Nothing else in Semitic, however, is quite so close to *sē-* as the Hebrew {ce'}.<sup>24</sup>

<sup>22</sup> Presumably the imperative plural *\*sēdīte* would have used more than the singular. The actually attested *sēdī*<sup>23</sup> 'I (have) sat' belongs to a quite different verb, whose IE cognates will be taken up in the next section.

<sup>23</sup> This would be רָדָה {rēḏ-} if unaccented, like {lēḱ-}.

<sup>24</sup> Thanks to Carleton Hodge, I would also mention the Egyptian verb {sī}<sup>24</sup> (or {zī}<sup>24</sup> 'go', which has an imperative {is}<sup>24</sup> (or {iz})<sup>24</sup>. Gardiner, *EgGr*, 257: "The *i* is the prothetic *i* ...; the verb-stem is uncertain, but doubtless began with *s*."

I use {c} to transcribe the Geʕez letter Ṣ (cognate to the Hebrew צ ). Occidental grammarians have described its pronunciation as affricate (1.Fg); however, most scholars transcribe it š (the dot standing for an "emphatic" modification of [s] — glottalized in Ethiopic, rather than velarized as in Arabic).

**2.Bf.** Still another verb of the same type in Semitic —

Hebrew  $\text{שָׁב}$ √ {šēb} (or unaccented  $\text{שָׁב}$ √ {šeḇ-},

Aramaic  $\text{ܫܒ}$ √ {tiḇ} <sup>25</sup> 'sit' —

should be compared to the pan-IE verb exemplified in Sanskrit by

the imperative स द√ {sada}, स दा√ {sadā},

with the thematic vowel {-ā} as in all forms of the present and the imperfect.

A few aorist forms in Sanskrit are without the thematic vowel; but they need another suffix, as in स त्सि√ {sātsi} 'you sit' (injunctive).<sup>26</sup>

The perfect tense has a more open vowel, besides a syllable prefixed to the root:  $\text{שָׁב}$ √ {yo|šāb}

pausal  $\text{שָׁב}$ √ {yo|š 3b} :  $\text{שָׁב}$ √ {sa|sād|a} 'he (has) sat'

$\text{שָׁב}$ √ {yo|šāb|t}

pausal {yo|š 3b|t} in  $\text{שָׁב}$ √ {sa|sāt|tʰa} 'you (have) sat'

in Hebrew and Sanskrit respectively (*InEuSeLa*, 560); the Sanskrit vowel transliterated {a} is really the intermediate [ʌ]; only the long {ā} is wide-open.

The difference in aperture (or Ablaut) shows up in the Germanic languages; our modern English *sit*√ : *sat*√ is well represented in Old English, Old Norse, Gothic, etc. Furthermore the Norse second person singular *sazt* <sup>§</sup> (< pre-Germanic *\*sottʰa*) matches the Sanskrit {sasāttʰa} except for the reduplication. Hereafter we shall study how the Hebrew palatal consonant {y-} may be paralleled in IE. The Germanic *sit*, like other verbs of similar structure, is generally taken to be from a thematic form in pre-Germanic, and thus related to the Sanskrit {sada} rather than *\*{sad}*. That it was really so, especially in the imperative — i.e. that a consistent theory of prehistoric development requires

<sup>25</sup> Doubtless  $\text{ܫܒ}$ † {tiḇ},  $\text{ܫܒ}$ † {tiḇ} in Biblical Aramaic (cf. the imperfect  $\text{ܫܒ}$ √ {yittiḇ} 'it will sit', Dan. 7:26).  $\text{ܫܒ}$ † {ḫib} 'sit' or 'sit down' in the dialect of Ḥimyer (southern Arabia); but otherwise in Arabic it means 'jump'; Lane, *ArEnLe*, 2919.

<sup>26</sup> The imperative, if it occurred, would presumably be स द्धि† {saddʰi}. The Latin imperative *sedē*√ could, in itself, be exactly cognate to the Sanskrit {sadā} (Vedic only), but morphologically they do not match; see Ernout – Meillet, *DiÉtLaLa*, s.v. *sedeō*.

*sit* < \**sede* (or some such disyllabic source) — seems to me beyond proof or disproof.<sup>27</sup>

The derived noun 'seat' — which in Hebrew is also an infinitive '(to) sit' or 'sitting' (Ugaritic {ḅbt}√) —

כִּסֵּי־שֵׁן√ {šēḅet} : סִידָה√ {sádaḥ} ({sádas} before {t} or {tʰ})

: ἑδός√

כִּסֵּי־שֵׁן√ {ššḅet} : סִידָה√ {sādaḥ}

is invaluable morphologically for showing a Sanskrit terminal or pausal accent ... (only in the Śatapathabrāhmaṇa) reminiscent of the Hebrew terminal accents (*InEuSeLa*, 207-220). This noun stands out in the religious vocabulary of poets, describing a mountain:

θεῶν ἑδός<sup>28</sup> αἰπὸν Ὀλύμπου√ 'steep Olympus, seat of gods' (*Iliad* 5.367);  
 חֹהֵר חֹמָד ׀לֹהִים לְשִׁבְתּוֹ√ {hohór Hómád ʔəlohím ləšibto√} 'the  
 mountain God delights in for his seat' (Ps. 68:17).<sup>29</sup>

**2.Bg.** All these morphological parallels, along with the semantic identity in a verb of the basic vocabulary, help to overcome the difficulty in the two radical consonants. The {ḅ} sound of Arabic is probably closest to the prehistoric Semitic source of Hebrew {š} and Aramaic {ṭt}. In {ḅawran, šoʷr, ṭoʷr} we found its IE counterpart to be *t*, not *s* (**1.Ab**); the discrepancy, however, may rather point to some different kind of prehistoric contact, or a different period.<sup>30</sup> The {b}: *d* calls for a more definitely focused explanation: it is

<sup>27</sup> See Hermann Hirt, *Indogermanische Grammatik, Teil IV* (Heidelberg: Carl Winter, 1928), 139. Paul Hopper's oral remarks have been extremely helpful to me in this section.

<sup>28</sup> The closest correspondence to the Hebrew vowels {-ē-e-} comes in the Homeric dative plural ἑδεσσι(ν)†. -εσσι(ν) is most frequently attested in βέλεσσι(ν)√ 'missiles'.

<sup>29</sup> J. P. Brown called these passages to my attention.

<sup>30</sup> The Greek noun σίγλοι√ (nominative pl.; singular σίγλος√), a weight, was doubtless borrowed from a Semitic form something like the Hebrew שִׁקְלִי√ {šiq(ə)lé} (construct pl.); the earliest attestations are in Attic, around 400 (Brown – Levin, *EtPa*, 86). The Ugaritic {ḅql}√, cognate to the Hebrew singular שִׁקְלִי√ {šeqel} (transliterated *shekel* in the English Bible) and to the Akkadian {ši-iq-lum}√, Arabic ثِقْلُ√ {ḅiqḷun} 'weight', evinces a prehistoric Semitic \*ḅ, which is confirmed by the Aramaic cognate of this verbal root — e.g. יִתְקוֹל√ {yilʔqoʷl} 'he shall weigh', translating יִשְׁקֹל√ {yilšqól} (Ex. 22:16). On the Greek {g} < Semitic {q} see **2.AAf** and Levin, *SeEv*, 256-257). — H. B. Rosén has theorized, somewhat boldly, that the word came into Greek no later than the fifteenth century; *L'Hébreu et ses rapports avec le monde classique: Essai d'évaluation culturelle* (Comptes

tenable only if attributed to the “\*b gap” in prehistoric IE;<sup>31</sup> i.e. the time when the \*b or its forerunner — however we may formulate or symbolize the labial counterpart to \*d(\*t') and \*g(\*k') — was lacking, or nearly so.<sup>32</sup>

**2.C. Biconsonantal Sem.** {(-)q(-)n(-)} : IE (-)g(-)n(-) ‘(be)get’

(Akk.) {kimi} : (Gr.) -γέμε ‘seize’

**2.Ca.** Somewhat similar in meaning to the correspondence that we saw in

Hebrew {pəré<sup>h</sup>} : Greek φέρε

{póre<sup>h</sup>} : -φόρε etc.

is another verb that is also found with a thematic vowel:

the Hebrew imperative הַבֵּן<sup>√</sup> {qəne<sup>h</sup>}<sup>33</sup> ‘get’ or ‘buy’ :

Latin *gene*† ‘engender, reproduce’<sup>34</sup>

Sanskrit ज न † {jana} “ ”

The singular participle הַבֵּן<sup>√</sup> {qəne<sup>h</sup>}, הַבֵּן<sup>√</sup> {qəne<sup>h</sup>}, corresponds in morphology to the Greek -γόνε in the compound adjective παιδογόνε<sup>√</sup> ‘be-getting children’, and shows the semantically closest parallel when the Hebrew refers to God Most High ‘author (or lord) of heaven and earth’ (Gen. 14:19, 22; see Brown – Levin, *EtPa*, 84). The plural of the participle displays only the usual meaning:

rendus du Groupe Linguistique des Etudes Chamito-sémitiques, suppl. 7; Paris: Geuthner, 1979), 10. I wish he had worked out his argument in more detail.

<sup>31</sup> The {b} fricativated in Hebrew and Aramaic.

<sup>32</sup> See **1.Db**; also Gamkrelidze – Ivanov, *InIn*, I, 6 ff.: II, 960-961. — Trombetti, *SaG*, II, 210-211, compares the IE *sed-* to the Hebrew noun הַשֵּׁן<sup>√</sup> {šēt} ‘buttocks’ (and other Semitic forms less similar to *sed-*). Cf. the English euphemism *seat*<sup>√</sup>, and the verb הַשֵּׁן<sup>√</sup> {šīt} ‘put, set’ (most often with the object ‘heart’), not literally ‘seat (someone)’.

<sup>33</sup> הַבֵּן<sup>√</sup> {qəne<sup>h</sup>} in Aramaic. The verb is sparsely represented in the Akkadian corpus; e.g. {iq-nu-u-ni}<sup>√</sup> ‘they have acquired’ (*AsDi*, XIII, 91; corresponding in morphology to the Hebrew “imperfect” יִבְנוּ<sup>√</sup> {yiqnú<sup>h</sup>} ‘they will/would acquire’).

<sup>34</sup> This verb is frequent in the perfect: *genuit*<sup>√</sup> ‘he (has) reproduced’, etc.; but rare in the present (*genit*<sup>√</sup>), where the reduplicated *gignit*<sup>√</sup> prevails. Neither imperative, *gene* or *gigne*†, is quotable from the corpus; for Latin discourse did not employ the same sort of benediction formulae as Hebrew (cf. **2.Ad**), and scarcely any other occasion would arise to use this verb in the imperative mode.

{qone<sup>v</sup>} in קֹנִים<sup>v</sup> 'the ones buying them'

-γόνου in τεκνογόνου<sup>v</sup> 'child-bearing'.

The verb in the perfect tense is

קָנָה<sup>v</sup> {qonó<sup>h</sup>} 'he (has) got'

ज जा न<sup>v</sup> {ja|já na} 'he has begotten',

with reduplication in Sanskrit but not in Hebrew.

Sanskrit ज न ति § {jánati} 'he/she engenders', the rare cognate

of Latin *genit*<sup>v</sup> — which is also rare — would have had

(besides अ ज न त् § {ájanat} 'he/she engendered', imperfect) in the early

period also ज न त् † {jánat} ("unaugmented" imperfect; cf. 2.Bc) with

either the same meaning or a jussive sense 'let him/her engender'. In the past indicative sense {jánat} matches perfectly the morphological structure of the Arabic قَنَتَ<sup>v</sup> {qanat} 'she (has) got, acquired' قَنَتِ<sup>v</sup> {qanati} in a certain phonetic environment, especially before a word that begins with the definite article).

**2.Cb.** This etymology is mentioned by Bomhard (*ToPrNo*, 239) and Yahuda (*HeGr*, 34, 48, 569), though without any morphological treatment. Of all the biconsonantal roots, this one stands a good chance of going back the furthest into prehistory.<sup>35</sup> J. P. Brown has assembled the most convincing evidence.

The root, apparently shared by Semitic and IE, is of the utmost importance to substantiate the "glottalic" theory of Gamkrelidze – Ivanov and Hopper (1.Db), which Bomhard also has subscribed to, that the voiced plosives of Greek and other ancient IE languages developed from prehistoric voiceless but

<sup>35</sup> Bomhard has seven others beginning with \*k<sup>2</sup>, none of which can — to my knowledge — be enhanced by any morphology. Illich-Svitych, *OpSr* (b-Ḳ), 335-336, connects this Semitic verb-root to some IE forms, mostly nominal or adjectival, belonging not to the root exemplified by Sanskrit {ján|ati}, Latin *gen|it*, etc., but to a different one that means '(to) be born' or 'young'; e.g. Sanskrit क न्या<sup>v</sup> {kan|yà} 'girl, daughter', Latin *re|cen|t*<sup>v</sup> 'newly arrived, fresh' (> English *recent*<sup>v</sup>), Greek καινός<sup>v</sup> 'new', Church Slavonic конь<sup>v</sup> {kon|ə} 'beginning' (noun). He also gives Afro-Asiatic cognates, of which the most impressive is "Лжанджеро [Čangëro, a Cushitic language] qōn рождать ['to beget, to bear']". Cohen, *EsCo*, does not recognise any such Afro-Asiatic root shared by Semitic and Cushitic.

glottalized plosives; thus  $g < *[kʔ]$ . The Ethiopic languages are noted for glottalic articulation of the Semitic “emphatic” consonants; e.g.

{qanaya}<sup>✓</sup>, the Geʿez cognate of Hebrew {qənś<sup>h</sup>},

is pronounced [kʔ-],

whereas in Arabic the “emphatics” are pronounced with velarization, not glottalization. For the more ancient Semitic languages we have no clear information; but it is at least a tenable view that they went in for glottalization, as is known to be the case in Ethiopic, which is not attested so far back.

Within IE only the Germanic languages show a voiceless plosive in this root (as in other etymologies where the more anciently attested IE languages — Sanskrit, Greek, Latin, etc. — have a voiced plosive). No verb-forms, however, but only nouns such as Gothic {kuni}<sup>✓</sup> ‘kind, breed’<sup>36</sup> are found in Germanic. Gamkrelidze and Ivanov (*InJa*, II, 749) give the root as  $*\widehat{ken-}$ , with glottalization of the initial consonant; but the known Germanic languages have aspiration [k<sup>h</sup>-] rather than glottalization — as in English *kind*<sup>✓</sup> (< OE *gecyndu*<sup>✓</sup>).

**2.Cc.** The Akkadian verbal root {(-)k(-)m-}<sup>✓</sup> ‘capture’ is of the same bi-consonantal type as {(-)q(-)n-} ‘acquire, get’ (**2.Ca**, note 33). The imperative form is {kimi}<sup>✓</sup> or {kumu}<sup>✓</sup> (masc. sing.).<sup>37</sup> It lacks Semitic cognates; but Joseph H. Greenberg cites from two Chadic languages, “Hausa (1) *ka:ma*; Gidder (5) *gəma* ‘take’.”<sup>38</sup>

Illich-Svitych furthermore cites the IE root  $*gem-$  (*MaSrSl*, 370, referring to Pokorny, *InEtWö*, I, 368-369). Only in Greek do we find actual verb forms, including the compound ἀπό|γεμε<sup>✓</sup>, recorded by the lexicographer Hesychius with a gloss ἄφελεκε· Κύπριοι ‘drag off, [so say] the Cyprians’. In the familiar Attic and Ionic dialects the uncompounded γεμ- is common, but it seems to be a mere homophone: γεμε<sup>✓</sup> ‘it is replete/loaded’. The imperative γεμε<sup>+</sup> (thematic active) is unattested, apart from the gloss of Hesychius. However, the non-thematic indicative middle γέν|το<sup>✓</sup> ‘he seized/grasped’ is amply known from Homer (*Iliad* 8.43, etc.) — with [n] instead of [m] by assimilation to the ensuing dental plosive. While isolated and anomalous (no

<sup>36</sup> Translating the Greek noun γένος<sup>✓</sup> (from this same root) in Mark 9:29, etc.

<sup>37</sup> *AsDi*, VIII, 128-129; a passage with the fem. sing. {ku-mi-i}<sup>✓</sup> is quoted.

<sup>38</sup> *The Languages of Africa* (Bloomington: Indiana University, 1963), 61.

concurrent form <sup>?</sup>ἔγεντο with the usual “augment” for past time, no plural, no participle), γέντο is an unmistakable manifestation of the same root.

**2.Cd.** For comparative morphology, the structural match between the Greek imperative -γέμε and the Akkadian {kimi} supplies us with an additional and valuable instance of a thematic verb. This type of verb inflection arose both in IE and in Semitic, presumably through contact during their prehistory (cf. **2.Aa-b,Cb,Da,Ga,g,Rd**). The Semitic counterpart to the thematic vowel -e is generally more evident in Hebrew and Aramaic than in the other Semitic languages; but here in {kim|i} the parallel is plain enough.

On the phonetic side, the apparent correspondence of the Greek voiced plosive to a Semitic voiceless and “unemphatic” plosive raises a doubt; for our other etymologies do not go this way. To be sure, since the verb does not turn up in Semitic apart from Akkadian, we lack access to the actual Akkadian sound that is written *k* in the Semitists’ transcription. Besides, the disparity in the modern Chadic languages between Hausa *k*- and Gidder *g*- may help to account for the Akkadian {k-} : Greek γ-. The spotty distribution of this verb raises questions: Where, if at all, was it anchored in the basic vocabulary? How did it spread so unevenly?

At any rate, when γέντο turns up again in poetry after Homer (e.g. Hesiod, *Th.* 199), it is not ‘he/she seized’ but ‘he/she was born’, from the same root as the Latin *gene* but with a “middle” rather than an active ending and meaning. Greek morphology normally calls for the thematic (ε)γένετο<sup>√</sup>; but the dactylic and certain other meters encouraged the substitution of an aberrant form that scans - ~ for one with a series of three (or more) short syllables.<sup>39</sup>

**2.D. Biconsonantal Sem.** {(-)h(-)w(-)} : IE (*Skt.*) {(-)b<sup>hav</sup>/ū} ‘be’  
(*Heb.*) {(-)h(-)y(-)} : (*Latin*) (-)fī(-)

**2.Da.** The pan-IE root that is well represented by the Sanskrit thematic imperative भ व<sup>√</sup> {b<sup>h</sup>ava} ‘be’ (often भ वा<sup>√</sup> {b<sup>h</sup>avā} at the beginning of a verse in the Rigveda)

has a good counterpart in Hebrew הָוָה<sup>√</sup> {həwéh<sup>h</sup>}.

<sup>39</sup> The “middle” imperative is γενού<sup>√</sup> ‘be’ or ‘become’. The long vowel [-ō] (written with the digraph ΟΥ from the 4th century B.C. on) is an Attic contraction of the disyllabic [-eo]. The Ionic contraction yields a diphthong: γενεού<sup>√</sup>. In Greek there is no active imperative <sup>??</sup>γενέ to correspond to the Hebrew {qəné<sup>h</sup>}.

The correspondence {b<sup>h</sup>-} : {h-} is questionable, but could well be due to dissimilation: two labials as the first and second consonants of a verb-root were untenable in Semitic;<sup>40</sup> so the labial component of the first one was dropped. In Semitic this verb-root is not so prominent as in IE. It is rare in Hebrew, though frequent in Aramaic.<sup>41</sup> A strong argument that {b<sup>h</sup>āvā} and {hěwé<sup>h</sup>} are cognate comes from the context, both metrical and semantic: The Sanskrit verb is most used at the beginning of eight-syllable verses addressed to a god, while the one occurrence of {hěwé<sup>h</sup>} is in a poetic utterance of just that length, a blessing (Gen. 27:29; *InEuSeLa*, 500-501). In both languages these imperative uses of the verb, which may seem just a trivial, structural part of the language with little semantic content, serve rather as a powerful expression to invoke divine favor for the speaker's earnest desire.

The Aram. "imperfect"  $\text{ܝܬܝܬܝܢ}$  <sup>√</sup>{l|hěwón} 'they shall be, may they be' matches the Skt. injunctive भ व न् † {b<sup>h</sup>avan} 'may they be, let them be',<sup>42</sup> but for the 3d person prefix {l-}. Also,

the non-thematic injunctive भू त् <sup>√</sup>{b<sup>h</sup>ū|t} 'let him/it be' (aorist) recalls one anomalous Heb. form  $\text{יְהִי}$  <sup>√</sup>{yā|hú<sup>w</sup>} of similar meaning. The Sanskrit third person singular suffix {-t} has of course nothing in common with the Hebrew prefix {yā-}; but the root is handled the same: instead of the second consonant we find the related vowel-sound, lengthened furthermore as the long vowel  $\text{u}$  {ū} shows in Sanskrit and the letter  $\text{u}$  in Hebrew.

No other root turns up with a thematic/non-thematic alternation quite like this:

Sanskrit {-áva/-ū}

Hebrew {-ěwé<sup>h</sup>/<sub>-ū<sup>w</sup></sub>}

Both the thematic and the non-thematic look as if they originated in IE, more

<sup>40</sup> While it is common in Semitic grammar to list trilateral roots like  $\text{בוא}$  {bw<sup>?</sup>} 'come', the second letter does not really function as a consonant but at most as an offglide to the vowel [o] or [u] (see 2.Fb) — unlike the fully consonantal [w] in {hěwé<sup>h</sup>}.

<sup>41</sup> The Aramaic imperative, however, is  $\text{ܝܬܝܬܝܢ}$  <sup>√</sup>{həwī<sup>ʿ</sup>}, which accords with the Biblical Aramaic paradigm for thematic verbs, but not with the paradigm of {qəne<sup>ʿ</sup>} (2.Ca, note 33).

<sup>42</sup> The Sanskrit imperfect अ भ व न् <sup>√</sup>{ab<sup>h</sup>avan}, with the past prefix {a-}, means 'they were'.



precisely in an IE region where the initial consonant was aspirate, either [b<sup>h</sup>] as in Sanskrit or [p<sup>h</sup>] as in Greek.<sup>43</sup> The apparently secondary development within Semitic was, above all, a simplification of that consonant to plain [h]. Yet, in maintaining the aspiration — at the price of the labial component —

Hebrew preserved in the imperative {hěwé<sup>h</sup>}

something cognate to the Sanskrit {b<sup>h</sup>á vā}

that disappeared in the Avestan {bava}<sup>†</sup>,

although Avestan and Sanskrit are so nearly akin.<sup>44</sup>

**2.Db.** This etymology would be on the border line of credibility if not for the synonym, which greatly strengthens it:

the Heb. imperative is usually הָיְהִי<sup>√</sup> {hěyě<sup>h</sup>} 'be' in preference to {hěwé<sup>h</sup>},  
and a Latin parallel *fī*<sup>√</sup>

certainly has no vestige of any root-consonant \*w. The -ī theoretically goes back to a prehistoric \*-ie, not just in this verb but in the entire "fourth conjugation".

Latin also has *fu-* as in *fuī*<sup>√</sup> 'I have been, I was', *fueram*<sup>√</sup> 'I had been', etc.; but none of the *fu-* forms corresponds well morphologically to anything Semitic. Only -t- in the perfect *fuistī*<sup>√</sup> 'you have been, you were' may be from the same source as the Semitic 'you' ending,

as in Aramaic הָיְהִי<sup>√</sup> {hāwáy|tō}; an IE cognate to {-tō}

shows up more clearly in Skt. ब भू थि<sup>√</sup> {ba|b<sup>h</sup>ū|t<sup>h</sup>a}.

Another possible outcropping of the same ending is in

the Latin future imperative (only in inscriptions) *FITO*<sup>√</sup> 'be' (*ColInLa* 6. 32323.143, 32328.80)

: the Heb. "converted perfect" הָיְהִי<sup>√</sup> {wə|həy'y|tō} 'and you are to be'

(*InEuSeLa*, 702).

The tradition of Latin grammar was to treat *fu-* and *fī-* as two quite separate verbs, the former as the perfect of *sum*<sup>√</sup> 'I am', the latter as the virtual passive of *faciō*<sup>√</sup> 'I make, I do', by association of the sort that is now gener-

<sup>43</sup> The cognate of {b<sup>h</sup>ūt} is φύ<sup>√</sup> (which means, however, 'he/she grew').

<sup>44</sup> For this IE verb Möller and his successors pursue a Semitic connection quite different from mine (see 2.Fc, note 60).

ally termed “suppletion”.<sup>45</sup> The recent comparative grammars, however, refer them to the same root, since Umbrian had {fuia}<sup>√</sup> and {fuiest}<sup>√</sup>, which are equated, respectively, with the Latin *fīat*<sup>√</sup> ‘let it be’ and *fīet*<sup>√</sup> ‘it shall be’. The latter identification — {fuiest} : *fīet* — especially is somewhat problematical; but this Italic etymology,

suggesting that the Latin imperative *fī* was prehistorically \**fui*, opens the way to a comparison with the Aramaic imperative {həwī<sup>√</sup>}.

However, {(-)h(-)y(-)} within Semitic is so narrowly restricted to Hebrew, excluding even the closely related dialects, that we suspect it was consciously preferred to the more widespread {(-)h(-)w(-)} because this one people wanted to avoid verb-forms homophonous or nearly homophonous with the divine name יהוה<sup>√</sup>, which was probably pronounced \*[yehwé<sup>h̄</sup>] or \*[yehwé<sup>h̄</sup>] by the ancient Jews until the uttering of it was banned (*InEuSeLa*, 400-401).<sup>46</sup> We cannot make out whether at first they merely took advantage of some spontaneous wavering in sound that yielded [wy] or [y] instead of [w] in some if not all of the verb-forms from this root. The parallel of *fī* and its suffixed forms in Latin, where we have no evidence of any religious motive for differentiation, suggests that a spontaneous phonetic development was quite possible.

**2.Dc.** {hy}, the more frequent form of the Hebrew verb, has a likely cognate in one other branch, at least, of Afro-Asiatic. Cohen (*EsCo*, 97) cites, as Cushitic, “bed. [= Beja] *hāy*, som[ali] *hay* ‘être’.”<sup>47</sup> He himself is less confident that “BERB[ère] to[uareg] *ihi* ‘être’” is related; for the *h* is liable to have arisen from *z*. The Egyptian {īw}<sup>√</sup> ‘come’ (in his notation *yw*, which he glosses ‘être’!) strikes me as too remote in sound and meaning. If it meant ‘become’, that would be more acceptable.

<sup>45</sup> See my article “Non-paradigmatic Forms: Suppletion or Preemption?” *FoLa*, 8 (1972), 346-351; also Pokorny, *InEtWö*, I, 146-148.

<sup>46</sup> In regard to this verb the Samaritan tradition of the Hebrew language agrees on the whole with the Jewish tradition, but not in the imperative singular; there the Samaritan text has יהי<sup>√</sup> {hwy} instead of {hēwé<sup>h̄</sup>} for the masculine, and יהי<sup>√</sup> also for the feminine instead of יהי<sup>√</sup> {hāyī<sup>√</sup>}. According to Murtonen, *EtVo*, 27, the present-day Samaritans pronounce the masculine and the feminine imperative the same: *wēbī* or *ēbī* (= [wēbī, 7ēbī]).

<sup>47</sup> I wish some inflectional forms were given, with appropriate glosses, so as to indicate whether the morphology also shows something cognate to Semitic.

Within Semitic, the Aramaic and Hebrew {h w} has a sure Akkadian cognate, with variation between {m} and — less often — {w} as usual in this language:

{e-ma-ta}√ 'you are changed/have become' (Aramaic {hăwáyto}),  
 {i-we}√ 'he changed/has become'.

**2.E. Bi- or triconsonantal IE (Gr.) ζῆ :** Sem. (Heb.) {-Hyé<sup>h</sup>} 'live'  
 βίος 'life' : {-Hyō<sup>w</sup>t} '(to) live'  
 (Skt.) {jīvā} 'living' : (Aram.) {He'wō<sup>h</sup>} 'animal'

**2.Ea.** The manifestations of the IE root \*(-)g<sup>w</sup>(-)/(-) that means 'live' are extraordinarily varied and complex. In Greek alone it appears as

(-)βι- in the noun βίος√ 'life' and aorist verb-forms such as ἔβιω√ 'he/she lived';

-γι- in the adjective ὑγιής√ 'healthy' (living well);

(-)ζ- in the imperative verb ζῆ√ 'live', the present ζῆ√ 'he/she lives', the imperfect ἔζῆ√ 'he/she lived/was living', etc., and apparently enlarged into ζωF- in the Cypriot name {zo-wo-te-mi-se}√ (= Attic Ζωόθεμις†; ζώος√ 'alive').

The closest Semitic cognate to anything IE is

an Aramaic feminine derivative ܡܝܬܝܢ√ {He'w|ō<sup>h</sup>} 'living', used mainly as a noun 'animal'.

It corresponds to the Skt. fem. adj. जी वा√ {jīv|ā} 'living',

segment for segment — apart from the [e] quality of the first vowel.<sup>48</sup> The Semitic initial consonant is explicable if it came not from the prehistoric IE \*g<sup>w</sup>

<sup>48</sup> See *InEuSeLa*, 306. The Hebrew מֵיָחִיָּה√ {Hayyō<sup>h</sup>}, with geminate or strengthened {y} instead of the Aramaic {<sup>y</sup>w}, is further from the IE forms. Likewise the Arabic حَيَّة√ {Hayyat|un} (nominative), pronounced [Hayyah] at a pause. {Hayyō<sup>h</sup>} can also serve as a feminine noun 'life', chiefly in combination with a possessive suffix; e.g. ܡܝܬܝܢ√ {Hayyō<sup>h</sup>|ō<sup>w</sup>} 'his life'. The noun 'life' in Arabic, however, is حَيَاة√ {Hayāt|un} ([Hayāh] at a pause); in the Qur'ān the spelling حيوة√ {Hywh} (2.175[179]) testifies to a triconsonantal root {Hyw} in the Arabic dialect that the Prophet dictated (just as in the Aramaic {He'w|ō<sup>h</sup>}), but the vocalization حَيَوَة√ indicates that according to the classical standard of pronunciation no [w] was pronounced (see Lane, *ArEnLe*, 682).

(or however this labio-velar should be formulated) but from its Indo-Iranian reflex, the voiced affricate [j]; for this sound in the Romance languages, just like the Sanskrit ज्ञ, is known to have gone on in modern Castilian to a voiceless velar fricative — e.g. Latin *iūncta*<sup>∇</sup> [y-] > *junta*<sup>∇</sup> (medieval [j]),<sup>49</sup> modern [H]<sup>50</sup> — and the pharyngeal [H] is only a little further removed from [j].

The Latin *uīua*<sup>∇</sup> would off-hand be taken for just the normal cognate to {jīvā}, the *u*- [w-] in Latin and the {j-} in Sanskrit reflecting a prehistoric \*g<sup>w</sup>. But VEIVA<sup>∇</sup> in a rather early Latin inscription (*ColnLa* 1.1925) constitutes evidence for a diphthong [ei], like the Aramaic {e<sup>y</sup>}. It is not decisive evidence for this word, because the same text has NEICE<sup>∇</sup> for the Greek name Νῆκη<sup>∇</sup> and thus betrays orthographic confusion, using EI also for what was originally not a diphthong but simply long [ī]. But certainly the verb VEIXEI<sup>∇</sup> 'I lived' in an earlier inscription (1.14) testifies to a diphthong, not in accord with Sanskrit.<sup>51</sup>

The Aramaic construct plural {He<sup>y</sup>w|ōt̄} in 𐤍𐤒𐤕𐤕𐤓𐤕𐤕𐤓<sup>∇</sup> 'the animals' shows an inflection cognate to the Sanskrit nominative plural (also accusative) जी वाः § {jīv|āḥ}, which is {jīv|ās}§ before {t-} or {t<sup>h</sup>-} (1.Ie).

**2.Eb.** Without the third consonant [w] (> [v] in Sanskrit), another correspondence is

the Hebrew imperative {-Hyé<sup>h</sup>} in 𐤎𐤕𐤕𐤕𐤓<sup>∇</sup> 'and live' : Greek ζῆ.<sup>52</sup>

Whether the letter ζ stood for [zd], as most of the evidence indicates, or for [dz] (1.Fg), anyhow it generally REFLECTS a prehistoric \*y following immediately upon some other voiced consonant. In this word the consonant-group was presumably \*dy- < prehistoric IE \*g<sup>w</sup>y-. The Greek long vowel η [ē] is not far from the sound of the Hebrew {-é<sup>h</sup>} (cf. *InEuSeLa*, 435, 439). Whether it corresponds STRUCTURALLY, reflecting the same morphological

<sup>49</sup> Often symbolized [dʒ] or [dʒ̥] or [j], because the International Phonetic Alphabet reserves [j] for the semi-vowel (which is [y] in this book, for the sake of consistency from one trans-literation to another; see Introduction, note 14).

<sup>50</sup> [x] in the International Phonetic Alphabet.

<sup>51</sup> In classical Latin *uīx* [wks̄].

<sup>52</sup> In certain Cushitic languages the biconsonantal *hăy*<sup>∇</sup> (Bilin), *hay*<sup>∇</sup> (Saho, Afar) 'live' is considered a borrowing from an Ethiopic triconsonantal (Ge'ez {Haywa}<sup>∇</sup>); Leslau, *CoDiGe*, 252.

addition to the root, is a harder question; for we have no other imperative form in Greek quite parallel to ζῆ, so as to analyze the morphology of it, nor has it any cognates in other IE languages.<sup>53</sup>

**2.Ec.** In its nominative case-form the Greek noun βίος 'life' is structurally closer to the Hebrew infinitive לִיְחַיֶּה<sup>l</sup> {li|Hyó<sup>w</sup>ṭ} 'to live'

than the two imperatives ζῆ : {-Hyé<sup>h</sup>} are to each other (*InEuSeLa*, 212). The difficulty lies in the seemingly quite different function of -ος and of {-ó<sup>w</sup>ṭ}. Yet in syntax, as well as meaning, the best approximation of the Greek nominative to the Hebrew infinitive is found in a sentence without a verb; e.g.

οὐκέτι μοι βίος ἀγαστὸς ἐν φάει<sup>l</sup> 'No longer for me [is] life enviable in the light [= on earth]' (Euripides, *Hecuba* 167-168),

which would lend itself to a Hebrew paraphrase such as

{ʔe<sup>n</sup>-lîʔ ʕó<sup>w</sup>ḏ Héṭec bi|Hyó<sup>w</sup>ṭ bəʔó<sup>w</sup>r}<sup>+</sup> 'No longer for me is there satisfaction in living in the light.'

**2.Ed.** The prehistoric IE labio-velar is represented as such only in Germanic; e.g. the Old English adjective *cwicu*<sup>l</sup> '(a)live, living',<sup>54</sup> Old Norse *kvíkr*<sup>l</sup>. Except for Gothic, all the Germanic forms have an added [k] at the end of the root, as in the Latin [wīk-] (**2.Ea**, note 51). Gothic {qīwai}<sup>l</sup> (nom. pl. masc.) corresponds closely to Latin *uīuī*<sup>l</sup> (earlier VEIWEI<sup>+</sup>). The Gothic letter {q} is thought to stand for a labio-velar [k<sup>w</sup>] the same as in the other early Germanic languages.

This Gothic word and the Latin forms with *u-u-* are the only ones showing the labial from this root both times. Other IE languages have in general, though not altogether, preserved a labial in either the former or the latter place — which implies a tendency toward dissimilatory simplification. Forms such

<sup>53</sup> Möller (*VeInSeWö*, 5) and his successors, including Illich-Svitych (*OpSr* (b-K), 242-243), compare this Semitic verbal root to certain nouns (and adjectives) in IE languages — e.g. Sanskrit आ युः<sup>l</sup> {āyuh} 'life, vitality', Latin *aeuum*<sup>l</sup> 'lifetime' — but no IE verb-forms. Trombetti, *SaGl*, III, 159, compares it rather to an IE verb, exemplified by Sanskrit वा ति<sup>l</sup> {vā|ti}, व य ति<sup>l</sup> {vāya|ti} [also वा य ति<sup>l</sup> {vāya|ti} 'it blows', OHG *wājan*<sup>l</sup> 'to blow', etc.

<sup>54</sup> Only in the Biblical phrase *the quick and the dead*<sup>l</sup> and — more vaguely — in the idiom *cut to the quick*<sup>l</sup> does the original meaning remain for us.

as the Sanskrit {jīvá} would seem to go back to an initial labio-velar already simplified to a plain velar; and so do all the Semitic forms.

**2.Ee.** The Phoenician imperative *auo*<sup>√</sup> ‘live’ is attested, in a Latin comedy of Plautus (*Poenulus* 994, 998, 1001), as a Carthaginian’s greeting, singular or plural. At that time the Latin equivalent was *saluē*<sup>√</sup> (pl. *saluēte*<sup>√</sup>). But later *auē*<sup>√</sup> or *hauē*<sup>√</sup> came in — most likely under Punic influence — with a different nuance: it was used to greet someone from day to day, notably by a slave to his master, whereas *saluē* was preferred in another context, upon returning after an absence. There was, however, a native Latin verb *auēō*<sup>√</sup> ‘I wish/am eager’, which had hardly ever been used in the imperative;<sup>55</sup> but some forms of this verb, such as the subjunctive *auēās*<sup>√</sup>, took on the root meaning from the greeting *auē* — hence ‘may you be well’ (Ernout – Meillet, *DiÉtLaLa*).

**2.F. Biconsonantal Sem. (Heb.) {bṣ’} : IE (Gr.) βᾱ ‘he came’**

**2.Fa.** Among the many correspondences that we have to examine, a single IDENTITY — Greek and Hebrew — stands out:

βᾱ<sup>†</sup> (in non-Ionic dialects) : βᾱ<sup>†</sup> (in Origen’s transcription of Heb.) ‘he came’ can be shown to be due to parallel development in the two languages from a shared prehistoric prototype — not to direct borrowing in the manner of a place-name or personal name, which might remain identical insofar as the two phonological systems were compatible.

βᾱ, to be sure, is not quotable from the meager corpus of Greek dialects apart from Attic and Ionic; but that is just by accident. For the Ionic form βῆ<sup>√</sup> is frequent in Homer; and both <sup>ε</sup>βῆ<sup>√</sup> and <sup>ε</sup>βᾱ<sup>√</sup>, with the reinforcing morpheme [é-] known as the “augment” for past time, turn up in any Greek text, depending on dialect (η in Attic or Ionic, ᾱ otherwise). So is the Hebrew בָּצַח<sup>√</sup> {bṣ’}

<sup>55</sup> Illich-Svitych, *OpSr*, 241-242 (*MaSrSl*, 340-341), relates this IE verb ‘wish’ (Pokorny, *InEtWō*, I, 77) to the Semito-Hamitic \*hw(j). The latter, for purposes of comparison, is best represented by one form of the perfect tense: Arabic هَوَيْتَ<sup>√</sup> {hawiyat} ‘she loved’ or in a certain phonetic environment هَوَيْتَ<sup>√</sup> {hawiyati} (2.Ca; cf. Hebrew אִנְיָה<sup>√</sup> {ʔiwwāṣṣ} ‘she longs/is eager’). To {hawiy[at(i)]} the Latin *au|et*<sup>√</sup> ‘he/she is eager’ and Sanskrit अ व ति<sup>√</sup> {áv|ati} ‘he/she delights’ correspond roughly.

familiar.<sup>56</sup> And if more than a few fragmentary Psalms remained from Origen's transcription of the entire Hebrew Bible in Greek letters, we would undoubtedly find many examples of βα†, perhaps even some marked with a circumflex accent<sup>57</sup> and thus quite identical with the genuinely Greek βā; for in the pronunciation of Hebrew recorded by Origen, α is the vowel that regularly corresponds to the ֶ {o} of the Tiberias punctators.

**2.Fb.** The root in Hebrew is manifestly כּב {(-)B-ʔ(-)},<sup>58</sup> as also in Phoenician. The glottal stop was undoubtedly pronounced in ancient Hebrew; but coming invariably after a vowel sound in this root, it became silent during the Christian era, if not somewhat earlier, except when another vowel followed. In Greek the letter Α, from the outset, stood for a vowel; but whenever, as in this word, it stands for a long vowel of Doric and most other dialects that is cognate to Η in Ionic, then the latter was not a pure vowel but included something consonantal in part of the Ionic area — namely, the Cyclades (Levin, *NiIn*, 157-165; *InEuSeLa*, 263-270). The most conservative pronunciation of βῆ may be symbolized [bÊH], using the capital [H] as a cover symbol for an unspecified guttural (or laryngeal) consonant at the end. That it was a glottal stop [ʔ] is possible, but cannot be pinned down.

**2.Fc.** We scarcely expect such an easy match as the initial consonant {b}. A few other etymologies (which we shall come to) indicate that the Greek β which developed relatively late in prehistory from an IE labio-velar can indeed correspond to a Semitic {b}, especially in cases where the Semitic language or languages are likely to have borrowed a word from Greek. The IE cognates of

<sup>56</sup> In Hebrew grammar this is called the perfect tense, in Greek the aorist. The different labeling is in itself unimportant; but the Hebrew form covers a somewhat wider semantic field, taking in 'he has come'. On the other hand, it is limited to masculine subjects ('she came' is באה √ {bšʔ}ʔ), whereas the Greek βā or βῆ is indifferent to gender.

This verb in Hebrew has also the related meaning 'he (has) entered, he went (has gone) in'. And in Greek the meaning often fits 'he/she went' better than 'he/she came'. The Arabic cognate عاود √ {bāʔa} means 'he (has) returned', the Geʿez {boʔa} √ 'he (has) entered'.

<sup>57</sup> Cf. the actual instances of λω √ 'not' (Ps. 1:1) and ζοὺ √ 'this' (31:5, 32:8); Brønno, *StHe Mo*, 420. In Hebrew characters כּל √ {lōʔ}, יל √ {zūʔ}.

<sup>58</sup> Traditional grammars and dictionaries cite the root as a "triliteral" כּוּא {bwʔ}; but the middle letter fails to appear in many or rather in most of the Biblical Hebrew forms. See Levin, *SyWr*, 507.

βḡ, notably Sanskrit गत  $\sqrt{\text{gāt}}$  and Avestan {gāt}†, evince a prehistoric labio-velar.<sup>59</sup>

These and other IE languages show also an alternate form of the ‘come’ root with a second consonant, a nasal, instead of the lengthened vowel reflecting an original laryngeal consonant; e.g. the Sanskrit thematic imperative गम  $\sqrt{\text{gam|a}}$ , Gothic {qim}†, Old English *cum* $\sqrt{\text{ }}$ . Approximate Latin and Greek cognates are *uen|ī* $\sqrt{\text{ }}$ , βαίν|ει $\sqrt{\text{ }}$ .<sup>60</sup> Within IE, although the proto-form was \*(-)g<sup>w</sup>(-)m(-) or something like that, only one labial — not two — is found in all the actual forms. Where the simplification of the labio-velar consonant preserved a labial component, as in Greek and Latin, there the other consonant appears as *n*. The labial *m* turns up only if the first consonant is purely velar.<sup>61</sup> This dissimilation of labials, to which the Indo-Europeanists — notwithstanding the importance of the ‘come’ root — have paid little attention, is a momentous clue and will account for the divergence between IE and Semitic in other roots as well as this one.

**2.Fd.** Akkadian — in particular the Old Assyrian dialect — is the only Semitic language that can throw light upon the alternation in the IE verb-root, with or without *-M*. The Akkadian imperative {ba-a-am} $\sqrt{\text{ }}$  (or {ba-am} $\sqrt{\text{ }}$  in the sense

<sup>59</sup> The final consonant in Sanskrit and Avestan is a third person singular ending. According to the standard doctrine among Indo-Europeanists, it was lost in Greek (or in the immediate forerunner of Greek), like any final plosive. At any rate there is no trace of it in Greek, and obviously none in the Semitic cognates.

<sup>60</sup> Möller’s reconstruction (*VeInSeWö*, 94) sets up a “voridg.  $\zeta^u$ -*m* ... = semit.  $k^u$ -*m*”, from which he derives, for example, “sansk. *gáma-ti* ... ‘geht, kommt’, ... an. [Old Norse] *koma* ‘kommen’ ” and “hebr. *kām* ‘aufstehn’ ” respectively. The semantic gap between ‘come’ and ‘rise’ or ‘stand’ makes this etymology far-fetched — even though phonetically the Old English imperative *cum*, Yiddish קומ  $\sqrt{\text{ }}$  {kum}, and so in related Christian German dialects (*komm*  $\sqrt{\text{ }}$  in standard German), is nearly identical with the Hebrew imperative קום  $\sqrt{\text{ }}$  {qúm}, קום  $\sqrt{\text{ }}$  {qú<sup>w</sup>m} ‘rise’ and with Aramaic קום †, קום  $\sqrt{\text{ }}$  {qu<sup>w</sup>m}, Arabic قُمْ  $\sqrt{\text{ }}$  {qum}, Ge<sup>ez</sup> {qum} $\sqrt{\text{ }}$ .

Möller (37), Cuny (*InÉtCo*, 143), and Bomhard (*ToPrNo*, 197-198) relate the Semitic root for ‘come’ (“Hebr. *bō*,” etc.) to Sanskrit *bhav-* ‘become’, which is not out of the question, but see **2.Da-b** for a structurally and semantically neater match.

<sup>61</sup> Pokorny, *InEtWö*, I, 464-465, gives one exception, the Old High German *queman* $\sqrt{\text{ }}$ . The Gothic {qiman} $\sqrt{\text{ }}$  may also stand for [k<sup>w</sup>] (**2.Ed**).



of 'come' is frequent (*AsDi*, II, 181), whereas other forms lack the {-a)m} and mean 'go along, pass'. This ending, termed VENTIVE, is attached to many verbs when the action is viewed from its GOAL. To us (in English) that is what distinguishes the meaning of *come* from *go*. The ending is explained as originally a dative suffix 'to me', or 'for my benefit' (Von Soden, *GrAkGr*, 107); it may be ultimately related to the IE *m*- pronouns (cf. 3.Ad). In Akkadian the sense of the ventive 'to me' may be either quite perceptible or merely vestigial:

in {ba-a-am malliam}<sup>√</sup> 'come, pay me in full' the first {-a m} is more ventive than dative, and the second {-a m} more dative than ventive, but with no sharp differentiation either time;

however, in {ba-a-am Tuppini lu milqēma lu nittallak}<sup>√</sup> 'come, let's take our document and leave' any dative meaning is much weakened.

Only a few other IE verb-roots have the -*M* extension (Walde – Pokorny, *VeWö*, I, 678), exemplified by

Sanskrit द्रांति § {drā|nti} 'they run',

द्रमंति § {drama|nti} 'they run about' (rare),<sup>62</sup>

and perhaps by Latin *premi*|t<sup>√</sup> 'he/she squeezes' (Ernout – Meillet, *DiÉtLa* in contrast to the *pressi*|t<sup>√</sup> 'he/she squeezed' [*La*, s.v. *premō*]).

Even a vestigially ventive meaning is questionable in these; but by definition (or at any rate by etymology — *uen*- 'come') it cannot be excluded from a verb that we gloss as 'come'. The Akkadian imperative {bām}, with its {-m} quite unlike the Hebrew imperative בֹּא<sup>√</sup> {bo?}, has alerted us to a morphological parallel in IE.

Conversely, the uniform {b-} in Semitic, which is an exact match only to Greek β- and to Umbrian BENVST<sup>√</sup> (= Latin *uēnerit* 'he shall have come'),

Oscan {kombened}<sup>√</sup> (= *conuēnit* 'it was agreed'),

makes it probable that this verb entered Semitic rather late in prehistory, from an IE area where the labio-velar had been simplified in this particular manner. On the other hand, the wide distribution within Semitic would argue against a borrowing around the dawn of history. Besides being widespread in the Semitic languages of Ethiopia, this verb is found in Cushitic too: Beja *bi*?<sup>√</sup> 'return

<sup>62</sup> द्रवंति<sup>√</sup> {drāvanti} 'they run' is much more usual in Sanskrit than either of these, but in Greek the aorist ἄπε|δρα<sup>√</sup> 'he/she ran away' and ἐ|δραμε<sup>√</sup> 'he/she ran' are both common.

home' (Leslau, *CoDiGe*, 115; presumably borrowed from Arabic, **2.Fa**, note 56).

**2.Fe.** Besides the root in its minimal state — Greek βῆ : Hebrew {bš'} (bâ in Doric and in the Hebrew of Origen's "Second Column") — there is at least one correspondence with a suffix:

Greek βῆτε†, βάτε† 'you (pl.) came' : Hebrew ׀בִּאתֶם {bš'tém}.

The {-m} makes it masculine plural; the fem. pl. is ׀בִּאתֵן {bš'tén}. The Greek verb, not distinguishing gender, has neither {-m} nor {-n} at the end (*InEuSeLa*, 587).

βάτε<sup>√</sup> occurs many times as an imperative (in the choruses of tragedies); but the paucity of 'you' forms in narrative and the preference for the ῥε- "augment" (**2.Fa**) militate against finding βάτε in the sense of 'you came'. The imperative βάτε is reminiscent of the Hebrew "converted perfect" ׀בִּאתֶם {uʷbš'tém} 'and you (masc. pl.) are to come', sometimes right after a plain imperative such as הִתְקַדְּשׁוּ {hītqaddəšú} 'hallow yourselves' in I Samuel 16:5, so that in effect the combination means 'hallow yourselves, and then come (with me)'.

The Greek imperative singular βάθι<sup>√</sup> is, in turn, reminiscent of the 'you' (fem. sing.) form of the "converted perfect" ׀בִּאתִי†, where the medieval Jewish tradition of reading would make it {uʷ|bš't} but the ancient spelling {-ty} apparently called for a pronunciation [-tiʷ],<sup>63</sup> — close to the Greek [bâtʰi]. The vowel [i] of the feminine ending is indeed maintained by the Samaritans in their Scriptural canon (limited to the Pentateuch, which contains relatively few feminine 'you' forms); e.g. Murtonen, *EtVo*, 184, gives *uqārâtṭi* as the Samaritan pronunciation of ׀בִּקְרֵאתִי<sup>√</sup> 'and you (f.) are to call' (Gen. 16:11; see **2.Ha**), where the Jewish or Massoretic text has ׀בִּקְרֵאתִי<sup>√</sup> {wəqrš't}; cf. ׀בִּקְרֵאתֶם<sup>√</sup> {qrš't(ʷ)} 'you (f.) have called', Jer. 3:4). The Greek -θι, of course, makes no distinction of gender.

**2.Ff.** The Greek imperative singular -βα<sup>√</sup>, with no suffix, is limited to compounds, ἔκβα 'come out', πρόβα 'come forth', etc. Like βάτε and βάθι it is

<sup>63</sup> Cf. ׀שְׁכַבְתִּי ... ׀בִּאתִי<sup>√</sup> {uʷ|bš't ... wə|šəkbāt(ʷ)} 'and you are to come ... and you are to lie down' (Ruth 3:4).

attested mostly in the lyrical Doric passages of Attic tragedies. κατάβα<sup>√</sup> 'come down' in the pure Attic comedies of Aristophanes (*Vespae* 979, *Ranae* 35) may have a short vowel at the end; the meter would allow either scansion of this word. The Hebrew imperative singular masculine בֹּא<sup>√</sup> {bó'} 'come' (less often בֹּא<sup>√</sup> {bóʷ} in the Bible) has no suffix. Its vowel {o} differs from the {ɔ} of 'he came', but scarcely in the manner that -βᾶ in Attic — if indeed Aristophanes pronounced κατάβᾶ — differs from βᾱ̄ or bâ.

**2.G. Biconsonantal IE (Gr.)** (-)δ(-)μ(-) : *Sem.* {(-)b(-)n(-)} 'build'

βωμ- : (Heb.) {bɔm-} 'altar'

(-)ν(-)μ(-) : {(-)m(-)n(-)} 'count'

**2.Ga.** The dissimilation of labials, which we have observed in the IE βαῖνε, *uenī* : {gama} 'come' (**2.Fd**) and the Semitic {hěwé<sup>h</sup>} 'be' (**2.Da**), will serve to explain a divergence between the two language-groups in the verb-root that means 'build', as exemplified most simply

by the Greek imperative singular

δέμε†

and the Hebrew imperative singular masculine בִּנֵה<sup>√</sup> {bəne<sup>h</sup>}.<sup>64</sup>

The Aramaic of the Targum has

בִּנֵה<sup>√</sup> {bəne<sup>y</sup>},

just like {qəne<sup>y</sup>} (**2.Ca**, note 33). The Semitic active participle, as in

בִּנְיָהּ בֵּיתָא<sup>√</sup> {bɔʷne<sup>h</sup>-bbáyīṭ} 'building a house' or 'house-builder'

(II Chr. 2:3), finds an exact structural parallel in

οικοδόμει<sup>√</sup> (vocative; Brown – Levin, *EtPa*, 83-84),

except for the ORDER of 'house' and 'builder'.<sup>65</sup> The plural is

בִּנְיָי<sup>√</sup> {bóne<sup>y</sup> bōyīṭ} (construct)

οικοδόμοι<sup>√</sup> (nominative or vocative; cf. **1.Ac[5,h]**).

<sup>64</sup> The three occurrences in the Bible are hyphenated to the next word and unaccented; בִּנְיָהּ<sup>√</sup> {bəne<sup>h</sup>} is not quotable. The accentual configuration of בִּנְיָהּ לְךָ<sup>√</sup> {bəne<sup>h</sup>-ləkə} 'build (for) yourself' (I Kings 2:36) entails some sort of minor stress upon the weak {ə} of the verb; at least three excellent codices agree upon this fine point.

<sup>65</sup> If instead of a late prose-writer an early Hebrew poet (as in Exodus 15:11 עֲשֵׂה פֶלֶא<sup>√</sup> {óse<sup>h</sup> pēle'}) 'doing wondrous' or 'miracle-worker') had said 'building a house', it would have been בִּנְיָהּ בֵּיתָא<sup>√</sup> {bóne<sup>h</sup> bōyīṭ}, with the participle {bóne<sup>h</sup>} phonetically identical to the vocalic part of -δόμει. On {bōyīṭ} : (F)οικ-, see **1.Ef**.

The consonants {d-m-} and {b-n-} agree, apart from the crucial feature of labiality. Neither IE nor Semitic, to judge from the anciently attested languages, had verb-roots with both the first and the second consonant labial.<sup>66</sup> So, supposing that at a more remote time there had been such a root, we would expect to find it altered, though not altered the same way in both language groups. The \*b (or however this labial should be symbolized) was alien or at best marginal in prehistoric IE (**2.Bg**); hence it got shifted to [d]. No trace of such a constraint upon [b] appears anywhere in Semitic; so it is natural, or at least easy to grasp, that there the INITIAL sound [b] was maintained, at the price of changing the subsequent labial \*[m] to [n].

All the other Semitic languages, except those of Ethiopia, have cognates to this Hebrew verb, but none have forms as similar morphologically to the Greek [CéCe]. Berber languages also show the root (-)ḫ(-)n(-) 'build'; e.g. Kabyle *ebnu* <sup>√</sup>.<sup>67</sup> This is considered a borrowing from Arabic, if not from ancient Phoenician (Punic), and disregarded in studies of Afro-Asiatic etymology.<sup>68</sup> {qd} <sup>√</sup>, the usual Egyptian verb for 'build', lacks cognates — which is significant and rather surprising in view of the great achievements of the early Egyptian builders (cf. **1.Ed-e**).<sup>69</sup>

Another Egyptian verb, transcribed {nbḷ} <sup>√</sup>, would be amenable to an etymological link, on the assumption of metathesis. We are not obliged to decide whether {b} in the initial position (as in the Hebrew {bāne<sup>h</sup>}, Aramaic {bāne<sup>y</sup>}) or {b} in the second position (as in the Egyptian {nbḷ}) is more ancient. For prehistoric times it is reasonable to posit a quite variable articulation. {nbḷ} 'build', however, was nearly always written with the {nb} ideogram

<sup>66</sup> w as a second consonant, however, would seem to constitute an exception, more compatible with an initial labial (**2.Da**).

<sup>67</sup> J.-M. Dallet, *Dictionnaire kabyle-français: Parler des At Mangellat, Algérie* (Paris: Société d'Études Linguistiques et Anthropologiques de France, 1982), 28. Also *ebnu* <sup>√</sup> in related languages or dialects: A. Renisio, *Étude sur les dialectes berbères des Beni Iznassen, du Rif et des Senhaja de Sraïr: Grammaire, textes et lexique* (Publications de l'Institut des Hautes-Études Marocaines, XXII; Paris: Ernest Leroux, 1932), 296, 403; Esteban Ibañez, *Diccionario español-senhayí* (Madrid: Instituto de Estudios Africanos, 1959), 154; *bena* <sup>√</sup>, *ibna* <sup>√</sup>, *benna* <sup>√</sup>; Huyghe, *DiFrCh*, 61.

Reinisch, *EiUr*, 260, 263, relates the Semitic and Berber root to "dun, tom Bauen" in dialects of a scattered and very puzzling African language that he calls Teda.

<sup>68</sup> Not mentioned by Cohen, *EsCo*.

<sup>69</sup> However, {ḥws(i)} <sup>√</sup> 'build' is quite reminiscent of the Germanic noun exemplified by Old English *hus* <sup>√</sup> 'house', which lacks a satisfactory IE etymology (Pokorny, *InEtWö*, I, 953).

for 'gold'<sup>70</sup> (a drawing of a necklace) and the {b} character ligatured to it redundantly, in the manner of many hieroglyphs. So the primary meaning of this verb appears rather to be 'gild' or 'fashion'. In the sense of 'build', accompanied by the appropriate determinative, it is rare before the Ptolemaic period. Therefore the Egyptian side of this etymology comes out somewhat weaker.

**2.Gb.** In support of this theorizing about labial consonants in the verb stands a NOUN WITH TWO LABIALS,

Gr. βωμός<sup>√</sup> (nominative) : Heb. 𐤁𐤍𐤁† {bōmáṭ} (construct) 'altar'.<sup>71</sup>

Its semantic connection, previously unsuspected, to a verb-root that meant 'build' is attractive rather than certain. There is a widely cited but unsatisfactory analysis of βωμός by the Indo-Europeanists as an Ablaut counterpart to βῆμα<sup>√</sup>, βᾶμα<sup>√</sup> 'a step' (from the verb-root βῆ-, **2.Fa**) — hence later 'a (speaker's) platform'.<sup>72</sup> The physical nature of a βωμός and a βῆμα is not too diverse; but this etymology is beset with another sort of semantic problem: an altar is not something to step on.

Even if βωμός was formed indeed from the root that we saw in βῆ/ᾶ 'he/she came', that would not rule out a Hebrew cognate noun {bōm-}, although it would then be irrelevant to the verb 'build' which we are studying. The precise meaning of this Hebrew noun tantalizes us in spite of dozens of contextual passages, most of them disappointly meager and uniform. A 𐤁𐤍𐤁<sup>√</sup> {bōmṣ<sup>h</sup>} (to cite it in the absolute singular form) was the site of sacrificial worship disapproved of by the Biblical authors, although tolerated by many kings whom they praised otherwise (e.g. I Kings 22:43-44). And sometimes, if not always, it was built by man (I Kings 11:7, 14:23, etc.). Later on, Jewish writers in Greek, particularly the translators of Scripture, sometimes equated

<sup>70</sup> > Coptic NOYB<sup>√</sup>. See Erman – Grapow, *WöAeSp*, II, 237, 241, and II (Belegstellen), 347; Gardiner, *EgGr*, 505.

<sup>71</sup> ἐϋδμητῶν ἐπὶ βωμῶν 'upon well-built stands' for torch-holders (*Od.* 7.100) shows how such a structure could serve for some purpose other than sacrifice.

The highly relevant anomaly of Hebrew {ɔ} in the pre-accentual syllable of the CONSTRUCT form is established, not of course from the non-occurring construct singular, but from the well documented construct plural 𐤁𐤍𐤁𐤍<sup>√</sup> {bōmóʿṭ} (Num. 21:28, etc.; identical with the absolute pl., I Kings 14:23). This {ɔ}, oddly immune from weakening to {ə} in the very environment where the phonetic alternation is so characteristic of Hebrew paradigms, must have exactly the same sound as the Greek ω [ɔ].

<sup>72</sup> Frisk (*GrEtWö*, s.v. βωμός) remarks "mit auffallender ö-Stufe".

the Greek word βωμός with the Hebrew בִּמְחָ, especially in the prophetic books, when referring to a structure for pagan or illicit worship. They avoided this Greek word when speaking of the proper מִזְבֵּחַ<sup>73</sup> {mizbéaH} ‘altar’ of the true God; θυσιαστήριον<sup>74</sup> was their regular substitute.

The one monument of the related Moabite dialect has חבמת<sup>75</sup> {hbm̥t} (Donner – Röllig, *KaArIn*, I, 33, no. 181.3), with the prefixed definite article (חַבְמַתְּ<sup>76</sup> {hab|b̥m̥t̥} in Hebrew). Apparently this dialect, like Phoenician, did not make the Hebrew distinction between the ending {-<sup>h</sup>} for the absolute and {-a<sup>h</sup>} for the construct. To that extent,

Moabite {hbm̥t} with its final consonant  
is closer than Hebrew {habb̥m̥t̥}

to the Gr. nominative singular ὁ βωμός<sup>77</sup> {hob̥m̥s} ‘the altar’.

It remains undetermined whether the thing called {b̥m̥t̥} (construct {b̥m̥á<sup>h</sup>}) in Israel was what any GREEK would have called βωμός, so that — for example — βωμός (τῆς) Ἀφροδίτης<sup>78</sup> ‘altar of A.’<sup>73</sup> = \*בִּמְחָ עֶשְׂתִּי \*{b̥m̥á<sup>h</sup> ʿaštōrē<sup>h</sup>}. Stephanus of Byzantium lists a plural toponym Βωμοὶ λόφοι Αἰτωλίας ‘ridges of Aetolia’, which implies that in the Greek dialect of that region, if not throughout Greece, a natural height could be called βωμός — presumably when suitable for holding sacrifices. At the very least the Greek and the Hebrew word belong to the same part of life; so we have a fair basis for attributing them to a shared prehistoric etymon, identical phonetically with the [b̥m̥-] that is preserved in both languages.<sup>74</sup>

**2.Gc.** This etymology is uniquely important not only for its phonological exactness but because we can — for once — fix upon a likely point of contact, reaching into the early historical period. Before he built the temple in Jerusalem, “the king [Solomon] went to Gibeon (גִּבְעֹן<sup>79</sup> {gib̥ʕón̥}) to sacrifice there, for that is the great sanctuary (חַבְמַתְּ הַגְּדוֹלָה<sup>80</sup> {habb̥m̥t̥ haggā-<sup>h</sup>do<sup>h</sup>l̥})”; Solomon would send up a thousand holocausts on that altar”

(הוּא הַמִּזְבֵּחַ<sup>81</sup> {hammizbéaH hahú<sup>w</sup>}, I Kings 3:4). There the God of

<sup>73</sup> Ἀφροδίτης βωμός<sup>73</sup> in Pausanias 5.15.3.

<sup>74</sup> The first one to perceive the connection was A. Cuny, “Les mots du fonds préhellénique en grec, latin et sémitique occidental,” *Revue des études anciennes*, 12 (1910), 161. A concise but thorough treatment by Brown, *SaCu*, 1-3 (also Mayer, *RiPrRa*, 91).

Israel appeared to him in a dream. Yet the inhabitants were not Israelites but Hivites: יִשְׂרָאֵל וְיִבְעֹנִי {haHiwwí yošāḇē' gīḇō'w} 'the Hivite(s), inhabitants of Gibeon' (Joshua 11:19), the only city that had made peace with the Israelites during the war of conquest. The treaty required them to furnish wood and water permanently for the altar of the God of Israel (9:27); and on one hideous occasion they killed, by exposure TO HIM on the mountain — a sort of crucifixion — seven sons and grandsons of Saul, the former king of Israel (II Samuel 11:9). That was in revenge for their own people whom the zealous nationalist Saul had killed, and his successor David consented to the retaliation in order to conciliate the Gibeonites. So the religion of the Israelites and these Hivites was entangled, for good or ill.

J. P. Brown has identified the latter nationality {haHiwwí'}

with what is called in Hittite {aḪḪiyawa}√,

and hence with the Ἀχαι(F)οί√, the usual

Homeric name for the inhabitants of Greece (*Achīuī*√ in Latin).<sup>75</sup>

The one obstacle, on the phonetic side, is the rendering of יִבְעֹנִי in the LXX:

οἱ Εὐαῖοι√, not ??Χεῦαῖοι,

which argues that the Hebrew consonant ב can hardly represent a velar or post-velar in the language of {ha|Hiwwí'} (οἱ Εὐαῖοι) themselves, but rather a guttural (pharyngeal).<sup>76</sup> Otherwise the structure of {haHiwwí'} matches [ak'haiwōí] pretty well. The lack of a Greek counterpart to the Hebrew initial {h-}, belonging to the prefixed definite article, could be due simply to the operation of Grassmann's "law" of dissimilatory de-aspiration: \*[C<sup>h</sup>VC<sup>h</sup>] > [CVC<sup>h</sup>], and \*[hVC<sup>h</sup>] > [VC<sup>h</sup>].

The Greek ending -οί is plural, the Hebrew {-í'} collective singular; but the Hebrew participle {yošāḇé'}, governed by {haHiwwí'}, is plural (1.Ac5). In spite of the phonetic gap between -οί and {-í'}, a whole set of ethnic names in early Greek and Hebrew show the two suffixes to be parallel in their function (see Brown – Levin, *EtPa*, 88-90).

<sup>75</sup> See Hans G. Güterbock et al., "The Hittites and the Aegean World", *American Journal of Archaeology*, 87 (1983), 133-141; Othniel Margalith, "The Hivites," *ZeAÍWi*, 100 (1988), 60-70.

<sup>76</sup> Cf. יִבְעֹנִי√ {haHittí'} 'the Hittites', rendered οἱ Χετταῖοι√. I know of no reliable evidence whether Εὐαῖοι was pronounced with a "rough breathing" [h-] at the beginning or a "smooth breathing" (i.e. no consonant).

**2.Gd.** The next momentous point is that a noun formed with two labial consonants could persist even though those very consonants became incompatible as components of a verbal root. This allows us to glimpse into the darkness when the forerunners of IE and Semitic (or Afro-Asiatic) were first developing. The inflectional morphology of verbs grew far more complex than that of nouns, in order to accommodate the distinctions of person, number, mood, tense, etc., expressed through affixes or interwoven vowels along with supra-segmental (or accentual) features. Such a great variety of sounds was bound to affect the articulation of the root-consonants in their vicinity: In an appreciable portion of the inflected verb-forms, those basic consonants got so distorted in the long run as to make the morphological relationship unintelligible to new generations learning the language. The resulting forms could no longer fit any recognised paradigm, and accordingly became liable to replacement.

**2.Ge.** A striking detail in the recent history of English verb-morphology gives an idea of how the process must have gone, though on a much greater scale, in IE and Semitic prehistory. The past tense and participle of *work*<sup>√</sup> used to be *wrought*<sup>√</sup>, parallel to *seek/sought*<sup>√</sup>. In Old English the suffix [-t] affected certain consonants at the end of the root; any velar, in particular, became a voiceless fricative, written -h- (-gh- by the Middle English scribes).<sup>77</sup> As that consonant weakened, early modern English was left with an ending [-ɔt],

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<sup>77</sup> Their choice of *gh*, rather than *ch* for a VOICELESS consonant, was presumably due to the preemption of *ch* for the affricate [tʃ] (or [tʃʃ]), which sound had developed independently in English and French, but the digraph *ch* was applied to English spelling (as well as to Spanish) through French influence. This digraph was established earlier in French spelling to stand for that peculiar development from the Latin *c* [k] only before *a* and only in the Île de France. Since *ch* in Latin had served originally to transcribe the Greek χ [kʰ] and this became plain [k] in later Latin through the general loss of aspiration, it was the spelling of two important nouns that suggested to the French scribes a handy reinterpretation of *ch*: The Latin *charta*<sup>√</sup> (< χάρτης<sup>√</sup>), although elsewhere pronounced [kártə] by that time, had become [čártə] in THEIR pronunciation of Latin and [čártə] in their vernacular. As it was still spelled *charta* in Latin, they logically wrote it *charte*<sup>√</sup> in French to show the change in the final vowel. Also the Latin noun *cāritās*<sup>√</sup> 'dearness, love', through a false but widely entertained etymology, was supposed to be from χάρις<sup>√</sup> (accusative plural χάριτᾶς<sup>√</sup> 'thanks'), and hence was misspelled *charitas*<sup>√</sup>. Like every other late Latin [ka-], this too was affricated in the Latin pronunciation of the Île de France and in the vernacular of that region. Then the digraph had only to be extended to French words such as *chaîne*<sup>√</sup>, *vache*<sup>√</sup> 'cow', *chose*<sup>√</sup> 'thing', whose Latin source (*catēna*<sup>√</sup>, *uacca*<sup>√</sup>, *causa*<sup>√</sup>) had never been spelled with *ch*.



comprising all that remained of every such verb after its initial consonant or consonant-group.<sup>78</sup>

The eventual fate of each one could be examined in turn; but a few observations will suffice here. *Think/thought*<sup>√</sup> does not appear to be in the slightest jeopardy, notwithstanding the anomaly; likewise *bring/brought*<sup>√</sup>, at least among educated people (while others say [bræŋ]<sup>√</sup> or [brʌŋ]<sup>√</sup>, on the model of *sing/sang/sung*<sup>√</sup>). *Seek/sought*<sup>√</sup> (as well as *beseech/besought*<sup>√</sup>) is obsolescent for the last few generations, whether or not the anomalous preterite has operated against it. The most similar to it in sound is *teach/taught*<sup>√</sup>; here the sociolinguistic context, the school, secures the verb against any incipient restructuring, whereas *catch/caught*<sup>√</sup> and *buy/bought*<sup>√</sup> are liable to regularization [kæçt<sup>√</sup>, keçt<sup>√</sup>; baid<sup>√</sup>] in substandard speech. Above all, the case of *wrought* is instructive: While the verb *work* has continued, the early metathesis of -or- to -ro- was bound to make *wrought* ultimately untenable, after w- in the consonant-group wr- ceased being pronounced.<sup>79</sup> The noun *work*, with its simpler inflection, was never exposed to metathesis.

**2.Gf.** Long prehistoric experience, in IE and in Semitic, must likewise have weeded out many erstwhile collocations of consonants, and left either language group (or its individual languages) with certain patterns that were readily compatible with the verb-inflections. Why the other patterns — the conflicting ones — had failed, is open to our conjecture but scarcely to demonstration. For instance, had the verbal root been \*(-)b(-)m(-), Semitic prefixation of a subject should, in prehistoric Hebrew, have yielded something like \*[yibm] for the jussive 'let him build', with the two consonants at the end blurring each other. Yet such a phonetic encounter may well have prompted some variants, as \*[-bŋ] instead of \*[-bm], and hence the source of a readjustment so that

<sup>78</sup> In *ought*<sup>√</sup>, as there was no initial consonant (other than an unwritten glottal stop, 1.Cb, Fa), the relation to *owe*<sup>√</sup> was least evident and is now known only to those curious about etymology, although both *ought* and *owe* (with a reformed preterite *owed*<sup>√</sup>, like *worked*) remain current in their separate spheres and occasionally still show a hint of their original oneness; e.g. *You owe me a dollar.*

*You ought to pay me a dollar.*

<sup>79</sup> The reduction of -or- to [ɹ] (pronounced not at all like the consonant [r] in some parts of England and the United States) put further strain upon the originally morphophonemic alternation [<sup>wOrk</sup>/<sub>wɹɔk</sub>].

eventually the root would conform to a less vulnerable pattern.<sup>80</sup> Otherwise it was most likely to be in time superseded by some newcomer in the vocabulary, one that happened not to be encumbered by any phonological disadvantage. Given enough time, this sort of tendency will account for the establishment of the favored paradigms of each language, as regards the roots no less than the inflections.

**2.Gg.** Parallel to {bāne<sup>h</sup>} : δέμε ‘build’ is the divergence in the consonants of הָנָה<sup>√</sup> {māne<sup>h</sup>} : νέμε<sup>√</sup> ‘count’.<sup>81</sup>

The precise meaning ‘count’ is not directly evident in Greek, but ‘deal out, disburse, pay, allot’ is close to it, as in δύο μὲν δὴ μέρη τοῦ παντὸς ἀριθμοῦ τὸ πρῶτον νεμ|ηθήτω<sup>√</sup> ‘let two parts of the total number be taken (or counted out) at first’ — i.e. ‘let the total number be divided by two’ (Plato, *Leges* 5. 737e).

The Semitic verb-root {(-)m(-)n(-)} is used far more extensively in Akkadian than in Hebrew. So, not surprisingly, Akkadian furnishes quite a few instances of a meaning closer to the Greek — e.g. {makkūr ali šuātu ... ana qāt [ummāniya] am-ni-i-ma}<sup>√</sup> ‘I distributed the treasures of that city to my soldiers’ (*AsDi*, X, 226), just like τρίτον μέρος νείμ|αντες τῶν σκυλῶν τοῖς Ἀθηναίοις<sup>√</sup> ‘allotting a third part of the spoils to the Athenians’ (Thucydides 3.114.1). The rest of the semantic field of this Greek verb is remarkably broad and problematical for IE etymologists (e.g. Pokorny, *InEtWö*, I, 763-764; Frisk, *GrEtWö*, and Chantraine, *DiÉtLaGr*, s.v. νέμω); no meaning common to νέμε and the Sanskrit ऋ ण<sup>√</sup> {nama} ‘bow, bend’ is perceptible, in spite of the phonetic match.

For our Semitic comparison the Latin noun *numerus*<sup>√</sup> (> Fr. *nombre*<sup>√</sup> > Eng. *number*<sup>√</sup>) is especially relevant, and so is one odd meaning of the familiar Greek noun νόμος<sup>√</sup> (otherwise ‘law, custom’). Only in the Sicilian

<sup>80</sup> The actual Hebrew form is {yāben} (in יָבֵן<sup>√</sup> ‘and let him build’).

<sup>81</sup> The imperative singular νέμε seems not to be quotable, but the identical imperfect indicative, 3d person sing., with the augment ἔ- omitted, is in *Odyssey* 15.140: νέμε μοίρας<sup>√</sup> ‘he passed out slices’ (11.357: νέμε δὲ χρῦσεια κύπελλα<sup>√</sup> ‘and she passed out golden cups’). See E. Laroche, *Histoire de la racine νεμ- en grec ancien* (Études et commentaires, VI; Paris: C. Klincksieck, 1949).

The Aramaic imperative sing. is מְנֵי<sup>√</sup> {māni<sup>√</sup>}, vocalized differently from {bāne<sup>√</sup>} ‘build’ (2.Da, note 41; 2.Ga, note 64).

Doric poets Epicharmus and Sophron do we find νόμος as a unit of precious metal: δέκα νόμους<sup>√</sup> 'ten n.' (accusative pl., Epich. fr. 136 Kaibel),

δέκα νόμων<sup>√</sup> 'for ten n.' (genitive pl., fr. 137).

The Hebrew unit {מֶנֶה<sup>h</sup>} in מֶנֶה<sup>h</sup> {מֶנֶה<sup>h</sup>} 'the m.' (Ezek. 45:12) is phonetically close to the Greek {νόμ-}, if we allow for the metathesis of consonants. Its plural absolute is מְנֵי<sup>√</sup> {מֶנֶה<sup>h</sup>}, accompanied in each instance by a number. The latter is translated into Aramaic מְנֵי<sup>√</sup> {מֶנֶה<sup>h</sup>}. The plural construct, if it occurred in Hebrew, would presumably be \*מְנֵי<sup>√</sup> \*{מֶנֶה<sup>h</sup>}, rather than \*מְנֵי<sup>√</sup> \*{מֶנֶה<sup>h</sup>}; the Greek nominative plural νόμοι<sup>√</sup> happens not to be attested in this particular sense.

Besides the attractive prehistoric cognate, Greek νόμ- : Hebrew {מֶנֶה<sup>h</sup>}, Greek early in the classical age borrowed μνᾶ<sup>√</sup> from a Semitic language (other than Hebrew) with minimal vocalization between the two consonants; and the Latin *mina*<sup>√</sup> is undoubtedly a secondary borrowing from Greek.<sup>82</sup>

**2.Gh.** Another Hebrew noun מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>} 'portion, share', of feminine gender,<sup>83</sup> corresponds well to one meaning, albeit infrequent, of the Greek feminine νομή<sup>√</sup> 'sharing, division' — especially of an inheritance (Brown – Levin, *EtPa*, 92; cf. 84).

Furthermore the Hebrew participle מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>}, in both of its Biblical occurrences, is strongly reminiscent of Greek nouns compounded with -νόμος<sup>√</sup> (vocative -νόμε<sup>√</sup>):

Jeremiah 33:13, "and the flock shall pass by the hand of [one] counting" :

<sup>82</sup> To judge from what ten νόμοι would buy — μόσχον καλᾶν 'a fine calf' — and a scholium on *Iliad* 5.576: δύναται δὲ τὸ νόμος ... τρία ἡμιωβόλια, ὥς ἐν τοῖς περὶ Σώφρονος 'Απολλόδωρος<sup>√</sup> 'the {νόμος} is worth three half-obols, as Apollodorus [says] in the [book] about Sophron', and the value of the Latin *nummus*<sup>√</sup>, this unit was far less than the μνᾶ or *mina*, but more like the Babylonian "small mina", a third of a shekel — written not in the Akkadian syllabary but in Sumerian {MA.NA.TUR}<sup>√</sup> (*AsDi*, X, 220).

<sup>83</sup> The construct form is anomalously מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>}; the "regular" ?? מְנֵה<sup>√</sup> ?? {מֶנֶה<sup>h</sup>} is a badly attested variant in Jer. 13:25. The absolute pl. is regular: מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>}; but the construct pl. is doubly anomalous: either מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>} or מְנֵה<sup>√</sup> {מֶנֶה<sup>h</sup>}.

ῥιουνόμος<sup>84</sup> 'shepherd' (Anyte in *Anth. Plan.* 291.2),<sup>84</sup> ἄιγινόμων<sup>85</sup> 'goat-herds' (genitive pl.; Leonidas in *Anth. Pal.* 6.221.4);

Ps. 147:4, 'counting a number for the stars': ἄστρονόμος<sup>85</sup>.

Conversely, and still more impressively, both parts of

the Greek compound χρῦσο|νόμε<sup>†</sup> 'gold-dispensing/-handling'<sup>85</sup>

could be rendered מְנֵה מָוֶה {moné<sup>h</sup> Hərū<sup>w</sup>c} 'counting gold'.<sup>86</sup>

**2.Gi.** The parallel phonetic treatment of δέμε and νέμε in an IE and of {bənē<sup>h</sup>} and {mənē<sup>h</sup>} in a Semitic language strengthens both of these IE-Semitic etymologies. In Greek the first consonant is dental, the second is the labial nasal, whereas in Hebrew the first is labial and the second the dental nasal. Such symmetry must be explained by divergence from a common source, rather than by mere coincidence. We shall not, however, posit a prehistoric verbal root \*m(-)m-, conforming to the pattern of the other root \*b(-)m- (which appears to have survived without dissimilation in the noun βωμός : {bōmāt}). For neither IE nor Semitic has verbal roots that consist of the same consonant pronounced twice.<sup>87</sup>

<sup>84</sup> In some passages this word admits of another interpretation 'foraging alone'.

<sup>85</sup> Quotable in the genitive case, χρῦσοιόμου γενεάς<sup>85</sup> 'of a gold-dispensing race' (Aeschylus, *Per.* 79-80; the scholia cite an alternative or superior reading χρυσογόνου 'born of gold').

<sup>86</sup> μαζονόμον<sup>86</sup> (neuter) — also μαζονόμος<sup>86</sup> (masc. or possibly fem.) — 'cake-server' or 'cake-serving (sc. basket or trencher)' would correspond to מְנֵה מָוֶה {moné<sup>h</sup> maccō<sup>w</sup>t} 'counting cakes'. The context of a passage from Harmodius (quoted by Athenaeus 4.31[149a]), ἐπὶ χαλκῶν κανῶν τῶν παρὰ τισι καλουμένων μαζονόμων<sup>86</sup> 'upon bronze baskets, the ones called cake-servers by some', implies that somebody counted to make sure there should be at least one little cake for each person in the chorus and more for those with a heartier appetite; this is somewhat like the Passover custom, to this day, of seeing to it that there are at least three matzos wrapped in a napkin on the serving dish.

An even better phonetic match — ταυρονόμια : \*מְנֵה מָוֶה {mōne<sup>h</sup> šō<sup>w</sup>r} — would be a little too speculative, because neither the Greeks nor the Hebrews kept bulls in numbers (cf. Ezra 2:66-67, Neh. 7:68-69, where 736 horses, 245 mules, 435 camels, and 6720 asses are listed, with no mention of other beasts); accordingly the root -ν-μ- : {m-n-} might be inappropriate in either language.

<sup>87</sup> There is a non-verbal noun מְנֵה {mū<sup>w</sup>m} (Aramaic מְנֵה {mu<sup>w</sup>m|z}) with the suffixed definite article) 'blemish', in particular one that makes an animal unfit for sacrifice. It appears in Greek as μῶμ|ος<sup>87</sup>, which is sometimes specifically the ridicule heaped on anyone whose appearance at a festival is less than perfect; also in the adjective ἄ|μύμ|ων<sup>87</sup> 'flawless, unblemished'.

Does {m-n} then preserve an earlier collocation of the two nasals, or does {n-m}? The answer need not be one to the exclusion of the other. I would allow, or even prefer, the further possibility that the prehistoric way of articulating made for VARIATION between [m-n] and [n-m]. But given that, the same Semitic tendency that favored {b-n}, with the labial first, would also have favored {m-n}; and just the opposite in IE.<sup>88</sup>

**2.H. Bi- or triconsonantal IE (Gr.)** χρᾶ/ῥη : Sem. (Heb.) {qərɔʔ} 'call'

(-)χρᾶ- : {(-)q(-)r(-ʔ)} 'befall'

**2.Ha.** The ordinary Hebrew word for 'call' is קָרָא<sup>√</sup> {qərɔʔ}, with Semitic cognates:

Aramaic

קָרָא<sup>√</sup> {qərɔʔ}

(besides קָרָא<sup>√</sup> {qəreʔ}, קָרָא<sup>√</sup> {qəriʔ}),

Arabic

قَرَأَ<sup>√</sup> {(ʔ)qraʔ}.<sup>89</sup>

The imperative singular masculine, as usual in Semitic, is the briefest morphological manifestation of the verb-root, with neither a suffix nor a prefix.

In one specific context, addressing a divine message to a man (or woman), the verb seems to recur in Greek as χρᾶ<sup>†</sup> (Ionic), χρῆ<sup>†</sup> (Attic) 'speak oracularly, prophesy'. These imperative forms are undocumented, but to be inferred from the present indicative χρᾶ<sup>√</sup>, χρῆ<sup>√</sup> 'he/she prophesies'

and the imperfect ἔχρᾶ<sup>√</sup>, ἔχρη<sup>√</sup> 'he/she prophesied'.

The subject in every instance is the prophetic god Apollo or his human intermediary.<sup>90</sup> Presumably a worshipper of Apollo could have used the impera-

<sup>88</sup> Ilich-Svitych (*MaSrSl*, 339), whose principles of comparative linguistics leave little if any room for such metathesis, relates this Semitic (or Semito-Hamitic) root to the IE \*men(H)- 'think, remember' (Pokorny, *InEtWö*, 1, 726-728). Morphologically, apart from the reduplicating prefix, the Greek perfect μέμνε<sup>√</sup> 'he/she is eager' (cf. Latin *meminit* 'he/she remembers') is not far from the Hebrew perfect מְנַח<sup>√</sup> {mənɔʔ} 'he has counted'; but they are far apart in meaning.

<sup>89</sup> Only in the sense of 'read', and as such probably borrowed by Arabic from Aramaic (or Hebrew) when the book culture spread to the Arabs. For possible Berber and Cushitic cognates see Cohen, *EsCo*, 126; secondary borrowing from Arabic is likely, in view of the spread of literacy through Muslim proselytizing in those parts of Africa (cf. Introduction, p. 7).

<sup>90</sup> See my article, "The Significance of Dialect Words in Greek Literature: χρᾶν and χρῆσθαι/χράσθαι in Atticistic texts," *GeLi*, 25 (1985), 211-217. The most thorough study of early Greek usage is by G. Redard, *Recherches sur χρῆ, χρῆσθαι: Étude sémantique* (Bibliothèque de l'École des Hautes Études, fasc. 303; Paris: Honoré Champion, 1953), though with no inkling of a Semitic connection.

tive  $\chi\rho\acute{\alpha}$  or  $\chi\rho\eta$  to him. No IE language has a cognate verb of similar meaning. So this may well be a Greek borrowing from the northwestern Semitic area, which according to ancient Greek tradition was the source of many religious practices. In favor of my etymological claim is the extensive morphology shared by Greek with Hebrew, as explained in **2.Hc**.

**2.Hb.** The only phonetic difficulty lies in the initial consonant. Both  $\chi$  and  $\text{𐤠}$  are velar and voiceless, but the Greek aspirate  $\chi$  [ $k^h$ ] does not readily correspond to the Semitic “emphatic”. One incontestable etymology, however, has precisely such a correspondence: the ninth letter of the alphabet, originally shaped  $\Theta$ , shared the “emphatic” quality as  $\text{𐤠}$  in the Semitic languages,<sup>91</sup> so far as the evidence goes; but in Greek it was called  $\theta\eta\tau\alpha$  [ $t^h\acute{e}ta$ ].<sup>92</sup> Beyond any doubt the Greeks borrowed the names of the letters from a Semitic source that they afterwards referred to as “Phoenician”. The phonology of that particular source would in all likelihood have had some peculiar divergences from the Semitic phonology most accessible to us through the Biblical Hebrew corpus. To account for the odd correspondence  $\text{𐤠}$  {q} :  $\chi$  [ $k^h$ ] in  $\chi\rho\acute{\alpha}/\eta$  :  $\text{𐤠}\text{𐤓}\text{𐤠}$ , we have only to posit that this word was borrowed by the Greeks from the same (or nearly the same) Phoenician source as the alphabet.<sup>93</sup>

<sup>91</sup> To suggest this affinity, many Semitists use the transliterations *t* and *k*.

<sup>92</sup> When the Hebrew name of the letter was later expressed in the Septuagint of Psalm 119 [118] and Lamentations, it was spelled out  $\tau\eta\theta\acute{\nu}$ , which proves that to a Greek ear toward the end of the pre-Christian era the Hebrew  $\text{𐤠}$  had a NON-aspirate sound. Conversely the last letter of the alphabet was borrowed into Greek as  $\tau\alpha\upsilon$  [ $ta\upsilon$ ], NON-aspirate, but expressed in the Septuagint as  $\theta\alpha\upsilon$  [ $t^h\alpha\upsilon$ ]; cf. the other Greek letters  $\kappa\acute{\alpha}\pi\pi\alpha$  [ $k\acute{a}ppa$ ] and  $\pi\acute{\epsilon}\iota$  [ $p\acute{e}i$ ], non-aspirate, but rendered in the Septuagint  $\chi\alpha\phi$  and  $\phi\eta$ , aspirate.

The pronunciation of the name of the letter  $\text{𐤠}$  {T} varies in the school traditions of Hebrew now current, but all varieties are derivable from  $[\text{Te}\bar{\text{T}}]^\dagger$ .

<sup>93</sup> A question remains why this Semitic letter (shaped  $\varphi$  in the period when the alphabet came to Greece) was not adopted for the Greek phoneme / $k^h$ /, as  $\Theta$  was for / $t^h$ / . Perhaps the ensuing vowel [o] in the letter-name (spelled  $\kappa\acute{o}\pi\pi\alpha$  according to the later Greek tradition) interfered somehow with the perception of any feature in the Semitic consonant that could be equated with aspiration in Greek, whereas the consonant-group  $\text{𐤠}\text{𐤓}$  did sound a little more like / $k^h\text{-}$ / than / $kr\text{-}$ /.

**2.Hc.** The inflections common to Hebrew and Greek make this root singularly important. In many passages (e.g. Gen. 21:17, 22:11,15, Ex. 3:4, 19:3,7, 20, 24:7,16, Jonah 3:4)

the Hebrew preterite אָוִיָּקָרְ {wayyiqrṣʾ} 'and he called'<sup>94</sup>

could have been translated καὶ ἔχρησεν in Ionic or καὶ ἔχρηξεν in Attic; for it is a divine pronouncement. {wayyi-} 'and he —ed' is analyzable as three morphemes in Hebrew; how [kaie-] in Greek corresponds to it will be investigated in the sequel to this volume.

Furthermore the Greek syntagma

σε χρῆναι 'you must/ought', which has no IE counterparts, can now be interpreted as virtually equivalent to a Hebrew stative 'you are called upon' (cf. **3.Ca-c**). The actual Hebrew form

אָוִיָּקָרְ {tīqrṣʾ}, however, has active meaning 'you (will) call'.

Aram. אָוִיָּקָרְ {tīqrṣʾ} is even closer in sound to the Greek [sekʰrē], but it means the same as the Hebrew. χρῆναι is quite anomalous in Greek, functioning nearly as a Semitic root in an IE language. It differs from the unrecorded imperative χρῆν only in accent, if indeed this minute difference can ever be verified.<sup>95</sup>

The derived Greek noun χρειῶν [kʰrēṓs] shows the meaning 'prophecy'

in Apollonius, *Argon.* 1.491.<sup>96</sup>

The Heb. cognate would be \*אָוִיָּקָרְ \*{qəreʾṣʰ}, a stative noun formation; the documented form, however, is {qəriʾṣʰ} in אָוִיָּקָרְ הַנְּבִיאִי 'the prophecy'

<sup>94</sup> The preterite in Hebrew nearly always includes the 'and' prefix.

<sup>95</sup> A gloss of Hesychius χρῆναι δέει, πρέπει, καθήκει ['it behooves, it befits'], χρησιμωδεῖ ['he/she prophesies'] proves that the lexicographer, who flourished at an undetermined time in the early Christian era, was unaware of any difference in sound between χρῆναι and what we write χρῆναι or more accurately χρῆναι (the present indicative 'he/she prophesies'). Furthermore the compound that means 'it answers (the need)' = 'it suffices' is ἀπόχρην in all Attic texts, notwithstanding the canon of a Byzantine grammarian that in ancient Attic it was ἀποχρην, and only later ἀπόχρην (*Etymologicum magnum* 222.72c-d Gaisford). In my article (**2.Ha**, note 90) I acceded to the grammarian's authority; but now it seems to me improbable that the manuscripts of the Attic authors, including some mss. noted for the best orthography, could be uniformly wrong about ἀπόχρην. If authentic, it testifies to something amazing but credible: that a verb of Semitic origin, being used IMPERSONALLY in Greek, persisted with no third person singular suffix assimilating it to the paradigm of the IE present indicative. Even if χρῆναι 'he/she prophesies' was so assimilated, that need not have entailed the same for the impersonal 'it suffices'.

<sup>96</sup> See my preface to Yahuda, *HeGr*, xiv-xvi.

(Jonah 3:2, a relatively late Biblical text). Any such noun, ending in {-<sup>h</sup>}, is unfailingly feminine in Hebrew; and so are the rather infrequent -<sup>ω</sup> nouns in Greek, except that this one is found sometimes with feminine agreement but sometimes with neuter (*InEuSeLa*, 247-248; Brown – Levin, *EtPa*, 95-96).

The related neuter noun χρέος<sup>√</sup> (less often χρεῖος<sup>√</sup> [k<sup>h</sup>rêos] and in Attic χρέως<sup>√</sup> [k<sup>h</sup>rêʒs])

can also have the meaning 'prophecy'. The neuter class that this falls into is abundantly represented in the early Greek vocabulary (Levin, *SoSt*, 332-336). The Semitic counterpart that matches it phonetically is the Hebrew construct of feminine nouns — in this instance

\*<sup>h</sup>ṯāṣṣāṭ \*{qərəʔāṭ} '(so-and-so's) prophecy' — or

still better, with a possessive suffix

\*<sup>h</sup>ṯāṣṣāṭi \*{qərəʔṯi|óʷ} 'his prophecy'.

**2.Hd.** A different etymology is suggested by the rare, archaic Latin verb *calā* † 'call' (imperative singular).<sup>97</sup> The discrepancy [r] : [l] is no obstacle to any etymology; for it recurs endlessly in the history of languages. The correspondence {qərɔʔ} : *calā* may be just as valid as {qərɔʔ} : χρᾶ/ῆ, but due to a separate contact — and this one with no morphological ramifications, just the simplest imperative form.

The connection of κάλει<sup>√</sup> [kálē], the usual Greek word for 'call' (uncontracted κάλεε<sup>√</sup> in Ionic), to *calā* and — *a fortiori* — to Hebrew/Aramaic {qərɔʔ} or Aramaic {qərəʔ} is problematical. For this long [-ē] evinces a prehistoric \*-es|e; the base καλεσ- shows up plainly in the Homeric aorist κάλεσ|σ|α<sup>√</sup> 'I called' (Attic ἐκάλεσα<sup>√</sup>). So, at best, the effective contact with Semitic must have been limited to a form or forms with no actual [s]. Conceivably κάλει was borrowed from the Aramaic imperative {qərəʔ} and then, within Greek, it was fitted into the verb-pattern of the denominative τέλει § 'finish', τέλεσσα<sup>√</sup> 'I finished' and the like from the neuter noun τέλος/ε(σ)<sup>√</sup>.

**2.He.** As if to clinch the cardinal etymology χρᾶ/ῆ : {qərɔʔ} 'call', another verb rarer in both Greek and Hebrew, which means 'befall', has the same first

<sup>97</sup> Mainly *calō*<sup>√</sup> 'I call' and the infinitive *calāre*<sup>√</sup> are cited in glosses, the latter sometimes as *clare*<sup>√</sup>, which is even closer to {qərɔʔ-}. The English *call*<sup>√</sup> is unrelated etymologically; see *OxEnDi*.



and second consonant {Kr-} — i.e. {kʰr-} in Greek, {q(-)r-} in Hebrew — and nearly if not quite the same structure otherwise:

Homeric ἔχραε<sup>✓</sup> 'it befell'; אִיִּקְרָה<sup>✓</sup> {yiqrāʔ} 'it will befall', which is also recorded in slightly different forms הִיִּקְרָה<sup>✓</sup> {yiqrāʔ<sup>h</sup>}, הִיִּקְרָה<sup>✓</sup> {yiqrēʔ<sup>h</sup>}. However, אִיִּקְרָה<sup>✓</sup> occurs much oftener with the meaning 'he calls/will call'.

If this word from early Greek had remained current so as to be available to Herodotus, it might well have been a total homophone of his ἔχρα 'he/she prophesied'. Conversely, if 'he/she prophesied' had been in Homeric Greek, it might have been a homophone of ἔχραε 'it befell'. But the Attic ἔχρη 'he/she prophesied', found also in a verse oracle in Homeric style (Diodorus 7.12.6), makes this a little less probable, because the normal Attic contraction of αε is not η but ᾱ.

For that matter, it was not out-and-out homophony. Though 'call' and 'be-fall' seem far apart in meaning, it is not hard to think of something in between — 'address commandingly' or 'constrain'. Especially σε χρή fits as 'you are constrained'; and

στυγερὸς δέ τοι ἔχραε δαίμων<sup>✓</sup> (*Od.* 5.396) may be understood as

'hateful destiny befell him' or 'a hateful god (conceived impersonally) called to him',<sup>98</sup>

with the dative case for the person affected. We find a syntactical and conceptual parallel in Hebrew, although the god here is bountiful:

וַיִּקְרָא-לֹו יְהוָה שְׁלֹום<sup>✓</sup> {wayyiqrāʔ-lōʔ} (?ādonóy) šlōʔm) 'and the LORD called to him "Peace"' or 'befell him well' (Judges 6:24).

In any event, the breadth of the semantic coverage shared by the Greek and Hebrew {Kr-} is so striking that it cannot be through mere coincidence (see Yahuda, *HeGr*, 256, 374, 427, 668).

<sup>98</sup> Similarly in *Od.* 10.64. Frisk, *GrEtWö*, and Chantraine, *DiÉtLaGr*, s.v. χραεῖν (which ought to be asterisked), treat this and the few other attested forms as not imperfect but thematic or "second" aorist of a rare verb whose "first" aorist subjunctive is χραύσῃ<sup>✓</sup> 'has fallen upon' (*Iliad* 5.138). In view of the diphthong [-au-] they restore the consonant [-w-] in ἔχρα(φ)ε; see also Chantraine, *GrHo*, I, 393, and Pokorny, *InEtWö*, I, 460. Δαναοὶ Τρώεσσιν ἔπι ἐχραον<sup>✓</sup> '[the] Danaans fell upon (= met in battle) [the] Trojans' (*Il.* 16.356) is close in meaning, as well as in sound [-Kra-], to וַיִּצְא יִשְׂרָאֵל לִקְרָאת פְּלִשְׁתִּים<sup>✓</sup> {wayyecéʔ yiśrāʔél liqrāʔt pəlištiʔm) 'and Israel came out to encounter [the] Philistines' (*I Sam.* 4:1). The anomalous Hebrew infinitive {li|qrāʔ|t} occurs often in a context of war.

**2.Hf.** While I diagnose the Greek verb χρῆ (particularly in the sense of ‘prophesy’) as probably a rather late prehistoric borrowing from a Semitic language or dialect close to Hebrew, I ought to mention that Möller (*VeInSeWö*, 100-101) instead links the Hebrew verb<sup>99</sup> to the Sanskrit verb “*gṛṇāti* [गृ णा ति<sup>√</sup>, present tense] ‘kündigt an, rühmt, preist (die Götter), singt, lob-singt’,” and he takes both the Sanskrit and the Semitic forms back to a primeval root *g<sup>u</sup>-rā-* (which he does not star!). Thus he posits an originally labio-velar initial consonant (cf. **1.Ja,c,Ka**), and a nasal infix after the second consonant (or quasi-consonant) of the root.

Bomhard, however (*ToPrNo*, 239), compares this Hebrew verb (and its Semitic cognates) to a different Sanskrit verb, ज र ते<sup>√</sup> {jār|atē} ‘he calls out to’ — which would not involve a labio-velar. Möller (96-97) allows for that too to be related to the same Semitic root.

In this etymology, what Möller and Bomhard have in common would — if valid — constitutes another instance of a VOICED plosive or affricate in Sanskrit corresponding to a Semitic “EMPHATIC” plosive (cf. **2.Cb**), both being readily derivable from a glottalized voiceless [kʰ]. I hesitate to accept it or to build anything upon it, mainly because their comparisons here (as so often) take in only the root and do not extend to any morphology — prefixed, suffixed, or interior.

**2.Hg.** As all forms of the Hebrew verb ‘call’ show the root קרא, it is properly termed triconsonantal, even though the third consonant {ʔ}, in the age of the medieval punctators, had become silent unless followed by a vocalic suffix; e.g.

קראו<sup>√</sup> {yi|qr3ʔ|uʷ} ‘they (will) call/read’.

But in Aramaic the **ʕ** is gone: קרו<sup>√</sup> {yi|qr|6ʷn} (Dan. 5:15).

At most we find it written at the end of an Aramaic word, as in the unsuffixed participle קר<sup>√</sup> {qréʔ} (masc. sing.; 5:7, etc.). And this applies not only to the Biblical Aramaic texts, which are somewhat less antique than most of the Hebrew, but also to an early Aramaic inscription (8th cent. B.C.):

<sup>99</sup> He cites it in the perfect tense, but with an infinitive gloss: “*kārā*’ [i.e. קרא<sup>√</sup> {qr3ʔ} ‘he (has) called’] ‘schreien (von Tieren und Menschen), ausrufen, rufen, verkünden, laut lesen, rezitieren’.”

קָרַיִ {qr|ny} ‘he (has) called me’ (Donner – Röllig, *KaArIn*, I, 39, no. 214.13)

in contrast to Hebrew קָרָאֵי {qərɔʔ|ʕniʔ}. So this root in Aramaic is bi-consonantal, with mere vestiges of triconsonantality.

The related Hebrew verbal root ‘befall, encounter’ seldom has נ and thus is bi-consonantal {qr} on the whole. A particularly clear instance is

וַיִּקַּר מִקְלָהָ {wayyí|qer mi|qré|hə} ‘and her luck fell out’ (Ruth 3:2, both a preterite verb and the derived verbal noun).

## 2.I. Triconsonantal IE (Gr.) καὶ ἔταλη ‘and he endured’

: Sem. (Heb.) \*{wayyiṯlél̥} ‘and he hung’

**2.Ia.** An almost exact parallel to the correspondence of Hebrew {wayyiqrɔʔ} to Greek καὶ ἔχρη/ᾱ (**2.Hc**) turns up in another verb — this one with no phonetic difficulty like the {q : kʰ} problem (**2.Hb**), but a semantic difficulty instead. It appears that

καὶ ἔταλη† ‘and he/she endured’

(outside of Attic & Ionic ἔταλα<sup>100</sup>)

corresponds either to \*וַיִּתְּלָה \*{wayyiṯlél̥} or to \*וַיִּתְּלָא \*{wayyiṯlɔʔ}.

I star these Hebrew forms because we cannot be sure that their absence from the corpus is merely accidental. The root including {ʔ} is very rare and may have been limited to a few forms; of them, only the passive participle וְתִתְּלָא {təluʔɪm} ‘hung’ (masc. pl.) is really well attested.

On the other hand, we have plenty of other forms without {ʔ} — among them וַיִּתְּלֵם {wayyiṯlél̥ém} ‘and he hung them’; but verbs of this sort in the preterite, with no object-suffix, do not usually end in {-él̥}. The normal form would be וַיִּתְּלַי {wayyiṯel} ‘and he hung’,

like וַיִּיגַל {wayyígəl} ‘and he went into exile’.

Only the most frequent verbs exhibit the longer form occasionally:

וַיִּבְנֵהוּ {wayyiḇnéḥ} ‘and he built’,

besides the usual וַיִּבֶן {wayyíḇen} (cf. **2.Gf**, note 80; **2.Ag**, note 13); and at that, the {-él̥} form of the preterite never occurs in the Pentateuch —

<sup>100</sup> This distribution of η and α is typical, whereas the Attic ἔχρη : Ionic ἔχρηᾱ is not. The non-occurrence (to the best of my knowledge) of the combination καὶ ἔταλη is a mere accident, in view of καὶ ἔταλην† ‘and I endured’ (*Iliad* 18.433). See Möller, *VelInSeWö*, 244; Trombetti, *SaGl*, III, 235; Bomhard, *ToPrNo*, 206.

i.e. in the part of the corpus that was canonized earliest. {wayyīṭel}, with the root in its biconsonantal state, matches at least the recessive accent upon the ε of καὶ ἔτλη, which is vestigially triconsonantal in that the long vowel -η evinces a laryngeal consonant, not just in the prehistory of Greek but in the Naxian Ionic inscriptions.

**2.Ib.** The gap in meaning between ‘hang’ and ‘endure’ seems wide, though the recent English slang expression *hang in*<sup>√</sup> suggests how to get from one to the other; as an imperative it would be τλήθι<sup>√</sup> in Greek. Furthermore the Greek nouns τελαμών<sup>√</sup> ‘strap’ (for supporting something) and τάλαντον<sup>√</sup> ‘a talent’ (used for weighing) shows that the root {(-)t(-)l(-?)} in Greek too — at least in these derivatives — approaches the sense of ‘hang’, which it has in Hebrew. So it is likely that the verbal formations from the root have suffered a semantic restriction, not retaining the sense ‘hang’ in the historical period of the Greek language.

**2.Ic.** One negative fact about ἔτλη is most conducive to the comparison with Semitic. This verb has NO PRESENT, although dictionaries list it under the hypothetical \*τλάω ‘I endure’ — which, according to my system of grading the validity of cited forms, would not rate even an asterisk but rather a double question-mark (see Introduction, p. 1). While Greek, more than any other IE language, has a fair number of verbs devoid of present forms, most of them are associated in meaning with a separate verb-root that is used chiefly in the present; e.g. aorist εἶδε<sup>√</sup> ‘he/she saw’ but present ὁράι<sup>√</sup> ‘he/she sees’. However, ‘he/she endures, is enduring’ is expressed by the perfect τέτληκε(ν)<sup>√</sup>. The verb-roots not exemplified in the present tense are doubtless an archaic heritage from a verb-system more like the Semitic than the IE languages exhibit for the most part.

The inexact Latin cognate to ἔτλη is *tulit*<sup>√</sup>, which means not only ‘he/she endured’ but also ‘he/she carried’, and is associated with the present *fert*<sup>√</sup> (imperat. *fer*, **2.Aa**).<sup>101</sup> *Tulit* and especially *TOLIT*<sup>√</sup> (in an early inscription, *ColnLa* 1.1215b.6) is reminiscent of Heb. תָּלַח<sup>√</sup> {təlḥ<sup>h</sup>} ‘he (has) hung’

and still more of the feminine תָּלַחָה<sup>√</sup> {təlḥṯ<sup>h</sup>} ‘she (has) hung’.

<sup>101</sup> The English cognate to the latter, *ber*<sup>√</sup> in Old English, has virtually the same range of meaning; but in the obsolescence of this English verb only the meaning ‘endure’ remains quite vernacular — e.g. *I can’t bear to see them*.

The Latin present *tollit*<sup>102</sup> with the geminate *-ll-* is, on its face, a secondary formation from the root. But its meaning 'he/she is lifting, carrying off'<sup>102</sup> is closer to the Hebrew {(-)t(-)l(-?)} 'hang'.

The Indo-Europeanists have derived the *-ll-* from *\*-ln-*, as in the Irish *tlénaid*<sup>103</sup> 'he steals' — the *-n-* being part of an IE suffix. *-ll-* might, however, reflect *\*-lʔ-* (cf 2.Jg). Among the Semitic languages Akkadian stands out in having a present tense, formed by strengthening or gemination of the second consonant. But the same phonetic feature also serves other morphological purposes not only in Akkadian but throughout Semitic. {tu-ul-la-ta}<sup>104</sup>, not found in early Akkadian (Von Soden, *AkHa*, 1369), is considered not a present but a stative form of the "D" stem, meaning 'she is hung (= bedecked)' — i.e. with quivers (see Von Soden, *GrAkGr*, 116).<sup>105</sup>

**2.J. Bi- or triconsonantal Sem. (Heb.)** {mólúw} : IE (Gr.) πολυ- 'full (-ful)'  
{móló} : (Latin) *-plē* 'fill'

The richest vein of Semitic-IE etymology is located in the root that means 'full' or 'fill'. Not just a few interesting suffixes accompany this root, but impressive remains of a large morphological system.<sup>104</sup> The Semitic words formed from {(-)m(-)lʔ(-)}, more than those from any other Semitic root, can teach the Indo-Europeanists valuable lessons about their own field.

**2.Ja.** The disparity between the Semitic {m-} and the IE *p-* seems the greatest obstacle to a common origin; but upon careful analysis it becomes a priceless clue to the IE alternation between *m* VI- and *p* I-, *p* VI-. The IE words that begin with *m-* have been attributed to an altogether separate root, even where they fall into the same semantic field as *p-* words. Thus

Latin *multum*<sup>105</sup> 'much' and its comparative *plūs*<sup>105</sup> 'more'

are regarded as a case of mere suppletion.<sup>105</sup>

<sup>102</sup> This meaning, in the perfect tense, requires a prefix: *sustulit*<sup>102</sup> 'he/she (has) lifted, carried off'. The present *sustollit*<sup>102</sup> is rare and does not differ perceptibly from *tollit* in meaning.

<sup>103</sup> The idea for this entire section (2.Ia-c) came to me from J. P. Brown.

<sup>104</sup> A briefer statement of mine, which is now amplified below, was contained in *FuOtKe* Wo, 169-176 (also *CoGr*, 161-162).

<sup>105</sup> Except by Möller, *VeInSeWö*, 162 (citing *multum* and *plūs* together), and Cuny, *InÉt* Co, 124, 162-163. Trombetti, *SaGl*, III, 430, compared "Arabo *mali*'a plenus fuit ... Ebr. *mālē*' ... Gr. μάλα assai ['very'], μαλε-ρός forte ['strong'], Lat. *mul-to-* molto e prob. *mel-ior* ['better']". Illich-Svitych, *OpSr* (введение, 34), has only a preliminary entry on IE

But that the root was originally *m(-)l-*, and that *pl-* developed from *\*ml-*, is strongly suggested by the Hebrew alternation exemplified by the

masculine adjective מָלֵא <sup>√</sup>{mələ́?} ‘full’ (also a stative verb),  
 feminine " מְלֵאָה <sup>√</sup>{məleʔs<sup>h</sup>} " .

In Hebrew the conditioning factor is the accent, which shifts to the suffix and entails the reduction of the pre-accentual full vowel {ɔ} to the minimal vowel {ə}. That vocalic transition in a Semitic language is still enough to prevent the utter reduction of {m V l-} to a consonant-group <sup>?</sup>*ml-*; but initial consonant-groups were copiously generated in prehistoric IE by morphological processes somewhat like those in Hebrew. Now *\*ml-* was an unwieldy group, to judge from most known languages, and therefore unstable. It gave way to *pl-*, the nearest congenial consonant-group; for we posit a time when *\*bl-* was unavailable (cf. 1.Db, 2.Bfg).

The Hebrew feminine adjective {məleʔ|s<sup>h</sup>} corresponds approximately to the Homeric Greek πλεῖν <sup>√</sup>{plé|ē} (fem. sing. nominative).

The Homeric masc. pl. nom. πλεῖν <sup>√</sup>{plé|ē} has a counterpart in post-Bibl. Hebrew מְלֵאִים <sup>√</sup>{məleʔ|e<sup>y</sup>} (masc. pl. construct).<sup>106</sup>

2.Jb. No trace of the third consonant {ʔ} appears in מָלֵא תוֹכָךְ חֲמָס <sup>√</sup>{mələ́w tōw<sup>k</sup>kəḥs Həmw<sup>s</sup>} ‘your midst [was] full of violence’ (Ezek. 28:16).<sup>107</sup> The structure of {mələ́w} matches the Greek πολὺν <sup>√</sup>{polýn} ‘much’ beautifully; and the meaning too matches in compounds of πολυ- such as

πολύδακρυν <sup>√</sup>{polýdakryn} ‘full of tears, tearful’ (acc.),  
 πολύχρυσος <sup>√</sup>{polýchrysos} ‘full of gold’ (nom.),

which would be מְלֵא חֲרוֹץ <sup>√</sup>{mələ́w Hərw<sup>c</sup>} in Hebrew.

The Arabic cognate of מָלֵא, as a stative verb ‘he/it is/was full’ rather than a

“*pelu*, *plēh-* ‘MHORO’ [i.e. ‘much’]” and its Nostratic cognates, including the questionable Semito-Hamitic “*pl* ‘очень, больше’ [i.e. ‘very, more’]”; the editor of the posthumous publication marks this entry <sup>+</sup>, signifying that Illich-Svitych never worked it out in the part of his comparative dictionary which he was able to compose before his death (see also 2.Ji).

<sup>106</sup> In the Bible the masculine singular construct occurs just once: מְלֵא יָמִים <sup>√</sup>{məleʔ} yəmwíʔm} ‘full of days’ = ‘old’ (Jer. 6:11).

<sup>107</sup> Grammarians and exegetes have treated מָלֵא as just an irregular variant of מָלְאוּ <sup>√</sup>{mələʔúw} ‘they (have) filled’ (see Rendsburg, *DiAnHe*, 87), but the context yields no antecedent for ‘they’; *InEuSeLa*, 662-663 (I no longer analyze {mələ́w} as a passive participle but rather as a stative verb).

mere adjective, is מָלֵא<sup>ו</sup>. The letters {mlw} are identical with the Hebrew מלו; but the superscript marks call for the pronunciation [malu<sup>ʔ</sup>a], not <sup>ʔʔ</sup>[maluwa] in the standard dialect of the Qurʔān, which differed somewhat from the dialect for which the consonantal spelling had been set.

The initial consonant of πολύ diverges from {mǝlú<sup>w</sup>}, although the rest of [-olú] is extremely close.<sup>108</sup> Probably the numerous πλ- forms had become a commanding model; e.g. the comparative πλεῖον<sup>ν</sup> 'more'.<sup>109</sup> In view of

{mǝle<sup>ʔ</sup>ʒ<sup>h</sup>} : πλείη

{mǝle<sup>ʔ</sup>e<sup>y</sup>} : πλείοι

and other {mǝl-} : *pl*- forms that are still to be presented,

{mǝlú<sup>w</sup>} : πολύ

can hardly fail to be a true cognate. So, unique and anomalous as {mǝlú<sup>w</sup>} is in Hebrew, it is enormously valuable for our comparison.

The Sanskrit cognate of πολύ is पुर<sup>॑</sup> {purú}. Greek o does not normally correspond to Sanskrit {u}; but this word of the very basic vocabulary seems to preserve something more archaic about vowels than that norm: This Sanskrit {u} simply anticipates the same vowel, accented, in the next syllable, whereas the Avestan {pauru<sup>ν</sup>, pouru<sup>ν</sup>} has both the anticipatory {u} at the end of the first syllable (a regular feature of Avestan phonology) and right before it the variable {<sup>ʔ</sup>o} vowel that is cognate to the Greek o. But Old Persian {paruv<sup>ν</sup>}<sup>ν</sup> [-u<sup>w</sup>] has, in each syllable, the vowel regularly cognate to the Greek πολύ.

The apparent correspondence of the Greek and Indo-Iranian vowel {-u} to the Hebrew {-u<sup>w</sup>}, if only in this one word, is of great structural import. For on the one hand this is an IE morpheme for forming adjectives (1.Ki); and on the other the back-vowel with off-glide in Semitic, after the second consonant of a root, forms a participle, mainly passive in meaning and therefore somewhat like an adjective (as *filled*<sup>ν</sup> in English is often nearly synonymous with *full*<sup>ν</sup>).

<sup>108</sup> [ü] in Attic, the best known of the Greek dialects but not the earliest one attested.

<sup>109</sup> This Homeric neuter form coincides in the received spelling with the neuter singular πλείον<sup>ν</sup> 'full'; but the latter was probably pronounced [plēon] — differing from the comparative [pleon] 'more' with the diphthong, until the distinction was neutralized in the 4th century B.C.

**2.Jc.** Possible remote cognates of the two-consonant root  $m/p(-)l-$  are recorded in many languages — not, however, in the greater part of the Afro-Asiatic region. Only in the most southwestern group, the Chadic, is anything similar reported, namely *fal*<sup>✓</sup> in Hausa. Oddly enough, it is most reminiscent of our Germanic *full*, notwithstanding the distance between northern Europe and Africa south of the Sahara.

The word in the Austronesian languages has the consonants fairly similar to IE, sometimes the vowels too: Tagalog *punô*<sup>✓</sup>, Malay *pěnoh*<sup>✓</sup>, Iban (Sarawak) *penoh*<sup>✓</sup>, Bogutu (Solomon Islands) *vonu*<sup>✓</sup>. Without pretending to survey the languages of the world, I have noted in Turkish *dolu*<sup>✓</sup>, in the Chinese dialect of Beijing *man*<sup>3✓</sup>, and in Zulu *-gewele*<sup>✓</sup> or *-zele*<sup>✓</sup>.

A method has yet to be worked out for distinguishing between relevant and coincidental similarities, when the languages show only a few, not enough to disclose a recurrent pattern of phonetic correspondences. I would suggest a semantic reason, however, for the extraordinary spread of this one word in prehistoric times. Although we think of 'full' as preeminently an everyday word of the home, it is bound to figure also in TRADING when something being traded is IN A CONTAINER; for often whether it is full or not makes all the difference between a bargain and no bargain.

**2.Jd.** The feminine of the adjective in Hebrew, besides {məleʔ<sup>h</sup>}, has a rare alternative, occurring only in Isaiah 1:21:

מִשְׁפָּט מְלֵאֲתֵי צֶדֶק ... {qiryō<sup>h</sup> ... məleʔ<sup>h</sup>āṭiʔ mišpōṭ} 'a city ... full of justice'. The Greek parallel is πλῆσι-, with the long vowel [-ē-], in πλῆσιφαῖς σελήνη<sup>✓</sup> 'the moon full of light' (Philo, *De congressu eruditionis gratia* 106 = 3.93.20-21 Cohn – Wendland).

**2.Je.** Although the Hebrew vowel-pattern {-ə-é-} is characteristic of stative verbs, {məléʔ} is in fact either stative 'he is/was full' or active 'he fills, he filled'. No other verb of stative form in this language behaves quite like {məléʔ}. The recurrence of this double use in certain IE *pl-* forms suggests that it may be a remarkable archaic survival.

In Arabic, however,

the active مَلَأَ<sup>✓</sup> {malaʔa} 'he (has) filled' is distinguished from

the stative مَلُوءٌ [maluʔa] (**2.Jb**) and

مَلِيَ<sup>✓</sup> {mly} [maliʔa] 'he is full (was filled)'



by means of the vowel {-a-} between the second and third consonants and — in spelling — by the letter | {ʔ}, although the sound [ʔ] is pronounced in the stative also, contrary to the letters {w} and {y}.

πλησι-, besides meaning 'full' in πλησιφαής,

means 'filling' in πλησίγναθος<sup>√</sup> 'mouth-filling' (describes a certain kind of ἄρτος<sup>√</sup> 'bread').<sup>110</sup>

The Latin verb -plē behaves as an ordinary active verb; e.g. in the imperatives *explē*<sup>√</sup> 'fill up', *replē*<sup>√</sup> 'refill'.<sup>111</sup> The Hebrew imperative singular is not attested, but the paradigm calls for מִלֵּא<sup>†</sup> {mālśʔ}.<sup>112</sup> The accented vowel [e], associated with stative meaning in the Hebrew perfect, would scarcely be appropriate to the imperative with its active meaning.

The only suffix of the Latin verb that might have a Hebrew cognate is -re, second person singular passive:

-plē|re<sup>§</sup> 'you are filled/full' : מִלֵּא<sup>√</sup> {mālēʔ|tə}.<sup>113</sup>

For the intervocalic -r- is probably from a prehistoric \*-s-, near enough to the fricative allophone {-t-} in this Hebrew environment. The plosive allophone in {yśāḇtə} [-tʰə] 'you (have) sat' matches the Sanskrit [-tʰa] in {sa-sātʰa} (2.Bf) more exactly than that. Both the Sanskrit and the Latin cognate to the Hebrew {-tʰə} may be valid.

**2.Jf.** A definitely active sense is expressed in some Semitic languages by the "intensive" conjugation; e.g. Hebrew מִלֵּא<sup>√</sup> {mālēʔ} 'fill' (imperative sing. masc.). The closest Semitic-IE parallel is between the perfect tense of this con-

<sup>110</sup> Although -σι- and -τι- compounds in early Greek go mainly with feminine nouns, it is not altogether so; and afterwards, as in ἄρτος ... πλησίγναθος, the preference for feminine agreement seems to lapse. But it may still be relevant that while ἄρτος is masculine, γνάθος<sup>√</sup> 'cheek' or 'jaw' is feminine; the verse from a lost comedy *Cnidia* by Sopater, Ἀταβυρίτης δ' ἄρτος ἦν πλησίγναθος (Athenaeus 109e), could be translated 'it was Atabyrite bread, a mouthful' — the -σι- then agreeing with -γναθος.

<sup>111</sup> Uncompounded, this verb is attested only with a passive ending: *plentur*<sup>√</sup> 'they are filled', and at that only by the lexicographer Festus (258-259 Lindsay).

<sup>112</sup> The imperative plural is מִלֵּאוּ<sup>√</sup> {mil(ə)ʔ|uʷ} 'fill'; its pausal form would be

מִלֵּא<sup>†</sup> {mālśʔ|uʷ}.

<sup>113</sup> The long vowel ē of the Latin "second conjugation" must be virtually identical in sound with the Hebrew {eʔ} after the glottal stop מ in this environment lost its consonantal articulation.

jugation, מָלֵאתָ<sup>√</sup> {millé<sup>√</sup>|tə} ‘you (m. sing.) have filled, fulfilled’  
וּמְלֵאתָ<sup>√</sup> {u<sup>w</sup>|mille<sup>√</sup>|tə} ‘and you are to fill’, “converted perfect”)

and the OEnglish “present” *ðu fyll|est*<sup>√</sup> (more often *fy|st*<sup>√</sup>), which serves equally for present and future. The -t (though not the s) of the second person singular ending in English is cognate to the Sanskrit {-t<sup>h</sup>a}, and hence to the Hebrew {-Tə}. Hebrew has feminine singular forms

מָלֵאתְּ {millé<sup>√</sup>|t̃}, “converted” וּמְלֵאתְּ {u<sup>w</sup>|mille<sup>√</sup>|t̃}

with no final vowel, as in English.

The Old English vowel -y- [ü], in contrast to the [u] of the adjective *full*, is clearly due to Umlaut — i.e. anticipation of a semi-vowel \*[y] in the next syllable.<sup>114</sup> The Hebrew {-i-} between the first and second radical consonants in the “intensive” conjugation seems inexplicable from anything known within Semitic; the Aramaic of the Targum has מְלֵילֵת<sup>√</sup> {mælle<sup>√</sup>|tə} to translate {mille<sup>√</sup>|tə}. I make bold to suggest that this Hebrew front-vowel — limited to the perfect tense of the “intensive”<sup>115</sup> — may have originated in some prehistoric Umlaut, of which there are other traces in the language, although Umlaut is alien to Semitic as a whole.<sup>116</sup>

**2.Jg.** In addition to the feminine adjective {mələʔs<sup>h</sup>}, accented constantly on the suffix, Hebrew has the feminine stative verb ‘she is full’ with variable accent: if the next word is accented on the first syllable, we find

הַיַּיִן מְלֵאָה<sup>√</sup> {móləʔs<sup>h</sup>ggát} ‘[the] wine-press is full’ (Joel 4:13);

but if the next word is accented otherwise,

הָאָרֶץ מְלֵאָה<sup>√</sup> {mələʔs<sup>h</sup>ʔəðəməs<sup>h</sup>} ‘[the] ground is full’.<sup>117</sup>

<sup>114</sup> The Gothic participle {fulljands}<sup>√</sup>, whose OE cognate is *fyllend*<sup>√</sup> ‘filling’, shows that semi-vowel [y] (or [i]) actually, not just theoretically; but on the other hand, in Gothic alone of the Germanic languages no effect on the vowel of the preceding syllable is perceptible.

<sup>115</sup> But all forms of this active verb in Germanic (apart from Gothic) have Umlaut: the OE imperative is *fyll*<sup>√</sup> (> *fill*<sup>√</sup>), quite unlike the Hebrew vowel in the corresponding position of the imperative {mallé<sup>√</sup>}.

<sup>116</sup> The similar vowel in modern English *fill* has resulted from simplifying the articulation of the Umlaut vowel [ü], which is preserved in German: *du füllest*<sup>√</sup>, etc.

<sup>117</sup> Virtually attested in

Structurally {məḷəʔ|ʕ<sup>h</sup>} is most like the Greek πολλ|ή<sup>v</sup> 'much', which serves anomalously as the feminine counterpart to the neuter adjective πολύ (2.Jb) and the masculine πολύς<sup>v</sup>. The -λλ- possibly reflects a prehistoric \*[-lʔ-] (cf. 2.Ic).<sup>118</sup> But the adjective 'full' in several other IE languages has -n- in the position of the Hebrew {-ʔ-}:

fem.	Avestan	{pərənā}†	Lithuanian	pilnā <sup>v</sup>	Russian	полнā <sup>v</sup> {polnā}
neuter		{pərənəm} <sup>v</sup>		pilna <sup>§</sup>		полно <sup>v</sup> {pólno}

The -n- is clearly an IE suffix; whether to take the {ʔ} as a suffix in Semitic — especially in view of {məḷúʷ} without it — or as part of the root, is debatable.

In the sequel to this volume (cf. Levin, *InEuDeAd*, 98-100) it will be shown that

a) the IE neuter noun corresponds to the Semitic and especially the Hebrew feminine noun WITH NO ACCENTED MARKER, and

b) the geminated or strengthened initial consonant of such a noun {ggāṭ} after the stative verb reflects a nasal sound from the ending \*[-ʕN], much like the Avestan neuter ending {-əm}.

The accentuation of Avestan is unrecorded; but in Russian and Lithuanian the accent on the first syllable of the neuter

{pólno}, pilna

matches the Hebrew

{məḷəʔʕ<sup>h</sup>} (\*[məḷəʔʕN])

before a noun without an accented feminine marker. The Greek neuter πολλόν<sup>v</sup> 'much', a frequent synonym of πολύ (at least in the Ionic of Homer and Herodotus), corresponds to \*[məḷəʔʕN] except for the accent.<sup>119</sup>

As Lithuanian and the related Baltic languages have no neuter nouns, the neuter form of an adjective such as pilna is used ONLY IN THE PREDICATE —

מְלֵאָה הָאָרֶץ<sup>v</sup> {məḷəʔʕ<sup>h</sup> həʔʕrec} 'the earth is full' (Jer. 23:10, etc.),

אֲדָמָה אֲכָלָה<sup>v</sup> {ʔəḇəlʕ<sup>h</sup> ʔəḇəʔmʕ<sup>h</sup>} '[the] ground mourns' (Joel 1:10)

= אֲרֶץ אֲכָלָה<sup>v</sup> {ʔəḇəlʕ<sup>h</sup> həʔʕrec} 'the earth mourns', Jer. 23:10).

<sup>118</sup> Some recent Indo-Europeanists recognise a root with a third laryngeal consonant. Strunk, *VeSp*, 3, under "*\*p/əx-ú-* 'viel'," is closest to my explanation of the -λλ-: "Das Motions-femininum ai. [= Sanskrit] *pūrvi* beweist den vorgeschichtlichen Komplex -/əx-, so daß der Ansatz *\*pllu-* bei Frisk [*GrEtWö*, s.v. πολύς] irreführend ist."

<sup>119</sup> The patterns of accent in Baltic and Slavic that disagree with Greek and Sanskrit have been studied by many Indo-Europeanists, and formulated as "Hirt's law" and "Saussure's (or Fortunatov's) law"; V. M. Illich-Svitych, *Nominal Accentuation in Baltic and in Slavic*, tr. by R. L. Leed and R. F. Feldstein (Cambridge, MA: MIT Press, 1979), 9-15, 58-59, 61-64, 79-81, 136-139, 145-147.

just like the limitation upon the Hebrew stative verb {mōlāʔʕ<sup>h</sup>} ‘is full’, which cannot serve as an attributive adjective. ‘A full wine-press’ would be מִלֵּחַ מֵיץ (gāt mālēʔʕ<sup>h</sup>) (2.Ja). This shared restriction gives us a gleam of vestigial light on how the IE and the Semitic gender system, as well as the syntax of predication, developed in prehistoric times, and how adjectives were formed from verbal roots.

**2.Jh.** To summarize the importance of this etymology to IE linguistics:

(1) The Hebrew alternation {mōlV̄-/mālVʔV-} suggests how IE words beginning with *m* *VI*- and *p*(*V*)*I*- belong to the same root.

(2) The feminine singular nominative, as in Greek πλεῖη, and the masculine plural nominative, as in πλεῖοι, are represented in Semitic by cognate inflections (cf. 1.Ac5, Da,d,Gd,Ie).

(3) The divergent sound but similar function of the pre-accentual Greek vowel *o* in πολύ and the pre-accentual Sanskrit vowel {*u*} in {purú}, besides the Avestan {pauru, pouru} and Old Persian {paruv}, is clarified by the Hebrew {mōlúʔ}.

(4) The Hebrew feminine adjective {mālēʔāṯ<sup>y</sup>} enables us to account for the preference within Greek for a feminine reference of the -σι- in compound adjectives such as πλησιφαής and πλησίγναθος.

(5) The structural parallel between Hebrew {mōléʔ<sup>o</sup>} and Latin *-plēre* ‘you (sing.) are full’ makes it virtually certain that the long vowel [ē] goes back to a prehistoric laryngeal consonant, identical or similar to the glottal stop [ʔ].

(6) The Hebrew accentual alternation {mōlāʔʕ<sup>h</sup>/mōlāʔʕ<sup>h</sup>} \*[-ʕ<sup>N</sup>] in the feminine stative verb — the former occurring before a noun with an accented feminine marker — is indispensable to account for the Russian feminine {polná}, neuter {pólno} and the Lithuanian feminine *pilnā*, neuter *pilna*.

(7) The Hebrew front-vowel {*i*} in the perfect tense of the “intensive” conjugation {*mill*-} (with active meaning) seems due to a prehistoric Umlaut, like that which produced *full*(-) [-ü-] in Old English (cf. Gothic {*fullj*-}).

**2.Ji.** As we have so far seen that the root varies between *m*- and *p*-, and that many derived forms show no trace of the the third consonant ({ʔ} in Semitic), we may well ask whether there are still further permutations. Illich-Svitych (*MaSrSl*, 348) gives the Nostratic root \**pala* with the gloss ‘μηγο’ (=

'much'; he does not recognise an alternant *m-*); and he also lists, as a quite separate root but with the same gloss, *\*m/o/n/Λ, \*m/o/n/g/Λ*. The IE representatives of the latter (Pokorny, *InEtWö*, I, 730) include Old English *monig*<sup>120</sup> and Church Slavonic мѡногѣ<sup>121</sup> {mənogə} 'much, many'. Closest to it, phonetically, in Semitic is the Ancient South Arabian adjective {mn<sup>ʕ</sup>}<sup>121</sup> 'mighty'.<sup>121</sup>

The meaning, as well as the sound, of the IE and the Semitic triconsonantal adjective is somewhat reminiscent of [m<sup>w</sup>/p-l-ʔ] 'full'. In particular, an alternation between [n] and [l], or between [ʕ] and [ʔ], recurs in roots whose semantic affinity is nearly beyond dispute (cf. **1.La-b, 2.Qc,DDj**, note 333). But because of the distance in meaning — and in space — between *manig*, {mənogə}, etc., in northerly branches of IE and {mn<sup>ʕ</sup>} in a southerly branch of Semitic, I hesitate to posit any link. Even supposing that both the Semitic and the IE forms originated as variations from [m-l-ʔ], they could well have been quite independent variations — whereas the Hebrew feminine adjective {məleʔāḏī<sup>y</sup>} and the Greel πλῆσι- could hardly arise except through contact between the prehistoric ancestors of these languages (cf. **2.Ja**, note 105).

Illich-Svitych's other citations under the Nostratic roots *\*palΛ* and *\*m/o/n/Λ, \*m/o/n/g/Λ* draw upon Altaic, Uralic, Dravidian, and (doubtfully) Kartvelian. Some, I dare say, of the words that mean 'much' or 'great' in those languages will hold up as cognate to IE or Semitic (Afro-Asiatic).<sup>122</sup> I, however, am not able to analyze them morphologically, and thus to reach a conclusion about their consonant-and-vowel structure, such as I can do with the languages that I know.

<sup>120</sup> Also *manig* <sup>121</sup>, as in Walde – Pokorny, *VeWü*, I, 268-269 (> mod. Eng. *many* <sup>121</sup>).

<sup>121</sup> Karolus Conti Rossini, *Chrestomathia Arabica Meridionalis epigraphica* (Roma: Istituto per l'Oriente, 1931), 179. He also cites, from a modern dialect of southern Arabia, "ḥaḍr.

منيع [i.e. {mani<sup>ʕ</sup>}] *magnus, excelsus*".

<sup>122</sup> Checking his "драв. *\*palΛ* 'много' (DED 267-268)" in his source, T. Burrow and M. B. Emeneau, *A Dravidian Etymological Dictionary* (Oxford: Clarendon Press, 1961), I find indeed: "Ta[mil] *pala* many, several, diverse; ... Ma[layalam] *pala* many, several, various; ... Ka[nnaḍa] *pala, palavu* much, many, several, various; ... Te[lugu] *palu* many, several, various, different".

**2.K. Triconsonantal IE** (Gr.) δολιχή, (Avestan) {darəga},  
 (Lith.) *ilgā* : Sem. (Heb.) {ʔərəḳḳ<sup>h</sup>} 'long'  
 (Gr.) -δελεχ- : {ʔereḱ}

**2.Ka.** The reservation in the previous section, about  
 Lithuanian *pilnà* (fem.) : Hebrew {mōləʔō<sup>h</sup>}  
*pilna* (neuter) : {mōləʔō<sup>h</sup>}

(Russian and Avestan too),

that the third Semitic consonant {ʔ} does not correspond to *n*, would not apply  
 to another adjective *ilgā* 'long' : ִלְגָּאִי† {ʔərəḳḳ<sup>h</sup>} 'it (fem.) is long'

*ilgā* § : ִלְגָּאִי† {ʔərəḳḳ<sup>h</sup>}.

All three consonants correspond; i.e. the Semitic glottal stop {ʔ} to the lack of  
 an initial consonant. To be sure, aside from the Baltic group many IE lan-  
 guages have *d-*; e.g.

	Greek	Sanskrit	Avestan	Russian
fem.	δολιχή <sup>v</sup>	दीर्घा <sup>v</sup> {dīrg <sup>h</sup> ā}	{darəga} <sup>v</sup>	долга <sup>v</sup> {dolgá}
neuter	δολιχόν <sup>v</sup>	दीर्घम् <sup>v</sup> {dīrg <sup>h</sup> ám}	{darəgəm} <sup>v</sup>	долго <sup>v</sup> {dólgo}

The odd absence of *d-* cannot cast doubt upon the cognate status of *ilgā*/*ilga*,  
 which otherwise corresponds to Russian {dolgá/dólgo} as perfectly as

fem. *pilnà* : {polná}, neuter *pilna* : {pólno}.

Rather it opens up the Semitic connection (Levin, *InEuDeAd*, 95-97).

The second consonant {r} in Hebrew and other Semitic languages matches  
 Indo-Iranian, while the rest of IE has *l*. That is a recurrent divergence, as we  
 saw in the Avestan feminine {pərəna}, neuter {pərənəm}

(Sanskrit पूर्णा<sup>v</sup> {pūrṇā}, पूर्णम्<sup>v</sup> {pūrṇám}).

The third consonant {ḱ} of the Hebrew is most like the Greek χ [k<sup>h</sup>]; in early  
 Hebrew it may have been precisely [k<sup>h</sup>].

All this points to an IE adjective spreading to Semitic so early that its IE  
 form was still remarkably variable.<sup>123</sup> It must belong to very nearly the oldest  
 stratum of IE vocabulary. Furthermore the circumstances of the early Semitic  
 link help to account for the greater divergence in western IE:

<sup>123</sup> The Hittite forms {d<sub>i</sub>aluḡ/k-} nearly accord with the Greek and seem not to cast light  
 on the particulars of the contact between prehistoric IE and Semitic, although the Hittites of  
 history were in close touch with one historical Semitic language at least — Akkadian.

Latin feminine *longa*<sup>√</sup>, neuter *longum*<sup>√</sup>, and the Celtic and Germanic cognates, including our English word (Pokorny, *InEtWö*, I, 197).

An IE proto-form, from which all the actual forms developed, has to be both tentative and eclectic; I would schematize it *\*ʔl-ǵ<sup>h</sup>*. The unidentified initial element *\*ʔ* was liable to be actualized in certain IE languages as either [ʔ-] (the minimal consonant, easily lost) or as [d-] (the plosive most like *l*), or else to be metathesized and become [ŋ] (prenasalization of the velar plosive [g]). The Semitic forms too are just as readily derivable from this IE proto-form.

The vowel between the first and second consonants is the same in the two Hebrew stative verbs {ʔr-} and {mɔl-} — as indeed in all stative verbs. It is most like the Slavic and specifically the Russian {dol-, pol-}. Of the other IE languages that show a parallel formation from both roots, the Indo-Iranian are noteworthy for showing two grossly different vowels between the first consonant and the second, in languages that are otherwise so similar:

Avestan {darə-, pārə-}, Sanskrit {dīr-, pūr-}.

To set up a proto-form accounting for all these recorded vowels is scarcely easier than one for the diverse recorded consonants; but it looks as if some sound must already have been there that would come out the same [ɔ] in such widely separate languages as Hebrew and Russian.<sup>124</sup>

**2.Kb.** The Hebrew masculine singular  $\text{קָרַךְ}$ † {ʔrək}, like {mɔléʔ}, can be either an adjective 'long' or a stative verb 'it (masc.) is long'; but in neither function does it occur in the corpus. Only the plural form of the stative verb is attested:  $\text{קָרְכוּ}$ <sup>√</sup> {ʔrəku<sup>~</sup>}, and just once at that (Gen. 26:8, hyphenated to the next word). This suffices to prove that the feminine singular stative verb was available for a brief sentence such as (cf. **2.Jg**)

$\text{קָרַךְ הַקֶּרֶן}$ † {ʔrək|ɔ<sup>h</sup>qqrən} (\*[ʔrək|ɔ<sup>N</sup>], '[the] horn is long',

corresponding to the IE neuter — e.g. except for the accent,

Greek  $\delta\omicron\lambda\iota\chi|\omicron\nu\ \kappa\acute{\epsilon}\rho\alpha\varsigma$ † '[the] horn [is] long' or '[a] long horn';

$\text{קָרַךְ הַפֶּה}$ † {ʔrək|ɔ<sup>h</sup>ʔeBr|ɔ<sup>h</sup>} '[the] feather/wing is long',

corresponding to the IE fem., or possibly to the neuter pl. (really collective)

$\delta\omicron\lambda\iota\chi|\acute{\alpha}\ \pi\tau\epsilon\rho|\acute{\alpha}\S$  '[the] feathers/wings [are] long' or 'long wings' (**2.Lc**).

<sup>124</sup> Möller (*VeInSeWö*, 42, 153-154) discovered this important etymology (and so many more), but without citing the crucial Lithuanian form. See also Strunk, *VeSp*, 3-4.

The only form of the adjective to be found in the Hebrew Bible is the masculine singular construct, as in Ezek. 17:3  $\text{קַיִן אֵרֶךְ} \{?érek\ h\} \{?éber\}$  'long of wing'.<sup>125</sup> This vocalic structure

recurs in one Greek adjective:  $\mu\eta\mu\eta\nu \text{ } \epsilon\nu | \delta\epsilon\lambda\epsilon\chi | \eta\text{ }^\vee$  'long-lasting memory' (accusative; Plato, *Leges* 4.718a).

The -ε-ε- pattern in Greek is surprising; but its function is not perceptibly like the Hebrew construct at all, except perhaps in a negative sense: both the Greek -δελεχ- and the Hebrew {?érek} have to be followed by something accented, upon which they depend. The accent upon {?érek} is CONJUNCTIVE and requires an independently accented word right after it.

**2.Kc.** Neither δολιχ- nor -δελεχ- fits the structure of a Greek verb-root of IE origin. Not the triconsonantal framework but the disyllabic actualization precludes it from functioning as a verb in the IE heritage of Greek. Adjectives, however, inherited from IE admit of more varied structure. The same applies to the Avestan {darəθ<sub>g</sub>-}. The Sanskrit cognate {dīrg<sup>h</sup>-}, while monosyllabic, is still inadmissible for a verb from prehistoric IE, since *C* $\bar{V}$ *CC-* is the Sanskrit counterpart to the disyllabic structure in the cognate IE languages of nearly equal antiquity, including Avestan.

On the Semitic side {(-)?(-)r(-)k/ḵ(-)} can serve for either an adjective or a stative verb, the Hebrew {?érék} being both 'long' (masc. sing. absolute) and 'it (m.) is long'. This does not argue against an IE origin, though some have it almost for an axiom that in any etymology the verbal function or manifestation can be assumed to be primary. Nowadays we can fairly maintain that each etymology must be judged on its own merits, without the presumption that the verbal function ought to have been prior to any other.

**2.Kd.** This root, with the meaning 'long', is found in the northern Semitic languages, but not further south. The Akkadian {ar-ka-am}<sup>126</sup> (acc. sing. masc.) is particularly close in its structure to Lithuanian *ilgq*<sup>126</sup> with no initial consonant and with a nasal sound at the end (cf. **1.Kg**), and nearly as close to

<sup>125</sup> The nearest Greek equivalent to this would be \*δολιχόπτερος (**2.Lc-d**); but the Septuagint actually renders the Hebrew words by το μακροπτερυγος<sup>126</sup>. δολιχ- gradually lost ground to its synonym μακρ- during the history of the Greek language.

<sup>126</sup> I.e. {arkam} as expressed in cuneiform syllabic characters.



Avestan {darəgəm}. Akk. {a-ri-ik}<sup>127</sup> — i.e. {arik} with no case-ending — shows this adjective is a regular cognate to Heb. {ʔérēḵ}. Akkadian phonology drops a short interior vowel between two consonants, so as to produce a disyllabic instead of a trisyllabic word<sup>127</sup> — whereas in Lithuanian the vowel is gone unconditionally.

## 2.L. Biconsonantal (-)p-T- 'open'

Triconsonantal IE (Gr.) πτερά : Sem. (Heb.) {ʔērēḵ} 'wing(s), feather(s)'

**2.La.** The complicated IE etymology of the Latin verb *patet*<sup>128</sup> 'it is wide-open' (rarely with a personal subject) is indirectly clarified by certain Hebrew forms. In *InEuSeLa* (672-676) I explored the structural parallel between Hebrew stative verbs or participles in {-éʔ} and the curious Latin compounds with the stem of the "second conjugation" in -ē- + -fit 'it becomes' (instead of just the personal endings; cf. **2.Db**): *patēfit*<sup>128</sup> 'it becomes wide-open', and the future *patēffet*<sup>128</sup> 'it will become wide-open',

which means nearly the same as *patēbit*<sup>128</sup> the normal future verb.

The Hebrew structure most like *patēfit* is

יְהִי מְטֻמָּא {Tóméʔ yi|hyéḥ} 'he/it becomes sullied'. A Hebrew stative participle or adjective cognate to *patē* is not attested; but from the active participle {pōtéḥ} 'opening' (in יִפְתָּח {pōtéḥ}, Pr. 20:19) a stative participle

\*{pōtéḥ} 'opening' can reasonably be reconstructed. The verb is infrequent in the Bible; other forms of the simple conjugation show indeed a stative sense — e.g. יִפְתָּח {yiptéḥ} '[lest] it be open [to seduction]' (Deut. 11:16).<sup>128</sup> \*{pōtéḥ} is to the imperfect {yiptéḥ}

as קָשָׁה {qəšéḥ} 'hard' to יִקְשֶׁה {yiqšéḥ} 'it is/will be hard'.

<sup>127</sup> The nominative sing. feminine is {a-rik-tum}<sup>127</sup>, but an accusative sing. fem. {a-ra-ak-tám}<sup>127</sup> is also attested; *AsDi*, I.2, 283-284.

<sup>128</sup> See Bomhard, *ToPrNo*, 190; Illich-Svitych, *MaSrSl*, 372. This etymology escaped me until J. P. Brown called it to my attention in 1987. The active verb פָּתַח {pōṭāḥ} 'open' is much commoner, not only in Hebrew but throughout Semitic. However, the third consonant {H} removes it from any close IE parallel (Möller, *VeInSeWö*, 205; Trombetti, *SaGl*, III, 338); the length of the stem-vowel of the Latin "second conjugation" *pate-* is much more likely to correspond to a weak Semitic laryngeal {ʔ} (cf. **2.Je,h5**). The Egyptian {ptḥ}, in this meaning, is suspected by Erman – Grapow, *WbAeSr*, I, 565) of being possibly an early loan-word from Semitic, rather than an Afro-Asiatic cognate.

Greek forms from the same root as the Latin *patē-* are not close morphologically. About the simplest of them is  $\pi\epsilon\pi\tau\alpha\tau\alpha\iota$ <sup>129</sup> ‘it is spread out’ (perfect middle).

**2.Lb.** The relation of Latin *patet* ‘it is wide-open’ (“2d conjugation”, stative) to *pande*<sup>130</sup> ‘open wide’ (“3d conj.”, active imperat.) *pandit*<sup>131</sup> ‘he/she opens wide’

is a long-standing anomaly, because after the nasal the plosive consonant is voiced.<sup>129</sup> This Latin conjugation corresponds to the ordinary thematic verbs of Greek and Sanskrit, with the imperative in -ε and {-a} respectively; but *pand|e* has no IE cognates. It does, however, recall the Hebrew imperative singular masculine  $\text{פָּתַח}$ † {*patté<sup>h</sup>*}. As in many other Hebrew verbs whose simple forms carry a stative meaning (usually expressed, at least in some of the forms, by a vocalization different from that of active forms), the “intensive” forms — marked by STRENGTHENING OR GEMINATION OF THE SECOND CONSONANT — have a causative sense:

given the simple forms {*pōté<sup>h</sup>*}, {*yipté<sup>h</sup>*} ‘be open’,<sup>130</sup>

the meaning of {*patté<sup>h</sup>*} is ‘make such-and-such open’ (cf. **2.Jf**).

This verb as a whole being sparsely represented in the corpus, of the imperative only the fem. sing.  $\text{פָּתַחְהִי}$ <sup>131</sup> {*pattí<sup>y</sup>*} occurs (Judges 14:15, 16:5) — in a context that invites the colloquial English rendering ‘make him open up’ (disclose his secret) or ‘open him up’. The masculine {*patté<sup>h</sup>*}, which must have been available,<sup>131</sup> is as close as the phonology of Hebrew permits to the Latin *pande*, except for the voicing of the latter consonant of the root.

The pre-nasalization of the root consonant in *-nd-* is the IE counterpart of

<sup>129</sup> Ernout – Meillet, *DiÉtLaLa*, s.v. *pandō* and *pateō*; F. B. J. Kuiper, *Die indogermanischen Nasalpräsentia* (Amsterdam: Noord-Hollandsche Uitgeversmaatschappij, 1937), 163: “Das Verhältnis zu *pat* (idg. \**pet*) läßt sich ebenso wie bei *pango* und *mungo* aus alter athematischer Flexion erklären....” Ernout – Meillet, s.v. \**pacō*, cite the archaic *pacit*<sup>131</sup> ‘he comes to terms’ in contrast to *pangit*<sup>131</sup> ‘he fixes’. Even though (as Kuiper, 164, points out) the letter C in early Latin could stand for either [g] or [k], the authenticity of *pacit* with [k] is proved by the derivative *pacīscitur*<sup>131</sup> ‘he negotiates’, which is common in classical Latin.

<sup>130</sup> An imperative form of stative verbs is, in general, rare or lacking.

<sup>131</sup> Morphologically just like  $\text{פָּקֹד}$ <sup>131</sup> {*cawwé<sup>h</sup>*} ‘command, instruct’. However, the shorter form of the imperative sing. masc.  $\text{פָּקֹד}$  {*cáw*} is much commoner, especially in the early Hebrew of the Pentateuch.

the gemination in {-tt-}. Both are a kind of strengthening. Not just Hebrew but — to a lesser extent — the Semitic languages as a group go in for gemination [C<sub>1</sub>C<sub>1</sub>], in preference to pre-nasalization [NC]. In prehistoric IE, on the other hand, pre-nasalization was the rule. Although each of the anciently recorded IE languages has its geminates,<sup>132</sup> these are not cognate to one another and cannot be traced to an etymon with \*C<sub>1</sub>C<sub>1</sub>. So far, this argues for an early rather than a late prehistoric contact to account for the correspondence between Latin -nd- and Hebrew {-tt-} (cf. 2.Jg, where Hebrew {C<sub>1</sub>C<sub>1</sub>} also corresponds to IE {NC}, and Addenda, p. 456).

**2.Lc.** The same two consonants as in *patē* recur in Sanskrit पत<sup>√</sup> {pata} 'fly' (imperative singular). The Latin cognate *pete*<sup>√</sup> has only the sense of 'go after'. In Greek the meaning 'fly' is expressed by the middle voice, πᾶτ<sup>√</sup>ου<sup>√</sup>,<sup>133</sup> but there is also an aorist active imperative πτῆ<sup>√</sup>θι<sup>√</sup> (non-thematic). The many words formed with (-)p(-)t- have an enormous range of meaning; it can hardly be settled whether they go back to one and the same root. I will take up only the ones most pertinent to a comparison with Semitic.

The derived noun πτερά<sup>√</sup> 'feathers, wings' (neuter collective) helps to bridge the semantic gap between its verb πέτε<sup>√</sup>ου, πτῆ<sup>√</sup>θι 'fly'

and the verb πέπτα<sup>√</sup>ται 'spread' (2.La).

The spreading of the wing-feathers, especially by a large bird as it takes flight, is truly impressive; and the sight was much more familiar in early times (see Pokorny, *InEtWö*, I, 825-826). A rare Hebrew word for 'wing(s)' or 'wing-feather(s)' is כַּף אֶבֶר<sup>√</sup> {ʔəḇr<sup>√</sup>ḥ} (feminine singular; the absolute form only in Job 39:13). From the slightly less rare construct form כַּף אֶבֶר<sup>√</sup> {ʔəḇr<sup>√</sup>ḥ|ó<sup>w</sup>} 'his wings', we might have expected a possible absolute \*כַּף אֶבֶר<sup>√</sup> \*{ʔəḇer<sup>√</sup>ḥ} as in a much more frequent noun:

absolute                      כַּף אֶבֶר<sup>√</sup> {nəḇel<sup>√</sup>ḥ} 'a corpse'

construct, with suffix    כַּף אֶבֶר<sup>√</sup> {niḇel<sup>√</sup>ḥ|ó<sup>w</sup>} 'his corpse'.<sup>134</sup>

<sup>132</sup> Avestan and Old Persian are notable exceptions.

<sup>133</sup> [-ō] contracted in Attic from [-eo], as found in other dialects; but the Greek corpus extant for our research is mainly Attic.

<sup>134</sup> Cf. *InEuSeLa*, 288-289. The noun כַּף אֶבֶר<sup>√</sup> {ʔəḇel<sup>√</sup>ḥ} 'request, petition' has both כַּף אֶבֶר<sup>√</sup> {ʔəḇel<sup>√</sup>ḥ|í<sup>y</sup>} and כַּף אֶבֶר<sup>√</sup> {ʔəḇel<sup>√</sup>ḥ|í<sup>y</sup>} 'my request', the latter being like

\*{ʔāberō<sup>h</sup>} would then be in nearly the same relation to πτερά as {ʔādōmō<sup>h</sup>} 'ground' to χθών (1.Ga). In both etymologies the drastic difference between the Greek voiceless consonant-group [pt-] or [k<sup>h</sup>-]

and the Hebrew {ʔ} with minimal vocalization + a second voiced consonant would be accounted for by the unpronounceability of any such consonant-group at the beginning of a word in the Semitic languages.

**2.Ld.** I posit that this noun originated within IE from a biconsonantal verb-root, and that it diffused into a Semitic language early enough for the *C<sub>1</sub>C<sub>2</sub>*- to undergo such treatment. Whereas the velar component that is preserved in the Greek χθών [k<sup>h</sup>] was reduced to the mere glottal [ʔ] plus vocalization in Hebrew, the labial component in the [pt-] group was not so simply lost in the glottal [ʔ] — which is so distant from it in point of articulation — but instead got shifted into the second consonant [-b-]. For a labial sound is on the whole more conspicuous than a dental.

Changing an unwieldy initial consonant-group took a quite different direction in Slavic. Compared to

the Greek singular noun πτερόν<sup>√</sup> {pterón} 'feather, wing'

the Russian перо<sup>√</sup> {peró} " (likewise neuter)

and similar forms in Church Slavonic and the rest of the group exemplify the usual Slavic treatment, except that most Indo-Europeanists have doubted the reduction of [pt-] to simple [p-].<sup>135</sup> In the absence of any other word that would illustrate the treatment of prehistoric IE \**pt-* either as *p-* in Slavic or as something else, I still consider this etymology πτερόν : перо strong enough to stand on its own.<sup>136</sup>

{ʔbrō-} in its structure {CɛC(ə)Cɔ̃-} except for the effect of the guttural {-ʔ-} upon the adjacent vowel; *InEuSeLa*, 249, 259-260.

<sup>135</sup> The consonant-group at the beginning of птица<sup>√</sup> {ptíca} 'bird' in modern Russian is due to the fairly recent loss of a weak vowel: in Old Russian and Church Slavonic пѣтица<sup>√</sup> [pət-]. See Pokorny, *InEtWö*, I, 817, 850; Vasmer, *RuEtWö*.

<sup>136</sup> This would not rule out a looser connection of the Greek and the Slavic word to Lithuanian spaĩnas<sup>√</sup> 'wing' (masc.), Sanskrit प॒र्णम्<sup>√</sup> {parṇám} (neuter), etc. Furthermore Illich-Svitych (*MaSrSl*, 346) reconstructs a Nostratic root \**para* 'to fly', based not only on IE and Semito-Hamitic but also on Dravidian, Kartvelian, and — more dubiously — Altaic and Uralic. For IE he refers to Pokorny, *InEtWö*, I, 991, where I find Old English spear-wa<sup>√</sup> (> sparrow<sup>√</sup>) and its cognates; for Semitic and more distant relatives, to Cohen, *Es Co*, 168-169, from which I quote the most pertinent of the dozen or more citations: "mehri [a

**2.Le.** On the other hand, the correspondence of πετρά to the actual Hebrew {ʔēbrōḥ} (not \*{ʔāberōḥ}) would be too weak, were it not for another noun,

Greek πέτρον<sup>1</sup> 'stone' (accusative masc.) :

Hebrew יָבֵטֶן<sup>2</sup> {ʔēḇen} " (fem.)

J. P. Maher has shown that this Greek noun shares the meaning 'flying' with the Old Norse *fiṛðr*<sup>3</sup> (fem.) 'wing', 'feather', or 'spearhead'.<sup>137</sup> The last meaning shows the semantic connection to πέτρον 'stone' as a missile, from the warrior's or hunter's point of view — which was paramount in much of the IE vocabulary; and besides, the phonetic structure of the Germanic [CVCr] 'feather' is closer to πέτρ- 'stone' than to πετρ- 'feather'. The Greek feminine derivative πέτρα<sup>4</sup> (Homeric πέτρη<sup>5</sup>), however, refers to a stone too big for a man to throw. The Hebrew construct plural יָבֵטֶן<sup>6</sup> {ʔaḇ(ə)n|e<sup>y</sup>} corresponds to the Greek nominative plural πέτρ|οι<sup>8</sup>, as in many other nouns (**1.Ac5, Da,Ie,Lc,Ma,e**).<sup>138</sup>

The most attractive part of this etymology is that it displays IN HEBREW the IE alternation /<sub>n</sub> — suffixed to a biconsonantal root. We would not otherwise have suspected it just from {ʔēḇen} 'stone' and {ʔēbrōḥ} alongside with יָבֵטֶן<sup>9</sup> {ʔēḇer} 'wing(s)' (gender unknown, no fem. marker; cf. **2.Kb**). For triconsonantal roots, especially verb-roots, are taken for granted in Semitic; and even though neither אֶבֶן 'stone' nor אֶבֶר (ה) 'wing, feather(s)' is from a known Semitic verb-root, a Semitic analysis would still make them out to be quite unrelated, since {r} in Semitic can only be part of a root, not a suffix (nor a prefix).

Yet one prominent Aramaic word, of the most basic vocabulary, does show this very alternation clearly:

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modern South Arabian dialect] *farr* 'voler' ... BERB[ère] *fr* 'aile' ... COUCH[ite] bed. [= Beja] *b̥r* 'voler'...."

<sup>137</sup> "Neglected Reflexes of Proto-Indo-European \*pet- 'fly' : Greek *pétros* 'stone' / *pétra* 'cliff,'" *Lingua e Stile*, 8 (1973), 403-417. First mentioned by Johannes Schmidt, *Die Wurzel AK in Indogermanischen* (Weimar: Böhlau, 1865), 63.

<sup>138</sup> One derived adjective ὑποπετρίδιος<sup>†</sup>, recorded in a single passage of Alcman — ὑππov ... τῶνυποπετρίδιωνονέιρων<sup>1</sup> (*Partheneion* 49) — is of disputed interpretation since antiquity: 'a horse of the winged dreams' or 'a horse of the dreams [lurking] underneath the rock' (a shady place for a nap). The former interpretation would involve a metathesis (-πετρ- instead of -πετρ-), bringing one form of the Greek word for 'wing' into line with the structure of the Germanic 'feather'.

singular  $\text{בֶּר}^{\vee}$  {bar} 'son' (cf. Hebrew  $\text{בֶּן}^{\vee}$  {ben},  $\text{בֵּן}^{\vee}$  {bén})  
 plural  $\text{בָּנִי}^{\vee}$  {bānē<sup>y</sup>} 'sons' (both Aramaic and Hebrew).<sup>139</sup>

Within Aramaic this alternation, however anomalous, would scarcely be explained as a one-consonant root + a suffix {r/n}, since no other word behaves thus; but it cannot be dismissed as an irrelevant oddity of Aramaic. For in Mehri and Soqotri (modern dialects of Southern Arabia) cognates of  $\text{בר}$  — *bir*<sup>s</sup> and the feminine *birt*<sup>s</sup> — are reported, which can scarcely be borrowed from Aramaic but must rather go back to a remote Semitic source; and  $\text{בן}$  has cognates also, but throughout Semitic except for Ethiopic. So it is fair to theorize that both in {b-r/n} 'son' and in {ʔ-b-r/n} 'wing, feather' or 'stone' the alternation preserves an archaic wavering.

The morphology of the ancient IE languages has more prominent vestiges of r/n — even in the case-forms of the same noun; e.g.

Latin *femur*<sup>∨</sup> 'thigh' (nominative/accusative), *feminis*<sup>∨</sup> (genitive);<sup>140</sup>

Sanskrit {ūdh̥ar} (nom./acc.) in  $\text{ऊ ध र्नी}^{\vee}$  'as [the] udder',

$\text{ऊ ध र्नु}^{\vee}$  {ūdh̥an} (locative),  $\text{ऊ धः}^{\vee}$  {ūdh̥ah} (ablative).

In Hittite a whole set of nouns shows the recurrent pattern, including the neuter {pattar}<sup>∨</sup> 'wing' (nom./acc. singular), {paddanaš}<sup>∨</sup> (genitive plural). The nearest IE cognate to {pattar} is the Sanskrit neuter  $\text{प त्र म्}^{\vee}$  {pâttram}. On the other hand, {paddan-} recalls the Latin feminine *penna*<sup>∨</sup>, whose -nn- doubtless reflects a prehistoric \*-t/dn-. Latin also has -pVtr- in the compound noun *accipitrem*<sup>∨</sup>, *accipitris*<sup>∨</sup>, etc. 'hawk' (nominative *accipiter*<sup>∨</sup>), which is etymologized as originally meaning 'swift-winged'.<sup>141</sup>

**2.Lf.** If the {r} and the {n} of the two words were distributed in Greek — or any other IE language — as they are in Hebrew (disregarding the vowels):

'wing, feather' {ptr} : {ʔbr}  
 'stone' ?? {ptn} : {ʔbn},

that would seem to constitute a conclusive argument for the two etymologies combined into one. For the divergence of the first and second consonants

<sup>139</sup> It was J. P. Brown that called my attention to the pertinence of this Aramaic {r/n} to the etymology of the Hebrew {ʔ-b-r/n} and its IE cognates. See Möller, *VelNeSeWö*, 34; Illich-Svitych, *OpSr*, 194-195.

<sup>140</sup> Although the base *fem-* itself has no likely cognates.

<sup>141</sup> So in Greek  $\text{ἵππεξ ὠκυπτερος}^{\vee}$  (*Iliad* 13.62) means explicitly 'swift-winged hawk'.

{pt-} : {ʔb-} recurs, and in Hebrew a semantic factor standardizes {r} for one word, {n} for the other.

But the  $r/n$  does not operate in that neat fashion within IE (let alone between IE and Semitic). Mainly the  $r$  prevails, while the  $n$  crops up only here and there. So πτερ- 'wing, feather' and πετρ- 'stone', both with {r}, are not surprising. In all the IE instances that we have cited, the  $r/n$  carries no semantic differentiation. Rather, because in a Semitic language this alternation was fundamentally alien, the word or words carrying it survived ONLY BY DIFFERENTIATION; and {ʔēbrēn} 'stone' has widespread Semitic cognates, but {ʔēber, ʔēbrōʕ} has none.

It is the interlocking of IE PT  $r/n$  'wing, feather' with {ptr} 'stone'

and of Semitic {ʔbr} " " " {ʔbn} "

that authenticates the etymology on both sides.<sup>142</sup>

2.Lg. One practical use of stones was as weights:

אֲבָנֵי צֶדֶק {ʔab(ə)n|eʔ-čédēq} 'stones of justice' = honest weights;  
מִרְמָה אֲבָנִי {ʔab(ə)n|eʔ mirmōʕ} " " 'deception' = dishonest "

In Greek epic ἔστυ|αί† (recorded in the accusative plural ἔστυας<sup>143</sup>) are stone weights anchoring a boat. This is almost certainly a Greek borrowing from a Semitic language, in the early development of sea-faring.<sup>143</sup> In the phonetic adaptation to Greek, folk-etymology may well have operated to render it identical with the plural of ἔστυγ<sup>144</sup> 'bed'. If the א was already fricative as in the recorded Biblical pronunciation — [ḥ], not [b] — that would have made it easier to render it by a semi-vowel [w] in the Greek diphthong written εϋ.

Of all the Semitic forms, the Aramaic אֲבָנִי {ʔæbn|ʔ} 'the stone' or 'a stone' (in the Targum; Biblical Aramaic {ʔæbn|ʔ} in אֲבָנִי אֲבָנִי<sup>145</sup> 'and the

<sup>142</sup> The Germanic word for 'stone' — Gothic {stain} (accusative), Old English *stan*, etc. — has always been elusive. I would now suggest the possibility that *st-*, somewhat like the Lithuanian *sp-* in *spārnas* 'wing' (2.Ld, note 136), reflects a prehistoric \**pt-* altered to a more pronounceable consonant-group, while the Germanic *-n* represents the same selection from \* $r/n$  as in the Semitic {ʔēbrēn}. But the diphthong most evident in Old High German and Old Norse *stein* does not favor the bringing of this Germanic word into our etymology, since there is not the slightest trace of a [y] sound before the [n] in the Semitic word for 'stone'.

<sup>143</sup> This information I owe, through J. P. Brown, to Oswald Szemerényi, "Etyma Graeca V (30-32): Vocabula maritima tria," *o-o-pe-ro-si: Festschrift für Ernst Risch*, ed. by A. Ettar (Berlin: Walter de Gruyter, 1986), 425-434.

stone') is most like the Greek  $\epsilon\upsilon\nu| \eta$ .<sup>144</sup> Noting that the Greeks customarily used two anchors, Szemerényi suggests that  $\epsilon\upsilon\nu\alpha\iota$  represented originally a Semitic dual form, ending in *-ay*. The Hebrew (and Aramaic) construct  $\{?a\bar{b}(\bar{a})ne\}$  'stones' could indeed serve for a dual as well as a plural; in Exodus 28:9 it refers explicitly to two precious stones (not, of course, anchor stones, as the Hebrew scriptures very seldom take up maritime themes). Anyhow the Greek word is plural, not dual.

## 2.M. Triconsonantal {br-K-} 'wet, drench'

**2.Ma.** The Greek verb  $\beta\rho\acute{\epsilon}\chi\epsilon\iota$  'moisten, drench, soak, irrigate' — used in the imperative as well as the imperfect indicative — has apparent IE cognates, with initial *m-*, in Baltic and Slavic only (Pokorny, *InEtWö*, I, 738); but its noun derivatives have striking Semitic cognates. Those in Hebrew match the Greek vowels most nearly. The stative verbal noun  $*\beta\rho\acute{\epsilon}\chi\omicron\varsigma$  'something drenched or soaked' is evidenced indirectly by compound adjectives in  $-\beta\rho\epsilon\chi\acute{\epsilon}\varsigma$ , such as  $\epsilon\lambda\alpha\iota\omicron\beta\rho\epsilon\chi\acute{\epsilon}\varsigma\iota\nu$   $\epsilon\rho\iota\omicron\iota\varsigma$  'with oil-soaked wool' (Galen 13.581 Kühn).<sup>145</sup>  $*\beta\rho\acute{\epsilon}\chi\omicron\varsigma$  is matched by the Hebrew feminine noun in its construct form  $\text{בַּרְכָּה}^{\vee}$  {*bārekāt*}<sup>146</sup> '(someone's) pool' (*InEuSeLa*, 286-287), still more perfectly when the possessor is expressed by a suffix:  $\text{בַּרְכָּה}^{\vee}$  {*bārekāt*| $\acute{o}$ "} 'his pool'.

A shared feature of the two civilizations, expressed by [b(ə)rek<sup>h</sup>], was the achievement of some control over water so as to have plenty of it for the most necessary purposes, in spite of the prevailing dry climate.

<sup>144</sup> In the sense of 'bed'  $\epsilon\tau\eta\alpha^{\vee}$  in Doric. Szemerényi's "Syriac ... 'ebnā, more precisely 'eβnā" (432-433) seems to be based on a misapprehension about the Syriac vowels.

<sup>145</sup> I mark  $*\beta\rho\acute{\epsilon}\chi\omicron\varsigma$  with an asterisk, rather than  $\beta\rho\acute{\epsilon}\chi\omicron\varsigma^{\dagger}$ , because of uncertainty whether it is absent from the corpus merely by accident. Although the original compound adjectives in  $-\acute{\epsilon}\varsigma$  (masc./fem. nominative  $-\eta\varsigma$ ) were indeed formed from neuter nouns in  $^{-\omicron\varsigma}/_{-(\sigma)}$ , this class of adjectives expanded so as to be formed also from verbs; e.g. many compounds of  $-\pi\rho\epsilon\pi\acute{\epsilon}\varsigma^{\vee}$ , from the verb  $\pi\rho\epsilon\pi\epsilon\iota$  'he/she/it resembles, is like', but no noun  $^{\circ}\pi\rho\epsilon\pi\omicron\varsigma$ . Presumably the development was mediated in prehistoric Greek by roots that had both a verb and a noun with the same internal vocalization, such as  $\tau\rho\acute{\epsilon}\phi| \epsilon^{\vee}$  'feed, foster, raise',  $\tau\rho\acute{\epsilon}\phi| \omicron\varsigma^{\vee}$  'fosterling', so that  $\delta\iota\omicron\tau\rho\epsilon\phi\acute{\epsilon}\varsigma^{\vee}$  (also a masc. proper name in the vocative with recessive accent  $\Delta\iota\acute{o}\tau\rho\epsilon\phi\epsilon\varsigma^{\dagger}$ , nominative  $\Delta\iota\omicron\tau\rho\acute{\epsilon}\phi\eta\varsigma^{\vee}$ ) was open to either interpretation: the original one 'Zeus's-fosterling' or secondarily 'Zeus-fosters'.

<sup>146</sup> Ancient South Arabian also has {brkt}<sup>√</sup> (vowels unknown). The Egyptian {brkt}<sup>√</sup> 'das Teich' (= pond or tank) is considered a Semitic loan-word by Erman – Grapow, *WöAeSp*, I, 466, along with other {brk} and {brq} words.



**2.Mb.** The active feminine verbal noun βροχή<sup>√</sup> 'watering, irrigation' corresponds phonetically to בְּרָכָה<sup>√</sup> {bəṛākā<sup>h</sup>} 'blessing', a prominent Biblical term with Semitic cognates that may or may not be merely borrowed from Hebrew. J. P. Brown has bridged the semantic gap between βροχή and {bəṛākā<sup>h</sup>} by reference to the passages where a blessing is — above all — a good, soaking rain or other watering (e.g. Ps. 84:7, Gen. 49:25).<sup>147</sup> Beyond that it takes in such things as human and animal fertility, which also depends on plenty of moisture.

This explanation makes it unnecessary to ascribe the stative {bəṛēkāt<sup>h</sup>}<sup>148</sup> to a homophonous root. But the active noun {bəṛākā<sup>h</sup>} never means mere 'watering' without the connotation of divine favor. Furthermore the verb 'bless' in Hebrew follows the "intensive" paradigm; e.g.

אֶבְרַךְ<sup>√</sup> {ʔəḇṛākā<sup>h</sup>} 'I will bless' or 'let me bless'

(pausal אֶבְרַכָּה<sup>†</sup> {ʔəḇṛēkā<sup>h</sup>}).

Whether or not there had ever been a corresponding simple paradigm with

\*אֶבְרַח<sup>√</sup> \*{əḇṛākā<sup>h</sup>} 'I will water, let me water'

cognate to the Greek βρέχω<sup>†</sup> especially in its subjunctive function (as distinct from the present indicative function), anyhow the simple forms of the Hebrew verb {(-)B(-)r-k(-)} — in contrast to the "intensive" forms — mean 'kneel'. Only the passive participle of the simple conjugation

בְּרוּךְ<sup>√</sup> {ḇṛū<sup>w</sup>k} means 'blessed';

but נִבְרַח<sup>√</sup> {niḇṛākā<sup>h</sup>} is 'let's kneel', for the noun 'knee'

is בֶּרֶךְ<sup>√</sup> {bérek}.

For our purpose that passive participle may be a precious relic; but we cannot reach any firm conclusion, such as that {bəṛēk|āt<sup>h</sup>} must have been from a

<sup>147</sup> Too much of it, making a flood, is of course no longer a blessing. So the LORD's resolve, after the great deluge abated, "I will never again curse the earth on account of man" (Gen. 8:21), confirms that a blessing is rain in season and not to excess. Likewise βρ<sup>ε</sup>/<sub>ο</sub>χ- in Greek seems to be used only of beneficent watering, except in Matt. 7:25,27. See Brown – Levin, *EtPa*, 92-93.

<sup>148</sup> The absolute form is {bəṛākā<sup>h</sup>} in הַבֵּרָכָה<sup>√</sup> 'the pool'; understand {ḥəṇʔāḏmā<sup>h</sup>} 'the drenched ground' (1.Ga); cf. τῆν γῆν ... ἡμιβρεχῆ<sup>√</sup> 'the ground ... half-drenched' (Theophrastus, *De causis plantarum* 3.23.1).

simple active verb with forms like  $\{?e|brāk|ʔ̄^h\}$ , on the order of  $\{βρεχ|os\}$  from the verb  $βρεχ|ω$ .<sup>149</sup>

At least we can be sure that  $\{ʔ̄|bōrēkō^h\}$  matches  $βρεχω$  beautifully — apart from the vocalic difference between the Hebrew “intensive”  $\{-bōrēk-\}$ , with  $\{o\}$  between the first and second radical consonants, and the Greek  $βρεχ-$ , with no vowel there. The ‘I’ prefix, in Hebrew  $\{ʔ\}$  plus the vocalization most congenial to the phonetic environment, is indispensable in a Semitic language but quite alien to IE. Without it  $בָּרַךְ^h \{bōrēkō^h\}$  would be the coaxing imperative ‘bless’.<sup>150</sup>

**2.Mc.** The very neat match between the Greek and Hebrew consonants suggests a relatively recent contact. In which direction the words embodying this root moved, cannot be determined, because of several difficulties. The root in Greek has both verb and noun forms, but in Hebrew only the latter, unless we

<sup>149</sup> If not for the noun  $\{bōrēkāt\}$  (absolute  $\{bōrēkō^h\}$ ) and the Greek cognates that mean ‘wet’ (verb or adjective), we would be tempted to derive the “intensive” verb  $בָּרַךְ^h \{bōrēk\}$  ‘bless’ (and all the related forms with prefixes or suffixes) from the simple stative  $בָּרַךְ^h \{berāk\}$  ‘kneel’. For in Hebrew it is common for a stative verb to be paired with an “intensive” that has a sort of causative sense; e.g.  $חָזַק^h \{hāzāq\}$  ‘be strong’,  $חָזַק^h \{hāzzēq\}$  ‘make strong, strengthen’. (The  $\{-r-\}$  in  $\{(-)b(-)r-k(-)\}$  cannot be geminated; but the preceding vowel  $\{o\}$ , not liable to reduction no matter where the accent moves, serves instead of a geminate consonant to mark the “intensive”.) Originally  $\{bōrēk\}$  would thus have meant ‘have (so-and-so) kneel’ — which is understandable enough, though nothing explicit in the Bible associates a kneeling posture with a blessing, and the connection that we readily feel between ‘kneel’ and ‘bless’ may be due to a long-assumed etymological relation.

Not the “intensive” of  $בָּרַךְ$  but the proper causative expresses the sense ‘make (so-and-so) kneel’, without any spiritual implication:  $וַיַּבְרֶךְ הָגְמָלִים \{wayyabrēk haggəmallī^m\}$  ‘and he made the camels kneel’ (Gen. 24:11).

Trombetti (*SaGl*, III, 340) relates the Semitic noun and verb, exemplified by Hebrew  $\{bōrēk\}$  and “*bārak inginocchiarsi*” —  $בָּרַךְ^h \{bōrāk\}$  ‘he (has) knelt’ — to Latin *flect|o* ‘I bend’, which appears to have no IE cognates.

<sup>150</sup> I find nothing cogent, either phonetically or semantically, in the long etymological entry of Illich-Svitych, *OpSr* (p-q), 111-125, comparing the Semitic  $\{brk\}$  ‘to bless’ — or, as he posits, originally ‘to pray or entreat’ — to IE forms such as the Latin denominative verb *precor* ‘I beg’ (which happens to be the indirect source of the English *pray*). He also brings in Chadic, Altaic, and Dravidian words as cognates. See Levin, *DiQuQu*, 409-410.

take the "intensive" {ʔǎbrǝk̄ʰ} 'let me bless' to be derived from a vanished \*{ʔǎbrǝk̄ʰ} 'let me water'.<sup>151</sup> So far it is easier to envisage a movement from IE to Semitic; but the [b-] would fit more easily the other way, as a Greek borrowing from Semitic. Yet that would scarcely mesh with the Baltic and Slavic cognates that have *m-*, especially the Latvian noun *merga*<sup>∇</sup> or *marga*<sup>∇</sup> 'sanfter Regen' — i.e. 'drizzle, sprinkle'.<sup>152</sup> If those cognates are valid, the Greek βρ- must be from \**mr-*, while the northern languages have undergone a metathesis of \**mrV-* to *mVr-*, eliminating an awkward initial consonant-group.

**2.Md.** The Hebrew absolute form {bǝrǝk̄ʰ} (in בָּרַךְ 'the pool') is cited by Möller (*VeInSeWö*, 33),<sup>153</sup> although without bringing in the Greek -βερεῖς at all. He treats the root as biconsonantal *bh-r-* with several extensions or internal modifications, dissimilar in IE and Semitic; accordingly he does not lay hold of any close correspondences. However, he does mention, apart from each other, the Greek φρέαρ<sup>∇</sup> and the Hebrew בְּאֵר<sup>∇</sup> {bǝʔér}; they both mean 'a well'.<sup>154</sup> The Greek has a neat cognate in the Armenian {aṭbiur}<sup>∇</sup> or {aṭbeur}<sup>∇</sup> 'spring', in which the initial consonant group φρ- of Greek is represented by a complex metathesis {aṭb-}, peculiar to Armenian. The Germanic cognates, such as Gothic {brunna}<sup>∇</sup> 'spring', show a dissimilation of the second [r] to [n], a trace of which is barely perceptible in the Greek plural φρέατα<sup>∇</sup> (Homeric φρεῖατα<sup>∇</sup>); for the Greek [-a-] often reflects a syllabic nasal \*ṇ.<sup>155</sup>

<sup>151</sup> {ʔǎbrǝk̄ʰ}† in the sense of 'let me kneel' must have been an available part of the Hebrew language along with the attested {nǐbrǝk̄ʰ} 'let's kneel'.

<sup>152</sup> My colleague, Prof. Zoja Pavlovskis-Petit, who was born in Latvia, did not know this word but kindly looked it up for me in Carl Christian Ullmann, *Lettisches Wörterbuch* (Riga: H. Brutzer, 1872). Pokorny's information (*InEtWö*, I, 738) seems to be based on this but brings in diacritics — *męřga*, *mārgā* — and does not mention an obvious Estonian cognate *mārg*<sup>∇</sup> 'naß' (= wet; *mārkä*<sup>∇</sup> in Finnish).

<sup>153</sup> His transcription *bʳǝṣā* is somewhat inaccurate.

<sup>154</sup> Möller glosses only the latter as "*bʳǝr* 'Brunnen'", the former as "(gegrabene) Cisterne, Wasserbehälter" (im Gegensatz von κρήνη). While the German *Brunnen* can be either 'well' or 'spring', the Hebrew and Greek words are restricted just like the English — as many passages in the Septuagint prove.

<sup>155</sup> Old English has *-brunna*<sup>∇</sup> only in place-names (Campbell, *OIEGr*, 184); otherwise *burna*<sup>∇</sup>, with metathesis of the vowel and consonant. In the modern English vocabulary it

The Hebrew {bəʔér} and its Semitic cognates — Ugaritic {bʔr}ᵛ, Aramaic **ܒܝܪ**ᵛ {beʔr|ʔ}, Arabic **بِير**ᵛ {biʔr|un}, Ancient South Arabian {bʔr}ᵛ<sup>156</sup> — have a triconsonantal structure, though in some of these languages it is disguised by the weakness of the middle consonant, wavering from [ʔ] to a semi-vowel or a mere vowel.<sup>157</sup> The earlier [r] of the Greek word has no counterpart at all in the Semitic word for ‘well’; this can be put down to dissimilatory SUPPRESSION, going beyond the dissimilation to [ʔ] that we find in Armenian.

This etymology is worth pursuing because of the Hebrew plural with variable vowels, **בְּאֵרוֹת**ᵛ {beʔərōt} recalling the Homeric **φρεῖατα** [-éa-]

but also **בְּאֵרוֹת**ᵛ {bəʔerōt}      "      "      Attic **φρεῖατα**.<sup>158</sup>

In Hebrew the phonetic phenomenon is plainly due to the glottal stop, which can either begin a new syllable [bəʔe-] or hang onto the previous one [beʔe-]; the same variation recurs in {šəʔelōt} and {šəʔelōt} ‘my request’ (2.Lc, note 134). In Greek the variation is from dialect to dialect: when \*[w] between vowels was lost in Attic, the length of the vowels was redistributed to make the second one longer (cf. 2.Hc). That a glottal stop took the place of the vanished \*[w] is likely enough, though never shown in the writing of Greek. **ΦΡΗ**ᵛ, however, in the Doric dialect of Rhodes shows a reduction to

survives marginally as *burn*ᵛ, but has suffered from homophony with a verb and noun of quite incompatible meaning.

<sup>156</sup> Many Semitists give an Akkadian cognate *bēru*; but *AsDi*, the most authoritative work, has no such word with the meaning ‘well’. Von Soden, *AkHa*, has a brief entry, “**bēru** VI (selten für *būru* I) ‘Brunnen, Zisterne’ ...”, with very few passages cited. {būru} is indeed the Akkadian for ‘well’ or ‘pit, cistern’, whereas in Hebrew {bəʔér} ‘well’ (fem.) is differentiated from **בֹּר**ᵛ {bōʔr} ‘cistern’ (masc.). Hebrew has also a rare intermediate form {bōʔr} in **הַבֹּרֶת**ᵛ ‘the cistern (?)’.

<sup>157</sup> The Arabic spelling, without diacritics, is **بِير** {byr}; but the middle letter is marked above with a corrective \* so as to be read [ʔ].

<sup>158</sup> The singular **φρεῖα**ᵛ occurs in a post-Homeric epic; it exemplifies the same dialect as the Homeric plural **φρεῖατα**. Frisk, *GrEtWö*, and Chantraine, *DiÉtLaGr*, list the Attic singular as **φρέα** — the latter dictionary citing the meter of Menander, *Dyscolus* 641; but a careful scansion of this verse (and of the other occurrences) ought to have told them that the -α is in a metrically ambiguous position, where a short vowel is just as acceptable as a long.

one syllable, with just the long vowel η — much like the Aramaic {be<sup>r</sup>-}. For Hebrew we have no evidence linking the phenomenon of {-əʔe- : -əʔē-} to dialects.

I have treated this as an IE noun that spread into Semitic; for thus the noun is related to a wide-ranging verbal root (Pokorny, *InEtWö*, I, 134-144; Illich-Svitych, *MaSrSl*, 363). The reverse, that an originally Semitic word branched out to the north and west, is not impossible. In that case, the insertion of [r] to form an initial consonant group — φρ- in Greek — would be anticipatory, just as the Latin *tē(n)saurus*<sup>√</sup> 'storeroom' (borrowed from Greek θησαυρός<sup>√</sup>) became in French *trésor*<sup>√</sup> (> English *treasure*<sup>√</sup>). For in many languages this consonant is prone to such transpositions.

2.N. Triconsonantal IE (Skt.) {b<sup>h</sup>rāṭ} : Sem. (Aram.) {bəraq} 'flashed'  
(Russian) {sneg} : (Heb.) {-šlēḡ} 'snow'

2.Na. The best verb for displaying a triconsonantal root without prefixes or suffixes is

Sanskrit भ्राट्† {b<sup>h</sup>rāṭ} : Aramaic ܒܪܩ† {bəraq} 'he flashed, made lightning; it gleamed'.

The attestation, however, is indirect: The rare aorist tense of this Sanskrit verb turns up only with the prefix known as the "augment", which expresses past time: अ भ्राट्<sup>√</sup> {ábh<sup>h</sup>rāṭ} (RV. 1.66.6, 4.6.5; hymns about or addressed to Agni 'Fire'). But the prefix, as a rule, is optional in the Vedic period of the language; so it seems mere happenstance that {b<sup>h</sup>rāṭ} too has not turned up. The Sanskrit root is {b<sup>h</sup>rāj-} when followed by a vowel, as in the present middle भ्राजते<sup>√</sup> {b<sup>h</sup>rājatē} 'he/it gleams, flashes'. The {-t} in the aorist active {(á)b<sup>h</sup>rāṭ} could be just the sandhi treatment of /j/ at the end of a word, or perhaps even a simplification of a virtually unpronounceable cluster of the [j] (or some such consonant) + the suffix [-t] for the third person singular.<sup>159</sup>

Bomhard (*ToPrNo*, 200), while summarizing the IE cognates of {b<sup>h</sup>rāja-tē}, showed the connection to Semitic, and more loosely to some other Afro-

<sup>159</sup> W. D. Whitney, *Sanskrit Grammar*, 2d ed. (Cambridge, MA: Harvard University Press, 1889), 74, 300.

Asiatic languages.<sup>160</sup> Besides the manifestly similar first and second consonants, he derives both the Semitic “emphatic” consonant {q} (*k* in his notation) and the Sanskrit {j} from a proto-Semitic and proto-IE \**k'* — i.e. a glottalized velar plosive. The Indo-Europeanists derive the Sanskrit affricate (practically the same sound as *j* in English) from a prehistoric \**g*, preserved as such in Greek and Latin (cf. **2.Ca-b**). Outside of Indo-Iranian the second consonant is *r* in certain languages — which the English adjective *bright*<sup>√</sup> (*beorht*<sup>√</sup>, *berht*<sup>√</sup>, *breht*<sup>√</sup>, etc., in OE) exemplifies down to the present — but *l* in others. The variation or inconsistency somewhat clouds the IE pedigree of this Sanskrit verb. The Greek φλέγειται<sup>√</sup> ‘he/it blazes’ is closest to {b<sup>h</sup>rājatē} morphologically, but the short vowel [e] in the root can scarcely correspond to Sanskrit {ā}.<sup>161</sup>

**2.Nb.** Most like the Sanskrit aorist {b<sup>h</sup>rāt} is the Aramaic {bəraq}; we have only to allow for the rule of sandhi that changes [-j] to [-t] at the end of a Sanskrit word. The quality of the vowel is identical; for only the Sanskrit long {ā} is really wide-open; the ubiquitous short {a} of Occidental scholarly transcriptions is really pronounced [ʌ] (*InEuSeLa*, 152, 189, 693, 697).

Since Aramaic stands apart from its Semitic neighbors in having only a minimal vowel {ə} between the first and second consonants in the tense commonly known as the perfect — whereas

Arabic has بَرَقَ {baraqa} ‘it flashed, gleamed’,

Hebrew בָּרַק {bōraq} <sup>162</sup> " " " —

the Semitists tend to regard the Aramaic phenomenon as a departure from proto-Semitic. For in the imperative Aramaic and Hebrew agree upon the min-

<sup>160</sup> In part following Möller, *VeInSeWö*, 29-30, and Cuny, *InEtCo*, 119-120, 144. See also Trombetti, *SaGl*, III, 401-402, and Illich-Svitych, *OpSr* (b-Ḳ), 174-175, who includes Kartvelian and Altaic cognates. However, it was J. P. Brown that directed me to the unsuffixed root (see Levin, *DiQuQu*, 416-417). In Cushitic it seems necessary, though difficult, to distinguish between an inherited Afro-Asiatic word and a borrowing from the Semitic languages of Ethiopia; see Leslau, *CoDiGe*, 106.

<sup>161</sup> See Mayrhofer, *KuEtWöAl*, II, 529-530; Pokorny, *InEtWö*, I, 124-125, 139.

<sup>162</sup> The pausal form of this Hebrew verb would be בָּרַקָּה {bōraq̄}. As a noun ‘lightning’ {bōraq̄}<sup>√</sup> is frequent (so too {brq}<sup>√</sup> in Ugaritic, where no vowels are recorded); but the verb occurs just once in the Bible, and in the imperative at that: בְּרֹק, בְּרֹק {bōrōq̄ bōrōq̄} ‘make lightning’ (Ps. 144:6).

imal vowel in that position — e.g. שְׁלַח<sup>v</sup> {šəlaH} 'send'; the vowel {-a-} is accented or unaccented, depending on the phonological structure of the ensuing word. In Aramaic the same {šəlaH}<sup>v</sup> serves for the perfect also, 'he (has) sent'; but the perfect is שְׁלַח<sup>v</sup> {šəlaH} in Hebrew, accented on either syllable according to the phonological environment (only on the latter syllable, however, before a pause: שְׁלַח<sup>+</sup> {šəlāH}); see Levin, *CoHeAr*).

The relation of the Semitic perfect to the IE aorist and the IE perfect will be studied in the sequel to this book. For now the Aramaic perfect {bəraq} stands out for its resemblance to the Sanskrit aorist. {bəraq} is, if not the bare root, the next thing to it; nothing less would be pronounceable in Aramaic, or many other languages. So it suggests — I would not say it demonstrates — the possibility of the verb moving in a minimal actual form, without prefix or suffix, from prehistoric IE into prehistoric Semitic, or the reverse.

The attestation of this particular verb-form in Aramaic is late. Although בְּרַק is given in Talmudic dictionaries, that is just a lexicographic convention treating this form (the perfect tense with no suffix to express a subject other than 'he') as the one under which the verb as a whole is listed. The concordance shows no instance of it.<sup>163</sup> The corpus of Christian Aramaic literature, known as Syriac, is vaster even than the Jewish, but not yet equipped with indices and concordances. So I would cite the Syriac (or Christian Aramaic) form as בְּרַק<sup>§</sup> {braq}.<sup>164</sup>

**2.Nc.** Besides the root itself, which matters a great deal, I find in this verb little of relevance to comparative morphology. To be sure, the {a-} prefix in Sanskrit {āb<sup>h</sup>rāt}, expressing past time, is somewhat reminiscent of the Akkadian prefix in the so-called preterite {ib-riq}<sup>v</sup> '[lightning] flashed/flashes'.

<sup>163</sup> Chaim Josua Kasowski, אוצר לשון החלמוד, VIII (Jerusalem: Ministry of Education and Culture, 1959), 808.

<sup>164</sup> The Syriac notation has no sign for a minimal vowel. Whether [br-] was pronounced rather than [bər-] is too elusive to be settled, because such a slight difference, which is liable under most circumstances to go unnoticed in the present, must be even further beyond verification in the past. My policy in this book is to replace the Syriac lettering with the more familiar (and more ancient) shapes of the same letters, but to keep the Syriac vowel-signs (1.Da, note 71). — In the list of PLACES assigned by Joshua (19:45) to the tribe of Dan we find בְּרַק־וּבְנֵי־בְרַק<sup>v</sup> {u<sup>w</sup>bəne<sup>y</sup>-bəraq} 'and Lightning's Sons'. The name 'Lightning' with normal Hebrew vocalization is בְּרַק<sup>v</sup> {bərāq} (Judges 4:8, etc.), like the common noun.

But the {i-} functions in Akkadian to mark the third person, in contrast to  
 {a-} for 'I',  
 {ni-} for 'we',  
 {ta-} for 'you' —

although with this verb those other subject-prefixes occur seldom if ever. Moreover the citations in *AsDi* (II, 104) hardly bear out the characterization of {i|briq} as preterite rather than present or future. So, if we were to posit that at some point of prehistoric contact a prefix \*V- existed in both IE and Semitic, then its putative reflexes {a-} in Sanskrit and {i-} in Akkadian must have diverged greatly in meaning, besides showing no more phonetic similarity than any two short vowels (cf. 2.1a,Wc).

A more fundamental question of morphology is whether what I have been treating as the root ought to be analyzed as a biconsonantal root + an extension. That question is appropriate here, even if we put aside the doctrine held by many Indo-Europeanists ever since Benveniste (*OrFoNo*, I, 147-173) that ROOTS IN GENERAL are biconsonantal and any third consonant adds only a specific nuance to the meaning already conveyed by the first and second in combination. Some recent Semitists maintain a similar view of many if not all of the Semitic roots that used to be considered triconsonantal (or, in the older terminology, trilateral).

Regardless of the general question, {b<sup>h</sup>rāj-} has something in common with another verb {b<sup>h</sup>rāš-} (Pokorny, *InEtWö*, I, 139, 141). Bomhard lists, in the same entry, both {b<sup>h</sup>rāj-} and {b<sup>h</sup>rāš-} forms (*bhrāš-* in his notation), and on the Afro-Asiatic side of that entry, besides the Semitic cognates of {bəraq},<sup>165</sup> also "Akk[adian] *barāšu* 'to sparkle, shine brightly'." Although the Sanskrit and the Akkadian sibilant, according to his system, cannot go back to a common proto-Nostratic origin, I would entertain the possibility of some prehistoric diffusion to account for the close resemblance of all three consonants in the two languages. In both, however, the root with a sibilant for the third consonant is rare, except for the derived noun {bir-cu}<sup>√</sup> (some sort of flash at night) in Akkadian. The Sanskrit verb भ्राशते<sup>√</sup> {b<sup>h</sup>rāśatē} (found only in grammarians' lists) and the Akkadian {i-bar-ru-uc}<sup>√</sup> both mean 'it shines, glitters'. This correspondence is strictly triconsonantal but — unlike {b<sup>h</sup>rāṣṭ} : {b(ə)raq} — no actual form is almost identical with the tri-

<sup>165</sup> He does not mention this Aramaic form (*ToPrNo*, 200).



consonantal root. And no prefixed or suffixed forms of {(-)b<sup>h</sup>rāš-} : {(-)b(-)r(-)c(-)} match at all in their inflections.

**2.Nd.** The prehistoric circumstances that favored the spread of the verbal root (in its better attested form {b<sup>h</sup>rāj-} : {b(-)raq}, etc.) can only be surmised from its meaning. In the Veda it refers to fire, man-made no doubt but still mysterious and divine. In the Semitic languages it is mainly lightning, the blaze coming down from heaven. So the word belongs not to the basic, functional vocabulary, like most of the words we have been studying, but to the vocabulary of primeval wonder.

The IE forms with *-l-* instead of *-r-* (including the Greek noun φλόξ<sup>√</sup> 'flame' (acc. φλόγ|α<sup>√</sup>) find a counterpart in the Semitic root exemplified by

Hebrew יִנְיָ אֲנִי וְאֶבְרָא<sup>√</sup> {wəʔa|ḇlɪʔg|ɔ<sup>h</sup>} 'and I will brighten up',

Arabic أَبْجَتِ الشَّمْسُ<sup>√</sup> {ʔa|blaj|ati (ʔ)ššamsu} 'the sun was bright'.

The Latin *fulg|it*<sup>√</sup> 'it shines, flashes' (*-it* from prehistoric *\*-eti*) shows a morphological correspondence also to the Arabic {-ati}. The Latin verb and its related noun *fulgur*<sup>√</sup> 'flash of lightning' (neuter) are semantically though not morphologically close to the Hebrew {ḇəṛq} 'lightning'. The dedicatory formula *Iouī fulguri*<sup>√</sup> (in the dative case) identifies the great god with lightning; cf. Hebrew בְּרָקָיו<sup>√</sup> {ḇəṛqə(ʔ)w} 'his lightnings' (Ps. 97:4), where 'his' refers to יהוה {YHWH} (97:1). The best morphological match is

Latin *fulg|us*<sup>√</sup>, a rare and probably archaic equivalent to *fulgur* :

Hebrew {ḇəṛq|āt} in בְּרָקִית<sup>√</sup> 'and emerald', containing an apparently feminine suffix (although the lone occurrence, in Ezek. 28:13, does not embrace a word in grammatical agreement with this noun; cf. **2.Hc**).<sup>166</sup>

<sup>166</sup> The Greek name for this glittering stone is σμάραγδος<sup>√</sup>, usually feminine. (English *emerald*<sup>√</sup> is indirectly derived from the Greek.) A Greek form without σ- occurs also, but is rare. (σ)μάραγδ- is more like the alternative Hebrew form {ḇəṛqəṭ} in בְּרָקִית<sup>√</sup> (Ex. 28:17, 39:10; cf. Mayer, *RiPrRa*, 95), which has a vowel after the {r}. The Akkadian cognate is {ba-ar-raq-tu<sub>4</sub>}<sup>√</sup> (found only in later Babylonian); for the Hebrew {-ṛV-} can readily correspond to Akkadian {-arrV-}, this consonant being nearly exempt from gemination or strengthening in Hebrew. The single {-r-} in Greek, however, is harder to explain.

A further problem is the relation of the Greek (σ)μάραγδ-, as well as the Semitic forms, to Sanskrit मरक्तम्<sup>√</sup> {maraktam} (more often मरकतम्<sup>√</sup> {marakatam} ;

ἐβρησε<sup>✓</sup>, the Coptic word for 'lightning', is "from Semitic stem *brk*".<sup>167</sup> The sounds represented by many of the letters in Coptic have been much disputed by modern scholars; this word would be approximately [ɛbrɛkʰ/ɣɛ].

**2.Ne.** Our observation about the primeval wonder expressed in the word for 'lightning' makes it pertinent to take up another spectacular weather term. The Semitic word for 'snow' — Akkadian {ša-al-gu-um}<sup>✓</sup> (nominative)

Heb. שֶׁלֶג<sup>✓</sup> {šélɛg} (pausal שֶׁלֶג<sup>✓</sup> {šɛlɛg})

Aramaic {təlāg} in תְּלִיךָ<sup>✓</sup> 'like snow'<sup>168</sup>

Arabic ثَلَج<sup>✓</sup> {θal|j u n } (nom.) —

Prakrit म र ग दं § {maragadam}). Manfred Mayrhofer, "Indogermanistische Randglossen zu 'Kluge-Mitzka'," *Die Sprache*, 7 (1961), 187-188, favors a Semitic origin, the noun being formed from a verb-root, and after that a borrowing by Greek (with folk-etymological influence from the verb σμαραγεῖν 'to thunder, to crash') and by Indic via Greek. But I discern more than a folk-etymology linking the noun σμαραγδ- to the verb σμαραγδ- within Greek. A verb such as σμαραγ|εῖ<sup>✓</sup> 'it crashes' (*Iliad* 2.210,463) is of a secondary type formed mainly from nouns of the "second declension"; and the noun Σμάραγ|ον<sup>✓</sup> (accusative case; vocative Σμάραγε<sup>†</sup>) is indeed extant as the name of a noisy spirit serving Zeus (in a verse quoted by pseudo-Herodotus, *Life of Homer* 32). Furthermore the supreme god himself is described by the adjective ἐρ|σμαράγ|ιοι<sup>✓</sup> (Hesiod, *Th.* 815; genitive case), which has been understood as 'much-thundering' or 'loud-thundering', but ἐρ|σμαράγ- could, from the context, refer just as well to the flash of light as to the crashing sound that follows; cf. the verses

ἄλλα καὶ ὃς δίδουκε Διὸς μέγαλοιο κεραυνὸν

δεινὴν τε βροντὴν, 'ὅτ' ἀπ' οὐρανόθεν σμαραγῆσσι<sup>✓</sup> (*Iliad* 21.198-199)

'but he too [i.e. Oceanus] dreads great Zeus's lightning and dreadful thunder, whenever he flashes/crashes from the sky' (the verb here is aorist subjunctive).

So I infer that the Greek noun behind the verb σμαραγ- was borrowed from a Semitic noun similar in structure to the Hebrew noun {bərɔq} 'lightning'. The Greek {g}, corresponding to a Semitic {q}, has quite a few parallels (2.Na, DDg). The initial consonant-group {sm-} corresponds oddly indeed to {b-}; but this recurs in an absolutely certain etymology (mentioned by Mayrhofer), the name of King Cyrus' younger son: {b[a]rɔdi[a]}<sup>✓</sup> in Old Persian, but Σμέρδ|ς<sup>✓</sup> in Herodotus (3.30.2, etc.). Neither the Elamite rendering {pir-ti-ya}<sup>✓</sup> nor the Akkadian {bar-zi-ya}<sup>✓</sup> appears to throw any light upon the Greek {sm-}; see *The Sculptures and Inscriptions of Darius the Great on the Rock of Behistûn in Persia* (London: British Museum, 1907), Ixxiii. Perhaps on the way to Greek this name passed through some other unidentified language, but why should it be borrowed so indirectly (Addenda, p. 457)?

<sup>167</sup> J. Černý, *Coptic Etymological Dictionary* (Cambridge University Press, 1976), 33 (cf. 2.Ma, note 146). Carleton Hodge also brings in Egyptian {b3q}<sup>✓</sup> 'shining'.

<sup>168</sup> Daniel 7:9; תְּלִיךָ<sup>✓</sup> {təlɛg} in the notation of the Targum (Jer. 18:14) indicates nearly the same pronunciation as in Biblical Aramaic.

recalls the first and the last consonant of certain IE and especially Slavic forms; e.g. the Russian *cher*<sup>v</sup> {sneġ} [sn<sup>ʸ</sup>ek]. Until the twentieth century, when Russian spelling was reformed in the wake of the great revolution, it was *чѣръ*<sup>v</sup> {snġǫ}, just as in Church Slavonic; the vowel *ѣ*, transcribed {ġ}, was — at least in early Slavic times — something like [ʲɛ] or [ʲæ],<sup>169</sup> perhaps resulting from metathesis of a prehistoric IE diphthong; for the neighboring Baltic languages exhibit both the diphthong in Old Prussian *snayg|is*<sup>§</sup> and its converse in Lithuanian *sniġ|as*<sup>v</sup>. Old Prussian is geographically next to the Germanic area, where we have direct evidence of the same diphthong in Gothic {snaiw|s}<sup>v</sup> and indirect evidence in Old English *snaw*<sup>v</sup> or *sna*<sup>v</sup>.<sup>170</sup> In Germanic the velar component of this labio-velar disappears, or the entire labio-velar (cf. **1.Lb** and Addenda, p. 457).

The rare Greek *νίφ|α*<sup>v</sup> (accusative) and its exact Latin cognate *niul|em*<sup>v</sup> (nominative *nix*<sup>v</sup>) show simply the closed short front-vowel — not a diphthong beginning or ending in it. The Greek verb *νίφει*<sup>v</sup> 'it is snowing', *νίφε*<sup>v</sup> (imperative, addressed to the storm-god Zeus), etc., has the vowel of the first syllable invariably long, according to the meter, and has been emended to *νείφει*, *νείφε* not only by modern scholars but by their medieval predecessors. Even if that diphthong is well established in the Greek verb, the IE evidence as a whole shows it to have been notably unstable in the noun. But at any rate the IE languages, without exception, right after the *n* have a prominent vowel, never a reflex of the consonant \*ǵ<sup>wh</sup> (Pokorny, *InEtWö*, I, 974). That is unlike the {-lg-} or {-lj-} of the noun in certain Semitic languages; for the IE noun consisted of FOUR indispensable phonemes, except that *sn-* was simplified to *n-* in those languages which did not tolerate such a consonant-group at the beginning.

**2.Nf.** The relation of the IE to the Semitic noun is all the more enigmatic because the IE reflexes, compared with one another, are so anomalous in their vocalism, whereas the Semitic reflexes are so typical. We would be tempted to dismiss the IE-Semitic etymology as ill-founded in spite of the three consonants corresponding fairly well, including the *n* : {l} (cf. **2.Oa**); but a unique Hebrew verb-form bridges the gap: *נִשֵּׁלֶגַע*<sup>v</sup> {ta|šlēġ}. These two vowels

<sup>169</sup> See Nandriş, *OIChSigr*, 14.

<sup>170</sup> The vowel *a* is long, having resulted from prehistoric simplification of the Germanic diphthong: [ai] > [ā]; and this [ā] became *o* in Middle English.

seem to characterize it as the jussive of the causative conjugation, but the rather obscure context in Psalm 68:15 leaves doubt whether the jussive meaning 'let it snow' would fit. In Hebrew poetry relics turn up of a jussive form being used in a preterite sense;<sup>171</sup> so 'it snowed' is possible. Neither can 'it snows' be excluded. Besides, in many Semitic etymologies this accented {e} is the regular Hebrew counterpart to Arabic and Akkadian {i}.

I am inclined to view the IE noun as an extremely old word that was adjusted only in part to the IE system of vowels and diphthongs as they developed. Since the Semitic territory lay mainly to the south of the IE, the word must naturally have diffused to the less snowy region somewhat later; or, at any rate, circumstances among the Semites were less conducive to the preservation of an archaic anomaly. The Semitic noun evinces, rather, the structure normal at the time when triconsonantality was established as the dominant pattern among nouns, and the most favored vocalism for nouns was {CaCC} ({CéCéC} in Hebrew). Moreover, an alternative vocalism with {i} ({é} in Hebrew) before the last consonant was not yet readily available for nouns, although it may have been common enough for adjective or stative participles by that time.<sup>172</sup>

But the Semitic verb-system could accommodate {-šlég}, though only in the causative conjugation. The Arabic cognate appears in لَمْ تَنْلِجْ {lam tu|βlij} 'it did not snow' ("Form IV", corresponding more or less to the Hebrew causative).<sup>173</sup> The source may have been an IE verb something like the Irish *snig*|*id*<sup>√</sup> (which can also mean 'it is raining'). Most of the IE languages, however, have verb-forms with a diphthong, as in the Greek νεῖϕ|εῖ, or a reflex of a diphthong, or a nasal infix in the root, as in the Latin *nīngu*|*it*<sup>√</sup> — which alone in all the IE languages meets the condition for preserving both the velar and the labial component of the prehistoric labio-velar.<sup>174</sup>

<sup>171</sup> Cf. the rule of Arabic cited on p. 7 of the Introduction.

<sup>172</sup> It would follow that the Hebrew noun {Hbcér} 'enclosure' (1.Id) was borrowed at a later time. Certainly it expresses a more advanced culture.

<sup>173</sup> تَنْلِجُ {tuβliju} 'it is snowing' or 'it will snow'. My colleague, Prof. Khalil Semaan, vouches for these as good Classical Arabic.

<sup>174</sup> However, *ningit*<sup>√</sup> is also well attested. Between vowels the complex consonant is reduced to [-w-]: the noun *niuem*<sup>√</sup> (accusative) and the verb *nīuit*<sup>√</sup>, a rare synonym of *ning(u)it*.

**2.Ng.** The Avestan {snaēžaiti}<sup>√</sup> 'it is snowing' is particularly relevant, not because its diphthong, transliterated {-aē-}, is echoed anywhere in Semitic, but because of two other features:

(1) The sibilant {ž} (as in our word *azure*) is the next thing to the Arabic fricative {j} (as in *jay*). The latter could have developed from a common Semitic {g}, quite out of contact with Avestan or any other Iranian dialect; but there is no decisive evidence one way or the other.

(2) The third person singular ending {-ti}<sup>175</sup> is identical with the 'she' ending of the Arabic perfect in 'ثَلَجَتِ السَّمَاءُ' {ʔaṣṣamāʔu} (ʔaṣṣamāʔu), literally 'the sky (has) snowed'.<sup>176</sup> The gender distinction in Semitic verbs is all the more intriguing because this IE ending is apparently cognate to the Semitic FEMININE (cf. **2.Bc,Ca**). The noun 'sky' is usually feminine in Arabic (unlike its Hebrew, Aramaic, and Akkadian cognates);<sup>177</sup> but apart from that expressed feminine noun, a verb related to the weather is feminine in Arabic without any subject for it to agree with (as in **2.Nf**). The evidence in Hebrew is meager and divided; so we find no rule as to when a weather verb will carry a 'she' prefix or suffix, and when instead it will be formally masculine. However, the one occurrence of the verb 'snow' {tašlēg} (Ps. 68:15) is feminine (**2.Nf**; likewise fem., רָאָה מָטָר {ṭa| m ṭīr} 'it rains/will rain', Amos 4:7).

While IE verbs show no gender, the Latin and Greek noun is feminine:

*nix* ... *cāna*<sup>√</sup> 'white snow' (nominative, Lucretius 3.20-21)

νίφα λευκήν<sup>√</sup> " " (accusative, Hesiod, *Op.* 535).

<sup>175</sup> The {-i-} right before {-t-} is in anticipation of the {-i} after it — a prominent characteristic of Avestan phonology (cf. **2.Jb**). The Sanskrit स्निह्यति<sup>√</sup> {snihyati} means 'it is moist, sticky'; after the migration to a warmer climate, that part of the former experience with falling snow lingered and could still be applied to somewhat comparable sensations.

<sup>176</sup> Also 'ثَلَجَتِ السَّمَاءُ' {ṣalamāʔu} (ʔaṣṣamāʔu) with a verb of "Form I", which corresponds to the simple conjugation in Hebrew, but שָׁלַג is not attested in the simple conjugation; the perfect would not be שָׁלַגְתִּי {šlāgṭī} but הִשְׁלַיְתִי {hišlīyṭī}.

<sup>177</sup> An unrelated Egyptian word for 'sky', {nw.t}<sup>√</sup>, is feminine (as Gary Rendsburg remarks); so too is the more usual {p.t}<sup>√</sup> feminine. In Arabic when the subject of the verb is masculine — e.g. 'أَتَلَجَّ الْيَوْمُ' {ʔaṣṣamāʔu} (ʔaṣṣamāʔu) 'the day was snowy' — that of course excludes the feminine {-ti}.

The cognate nouns in other IE languages, however, are masculine; and so too is the noun for ‘snow’ in Semitic. The inconsistency seems to take us back to the formative period of gender in prehistoric IE and Semitic; between the two, the early manifestations of either feminine or masculine gender overlap to a surprising extent.

**2.Nh.** The odd Semitic treatment of the IE consonant group *sn-* was enough to block my predecessors from perceiving any connection. As they were harking back to a very distant *Ursprache* and accordingly had little interest in mere borrowings — even those which came about in prehistoric times<sup>178</sup> — they did not ask themselves what was likely to become of such a group if a word containing it spread to Semitic. But it behooves me to ask why, if this is indeed a loan-word from IE, no Semitic language has either [s] or [n].

An initial consonant group is, generally though not absolutely, more prone to change than a single consonant, when a word enters a strange language (or even in the internal transmission of a language over many generations). Unless it sounds just like a group already familiar from the vocabulary of the borrowing language, it invites phonological restructuring to make it more congenial. Now the evidence within Semitic points to the Arabic {βl} as preserving the earliest Semitic sequence. The Hebrew and Akkadian {š} and the Aramaic {ṭ} regularly correspond to Arabic {β}, as in {βawr-} ‘bull’ (**1.Ab-c**). In these other Semitic languages the interdental fricative appears to have lost its distinctive features, merging with another consonant. If the word for ‘snow’ had somehow been retained in Geʿez and the modern languages of Ethiopia, we might expect to find \*{s-}, matching the IE sibilant (cf. Geʿez {sor}, **1.Ac**, note 10), and perhaps a labio-velar too, matching the Latin *ninguit* (cf. {gʷərɲ}, **1.Ka**). But of course this northerly word is gone without a

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<sup>178</sup> Yahuda, however (*HeGr*, 37, 593), did derive the Hebrew שֶׁלֶג, Aramaic תִּלְגַּ, and Arabic ثَلَج from Greek χάλαζα ‘hail’. Also Reinisch, *EiUr*, 114, under words for ‘rain’, adduced not only “Lit. *snega-s*, Altslav. *sneg-u*, Got. *snaiw-s* Schnee ... [Hebrew] שֶׁלֶג *šeleg*,” but also the Egyptian hieroglyphs which he transliterates *šene ye* — more accurately, in Erman – Grapow, *WbAeSp*, IV, 507, šnʿ (in my notation {šnʿ}) ‘Unwetter, Gewölk’, stormy weather for that hot, dry country, though not snow. (For the reference to Reinisch I thank Prof. Anatoly Liberman of the University of Minnesota.) Egyptian had no {l}; so {n} is as close as the language can come to the Semitic {l} and at the same time corresponds perfectly to the *n* of IE.

trace in that tropical setting; and where the Bible calls for 'snow', the Geʿez version falls back upon {barad}<sup>√</sup>, the Semitic word for 'hail' (Hebrew בָּרַד<sup>√</sup> {barād}, Arabic بَرَدَ<sup>√</sup> {barad|u n}, etc.).

In the indubitable etymology of {ḫawr-}, the Arabic {ḫ-} (Hebrew and Akkadian {ḫ-}, Geʿez {s-}) corresponds not to an IE s- but to Norse ḫ- and to t- in Latin and other branches of IE. This argues against tracing both etymologies back to a common proto-language — if anyone were so inclined. But the discrepancy, as it stands, shows only that the two words moved separately; for experience with snow had no particular connection with bulls. The diffusion of \*sn(V)yg<sup>W</sup>- from IE to Semitic, and of something like {ḫawr-} probably in the opposite direction (**1.Ab**), need not even have occurred during the same prehistoric period. Internal Semitic etymologies suggest there was a time when what we would call the plain sibilant [s] was lacking (*InEuSeLa*, 325-30). The Hebrew letter ש, which has indeed been pronounced thus (at least since the later centuries of the pre-Christian era), and its cognates that share this pronunciation [s] occur hardly at all in the basic vocabulary, and definitely not in any prefix or suffix.

The circumstances therefore imply that when the Semites heard the IE sn-, they could not identify the first consonant with a \*[s] in their own phonology, and so resorted to a sound more accessible to them. That is similar to what we found in the word for 'sit' (**2.Bf-g**): Latin sed-, Sanskrit {sad-}, etc.,

but Arabic (dialects) {ṣib}, Heb. {šēḇ}, Aram. {ṭiḇ}.

**2.Ni.** The IE nasal -n- would seemingly have been easy for Semites to reproduce. However, their lateral {-l-} may have resulted from a compromise between the nasal and the following semi-vowel [-y-], as the four-consonant word underwent adjustments to the Semitic triconsonantal structure. Particularly if their IE model was like the Lithuanian *sniēgas*, Polish *snieg*<sup>√</sup>, and other Slavic forms (**2.Ne**), rather than the Old Prussian *snaygis*, the juxtaposed or combined [-ny-] was liable to a drastic modification.<sup>179</sup>

<sup>179</sup> Within IE something of the sort would account for a discrepancy in the basic adjective 'another': Sanskrit अ॒न्यः<sup>√</sup> {anyáḥ} but Greek ἄλλος<sup>√</sup>. The Latin *alius*<sup>√</sup> testifies to an intermediate treatment of the consonant group [-ny-]. Pokorny, *InEtWö*, I, 26: "Über einen allfälligen idg. Lautwandel von \*an̥ios zu \*al̥ios s. Debrunner REiE 3, 1 ff." That volume of *Revue des études indo-européennes* (publ. in Bucharest c. 1940) seems not to have

**2.O. Tricons. Sem. (Heb.)** {gənēḅōt-} : *IE (Gr.)* κλέπος 'stolen thing'  
 {gənūḅ(ə)ṯīʔ} 'stolen' : κρυψι- 'hiding, hidden'

**2.Oa.** The Greek κλέπος<sup>1</sup> and the Hebrew {-ḡ(ə)neḅōt-} in **גְּנֹבְתוֹ**<sup>1</sup> 'for his stolen thing' have exactly the same meaning — moreover a *LEGAL* term probably inherited from remote prehistoric experience (Levin, *SoSt*). The morphological structure matches what we saw in \*βρέχος : {bərəkōt-} — namely {-é-os} : {-è-ōt-} (**2.Ma**).<sup>180</sup> The feminine gender in Semitic, corresponding to the neuter in IE, belongs naturally to a *Sitz im Leben* where the typical stolen thing was an animal from the herd, consisting mainly of females and their young, the great majority of which were also female (**1.Li**).

The consonants diverge greatly, {kl-p- : ḡ(ə)n-b-};<sup>181</sup> but the divergence is consistent in the first and third — voiceless in Greek, voiced and open to fricativation in Hebrew. {l : n} is also a credible divergence, especially if we posit ample time (cf. **1.Lb**, **2.Nf**, and Addenda, p. 457).

The verb-root is fairly widespread in Semitic and IE (Möller, *VeInSeWö*, 134), but only these two languages have the {-é-Os/ṯ} derivative — a stative participle of feminine gender in Semitic '(something) stolen', but a neuter substantive in IE.

In the verb itself, given three full consonants not liable to any reduction, the only neat fit that we can expect is in the perfect tense: [649-653).

κέ|κλοφεν<sup>1</sup> : **גָּנַבְתָּ**† {gənōbān|iʔ} 'he has stolen me' (*InEuSeLa*,

The Bible actually has **הֵי גָנַבְתָּ**<sup>1</sup> {gənōḅ|úʔ|kō} 'they have stolen you' (II Sam. 19:42). Without an object-suffix the root would not be vocalized like the Greek -κλοφ-, but instead **גָּנַבְוּ**<sup>1</sup> {gənōḅ|úʔ} 'they have stolen'

(pausal **גָּנַבְוּ**† {gənōḅ|uʔ}).

Hebrew (in common with Aramaic) is characterized by fricativation of plosive consonants after a vowel; so the {ḅ} is a voiced fricative, presumably bilabial as in Spanish rather than labio-dental like the English *v* (cf. **2.Xa**,

reached any library in North America, probably because Romania was then drawn into the Second World War on the side of Germany.

<sup>180</sup> If 'for his stolen thing' (Ex. 22:3) had come at the end of a clause rather than a verse, it would have been accented **גְּנֹבְתוֹ**†, or without the 'for' prefix **גְּנֹבְתִי**† {gənēḅōt|ōʔ}.

<sup>181</sup> When something is prefixed to the root, the weak vocalic transition {ə} between the first and the second radical consonant may be reduced to virtually nothing. The standard Tiberias pointing of the Bible text uses the same mark , regardless; see Levin, *DeAlRe*, 69-71.



note 263). Among the IE languages fricativation is most prominent in Germanic: Greek κλέπτουσι(ν)<sup>182</sup> 'they steal', becomes {hlifand}<sup>182</sup> in Gothic, with a voiceless fricative {-f-} instead of the Greek voiceless plosive {-p-}, as well as {h-} instead of the other voiceless plosive {k-}.<sup>182</sup> It is debatable whether a tendency to fricativate was already operating in part of the Semitic and part of the IE sphere during the period of prehistoric contact.

**2.Ob.** לִּילְיָ וּגְנָבְתִּי יוֹם וּגְנָבְתִּי {gənub(ə)ṭi'y yó'w m u'gənub(ə)ṭi'y lǝy(ə)l<sup>h</sup>} 'stolen by day and stolen by night' (Gen. 31:39) is the unique instance of an abnormal feminine singular form of the passive participle, just as {məle?aṭi'y mišpōṭ} 'full of justice' is the unique instance of an abnormal feminine singular form of the adjective (**2.Jd**). And

as {məle?aṭi'y} corresponds impressively to the Greek πλησι-,  
{gənub(ə)ṭi'y} seems to correspond " " " κρυψι- 'hiding',

at least structurally, in a few compound adjectives such as κρυψίνους<sup>183</sup> ([krüpsínōs]<sup>183</sup> in Attic) 'hiding one's thought'.

The Greek verb-root is {(-)krup<sup>h</sup>-}, as shown by the aorist passive participle κρυφείς<sup>184</sup> 'hidden' (Sophocles, *Aiāx* 1145)<sup>184</sup> and the adverbs κρύφα<sup>184</sup>, κρυφῆ<sup>184</sup> 'in secret' (Doric κρυφαί<sup>184</sup>). Can this and {(-)kl-p-} both be cognate to the same Semitic root? It seems possible, if due to SEPARATE contacts; but the semantic match between {gənub(ə)ṭi'y} 'stolen' and κρυψι- 'hiding' is vague.

The meaning of the root itself 'steal' : 'hide' is easier to connect. But a difficulty is posed by the function of one — at least — of the two subsidiary morphemes in {-u-ṭi'y}, the former being passive and the latter feminine, whereas [-si-] in this Greek word (and most others with -σι-) is associated with active meaning. Even if [-si-], as in πλησιφάης, was in origin predominantly feminine and not committed to the active as opposed to the stative or passive, still we cannot cite κρυψι- as a surviving vestige of this, unless we interpret

<sup>182</sup> {hlifand} corresponds to the Latin *clepunt*† segment by segment, also to the Greek [kléptōsi] except for the -τ- (which represents a prehistoric \*y). The Doric form κλέπτου-τι† shows the correspondence more obviously.

<sup>183</sup> I use ¯ above a vowel to show length, but ¯ above a consonant to show fricativation (Introduction, note 14).

<sup>184</sup> Later ἐκρύβη<sup>184</sup> 'he/she/it was hidden' (John 8:59, etc.).

the compound κρυψίους 'hidden as to thought'. Such an expedient, however, runs the risk of being too broadly applicable, so that the morphological alternations associated with active vs. passive or stative meaning — which matter a lot in comparative grammar — would be jeopardized.

The most satisfactory solution is not to dismiss {gənuḅ(ə)ṯiʔ} : κρυψι- but to separate the function of {-ṯiʔ} : [-si-], at least originally feminine, from the function of {-u-}. This vowel before the third consonant of the root is plainly associated with passive meaning in Hebrew, as in the Proverb (9:17) מִתְּקוֹרִים גְּנוּבִים יְמִיתֻם {məyīm-gənuḅīm yimtṣquw} 'stolen waters are sweet' (masc. sing. גְּנוּבִי {gənuḅi}). Within an IE root Specht (*SaU*, 49) argues that the vowel -u- conveys a somewhat vague sense of holiness: "Aber die gnädige Gottheit gibt dem Menschen nicht nur Freuden und Genüsse, sondern versagt ihm auch Geheimnisse, deren Erkenntniss ihn unglücklich stimmen würde.... Von dieser Einstellung aus wird nunmehr der u- Laut in Wörtern begreiflich: griech. 'καλύπτω' ['I cover'], griech. 'κρύπτω' ['I hide']...."<sup>185</sup> This seems an unpromising line of investigation; but I would not reject it totally, as long as we remain uncertain of any other source for the -u-.<sup>186</sup>

**2.Oc.** A little more light comes from the apparent Arabic cognate to the Hebrew {gənuḅ} 'stolen'. جَنُوبٌ {januḅ|u n} means 'south (wind)', which offhand seems semantically unrelated; but some direction words are liable to be derived from whatever means 'hidden' — e.g. Hebrew צָפוֹן {cəpōw n} 'north', resembling {cəpōw n} in צָפֹן {cəpōw n} 'and hidden'.<sup>187</sup> {cpn} in Ugar

<sup>185</sup> See also Wilhelm Havers, "Zur Entstehung eines sogenannten separaten u- Elementes in den indogermanischen Sprachen," *Anzeiger der Oesterreichischen Akademie der Wissenschaften, philosophisch-historische Klasse*, 8 (1947), 139-165.

<sup>186</sup> Gary Rendsburg interprets גִּנְבִּי as "an inflected passive participle, with the first person singular perfect ending, thus 'I was robbed'. This usage is known only from Aramaic (specifically Galilean Aramaic among the old dialects) and from a half-dozen or so examples in the Hebrew Bible." Accordingly the last four words of Gen. 31:39 would mean 'I was stolen from by day, and I was stolen from at night.' However, the accent on the final syllable {-ṯiʔ} argues against taking it for the subject-suffix 'I'.

<sup>187</sup> Startlingly reminiscent of the Greek ζόφον 'darkness, gloom' (accusative, SELDOM FOUND IN ANY OTHER CASE), but as a direction this means 'west', not 'north'; and ζέφυρος 'west wind' adds both confirmation and complication to my Semitic-IE etymology of {g(-)n(-)b} : {k/ṯ-/p}. A relation between the two Greek words referring to the west

itic is a holy mountain, which must have been well to the north of Israel.<sup>188</sup>

The Arabic passive participle most like {gənúʿb}, but with a prefix, is مَجْبُوب § {ma|jnuʿb|u n}, which means 'put away' (among other senses).<sup>189</sup> How to interrelate the meanings of {jnb} is a semantic problem within Arabic, unless dismissed as a case of mere homophony. Moreover it opens up the possibility that the meaning 'steal' in Hebrew גָּנַב, and in Greek κλ-π- (as well as the IE cognates), arose by euphemism — i.e. the disagreeable reality of A utterly depriving B of something in B's possession was communicated allusively through a word which in itself meant only that B hid the thing or put it away.

**2.Od.** If we can corroborate the idea that the meaning 'steal' was originally conveyed through euphemism, it will give a valuable insight into one psycholinguistic detail of prehistoric times: how part of the human race developed a specific moral attitude in conjunction with verbal expression. On the IE side we have evidence of a biconsonantal root \*(-)k(-)l- 'hide'; e.g. Latin oc|cul|e<sup>v</sup> (imperative singular; see Pokorny, *InEtWö*, I, 553-554). The triconsonantal \*(-)kl-p- 'steal' could be derived from that. But as its Semitic triconsonantal counterpart does not so uniformly carry the meaning 'steal' rather than 'hide' or 'put away', it would seem that the triconsonantal \*klp/gnb originated as a vigorous, perhaps sarcastic expression for 'hide' (not necessarily 'steal'), and that the basic meaning 'hide' lingered in part of the Semitic area.

Even within Greek the seemingly clear demarcation between κλ-π- 'steal', with {-l-}, and κρυφ- 'hide', with {-r-}, is complicated by another verb that can hardly fail to be related:

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is recognised by all, but there is no credible IE etymology (see Frisk, *GrEtWö*); the fullest treatment by Ernst Risch, "Zephyrus," *Museum Helveticum*, 25 (1968), 205-213. Comparing them to the Hebrew {cəḇḏ<sup>n</sup>/cəḇḏ<sup>n</sup>} 'north/hidden', I point first to the Greek vowel alternation <sup>o</sup>/u, and furthermore to the {ʿ/ḥ} so characteristic of an archaic stage of IE morphology (2.Le-f). Neither alternation was noted by an earlier researcher, because -ov was taken for merely an accusative case-ending of the "second declension"; {cəḇḏ<sup>n</sup>}, however, suggests an originally different morphological interpretation of ζόφον.

<sup>188</sup> J. P. Brown identifies it as ὄρος Κάσιον<sup>v</sup> in northern Syria (now Jebel Aqra').

<sup>189</sup> Corresponding to the Hebrew masc. pl. {gənuʿbīʾm} is مَجْنُوبِينَ § {ma|jnuʿbīʾna} (gen./acc. absolute), and to the Hebrew fem. sing. {gənuḇ(ə)ṭīʾ} is مَجْنُوبَةٌ § {ma|jnuʿbati} (genitive construct).

κάλυπτε<sup>√</sup> 'cover' (imper. sing.), which sometimes overlaps the meaning of  
 κρύπτε<sup>√</sup> 'hide' " " "

That the third consonant of the root is the VOICED labial {b}, comes out only in the noun καλύβη<sup>√</sup> 'hut'; for in all the verb-forms such as κάλυπτε [kálupte] and the future καλύψω<sup>√</sup> [kalúpsō] 'I will cover', the immediately ensuing consonant neutralizes any distinction between the voiced labial β [b], the voiceless labial π [p], and the voiceless aspirate labial φ [p<sup>h</sup>].<sup>190</sup>

Neither do the IE cognates uniformly match one meaning 'steal' with *-l-* and the other meaning 'hide' or 'cover' with *-r-*. While indeed the Latin *clep|e*<sup>√</sup> 'steal' (imperative sing.) and the Gothic {hlif|an}<sup>√</sup> 'to steal' accord with the Greek κλεπ-, the Old Prussian *auklipts*<sup>√</sup> means 'hidden', and on the other hand the Lithuanian *krópti*<sup>√</sup> means 'to steal' (Pokorny, *InEtWö*, I, 604, 617) — which sounds as if in the Baltic languages the *-l-* verb meant 'hide' and the *-r-* verb 'steal'.

Having sampled so much fluctuation in connection with the second consonant, we come back to the noun κλέπος in Greek, {ḡ(ə)nəḃōt-} in Hebrew, which means precisely the same in both languages, 'stolen thing'. {l : n} is still the loosest part of this correspondence, but quite acceptable in view of all the rest (cf. 2.Nf,i).<sup>191</sup>

<sup>190</sup> Another noun κέλφος<sup>√</sup> 'pod, husk, casing' seems loosely associated with this Greek verb that means 'cover', notwithstanding the vowel ε instead of α and the length of the second vowel υ.

<sup>191</sup> The Armenian noun {koloput}<sup>√</sup>, cited by Sophus Bugge, "Beiträge zur etymologischen erläuterung der armenischen sprache," *ZeVeSp*, 32 (1893), 51, 63, with the Latin gloss 'furtum, latrocinium, spolium, praeda', is very problematical for Indo-Europeanists; see Holger Pedersen, "Armenisch und die nachbarsprachen," 39 (1904/05), 378; Walde – Pokorny, *Ve Wö*, I, 497. {-ut} is otherwise an adjective-forming suffix in Armenian (Bugge, 80-81). In Armenian to distinguish between the many, many loan-words and the IE heritage can be quite difficult for the experts, and *a fortiori* for anyone like me. Still I am struck by the structural resemblance to the Hebrew noun תַּבְּרִיט<sup>√</sup> {gannōḃ|úwī} 'thievery' (cf. {gannōḃ} 'thief', 1.Ih). It is documented only in dictionaries of modern Hebrew, and could have been formed recently on the model of תַּחֲזִינ<sup>√</sup> {hazzōn|úwī} 'cantillation' from חֲזָן<sup>√</sup> {hazzōn} 'cantor', etc. Nevertheless {gannōḃúwī} must go back much further in Aramaic; for it is attested, with the suffixed definite article {-ōʔ}, as the Syriac word for 'theft' (Payne Smith, *CoSyDi*, 74). I venture to suggest that Armenian got {koloput} from some other IE language, which had formed it under Aramaic influence — perhaps early enough for the IE triconsonantal root to be perceived as phonologically cognate, not just semantically equivalent, to the Semitic {G-n-B}.

**2.Oe.** The Arabic noun جَنْبٌ<sup>v</sup> {janb|u n} 'side' or 'half' has the same three consonants; and the Germanic languages show a remarkable recurrence: Old Saxon *half*<sup>v</sup>, Old English *healf*<sup>v</sup>, Gothic {halb|a}<sup>v</sup> (accusative singular feminine), etc.<sup>192</sup> Apart from the familiar meaning 'half', Gothic also uses {in þizai halbai}<sup>v</sup> to mean 'on this side' (translating ἐν τούτῳ τῷ μέρει<sup>v</sup>, II Corinthians 3:10, 9:3; on -ω rather than -ω see **5.De**, note 85).

Möller (*VeInSeWö*, 134) treats this noun as primary and derives the verb from it: "kl-p- trans[itiv] 'zur Seite bringen, stehlen'" — by which I infer that the meaning 'steal' was arrived at euphemistically, as though the thief pretended just to take something aside. More likely than not, Möller's conjecture was right; for the opposite chance is minute: that there were two independent, homophonous triconsonantal IE/Semitic roots, from which separate words survive. Still less probable is it that IE and Semitic languages would quite independently and accidentally hit upon such a double semantic parallel, along with the phonetic parallel exemplified by {(-)n(-)b} : h(-)l(-)f.

This Arabic noun {janb-}, as in جَنْبِي<sup>s</sup> {janb|i<sup>v</sup>} 'my side', has Semitic cognates with some difference in meaning:

Hebrew גַּבִּי<sup>v</sup> {gabb|i<sup>v</sup>} 'my back',

Aramaic ܓܒܝܐ<sup>v</sup> {gabb|á h} 'her back' —

which, in a way, is still a half of the body; and at least in the Syriac dialect of Aramaic it carries the meaning 'side' as in Arabic. Moreover, the Arabic verb جَنَبَ<sup>v</sup> {janaba|h u} 'he (has) hit him/it in the side, he took/has taken him/it aside' seems plainly denominative; it is not 'he has stolen him/it', like جَنَبَ<sup>†</sup> {gənuḅ|ó<sup>w</sup>} in Hebrew (cf. **2.Oa**). But the second meaning of the Arabic verb slides over into 'remove', and from there it could easily be understood as 'steal' through euphemism; for we sense that neither the perpetrator nor even the victim liked to express it outright.

'Steal' became the outright meaning of the verbal root somewhat unevenly in Semitic, as well as in IE. It never quite appears in the Arabic {(-)j(-)n(-)b(-)}, although this is the very language where we find the key to the semantic link between the distant Germanic phenomena of *half* and {hlif-} 'steal'.

<sup>192</sup> This part of the etymology came to me from J. P. Brown.

The Sanskrit verb कल्पते  $\sqrt{\text{[kálp|atē]}}$  'it fits, accords with', which Pokorny (*InEtWö*, I, 926) links to the Germanic noun 'half', is not close semantically, unless we think of 'it matches, it tallies' like one half with the other. The adjective कल्पम्  $\sqrt{\text{[kálpam]}}$  means 'fit, equal'. Without the Semitic etymology, the phonetic similarity to the Greek κλεπ- and Latin *clep-* 'steal' would seem quite accidental.

**2.P. Tricons. Sem.** {(-)T(-)r(-)P(-)} : *IE (Gr.)* (-)δρ- $\pi/\phi$ - 'tear, pluck'

**2.Pa.** Parallel within Hebrew to {gəneḇḏ<sup>h</sup>} in גֵּנֶבְדָּה  $\sqrt{\text{[gəneḇḏ<sup>h</sup>]}}$  'the stolen thing' (most typically a beast; **1.Li** and *SoSt*, 319-320, 325-328), is טָרַף  $\sqrt{\text{[Təreḫ<sup>h</sup>]}}$  'a mangled beast'.<sup>193</sup> 'His mangled beast' would be טָרַףּוֹ  $\sqrt{\text{[Təreḫ<sup>h</sup>ō]}}$ . Much like it, in Greek, from compound adjectives such as νεοδρεπέις  $\sqrt{\text{[neodrepeis]}}$  'fresh-plucked' (nom./acc. plural) we can posit a neuter noun \*δρέπος 'something plucked' (**2.Ma**, **2.Oa**). The main semantic difference is that the Hebrew noun is an animal whereas the Greek is something from a plant.

But the same Hebrew root also forms an adjective טָרַף  $\sqrt{\text{[Təróḫ]}}$  'plucked', referring to an olive-leaf (Gen. 8:11, cf. Ezek. 17:9). So the overlap in meaning is substantial and assures us that we are not dealing with an irrelevant similarity in mere sound. Conversely, the gloss of Hesychius δρέμμα· κλέμμα  $\sqrt{\text{[dremma·klemma]}}$  (i.e. 'stolen thing') makes it likely that the root δρεπ- in Greek was not altogether limited to plucking from plants but could be extended like *rip off* in recent English slang. The attestation of δρέμμα adds, further, to the case for its equivalent \*δρέπος, like κλέμμα/κλέπος and other such pairs.<sup>194</sup>

**2.Pb.** Both in Semitic and in IE the root is rather widely distributed, but the morphological correspondences are meager. The Greek imperative is δρέπε<sup>†</sup> (-δρεπε in ἀπόδρεπε  $\sqrt{\text{[apodrepe]}}$  'pluck off'), δρέπ' or -δρεπ' before a vowel. Hebrew triconsonantal verbs never have {-ē-} in the imperative; but the Arabic imperfect يَطْرِفُ  $\sqrt{\text{[yaTrifu]}}$  (perfect طَرَفَ  $\sqrt{\text{[Tarafa]}}$ ) entails an imperative

<sup>193</sup> Cf. {nəḇelḏ<sup>h</sup>} 'a corpse', usually from natural causes (**2.Lc**).

<sup>194</sup> See *SoSt*, 335-336. Likewise βρέγμα in βρέγματα· ὕσματα  $\sqrt{\text{[bregmata·usmata]}}$  'rains, showers' (a gloss of the grammarian Erotianus) enhances our reconstruction of \*βρέχος (**2.Ma**).

I owe this whole etymology to J. P. Brown, although the consonantal part of it goes back to Bomhard, *ToPrNo*, 211.

أَظْرَفُ § {(?)Trif} with a front-vowel.<sup>195</sup> The ordinary meaning, however, of this verb in Arabic is 'wink', apparently not related to 'pluck' or 'tear'.

With a stative vocalization, given in the feminine as

طَرَفَتْ § {Tarifat} (perfect), تَطْرَفُ § {taTrafu} (imperfect),

the meaning is 'she grazed<sup>d/s</sup> separately'. And طَرَفَةٌ § {Tarifatun} (pronounced [Tarifah]§ before a pause), which is phonetically a perfect cognate to the Hebrew {Təpēḏ<sup>h</sup>}, means 'a waywardly grazing she-camel' (Lane, *ArEn Le*, 1841-44).<sup>196</sup> How to reconcile the diverse Hebrew and Arabic words within Semitic etymology is no small problem.<sup>197</sup> But anyhow the Arabic, so far, does not contribute anything positive to the comparison with the Greek -δρπ-.

The Slavic languages have forms such as дрáпaть § {drápat<sup>y</sup>} 'to scratch, to tear' in some Russian dialect or dialects<sup>198</sup> (дря- {dr<sup>y</sup>á-} in standard Russian, but apparently rare). It has many Slavic cognates, which do not seem to share the meaning 'tear' but only 'scratch'. The present tense must have a third person singular дрáпaeт § {drápaet} 'he/she scratches/tears', somewhat reminiscent phonetically of the Arabic {Tarifat}.<sup>199</sup>

**2.Pc.** Greek also has a verb exemplified by δρύπτειν § 'she tore, she mangled'. A triconsonantal root δρ-φ- [-p<sup>h</sup>-] is evidenced by the noun derivatives, again from the glossary of Hesychius: δρυφή· ἄμυχή, καταξυσμή<sup>†</sup>

<sup>195</sup> The letter | (?) is always written in such an imperative, but [ʔi-] is pronounced only at the beginning of an utterance.

<sup>196</sup> With the 'my' suffix, Arabic طَرَفْتِي § {Tarifat|i<sup>y</sup>} : Heb. תַּרְפִּי § {Təpēḏi|i<sup>y</sup>}.

<sup>197</sup> We might speculate that any beast grazing alone is most vulnerable to a predator; and making allowance for variety and change in the herding customs of the Semitic peoples, we would reason that after an attack by a predator a smaller beast, such as the Hebrews kept, would usually be found dead and partly eaten, whereas a camel had a better chance to escape with some wounds.

<sup>198</sup> Erich Berneker, *Slavisches etymologisches Wörterbuch* (Heidelberg: Carl Winter, 1908-13), I, 220, does not identify which dialect(s).

<sup>199</sup> The Slavic [a], however, corresponds normally to a long vowel in other IE languages. A Greek cognate with [ɔ] appears in a confusing gloss of Hesychius: δρύπτειν· διακόπτειν ἢ διασκοπεῖν. Ἀισχύλος Ψυχαγωγούς<sup>†</sup> 'to cut through, or to look through [= examine]; Aeschylus in *The Soul-escorts*'. According to Hesychius' first synonym, δρωπ- would be an alternant of δρπ-.

'scratching, scraping down' and δρυφοί· ξέσματα<sup>√</sup> 'scrapings'. The former might correspond to the feminine of the Hebrew passive participle טְרוּפָה<sup>√</sup> {Təruw̄p|ṣ<sup>h</sup>} 'scratched, torn' (found only in unvocalized texts); the latter to the masculine plural construct טְרוּפִּי<sup>√</sup> {Təruw̄p|é<sup>y</sup>} 'scratched, torn' (by so-and-so). The vowel -u- in Greek is hard to account for except through such a Semitic contact; for an <sup>ε</sup>/<sub>v</sub> alternation is strange to IE, and the rather similar case of κλέπ-/κρυφ-. (2.Ob)<sup>200</sup> makes a Semitic contact more plausible.

However, no form of the PASSIVE participle of טָרַף occurs in the ancient corpus of the Bible. This can be explained by the prominence of the STATIVE {Tərep̄ṣ<sup>h</sup>}: the experience of the Hebrews was mainly with the animal IN THAT WRETCHED CONDITION after the struggle with the predator was all over; they were less interested in how IT HAD BEEN DONE.

The stative noun {Tərep̄ṣ<sup>h</sup>}: \*δέπιος 'something plucked' is decidedly the strongest part of this etymology.

**2.Pd.** The correspondence of the first consonant in the root {T}: δ is of a piece with {q}: γ in {qone<sup>h</sup>}: -γόνε (2.Ca-b and Levin, *SeEv*, 257) — i.e. a Semitic "emphatic" and, in the ancient IE languages, a voiced plosive. It supports the recent theory that the *d* is from a prehistoric IE voiceless glottalized plosive \*[tʰ], like *g* < \*[kʰ]. No Ethiopic cognate of the root טָרַף, however, has been reported, so as to prove directly a pronunciation [tʰ-]. The reduplicated δ-δ- in δίδυμος 'twin' we found to correspond to {tʰ-} in Semitic, not to {T} (i.e. Hebrew ט, Arabic ط; see 1.Db); this word too lacks an Ethiopic cognate.<sup>201</sup>

**2.Q.** *Triconsonantal Sem. (Heb.)* {(-)ʔ(-)h-ḥ(-)}: *IE (Gr.)* ἄγαπ- 'love'

{(-)r(-)H(-)m(-)} 'love': (*Skt.*) {rām|a m} 'lovely'

**2.Qa.** The Hebrew noun אֶהְבֵּה<sup>√</sup> {ʔahăḇṣ<sup>h</sup>} 'love' is often translated

ἄγάπη<sup>√</sup> in the Septuagint.

<sup>200</sup> Specht (*SaU*, 48) lumps the verb δρύπτω in with miscellaneous others characterized, rather loosely, as ceremonial actions.

<sup>201</sup> A Coptic verb τωρη<sup>√</sup> (also τωρη<sup>√</sup>) 'seize, rob, carry off' and as a noun 'plunder' is cited without any source in more ancient Egyptian. Werner Vycichl, *Dictionnaire étymologique de la langue copte* (Leuven: Peeters, 1983), 220, compares it to the Hebrew verb טָרַף<sup>√</sup> {Təráp} 'he has torn'.



As a common noun ᾡγάπη does not appear earlier; but ΑΓΑΠΙΑ<sup>ᵛ</sup> as a woman's name on a gravestone, in the Thessalian dialect, proves that it was in the Greek language by the sixth century B.C. at the latest — i.e. before any direct influence from the Hebrew Scriptures.<sup>202</sup>

Verb-forms of ᾡγαπ- occur sparingly in the earliest Greek (not counting Linear B); in Hebrew the verb- as well as the noun-forms are frequent throughout. ᾡγαπ- has no IE cognates, and a Semitic source is all the more likely because ᾡγαπ- carries the same nuance as in Hebrew: love in the sense of cherishing, being contented with a certain person, not having or wanting anyone else.<sup>203</sup> That is not the connotation of the verbs φιλεῖν<sup>ᵛ</sup> and ἔρᾱν<sup>ᵛ</sup>, which we also translate 'to love', nor of the nouns φιλαῖ<sup>ᵛ</sup>, ἔρως<sup>ᵛ</sup>; but it is the connotation of στέργειν<sup>ᵛ</sup> and the noun στοργή<sup>ᵛ</sup>, which show the IE Ablaut of [e/o] so typical of Greek. To be sure, the IE etymology of στέρ-/οργ- is cloudy, and the earliest attestation post-Homeric; so we must not flatly assert that ᾡγαπ- had to compete with it from the first. We can only suspect that it did, and that some specific cultural influence, which we may or may not succeed sometime in pinpointing, disposed the Greeks to take in a foreign word which became ᾡγαπ- in their phonology — and besides, they took it in as a verb even more than a noun, unusual though that is in loan-words.

**2.Qb.** The Hebrew verb-form most like the Greek is the infinitive לְאַהֲבָה<sup>ᵛ</sup> {lə|ʔahăḇôḥ<sup>ḥ</sup>} 'to love', identical with the noun, as happens in some other stative verbs too.<sup>204</sup> The Greek infinitive is ᾡγαπαῖν<sup>ᵛ</sup>, with [-ân] contracted from prehistoric \*[-âleen], so that the two languages share

{ʔahăḇôḥ<sup>ḥ</sup> : agapa-}. The Greek imperative singular ᾡγάπα<sup>ᵛ</sup>

would roughly match the Hebrew לְאַהֲבָה<sup>ᵛ</sup> {ʔəḥăḇôḥ<sup>ḥ</sup>} 'do love'

(coaxing imperative, traditionally called "cohortative");

<sup>202</sup> *Supplementum Epigraphicum Graecum*, 19 (1963), 422; Brown – Levin, *EtPa*, 91. This section depends heavily on information from J. P. Brown. See also *InEuSeLa*, 283-284.

<sup>203</sup> In Hebrew there is, besides, the notion of 'relish' (viscerally), most evident in Gen. 27: 4, וְעָשִׂהָ לִי מִטַּעַמִּים כַּאֲשֶׁר אֶהְבֵּתִי<sup>ᵛ</sup> {waʕăšêḥ-lîʔ matʕammîʔm ka-ʔăšêr ʔəḥăḇtîʔ} 'and make me dainties such as I love/relish'. Rabbi H. Hirsch Cohen has called this revealing passage to my attention.

<sup>204</sup> The stative classification, which comes out in the vowels of several forms such as אֶהְבֵּה<sup>ᵛ</sup> {ʔəḥêḇ} 'he love/s/d', does not in itself preclude an object: אֶהְבֵּהוּ<sup>ᵛ</sup> {ʔəḥêḇ|ôʔ} 'he love/s/d him', etc.

but the Greek vowels ᾱ-a- are not subject to any such alternation as we see in the Hebrew.

Hebrew, however, uses this verb also in the “intensive”, though only the “intensive” participle is recorded, and at that only in the masculine plural with a possessive suffix; e.g. **מְאַהֲבֵי** <sup>√</sup> {mə|ʔahăḇ|áy} ‘my lovers’. It is legitimate to posit a causative sense ‘the ones that make me love’ — i.e. ‘arouse love in me’ (cf. **2.Mb**, note 149); but that is not conclusive. Gemination of the middle consonant, which would regularly mark an “intensive” form, does not take place in Hebrew when that consonant is guttural, with the result that the same {-ʔahăḇ-} is pronounced as in the noun and stative infinitive {ʔahăḇ|ṣḥ}. So, if we imagine some partially bilingual Greeks, hearing various verb- and noun-forms in a Semitic dialect much like Biblical Hebrew, it is no wonder they settled, for simplicity, upon one vocalization ᾱ-a-, adapted from a fairly prominent vocalization [-a-ă-] in the Semitic source.

**2.Qc.** Still the consonants present serious problems. For both the first and the second consonant in a Semitic verb-root to be guttural is odd, though not unparalleled. This particular verb is nearly confined to Hebrew and Ugaritic. Another root, however, with similar meaning but normal consonantal structure occurs repeatedly in a passage of Ezekiel, where the subject is a harlot (symbolic of the nation of Israel); e.g. **עָנְתָהּ** <sup>√</sup> {ʕăḡəḇṣḥ} ‘she has courted, made love to’ (?). This verb even combines in one sentence with the participle of the other: **וַתַּעֲנֵב עַל-מְאַהֲבֵיהָ** <sup>√</sup> {wattaʕgāḇ ʕal-məʔahăḇéʔhə} ‘and she made love to her lovers’ (23:5). That the verb **ענב** was foreign to the Hebrew vocabulary normally used by the Biblical authors — including this one — and was brought in by him for the sake of an outlandishly scandalous theme, is indicated by the grossly un-Hebraic form that the preterite verb takes on later in the passage, after the regular {wattaʕgāḇ}:

**וַתַּעֲנֵבָהּ עַל פְּלִגְשֵׁיהֶם** <sup>√</sup> {wattaʕgəḇṣḥ ʕal pīlāḡ(ə)šeʔhéme} ‘and she made love to their concubines’ (23:20).<sup>205</sup> Ezekiel also has the noun (with a

<sup>205</sup> Some recent Hebraists have needlessly inferred that these figurative concubines were male (cf. **2.Sa**). They base it on the emendation *παλλακοὺς* for the corrupt reading *Χαλδαίους* <sup>√</sup> ‘Chaldeans’ in the Septuagint, as though the Greek translator could not imagine the Hebrew author depicting what we call “Lesbian” love. — In between the two occurrences of this verb in the preterite is one where the traditions of writing and of reading the text are in

possessive suffix)  $\text{הַ\text{עֲגֵבָהּ}}^{\vee}$  {ʕag(ə)bəṯ|ṣh} 'her love' (23:11), parallel to the normal {ʔahəbəṯ|ṣh} in  $\text{הַ\text{עֲגֵבָהּ}}^{\vee}$  'with her love' (Pr. 5:19).<sup>206</sup>

Wherever he may have gotten this verb and noun,<sup>207</sup> the consonants of the root impress us as much like the Greek. In particular, as G. L. Cohen and Joseph Wallfield have pointed out,<sup>208</sup> the second consonant  $\text{ג}$  matches the Greek  $\gamma$  exactly, whereas the Hebrew  $\text{ה}$  {h} does not. The presence of both  $\text{אהב}$  and  $\text{עגב}$  in Hebrew, besides the anomaly of the two guttural consonants - $\text{אה}$  in the same root, suggests two separate borrowings from some unknown non-Semitic language, or from more than one. The guttural {ʕ}, however, is a rather unusual sound, as languages go; and within the region it is known only from Semitic and Egyptian.<sup>209</sup> So the source of the initial consonant in  $\text{עגב}$  remains obscure. (See Addenda, p. 458.)

**2.Qd.** Either of the initial gutturals  $\text{א}$  {ʔ} or  $\text{ע}$  {ʕ} would be represented by no consonant in Greek. In my opinion  $\text{עגב}$  is unlikely to be an independent root that just happens to approximate the meaning of  $\text{אהב}$ ; rather the letters  $\text{עגב}$  represent, from the standpoint of Hebrew, an odd or foreign pronunciation of the same root as  $\text{אהב}$ . Arabic has a verb-root  $\text{عجب}$  {ʕjb} that fits well phonetically but means 'wonder' — hence 'admire'; and the adjective

conflict:  $\text{וַתַּעֲגֵבָהּ}$  and in the margin  $\text{וַתַּעֲגֵבָהּ}$  (23:16) — i.e. written {wtʕgb} like the

previous occurrence but read {wattaʕgəbʕ<sup>n</sup>} like the subsequent one. The discrepancy serves to prove that  $\text{וַתַּעֲגֵבָהּ}$  in 28:20 is no scribal error (as some critics have thought) but an authentic aberration in the text of Ezekiel, like many others of this author.

<sup>206</sup> In Hebrew, unlike Greek, the vowel {-ā-} of the second syllable depends on the presence of a guttural consonant right before it. Any other consonantal environment entails the very minimal transition symbolized {-ə-}, with no discernible vowel-quality.

<sup>207</sup> Once his contemporary Jeremiah (4:30) uses  $\text{וַתַּעֲגֵבָהּ}$  {ʕəgə bīʔm}, the participle = 'lovers' in a context similar to the passages where these two authors (and others) use the "intensive" participle of  $\text{אהב}$ .

<sup>208</sup> "Etymology of Greek *agap-* 'love'," *InFo*, 90 (1985), 99-103.

<sup>209</sup> Other instances of alternation between  $\text{א}$  and  $\text{ע}$  are studied by Stanley Gevirtz, "Formative  $\text{ע}$  in Biblical Hebrew," *Eretz-Israel: Archaeological, Historical and Geographical Studies*, 16 (1982), 59\*-62\*. Gary Rendsburg directed me to this article.

عَجِيبٌ √ {ʿajiʿb|u n} will bear the meaning ‘beloved’. It would be unwise to demand greater semantic precision than this in an etymology where the word in question signifies something so subjective and inherently diverse.

The pronunciation that the Greeks took over from their Semitic source was [g], and that source would appear offhand to have had [g] itself (or the fricative [ḡ]). If the Greeks were also exposed to a pronunciation with [h], no doubt that consonant in an intervocalic position would have been less congenial to their phonology. For in Attic, where our information is much fuller than in other dialects, τῶν √ {peacock} stands nearly (if not entirely) alone with its structure [-V h V -]. (This name, imitating the bird’s cry, was perhaps taken into Greek from an unidentified language of Asia; certainly peacocks were native to India, not the Mediterranean region.) Tryphon, cited by Athenaeus in this connection (9.397e), makes the further remark: “For Attic speakers and Ionians it is awkward (ἀμύχανον ‘perplexing’), in words of more than one syllable, to have the final syllable begin with [h]” (δασύνεσθαι, literally ‘to be thickened’).

So, however anomalously, the vowels in ἄγαπ- match {ʔahăḇ-} much better than the consonants.

**2.Qe.** Another semantically related word is found in Akkadian: {ra-a-mu} √ ‘beloved’ (masc.), of which the accusative singular — {rāmam} † in Old Akkadian — exactly matches the Sanskrit रमम् √ {rāmam} ‘lovely, charming’ (see Möller, *VeInSeWö*, 207). The Sanskrit adjective, which serves also as a proper name, could be derived from a biconsonantal verb-root exemplified by रमते √ {rām|atē} ‘he/she enjoys’.<sup>210</sup> But the Akkadian lengthened vowel {ā} doubtless represents a guttural consonant of the other Semitic languages; and so too might the Sanskrit वृद्धि vowel {ā}, according to the laryngeal theory now prevalent among the Indo-Europeanists.

The Akkadian verb ‘love’, which is exemplified by {ra-a-mi} √ (imperative feminine; Von Soden, *AkHa*, II, 951, interpreted phonetically as [rāmī]), has a Hebrew cognate רָחַמְתִּי √ {raḥmīʾ}. The simple conjugation of רָחַמְתִּי occurs just once in the Biblical corpus: רָחַמְתִּי √ {ʔe|rḥm|əḵśʔ} ‘I love

<sup>210</sup> Pokorny, *InEtWö*, I, 864. The other, and more frequent, meaning of {rāmá-} ‘dark’ he treats as quite unrelated (I, 853).



Hebrew has a verb-root {(-)ʕ(-)c(-)r(-)}, but its meaning scarcely fits the noun {ʕăcôrôḥ} ‘gathering’; e.g. ʕָצַר {ʕăcâr} ‘he has shut’. Arabic has a quite different verb ʕَشَرَ {Hašara} ‘he (has) gathered/congregated’ (Möller, *VeInSeWö*, 2), which is semantically very close to the meaning of the Greek verb-root but shows no morphological counterpart to anything Greek or IE.<sup>212</sup> The Greek-Arabic correspondence is good phonetically, if we allow a velar plosive [-g-] in one language to be represented by a sibilant in the other.<sup>213</sup>

The Hebrew noun {ʕăcôrôḥ} has no apparent Semitic source. ‘A gathering’ in Arabic is ʕَشْرٌ {Hašr|u n} (masculine), differing from the Hebrew not only in two out of three consonants but also in gender.<sup>214</sup> The Arabic feminine noun that would correspond phonetically to ᾗγορῆ/ᾗ — ʕَشْرَةٌ {Hašaratun}, pronounced [Hašarah] right before a pause — means ‘insect’ or some such small creature; so that the semantic connection, if any, to the verb-root {(-)H(-)š(-)r(-)} is vague indeed: perhaps it takes in only animals that man encounters in swarms.

**2.Rb.** Probably {ʕăcôrôḥ} was borrowed by Hebrew or its immediate forerunner, without any verb, from an IE source similar to ᾗγορῆ/ᾗ. And {ʕăcôrôḥ} not only lacks Semitic cognates but is limited in its context to a religious assembly, formally summoned, whereas ᾗγορῆ/ᾗ is much more general. Whatever social development motivated such a borrowing of vocabulary, can only be guessed — e.g. that Greeks or kindred Indo-Europeans participated with certain Semites in instituting a ceremonial gathering (cf. **2.Gc**).

The main obstacle to positing a direct loan from prehistoric Greek is the phonetic gap between the voiceless “emphatic” sibilant ʕ {c} and the voiced velar plosive [g], which the Greek letter γ evidently was, at least in the classical period. But the similar etymology of the non-verbal noun

<sup>212</sup> ʕَآنَحْشَرُوا {ʕ(ʔ)inHašaru“(ʔ)} ‘they (have) gathered, congregated’ is formed from this root quite differently from ᾗγείναι or ᾗγεῖν.

<sup>213</sup> Möller’s citation of an Akkadian cognate, “assy. Prät. ešur ‘brachte zusammen, brachte zuhaufl’,” seems to be based on some misunderstanding; AsDi and Von Soden, *AkHa*, have nothing of the sort.

<sup>214</sup> The noun-phrase ʕَیَوْمَ ٱلْحَشْرِ {yawmu (ʔ)Hašri} ‘day of the gathering’ in Islamic parlance refers to the Resurrection.

ἄγοι 'fields' : {Hac(ə)rē} 'courts' (1.Ia,d-e)

has shown the likelihood that the prehistoric IE source of [g] was \*[kʔ], and that in passing over to Hebrew this was affricated to \*[tsʔ] or \*[ʈʔ] (and then simplified in the various pronunciations of Hebrew).

The initial consonant in Hebrew ʕ {ʕ} is a more prominent sound than ʔ {ʔ}. By deriving {ʕăcôrôḥ} from an IE noun, we introduce a difficult question: In the IE source (whatever that source may have been) was there a laryngeal consonant like that {ʕ}, or does the Hebrew {ʕă-} reflect simply a vowel of a certain quality? Against the latter possibility, we can discern no reason why a plain [a-] would not have become [ʔă-], given that a Semitic language required a minimal initial consonant.

Beyond the immediate attractiveness of Gr. ἄγορή/ᾱ : Heb. {ʕăcôrôḥ} 'gathering', the problems of this etymology turn out to contribute strong evidence in favor of two kinds of laryngeal (or guttural) consonants in the IE fore-runner of the Greek noun and its verbal root:

- (1) the simplest sort of glottalization of the velar second consonant, and
- (2) a different initial laryngeal, perhaps identical to the Semitic {ʕ} or else to the Semitic {H} as in {Hašrun}.

**2.Rc.** How the Hebrew (and Aramaic) feminine ending {-ôḥ}, as well as the Arabic cognate, is related to the IE ending, will be examined in the sequel to this book. As Hebrew has only a noun cognate to ἄγορή/ᾱ but nothing to the verb ἄγερ-, Hebrew does not reproduce the Ablaut of front- and back-vowel according to the IE model of morphology. Nevertheless it has {-ê-} as well as {-o-} — both of them in noun-forms. ʕăcêrēt {ʕăcêrēt} is a synonym of {ʕăcôrôḥ}, except that the {-ê-} form serves as either absolute or construct, whereas {-ôḥ} is strictly absolute. {ʕăcêrēt} in a pausal position becomes ʕăcôrēt {ʕăcôrēt}.

For Greek this is relevant, because it suggests at long last a solution to the perplexing etymology of another feminine noun, ἑορτή {heortē} 'holiday gathering' (Brown – Levin, *EtPa*, 92). The consonants all correspond well, if we allow for the Semitic sibilant becoming [-h-] in an intervocalic position in prehistoric Greek, and even within the historical period in some of the Doric dialects. Then this aspiration tended to be shifted from after the initial vowel to

before it.<sup>215</sup> The final -ή in ἑορτή does not correspond to anything in Hebrew; but the same vowel, except for being unaccented, is in the Greek name of Ἀστάρτη<sup>√</sup>, the goddess of Sidon and Phoenician Cyprus — אֶשְׁתִּירֵת<sup>√</sup> {ʾaštōrēt} in the Bible. The region north of Israel, where “the lip of Canaan” (the Phoenician or Hebrew language) and Aramaic were in intimate contact, was the likeliest place for the Aramaic definite article — {-ʾ} in Biblical Aramaic — to be suffixed to these two nouns.<sup>216</sup> However, no Aramaic cognate of the Hebrew {ʾāšē/ʾrēt} or {ʾāšōrʾ} has been found.

**2.Rd.** ἑορτή is documented several centuries earlier than Ἀσάρτη in Greek. Since quite a few cults in Greece came from that Semitic region, or were strongly influenced, it would be indiscreet for us to single out one of them, rather than another, as the bearer of the Semitic word that became ἑορτή. With this noun for an object the basic verb ἄγε<sup>√</sup> : אָשֶׁה<sup>√</sup> {ʾāše<sup>h</sup>} ‘do’, in many of its forms, was liable to be coupled, making a syntagma: ἑορτήν τινα ἔτυχον ἄγ|οντες<sup>√</sup> ‘they happened to be making a holiday’ (Thucydides 4.5.1),

וַיַּעֲשׂוּ בַיּוֹם הַשְּׁמִינִי חֵלֶם<sup>√</sup> {wayya|ʾāš|ú<sup>w</sup> bayyó<sup>w</sup>m haššəmi<sup>n</sup>ī<sup>y</sup> ʾāšōrēt} ‘and they made on the eighth day a holiday’ (II Chronicles 7:9).

The imperative singular ἄγε ἑορτήν† :

וַיַּעֲשׂוּ חֵלֶם<sup>√</sup> {ʾāše<sup>h</sup> ʾāšōrēt} ‘make a holiday’ does not occur in the corpus; for such a thing would involve a plural subject. The imperative plural ἄγετε<sup>√</sup> : אָשׁוּ<sup>√</sup> {ʾāšú<sup>w</sup>} must often have been spoken with this noun for its object. From Latin, however, there is evidence of the imperative singul-

<sup>215</sup> As in ἑρός<sup>√</sup> ‘holy’ : Sanskrit इ॒रि॒ः<sup>√</sup> {iṣirāḥ} ‘mighty’ < \*isārós; or {heue} in ἄφευε<sup>√</sup> ‘boil’, Latin ūre<sup>√</sup> ‘burn’ < \*euse (cf. 2.Qd).

<sup>216</sup> The rule of Greek prose syntax that a god’s name is accompanied by the definite article — e.g. ἡ Ἀφροδίτη<sup>√</sup> — does not hold for Aramaic or other Semitic languages; but {ʾaštōrēt} is not exactly a proper name. Several passages in the Hebrew Bible give the plural form of it with the article prefixed: וַיַּעֲבֹדוּ אֱלֹהֵי-הַבַּעַלִּים וְאֵת-הָעֲשָׂתָרוֹת<sup>√</sup> {wayyaʾab(ə)ḏū<sup>w</sup> ʾēl-habbəʿəlī<sup>m</sup> wəʾēl-həʾaštōrō<sup>t</sup>} ‘and they served the Masters and the Aštāroth’ (Judges 10:6; cf. I Sam. 7:3-4, 12:10). Furthermore the plural construct recurs in a formula of blessing and cursing: שְׂגָר אֶלְפִיךָ וְעֲשָׂתְךָ צֹאנְךָ<sup>√</sup> {šəgār ʾəlpēkə wəʾaštōrō<sup>t</sup> cōʾnēkə} ‘the progeny of your cattle and the accretions (?) of your flock’ (Deut. 28:4; also 7:13, 28:18,51).



ar in a sacral context: *hoc age*<sup>√</sup> (with a pronominal object) 'do this' — by implication, do nothing else besides celebrating. Plutarch (writing, of course, in Greek) tells of an old custom persisting among the Romans: ὅταν γὰρ ἄρχοντες ἢ ἱερεῖς πράττουσι τι τῶν θείων, ὁ κήρυξ πρόεισι μεγάλην φωνὴν βοῶν ὅκ ἄγε σημαίνει ἡ φωνή, τοῦτο πράττε, προσέχειν κελεύουσα τοῖς ἱεροῖς<sup>√</sup> 'whenever magistrates or priests are doing anything religious, the herald goes forth shouting in a loud voice *hoc age*; the expression means "do this," bidding [each and every one] to attend to the ceremony' (*Gaius Marcius* [Coriolanus] 25.3-4; similarly *Numa* 14.2).<sup>217</sup>

**2.Re.** The Hebrew verb-root עשׁ, like ἄγ- in Greek, is extremely common, and broad in its semantic coverage; not every noun, however, that serves as an object of the verb in one language will fit idiomatically in the other (*InEuSeLa*, 386 ff.). For instance, מַלְחָמָה עֲשֵׂה {šāšēḥ milḥōmāḥ} 'make war, do battle' (Pr. 20:18) would scarcely ever be expressed as ??ἄγε π(τ)όλεμον, even though the Greek noun π/πτόλεμος<sup>√</sup> 'war' (nominative) was borrowed, in all probability, from a Semitic form more or less akin to the Hebrew verbal noun מַלְחָמָה<sup>√</sup> {milHémēṭ} (which illustrates the same alternation as {šācōrōḥ/šācēreṭ}).<sup>218</sup>

<sup>217</sup> This information comes to me from J. P. Brown, who further cites a semantic parallel in the Christian rite of the Eucharist (I Cor. 11:24), but there a different verb is used: ὁ κς Ἰησοῦς ... εἶπεν ... τοῦτο ποιεῖτε εἰς τὴν ἐμὴν ἀνάμνησιν<sup>√</sup> 'the Lord Jesus ... said ... Do [plural] this in remembrance of me'. If ποιεῖτε goes back to an unrecorded Hebrew original, it would be {šāšū}. Cf. also τοῦτο ποιεῖ (imperative singular) καὶ ζήσῃ<sup>√</sup> 'do this and you will live' (Luke 10:28, based on Gen. 42:18, יִשְׂרָאֵל עֲשֵׂה אֵת זֶה<sup>√</sup> 'do (pl.) this and live'; on -י rather than -ה see 5.De, note 85).

<sup>218</sup> The verb 'fight' is, in its simplest form (imperative singular masc.), עֲשֵׂה<sup>√</sup> {lāHām}; but the reflexive — i.e. reciprocal — conjugation occurs much oftener: עֲשֵׂה<sup>√</sup> {hillō-  
Hém}, the plural {hillōHāmú<sup>w</sup>} in מִלְחָמָה<sup>√</sup> 'and fight', the preterite עָשָׂה<sup>√</sup> {way-  
yillōHém} 'and he fought', etc. Instead of {hillōHém}, Moabite has the imperative sing.  
masc. הִלַּחַח {hlHām} that is semantically equivalent (2.Ba), besides וְאִלַּחַח<sup>√</sup>  
{w?lHām} 'and I fought' (Donner – Röllig, *KaArIn*, I, 33, no. 181.11,15); and this throws  
light upon the odd alternation between {p-} and {pt-} in Greek. In post-Biblical Hebrew  
עָשָׂה<sup>√</sup> {hiṭlāHém}, belonging to the more complex reciprocal conjugation, serves as  
an occasional alternative to {hillōHém}; the participle of that conjugation, in the masc. pl.

In Latin, *age bellum*<sup>s</sup> was idiomatic; e.g. *in agendō bellō*<sup>↓</sup> 'in making/waging war' (Nepos, *Hannibal* 8.3).<sup>219</sup> The imperative form, both in Greek and in Latin, is very often preliminary or cohortative to another more specific imperative verb; e.g.

ἄλλ' ἄγε πείρησαι<sup>↓</sup> 'but do try' (*Odyssey* 8.149),

*age aspice hūc*<sup>↓</sup> 'do look here' (Plautus, *Amphitruo* 778).

A Hebrew parallel to this is rare: לִמְלַחְמָה לִבְרִיךְ הָאֵלֶּיךָ<sup>↓</sup> {šāšé<sup>h</sup> Hāzāq lammilHōmš<sup>h</sup>} 'do be strong for the battle' (II Chr. 25:8).

When the object is a human being or a beast, the meaning of ἄγε : *age* comes down to 'drive' or — more mildly — 'lead' (i.e. make so-and-so move). In this sense there are many other IE cognates (Pokorny, *InEtWö*, I, 4), including Sanskrit अज्<sup>↓</sup> {aja} (Vedic अज्<sup>↓</sup> {ājā} at the beginning of a verse) and Avestan {aza}<sup>↓</sup>. The sibilant in the latter probably comes closer to the Hebrew {š} than anything else on the IE side. However, the meaning 'drive' is alien to the Hebrew שׁוּב, which does not take this sort of object except in the context of God creating man and the beasts (Gen. 1:25,26, etc.). Apart from Hebrew, only the neighboring dialect — Moabite — but not Phoenician nor any other Semitic language has this verb. So it probably entered through a specific contact with a prehistoric IE language.

If it were in Arabic too, we should expect the second consonant to be {š}, as this regularly corresponds to the Hebrew {š}; e.g.

Arabic {kabš|un} '(young) ram' : Hebrew {kéḇeš} 'lamb' (1.Lf).

To that extent the etymology of the verb ἄγε : {šāšé<sup>h</sup>} 'do' confirms the Greek-Arabic etymology ἄγ-ρ- : {(-)H(-)š(-)r(-)} 'gather' (2.Ra).

**2.Rf.** {šāšé<sup>h</sup>} is either accented on the second syllable or, somewhat less often, unaccented and hyphenated to the ensuing word of one or two syllables. ἄγε, when prefixed, loses its initial accent, as in ἐξαγε<sup>↓</sup> 'take out'.<sup>220</sup> So

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מִלְחָמָה<sup>↓</sup> {miḥlāHōm|ḥm} 'fighting' is the least infrequent form. The Greek adaptation πολεμ- may have involved a metathesis of [T] to a pre-vocalic position in the first syllable, along with elimination of the alien guttural {H}.

<sup>219</sup> While *age* is on the whole used as broadly in Latin as ἄγε in Greek, *gere*<sup>↓</sup> is the more usual verb with the object *bellum*.

<sup>220</sup> In the Latin *exige*<sup>↓</sup> the shift of accent to the prefix entails a weakening of the vowel *a* to *i*.

both in { $\text{ʿāšē}^{\text{h}}$ } and in  $\acute{\alpha}\gamma\epsilon$  the accent depends upon the phonetic environment; it is not bound to a certain syllable, as in the noun  $\acute{\alpha}\gamma\omicron\rho\acute{\eta}/\acute{\alpha}$  : { $\text{ʿācōrō}^{\text{h}}$ } and other correspondences that we have been studying.

The Heb. imperative sing. fem. is  $\text{״וּשִׁי}$  { $\text{ʿāši}^{\text{y}}$ }, varying between an accent on the second syllable and no accent, just as in the masculine. Feminine forms in general, however, are less frequent by far than masculine in the ancient corpus. In the ancient IE languages gender does not affect verbs at all; but the Lesbian dialect of Greek, recovered on damaged papyri, shows two amazing imperative forms:

singular  $\text{ΑΓΙ}^{\text{V}}$ ,

plural  $\text{ΑΓΙΤΩΦΙΛΑΑΙ}^{\text{V}}$  'do, o friends'

( $\acute{\alpha}\gamma\iota|\tau\epsilon$  with the final vowel elided).

The latter is certainly addressed to women (Sappho fr. 43.8 Lobel – Page);<sup>221</sup> in none of the occurrences of  $\acute{\alpha}\gamma\iota$  is the sex of the person evident (Alcaeus fr. 38.4, 10, 58.25, 208.2 Lobel – Page; see *InEuSeLa*, 494–495). But in every instance the context makes it clear enough that this imperative is being used as a coaxing (or cohortative) preliminary — thus formulaic and isolated to some degree from the normal syntax of the language. Under such circumstances an abnormal ending [-i] could have been preserved more easily. We lack information whether the  $\acute{\alpha}\gamma\epsilon$  and  $\acute{\alpha}\gamma\epsilon\tau\epsilon$  of other Greek dialects were used in Lesbian, and if so, under what restrictions of gender or other factors. Therefore we cannot determine the full extent of the correspondence between  $\text{ΑΓΙ}$  and the Hebrew { $\text{ʿāši}^{\text{y}}$ }, imperative singular feminine.

**2.Rg.** The ending  $-\epsilon$  of the Greek imperative singular recurs in the third person singular of the imperfect:  $\acute{\eta}\gamma\epsilon^{\text{V}}$  'he/she was doing, used to do, would do', or — in Homeric Greek optionally without the initial "augment" (i.e. lengthening) —  $\acute{\alpha}\gamma\epsilon$  identical with the imperative. In the imperfect, however, Homeric and Attic (unlike other dialects) have also an alternative form with the ending {-en}:  $\acute{\eta}\gamma\epsilon\nu^{\text{V}}$ ,  $\acute{\alpha}\gamma\epsilon\nu^{\text{V}}$  but the same meaning as  $\acute{\eta}\gamma\epsilon$ ,  $\acute{\alpha}\gamma\epsilon$ . No IE cognate throws light upon this Greek variation; but the Hebrew imperfect

$\text{״וּשִׁי}$  { $\text{ya}|\text{ʿāšē}^{\text{h}}$ } 'he will/would do/make'

( $\text{״וּשִׁי}$  { $\text{ta}|\text{ʿāšē}^{\text{h}}$ } 'she/you (masc. sing.) will/would do/make')<sup>222</sup>

does show a comparable variation when an object-suffix is attached:

<sup>221</sup> The fem. pl. imperative in Hebrew has a quite different ending:  $\text{״וּשִׁינָה}$  { $\text{ʿāš}|\text{ē}^{\text{y}}\text{no}^{\text{h}}$ }.

<sup>222</sup>  $\text{״וּ}$  and  $\text{״וּ}$  are subject-prefixes (cf. 3.Ca).

יַעֲשֶׂהוּ<sup>√</sup> {ya|ʕāsé|hu<sup>w</sup>} 'he will/would do/make it',<sup>223</sup>

יַעֲשֶׂנּוּ<sup>√</sup> {ya|ʕāsénnu<sup>w</sup>} " " " " " "

{-énnu<sup>w</sup>} results from consonantal assimilation of {-én|hu<sup>w</sup>}, which occurs very sparsely; e.g. יִצְרֶנּוּ<sup>√</sup> {yiccārénhu<sup>w</sup>} 'he would watch him' (cf. 3.Eh).

As Semitic verbs make fewer distinctions of tense than is usual in IE, the tense called "imperfect" in most Greek (or IE) and many Hebrew (or Semitic) grammars has some appreciably different functions. The Greek imperfect in -ε(ν) and the Hebrew imperfect in {-ε<sup>h</sup>/-en-} coincide chiefly in expressing a repeated or habitual past action, which we gloss 'would' or 'used to'.<sup>224</sup>

**2.S. Biconsonantal IE (Gr.)** (-)λ<sup>ε</sup>/oχ<sup>-</sup> : *Sem. (Heb.)* {-lēg-} 'lie'

**2.Sa.** One etymology, brilliantly unlocked by Chaim Rabin,<sup>225</sup> reveals that an IE loan-word in Hebrew preserves a verb-root of the basic vocabulary, along with a prefix and an inflectional ending. פִּינִי לָגַשׁ<sup>√</sup> {pi(ʔ)lēgəš} 'concubine' consists of two IE morphemes at least, and probably three:

<sup>223</sup> The verb-root עָנַן 'answer' exemplifies both possibilities in the Biblical corpus, and with a fine semantic distinction: יַעֲנֶנּוּ<sup>√</sup> {yaʕānénnu<sup>w</sup>} 'he would answer him' (Ex. 19: 19), but יַעֲנֶהוּ<sup>√</sup> {yaʕānéhu<sup>w</sup>} 'may he/let him answer him' (Ps. 20:7); the latter form, called jussive rather than imperfect, is closer in meaning to the imperative, which has the ending {-éhu<sup>w</sup>} almost to the exclusion of {-énnu<sup>w</sup>}. See *InEuSeLa*, 407-411, 414-428.

<sup>224</sup> The Greek fem. noun ἄγυια<sup>√</sup> 'street' (with recessive accent in the singular but not in the pl. ἀγυαί<sup>√</sup>) has been taken by Indo-Europeanists for originally a somewhat anomalous perfect active participle 'leading'. This etymology, however, suffers from grave shortcomings; see Oswald Szemerényi, *Syncope in Greek and Indo-European, and the Nature of Indo-European Accent* (Istituto Universitario Orientale di Napoli, Quaderni della Sezione linguistica, 3), 206-207. A more promising etymology links ἄγυια to the Hebrew passive participle עָשׂוּי<sup>√</sup> {ʕāšūʔy} 'made' (fem. sing. עֲשׂוּיָהּ<sup>√</sup> {ʕāšūʔyʕ<sup>h</sup>}, fem. pl. עֲשׂוּיֹת<sup>√</sup> {ʕāšūʔyóʔt}). For this Hebrew participle is used especially in the context of PAVING (Ezek. 40:17, Neh. 3:16), and the Greek noun refers almost exclusively to broad streets in town, rather than country roads; see *InEuSeLa*, 388-389.

<sup>225</sup> "The Origin of the Hebrew Word *Pilegēs*," *Journal of Jewish Studies*, 25 (1974), 353-364. My article, "Hebrew {pi(y)lēgəš}, Greek παλλακίη, Latin *paelex*: The origin of inter-marriage among the early Indo-Europeans and Semites," *General Linguistics*, 23 (1983), 191-197, takes off from Rabin; but now I go somewhat further. See also Brown, *LiCo*, 166-169.

(1) {pi(ʷ)-} 'upon, besides' : Sanskrit पि- √ {pi-} (a rare alternant of अ पि- √ {api-});

(2) {-lēḡ-} 'lie' : Greek (-)λεχ- as in λέχεται<sup>226</sup> 'he/she lies (asleep)';

(3) {-ε}š, IE nominative singular : -s, Latin [-s].

Hebrew got this noun from an undetermined IE language, perhaps Messapic (2.Sb).

That it was not a Greek loan-word in Hebrew, is most obvious from the actual Greek form παλλακίς<sup>√</sup> (in Homer; mostly παλλακή<sup>√</sup> in subsequent texts). Here the IE morphology is unrecognisable; on the way to Greek it may have passed through some unknown non-IE language of the Aegean region. Against the remote chance that the loan-word παλλακίς may have replaced a native Greek formation, which has fortunately been preserved almost intact in the Hebrew {pi(ʷ)lēḡš}, there is a phonological argument: the Greek reflex of this IE root has a VOICELESS aspirate [kʰ], exemplified in the frequent nouns λέχος<sup>√</sup> 'couch, bed', ἄ|λοχος<sup>√</sup> 'wife' (i.e. bed-partner).

To be sure, verb-forms with -χ-, whether present (λέχεται) or perfect (λελοχῦα<sup>√</sup>), are attested only in a couple of glosses, and for reasons unknown must have been rare in the very milieu that produced texts with many examples of the "sigmatic" aorist and future with λεξ-; e.g. the aorist imperative λέξο<sup>√</sup> 'lie down, go to sleep'. The letter ξ stands for a voiceless consonant-group of which the first component was probably fricative [k̥] rather than plosive [k]. At any rate, if the Hebrews heard something like \*[pilek̥s], their rendering of the final consonant-group as [-ḡš] — or perhaps \*[-gš] in early Hebrew — would have been a minor liberty.

**2.Sb.** The Latin *paelex*<sup>√</sup> (usually *pel-* or *pell-* in mss.), with the genitive *paelicis*<sup>√</sup> and *paelic-* throughout the rest of the declension, argues for [-k-] in the source-language or languages from which Latin as well as Greek got this word. Otherwise, *-lex* [-lɛks] is very near what we have posited as the IE source of the Hebrew [-lēḡš]. The first syllable [pai-] is intermediate between the Hebrew [pi(ʷ)-] and the Greek [pal-]. All in all, Latin preserves more of the IE structure of the word than Greek does, but still too little to

<sup>226</sup>The present of this verb is attested only in a corrupt gloss of Hesychius, λέύχεται· κοιμάται 'he/she goes to bed'; but the emendation to λέχεται is virtually certain.

stamp it as definitely IE.<sup>227</sup> By a paradox, only the Hebrew does that.<sup>228</sup>

The [pi-] form of the IE prefix is less familiar than the disyllabic Sanskrit {api-}, Greek  $\epsilon\pi\iota$ -<sup>√</sup>. It occurs somewhat sparsely in Sanskrit, and in the Greek  $\pi\epsilon\acute{\iota}\zeta\omega$ -<sup>√</sup> 'I squeeze', if we accept the disputed etymology that makes this verb out to mean originally 'I sit upon' (Frisk, *GrEtWö*; Chantraine, *DiÉtLa Gr*; cf. **2.Bf**).

A surer and probably more pertinent occurrence of the monosyllabic prefix is in Messapic  $\Pi\Delta\text{O}$ -<sup>√</sup> 'donated' (morphologically equivalent to

Greek  $\epsilon\pi\iota$ - +  $\delta\acute{\omega}\kappa\epsilon$ -<sup>√</sup> 'gave').<sup>229</sup>

However meager and imperfectly understood, the surviving Messapic inscriptions of southeastern Italy contain priceless nuggets. The same or a similar language was spoken in part of the Balkan peninsula too, whether or not it can be identified as the ancestor of Albanian. If this one occurrence of {pi-} (instead of {Vpi-} as in Greek) is typical of Messapic, it would constitute the best sign that the Hebrew word {pi<sup>(y)</sup>lēḡeš} came from an IE language of that type.

However, the Messapic rendering of IE  $*g^h$  is quite unclear;<sup>230</sup> so we are in no position to say whether {ḡ} in the Hebrew {-lēḡ-} could also be traced back to Messapic. The Germanic cognates of this verb-root have a voiced plosive, perhaps fricativated as in Hebrew; e.g. Gothic {lig|iþ}-<sup>√</sup> 'lieth'.

**2.Sc.** The incontestably IE etymology of {pi<sup>(y)</sup>lēḡeš} proves that the early Hebrews or their immediate forerunners were in touch with an IE language other than Greek (and Latin), under such social and linguistic circumstances as enabled them to absorb a fairly long IE word with a minimum of alteration. This has far-reaching implications: The unidentified IE language (whether or not it was a close relative of Messapic) and one Semitic language, at least, must

<sup>227</sup> We have no indication whether some Latins connected *paelex* with *lectus*-<sup>√</sup> 'bed'.

<sup>228</sup> The Aramaic פלקתא<sup>√</sup> {plqt?}, with uncertain vocalization, seems closer to the Greek than to the Hebrew.

<sup>229</sup> Francesco Ribezzo, *Corpus Inscriptionum Messapicarum*, ed. by Ciro Santoro (Bari: Edipuglia, 1978), 124-126; R. S. Conway, J. Whatmough, S. E. Johnson, *The Prae-Italic Dialects of Italy* (Cambridge: Harvard University Press, 1933; repr. Hildesheim: Georg Olms, 1968), II, 404 (no. 548); III, 36.

<sup>230</sup> IE  $*b^h$  becomes B in BEPAΔA<sup>√</sup> 'he should get' (cf. the Sanskrit injunctive भरत<sup>√</sup> {ḃarata} and **2.Aa**);  $*d^h$  becomes Δ in HIIΠAΔEΣ<sup>√</sup> if the interpretation of it as nearly equivalent to the Greek  $\epsilon\upsilon\pi\omicron$ -<sup>√</sup> 'under' +  $\theta\eta$ | $\kappa\epsilon$ -<sup>√</sup> 'he/she put' is right. *Prae-Italic Dialects*, II, 300, 306, 357, 574, 603-604; III, 9, 23-24; Ribezzo, 44, 50, 58.

have had — or else developed — a level of phonetic compatibility sufficient to fit this loan-word in with little modification. Furthermore they were in a position to share some morphology, although the nominative singular ending [-s] (or [-š]) did not become a Hebrew or Semitic morpheme,<sup>231</sup> nor did the other components of {pi<sup>(ʔ)</sup>lēgēš} take on any separate life. Instead the word as a whole was fitted into the existing Hebrew scheme; e.g. פִּיגְשׁוֹ {pi<sup>ʔ</sup>-lagēš|óʷ} 'his concubine'.

## 2.T. Triconsonantal {m-s/z<sup>k</sup>g} 'mix'

**2.Ta.** The Greek μίσγε<sup>√</sup>, Latin *miscē*<sup>√</sup> is the most readily provable case of an IE verb borrowed by Semitic.<sup>232</sup> That the [s] was not part of the prehistoric IE root is evident from the synonym μείγνυ<sup>√</sup>.<sup>233</sup> The root is (-)μ(-)ιγ-, and when the "inceptive" or "inchoative" suffix -σκ- was added, the unwieldy sequence of three consonants \*[-gsk-] — which probably never existed in actual pronunciation but only in theory — was reduced to two. The Greek spelling -σγ- is generally thought nowadays to have been pronounced [zg] rather than [sg], because a voiced cluster appears more in line with other phonological features of Greek.<sup>234</sup>

That, however, is less than certain, precisely because of the treatment in Semitic. The Hebrew verb, of infrequent occurrence, shows both consonants voiceless — e.g.

מִצָּקַק {mɔsák} 'he has mixed';

but the noun appears

either with both voiceless, מִצָּקַק {mések} 'mixture',

or both voiced,

{mɔzeg} in מִצָּקָה {mɔzég} 'the mixture'.<sup>235</sup>

In Ugaritic every occurrence of both the verb and the noun is {msk}<sup>√</sup>. The Ugaritic letter {s} agrees in its alphabetic position with the Hebrew ס, and the

<sup>231</sup> On the nom. sing. {-s} in Messapic, see *Prae-Italic Dialects*, II, 606-607.

<sup>232</sup> This etymology I owe to Brown, *MeVoVi*, in essence and in many details. He was, however, anticipated in a way by Trombetti, *InSeFo*, 27.

<sup>233</sup> Misspelled μίγνυ in mss. The diphthong was rediscovered about a hundred years ago in Attic inscriptions.

<sup>234</sup> ΖΓ would not have been an acceptable spelling for such a cluster in the classical period, because Ζ stood for a complex consonant, [zd] or possibly [dz] (1.Fg).

<sup>235</sup> The accented vowel makes no difference; in a non-pausal position of the verse it is {mézeg}, vocalized the same as {mések} (in מִצָּקָה וְכִי {mɔzég wəki} 'and like a mixture', Niddah 2.6, a text vocalized but not accented).

Ugaritic {k} with 𐤀; so presumably the two consonants were voiceless in Ugaritic too. We cannot determine precisely which IE language or languages were the source; but it might be inferred that {-σ-ḱ} came from one that had a voiceless cluster like the Latin *miscē*, and {-z-ḡ} from one that had a voiced cluster, presumably like the Greek μίσγε. Within Hebrew too a phonological preference for harmony may have operated to make both consonants voiceless, or both voiced, even when separated by a vowel.

There were other IE languages that died out, leaving very meager remains for us to work with; and in one firm etymology, at least — as we have just seen (2.Sa-b) — Hebrew has clearly preserved a loan-word {pi(ʿ)lēḡeš} from a lost or nearly lost IE language, whereas the same loan-word in Greek (παλλακίς) and Latin (*paellex*) has its IE morphological structure distorted beyond recognition. The geographical fact that Greece was nearer than Latium to the Semitic area (if we leave out the Punic colonies in the west) does not make an IE form with [-sk-] like the Latin *miscē* irrelevant to the Hebrew borrowing {מִעֲשֶׂה}. Neither the verb- nor the noun-forms occur in the early parts of the Bible; but the Ugaritic evidence, from nearly the same part of Asia before 1000 B.C., shows that it must have been already in the Hebrew language too. In post-Biblical Hebrew, besides the noun with voiced consonants, the verb too occurs: 𐤍𐤏𐤕𐤕 {mɔzəḡuʷ} 'they have mixed'; furthermore it has Aramaic and Arabic cognates.

**2.Tb.** The Hebrew root 𐤍𐤏𐤕 came from an IE *\*misk-*, virtually or quite identical with the Latin *misc-*; but in Hebrew the vowel was not treated as part of the root, while the consonant [s] was. The only Hebrew forms that would use the [i] are imperative: masc. pl. 𐤍𐤏𐤕𐤕† {miσ(ə)ḱ|úʷ};  
fem. sing. 𐤍𐤏𐤕† {miσ(ə)ḱ|iʷ}.

Neither of these suffixes, however, has an IE cognate.<sup>236</sup>

<sup>236</sup> The masculine singular is unsuffixed, 𐤍𐤏𐤕† {mɔσóḱ} — or, with the coaxing suffix 𐤍𐤏𐤕𐤕† {mɔσ(ə)ḱʷ}. The other possible vocalization for the coaxing imperative, {-i-(ə)-š<sup>h</sup>} is very rare; so we can hardly count on the existence of *\*𐤍𐤏𐤕𐤕* *\*{miσ(ə)ḱʷ}* at any time. 𐤍𐤏𐤕𐤕𐤕† {ʔemσəḱʷ}, 𐤍𐤏𐤕𐤕𐤕† {ʔemσóḱʷ} 'let me mix, I will mix' is not close morphologically to the Greek subjunctive μίσγω<sup>√</sup>, except for the ending {-š<sup>h</sup>} : -ω [-š].



The noun 'wine' was of course a frequent object of the verb 'mix' in any IE or Semitic language. The Hebrew syntagma

יִיְיָ יִצְחָק† {miσ(ə)k|ɪʔ yʕyin} 'mix wine'

or, in post-Biblical Hebrew, " יִצְחָק† {miz(ə)g|iʔ " " "

must have been no less available than Greek μίσγειν (F) οἶνον† " "

and Latin *miscē uīn|um* § " " .237

**2.Tc.** Although many things, by nature, can be mixed, the spread of this verb over a large part (not all) of the IE and Semitic area was associated with the treatment of wine, by adding spices or water or some other substance.<sup>238</sup> As we have traced the presence of the verb in Semitic languages to IE sources, so within IE its wide occurrence need not be attributed to a proto-IE heritage, but as much or more to later diffusion. It has long been suspected that Old English *miscian*√ 'to mix' and Old High German *miskan*√ were borrowed straight from Latin, because no cognate has been found in the rest of Germanic, and these two Germanic languages — on account of geography — had the heaviest bilingual contact with Latin.<sup>239</sup> But, for that matter, some if not all of the Celtic forms may also be from Latin, such as the Irish *miscaim*√ 'I mix'; and the similarity of *miscē* to μίσει may well be due to bilingual contact between Latin and Greek around 1000 B.C. or somewhat earlier.

Moreover, since we have inferred that in the Semitic languages, beginning with Ugaritic, this is an IE loan-word, a corollary is that in the second millennium B.C. some IE people — not necessarily the Greeks — were in the vineyard region of the Mediterranean and ALREADY IN THE WINE-TRADE WITH SEMITES.

**2.U.** Triconsonantal {(-)k(-)r(-)t(-)} 'cut, hew'

**2.Ua.** This root, of common occurrence in Hebrew, is sparsely represented in

<sup>237</sup> The Hebrew perfect יִצְחָק יִיְיָ† {mσ(ə)kʕi yʕnʕh} 'she has mixed her wine' (Pr. 9:2) is translated *miscuit uinum*√ in the Vulgate. Cf. (F) οἶνον μίσγειν√, (F) οἶνον ἔμισγον√ 'they mixed wine' (*Iliad* 3.269, *Odyssey* 1.110).

<sup>238</sup> A competing verb κέρασον√ is preferred in Greek when mixing wine and water in fixed proportions.

<sup>239</sup> The modern English verb *mix*√ is a back-formation from *mixt*√, which has accordingly taken on the spelling *mixed*√ but was in fact borrowed from the Latin participle *mixt|us*√, through French.

Akkadian and reported in the Ethiopian language Tigrinya (Bomhard, *ToPrNo*, 234). In Aramaic it is limited to one context of rabbinical law, divorce, where it has been taken straight from post-Biblical Hebrew. The IE distribution is somewhat broader; but only Sanskrit shows any good morphological parallel, and that only in certain infrequent stems, while the usual stem contains a nasal infix of a type with no Semitic counterpart.

The imperative singular कृ त † {kṛtá} 'cut',<sup>240</sup>

with unfixed stem, has nearly the same structure

as the Hebrew coaxing imperative (2.Qb)  $\text{קָרַחְ}$   $\sqrt{\{k\bar{o}r(\bar{a})\bar{\imath}\bar{\imath}^h\}}$  'do cut'. Hebrew has no vocalic [ṛ]; but any vocalization within a triconsonantal active imperative verb is minimal, non-phonemic, and serves only to make the consonants pronounceable. In post-Vedic Sanskrit the stem {karta-} occurs; so the imperative क र्त्त ‡ {karta} seems to parallel the Hebrew vocalization {kṛ(ā)ṭá} more neatly than {kṛtá} does. However, the accent of {kṛtá} is no negligible detail; the accentual pattern of Vedic would have called for \*[káṛta], although later Sanskrit is written without any accents.

In the Hebrew perfect the vocalization is not minimal; and

$\text{קָרְחוּ}$   $\sqrt{\{k\bar{o}r\bar{\imath}\bar{\imath}^w\}}$  'they have cut' shows the root somewhat like

Skt. च क र्त्त ‡  $\sqrt{\{ča|kart|a\}}$  'he/she has cut' (Vedic and post-Vedic).

The only ending that evidently corresponds is 'you' (singular):

$\text{קָרַחְ}$  † {kṛát|tə} 'you (masc. sing.) have cut'<sup>241</sup>

च क र्त्ति थ ‡  $\sqrt{\{ča|kart|it^h\}}$ <sup>242</sup> " " " " "

<sup>240</sup> Deduced by me from the imperfect or aorist indicative अ कृ तः  $\sqrt{\{ákrtaḥ\}}$  'you hacked' (RV. 1.63.5).

<sup>241</sup> Only the "converted" perfect  $\text{קָרַחְ$   $\sqrt{\{w\bar{a}k\bar{o}r\bar{\imath}t\}}$  'and you are to cut' is in the Biblical corpus, and in a pausal position at that.

<sup>242</sup> The third person singular in the Rígvēda is also च क र्त्ती  $\sqrt{\{čakartā\}}$ . Since the root-syllable is accentable under certain conditions, च क र्त्ती † {ča|kártā} would come closest to  $\text{קָרַחְ-אִם}$   $\sqrt{\{im-k\bar{o}r\bar{\imath}\bar{\imath}^h\}}$  'if she has cut', where — besides the minor accent within the root — the heavy one on the suffix would correspond to lengthening of the vowel in Sanskrit. This comparison is premised on the Hebrew 'she' form, rather than the 'he', being cognate to the IE verb-form, which is not differentiated for gender.

The vowel {-i-}, in this Sanskrit verb and others of similar structure, separates the suffix {-t<sup>h</sup>a} from the consonant group at the end of the root; but in Hebrew, where the triconsonantal root admits of two internal vowels, the last consonant of the root combines with the suffix to make a geminate {-tt-}.

**2.Ub.** Besides the triconsonantal {(-)k(-)r(-)t(-)} forms, many IE languages have forms that evince only the first and second consonants; e.g. Greek κείρ|ουσι<sup>√</sup> 'they cut, are cutting', κερ|οῦσι<sup>√</sup> 'they will cut' (Pokorny, *InEt Wö*, II, 938-941). WITHIN IE, as well as WITHIN Semitic, many C<sub>1</sub>C<sub>2</sub> roots have a C<sub>1</sub>C<sub>2</sub>C<sub>3</sub> alternant (or more than one) with virtually the same meaning. The linguists, especially the Indo-Europeanists, prefer to regard only the biconsonantal as the veritable root, and the third consonant as a sort of extension, or enlargement (see Benveniste, *OrFoNo*, 147-173). A diachronic point of view invites us to take for earlier whatever is simpler. It seems to stand to reason that in most cases, if not all, the biconsonantal must have emerged first. By that criterion a form such as κείρ|ουσι — at least the {k-r-} of it — goes back further than any of the triconsonantal forms that we examined in the previous section. If then we reconstruct prehistory as though no essential evidence were missing (which may be a preposterous assumption on its face), we would posit

- (1) that this biconsonantal root originated inside IE,
- (2) that afterward, inside IE, the (-)t- was added,
- (3) that finally {(-)k(-)r(-)t(-)} spread to part of the Semitic area.

What certain Semitic and IE languages share here, is a triconsonantal root, in effect if not in origin. Furthermore, a few of the inflected forms in both Sanskrit and Hebrew have similar subsidiary morphemes too. It is a possible though not inescapable inference that all that {čakartit<sup>h</sup>a} ({a} = [ʌ]) and {kərátto} [-t<sup>h</sup>] have in common — namely [k ʌ/ɔ r t t<sup>h</sup> ʌ/ɔ] — was transmitted together from the forerunner of Sanskrit to the forerunner of Hebrew. But the non-radical part of the word [-ʌ/ɔ-t<sup>h</sup>ʌ/ɔ] may already have been in both languages, or may not have been shared until later, being carried by some other word or words.

On the other hand, we must never suppose that a mere root — without vowels, disembodied — got somehow transmitted, whether from one language to another or within a language-community from one generation to another. The sociology and psychology of language, its *Sitz im Leben*, proves that everything is learned IN CONTEXT. The minimal unit for actual communication

through speech is a one-word utterance.<sup>243</sup> The morphemes, the meaningful or functional parts of it, become abstractable, however, as they recur in other words; and so, in time, one part will die out in some or all of the words containing it, while another part lives on in some other word or words. When we deal with very distantly related languages, few whole words correspond. So the researchers have concentrated on roots, the discernible cores of words. The danger in this is that the roots will be taken for the main or the only linguistic remnants of prehistoric reality.

To avoid this danger, I look for roots INCORPORATED IN COGNATE WORDS. Where the correspondence is complete for all the morphemes of a word in two such languages, there is a chance, if no certainty, that the whole thing — piece by piece — goes back to a prehistoric prototype.<sup>244</sup>

2.Uc. Hittite has forms such as {kuerzi<sup>√</sup>, kuirzi<sup>√</sup>} ‘he/she cuts’, which evince a biconsonantal root like the Greek, except that the Hittite conjugation has no thematic vowel: the ending {-zi}, cognate to Sanskrit {-ti} and Greek -σι/-τι, is added to the bare root. The labio-velar [k<sup>w</sup>-], if the transliteration is right, corresponds more readily to Sanskrit {k-} than to the same sound in Greek, according to the principles of IE consonant phonology. Hittite also has a few {kart-} forms — notably the preterite {kartānun}<sup>√</sup> ‘I cut’ — and many {karš-} forms such as {kar-aš-zi}<sup>√</sup> ‘he/she cuts’. Morphologically as well as semantically,

<sup>243</sup> Here I am leaving aside the question whether such marginal utterances as *Sh* or *Huh?* qualify as words. See my article, “Language Structure Reconsidered,” *GeLi*, 27 (1987), 220-221.

<sup>244</sup> Möller, *VeInSeWö*, 138, essentially limited his comparison to a biconsonantal root, “[IE] *k-r-* = semit. \**g-r-*” (and “; semit. \**k-r-*”, all three forms of the root going back to “*vori[n]d[o]g[ermanisch]*” and “*ursem[it]isch* \**G-r-*”), although he cited actual words, among them “sanskrit. *kṛntāti* avest. *kērenaiti* ‘schneidet’.” His Semitic cognates to these are no closer than “arab. *garaza* ‘resecuit, amputavit, occidit’ ” and “arab. *qarāḥa* ‘vulneravit’.” Trombetti, however (*ELI*, 751), using some of Möller’s material and bringing in more from other sources, compared the Hebrew “*kārat* tagliare, recidere” (actually קָרַת<sup>√</sup> {*korāt*} ‘he (has) cut’ is a perfect form, not an infinitive) and an Akkadian cognate “*karātu* amputare” with such IE words as “Lit. *kertū* haue, Sanscrit. *karta-na-* il tagliere” (some glosses he left in German; others he translated into Italian). Furthermore he cited from Ural-Altaic languages “Jac[utico] *kārt-* hauen, fällen, Turco *kārt-*, Mong. *kertši-*, Tung. *kārtji-* taglia-re.”

the Hittite imperfect {kar-aš-ten}<sup>√</sup> 'you (pi.) cut' is closest to  
the Hebrew perfect קָרַתְּ<sup>†</sup> {kərat|tén} 'you (fem. pl.) have cut'  
(masc. pl. קָרַתְּ<sup>†</sup> {kərat|tém}).

**2.V. Triconsonantal Sem. (Heb.)** {Har(ə)šé-} : *IE (Gr.)* χάρασσε 'incise'  
(*Ugar.*) {Hrḫt} : (*Hitt.*) {Ḫarašzi} 'he/she plows'

**2.Va.** The Hittite verb {Ḫar-aš-zi}<sup>√</sup> 'he (or she) plows' (Hittite has no distinction between masculine and feminine) shows an apparently triconsonantal root before the third person singular ending {-zi}. But its likely IE cognates — e.g. Latin *ar|at*<sup>√</sup> — have in common with Hittite only a biconsonantal root, furthermore disguised by the disappearance of the initial laryngeal consonant; the quality of the vowel *a*- is a vestige of that laryngeal (Bomhard, *ToPrNo*, 83, 121, 281).

{Ḫaraš-} has more in common with a pan-Semitic triconsonantal root, as in the Hebrew perfect הָרַשְׁתָּ<sup>√</sup> {Hāraš|tém} 'you (pl.) have plowed'. The best morphological correspondence of {Ḫarašzi}

is to the Arabic حَرَّتْ<sup>§</sup> {Haraḫati} 'she (has) plowed'

or its Ugaritic cognate {Hrḫt}<sup>†</sup>, whose vowels are nowhere

recorded.<sup>245</sup>

The Hittite consonant transcribed {Ḫ-} is represented by {H-} in Semitic, except that Akkadian regularly has zero corresponding to Semitic {H};

hence Akk. {a-ru-uš}<sup>√</sup> 'plow' (imperative sing. masc., *AsDi*, IV, 285-86;

Heb. הָרַשׁ<sup>†</sup> {Hārōš}).

The only Semitic occurrence of {H} in this root is a Canaanite (or western Semitic) gloss {aḪ-ri-šu}<sup>√</sup> on the Akkadian {er-ri-šu}<sup>√</sup> or {ir-ri-šu}<sup>√</sup> or {i-ri-šu}<sup>√</sup> 'I am plowing, seeding' (*AsDi*, IV, 287; VI, 96). Given the distance between us and these ancient languages, we can scarcely be sure that the {H}

<sup>245</sup> {Harasat}<sup>§</sup> in Ge'ez. The Arabic [-i] is pronounced only when the next word begins with two consonants — usually a noun of which the first consonant is the prefixed definite article. 'He (has) plowed' is حَرَّتْ<sup>√</sup> {Haraḫa} in Arabic, {Hrḫt}<sup>√</sup> in Ugaritic, הָרַשׁ<sup>†</sup> {Hāraš} in Hebrew, {Harasa}<sup>√</sup> in Ge'ez. In the neighboring Cushitic languages it is *harās*<sup>√</sup> (Saho and Afar), *arās*<sup>√</sup> (Bilin); Leslau, *CoDiGe*, 243. The Egyptian verb {sk3}<sup>√</sup> 'plow' (pointed out to me by Carleton Hodge) has the sibilant at the beginning; so its cognate status is questionable.

Before the decipherment of Hittite, Möller (*VeInSeWö*, 15-16) had already compared this Semitic root — or rather the first two consonants of it — to the IE *ar*.

of Hitt. and the Canaanite gloss was like the known Arabic post-velar خ {Ḫ}, while the {H} of Hebrew and Ugaritic was like the Arabic pharyngeal ح {Ḥ}. But anyhow it appears that for this particular word Hittite was in contact with a Semitic dialect neighboring upon Hebrew — not Akkadian (from which Hittite took many other Semitic loan-words). By so interpreting the etymology we incur no geographical difficulty; and Hittite agriculture may well have had specific points of similarity to that of Canaan (Phoenicia), alongside of the many cultural ties that the Hittites had with the high civilization of Mesopotamia, whose cuneiform writing system they took over.

**2.Vb.** The Hebrew verb for 'plow' gets extended to similar but much subtler invasive motions such as incising or engraving; or else there are two homophonous verbs — the matter is unclear. In either meaning the occurrences are few; least infrequent is the participial form שֹׁרֵץ<sup>√</sup> {Horéš} 'plowing' or 'incising'. But whereas the Ugaritic verb 'plow' is {Hrḫ}<sup>√</sup>, it is not found in the other meaning 'incise'; and the Ugaritic noun {Hrš}<sup>√</sup> with {-š} is 'craftsman', like the Hebrew שֹׁרֵץ<sup>√</sup> {Hrš} (especially in woodwork or metalwork). Ugaritic could have borrowed this noun {Hrš} from a neighboring dialect, similar to Hebrew at least in regard to the third consonant;<sup>246</sup> however, the Ugaritic verb-form {ʔHtrš}<sup>√</sup> 'I shall work magic' does evince a root {Hrš} in the infixing conjugation, with {-t-} between the first and second consonants of the root.<sup>247</sup>

The Akkadian for 'incised, engraved' is {Ḫa-ri-ic}<sup>√</sup> (stative participle; see *AsDi*, VI, 93-94, and Burkert, *OrEp*, 39-40). The basic meaning of this verb seems to be 'cut (off or down)'; most of the occurrences, however, refer to a numerical deduction. Both the first and the third consonant of {Ḫaric} differ from the Akkadian root that means 'plow'. Within Akkadian these are evidently two quite separate verbs. {H-r-c} could correspond to the first consonant

<sup>246</sup> Arabic has {Haraḫa} for 'he (has) plowed' (like the Ugaritic {Hrḫ}), but a different verb حَزَّ<sup>√</sup> {Ḥazza} for 'he (has) incised'.

<sup>247</sup> Gary Rendsburg notes that in Hebrew, besides {Hrš}, two modifications of the third consonant occur in close proximity:

{Hérē} in שֹׁרֵץ<sup>√</sup> 'with the stylus' (Ex. 32:4; meaning uncertain, cf. Is. 8:1),

חֲרָץ<sup>√</sup> {Hbrúʿt} 'engraved, incised' (Ex. 32:16).

of the Hebrew {H-r-š}, since Hebrew — at least as recorded in the twenty-two-letter alphabet — unlike Arabic and Ugaritic has only ח {H}, without a contrasting phoneme {H̥}. But the third Akkadian consonant {-c} cannot regularly correspond to the Hebrew sibilant {-š} (also {-š} in Ugaritic); it does agree well with the Geʿez {Ḥaraca}√ 'he (has) cut in, incised, written' (Leslau, *CoDiGe*, 264). The problem within Semitic could be due to an original diffusion from some unidentified dialect, in which the sibilants were articulated oddly so that some neighbors identified the sibilant in this word with their own {-š} but others with their {-c} (š in the usual notation of the Semitists).

**2.Vc.** The Greek χάρασσε<sup>§</sup> (imperative singular) is closer in sound to the Hebrew than to any other Semitic form, except that the initial [k<sup>h</sup>] was probably a little more like the Akkadian and Geʿez {Ḥ-}. Its meaning too matches that of the Hebrew verb exactly, at least in regard to a certain kind of skillful cutting.<sup>248</sup> In spite of much discussion, the pronunciation of the digraph σσ in Greek of the pre-Christian era remains an unsettled point of Greek phonology: that it was more like [š] or [šš] than [ss], is likely but not established. The Attic χάραττε√, with ττ instead of σσ, may have had an affricate pronunciation [č] or [čč], at least in the "golden age" (around 400 B.C.); but afterward it was simply [tt].

Besides the consonants of the root, the vowels -α-α-ε of the Greek imperative singular are closer to the Hebrew imperative singular masculine WITH AN OBJECT-SUFFIX; e.g. חָרַשׁ הוּ† {Har(ə)šé|hu<sup>w</sup>} 'engrave it'.<sup>249</sup> Without an object-suffix a Hebrew triconsonantal verb cannot show the vowel [e] after the third consonant, as a type of biconsonantal root exemplified by {qəne<sup>h</sup>} shows after the second consonant (**2.Ca**). The final -ε in Greek can be elided before a word beginning with a vowel; even so, χάρασσ' is some distance from {Hārōš} with its accented {-ó-},

<sup>248</sup> Whether, in the final analysis, חָרַשׁ : χάρασσ|ε is more than coincidentally similar to {(-)k(-)r(-)t(-)} 'cut' (**2.Ua-b**), I am not ready even to guess.

<sup>249</sup> This vocalization is attested in other verbs that begin with a guttural; e.g. חָבַל הוּ√ {Ḥab(ə)léhu<sup>w</sup>} 'bind him' (Pr. 20:16, 27:13).

but the unaccented  $\text{חָרַץ}$ † {Hārōš-} (hyphenated to the next word)<sup>250</sup> differs minimally in its vowels from  $\chi\acute{\alpha}\rho\alpha\sigma\sigma'$ .

**2.Vd.** If the meaning of the noun  $\chi\acute{\alpha}\rho\alpha\varsigma$ <sup>√</sup> ‘stake’ (genitive  $\chi\acute{\alpha}\rho\alpha\kappa|\omicron\varsigma$ <sup>√</sup>) were ignored, we could simply take  $\chi\acute{\alpha}\rho\alpha\sigma\sigma\epsilon$  as a denominative verb formed from it within Greek, like  $\phi\acute{\upsilon}\lambda\alpha\sigma\sigma\epsilon$ <sup>√</sup> ‘watch’ from  $\phi\acute{\upsilon}\lambda\alpha\varsigma$ <sup>√</sup> ‘watchman’ (genitive  $\phi\acute{\upsilon}\lambda\alpha\kappa|\omicron\varsigma$ <sup>√</sup>), —  $\sigma\sigma$ - <  $*\text{-ky-}$ .<sup>251</sup> Frisk, *GrEtWö*, has recognised the difficulties — among them, the circumstance that the verb is recorded much earlier than the noun ( $\chi\alpha\rho\alpha\sigma\sigma\acute{\epsilon}\mu\epsilon\nu\alpha\iota$ <sup>√</sup> ‘to sharpen’, Hesiod, *Op.* 573, etc.;  $\chi\acute{\alpha}\rho\alpha\varsigma$  in a proverb quoted in Aristophanes, *Vespae* 1291). The IE connections, if any, are very loose; the best of them is the Lithuanian  $\dot{z}arst\acute{y}ti$ <sup>√</sup> ‘to rake, scrape, poke [coals]’.

LiScJo, which is chary of etymologies, suggested (s.v.  $\chi\acute{\alpha}\rho\alpha\sigma\sigma\omega$ ), “Per[h]aps a Semitic loan-word, cf. Hebr.  $\dot{h}\bar{a}r\acute{a}š$  ‘engrave’; or cogn[ate] with Lith.  $\dot{z}er\acute{t}i$  ‘rake, scrape’.”<sup>252</sup> Chantraine, *DiÉtLaGr* (in a posthumous fascicle, this part of which is credited to Olivier Masson), betrays a prejudice against a Semitic etymology, even while conceding the weakness of any IE etymology: “Mais les rapprochements sont incertains: au mieux lit.  $\dot{z}er\acute{u}$  ‘gratter’, soit 2  $*gher$ - chez Pokorny [*InEtWö*] 441. L’hypothèse sémitique envisagée chez *LSJ* s.u., avec hébr.  $\dot{h}\bar{a}r\acute{a}š$  [i.e. the perfect  $\text{חָרַץ}$  {Hōrāš}] ‘graver’, est en tout cas aberrante.” His ‘in any case’ dispenses Masson from bothering to say what is wrong with the Semitic etymology, as though Hellenists and Indo-Europeanists should not even consider it.<sup>253</sup>

<sup>250</sup> Cf. the actually attested  $\text{עֲמַדְנָא}$ <sup>√</sup> {ʿāmāḏ-nāʿ} ‘please stand’ (II Sam. 1:9).

<sup>251</sup> Modern dictionaries of classical Greek say that  $\chi\acute{\alpha}\rho\alpha\varsigma$  is a POINTED stake, but the ancient texts leave doubt whether it was originally or fundamentally so. No doubt the stakes forming a defensive palisade would be more effective if pointed, but it seems that the primary use of the  $\chi\acute{\alpha}\rho\alpha\varsigma$  was rather to prop up a vine. If an etymological connection to the verb is valid, it shows up most likely in  $\chi\acute{\alpha}\rho\alpha\varsigma$  as ‘a cutting’ or ‘slip’ (Theophrastus, *Hist. pl.* 2.1. 12, etc.).

<sup>252</sup> I, however, owe the derivation of  $\chi\acute{\alpha}\rho\alpha\sigma\sigma\epsilon$  from  $\text{חָרַץ}$  to J. P. Brown. More recently he pointed out to me that from  $\chi\alpha\rho\alpha\kappa$ - in the sense of ‘palisade, fortified camp’ post-Biblical Hebrew (as well as Aramaic) apparently borrowed {kārāk} ‘town’ (attested with vocalization in the plural  $\text{כְּרָכִים}$ <sup>√</sup> {kārakkim}).

<sup>253</sup> In extenuation of Masson’s disservice to linguistic science, I must quote from Michel Lejeune’s preface to this fascicle IV.2 (1980): “Ils [Jean Taillardat, Olivier Masson, and Jean-Louis Perpillou] se sont efforcés de se conformer au modèle procuré par les précédents



Like any other Greek verb with -σσ- (Attic -ττ-) in the present tense, this one shows -κ- only in certain perfect forms, such as κεχάρακται<sup>§</sup> 'it has been engraved' — also in the derived noun χαρακτήρ<sup>✓</sup> 'engraver' or 'die, stamp'. While the -σσ- class of verbs as a whole is unquestionably denominative, it does not follow that this one too must have been formed from a pre-existing Greek noun χαρακ-; for the known meanings of the verb χάρασσ- and the noun χαρακ- (attested later than the verb) do not fit together well. Whatever may have been the source of the noun, it is better to take the verb χάρασσ- for a loan-word from a Semitic language much like Hebrew. Then the -σσ- constitutes a minimal Greek adaptation of the Semitic sibilant, and the -κ- in κεχάρακται, χαρακτήρ, etc., is due to morphological analogy of the type φυλάσσει/κ-.

Burkert (*OrEp*, 40) points to the Akkadian noun {Harīcu}<sup>✓254</sup> 'moat, ditch', whereas χάραξ is sometimes a palisade, not just one stake. Indeed χάραξ was later used to translate the Latin military term *uallum*<sup>✓</sup> (around a camp). The connection of the Akkadian noun to the Akkadian verb is somewhat problematical, on the semantic side — as it is in Greek between χάραξ and χάρασσε. But the morphology of the Greek noun χαρακ-, with -α- in the second syllable, does not resemble the Akkadian {Harīc-}.

## 2.W. Triconsonantal Sem. (Heb.) {(-)z(-)B(-)H(-)} :

IE (Gr.) (-)σφαγ- 'slaughter'

**2.Wa.** The Greek verb σφάζει<sup>✓</sup> (σφάζ<sup>✓</sup> before a word beginning with a vowel) and the active verbal noun σφαγή<sup>✓</sup> have no IE etymology. A promising Semitic etymology has been discovered by J. P. Brown:<sup>255</sup>

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fascicules, et de rester fidèles aux méthodes de travail et de présentation de Pierre Chantraine." Masson was only too loyal to his teacher Chantraine, whose one inveterate prejudice mars a great scholarly achievement (see 1.Ak, note 29).

<sup>254</sup> *ḥarīṣu* in the usual notation.

<sup>255</sup> *EtPa*, 92-93. It supersedes what I had proposed in *InEuSeLa*, 339-340 (cf. Möller, *VelN SeWö*, 44-45, followed by Trombetti, *SaGl*, III, 305; see also Illich-Svitych, *DrInSeJaKo*, 6; Dolgopolsky, *InEuHo*, 15), that the Hebrew  $\Pi \dot{\bar{\bar{z}}}\bar{\bar{b}}\bar{\bar{h}}$ <sup>✓</sup> {zībāh} 'victim' (Aramaic  $\Pi \dot{\bar{\bar{z}}}\bar{\bar{b}}\bar{\bar{h}}$ <sup>✓</sup> {de'baēh}, Arabic  $\dot{\bar{\bar{z}}}\bar{\bar{b}}\bar{\bar{h}}$ <sup>✓</sup> {ḏibh|un}) is roughly cognate to the Greek noun δαπάνη<sup>✓</sup> 'expense' and Old High German *zebar*<sup>✓</sup> 'victim'.

Hebrew  $\text{קָטַל}^{\vee}$  {zabáH} (imperative singular masculine)

Aramaic  $\text{קָטַל}^{\dagger}$  {dabaH}        "        "        "

Arabic  $\text{كَتَبَ}^{\S}$  {(?)ðbaH}<sup>256</sup>        "        "        " .

The object, just as in Greek, is normally an animal, killed by throat-cutting; by extension, the object can be a defenseless human being, deliberately killed in the same or nearly the same manner.

The Greek ζ [zd] (**1.Fg**) has long been explained as a much altered reflex of \*-gy-, the \*-y- being a suffix with many IE parallels. The noun σφαγ|ή shows the root more clearly. In contrast to the Semitic forms, the first two consonants are voiceless and the third voiced. Though surprising, this is not unduly hard to explain: Let's assume that the Greeks based their verb on a Semitic form or forms in which only a minimal vowel separated the second consonant from the first. In Greek, which had no such minimal vowel, the possible consonant-groups that consist of a sibilant + a labial are σπ- [sp-], σφ- [sp<sup>h</sup>-], and σβ- [zb-]. The last of these would have been most like the Semitic, and especially the Hebrew; but only one Greek verb, exemplified by the aorist infinitive σβέσαι<sup>∨</sup> 'to quench', begins this way.<sup>257</sup> Perhaps [b] was not yet available or normal in Greek (**2.Bg**). Anyhow the prevailing phonology of Greek strongly favored a voiceless cluster [sp-] or [sp<sup>h</sup>-]; so the voicing was shifted to the third consonant, in a post-vocalic environment. The aspiration in the second consonant [p<sup>h</sup>] would have come, as part of the metathesis of features, from one component of the Semitic third consonant {H}.

If not for the perfect semantic match, we would scarcely be inclined toward such a phonetically complex etymology. But under the circumstances it appears to work well. The uniform vowel -α- in Greek, exempt from all Ablaut, may be due to the Semitic guttural {H}, which is naturally more partial than other kinds of consonants to the wide-open vowel. For the Greek velar γ would not, in itself, resist the normal ε/ο alternation.

**2.Wb.** The only Greek verb forms with (-)σφαγ- are passive;

e.g. κατ|εσφάγη<sup>∨</sup> 'he was slaughtered, cut down'.

The Hebrew equivalent  $\text{קָטַל}^{\dagger}$  {nizbáH},

with a similar vocalization of the root [-CCÁC] is absent from the Biblical cor-

<sup>256</sup> Also {dbH} in Ugaritic (**1.Cc**); see Gordon, *UGARITIC*, 26.

<sup>257</sup> The etymology of σβε- is very obscure; see Frisk, *GrEtWö*, and Chantraine, *DiÉtLaGr*.

pus, surprisingly in view of the great frequency of the active forms.<sup>258</sup> The Arabic passive يذبح<sup>§</sup> {yuḏbaHu} 'he/it is (being) slaughtered' shows the root with the same internal vocalization {-ḏbaH-}.

Nothing in Semitic recalls the Greek consonant ζ that characterizes not only the imperative singular σφάζε but all present and imperfect forms, "middle" as well as active. But the Greek future —

e.g. σφάξεῖς<sup>√</sup> [sp<sup>h</sup>ák|seis] 'you will slaughter'

ἄπο σφάξεω<sup>√</sup> [-sp<sup>h</sup>ák|sō] 'I will slaughter'

and the aorist — e.g. ἔσφαξεν<sup>√</sup> [é|sp<sup>h</sup>ák|sen] 'he/she slaughtered' —

show the root as [(-)sp<sup>h</sup>ák-], closer than [(-)sp<sup>h</sup>ag-] to the Semitic voiceless guttural {H}: יִזְבַּח<sup>√</sup> {ʔe|zbəH|ɔ<sup>h</sup>} 'I will slaughter, sacrifice'

וַיִּזְבַּח<sup>√</sup> {wayyi|zbáH} 'and he slaughtered, sacrificed'.

The last of these, the Hebrew preterite with the 'and' prefix built in, corresponds well to καὶ ἔσφαξε(ν)<sup>§259</sup> [kaié|sp<sup>h</sup>ák|se(n)], up to the end of the root (cf. 2.Hc). The suffix [-s-] of the Greek future and aorist requires the velar consonant right before it to be voiceless and — according to the best early evidence — fricative.

The Greek feminine noun σφαγή has a possible Hebrew cognate \*יִזְבָּחִי<sup>√</sup> {zəḇəHɔ<sup>h</sup>}; but this is by no means a certain inference from the construct plural {ziḇ(ə)Ho<sup>w</sup>t} in יִזְבָּחֵיהֶם<sup>√</sup> 'from their sacrifices'. Anyhow the Greek nominative plural σφαγαί<sup>√</sup> has at least a phonetic parallel in

יִזְבָּחֵי<sup>√</sup> {zəḇəHáy} 'my sacrifices'.

This Hebrew noun, however — {zébaH} in the singular with no suffix — is masculine, and signifies the victim, the animal slaughtered, rather than the act of slaughtering.<sup>260</sup>

<sup>258</sup> In the Mishnah יִזְבָּחֵי שְׁנֵי זָבָחִים<sup>√</sup> {šenni<sup>y</sup>zbəHu<sup>w</sup>} 'that have been slaughtered' (pausal [-3-]).

<sup>259</sup> The plural καὶ ἔσφαξαν<sup>√</sup> [kaiésp<sup>h</sup>ák|san] 'and they slaughtered' (*Iliad* 2.422):

וַיִּזְבָּחוּ<sup>√</sup> {wayyizbəH|ú<sup>w</sup>} " " " (Ex. 24:5, etc.).

<sup>260</sup> An IE cognate or borrowing, phonetically closest to {zébaH}, may be lurking in the Umbrian word SEVAKNE<sup>√</sup> (written right to left — so I have given a mirror image of it; also, on a later tablet in Latin letters left to right, SEVACNE<sup>√</sup>). Its morphology is unclear. In most passages of the Iguvine tablets (which prescribe the ceremonies of this ancient town in Italy) the scholars take it for an adjective 'perfect, unblemished', but in some passages for a noun

**2.Wc.** A most impressive combination is (I Kings 1:19)

Heb. **וַיִּזְבַּח שָׂרָא** <sup>√</sup> {wayyizbáh šóʿr} ‘and he sacrificed a bull (or ox)’, which could be translated καὶ ἔσφαξε ταῦρον† (1.Ac1).<sup>261</sup>

Arabic **لَمْ يَذْبَح ثَوْرًا** <sup>§</sup> {lam yaðbaH þawran} ‘he did not sacrifice a bull’ (cf. 2.Nf) gives a better morphological parallel to the Greek noun, though not to the Greek verb: οὐκ ἔσφαξε ταῦρον†. Since the Greek participle is recorded with this noun as its object — [Cyri 2.2.9),

σφάξαντες (nom. pl.) ταῦρον <sup>√</sup> ‘upon sacrificing a bull’ (Xen. *Anabasis*  
σφάξαντα (acc. sing.) ταῦρον <sup>√</sup> " " " " (Arrian, *Anabasis Alexandri* 1.11.6) —

the non-occurrence of the indicative ἔσφαξε with ταῦρον must be just an accident of the accessible corpus. The compound adjective in ἡμέρῃ ταυροσφάγῳ <sup>√</sup> ‘on bull-sacrifice day’ (Sophocles, *Trachiniae* 609) and the compound verb derived from it, which the participle ταυροσφαγούντες <sup>√</sup> ‘bull-sacrificing’ exemplifies, prove the close association between the beast and the ceremonial slaughtering.

Along with the meaning of the Semitic and Greek verb, and of the related nouns, we must note the cultural importance of such vocabulary, which pertains — like ἑορτή ‘holiday gathering’ (2.Rb) and βωμός ‘altar’ (2.Gb) — to solemn, festive customs. Here a Semitic people was in a position to influence the early Greeks; or — to put it the other way — the Greeks were in a position to learn.

**2.X.** Bi- or tricons. Sem. (Heb.) {(-)Boʿš(-)} : IE (Latin) pud- ‘ashamed’

**2.Xa.** In *InEuSeLa* (525 ff.) I drew attention to the parallel between

Latin *tē pud|et* <sup>√</sup> ‘you (singular) are ashamed’

and Hebrew **תִּבְשִׁי** <sup>√</sup> {te|bōš|iʿ} ‘you (fem. sing.) will be ashamed’

(masc. sing. **תִּבְשֶׁנּוּ** <sup>√</sup> {te|bō(ʿ)š}).<sup>262</sup>

The placement of the stative subject ‘you’, right before the verb-root but usual-

‘sacrifice’. The circumstance of right-to-left writing adds to the likelihood of Semitic influence upon the priestly vocabulary.

<sup>261</sup> Actually rendered καὶ ἐθυσίασεν μόσχους <sup>√</sup> ‘and he sacrificed calves’ in the Septuagint.

<sup>262</sup> **וְשִׁי תִבְשִׁי** <sup>√</sup> in the sense of ‘she will be ashamed’ does occur (Jer. 51:47). In Hebrew, as in most Semitic languages, the same prefix {T-} serves indistinguishably for ‘she’ and ‘you’, the latter having a masculine singular reference unless a suffix is added to make it feminine or plural.

ly not at the beginning of an utterance, is an important survival of cognate syntax, as well as morphology (3.Ca-d).

The Aramaic translation of {tēbō(ʷ)šiʸ} is תִּבְחֵינְךָ<sup>√</sup> {tībbaēhtiʸn}; the root in Aramaic is {(-)B(-)h(-)T(-)}. The third radical consonant {t}, as often, corresponds to Hebrew {š}, and is closer than the Hebrew to the Latin -d.<sup>263</sup> As this Latin verb has no likely IE cognates whatever (see Ernout – Meillet, *DiÉtLaLa*), we cannot be sure that it would have been {-d-} in Greek, Sanskrit, Avestan, etc., the same as in sed-, ēδ-, {sad-}, {had-} 'sit' (2.Bf). Anyhow, pud- probably goes back to an early prehistoric borrowing from Semitic.

The second Aramaic consonant, the relatively weak {h}, is occasionally a counterpart to the the Hebrew {ʷ} in roots of a similar pattern:

רָנָה<sup>√</sup> {rú<sup>w</sup>c} 'run' (II Sam. 18:23, etc.) is translated רָהוּט<sup>√</sup> {rəho<sup>w</sup>T}. To be sure, {-æh-} is much further than the Hebrew {-o(ʷ)-} from the Latin -u-. A borrowing in the other direction, by Semitic from the prehistoric forerunner of Latin, is virtually out of the question; for what could then have produced the Aramaic {-bæht-}? That must go back to a Semitic alternation [w/h]. The Semitic source from which Latin drew pud- evidently had [w], not [h].

As in several other etymologies, the Latin voiceless *p* corresponds to a Semitic voiced {b}. The likeliest though not the only possible cause is that \*b was unavailable in the forerunner of Latin at the time of borrowing.

<sup>263</sup> The Ugaritic imperative {bḫ} shows the normal correspondence to Aramaic בְּחֵי<sup>√</sup> {bəhaēiʸ} and Hebrew בּוֹשִׁי<sup>√</sup> {bo<sup>w</sup>šiʸ} 'be ashamed' (fem. sing.; masc. sing. בּוֹשׁ<sup>†</sup> {bo<sup>w</sup>š}). The Ugaritic indicative form cognate to {tībbaēhtiʸn, tēbō(ʷ)šiʸ} would be {tḫn}†. Feminine forms of this verb are inordinately frequent in the prophetic books of the Bible; the nation is addressed as though it were one woman, either rebuked for adultery or vindicated or forgiven. We can safely infer that in the ancient Hebrew language — beyond what happens to be embodied there in the Scriptures — the verb indeed had a female subject very often. Shame was something that women were more sensitive to, and it must have figured less in man-to-man talk.

My transliteration distinguishes the fricative phoneme {ḫ} of Arabic, Ugaritic, Avestan, and other languages (including English) from the Aramaic and Hebrew {t}, a fricative allophone of /t/ in post-vocalic positions. Either way the sound is very nearly the same, but [ḫ] is articulated by thrusting the tip of the tongue between the upper and lower teeth, whereas I take this and the other Aramaic and Hebrew fricatives to have been quite homorganic with the respective plosives; so ת {t} would not be interdental. See *InEuSeLa*, 324-325.

**2.Xb.** A rare Greek noun that evinces a separate borrowing from Semitic is  $\pi\acute{o}\sigma\theta\eta$  (in the accusative  $\pi\acute{o}\sigma\theta\eta\nu$ ) 'penis', probably a euphemism even in the vulgar context of Aristophanes' comedy (*Nubes* 1016), where the speaker is promoting old-fashioned decency. The surprising FEMININE ending  $-\eta$  invites comparison with the Heb. feminine noun  $\text{בֹּשֶׁת}$  {bóšēṭ} 'shame'<sup>264</sup> (with a poss. suffix  $\text{בֹּשֶׁתְּךָ}$  {bōšēṭēkā} 'your [m. pl.] shame'), in which {-t/-t-} is the feminine marker.<sup>265</sup>

In respectable discourse the neuter  $\alpha\iota\delta\acute{o}\iota\alpha$  (collective, rather than plural) was the regular term for the male organ, and sometimes for the female too; it is an adjective derived from the noun  $\alpha\iota\delta\acute{o}\varsigma$  'shame, reverence' (dative  $\alpha\iota\delta\acute{o}\iota$ ). This euphemistic application appears to have gradually driven out the use of the adjective in its original sphere of dignifying certain persons as 'venerable'. The Latin equivalent to  $\alpha\iota\delta\acute{o}\iota\alpha$  is the gerundive *pudenda* (neuter plural) from the verb-root *pud-*.

$\text{בֵּית הַבֹּשֶׁת}$ , literally 'the house of shame', refers in rabbinic Hebrew to the female genitals (in Biblical it would be  $\text{בֵּית הַבִּיטָה}$  {be'it-habbóšēṭ}). That before the rabbinic period the noun {bóšēṭ} stood for the sex organs is not shown by any direct evidence in Hebrew, which had no comic literature comparable to Aristophanes in Greek and accordingly has not preserved many examples of obscene speech, nor of the euphemisms to finesse it.<sup>266</sup> But Bible scholars are familiar with the pious use of {bóšēṭ} to substitute for {bāšal} 'Master' in compound personal names, after {bāšal} was taken to refer to a god other than the God of Israel — and at that, a god celebrated for sexual potency (cf. Hosea 2:10-19). Thus a genealogical list preserved in I Chronicles gives King Saul's youngest son as

<sup>264</sup> {bu-uš-tum} 'embarrassment, shame' in Akkadian. The Greek  $-\eta$  seems nearly of a piece with that of  $\epsilon\omicron\omicron\omicron\tau\eta$  and  $\text{Ἀστάρτη}$  (2.Rb).

<sup>265</sup> This part of my etymology originated with J. P. Brown.

<sup>266</sup> Cohen (*EsCo*, 176) cites "BERB. *bəšši* 'vagin' ... COUCH[ite]. sa[ho] af[ar] *bus*, sid[ama] (djandjero) *bōsā* 'vulve'." His "akk. *baštu* 'parties sexuelles, honte' " is questionable: this noun — unlike {buštu(m)} (note 264) — usually means 'dignity' or 'vigor' (2.Xc, note 268); Von Soden, *AkHa*, 112, gives "*bāštu(m)* 'Scham; Lebenskraft'"; but *AsDi*, II, 144, contradicts this: "The word *baštu* does not denote sexual parts or sexual power...."

לְאִשְׁבָּעַל √ {ʔēšbʕal} '[the-]Master-Is-There' (i.e. he exists, he lives; 8: 33, 9:39),<sup>267</sup> but in the narrative of II Samuel it is changed to אִישׁ-בִּזְשַׁת √ {ʔiʕš-bōšēṭ} 'Man of Shame' (2:10,12, etc.).

2.Xc. Now on grounds of general probability I infer that {bōšēṭ} 'shame', to replace an originally and inherently innocent utterance {bʕʕal} 'master',<sup>268</sup>

<sup>267</sup> That {ʔēšbʕal} means this, rather than 'Man-of-[the-]Master', was pointed out to me by Gary Rendsburg. The name could have been understood as an oath formula, somewhat like חַי־יְהוָה וְחַי־הַמֶּלֶךְ √ (ḥay-(ʔādoný) wəḥēʔ ʔādoniʔ hammēlēḵ) '[as] the LORD lives and my lord the king lives' (II Sam. 15:21); cf. the Ugaritic {wʕdʕ . k|ḥy . ʔʕlyʔn . bʕl . k|ʔḫ . zbl . bʕl . ʔʕrc} √ 'and I know that [the] mighty (?) Master lives, that ZBL ['Prince' or 'Disease', or both?] Master of Earth [or 'of the land'] exists' (Gordon, *UgTe*, 168 [Text 49.III.8-9, cf. 20-21], 368-369). Therefore, once the {bʕʕal} part of {ʔēšbʕal} became odious, the man's name was all the more intolerable because it seemed to insist that this false god is real, and that his existence is something to swear by.

אש occurs as a quasi-verb 'there is/are' in Hebrew, though much less often than its Ugaritic cognate {ʔḫ}: הָאֵשׁ בֵּיתָ רָשָׁע אֶצְרֹתָ רָשָׁע √ (ʕʕd ha|ʔš bēʔt rʕšʕ ʔocəroʔt rēšʕ) 'Are there still treasures of wickedness in the wicked man's house?' (i.e. dishonest gains, not restored to the rightful owner; Micah 6:10, cf. II Sam. 14:19). The usual Hebrew form is יֵשׁ √ {yēš}; see Joshua Blau, "Marginalia Semitica II," *Israel Oriental Studies*, 2 (1972), 58-61. {ʔiʕ/yēš-} is very close, both in sound and in meaning, to the basic IE verb exemplified by Greek ἔσ|τι √, Sanskrit अ स्ति √ {ás|ti}, Latin es|t √, etc. (cognate to German [ʔ]is|t √, English is √), which at the beginning of a sentence signifies 'there is' (Hittite eš|zi √ 'is' or 'sits').

Illich-Svitych, *OpSr* (b-Ḳ), 268-270, gives clear Cushitic cognates, which are confirmed by Herma Plazikowsky-Brauner, "Die Hilfselemente der Konjugation in den kuschitischen Sprachen," *ZeDeMoGe*, 107 (1957), 19: eš √ 'bin/bist/ist' in Agau, is √ in Maḡḡi. For the Berber languages too, Illich-Svitych adduces cognates, of which the closest — phonetically — is Tuareg and Kabyle as √, but this is glossed 'прибыть' (= to arrive). On the same order, under Uralic languages, the best that he can come up with is the Finnish "as- 'жить' [to live], 'проживать' [to reside]". This is evidently an important Nostratic etymology, to which he allots more space than is usual in his terse entries. The semantic development that he posits sounds reasonable enough, but necessarily vague.

<sup>268</sup> It has been suggested that this man — like several others — somehow had two names, one theophoric with בַּעַל - and one possibly also theophoric with בִּשְׁת - meaning not 'Shame' but 'Dignity, Pride, Vigor', since Akkadian has indeed names such as {mūtibāšti} √ 'My-Husband-[is-]My-Dignity', i.e. 'My-Patron' or 'My-Guardian'; see M. Tsevat, "Ish-bosheth and Congeners: The names and their study," *HeUnCoAn*, 46 (1975), 76-85. While

was secondary, suggested by the colloquial usage of {bōšēṭ} as a euphemism instead of a coarse, obscene word. For nothing is more natural in many societies than to cry out "Shame!" when something unseemly has just been uttered. The offended listeners, with this outcry, may even manage to drown out the unseemly word, if they sense that it is about to be voiced.<sup>269</sup> After some experience, the adverse reaction is liable to be anticipated by some speakers, and averted through the expedient of substituting the very word 'Shame' (or its equivalent) for the obscenity itself. This euphemism does not, at first, SPECIFY a certain obscenity (in contrast to other obscenities); but soon enough it comes to be so understood, and it too, in time, may become obscene.<sup>270</sup>

Furthermore a curious change within Greek points to a model in Hebrew. The classical Greek word for 'foreskin' is ἄκρο|ποσθ|ῖα<sup>√</sup>, found in scientific treatises (Aristotle, *Hist. anim.* 11.13.493a.13, etc.; Ionic ἄκροποσθη<sup>√</sup>, Hippocrates, *Aphorismi* 6.19, etc.) — a normal Greek compound of 'tip' + 'penis', just like ἄκρ|ωμ|ῖα<sup>√</sup> 'tip of the shoulder, (in a horse) withers', ἄκρωνυχία (in the accusative ἄκρ|ωνυχ|ῖαν<sup>√</sup>, genitive ἄκρωνυχιάς<sup>√</sup>) 'tip of the nail'<sup>271</sup> and many other nouns. But the Hellenistic Jews altered ἄκροποσθῖα to ἄκροβυστία<sup>√</sup> (so throughout the Septuagint and the New Testament). Whether or not they definitely sensed an etymological connection between the Hebrew {bōšēṭ, bōšt-} and πόσθη, their deformation of -ποσθ- to -βυστ-

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some individuals were in fact known either by two names or by two forms of one name, that will not explain the PAIRING of a בעל - form with a בשת - form. Nothing but deliberate substitution seems adequate to account for this; and from Hosea 2:18 we know of a revulsion against the very sound of the ordinary word בעל 'master', because it had come to be associated with the orgiastic worship of the rival god.

<sup>269</sup> The English word *euphemism*<sup>√</sup> is from the Byzantine Greek εὐφημῖσμός<sup>√</sup>, which goes back to an ancient verb εὐφημει<sup>√</sup>, literally 'speak well' but actually like 'hush', addressed to one who has just said something impious. The plural εὐφημείτε<sup>√</sup> was addressed to a crowd, right before the commencement of a ceremony; it too can be translated 'hush', but the etymological meaning was still applicable: if someone were to say something amiss (δύσφημον<sup>√</sup>), the others should drown it out with something auspicious.

<sup>270</sup> The recent fashion of indulging in obscenities, and countenancing them rather than protesting, has made it easier for linguists to discuss obscene words scientifically on an equal footing with the rest of the vocabulary, whereas our predecessors felt obliged to sidestep obscene items or — at the most — to treat them very briefly. On the other hand, any linguist who is personally insensitive to obscenity will hardly understand the psychology of euphemism.

<sup>271</sup> In the texts it shows only the figurative sense 'mountain ridge'.



must have been prompted by the Hebrew word, whose meaning was appropriate to this sexual term.

πόσθη also must have been borrowed from Semitic \*[bost<sup>h</sup>] (or \*[bost<sup>h</sup>-]) before Greek had a voiced plosive [b-], or while [b-] was so rare that a foreign [b-] would be reinterpreted as [p-] (cf. 2.Xa).

**2.Xd.** Most Indo-Europeanists have connected the feminine noun πόσθη with the more frequent neuter πέος<sup>√</sup>, which means the same — always in a vulgar setting — and has a Sanskrit cognate पशः<sup>√</sup> {pásah} ({pásas}<sup>†</sup> if the next word begins with {t-} or {t<sup>h</sup>-}).<sup>272</sup> The -θ- of πόσθη, however, resists explanation within Greek or IE; and πέος : {pásah} too has an attractive Semitic connection: {béšēf} 'shame' in the proper name יְרֻבְשֶׁף<sup>√</sup> {yərub|béšēf} 'Shame-Multiplies' or 'Shame-Contends', the euphemistic substitute in II Samuel 11:21 for יְרֻבְאֵל<sup>√</sup> {yərub|báʿal} '[the-]Master-Multiplies' or '-Contends' (Judges 9:2, etc.). This hero, who also had the name גִּדְעֹן<sup>√</sup> {gidʿōʿn},<sup>273</sup> was uniquely fertile in having seventy sons by his many wives, besides one by a concubine who became the greatest warrior of his generation.

πέος, its Sanskrit cognate {pásah}, and the Hebrew {béšēf} would thus be from a root \*B-S-, related to the root that is represented in Hebrew by {(-)bš(ʿ)š(-)} and in Latin by pud|et; but in this Greek, Sanskrit, and Hebrew noun there is no -u- or {-w-} between the two radical consonants. One generally overlooked detail, however, suggests rather that πέος, if not

<sup>272</sup> O. Szemerényi, for one, derives πόσθη instead from IE \*ghozdhā, the source also of the Latin hasta<sup>√</sup> 'spear'; "The Development of the Indo-European mediae aspiratae in Latin and Italic," *Archivum Linguisticum*, 5 (1953), 13-16.

Illich-Svitych, *OpSr* (p-q), 96-97, cites only Uralic (Finno-Ugrian) cognates to this IE noun, and among his predecessors he mentions the alternative interpretation of Munkácsi that the Uralic forms were borrowed from IE.

<sup>273</sup> The English form *Gideon*<sup>√</sup> has resulted from a bad compromise between two defective systems. Before Christian scholars learned enough Hebrew during the Renaissance to read the original text (preserved by the Jews), they naturally wrote *Gedeon*<sup>√</sup> just as in Latin, transliterating Γεδεών<sup>√</sup> from the Septuagint. Thereafter, studying the Massoretic Hebrew text but grasping its pronunciation very poorly, they perceived no way to represent the Hebrew guttural ע with anything in the Latin alphabet. So they let the second -e- in *Gedeon* stand, while changing the first -e- to -i-.

{pásah} too, was a relatively late borrowing from Semitic: the vowels [-éo-] did not contract to [-ô-] in Attic, notwithstanding the loss of the sibilant in between (cf. ἑορτή, **2.Rb**). The contraction would have made this word a homophone of the masculine noun ποῦς<sup>√</sup> [pōs] 'foot' in the nominative case, except for a different accent.<sup>274</sup>

The Hebrew letter ש, between ר {r} and ת {t} in the alphabetic sequence, was the source of the Greek Σ. Although the Jewish tradition has been pronouncing it as the "hushing" sibilant [š] in this word [(-)bōš(-)] and most others — and the Samaritan tradition likewise [š] in all words with ש — there are strong arguments that many centuries further back, long before the Christian era, it was [s] (*InEuSeLa*, 325-333).

The morphological parallel between two nouns, both feminine in Hebrew and both neuter in IE:

Hebrew {bēšet} 'shame'	{šēbet} 'seat'
Sanskrit {pásah} 'penis'	{sádah} "
Greek πέος	"
	ἔδος "

(**2.Bf-g**) powerfully corroborates the two etymologies, although the divergent IE treatment of the consonant that is cognate to Hebrew {b<sub>h</sub>} implies a gap in time — \*pés<sup>√</sup>/es being borrowed more recently.

Beyond the somewhat narrow zone of exact correspondence, a phonetically partial cognate of Sanskrit {pás-} : Greek πέ- appears in Middle High German *vēsel*<sup>√</sup>, *visel*<sup>√</sup>.<sup>275</sup> The Latin *pēnis*<sup>√</sup> itself is more questionable etymologically, whether to derive *pē-* from \*pes- or from \*pend(s)- 'hang'.

**2.Xe.** A modified or related root appears in the Hebrew masculine noun

שִׁשְׁתִּי <sup>√</sup> {bəʔóš} 'stench'	: Greek πύος <sup>√</sup> 'rot, pus' (neuter)
יִשְׁשִׁי <sup>√</sup> {ḡəʔš óʷ} 'his stench'	: Latin <i>pūs</i> <sup>√</sup> " " "
אִשְׁשִׁי <sup>√</sup> {ḡəʔš óm} 'their stench'	
Akkadian {bu-ʔ-šú} <sup>√</sup>	

<sup>274</sup> J. P. Brown points out that the myth of Ὀιδίπους<sup>√</sup> hints at the meaning 'Swollen-penis' no less than 'Swollen-foot': the sexual prowess of marrying his mother, and the Sphinx's riddle about the third foot (cf. *short arm* in army slang — e.g. a "short-arm inspection" to detect venereal disease). Some of the recorded case-forms are inconsistent with the declension of ποῦς 'foot', but none of them would fit the contracted -εος declension either, except for the vocative Ὀιδίπους (Sophocles, *OT* 14, etc.).

<sup>275</sup> Also, but misleadingly, OHG *fasel*<sup>√</sup>, which really means 'offspring', is given in some etymological dictionaries (of languages other than German) as though it were equivalent to *vēsel* and πέος.

The Latin long vowel is close to the Hebrew {-וֹ-} before a suffix, whereas the Greek disyllabic -υο- rather resembles {-əʷo-}. In Hebrew a triconsonantal root is evident; for it appears also as a verb:

וַיִּשְׁכַּח <sup>√</sup> {uʷ|ʃəʷāš} 'and it shall stink',

וַיִּשְׁכַּח <sup>√</sup> {wayyi|ʃəʷāš} 'and it stank', etc.,

which has Semitic cognates referring generally to a bad state. Only in Akkadian does the verb sometimes match the Hebrew meaning 'SMELL bad, stink':

{bi-ʔ-iš} <sup>√</sup> 'it stinks',

although Aramaic וַיִּשְׁכַּח <sup>√</sup> {bəʔéš ʕālōʰiʰ} 'it seemed bad/  
was displeasing to him' (Dan. 6:15)

may well have meant originally 'it smelled bad'.

πύους <sup>√</sup>, the genitive case of the Greek noun, evinces a declension in which the final [-s] of πύος appears to be a suffix (the same as in πέος), rather than part of the root. Latin morphology leaves it unclear whether *pūs* should also be analyzed as a root morpheme + a noun-forming neuter suffix. If the prehistoric Latin form was *\*pūōs* like the Greek, the change of *ō* to *ū* in any unstressed final syllable would undoubtedly have yielded a monosyllable with *ū* (< *\*pūūs*).<sup>276</sup>

The Latin verb *pūt|et* <sup>√</sup> 'it is rotten, stinks' has a dental plosive [-t-] (cf. *pūdet*, 2.Xa), which is not a sibilant though phonetically related; the Greek equivalent πύεται <sup>√</sup> also has a dental plosive [-tʰ-]. Other IE cognates, such as the Sanskrit पूयति <sup>√</sup> {pūyati} (Pokorny, *InEtWö*, I, 848-849), imply that the root — in Latin and Greek too — does not extend beyond *pū-*. However, a sibilant extension of it appears in the Swiss-German participle *ge|fōs|en* <sup>√</sup> 'rotten', Dutch *voos* <sup>√</sup> 'spongy' — thus resembling the Semitic triconsonantal {B(-)ʔ(-)š}.

There is also an Egyptian feminine noun {bw.t} <sup>√</sup> 'abomination' — written with a FISH determinative that means 'stink'; Gardiner, *EgGr*, 477).<sup>277</sup>

**2.Xf.** Furthermore these words may well be — in an especially revealing way — onomatopoeic. For the syllable [pu], or something much like it, is

<sup>276</sup> The plural *pūra* <sup>√</sup> is consistent with this analysis (< *\*pūēra*).

<sup>277</sup> Erman — Grapow, *WöAeSp*, I, 453. Raymond O. Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford: Griffith Institute, 1962), 82, also lists a verb {bwt} <sup>√</sup> and its older form {bw} <sup>√</sup>. For this section and the following one I am heavily indebted to J. P. Brown.

what people speaking many languages utter, while wrinkling up the nose to keep the smell out and pursing the lips so as to open them minimally and expel the foul air without taking any more in (see Frisk, who also cites the German *pfui*; *GrEtWö*, s.v.  $\pi\theta\omicron\mu\alpha\iota$  and  $\phi\epsilon\upsilon$ ). In English texts a comparable utterance is most often spelled *phew*<sup>v</sup>; what I hear pronounced is, rather, [p<sup>h</sup>yu].<sup>278</sup>

$\phi\upsilon$ <sup>v</sup> [p<sup>h</sup>ũ] is the most exact monosyllabic equivalent possible in Greek — found only in Aristophanes' comedies:  $\phi\upsilon\ \phi\upsilon$ ,  $\iota\omicron\upsilon\ \iota\omicron\upsilon\ \tau\omicron\upsilon\ \kappa\alpha\pi\upsilon\omicron\upsilon$ <sup>v</sup> (*Lysistrata* 295, 305, complaining of 'the smoke').<sup>279</sup> To reconcile the aspirate consonant in  $\phi\upsilon$  with the non-aspirate at the beginning of the verb  $\pi\theta\omicron$ -, we could invoke Grassmann's "law": [p-t<sup>h</sup>-] < \*[p<sup>h</sup>-t<sup>h</sup>-]; but that will not do for the Sanskrit or the Latin verb with an initial [p-] and no aspiration later on. So the relation of  $\pi\theta\omicron$ - to  $\phi\upsilon$ , though still likely, remains unclear.

In the Semitic languages I know of no monosyllabic exclamation upon which a triconsonantal verb such as **שׁאב** might have been based. The voiced [b-] seems, offhand, a little less suitable than [p-] or [p<sup>h</sup>-] to express disgust — unless tightly combined with the glottal stop [bʔ-]. The noun **שִׁבְּ** I have transcribed {bəʔōš} according to the rule that between any two initial consonants the sign ְ stands for a pronounced [ə]; but this might be an exception, in which case [bʔō-] would not be too far from  $\phi\upsilon$ .

We often have to allow in comparative linguistics for the special phonology of onomatopoeic words, based on an INARTICULATE sound. They are liable to arise, and to spread, at almost any time in the prehistory or history of any language. Subsequently they may or may not undergo the same phonetic changes as words that are not perceptibly onomatopoeic.

<sup>278</sup> Quotations from Shakespeare and his contemporaries in *OxEnDi* (s.v. "Pooh") give *puh*<sup>v</sup>, *pugh*<sup>v</sup>, *pue*<sup>v</sup>, which suggest a pronunciation [p<sup>h</sup>yu]; but the dramatic context does not imply that the character is reacting to a foul smell.

<sup>279</sup> In  $\phi\upsilon\ \iota\omicron\upsilon\ \tau\eta\varsigma\ \alpha\sigma\beta\omicron\lambda\omicron\upsilon$  (*Thesmophoriazusaë* 245) the speaker complains of 'the soot'.  $\phi\epsilon\upsilon$ <sup>v</sup>, which is also quite similar to the English [p<sup>h</sup>yu], is found much oftener than  $\phi\upsilon$  to vent the speaker's distress or disgust; but only in *Lysistrata* 312 —  $\phi\epsilon\upsilon\ \tau\omicron\upsilon\ \kappa\alpha\pi\upsilon\omicron\upsilon\ \beta\epsilon\beta\alpha\iota\alpha\acute{\epsilon}\xi$ <sup>v</sup>, again mentioning 'the smoke' — does the context indicate something that smells bad. Apart from comedies, Greek literature would hardly ever descend to such vulgarity.

The evidence for a comparable exclamation *fu* a few times in the Latin of Plautus' comedies depends on emending some difficult lines. See Gonzalez Lodge, *Lexicon Plautinum* (Stuttgart: B. G. Teubner, 1924; repr. Hildesheim: Georg Olms, 1962)

**2.Y.** *Triconsonantal Sem. (Heb.) {ʕl-w(-)r(-)ʔ(-)} : IE (Latin) *uerē*- 'fear'*

**2.Ya.** Although this is one of the most difficult etymologies (Möller, *VeInSe Wö*, 270-271; Cuny, *InÉtCo*, 170), the starting point is fairly easy. The Hebrew stative verb **יָרָא** <sup>√</sup> {yṛéʔ} 'he is/was afraid, he fears/ed' functions also (like {móléʔ}, **2.Ja**) as a stative participle or adjective 'fearing, afraid' (masculine singular); and it consists of a triconsonantal root with the internal vocalization {-ɔ-é-} but no suffix or prefix. Any subject other than 'he' requires a suffix; one of them **אַתָּא יָרָא** <sup>√</sup> {yṛéʔ|tɔ} 'you (masc. sing. are/were afraid'

has a plausible IE cognate in Lat. *uerē* |re<sup>√</sup> 'you (sing.) are afraid'.

It is like {móléʔtɔ} : -*plēre* 'you are full' (**2.Je**), except that *uerēre* — unlike -*plēre* — has a vowel between the first two radical consonants *u-r-*; so the discrepancy or Ablaut relation between the Latin front-vowel *ē* and the Hebrew back-vowel {ɔ} in the first syllable recurs in the third. The Latin long vowel *ē* corresponds neatly to the Hebrew {e} followed by **ס**. Furthermore the Hebrew initial {y-} alternates in certain forms with non-initial {-<sup>w</sup>-} or {-w-}; e.g. **סָרַס** <sup>√</sup> {no<sup>w</sup>rɔʔ} 'feared, fearsome' (cf. **2.Bc**)

: **סָרַסְתָּ** <sup>√</sup> {tiwwɔréʔ} 'you will be feared' (Levin, *InEuDeAj*, 110).

The Latin verb is "deponent" — i.e. with no active endings; and no other Latin forms besides *uerēre* have a Semitic cognate. If this etymology ended there, it would be interesting but not at all sensational.

**2.Yb.** The highly problematical IE etymology of the Greek verb ὁρᾶ<sup>√</sup> 'see' (Attic imperative singular)<sup>280</sup> gains from a comparison with Semitic — in particular, with Hebrew, although Ugaritic too has the root {yṛ<sup>ʔa</sup>/ʔi}<sup>√</sup> 'fear'. Indo-Europeanists have long noted the intriguing resemblance between this Greek verb and the Latin *uerē*-, though the Latin endings do not correspond to anything in Greek. The best parallels involve non-Attic forms, sparsely attested. A single occurrence of ὁρᾷ<sup>√</sup> 'he sees', in an Aeolic poem of Theocritus (30.22), is more like the Hebrew {yṛéʔ} than anything in Latin or elsewhere in IE. This poem survives in just one late medieval manuscript of unfortunately poor

<sup>280</sup> The verb is conventionally cited as ὁρᾶω ('I see'). This ought to be starred, not only under my present system (which distinguishes several degrees of authenticity; see Introduction, p. 1) but according to the general practice of linguists for the last few generations. But the linguistic convention of the asterisk has yet to make its way into elementary Greek morphology. ὁρᾶω is merely a reconstruction by grammarians, and Occidental grammarians at that; no Greek text in any dialect has \*ὁρᾶω.

quality; so many of the Aeolic forms are of questionable authenticity. The initial “rough breathing” (ʰo- = [h o-]) is incompatible with the Aeolic that we know from better sources; but that defect is readily emended to ʰo- [o-], since the Byzantine scribal tradition was notoriously weak in regard to this diacritic outside of Attic and Homer.

It is harder to say whether the -η is valid as is; the recent editors are divided, and indeed it would be astonishing if the ancient Aeolic form had not been -ηι (but see **2.Hc**, note 95).<sup>281</sup> The morphological uncertainty about ʰόρη does not extend to the meaning; the context is perfectly clear, no less than in an Attic text. The subject of this verb is a love-sick man, the object ʰενύπνια ‘dreams’. So it means ‘he sees’, but with a hint of ‘fearfully, with dread’. We cannot of course prove this was part of the meaning for a monoglot Greek reader of Theocritus.<sup>282</sup> At any rate the Aeolic passage enables us to bring this Greek verb a little nearer the verb that means ‘fear’ in Latin and Hebrew.

The Greek evidence for a prehistoric initial \*[w-] is indirect and somewhat debatable. The Attic imperfect ʰεώρᾱ<sup>√</sup> ‘he/she saw’ is considered by some to reflect \*wewo-, by others \*seso-. In favor of \*wewo- is the non-contraction of the adjacent vowels [heō-], which in Attic is normal only where \*w was lost, at a later time than \*s or \*γ between vowels.<sup>283</sup> Homeric meter shows no initial consonant in this verb, but that is of a piece with other words that begin with ʰo-;<sup>284</sup> for the \*w- must have become silent earlier in this environment than before other vowels, as has happened in recent centuries to the w- sound in Scandinavian.<sup>285</sup>

**2.Yc.** A morphological connection between ‘fear’ and ‘see’ comes out in He

<sup>281</sup> In Attic and Homer it is ʰορᾶ<sup>√</sup> according to the best orthography; ʰορᾷ is the late Byzantine substitute, perpetuated in the Occident ever since the renaissance of Greek studies.

<sup>282</sup> Reverence is clearly indicated in ʰοὶ μὴ ʰρα θεὸν ὥς ʰεἰσορῶντες<sup>√</sup> ‘who, looking up to him as a god’ (*Odyssey* 7.71), where a participle of the verb ‘see’ is compounded with the prefix ʰεισ-. This observation I owe to J. P. Brown.

<sup>283</sup> ʰεορτή (**2.Rb**) is a special case; the intervocalic sibilant in this borrowed word (attested as {šac-} in Hebrew) has left a hiatus between uncontracted vowels in Attic. See also **2.Xd**.

<sup>284</sup> But not with the diphthong ʰοι- (cf. **1.Ea**).

<sup>285</sup> E.g. *ord* <sup>√</sup> ‘word’. Wherever the w- was preserved, it has come to be pronounced as a fricative [v] and is now so written: *vin* <sup>√</sup> ‘wine’. Only English preserves to our time the original IE semi-vowel w, as in *way* <sup>√</sup>, *beware* <sup>√</sup>.

brew. The imperative forms (masc. sing.) are  $\text{פָּרֹח}$ ʔ {yərɔʔ} 'fear'

$\text{רֹאֵה}$ ʔ {rəʔéʰ} 'see'.

The shared consonants {r(-)?} seem to be the real minimal root; however, no 'fear' forms overlap with a 'see' form. If not for the Latin *uerē*- 'fear' and the Greek ῥοῦα 'see' (Aeolic ῥορη 'he/she sees'), we might even dismiss the Hebrew phenomena as two unrelated verbs, both having {r(-)?} only by accident.

To tie up the loose ends of this etymology, an inflectional parallel between the Greek and the Hebrew verb for 'see' would help a lot. The Hebrew causative passive is rare, but a few forms of it can be cited; e.g.  $\text{הָיָה לְךָ לְרֹאֵה}$ ʔ {hərʔéʰtɔ} 'you have been made to see', which nearly equals 'you have seen'. If there were an imperative of the causative passive,

it might come out  $\text{הָרֹאֵה}$ ʔ {hórɔʔ} 'be shown' —

almost identical in sound with ῥοῦα 'see'.

But there is no passive imperative in Hebrew (as there is in Greek occasionally). The Arabic for 'see' is a regular cognate to the Hebrew; e.g.

$\text{رَأَى}$ ʔ {raʔaʔ} (pronounced [raʔā]) 'he saw/has seen'

$\text{رَأَى}$ ʔ {rɔʔɔʰ} " " " " .

But whereas the Hebrew imperative singular masculine {rəʔéʰ} is regular, the Arabic  $\text{رَأَى}$ ʔ {ra} is irregular, and the briefest word in the language. We lack the means to show whether it is an unchanged relic of primeval simplicity.

**2.Z. Tricons. Sem. (Heb.)** {wɔlɔd} 'child' : *IE (Russian)* {mólod} 'young'  
*IE (Russian)* {moglá} : *Sem. (Heb.)* {yɔkəlɔʰ} 'she could'

**2.Za.** A couple of roots appear to be shared by certain Semitic and IE languages, if we allow the labial nasal [m-] to correspond to the labial semi-vowel [w-]. Within Akkadian (relying on the transliteration devised or accepted by the experts, we find both initial consonants in the same word:

{wi-il-du}ʔ = {mi-il-du}ʔ 'offspring';

also, but in "Old Babylonian" only, an alternation between

{wi-li-id bītīm}ʔ and {i-li-id bītīm}ʔ 'child of the house' (= home-born slave; cf. **1.Ec**).

On the Semitic side, at least, the root for this noun is clearly verbal and belong to the core of the vocabulary:

Arabic وَلَدَتْ<sup>√</sup> {waladat},<sup>286</sup> 'she bore/has borne'

Hebrew יָלַד<sup>√</sup> {yɬləd<sup>h</sup>} " " " "

The northwestern Semitic languages — not only Hebrew but Aramaic and Ugaritic — regularly have {y-} where all the rest of Semitic has {w-}; thus {w-} in northwestern Semitic is reserved for the prefixed conjunction 'and'. But Hebrew and Ugaritic anomalously have one noun, יָלֵד<sup>√</sup> {wɬlɔd} 'child' in Genesis 11:30 only — where it is emphatically from the MOTHER'S point of view — and {wld}<sup>√</sup> in two passages of the Krt epic (noted by Gary Rendsburg). This has an exact Arabic cognate وَلَدَ<sup>√</sup> {walad|un} (nominative absolute), pronounced [walad]<sup>§</sup> in a pausal position. The usual Hebrew word for 'child' is יָלֵד<sup>√</sup> {yɬləd} (pausal {yɬləd}) in הַיָּלֵד 'the child'), whose Arabic cognate is وَلَدَ<sup>√</sup> {wald|un}.<sup>287</sup>

The Slavic adjective that means 'young' is МОЛОД<sup>√</sup> {mólod} in Russian — nominative singular masculine, the bare stem with no ending, most like the Hebrew {wɬlɔd}. The pre-revolutionary spelling МОЛОДЬ<sup>√</sup> preserved a final vowel letter after the sound [ə] had died out (2.Ne). Still earlier it had come, apparently, from an IE \*u.<sup>288</sup>

<sup>286</sup> Also {waladat}<sup>√</sup> in Geʿez; and Leslau, *CoDiGe*, 613, cites "Qua[ra] wālād 'bear' " as a Cushitic borrowing from Semitic.

<sup>287</sup> Cited by good dictionaries, though not in the Qurʾān; I cannot make out evidence for the extent of its actual use. With a possessive suffix وَلَدِي<sup>§</sup> {wald|iʾ} 'my child' shows the closest parallel to Hebrew יָלָדִי<sup>†</sup> {yald|iʾ}. Ugaritic, quite like Hebrew, has both {wld} — referring to a child that a childless adult wants but has not gotten — and {yldy}<sup>√</sup> 'my children' (Hebrew יָלָדָי<sup>√</sup> {yəldəy}).

The [w] shows up in Hebrew also in certain verb-forms, where it is non-initial; e.g. הוֹלִיד<sup>√</sup> {hoʾlɪʾd} or הוֹלִיד<sup>√</sup> {hoʾlɪd} 'he begat', just like הוֹרִיד<sup>√</sup> {hoʾrɪd} 'he (has) brought down' (cf. 2.Bc, note 19; 2.Ya).

<sup>288</sup> The Cyrillic letter ъ, in Old Russian and Church Slavonic, is often transliterated ŭ; but I would call that an etymological *petitio principii*. For within Slavic there is no evidence of the letter being pronounced with the quality [u]. Hence some, to avoid misrepresentation, carry over the ъ untransliterated in the midst of a transliteration; e.g. Pokorný, *InEtWø*, I, 718: "russ. mólodъ".



The Ch. Slav. cognate of ORuss. {molodə} is младъ<sup>√</sup> {mladə}, more reminiscent of the Arabic nom. sing. construct وَلَدٌ<sup>√</sup> {waladu} '(so-and-so's) child' (cf. 1.Bb, 1.Ic). Slavic nom. sing. fem. — Russ. молодá<sup>√</sup> {molodá}, Church Slavonic млада<sup>√</sup> {mlada} — corresponds roughly to the Hebrew fem. יַלְדָּה<sup>√</sup> {yaldə<sup>h</sup>} in הַיְלָדָה<sup>√</sup> 'the girl'.

**2.Zb.** The semantic difference between 'child' in Semitic and 'young' in Slavic is minor. Many times the Semitic noun could be translated 'youngster' (or in substandard rural English 'young one' — pronounced [-ʌn] or [-ən]). In Old Prussian *maldenikis*<sup>√</sup> is 'child',

while *mald|ai*<sup>√</sup> is 'youngsters' (nom. pl. masc.).

The latter is structurally close to

the Hebrew construct plural {yal(ə)d|e<sup>y</sup>} in יְלֵדֵיהֶם<sup>√</sup> 'their (fem.) children',<sup>289</sup> and to {yəld|áy} 'my children'.

**2.Zc.** The Indo-Europeanists have related these Slavic and Baltic words to the Sanskrit adjective मृदुः<sup>§</sup> {mr̥d|úḥ} 'soft, tender' and its less transparent Latin cognate *mollis*<sup>√</sup> (< \**mold|wis*) — which is no obstacle to the Semitic etymology, since 'child', 'young', and 'tender' all fit. Indeed there is an Arabic stative verb مَلِدَ<sup>√</sup> {malid|a} 'he/it was soft, tender' (the subject usually a twig; see Möller, *VeInSeWö*, 163).

Its feminine is مَلِدَتْ<sup>√</sup> {malid|at(i)}, fairly close to

the Sanskrit verb मर्दति<sup>√</sup> {mard|ati} (or मृच्छति<sup>√</sup> {mr̥d|nāti}) 'he/she presses, squeezes, crushes' —

the verbal root from which the IE adjective is derived. This opens up a ques-

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<sup>289</sup> Again from the mothers' point of view, as usual with this one noun, although Biblical Hebrew otherwise shows masculine possessive suffixes far more often. Whereas {yal(ə)dé'-hén} with the fem. pl. suffix occurs five times, {yal(ə)dé'hém} with the masc. pl. suffix occurs only in Job 21:11: יְלֵדֵיהֶם<sup>√</sup> 'and their (masc.) children'. Also the context of יְלֵדֵי זְנוּנִים<sup>√</sup> {wə|yal(ə)dé' zənu'ní'n} 'and children of whoredom' (Hosea 1:2) shows that their paternity is under a cloud (whereas there can be no doubt of their mother).

tion about the Semitic root: Doesn't it express the physical action of giving birth, and not just the result?

Seen in this light, the etymon common to Semitic and IE appears rooted in the very remote past, among the primal concerns of womankind. The phonology as it was emerging in that age may not yet have distinguished [w] from [m] (cf. **1.He**); but we lack direct evidence of the variation [w/m] in the word for 'give birth' or 'child' at any one time in history. The IE languages show no *w(-)l(-)d(-)* forms at all.

**2.Zd.** However, our word *child*<sup>∇</sup> (OE *cild*<sup>∇</sup>, neuter, with the same [č-] sound) may go back to the same etymon as the Hebrew {yēleḏ} (*InEuSeLa*, 342, 565). The other Germanic and IE languages have no close cognates to *cild*; some consider the Old Saxon and Old High German *kind*<sup>∇</sup> cognate, allowing for the *l* : *n* relationship known from etymologies in earlier languages (cf. **1.Lb**).<sup>290</sup> That would be most cogent in a basic word surviving from further back in prehistory than the bulk of the vocabulary that IE comparative grammar rests upon. In the very remote past both theoretical connections of *cild* — with *kind* and with {yēleḏ} — could be valid. The initial consonant of *cild* has this in common with the initial of {yēleḏ} : [č] is a palatal articulation of a /K/ phoneme, while [y] is a palatal semi-vowel.<sup>291</sup>

We need not posit some special link between northwestern Semitic and this part of Germanic, favoring the palatal articulation of the consonant in such widely separate languages. It is more probable that in such a basic word something has survived rather spottily, perpetuating here and there a kind of articulation that once was widespread, though not dominant — let alone, universal.

A significant oddity, on the semantic side, is that rural English dialects use the word *child* to refer to a girl in contrast to a boy. The earliest attestation given by the *OxEnDi* is from *The Winter's Tale* (3.3.71): "A very pretty barne: A boy, or a Childe I wonder?" The pre-Shakespearean corpus of English, al-

<sup>290</sup> *Kind* admits readily of a derivation from the biconsonantal root that we saw in Latin *gene* (**2.Ca**; Pokorny, *InEtWö*, I, 374).

<sup>291</sup> The Egyptian {hṛd}<sup>∇</sup> 'child' should also be mentioned, since {h} is thought to have been like the sound in German *ich* — i.e. a palatal rather than a velar fricative. Egyptian has no letter transcribed {l} (**1.Lb**, note 206). Gary Rendsburg reports that Eblaite, the oldest Semitic language, has a cognate to this Egyptian word.

though huge, seldom represents the speech of villagers.<sup>292</sup> Differential preservation of an old word depended on some sentiment, as innovative expressions for the male were more welcome than for the female. I have noted the persistence of a Germanic cognate to the Semitic in the word *kilbur* for 'ewe-lambs', whereas *lembir* for 'male lambs' is — relatively — an innovation (1. Lf, note 216, and 1.Li). *Child*, like {yéleđ}, by its nature referred primarily to the new-born, still so dependent on the mother; and although the adults could go on using it indefinitely as the baby grew up, they were soon tempted to call a male infant something else, while holding on to the original word much longer for a female and regarding her still as utterly dependent.<sup>293</sup>

**2.Ze.** Gender in Hebrew being so pervasive, {yéleđ} was never used of a child whom the speaker knew to be female. Instead a form with the feminine suffix served: {yalđ|ś<sup>h</sup>} (Gen. 34:4, where she is old enough to be a wife!). The construct plural would be תַּיִלְדֵּי† {yal(ə)đ|ot̪} or possibly \*תַּיִלְדֵּי \*{yil(ə)đ|ot̪} '(so-and-so's) girls'; for the masculine construct plural varies between {yal(ə)đ|e<sup>y</sup>} (**2.Zb**) and יַיִלְדֵּי√ {yil(ə)đ|e<sup>y</sup>}. The vowel {-i-} improves the parallel to *cild*.

The Old English plural (nominative/accusative) varies between *cild*√ — identical with the singular as in many other neuter nouns — and *cildru*√, occasionally *cilderu*√. The -r- of the Germanic neuter plural is from \*-s- in prehistoric IE, preserved as such in no Germanic language other than Gothic, the first of them to be recorded and the only one that died out. How this relates to the Semitic and especially the Hebrew feminine plural, has been noted in 1. Lf,; the core of this neuter plural class in Germanic consists of the young of tame animals, which according to the herding practices of the early Hebrews were mainly females. Furthermore, the analogy of human offspring to such small — but often troublesome — creatures was what favored *cild(e)ru* over the shorter plural *cild* in Old English and the masculine plural *cildas*√, which also arose;<sup>294</sup> and the plural without *r* disappeared in Middle English, or early

<sup>292</sup> A slightly earlier instance is pointed out by J. H. Pafford in his ed. (London: Methuen, 1963), 70, of *James the Fourth* by Robert Greene: "Hob your son, and Sib your nutbrowne childe", where the context indicates plebeian but not rustic speech. Also, in Shakespeare's plays, the combination "my child(e)" is a daughter, not a son.

<sup>293</sup> *Girl*√ (first found in Middle English) originally took in either sex.

<sup>294</sup> Later the analogy operated again in the colloquial substitution of *kid* for *child*.

Modern English at the latest. Enhanced by the plural ending *-en* from the Germanic "weak declension", *children* maintains down to the present the *-r-* reflex of a Semitic-Germanic suffix.<sup>295</sup>

**2.Zf.** Besides the variation in the first consonant, many Semitic forms have only the other two {(-)l(-)D(-)}, such as

the Arabic feminine noun لِدَّةٌ {lid|atun} 'child-birth'  
([lid|ah] before a pause)

Hebrew לִידָהּ {led|ʕh},

or the imperfect verb תִּלְדַּי {ta|lid|u}

תִּלְדִּי {te|léd} 'she will give birth'.<sup>296</sup>

The only IE evidence for this as a biconsonantal root is the English (and especially Scottish) noun *lad*<sup>√</sup>, which has baffled the etymologists. It is virtually a synonym for *child*, but has an altogether anomalous feminine *lass*<sup>√</sup>. The Hebrew words of similar meaning have the initial {y-}: the masculine {yéled} and the construct feminine יֶלֶדָּהּ {yaldāt}. That the English *-ss* may, however amazingly, contain a vestige of a feminine suffix, is suggested by an abnormal form of the feminine participle in Hebrew: {yolādt} in יֹלֶדֶת<sup>√</sup>

<sup>295</sup> Since both the Shakespeare and the Greene passage have *-eat* at the end of *childe*, besides the instances of *my childe* with feminine reference in Shakespeare, I would be tempted to call this a vestigial feminine ending, cognate somehow to the Hebrew vocalic suffix {-ʕ<sup>h</sup>} in {yaldʕ<sup>h</sup>}, etc.. But in the English corpus of that period I find nothing to confirm the correlation of *childe* with the feminine and *child* with the masculine. Moreover in late Middle English, when the final vowel-letter was still sometimes pronounced, there are clear instances of masculine reference; e.g. from around 1430,

"And Tryanowre rode him ageyne,  
Thogh he were mekylle man of mayne,  
The chylde broght hym downe!"

(where the meter shows a pronunciation [-dɛ]). The *-e* of this word, first attested in the 14th century, could conceivably have come from the Old English dative *cilda*<sup>√</sup>; but that is most problematical.

<sup>296</sup> In the first syllable the Arabic {a} as against the Hebrew {e} is not a typical correspondence but a discrepancy. Otherwise the two words are perfect cognates.

'and [soon to be] bearing', where the fricative {d} at the end of the root is followed immediately by the feminine marker {-t}.<sup>297</sup>

Pokorny (*InEtWö*, I, 716-718) and other Indo-Europeanists consider the root of Old Russian {mólodə}, Old Church Slavonic {mladə}, and Old Prussian *maldai*, *maldekinis* to be biconsonantal, but *m-l-*, not *-ld-*. They treat the *-d-* as an extension of the root which itself means fundamentally 'crush'. The Greek noun μύλη<sup>√</sup> 'mill' (Latin *mola*<sup>√</sup>) and the Latin verb *mole*<sup>§</sup> 'grind' exemplify the root *m-l-* with no third consonant (cf. **1.Kh**). The relation of *m(-)l(-)d-* to *m-l-* is attractive but problematical; for the *-d-* does not carry any discernible meaning, however vague, in its many recurrences as an extension to other biconsonantal roots. This applies in general to the extensions of roots in IE morphology; and in Semitic too the modern analysis of many traditional triconsonantal roots as biconsonantal, plus an extension, is beset by similar difficulties.

Perhaps the semantic elusiveness of the extensions is precious evidence of a very early stage in the formation of these languages. Or it may merely bespeak the inadequacy of our techniques of linguistic research. At any rate, it is the triconsonantal *m(-)l(-)d-* that has a Semitic connection; and the variable consonant, in both IE and Semitic, is not the third but the first. We see more of a triconsonantal VERB in Semitic but have too little to sketch the prehistoric development and spread of verb and noun forms embodying this root.

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<sup>297</sup> Also the odd לָלַת<sup>√</sup> {lɔlāt} 'to give birth, to bear' (only in I Sam. 4:19), where the ל of the root has been absorbed into the same feminine suffix ת. The regular forms are יָלַדָה<sup>√</sup> {yolédet} , לָלַדָה<sup>√</sup> {lɔlédet} (*InEuSeLa*, 211).

The biconsonantal root in {léd|et} is reminiscent of Old Church Slavonic and Old Russian родити<sup>√</sup> {rod|iti} 'to bear', which the Indo-Europeanists derive from an initial consonant-group \**ur-* (Möller, *VeInSeWö*, 271; Pokorny, *InEtWö*, I, 1167). Möller speculated that in Semitic an original *r* may have changed to *l* under the influence of the preceding labial. Aside from that difficulty, this etymology would bring the Semitic and IE verb-root that means 'bear' remarkably into line with רָדָה<sup>√</sup> {rédet} 'to go down', {réd} 'go down' (imperative), יָרַדָה<sup>√</sup> {yɔrədɔ} 'she went down', {ho\*ríd} 'he (has) brought down' (**2.Ba-c**; **2.Za**, note 287). Furthermore, the infinitive of other Hebrew verbs of this pattern — כָּתַבָה<sup>√</sup> {kəbet} 'to go', {səbet} 'to sit' (**2.Bf**) — has instead of {é} the back-vowel {ɔ} in a pausal position, which is like the Slavic back-vowel. The verb לָד, however, has {é} even when pausal: מִלָּדָה<sup>√</sup> 'from bearing' (Gen. 29:35, 30:9).

**2.Zg.** In Russian *могла́*<sup>√</sup> {moglá} : Hebrew *הָיְתָה יָכוֹלָהּ*<sup>√</sup> {yəkə́ləṣ<sup>h</sup>} ‘she could’ I see a fair likelihood that an IE formation penetrated into part of the Semitic realm, including Aram. — e.g. *הָיְתָה יָכוֹלְךָ*<sup>√</sup> {yəkéləṭ} ‘you (masc. sing.) could’ (Hebrew *הָיְתָה יָכוֹלְךָ*<sup>†</sup> {yəkóləṭ}).

In the Biblical Hebrew corpus the verb {Y/-w(-)k(-)l(-)} approaches the frequency of an auxiliary such as *can/could*<sup>√</sup> or *may/might*<sup>√</sup> in English and their equivalent in other European languages.

The initial {y-} is the northwestern Semitic substitute for \*w-, which turns up in the Hebrew imperfect tense: *יָכוֹלְךָ*<sup>√</sup> {tū<sup>w</sup>kál} ‘you (m. sing.) can’ (usually preceded by *לֹא*<sup>√</sup> {lo<sup>w</sup>}) ‘not’). No other Hebrew verb in fact forms its imperfect in quite this way, so as to bring out or maintain the ancestral [w] (cf. **2.Ya**). In Aramaic too it is *ܬܘܟܠ*<sup>√</sup> {twk<sup>l</sup>} according to the text of Daniel 5:16 as traditionally WRITTEN (twice in the same verse), but as traditionally READ it is *ܬܝܟܠ*<sup>√</sup> {tīkkú<sup>l</sup>} — a fairly common sort of discrepancy in the Hebrew Scriptures, and disproportionately so in the few Aramaic pages of Daniel and Ezra.

**2.Zh.** So far as the Semitic evidence goes, the {l} is simply part of the root. But in Slavic it is plainly a suffix, forming a sort of past participle; it is followed by endings for gender and number, BUT NOT PERSON: so {moglá}, unlike the Hebrew {yəkə́ləṣ<sup>h</sup>}, can have an ‘I’ or ‘you’ reference as well as ‘she’. The Semitic feminine singular ending is similar to the Slavic. Slavic has a different vowel for the neuter singular: Russian *могло́*<sup>√</sup> {mogló}. But whereas we have noted the accentual difference between feminine and neuter in the Russian adjectives {dolgá/dólgo} ‘long’, {polná/pólno} ‘full’ (and their Lithuanian cognates *ilgà/ilga* “ *pilnà/pilna* “), correlated with the varying position of the

Heb. fem. stative verb {ʔəṛəḵṣ<sup>h</sup>/ʔəṛəḵṣ<sup>h</sup>} “ {mələʔṣ<sup>h</sup>/móləʔṣ<sup>h</sup>} “ (**2.Jg**), no such accentual alternation appears in

Russian {moglá/mogló} and Hebrew {yəkə́ləṣ<sup>h</sup>}; they are never accented on their first syllable. Yet *וְלֹא-יָכְלָהּ עוֹד*<sup>√</sup> {wəlo<sup>w</sup>-yəkə́ləṣ<sup>h</sup> ʔód} ‘and she could not any longer’ (Ex. 2:3) is precisely

the sort of environment where  $^? \text{מִגְלָה} ^? \{yǝkə́lǝḥ\}$  could be expected by rule, because of the conjuncture with an accented one-syllable word.<sup>298</sup>

We have in Hebrew and Russian — with corroboration in Lithuanian — the remains of a shared accentual alternation, operating within some restrictions which we are hard put to specify or understand, but which nevertheless recur astonishingly in such far separate languages. That the Russian neuter is {mogló}, not  $^? \{móglo\}$ , and that there is no  $^? \{yǝkə́lǝḥ\}$  in Hebrew, may somehow depend on the {l} not being part of the root originally. This *l*, common to the Slavic languages, is — at least phonetically — the same as the IE verbal adjective suffix exemplified

in Latin by *tremulus*<sup>√</sup> 'shaky' (fem. *tremula*<sup>√</sup>; from *treme*<sup>§</sup> 'shake'),

in Greek by στυγῆλός<sup>√</sup> 'silent, hushed' (fem. στυγῆλῆς<sup>√</sup>; from στῆγα<sup>√</sup> 'hush'); but only in Slavic did it become (or remain?) a normal inflection of any and every verb.<sup>299</sup> That makes the Semitic {ʎ<sub>w</sub>(-)-k(-)l(-)} important for suggesting that the Slavic morpheme *l* in *m-gl-* must go far back into prehistory, early enough for this verb — including the *l* — to penetrate into part, at least, of the Semitic territory.

**2.Zi.** The Russian masc. sing. мор<sup>√</sup> {mog}, formerly морѣ<sup>√</sup> {mogə} 'could', is without the {l} suffix.

Old Russian, however, had морѣ<sup>√</sup> {moglə} and моролѣ<sup>√</sup> {mogolə}. The disappearance of the [l] is considered a phonetic loss, paralleled more recently in Polish, where the masculine singular *mógł*<sup>√</sup> is now pronounced [muk].<sup>300</sup> But Church Slavonic has

both the masculine participle морѣ<sup>√</sup> (just like ORuss.)

and the aorist морѣ<sup>√</sup> {mogə} 'I could',  
more<sup>√</sup> {moge} 'you/he/she could'.

The other Slavic languages, attested centuries later, have a much simplified verb-system; but inasmuch as the aorist tense survived into Old Russian, the modern мор admits of an alternative explanation: either a direct continuation of

<sup>298</sup> Cf.  $\text{בָּתָּהּ יָלְדָהָ} ^\vee \{yǝlǝḏǝḥ bǝt̪\}$  'she bore a daughter' (Gen. 30:21).

<sup>299</sup> See André Vaillant, *Grammaire comparée des langues slaves*, III (Paris: Klincksieck, 1966), 81-84.

<sup>300</sup> The accent mark in Polish orthography serves to distinguish this vowel from the more open o. It does not show a suprasegmental sound, as originally in Greek and subsequently in certain other languages such as Spanish.

the aorist form, or a phonetic reduction of the participle *могъ*. For our Semitic comparison the essential point is that the Slavic root is clearly biconsonantal *m-g(-)*.

The same biconsonantal root is represented in Germanic. Closest to the Church Slavonic {mog-} is the Gothic, Old Saxon, and Old High German *mag*<sup>√</sup> 'I/he/she can' (*mæg*<sup>√</sup> in Old English > *may*<sup>√</sup>). Such a Germanic verb, identical in the first and third person singular, has been diagnosed as originally preterite or perfect; but its meaning in all the actual Germanic languages is PRESENT. An unnoticed oddity of IE etymology is that only Slavic and Germanic have verb forms with this root, whereas many languages besides them have nouns or adjectives (Pokorny, *InEtWö*, I, 695). Since the meaning 'can' (or 'may') is so necessary in nearly any language, the verb *m-g(-)* that we find in Slavic and Germanic must be an archaism. And this makes it all the more likely that the Hebrew feminine {yḳālś<sup>h</sup>} is a real cognate to the Russian feminine {moglá} (and neuter {mogló}).<sup>301</sup>

{mogolə}, the Old Russian masculine singular in its other form (besides {moglə}) — which would have lost the [-ə] if it had lived on to modern times — recalls the Hebrew לִיָּֿיָ<sup>√</sup> {yḳól} 'he could'. This being a stative verb, the 'he' form of the perfect should also serve AS A PARTICIPLE<sup>302</sup> (masc. sing.; cf. **2.Ja**), not limited to the third person; however, there are no instances in the Biblical corpus. This accented {-ó-} is reserved in Hebrew for a small sub-class of stative verbs that express a permanent (or relatively permanent) state. The cognate type in Arabic has {-u-} and includes many more verbs, but this Hebrew verb lacks an Arabic cognate. The Russian {-o-} in the same position has no discernible semantic import. The final {-ə} of Russian corresponds to nothing in Hebrew; an Arabic participle or adjective, however, would have a nominative ending {-u} under certain circumstances (**2.Za**). So even on such a fine detail the Slavic-Semitic comparison holds up.

<sup>301</sup> Church Slavonic has the same feminine and neuter forms *могла*<sup>√</sup>, *могло*<sup>√</sup> as Russian; however, the Slavacists consider the accentuation of Church Slavonic unknown or inaccessible. The current pronunciation of the Church Slavonic Bible and liturgy is naturally influenced by the Russian or Serbian or Bulgarian vernacular of the priests and monks; so what we can rely on is the spelling of the early manuscripts, which reveals the vowel and consonant sounds admirably but is devoid of accents.

<sup>302</sup> We would gloss it 'able', since the English verb *can/could* has no participle.



**2.Zj.** Of the IE nouns that the etymologists attribute to the same root as this Slavic and Germanic verb, the most relevant to our Semitic comparison is the Greek feminine μηχανή<sup>√</sup> 'device, contrivance'<sup>303</sup> along with its rare neuter alternant μῆχαρ<sup>√</sup>. For these two synonymous nouns exhibit the antique alternation {-r/-n-}, which is most frequent in Hittite (cf. **2.Le**). And the [-k<sup>h</sup>] is closer than anything else in IE to the Hebrew and Aramaic fricative {-k̥-}. Indeed, before the fricative pronunciation developed in some undetermined period of the pre-Christian era, this **√** was probably [k<sup>h</sup>] just like the Greek letter X.

However, the structure of μηχαν-, with its long vowel between the two consonants, gravely complicates the Indo-Europeanists' assignment of it to the same root as Slavic *mog-*, Germanic *mag(-)*.<sup>304</sup> Both the Slavic and the Germanic vowel reflect a SHORT \*o or \*a in prehistoric IE. This would then call for something like

\*mæ<sub>2</sub>g<sup>h</sup>- in still earlier IE as the source of *mog-* and *mag(-)*, but

\*meæ<sub>2</sub>g<sup>h</sup>- as the source of μηχαν- (μᾶχ- outside of Attic and Ionic).

This IE etymology is further complicated by uncertainty over the relevance, if any, of another set of words, among them

the Sanskrit neuter sing. adjective म हि<sup>√</sup> {máhi} 'great' :

Greek μέγα<sup>√305</sup> (masculine μέγας<sup>√</sup>,

<sup>303</sup> The Latin *māchina*<sup>√</sup> was borrowed from the Doric μᾶχανᾶ<sup>√</sup>.

<sup>304</sup> The Sanskrit adjective म च वा<sup>√</sup> {mag<sup>h</sup>avā} (nom. sing. masc.) 'bountiful, rich' is sometimes glossed 'mächtig' — i.e. 'mighty, powerful' — in dictionaries oriented to IE etymology (e.g. Pokorny, *InEtWö*, I, 695); and the neuter noun म च म्<sup>√</sup> {mag<sup>h</sup>am} 'gift, bounty' likewise picks up the etymologizing glosses 'Macht, Kraft' without justification from any text. Mayrhofer, *KuEtWöAl*, II, 545-546, treats only the attested meanings and concludes: "Lassen sich indo-iran. \*magha- 'Gabe' und \*maghavan- 'gabenreich' also mit einiger Wahrscheinlichkeit gewinnen, so bleibt ihre weitere [= IE] Verknüpfung unsicher."

<sup>305</sup> μέγα κλέος<sup>√</sup> 'great glory' becomes a man's name Μεγακλῆς<sup>√</sup> 'Great-Glory', often spelled ΜΗΕΓΑΚΛΕΣ<sup>√</sup> in the Old Attic alphabet (where, however, the letter γ was shaped λ and the letter λ λ), besides other occurrences of ΜΗΕΓΑ-. Evidently the difference between

Sanskrit {m-h-} ({-h-} < \*g<sup>h</sup>-) and Greek [m<sup>h</sup>g-] involves a remarkable metathesis of the aspiration, which has somehow been overlooked by many writers; the combination [m<sup>h</sup>-] must have made a very odd sound. See Addenda, p. 458.

feminine  $\mu\epsilon\gamma\acute{\alpha}\lambda\eta^{\vee}$ , and the anomalously accented nominative plural: masc.  $\mu\epsilon\gamma\acute{\alpha}\lambda\omicron\iota^{\vee}$ ,<sup>306</sup> fem.  $\mu\epsilon\gamma\acute{\alpha}\lambda\alpha\iota^{\vee}$ , neuter  $\mu\epsilon\gamma\acute{\alpha}\lambda\alpha^{\vee}$ ; cf. **2.Zi**). The meaning ‘great’ is liable to be intertwined with ‘mighty’. The Lithuanian verb  $m\acute{o}ka^{\vee}$  ‘he/she can, knows’ adds to the confusion. We seem on the verge of discovering a very dark chamber in the cave of IE etymology, with unpredictable consequences for Semitic too.

**2.AA. Reduplicating Biconsonantal Sem. (Geʿez) {-kʷarākʷər, gergel}**

: IE (Latin) *circus, circulus* ‘wheel, ring’

**2.AAa.** The variable verb-root that means ‘go round’ is of singular import for illustrating a morphological process that must reach far back into prehistory — reduplication. Many Semitic and IE languages have verbs, nouns, and adjectives exemplifying it (e.g. Cohen, *EsCo*, 121; Conti, *StBi*, 63, 69-71, 85). Illich-Svitych furthermore cites, under Altaic, the Mongolian “*qol-gi-da*” ‘вертеться’ [‘to whirl’]” (*MaSrSl*, 345-346), in which the initial velar consonant recurs with a shift from voiceless to voiced. Where the repetition embraces both consonants of the root and the vowel in between, as in the Arabic verb  $\text{كَرَكَر}^{\vee}$  {karkara} ‘he (has) rotated/turned around’ or the Hebrew noun {gal-gál} in  $\text{גָּלְגָּל}^{\vee}$  ‘the wheel’, we can sense how reduplication enhances the communicative power of the root-morpheme: By being uttered for the second time, it conveys the continued motion.

Repetition of the two consonants is more widespread than repetition of the vowel, as in one of the Geʿez words for ‘wheel’ or ‘circle’: {man-kʷarākʷər} (Leslau, *CoDiGe*, 292). Another word in this language for a heavenly ‘wheel’, {gergel, gargel} (Leslau, *CoDiGe*, 292), shows the second consonant having undergone anticipatory dissimilation.<sup>307</sup>

<sup>306</sup> The Hebrew construct masculine  $\text{גָּדֹלִים}^{\vee}$  {gādōlēʾ} ‘great (ones)’ (II Kings 10:6) would have its accent on the next-to-last syllable, like  $\mu\epsilon\gamma\acute{\alpha}\lambda\omicron\iota$ , in  $\text{גָּדֹלִים}^{\vee}$  {gādōlēʾ} ‘great in kindness’ (cf. the masc. sing.  $\text{גָּדֹל}^{\vee}$  {gādōl} ‘and great in kindness’, Ps. 145:8). {gādōl|eʾ} and  $\mu\epsilon\gamma\acute{\alpha}\lambda\omicron\iota$  are loosely but intriguingly similar in their structure; it would take a complex metathesis to account for the Hebrew initial {g} : Greek interior {-g-}, and much more to explain how {-d-} and {m-} could possibly come from the same source.

<sup>307</sup> Leslau (191, 202) diagnoses this Biblical word as an indirect loan from Hebrew {galgál}. Geʿez, however, has its own verb {ʔangargara} (202). Further-

**2.AAb.** The same (or virtually the same) meaning is expressed in several Semitic languages, no matter whether the first radical consonant is a voiced or a voiceless velar (a voiceless labio-velar in Ge<sup>ez</sup>), and no matter whether the second is {l} or {r}. Möller (*VeInSeWö*, 132-133, 139-140) derives all the variants, in IE as well as Semitic, from an initial labio-velar \*k<sup>u</sup>, following which there was originally no difference in the second consonant  $l/r$  ("nach Labiovelar ursprünglich identisch").

I do not find such complete reduplication (as in {galgál}) manifested anywhere in the IE languages. The closest thing to it is the Latin *circul|us*<sup>√</sup> (from which the English word *circle*<sup>√</sup> is borrowed), if we take the *l* for a dissimilated recurrence of *r* (cf. Ge<sup>ez</sup> {gergel}). This Latin noun has always been taken, however, for a diminutive of *circ|us*<sup>√</sup>, in which the repetition embraces only the initial [k-]. The shorter word has further been explained as an early borrowing (Ernout – Meillet, *DiÉtLaLa*) from the Greek κῑκ|ος<sup>√</sup> 'ring'; for κῑρκ|ος<sup>√</sup> too, with metathesis, occurs as a rare or poetic synonym.<sup>308</sup> *Circus*, to be sure, in the extant Latin texts refers primarily to a race-track in Rome — a much larger sort of ring than κῑκ|ος, which indeed corresponds better semantically to *circulus*. Yet the latter is not LIMITED to small rings; it can even be a zone or circle in the sky, which the ancient intellectuals — with the mind's eye — fancied they saw up there, analogizing it to the little geometrical figure that they actually drew in the dirt.

Anyhow, the relation of *circulus* to *circus* is somewhat problematical; and we should not simply rule out a morphological analysis that makes [-kul-] a modified repetition of [kir-]. Then *circ|us*, even if no longer accepted as the base for the formation of *circ|ul|us*, would still represent the mode of reduplication more typical of IE, involving just one consonant.<sup>309</sup>

**2.AAc.** The Greek noun κῑκλ|ος<sup>√</sup> 'wheel' displays a different pattern of one-consonant reduplication,  $C_1VC_1C_2$ -, whereas *circus* is  $C_1VC_2C_1$ -. I shall

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more the reduplication reaches into Cushitic: Saho *gargar*<sup>√</sup> 'roll'. See also Trombetti, *Un OrLi*, 217; *SaGl*, III, 105-108.

<sup>308</sup> κῑρκος is also the normal Greek word for a kind of hawk or falcon. We cannot determine whether it is a case of polysemy — if the Greeks named this bird because they observed it CIRCLING overhead in search of prey — or of homophony — if the name was prompted by the bird's cry (or whatever else).

<sup>309</sup> The accusative *circum*<sup>√</sup> is far more frequent than any other case-form of *circus*; for it serves as a preposition 'around', and likewise as a prefix of verbs.

not attempt to explore this morphological divergence any further; for I am unaware of anything in Semitic (or Afro-Asiatic) that corresponds to it. But a little more needs to be said about the velar consonant, complicated as it is by IE and especially Germanic evidence of a labio-velar; e.g. the Old English cognate of κύκλ|ος: *hweohhol*<sup>√</sup>, *hweowol*<sup>√</sup>, *hweogol*<sup>√310</sup> (> *wheel*<sup>√</sup>). In Geʿez, the MOST SOUTHERLY of the early Semitic languages, we also noted a labio-velar: {mank<sup>w</sup>arāk<sup>w</sup>ər} ‘wheel’ (cf. 1.Ka).

The verb-root, without reduplication, is well represented in several branches of the IE family and in Arabic, at least, of the Semitic. The imperative singular form,

Latin *col|e*<sup>√</sup> ‘make the rounds, tend, till’,

Arabic جَلْ<sup>√</sup> {j|ul} ‘go round, ramble (masc.)’,

presents the root, with a minimum of morphological complications. The Sanskrit च र<sup>√</sup> {čar|a} ‘move about, wander’ has the sounds corresponding quite conservatively to the Latin *cole* segment for segment, but maintains only a trace of the sense of ‘circling’ — not going straight — whereas *cole*, like the other forms of the same Latin verb, often has for its object a field (*agrum*, 1.Ib): you would begin at the edge and go round and round toward the middle, until the entire field was sown.<sup>311</sup> Sanskrit has also a related verb चल<sup>√</sup> {čal|a} ‘stir’, etc.; the semantic differentiation from {čara} is unclear. Like most other words that contain the consonant {l}, this one is rare in early texts.

Arabic has no counterpart to the IE thematic vowel: Latin -e, Sanskrit {-a}; but the root itself matches well phonetically. The Latin back-vowel -o- has doubtless resulted from a simplification of \*k<sup>w</sup>e-, the labial part of the consonant disappearing but giving its color to the nucleus of the syllable.<sup>312</sup> The Arabic voiced affricate {j}, here as elsewhere, represents a Semitic \*g(1.

<sup>310</sup> Only a part of the labio-velar is reduplicated in the first two, and in the third the reduplication of the velar is quite disguised (cf. 2.Ed).

<sup>311</sup> The Latin noun *agri|cola*<sup>√</sup> ‘farmer’ (literally ‘field-tender’) occurs with masculine agreements exclusively, but the ending -a suggests that in origin it was feminine (unlike the Greek βοι|κόλος<sup>√</sup> ‘cow-herd’, αι|πόλος<sup>√</sup> ‘goat-herd’). It may therefore be a relic from before the change to plowing with a beast, when men took over what had been woman’s work (cf. Levin, *PrInEuThDe*, 128-129). *In|cola*<sup>√</sup> ‘inhabitant’ is found with both gender agreements — whether or not this too should be traced back to a time when a woman, with her children, was more settled and territorial than a man.

<sup>312</sup> Contrast *incola* with *in|quil* [ɪnus<sup>√</sup> (fem. *in|quil* |ɪna<sup>√</sup>), formed from the same root \*k<sup>w</sup>el- and hardly different from *incola* in meaning.

**Lk, 2.Nf**, etc.), while in Sanskrit the affricate {č}, descended from the prehistoric \*kʷ, is voiceless. The Arabic back-vowel {-u-} may count as indirect evidence for a prehistoric labio-velar in Semitic also; for biconsonantal verbs of this type tend to have the front-vowel {-i-} in the imperative unless a neighboring consonant — labial or velarized — favors {-u-} instead (see Caspari – Wright, *GrArLa*, I, 81-86).

**2.AAd.** In the perfect tense of Arabic and Sanskrit the correspondence takes in an alternation (cf. **2.Ua**):

جَالَ √ {jāl a} 'he went/has gone round'	: च चा रं √ {ča čār a} 'he/she (has) wandered'
جُلْتَ √ {jul ta} 'you (m. sing.) have gone round'	: च च र्थ √ {ča čār tʰa} <sup>313</sup> 'you (sing.) (have) wandered'

The 'he' form of Arabic is morphologically the simplest; for any other subject calls for a longer suffix, and the {-a} of the 'he' form is itself dropped before a pause (cf. **2.Bc**). The vowel within the root, however, is lengthened to {-ā-}, both in Arabic and in Sanskrit.

The Latin perfect *coluistī* √ 'you (sing.) have tended/tilled' preserves, in the consonant -t-, a vestige of the same subject suffix.

**2.BB. Tricons. IE (Skt.) {lih|a|ti} : Sem. (Arabic) {laʕiq|ati} 'lickʕ/ed'**

We turn briefly to an etymology of the sort that has not come up before in this book. The word for 'lick', in most if not all languages, IMITATES the sound as well as the action of licking. To be sure, the word generally gets incorporated in the normal vocabulary, and thus may undergo changes that reduce or disguise the original aptness of the sound.

**2.BBa.** लि ह ति √ {lih|a|ti} 'he/she licks' in Sanskrit reveals pretty well the sound as we find it also in the IE cognates; but it is attested in only the less priestly, semi-popular texts. The Rigveda instead has रे र्हि √ {ré|hi} (without the thematic {-a-}), in which the initial \*[l] has given way to [r], as preferred nearly throughout ancient Indo-Iranian, and the other consonant of the

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<sup>313</sup> The perfect forms of the related verb are च चाल √ {čačāla}, च चल्थ √ {čačaltha}.

root has melted into the \*{-ti} of the third person while preserving its own aspiration, so as to yield the complex consonant {lh} peculiar to Vedic Sanskrit and occurring only between vowels. (The third person plural, with the thematic vowel, is  $\tilde{\text{रि हं ति}}^{\vee}$  {rih|á|nti} ‘they lick’ (RV. 1.146.2, etc.)

Among the attested IE cognates, the one corresponding best to Sanskrit {lih|a|ti} is the Latin *ling|í|t*<sup>√</sup> (with nasal infix, however; ‘they lick’ is *ling|u|nt*<sup>√</sup>). The triconsonantality of the root is most evident in the Greek [l-yk<sup>h</sup>]:  $\lambda\epsilon\acute{\iota}\chi|\epsilon\iota^{\vee}$  ‘he/she licks’,  $\lambda\epsilon\acute{\iota}\chi|\omicron\upsilon\sigma\iota^{\vee}$  ‘they lick’ (Doric  $\lambda\epsilon\acute{\iota}\chi|\omicron|\nu\tau\iota^{\dagger}$ ).

The Arabic perfect  $\text{لَعَقَتْ}^{\vee}$  {la<sup>ʕ</sup>iq|at} ‘she (has) licked’ —  $\text{لَعَقَتْ}^{\S}$  {la<sup>ʕ</sup>iq|ati} before the definite article (cf. 2.Ng) — shows the same ending as the Sanskrit thematic singular {lih|a|ti}, besides a triconsonantal root that begins with {l} and contains a velar consonant also. The synonymous verb  $\text{لَجَكْتُ}^{\S}$  {laHik|at}, with the consonants {l-H-k} instead of {l-ʕ-q}, is probably just a phonetic variant — given that either sequence of sounds imitates the action of the tongue.<sup>314</sup> The vowel {i} between the second and the third consonant is a morphological addition in the perfect tense; it marks the already triconsonantal Semitic root as stative in meaning, rather than active. Phonetically it is like the sound in the IE root ([l<sup>h</sup>/(-)yh-] in Sanskrit) — where, however, it makes the root triconsonantal instead of biconsonantal (cf. 2.Ta).

IE triconsonantal verb-roots are much more restricted in regard to their second consonant — semi-vowels and liquids being preferred. So it is easiest to posit that this verb was borrowed from Semitic, and that along with the phonetic adjustment of dropping the guttural consonant, so uncongenial to IE phonology, there came a morphological reinterpretation of the front-vowel to serve as part of the root instead of that guttural.

Even so, the match between the Arabic verb (either with {-ʕ-q} or with {-H-k}) and the IE counterparts is not quite precise enough to exclude the possibility of having come about by accident: an independent creation, or development, in different parts of the world, prompted by the same mammalian experience of thrusting the tongue out beyond the lips into contact with something liquid or solid.

<sup>314</sup> {l-H-k} has a Hebrew cognate: the infinitive {l(ə)Hók} in  $\text{לִּהְלֹךְ}^{\vee}$  ‘like licking’, and  $\text{לִּהְלֹךְ}^{\vee}$  {liHek|J<sup>ʔ</sup>} ‘she (has) licked up’ (intensive).

**2.BBb.** A definitely biconsonantal root, consisting of *l* + a DIFFERENT VELAR, is found in certain IE languages (Pokorny, *InEtWö*, I, 653):

Lithuanian *lāk|a*<sup>√</sup> 'he/she/they lick(s)'

Ch. Slav. *лoкати*<sup>√</sup> {lok|ati} 'to lick', etc.

Hebrew too has *לִיקַח*<sup>√</sup> {yol|lōq} 'he licks/will lick', *יִלְקְחוּ*<sup>√</sup> {yol|lōqq|u<sup>w</sup>} 'they (will) lick' (with strengthening of the second radical consonant). Beyond Semitic, Cohen cites some likely Cushitic cognates, including Beja *lak*<sup>√</sup> — besides the Berber *əlləg*<sup>√</sup> (*EsCo*, 183).<sup>315</sup> Illich-Svitych adds still more from Uralic and Kartvelian (citing root morphemes, not whole words).<sup>316</sup>

The circumstance that the second consonant is velar, but not the same velar as in the triconsonantal forms we surveyed in the previous section, adds somewhat to the probability of real interaction between Semitic and IE languages in the verbs to express 'licking'. A recurrent pattern of variation between bi- and triconsonantal seems significant, rather than merely coincidental, though I would still hesitate to claim that the IE velar consonants correspond precisely to those in Semitic.

**2.CC. Tricons. Sem. (Arabic) {ʔanaHati} : IE (Skt.) {ániti} 'breathe<sup>s/d</sup>'**

**2.CCa.** The Hebrew verbal noun {ʔānōH|ʕ<sup>h</sup>}, in *וְנָחַם*<sup>√</sup> 'and sighing', evinces a root whose sounds are based on the ones naturally emitted under physical or emotional stress. The verb itself occurs only in the reflexive conjugation: *נִחַם*<sup>√</sup> {hē|ʔōnāH} 'sigh' or 'groan' (imperative). The Arabic cognate verb, however, meaning 'breathe hard', exists in the simple conjugation; and one form of it *أَنَحَّتْ*<sup>√</sup> {ʔanaH|at} 'she (has) breathed hard' — *أَنَحَّتْ*<sup>√</sup> {ʔanaHati} before a noun with the prefixed definite article — lends itself to a close comparison with IE, particularly with Sanskrit.

<sup>315</sup> Cohen's inclusion of Arabic along with Hebrew, as having the root "*lḳḳ* 'lécher'," seems to be mistaken (so too Trombetti, *SaGl*, III, 287); for *لَقَّى*<sup>√</sup> {laqq|a} means 'he (has) slapped', contrary to its apparent Hebrew cognate. To be sure, English (as well as other languages, no doubt) illustrates how the word *lick(ing)*<sup>√</sup> can serve as a sort of euphemism for the infliction of pain. See also Conti, *StBi*, 1.

<sup>316</sup> *OpSr* (I-3), 15. He also cites, from Dravidian languages, the Tamil and Kannaḍa word {nakku}<sup>√</sup>, etc., remarking that an initial \**l*- becomes \**n*- in Dravidian. Accordingly {nakk-}, with gemination of the second consonant, matches pretty well the Hebrew imperative plural *לִקְחוּ*<sup>√</sup> {lōqq|u<sup>w</sup>}.

The Rigveda (10.125.4) has {ániti} in the compound verb  
 यः प्रा णि ति √ {yáh prāṇiti} ‘he who breathes’. Later Sanskrit texts have also the thematic अ न ति √ {ánati}, which superficially resembles the Arabic {ʔanaḤati} a little better. Nevertheless it is the {-i-} in {ániti} that constitutes a valid Sanskrit counterpart to the Semitic laryngeal consonant. The Indo-Europeanists before Möller recognised this vowel in many Sanskrit words, such as पि त रः √ {pitáraḥ} ‘fathers’ (nominative), to be cognate to *a* in the more western languages (e.g. Greek πατέρες<sup>√</sup>). They posited a proto-IE vowel \**ə*; Möller improved on that by diagnosing the IE vowel as the syllabic or zero grade of a laryngeal consonant.<sup>317</sup> The thematic {ánati}, on the other hand, contains nothing that might correspond to the third Semitic consonant.

**2.CCb.** Numerous derivatives from the root are found among the Semitic and IE languages; but few of them contribute anything substantial to the comparison between the two families. For example,

the Latin feminine noun *ani*|*m*|*a* √ ‘soul, breath of life’  
 can hardly be called cognate to the Heb. fem. {ʔānəḤ|ṣḥ} ‘sighing’;  
 their morphology, as well as their meaning, is just vaguely similar.

However, the Latin adjective *anhēl*|*us* √ ‘gasping’ and the derived verb *anhēl*|*āre* √ ‘(to) gasp’ — of problematical etymology (Ernout – Meillet, *Di ÉtLaLa*) — seems to express with its *anh-* nearly an echo of what we hear in the Hebrew noun with a possessive suffix: ʔānḤ|ṣḥ|ī<sup>√</sup> {ʔanḤ|ṣḥ|ī<sup>√</sup>} ‘my sighing’.<sup>318</sup> Furthermore, the Akkadian verb, exemplified by {i-in-na-aḤ} √ ‘he/she toiled’, shows an irregular correspondence to the Arabic ح {Ḥ} (pharyngeal), rather than to the normal خ {Ḫ} (velar or post-velar fricative). In Akkad-

<sup>317</sup> So, in *VelInSeWö*, 9, he listed the root “*an ...* + Laryngal-erweiterung ... sanskr. *áni-ti ...*” For Arabic he cited “*ʔanaḤa* [i.e. ʔānḤ|ṣḥ<sup>√</sup>] ‘anhelavit’”; the Latin gloss could have served for either ‘he’ or ‘she’, but the Arabic verb-form stands in fact for the former only. Thus Möller missed out on the morphological parallel between the Sanskrit (and IE) third person singular ending {-ti} and the Arabic FEMININE. In spite of his keenness and originality, he was hemmed in by the routine of citing the verbs in whichever form had been conventionally adopted by the grammarians or lexicographers of each language. The same holds for Trombetti, *SaGl*, III, 309; Mayer, *RiPrRa*, 97-98.

<sup>318</sup> As noted by Walde – Hofmann, *LaEtWö*, the -*h-* is “schallimalend”.



ian words there is, as a rule, no consonant representing the  $\text{ح}$  (cf. **1.Ia**, **2.Va**).<sup>319</sup> But in this word, probably to imitate or suggest the labored breathing, the speakers of Akkadian resorted to this consonant [H], which was still available in their phonology; for a mere vowel sound would have been less expressive of the meaning.<sup>320</sup>

## 2.DD. Review of Root Consonants

The thirty or more roots treated in this chapter are not all the roots pertinent to our comparative grammar, but the most important ones. They reveal complex relations between Semitic and IE languages, not just a primeval “Nostratic” heritage.

**2.DDa.** It is easier to deal first with the roots most similar in Semitic and IE. Offhand we expect them to be relatively recent borrowings from one language area to part of the other. As such, they hold out little attraction to those who want to locate the evidence for common ancestry, the pre-IE and pre-Semitic (or pre-Afro-Asiatic) formative stage. But from my point of view every good correspondence is valuable, no matter how late.

Several triconsonantal correspondences, not surprisingly, are more cogent than the biconsonantal ones, because the latter are more liable to admit of alternative etymologies. Thus the Hebrew {pəré<sup>n</sup>} [p<sup>h</sup>-] ‘bear’ (offspring) could be cognate either to Greek φέρε, Latin *fer*, or to Latin *pare* (**2.Ab-c**). Hebrew {réḏ} ‘go down’ seems cognate to a Latin prefix *red-* ‘back’; but the perfect tense of the same Hebrew verb {yərād} bears a fair resemblance to the Sanskrit verb {-vart} ‘it has rolled’ (**2.Ba-c**). Yet one biconsonantal correspondence, Hebrew {bṣ’} ‘he came’ (βα or possibly βā in the Greek-letter transcription of Origen’s “Second Column”) : Greek βā, is as exact as could be (**2.Fa-d**). Another biconsonantal,

<sup>319</sup> At least the cuneiform syllabary, taken over from Sumerian, fails to indicate any; see Von Soden, *GrAkGr*, 10, 24. The Hebrew (and Aramaic) פ matches the sound of  $\text{ح}$  but corresponds etymologically either to  $\text{ח}$  or to  $\text{ע}$ .

<sup>320</sup> Illich-Svitych, *OpSr* (b-K), 261, brings in the Egyptian {ṣnḥ} ‘life/live’ hesitantly, because of the different initial consonant and the striking shift away from the meaning ‘breathe’.

Latin *patē* : Hebrew \*{pōṭē<sup>h</sup>} ‘open’ (stative participle)

*pandē* : {pattē<sup>h</sup>} “ (active imperative),

is nearly as exact, besides being somewhat longer (2.La-b).

The most obvious triconsonantal matches are

Hebrew {bārēk|ōṭ} : Greek \*βρέχ|ος ‘something drenched’,

Greek βροχ|ή ‘drenching’ : Hebrew {bārōk|ōṭ<sup>h</sup>} ‘blessing’ (2.Ma-b);

Akkadian {rām|a m} ‘beloved’ : Sanskrit {rām|a m} ‘lovely’ (2.Qe);

Hebrew {kōr(ə)|ōṭ<sup>h</sup>} : Sanskrit {kṛt|á} ‘cut’ (2.Ua);

Hebrew {Hārōš-} : Greek χάρασσ ‘incise’ (2.Vc); [(2.Ia);

Gr. καὶ ἔ|τηλῃ ‘and he endured’ : Heb. \*{wayyi|ōṭē<sup>h</sup>} ‘and he hung’

Lat. *misc|ē*, Gr. μίσγ|ε : Heb. {m i σ(ə)k|ī<sup>y</sup>, miz(ə)g|ī<sup>y</sup>} ‘mix’ (2.Ta-c).

To be sure, the IE etymology of ‘mix’ proves that before the Semitic borrowing the IE root was \*m(e)ig-, and that the suffix \*-sk- combined with it to produce something the Semites could interpret as a triconsonantal root {m-σ(-)K-} or {m-z(-)G-}.

Hebrew {yōrē<sup>ʔ</sup>} ‘he fears’, {yōrē<sup>ʔ</sup>|ōṭ} ‘you (masc. sing.) fear’ :

Latin *uerē|re* ‘you (sing.) fear’

is nearly as plain a triconsonantal correspondence; for the Hebrew {n o|<sup>w</sup>rō<sup>ʔ</sup>} ‘fearsome’, etc., evinces an alternation {ʁ-w-} (2.Ya-c).

**2.DDb.** Already, in the few roots that we have reviewed in this section, *r* recurs more than any other consonant; and further citations, in subsequent chapters, will only add to its prominence. On the phonemic level, as captured by all Semitic and IE scripts, this is the most stable consonant, doubtless because it can undergo much phonetic variation without beginning to sound like a neighboring phoneme (*InEuSeLa*, 707-708). For example, no language in our study has an opposition between an apical flap and a uvular trill (both of which occur in English, but as different REGIONAL pronunciations of the same phoneme /r/), or between any two /R/ phonemes whatsoever.

The /r/ is not, of course, absolutely exempt from change, just relatively so. In our etymologies it has gained at the expense of other phonemes, rather than lost. The IE *l* in Greek δολιχή, Russian {dolgá}, Lithuanian *ilgà*, etc., ‘long’ became {r} in Indo-Iranian: Avestan {darəgā}, Sanskrit {dīrg<sup>h</sup>ā} (2.Ka); for Avestan like Old Persian has no {l}, and {l} in Sanskrit is infrequent (cf. 2.AAb,BBa). The Semitic forms that contain this root have {r}, as exempli-

fied by the Hebrew {ʔərəḵṣ̄ḥ}, although otherwise {l} is a common Semitic phoneme.<sup>321</sup>

I consider this root not a late Semitic borrowing from Iranian but an item of basic IE vocabulary that spread very early, because the Semitic initial consonant {ʔ-} is more like Lithuanian (with no consonant there) than the {d-} of any IE language that is geographically closer, and moreover the western IE forms such as Latin *longa* are as different from the rest of IE as the Semitic forms are (**2.Kb**).

Conversely, in another verb-root, Hebrew {léḏ|ēṭ} 'to bear' seems to correspond to the Slavic {rod|iti} (**2.Zf**, note 297). But from the triconsonantal form of the same Semitic root, Hebrew {wəḵṣ̄ḏ} and Arabic {walad|uṇ} 'son' more closely match the Russian {mólod} in their structure as a whole and particularly in the consonant {l} (**2.Za**).

The /l/ variation of a root WITHIN A LANGUAGE is illustrated by

Geʿez {mankʷarākʷər, gergel} 'wheel'

Latin *colē* 'make the rounds', *circus*, *circu|us*.

**2.DDc.** Moving on to other roots with one consonant phoneme, at least, that is definitely not the same in IE and Semitic, though related, we now take note of those with Semitic {B} but *p* or something else in IE. If a prehistoric time-sequence can be established for the pertinent Semitic etymologies, it would throw light on the problem of the IE \**b*.

(1) ᾡαπα- 'love' is a clear case of a solely Greek borrowing, though not necessarily from Semitic. The unidentified source must have been more like the Hebrew {ʕāḡ(ə)ḇ-} than the Hebrew {ʔahāḇ-}, both of which, however, have a voiced labial at the end of the root (**2.Qa-d**). Presumably ᾡαπα- came into Greek earlier than the traders' term ἄρραβών<sup>√</sup> 'pledge, earnest', from a Semitic verbal noun in a form quite close to Hebrew עֲרָבָוּ<sup>√</sup> {ʕəro-

<sup>321</sup> The Hebrew noun לַחֲמַיִם<sup>√</sup> {rómah} 'lance' corresponds to the Greek λόγχη|η<sup>√</sup> — more precisely the Hebrew construct plural {róm(ə)H|eʔ} in חַמְיָם<sup>√</sup> 'their lances' (Neh. 4:7), translated λόγχαις ἁυτῶν (the nominative plural is λόγχαι<sup>√</sup> [lónkʰ|ai]); see Brown, *PeSy*, 10-13. The Greek initial ρ- being aspirate [rʰ-], the [l-] has the advantage of complying with "Grassmann's law" against aspiration at the beginning of a word if the next syllable is also to begin with an aspirate.

ḅóʷn}.<sup>322</sup> It is possible, but by no means certain, that the Greek [p] in ᾠαπ- is there because no [b] — no voiced labial plosive — was available in Greek at the time of the borrowing. This would fit well with the conclusions of the Mycenologists that in the age of the Linear B syllabary (c. 1400-1200 B.C.) [b] had not yet developed from the IE labio-velar \*gʷ (Ventris – Chadwick, *DoMyGr*, 81-82, 399-400). At any rate, no word that has β in classical Greek is securely identified with a simple labial in the rather enigmatic Linear B script. The perfect correspondence that we reviewed in **2.DDa**, Greek βᾱ : Hebrew {bṣ'}, represents \*gʷ on the IE side.

(2) A less exact phonetic correspondence than ᾠαπ- : {ṣag̃(ə)ḃ-} — the Greek verbal noun σφαγή and especially the verb

καὶ ἔσφαξε(ν) [kaié|spʰak|se(n)] :

Hebrew {wayyi|zbáh} 'and he slaughtered' (**2.Wa-b**) —

seems no less a Greek borrowing than ᾠαπ-, and more probably straight from a Semitic language. But because of the peculiar phonetic complications I cannot make out where to place it in the sequence of etymological connections.

(3) The Greek noun πέος, Sanskrit {pásah} 'penis' appears to have been borrowed from a Semitic verbal noun preserved in Hebrew as {ḃéšet} 'shame'. In all three languages the second consonant (lost in Greek) goes back to \*-ṣ-. But between Latin *tē pud|et* 'you are ashamed' and Hebrew {te|ḃó(ʷ)š|iʸ} that second consonant diverges notably, which suggests an earlier prehistoric period of contact (**2.Xa-d**). But the {b} : p correspondence is constant in both parts of the etymology.

(4) In Hebrew {gənèḃōṭ-} : Greek κλέπος 'stolen thing' the IE language has not only a voiceless labial but a voiceless velar, whereas both consonants are voiced in Semitic (**2.Oa**). Furthermore the {n : l} is a striking divergence, though often paralleled to the recorded history of languages. So this etymology takes us far back.<sup>323</sup>

<sup>322</sup> The verb, exemplified by the imperative עָרַבְּ {ṣārób} 'pledge, warrant, guarantee', did not get into Greek. In the Hebrew noun the unreduced vowel {-e-} before {-r-} two syllables before the accent evinces a sequence \*[-Vrr-] in earlier Hebrew, just as in Greek.

<sup>323</sup> Thanks to J. P. Brown, I would also cite the Semitic noun — Hebrew {ʿaqṣb} in עֲקָרְבַּ {ʿəqarḃ} 'and [the] scorpion', Arabic عَقْرَب {ʿaqrab|u n}, etc. : Greek σκορπ|ιός (Möller, *VelInSeWö*, 222; Cuny, *InÉtCo*, 152) — and Aramaic לַבְנַתָּא {ləḃenāt|ṣ} :

(5) In two others the Semitic {b} corresponds not to a voiceless labial in IE but to a voiced dental:

Hebrew {šēḇet̃} : Sanskrit {śádah̥}, Greek ἔδος 'seat' (2.Bf)

" {bāne<sup>h</sup>} : " -δεμε 'build' (2.Ga-e).

The second of these I have attributed to an opposite dissimilation of \*{(-)b(-)m(-)}; the lack of \*b in prehistoric IE motivated the recourse to a dental. In the 'sit' root I do not see what phonetic tendencies would have favored this particular outcome. But this word gives a strong impression of the greatest antiquity, persisting in the most basic vocabulary not only of the recorded ancient languages but down to the present. For its meaning is secured by the human anatomy, and remarkably exempt from semantic overlapping: sitting is so elementary and at the same time so different from anything else.

**2.DDd.** To discern the patterns that underlie the other consonantal divergences, is difficult but still worth attempting. The next step after our review of Semitic {b} : IE *p* or *d* is to study the IE counterparts to Semitic {d} and {g}.

As noted above (2.DDa and 2.Ba-d), the Semitic voiced plosive at the end of the biconsonantal root in Arabic and Akkadian {rid}, Hebrew {red̃, red̃-} (with fricativation) 'go down' is represented also by a voiced plosive in the Latin prefix *red-* 'back'. But its triconsonantal form, as in the Arabic perfect {warad(a)}, Hebrew {yṣráḏ} 'he went/has gone down', shows a looser correspondence: Sanskrit {-var<sup>h</sup>(-)/d}, Latin (-)uert-, Gothic {warḥ}, Old English *wearḥ*/<sub>ð</sub>, *wurd-*, Old High German *ward*, *wurt-*.

The Semitic root represented by Arabic {waladat}, Hebrew {yālād<sup>h</sup>} 'she has borne', and by the related noun — Arabic {walad|un}, Hebrew {wālāḏ} 'child' — is most closely matched by the Russian adjective {mólod}, whose likeliest IE cognates outside of Slavic are semantically vague: the Sanskrit adjective {mṛdúḥ} 'soft' and verb {mardati} 'he/she squeezes' (2.Za-c). Our present focus of interest is upon the voiced plosive consonant [d] in all these languages (fricativated after a vowel in Hebrew). Even in the Old English *cild* (> *child*), which with its initial palatal [č-] recalls the Hebrew {yéled̃} with a palatal semi-vowel, the voiced dental plosive

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Greek πλῖθ|ος<sup>√</sup> (with metathesis of the first two consonants) 'brick'; see Brown, *LiCo*, 182-184.

-*d* shows up — contrary to the regular Germanic correspondence of *t* to the *d* of the more ancient attested IE languages (**2.Zd**).<sup>324</sup>

The Semitic voiced velar {*g*} corresponds to the IE unvoiced velar most impressively in one root, embodied in the Hebrew and Greek verbal noun {*gənēḇ|ōt-*} : κλέπ|ος ‘stolen thing’ (**2.Oa**). The same relation between Semitic voiced and IE voiceless obtains in the labial third consonant of this root. Furthermore the difference in the second consonant between Semitic {-*n-*} and IE -*l-* argues for separation at an early stage.

**2.DDe.** But the Semitic {*g*} in another root ‘snow’ — e.g. the Hebrew verb {*ta|šlēḡ*} : Latin *ningu|it* (**2.Ne-h**) — corresponds to an IE labio-velar; and the Greek νείφ|ει [-*p<sup>h</sup>*-] evinces aspiration besides. \**g<sup>wh</sup>*, however, is entirely a reconstruction; not one recorded IE language preserves an instance of a voiced aspirate labio-velar. I have posited that this word originated in IE territory and spread to the nearest Semities, who had somewhat less experience with snow. Still, in view of the Semitic {-*l-*} : IE (-)*n-*, the Semitic borrowing ought to go back to a pretty early stage. If this root had reached or were preserved in Geʿez (or a modern Semitic language of Ethiopia), we might look for the same labio-velar {*g<sup>w</sup>*} as in the Latin *ninguit*. But the African climate virtually precluded the preservation of this word, whereas the non-verbal Geʿez nouns {*g<sup>w</sup>ər̥n*} ‘threshing floor’ and {*ṣg<sup>w</sup>l*} ‘young animal’ have IE cognates — e.g. Old English *cweorn* ‘quern’ with [*k<sup>w</sup>-*] and Latin *agnus*, *auillus* ‘lamb’ with either -*g-* or -*u-* but not both (**1.Ka,La**). Both nouns are less widely distributed in IE than the ‘snow’ root; but as far as the evidence goes, it points to *agnus* and *auillus* being reflexes of the same IE labio-velar as *ningit* (the variant of *ninguit*) ‘it is snowing’ and the noun *niuem*, whereas the Germanic [*k<sup>w</sup>*] and its Sanskrit cognate {*g*} in {*grā́vṇ|ā*} (**1.Kc**) go back to a different labio-velar.

A further stage of modification from an original labio-velar aspirate — aspirate, at least in prehistoric IE — appears in

<sup>324</sup> The name Κάδμ|ος<sup>√</sup> for the mythical founder of Thebes must be a relatively late prehistoric borrowing from Phoenician. The closest Hebrew cognate appears as {*qādm|oníʿ*} in יְהוֹנָדָב<sup>√</sup> ‘the eastern(er)’ or ‘the old-time(r)’; see my article, “Καδμείωνας (*Iliad* 4.385, 5.804, 23.680) and Κεδμωναίους (Gen. 15:19): The nationality missing from the promised land and the settlement of Thebes,” *Ἐπετηρίς τῆς Ἑταιρείας Βοιωτικῶν Μελετῶν*, Α’ α’ (Athens, 1988), I, 161-167.

the Avestan sibilant {snaēž|aiti} 'it is snowing' and  
the Arabic affricate {ṣalaj|ati} 'it has snowed' (2.Ng).

This more or less parallel development may have been separate, within a part of IE and a part of Semitic, or it may have been affected by contact between adjacent IE and Semitic areas.

**2.DDf.** Besides the aspirate plosive in νε(φει [-p<sup>h</sup>-], which goes back to an IE labio-velar aspirate, the aspirate in Greek φλεγ-, Sanskrit {b<sup>h</sup>rāj-} 'flash, blaze' also corresponds to a plain voiced plosive in Semitic: Aramaic {bəraq}, etc. (2.Na). But here the consonant, according to all evidence — both IE and Semitic — is just labial, not labio-velar. In Germanic too, according to "Grimm's law", it is a voiced plosive; e.g. English *bright* (< OE *breht*). This phonetic match between Semitic and Germanic voiced plosives, fricativated in certain environments, becomes momentous if it recurs in other strong etymologies. But I find it only in a Hebrew borrowing {pi(ʿ)lēgēs} 'concubine', certainly from IE as shown by its structure 'beside(s)' + 'lie', though we cannot determine which of the lost IE languages of antiquity it came from — perhaps Messapic, certainly not Greek, in which the root 'lie' is (-)λεχ(-) [k<sup>h</sup>]. The Germanic treatment of the root is exemplified by Gothic {lig-} (2.Sa-b).

A similar correspondence (though semantically somewhat vague) appears in a non-verbal noun:

Gothic {gibl|in}√ 'gable': Hebrew גִּבְלָא√ {gəbāl} 'Hill' or 'Hilltop'  
(the Phoenician city, Βύβλ|ος√ in Greek) with its  
ethnic {giblīʿ} in גִּבְלִיָּא√ 'the Byblian' (= το Βύβλι|ος√, cf. 3.Fg-i),  
Arabic جَبَل√ {jabal|u n} 'mountain'.

Greek κεφαλή√ 'head', if in fact cognate to the Germanic and to the Semitic word, would presumably owe its non-aspirate [k-] to "Grassmann's law" concerning the dissimilation of successive aspirates: [k-p<sup>h</sup>-] instead of \*[k<sup>h</sup>-p<sup>h</sup>-].<sup>325</sup>

<sup>325</sup> I owe this paragraph almost entirely to J. P. Brown, as well as the supplementary information that the Macedonian equivalent — or adaptation — of the Attic accusative κεφαλήν√ is κεβλήν√ (like Βερενίκη√ instead of Φερενίκη√ 'Bring-Victory', cf. 2.Aa-b), and that there is a mountain in Phrygia called Κύβελα√ or Κύβελον√. Carleton Hodge contributes a valuable addendum: the Phoenician city {gbl} is {kpn}√ or {kbn}√ in Egyptian; {kpn} is remarkably close to the Greek κ-φ-λ- (as Egyptian had no /l/ phoneme).

**2.DDg.** Nearly opposite to the {g} : κ correspondence in

Hebrew {gənēḇōṭ-} : Greek κλέπος

is Hebrew {qəneḥ-} ‘getting’ : Greek -γόνε ‘begetting’ (**2.Ca**), and  
Aramaic {bəraq} ‘it gleamed’ : Greek φλέγ|εται ‘it blazes’

(Sanskrit {b<sup>h</sup>rāj|atē}, **2.Na**), besides the

Heb. noun {bərāq} ‘lightning’ : Greek Σμάραγ|ον (**2.Nd**, note 166).

Likewise, nearly opposite to the {d} : {t} in

Arabic {warad|at} ‘she came down’ : Skt. {-vart|at} ‘it rolled down’

is the correspondence in

Heb. {Tərēp|ōṭ-} ‘something plucked’ : Gr. \*δρέπ|ος (**2.Pa**).

However, these Semitic voiceless plosives {q} and {T} are not just voiceless; they are “emphatic” — i.e. velarized in Arabic, glottalized in Ethiopic. For the more ancient Semitic languages it is undetermined what feature distinguished {q, T} from {k, t}.<sup>326</sup> By a recent theory (**1.Db**) the voiced *g* and *d* of ancient IE languages developed from prehistorically glottalic but voiceless plosives. The Ethiopic languages within Semitic bear a closer resemblance to that theoretical stage of prehistoric IE than any recorded IE language. But this, in spite of the geographical remoteness of Ethiopia, may well be of a piece with the preservation of labio-velar consonants both in Ethiopic and in certain recorded European languages, while the rest of IE and Semitic has only the simplified counterparts — mostly velar OR labial but not both.

One perfectly clear Semitic loan-word in Greek is the noun σίγλος (nominative pl. σίγλοι) : Akkadian {šiqlum}, Ugaritic {ṣql}, Hebrew {šēqel} (construct pl. {šiq(ə)lēʾ}); **2.Bg**, note 30). The oldest Greek attestation is around 400 B.C., before other nouns of this structure {CVC(V)C} were brought into Greek by Jews spreading through the Hellenistic world. The correspondence {g} : {q} is best explained by positing that the sound, both in the Semitic source and in Greek at the time of borrowing, was a voiceless glottalic

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<sup>326</sup> For ancient Hebrew there is considerable evidence that כ {k}, ת {t}, and פ {p} were ordinarily aspirate [k<sup>h</sup>, t<sup>h</sup>, p<sup>h</sup>] but not uniformly so. On general principles of phonological structure it seems virtually impossible that ק {q} and ט {T} could differ from {k} and {t} only by the LACK of aspiration. For {q} and {T} are restricted to root morphemes, and {T} is rather rare, whereas {k} and {t} are used not only in very frequent roots but also in prefixes and suffixes.



plosive [kʷ], as it is in Geʿez {saql<sup>√</sup>, səql<sup>√</sup>} — or at least closer to that than to anything else.<sup>327</sup>

A noun that displays a like correspondence of its second consonant, but in the dental rather than the velar series, is Greek ὕδωρ<sup>√</sup> ‘water’ (often ‘rain’), Hittite {watar}<sup>√</sup> — amazingly close to the English *water*<sup>√</sup>, Old Saxon *wa-tar*<sup>√</sup> — (genitive {witenaš}<sup>√</sup>, ablative {w<sup>e</sup>/itenaz}<sup>√</sup>, etc.)<sup>328</sup> : the Semitic word for ‘rain’, Arabic مَطَرٌ<sup>√</sup> {maTar|un}, Hebrew מָטָר<sup>√</sup> {mɔTór} (construct מֵטָר<sup>√</sup> {məTar}),<sup>329</sup> etc.

**2.DDh.** The IE labio-velar that is attested as such in Old English *cwicu* ‘alive’ (**2.Ed**) and Old High German *quemān* ‘to come’ (**2.Fc**, note 61) — besides being reflected indirectly in various simplifications — has only simplified counterparts in the Semitic words for ‘live’ and ‘come’. The Semitic {H-}, which embraces even the Geʿez {Haywa} ‘he (has) lived’, is most easily accounted for as a secondary development after borrowing from early Indo-Iranian forms in which the prehistoric IE labio-velar had become an affricate {j}, as in the Sanskrit {jīvá}. Also the Semitic {b} in Akkadian {bam} or {bām} ‘come’, Hebrew {bɔʔ} ‘he came, has come’, etc., was

<sup>327</sup> The vowel [i] in this Greek word and in its Hebrew counterpart is one of several instances where the Hebrew vocalization, as recorded by the medieval Jewish notation, agrees with the vowel sounds shown in pagan Greek sources — whereas on the whole the Septuagint and other ancient Jewish sources in Greek letters show different vowel sounds (cf. **2.DDd**, note 324). The Septuagint and Josephus give this word as σίκλος<sup>√</sup>, σίκλοι<sup>√</sup>, indicating that at any rate by the 3d century B.C. — if not earlier — the Greek γ was no longer anything like [kʷ] but simply a voiced plosive or beginning to be fricativated, and that the Hebrew פ was now more like the voiceless plosive κ. The Greek rendering of the Semitic vowel as *u* was probably favored by the palatal quality of the sibilant — the Semitic [š] striking a Greek ear as [s + ʷ], and the latter component being actualized in the quality of the vowel [i].

The Greek γ- corresponds to Heb. {k-} in γρύπ|ες<sup>√</sup> ‘griffins’ (mainly pl.) :

כַּרְבִּי<sup>√</sup> {karúʔ} (pl. כַּרְבִּיִּם<sup>√</sup> {karub|iʔm}), which

was not identified in the Septuagint as the same mythical beast, and so was merely transcribed ΧΕΡΟΥΒ<sup>√</sup>, ΧΕΡΟΥΒΕΪΝ<sup>√</sup> (and the like); hence *cherub*<sup>√</sup> in the Latin Bible.

<sup>328</sup> Carleton Hodge reminds me not to treat the consonant {t} in the transcription of Hittite as evidence of a voiceless rather than a voiced plosive.

<sup>329</sup> Especially {məTar-géšem} in מֵטָר-גִּשְׁמִי<sup>√</sup> (Zech. 10:1) means ‘rain-water’; for {géšem} itself means ‘rain’.

most likely taken straight from a different IE area, best known to us through Greek forms such as βῆ/ᾱ (2.Fa,d).

These two etymologies seem equally valid, and imply that after the fore-runners of Indo-Iranian and of Greek were at least separate dialects from each other, early (or proto-) Semitic was in touch with both of them. From the fore-runner of the Greek noun ἑρεβ|ος<sup>√</sup> 'darkness' — whose Sanskrit cognate रजः<sup>√</sup> {ráj|aḥ}, besides the Armenian {erek}<sup>√</sup> 'evening', implies an IE labio-velar ("reg<sup>u</sup>os-" in the formulation of Pokorny, *InEtWö*, I, 851) — might also have come the Hebrew עֶרֶב<sup>√</sup> {ʿéřēḇ} 'evening' or 'west' (*InEu SeLa*, 339-341; Brown – Levin, *EtPa*, 93). However, its Arabic cognate عَرَب<sup>√</sup> {ʿarb|u n}, with a post-velar consonant (often transcribed ġ), not a guttural, cannot be so readily derived from an IE source; for the IE languages give no indication that a prehistoric initial consonant of that sort could have vanished (cf. 1.Ce on the IE counterpart to Arabic and Hebrew {ʿ}).

**2.DDi.** A still different correspondence involves the Hebrew verb {qəróʿ} 'call' : Greek χρῆ/ᾱ [k<sup>h</sup>-] 'address (prophetically)', with Semitic but no IE cognates, and a phonetically identical root that means 'befall' in both of these languages (2.Ha-b,e). Here the aspirate appears to be the Greek adaptation of the "emphatic" consonant in a word borrowed from Semitic. From a similar Semitic source Greek borrowed the letter Θ and its acrophonic name θῆτα [t<sup>h</sup>-]; for ט {T} is the "emphatic" dental.

Otherwise, in unmistakable loan-words from Semitic, the "emphatic" plosive {q} is represented in Greek by the non-aspirate κ; e.g.

the spice κασίᾱ<sup>√</sup> from a Sem. source close to Heb. קָצִיעַ<sup>√</sup> {qəciʿsṓḥ},  
 σάκκοι<sup>√</sup> 'sacks' (1.Me)<sup>330</sup> < {šaqqeʿ}.

These are not formed from verb-roots.<sup>331</sup> The same treatment obtains in

<sup>330</sup> The Coptic word for 'sack', with much vocalic variation — σοκ<sup>√</sup>, σωκ<sup>√</sup>, σακ<sup>√</sup>, etc. — was probably borrowed from Semitic.

<sup>331</sup> Also the word for a kind of 'reed' κάλνυς<sup>√</sup> (genitive; nominative κάλνυη<sup>†</sup> or κάλνυᾶ<sup>†</sup>, either of which could have been the source of the Latin *cannā*<sup>√</sup>). The derived adjective κάλυον<sup>√</sup> (with a single [-n-]) 'made of reed(s)', hence 'a basket', is attested in Homeric Greek, much earlier than the noun [kann-], even to the point of designating a luxury basket made of bronze or gold instead of reeds (*Iliad* 11.630, *Odyssey* 10.355, etc.). [kane-] is very close phonetically to the Hebrew קָנֶה<sup>√</sup> {qənéḥ} 'reed' (construct קָנֶה<sup>√</sup> {qənéḥ}), which has

Latin *cornū* : Arabic {qarnu}, Hebrew {qéren, qǝren}, etc. ‘horn’, a non-verbal noun in the basic vocabulary (**1.Bb-c**). Gamkrelidze – Ivanov (*InJa*, II, 876) consider this an IE loan-word in Semitic; Möller (*VeInSeWö*, 121) derived it from proto-Nostratic. At any rate the [k : q] correspondence here must go back considerably further than in *κασίᾱ* : {qəciʷsʰ} and *σάκκοι* : {šaqqeʷ}.

**2.DDj.** To some extent the Semitic voiceless consonants {k, t, p} are rendered by Greek voiceless aspirates χ θ φ in loan-words, mostly from the time of the Septuagint and later; e.g.

the proper names *Χανααν*<sup>√</sup> (𐤇𐤍𐤏𐤍 {kənánʰan})

*Θαμαρ*<sup>√</sup> (𐤇𐤌𐤓 {təmór})

*Φαραώ*<sup>√</sup> (𐤓𐤕𐤔𐤕 {paróʰ}).

That is so in the earlier loan-word *χιτών*<sup>√</sup> ‘tunic’, a masculine noun (to which the Hebrew construct *כִּתְּוֹן*<sup>√</sup> {kəṭōn|ēṭ} ‘(so-and-so-’s) tunic’, although feminine, is closest) — except that the de-aspiration of the second consonant, avoiding a sequence \*[k<sup>h</sup>-t<sup>h</sup>-], has produced [k<sup>h</sup>-t-] in Greek. It was probably [k<sup>h</sup>-t-] in Hebrew too, before the process of post-vocalic fricativation set in.<sup>332</sup>

We have seen the same sort of match in the verbal noun

{bərəṭk|ōṭ} : \*βρέχ|ος ‘something wet, drenched’ (**2.Ma**),

although this is not so clearly a Semitic loan-word in Greek — it might well have gone in the other direction. The Semitic and especially Hebrew adjective (and stative verb) {ʔərəṭk, ʔēreṭk} ‘long’ came in all likelihood from a very old IE adjective (**2.Ka-d**). It is closest to the Greek *δολιχ-*/*-δελιχ-* both in its vowels and in the third consonant [k<sup>h</sup>], although the Semitic initial {ʔ-} is most like Lithuanian *ilg-* and the middle consonant {-r-} like the Avestan {darəṭg-} (Sanskrit {dīrg<sup>h</sup>-}, **2.DDb**). Similarly in another Hebrew stative verb of probable IE origin — {yəkəlōʰ} ‘she could’ (pronounced [-k<sup>h</sup>-] in ancient times), whose closest IE cognate is the Russian {moglá} (**2.Zh-i**) —

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many Semitic cognates. The Greek word has often been diagnosed as a borrowing from Semitic, but I incline to J. P. Brown’s view that it may be from an unidentified substrate language of the Mediterranean.

<sup>332</sup> See *InEuSeLa*, 348, 579, and “Grassmann’s ‘Law’ in the Early Semitic Loan-word *χιτών*, *κιθών*,” *Studi micenei ed egeo-anatolici*, 8 (1969), 66-75.

the velar consonant matches rather the Greek [k<sup>h</sup>] in the noun *μηχανή* or *μηχαρ*, although the IE verb is not itself represented in Greek (**2.Zj**).<sup>333</sup>

**2.DDk.** The aspiration of the voiceless “unemphatic” plosives in Hebrew is not shared by Arabic, and perhaps not by the other Semitic languages. This rather subtle phonetic point is relevant to several IE-Semitic etymologies, in which Semitic seems to have borrowed an IE root with a voiceless plosive.

(1) The verb ‘cut’ shows up most evidently cognate in the imperative:

Sanskrit {kṛt|á, kart|a} : Hebrew {kōrāt|ś<sup>h</sup>} (**2.Ua**).

{(-)K(-)r(-)T(-)} is meagerly distributed in Semitic, though not limited to Hebrew, whereas its Sanskrit and Hittite cognates look as if formed within IE by adding a third consonant to the widespread biconsonantal root (-)k-r-. So it can be safely diagnosed as an IE verb, which some Semitic languages borrowed rather late in their prehistory.

(2) The Latin stative *patē-* ‘wide-open’ is most like a Hebrew stative participle *פָּתֹחַ* \*{pōtē<sup>h</sup>}, although this biconsonantal root is rare in Hebrew and

<sup>333</sup> On the IE side the {l} is clearly not part of the root.

The noun *λέσχη*<sup>√</sup>: *לִשְׁכָּה*<sup>√</sup> {liškō<sup>h</sup>} or *לִשְׁכָּנָה*<sup>√</sup> {niškō<sup>h</sup>} ‘bench’ or ‘chamber’ (with benches) also shows the aspirate [-k<sup>h</sup>] in both Greek and Hebrew; see Brown, *MeVo Vi*, 151-152, and Levin, *InEuDeAd*, 105. The language of origin is quite unclear. The variation between {l-} and {n-} — both in the same passage of Nehemiah (13:5,7, etc.), although in other Biblical texts only the {l-} form is found — argues that the language from which Hebrew borrowed it had a sound that a Hebrew ear could interpret either way. The idea that *λέσχη* was formed within Greek from the verb-root *λεχ-* (**2.Sa**) + -σκᾱ, and at first meant ‘a (little) bed’, rests upon a highly questionable interpretation of one inscription from a cemetery on the island of Rhodes (*InGr* 12.1. 709):

ΕΥΘΥΤΙΔΑ  
ΗΜΙΑΕΞΞΕ

in which the last letter was misread as A from the time of discovery on; S. Selivanov, “Inscriptiones Rhodiae ineditae,” *Mittheilungen des Kaiserlich Deutschen Archaeologischen Instituts, Athenische Abtheilung*, 16 (1891), 110. The error went on unchecked, even when accompanied by a perfectly legible photograph; and so the word was mistaken for a Doric dialect form *λέσχα*, which could then bear the interpretation ‘I am [the] bier’ — i.e. [the] resting-place — ‘of Euthytidas’. But as it stands, *ΛΕΞΞΕ* after *HMI* ‘I am’ is more likely to be the Ionic name of a woman married to Euthytidas, or else his daughter named after a grandmother or other female relative from Ionian territory; that would account for the non-Doric form. Both *Λέσχη* and the masculine *Λέσχης*<sup>√</sup> are known otherwise as personal names. The first to interpret the word as a woman’s name in this inscription was Σ. Ν. Δραγουμης, “Επιγραφικά φροντίσματα,” *Ἀρχαιολογικὴ ἐφημερίς* (1893), 99, although he relied on Selivanov’s uncorrected reading *ΛΕΞΞΑ*.

lacking in the rest of Semitic (**2.La**). The triconsonantal root פתח {(-)P(-)T(-)H(-)} ‘open’ is not only common in Hebrew but virtually pan-Semitic.<sup>334</sup>

(3) Another verb-root has a good parallel in

Greek καὶ ἔταλῃ ‘and he/she endured’ :

Hebrew \*{wayyītlē<sup>h</sup>} or \*{wayyītlē<sup>s</sup>} ‘and he hung’ (**2.Ia**).

On phonological grounds we may take this also to be an IE loan in Semitic, although there would be no other reason for thus positing an origin within IE. The very lack of a present tense in Greek — even of one derived from the aorist (-)ταλῃ/α(-) — argues that this verb is a relic of a very early stage of prehistoric IE, before a present tense became so characteristic of verbs in general (**2.Ic**).<sup>335</sup>

**2.DDL.** Still another consonantal phenomenon appears in the Greek verbal noun ἄγορῆ/ᾶ ‘gathering, assembly’ : Hebrew {ʿăcorō<sup>h</sup>}. The resemblance is due most likely to borrowing from the forerunner of Greek, where the consonant was \*[kʷ] (later [g]), by the forerunner of Hebrew or by an intermediary language, where it changed to \*[tsʷ] and then to \*[sʷ] (**1.Id**, **2.Ra**). Later the Hebrew (or Aramaic) word, in the restricted sense of a religious assembly,

<sup>334</sup> The Latin active verb *pande* ‘open wide’ : Hebrew {pattē<sup>h</sup>} is uniquely valuable for derivational morphology — active from stative by strengthening the second consonant (Hebrew) or by the IE equivalent, infixing a nasal right before it (Latin). But the voiced *-d-* poses a phonological enigma.

The IE triconsonantal extension, found in the related Greek noun πτερόν ‘feathers, wings’ has the first two consonants in an initial cluster. For the Hebrew counterpart to such a cluster see **2.Lc-f**.

<sup>335</sup> The construct form of a Hebrew noun, perhaps borrowed from an IE source similar to the Greek neuter τέμεινος<sup>v</sup> ‘precinct’, appears in the compound place-name תִּמְנַת־הַשֶּׁמֶשׁ {timnaṭ-šeraḥ} ‘Precinct-[of-the-]Sun’ (Joshua 19:50, 24:29; in Judges 2:9

וּבְתִמְנַת־הַשֶּׁמֶשׁ<sup>v</sup> {bətimnaṭ-šeraḥ} ‘in Precinct-[of-the-]Sun’). The absolute תִּמְנָה<sup>v</sup> {timnā<sup>h</sup>} turns up as the name of other places. Phonetically closest to the Greek is the suffixed form תִּמְנַתָּה<sup>v</sup> {timnāṭā<sup>h</sup>} ‘to(ward) Timnah’. The ultimate source may be Sumerian {temen}<sup>v</sup> ‘foundation stone’ (also in Akkadian); see Jacqueline Manessy-Guitton, “Temenos,” *InFo*, 71 (1966), especially 31-35. The Latin cognate of Greek τέμενος<sup>v</sup> is *templum*<sup>v</sup> (also neuter, but in the thematic declension). My information is primarily from J. P. Brown. Carleton Hodge suggests that the Sumerian word came from IE, rather than the reverse.

Juxtaposing another etymology enables us to follow more stages of phonetic development:

borrowed by prehistoric IE,

> [tsʔ] borrowed by (prehistoric) Hebrew {חַצְרָה|éʔ} ‘courts’ {ḥצר|óʔ}

> [h]                      borrowed by Greek [heor|tē]  
with metathesis.

**2.DDm.** The Greek γ in the verb ἠγαπᾶν ‘to love’ and the verbal noun ἡγάπη, unlike the one in ἡγορή and ἄγροί, has resulted from a loan (**2.Qa-d**). Its source must have been close to the Hebrew noun {ʔahaḇṣ<sup>h</sup>} structurally, except that [h] from a Semitic language would hardly have produced [g] in Greek. A rarer Hebrew verb {ṣ-ḡ-ḇ}, of similar meaning, would in itself be a credible source for the Greek; but the very discrepancy within Hebrew between {ṣ-ḡ-} and {ʔ-h-} rather suggests that at least one of these was borrowed by Hebrew from some unidentifiable language, which may also have supplied the verb and noun to Greek. I see no trustworthy clue as to whether in prehistoric Greek the cognate of this Hebrew {ḡ} was pronounced \*[kʔ], while the cognate of this Hebrew {ḇ} became [p] for lack of a glottalic ʔ[pʔ] (see Gamkrelidze – Ivanov, *InJa*, I, 59-63).

Aramaic {tib|bæht|i<sup>y</sup>n},

but no direct cognates in IE, shows the correspondence  $d: \{\beta\}$ , since Ugaritic preserves a prehistorically distinct Semitic consonant that merged with  $\{\beta\}$  in

Hebrew and with {<sup>h</sup>t} in Aramaic (2.Xa). For lack of an IE etymology, I take this Latin verb for a borrowing from Semitic — a relatively early one, perhaps even before the voiced plosive [d], which is historically attested, had developed out of a voiceless glottalic \*[tʰ] (cf. 2.DDL).

A later, though still prehistoric, borrowing took the verbal noun — Hebrew {béšēṭ} ‘shame’ or something very close to it — and produced the Sanskrit {pásah} and Greek πέος ‘penis’ (2.Xd). Whether the Semitic source of the second consonant was \*[ḫ] (as in the Ugaritic verb {ḫḫ}) or \*[s] or [š], any of these could easily have yielded the actual Sanskrit {-s-} and Greek zero (between vowels).<sup>336</sup>

Even later, but before developing a voiced plosive [b], Greek alone got πόσθη from a Semitic source close to the more frequent Hebrew word for ‘shame’, {bóšēṭ, bōšt-} (2.Xb-c). And finally, in the vocabulary of Hellenistic Jews toward the end of the pre-Christian era, the classical Greek compound ἄκρο|ποσθ|ῖα ‘foreskin’ was changed to ἄκρο|βυστ|ῖα under direct influence from Biblical Hebrew.

**2.DDo.** The Hebrew צ {c} in the root exemplified by the imperative {ceʾ} ‘(go) out’, seems to correspond to the ordinary Latin voiceless sibilant in the prefix sē- ‘apart’ (2.Be). The Geʿez cognate to the Hebrew has either this or another “emphatic” sibilant {ḏ}.<sup>337</sup>

<sup>336</sup> Likewise in Ugaritic {ḫḫ}, Hebrew {ʔiṣ/yeš-} ‘there is’ : Greek ἔσ|τι, Sanskrit {ás|ti}, etc. (2.Xb, note 267).

<sup>337</sup> The strengthened צ in the Hebrew noun מַצֵּה (maccōḥ) ‘unleavened bread’ is probably, as J. P. Brown suggests, a Semitic adaptation of the Greek μάζα ‘barley-cake’ (cf. *In EuSeLa*, 121-122, and {ʔārəc-} : ἔραζε ‘earthward’, 1.Fg). He also proposes a phonetically more difficult but still compelling correspondence between חֵץ {Hiccēʾ}, οἷστοι, and the Latin *sagittae* ‘arrows’ — all borrowed separately from some unidentified language or group of languages.

Later Akkadian {bu-cu} (AsDi, II, 350), Hebrew בֹּיָץ {búʿc}, and Greek βύσσο|ος ‘fine linen’, an important article of commerce (Brown, *SaCu*, 13-15), must be derived from one language; but that source has yet to be located. Though we think of Egypt as the ancient home of linen, the Egyptian word {w3d.t} ‘green fabric’ (Erman – Grapow, *WöAeSp*, I, 268) makes an unsatisfactory etymon, both phonetically and semantically. Gary Rendsburg remarks that another Hebrew word for a certain high-quality linen, שֵׁשׁ {šēš}, was definitely borrowed from Egyptian ({šš}) (WöAeSp, IV, 539); in the Septuagint it was translated βύσσοσ (Ezek. 27:7, etc.).

However, another very basic root shows the Semitic {ḥ} likewise represented by *s* in Latin and many other IE languages —

Arabic (of Ḥimyer) {ḥib}, Aramaic {ḥiḇ}, Hebrew {ḥēḇ} :

Latin *sed-*, Sanskrit {sad-}, Greek ἥδ- [hed-], English (and other Germanic languages) *sit* (2.Bf).

Furthermore, Arabic {ḥal} | u n }, Aramaic {ḥalāḡ}, Hebrew {ḥēleḡ} :

Gothic {snaiw|s}, Lithuanian *sniẽg|as*, etc., ‘snow’

has the same correspondence (2.Ne-f), although Latin *niū|em* (nominative *nix*) and Greek νίφ|α do not preserve the initial consonant. For the remote pre-history of the IE sibilant *s*, these two etymologies are crucial.<sup>338</sup>

**2.DDp.** Quite a few of the verb-roots that we have examined have a guttural consonant on the Semitic side {ʔ ṣ h H} but no corresponding consonant in the IE languages. The Germanic languages, which are known to have or to have had a glottal stop, unwritten, in non-verbal nouns

OEnglish [ʔ]eordān : Arabic {ʔarḍan} ‘earth’ (1.Fa)

OHG [ʔ]oren : Hebrew {ʔózen} ‘ear’ (1.Cb)

OEnglish [ʔ]e(a)gan : {ʔáyin} ‘eye’ (1.Ce)

[ʔ]eanian ‘to lamb’ : Geʔez {ʔ/ṣəḡʷl} ‘young animal’ (1.La-b)

[ʔ]æcer : Arabic {Haql|an} ‘field’ (1.Ia),

are unrepresented in these verbal etymologies, with one unobtrusive exception: The best counterpart of the Semitic {(-)ṣ(-)l(-)} ‘go up’ or ‘be high’ (causative ‘raise up’) is in Latin — the imperative *ale* : Hebrew {ʔālēḥ} — apart from the lack of an initial consonant in Latin; but the derived participle or adjective *alt|us* ‘raised up, tall’ has a Germanic cognate:

Old English [ʔ]eald (> *old*), German [ʔ]alt (2.Af-g).<sup>339</sup>



The Semitic {h-} in the basic verb {(-)h(-)w(-)}, as in the Hebrew imperative {hēw|ēḥ} ‘be’, sounds like the relic of a dissimilatory process, suppressing the labial component that remains in the Sanskrit cognate {bʰá v|ā} (2.Da).

<sup>338</sup> They point, however, to a different kind or a different period of connection between Semitic and IE from the one which spread the noun exemplified by Arabic {ḥawran} : Greek ταῦρον ‘bull’ (1.Ab).

<sup>339</sup> In another noun, Hebrew {ʔereḇ} ‘evening’ or ‘west’ : Greek ἑρεβ|ος ‘darkness’ (2.DDh), the same Hebrew guttural corresponds to the lack of an initial consonant in Greek, just as in {ʔēlṣṣṣ} : ἄμνη (1.Ld). However, the Arabic cognate {ʔarb|u n } has not a guttural but a post-velar consonant.



In the subsequent volume, when we deal with phonetics in great detail, we must study more correspondences between the Semitic gutturals and the IE prehistoric “laryngeals”, besides the Germanic glottal stop.

**2.DDq.** In Hebrew {raHǎm|<sup>š</sup>} ‘she loves’ : Sanskrit {rām|ā} ‘beloved’ (fem. sing. nominative, **2.Qe**) the Semitic guttural consonant, with its accompanying vowel {Hǎ}, corresponds to the lengthening and widening of the Sanskrit vowel; for the short counterpart of {ā} is {ʌ} (as in our word *punch*), although conventionally transcribed {a}. While Akkadian is a Semitic language, the interpretative transcription {rāmu} (masc. sing. nom.) — instead of {ra-a-mu} for the three syllabic characters of the cuneiform script — makes Akkadian appear with a long vowel just like Sanskrit. Whether anything consonantal, like the Hebrew {H} or the very minimal consonant {ʔ}, remained in Akkadian, can scarcely be determined, because our access to the long-forgotten Akkadian sounds is of necessity so very indirect. The line between a guttural consonant and an open vowel is often blurred anyhow, in the better known Semitic languages; a segmental alphabetic notation — such as {Hǎ} for the  in , putting consonants and vowels on the same level — may force us to separate a consonant-and-vowel that not only went together but were articulated simultaneously rather than in sequence.

As for the Sanskrit {ā}, we have more reason to state that there was nothing perceptibly consonantal in it; but we can fairly reconstruct a consonant in the prehistory of Sanskrit and other IE languages.

**2.DDr.** The most important root, for the extent of its morphology, is the one that appears in Latin as  $(-)^m/pI-$  and  
in most other IE languages as  $(-)^pI-$ ,  
in Germanic as  $(-)^fI(-)$ .

Semitic has  $\{(-)^m(-)^l(-)^{ʔ}(-)^{-}\}$  with the labial nasal throughout, not a labial plosive or fricative (**2.Ja**). In IE, *p* had the advantage over *m* of combining with *l* to form a consonant cluster easy to pronounce, whereas *\*mI-* was nearly unpronounceable. That did not operate in Semitic because all the ancient Semitic languages — so far as their vocalization is known — require some vowel, [ə] at least, between the first and second consonants of a root, unless there is a prefix.

An IE *m*- corresponds to the Semitic labial semi-vowel in alternation with the palatal semi-vowel, in

Russian {mólod} 'young' : Hebrew {wəlśd, y<sup>š</sup>/ēlēḏ 'child'.

The Akkadian cognate shows a three-fold alternation: nominative {<sup>w</sup>/mildu}, but construct {wilid/ilid}; we can hardly determine whether what is transliterated as an initial vowel {i-} in {ilid} was the residue, at any rate, of a palatal semi-vowel [y-]. In contrast to the Slavic *m*-, the Old English *cild* — pronounced with the same affricate [č-] as in Modern English — points to a probable alternation in prehistoric IE also (**2.Za-d,DDd**). The odd correspondence between the Slavic labial nasal and the Semitic labial semi-vowel, with palatal alternant, recurs in Russian {moglá} : Hebrew {yōkəlś<sup>h</sup>} 'she could' ({tū<sup>w</sup>kál} 'she can' or 'you [masc. sing.] can'; **2.Zg,DDj**).

Almost oppositely, in

Hittite {watar} 'water' : Arabic {maTar|u n}, Hebrew {mṯTór} 'rain', it is the IE labial semi-vowel that corresponds to the Semitic labial nasal (**2.DDg**).

## Chapter III PRONOUNS

In many if not all languages the pronouns constitute a sub-system notably different from all the rest, and on the whole more archaic. For instance, the form and function of *I*<sup>√</sup> and *me*<sup>√</sup> in English preserve a distinction of case that nouns lost over eight hundred years ago. Even when an Old English noun such as *guma* in the nominative had an oblique case-form *guman* (1.Gf), the distinction was just inflectional, whereas *ic*<sup>√</sup> and *me*<sup>√</sup> were quite separate entities. The IE cognates of both prove that they go back very far indeed. The only thing like a nominative morphological counterpart to *me* is the first person singular ending of verbs, vestigially preserved in *am*<sup>√</sup> (< OE *eom*<sup>√</sup>; see Levin, *CaNoPr*, 453-454).

But it would be unsafe to generalize that all such anomalies in pronouns must be of remote origin; for an anomaly can develop where earlier there was none. *Nōs*<sup>√</sup> in Latin (unlike *ego*<sup>√</sup> 'I' and *mē*<sup>√</sup> 'me') served for both nominative 'we' and accusative 'us' (besides *nōbīs*<sup>√</sup> for dative and ablative); but whereas its descendant *nōi*<sup>√</sup> in Italian still functions as an emphatic subject — *nōi leggevamo*<sup>√</sup> 'we were reading' < *nōs legēbāmu(s)*<sup>§</sup> — the 'us' as in *aiutaci*<sup>√</sup> 'help us' is expressed by [či], apparently from *ecce hīc*<sup>√</sup> 'look here' (*adiūtā nōs*<sup>§</sup> yielded *aiutane*<sup>§</sup>, but *ne* in the sense of 'us' is now obsolete).

For all the importance of pronouns in comparative linguistics, their shortness is liable to leave us perplexed where the languages are but distantly related, since phonetic erosion may well obliterate a hypothetical shared morpheme. But we shall begin with the clearest etymologies. In many instances we will find that a pronoun, recognised as a distinct word on one side of the etymology, corresponds on the other side to a mere prefix or suffix, incapable of standing as a separate utterance; e.g. (2.Hc,Xa, 3.Ca-d)

Latin *tē*, Greek σέ : Hebrew and Aramaic {TE-} 'you'.

3.A. *Sem. (Heb.)* {(-<sup>h</sup>)ʔʕni<sup>y</sup>} : *IE (Skt.)* {-āni} 'I'

3.Aa. The Hebrew word for 'I' is either **אֲנִי**<sup>√</sup> {ʔʕni<sup>y</sup>} or **אֲנִי**<sup>√</sup> {ʔʕnō-ki<sup>y</sup>}.<sup>1</sup> The former has no exact Semitic cognate, except possibly Ugaritic {ʔan<sup>√</sup>}<sup>√</sup>, where the unwritten vowel (if any) after the {n} cannot be determined. The other Semitic languages have a different vowel from the Hebrew {i}: Aramaic **ܐܢܝ**<sup>√</sup> {ʔānō<sup>h</sup>}, Arabic **أنا**<sup>√</sup> {ʔanā}, Geʿez {ʔana}<sup>√,2</sup>

besides the Cushitic cognates (or derivatives; Leslau, *CoDiGe*, 26):

Bilin, Quara, Khamir *an*<sup>√</sup>; Beja *ane*<sup>√</sup>; Saho, Afar *anu*<sup>√</sup>.

Accordingly the Semitists have treated the {-i<sup>y</sup>} in {ʔʕni<sup>y</sup>} as a peculiar Hebrew development, due to the spread of the Semitic possessive suffix {-i<sup>y</sup>} 'my' in this one language beyond its original sphere. For this suffix is pan-Semitic; and on the other hand Hebrew stands out also for having {-i<sup>y</sup>} in the perfect tense — e.g. **שמעתי**<sup>√</sup> {šmáʕti<sup>y</sup>} 'I have heard',

whereas in Aramaic it is **שמעת**<sup>√</sup> {šimʕé|t},

in Arabic **سمعت**<sup>√</sup> {samiʕ|tu}.<sup>3</sup>

Sanskrit, however, shows a parallel to the Hebrew {ʔʕni<sup>y</sup>} in the first person singular ending of the subjunctive: **विरजानि**<sup>√</sup> {viráj|āni} 'may I rule,

<sup>1</sup> With accentual variants **אֲנִי**<sup>√</sup> {ʔānī<sup>y</sup>} or **אֲנִי**<sup>√</sup> {ʔnōkī<sup>y</sup>}.

<sup>2</sup> Also {a-na}<sup>√</sup> or {an-na}<sup>√</sup> in Eblaite; Gelb, *EbKiCi*, 25. I owe this information to Gary Rendsburg. Cuny (*InÉtCo*, 243) reports *ani* from one Cushitic language, Galla.

<sup>3</sup> The {-i<sup>y</sup>} ending of the other Hebrew word for 'I', {ʔʕnōkī<sup>y</sup>}, is likewise at odds with the Akkadian cognate {a-na-a-ku}<sup>√</sup>; Akkadian also uses {-ku} as the subject-suffix 'I' attached to stative verbs. There is no telling what vowel, if any, was pronounced in Moabite at the end of the pronoun **אֲנִי**<sup>√</sup> {ʔnk}, or in Ugaritic {ʔank}<sup>√</sup>. Phoenician and Aramaic inscriptions show both **אֲנִי**<sup>√</sup> {ʔnk} and **אֲנִי**<sup>√</sup> {ʔnky}; the latter form certainly agrees with the Hebrew.

'I' in Egyptian is written as the triconsonantal {ʔnk}<sup>√</sup> (Coptic ANOK<sup>√</sup>). With the Akkadian {anāku} Trombetti (*ELI*, 198) compares "Mundapolinesiac ... *inaku* io [= 'I','] but does not identify which of the Munda-Polynesian languages. The closest thing to it that I can find in his *SaGI* (I, 205) is "Mak. [unclear abbreviation] *inā-kke*, *nā-kke*". For a brief treatment see Merritt Ruhlen, *On the Origin of Languages: Studies in linguistic taxonomy* (Stanford University Press, 1994), 252-260.

let me rule' (*InEuSeLa*, 535-540); likewise in Avestan {mravāni}<sup>4</sup> 'let me say'. That the Sanskrit (and Avestan) verb contains the vestige of a pronoun, appears from the occasional omission of the last syllable {-ni}: both अ या √ {ayā} and अ या नि √ {ayāni} 'may I go, let me go' occur, though the former is rare and archaic. Moreover, at least in the R̥gveda, {-āni} precludes the ordinary, accented pronoun अ हं √ {ahám} 'I', as though the meaning of {ahám} were already expressed in {-āni} — in contrast to

कि मे ता वा चा कृ ण वा त वा हं √ {kīm ētā vāčā kṛṇav|ā távāham} 'What am I to do with this saying of yours?' (10.95.2a), where {távāhám} is the contraction of {táva} + {ahám} and {ahám} would have been incompatible after कृ ण वा नि § {kṛṇavāni}, as I show in *InEuSeLa*. So this oldest of poetic texts has caught the language at the stage where verb-forms with the longer of these two endings were still understood to contain a synonym of {ahám} 'I'.

**3.Ab.** Similar to the Sanskrit variation between {ayā} and {ayāni} is the Hebrew variation (Ps. 31:2, etc.; Jer. 17:18) between

אֶל-אֲשָׁמָה √ {ʔal-ʔeḇóšə<sup>h</sup>} 'let me not be ashamed'

and אֲשָׁמָה יִשְׁוּ רֹדְפָי וְאֶל-אֲשָׁמָה אֲנִי √ {yeḇóšu<sup>w</sup> rodəpáy wəʔal-ʔeḇóšə<sup>h</sup> ʔṣniʔ} 'let my pursuers (persecutors) be ashamed but let me not be ashamed' (= 'I do not want to be ashamed'), or between

אֶדְבַּר √ {ʔādabbə<sup>h</sup>} 'let me speak' (II Sam. 14:15, etc.) and

וְאֶדְבַּר אֲנִי √ {waʔādabbə<sup>h</sup>-ʔṣniʔ} 'and let me speak' (Job 13:13).

The Hebrew context leaves no doubt but that the pronoun {ʔṣniʔ} is added for emphasis, for self-assertion; and this suggests that originally also in Sanskrit and Avestan, or in their forerunner, a like emphasis IN A VOLITIONAL RATHER THAN FACTUAL STATEMENT would account for the presence of {-āni} instead of the briefer {-ā}. Although these are the only two instances

<sup>4</sup> In Sanskrit ब्र वा णि √ {brāvāṇi}. In the earliest Avestan (the Gāthas) any final vowel is long, whether its Sanskrit counterpart is long or short. Subsequently in Avestan almost any final vowel is short.

of {-<sup>h</sup>ʔʕni<sup>y</sup>} in the Bible, they enable us to understand how in the prehistory of those IE languages it became habitual to prefer the more emphatic form in such an emotional situation (and nowhere else), so that the unreinforced {-ā} declined and indeed disappeared from use early in their history.

The Hebrew parallel opens our eyes to a vestigial distinction in Sanskrit and Avestan, which otherwise we would overlook altogether. For the rest of the IE languages afford no cognate to {-āni}. Contact with a single Semitic language, relatively late in prehistory, will hardly account for the recorded facts. Rather the ending {-āni} points to an early stratum in a part, at least, of early IE: a pronoun that meant 'I' survived only in combination with the verb, but otherwise lost out completely to the synonym {ahám} ({azəm}<sup>√</sup> in Avestan).

Verb-roots shared by Hebrew and Sanskrit, to illustrate the pronoun optionally tacked on to a verb, are scarce. Here is the best correspondence that occurs to me: {ʔekrāṣ<sup>h</sup>} in **וְאֶכְרַסְנִי**<sup>√</sup> 'and let me cut, and I will cut'

**אֲנִי וְאֶכְרַסְנִי**† {ʔekrāṣ<sup>h</sup>ʔʕni<sup>y</sup>} 'let **me** cut, **I** will cut'

**कृ ता †** {kr̥tā} 'let me cut, I will cut' (cf. 2.Ua)

**कृ ता मि §** {kr̥tāni} " **me** ", **I** " " .

**3.Ac.** The two languages differ in that Sanskrit shows fusion into one word, whereas Hebrew has — at most — hyphenation as in **אֲנִי-וְאֶכְרַסְנִי**. The Hebrew glottal stop at the beginning of {ʔʕni<sup>y</sup>} is maintained as a normal consonant, and so precludes the vowel-sound before it and the one after it from coalescing. I know of no instance in these languages, or any other, of a subject pronoun in the very process of becoming a suffix upon the verb; but the Greek **ἐγὼ μαι**<sup>√</sup> 'I think' — contracted from **ἐγὼ**<sup>√</sup> 'I' + **οἶμαι**<sup>√5</sup> 'I think' — illustrates how a subject pronoun could begin to fuse with the verb.

Between ancient Latin and modern French the subject pronoun has indeed fused with it, and more thoroughly so when suffixed than when prefixed:

[diž]<sup>√</sup> (spelled *dis-je*) 'said I' < *dīxī ego*<sup>√</sup> 'said I'  
 [ditil]<sup>√</sup> ( " *dit-il*) 'said he' < *dīxit ille*<sup>√</sup> 'said he'  
 [ž(ə)di]<sup>√</sup> ( " *je dis*) 'I said' < *ego dīxī*<sup>√</sup> 'I said'  
 [i(l)di]<sup>√</sup> ( " *il dit*) 'he said' < *ille dīxit*<sup>√</sup> 'he said'

<sup>5</sup> **οἶμαι** is itself an anomalous syncopation of the trisyllabic **οἰομαι**<sup>√</sup>.

The French spelling with the hyphen indicates absolute fusion: nothing can intervene before the subject morpheme.<sup>6</sup> But on the other hand a few brief morphemes can separate the preceding subject from the verb; e.g.

[i(l)m(ə)di]<sup>√</sup> (spelled *il me dit*) 'he said to me',  
unlike [m(ə)dil]<sup>√</sup> ( " *me dit-il*) 'said he to me'.<sup>7</sup>

The Hebrew {ʔekrētṣḥ ʔṣniʔ} is at virtually the same stage as *dixī ego*, with the pronoun an optional reinforcement of the verb. The Sanskrit {kr̥tāni}, with {kr̥tā} only a rare alternant in the earliest extant texts, is typologically comparable to the French [diʒ]; but phonetically [-ʒ] is the result of a much more drastic erosion of the disyllabic *ego*, extending over dozens of generations.<sup>8</sup> So the Sanskrit suffix comes through the test for a cognate to the Hebrew pronoun.

**3.Ad.** Cognates of the Semitic pronoun, and especially of its Hebrew form {ʔṣniʔ}, are reported in the Cushitic languages (**3.Aa** and note 2). Of the modern Semitic languages of Ethiopia, Tigrinya ʔane<sup>√</sup> comes closest to {ʔṣniʔ} and to Sanskrit {-āni}. The rest show no positive affinity to the more or less neighboring Cushitic languages; Harari ān<sup>√</sup>, however, shows a negative affinity to Bilin, etc., in lacking a vowel after the consonant *n*.<sup>9</sup> Without personal knowledge of these languages, I can only speculate that the Cushitic forms are probably not due to recent contact with Geʕez, Tigrinya, Harari, etc., but rather that both the Cushitic and the Semitic languages have preserved something from the variable pronunciation of the distant past.

<sup>6</sup> *Dit* can come also from the Latin present *dicit* <sup>√</sup> 'he says', and *dis* likewise (except for the -s) from *dico* <sup>√</sup> 'I say'. So these French expressions may be translated 'say I', 'says he', 'I say', 'he says'.

<sup>7</sup> In the Germanic languages the ending -s<sup>√</sup> 'you' (singular) of Gothic and Old High German, which has widespread IE cognates, was gradually reinforced in German so as to become -st<sup>√</sup>. In Old English, from the first, we find -st<sup>√</sup> to the exclusion of -s; the occurrence of not only *berest*<sup>√</sup>, *berst*<sup>√</sup> (> *bear(e)st*<sup>√</sup> in early modern English) but *berestu*<sup>√</sup> argues strongly that the -t or -tu arose from the pronoun *fu*<sup>√</sup> or *ðu*<sup>√</sup> (> *thou*<sup>√</sup>). For after [s] the fricative was very liable to become a plosive. On the other hand, *hilpesð*<sup>√</sup> (besides *hilpest*<sup>√</sup>, *hilpst*<sup>√</sup>) displays the preservation of the original fricative. See Campbell, *OIE nGr*, 193.

<sup>8</sup> The weakening of *ego* [égɔ] is discernible, step by step: > [éo] > [íɔ] (as in Italian) > [yo] (as in Spanish) > [jo] (= [dʒo] in Old French) > [ʒ(ə)] (in modern French).

<sup>9</sup> For more details about Harari, see Reinisch, *PeFu*, 139-140.

Hausa, the best known of the Chadic languages outside of its home ground, has  $n\bar{I}^{\vee}$  as the independent form of the pronoun 'I', and  $ni^{\vee}$  or  $n\bar{i}^{\vee}$  as the direct object 'me'.<sup>10</sup> In Finnish, so far apart geographically,  $-ni^{\vee}$  'my' is attached as a possessive suffix to nouns, including infinitives, and  $-n^{\vee}$  'I' as a subject suffix to verbs.<sup>11</sup> And paradoxically, although Hungarian is a pretty close relative of Finnish, the Hungarian nominative  $\acute{e}n^{\vee}$  'I' (not a suffix) resembles the Cushitic  $an(-)$  forms and the Semitic  $\{?an-\}$  more than it resembles the Finnish  $min\ddot{a}^{\vee}$  (see Collinder, *SuUrLa*, 26, 380).

In this connection it would be tempting to bring in not only the Finnish and other Finno-Ugrian forms with  $m-$  but the many IE forms too with this labial nasal instead of  $n$  — and not only pronouns such as Latin  $m\bar{e}$ , Greek  $\mu\epsilon^{\vee}$ , but the subject-suffix of verbs: Greek  $\epsilon\bar{\iota}|\mu\iota^{\vee}$  'I am going' (= Sanskrit  $\epsilon\bar{\iota}|\mu\bar{i}^{\vee}$  { $\acute{e}|\mu\bar{i}$  }, etc. (Dolgopolsky, *PePr*, especially 66-70). One nasal consonant or the other, with or without a vowel and expressing the first person singular (or plural), is a feature very widespread among the languages of the world. But I must leave it to someone else to gather the relevant but scattered data, bearing upon the question whether some coherent phonetic pattern of relationship can be discerned between those languages that go in exclusively (or at least predominantly) for  $m$  and those which go in for  $n$ .

**3.B. IE (Skt.)**  $\{n\bar{o}, na\bar{h}\}$  : *Sem. (Heb.)*  $\{-nu^w\}$ , (*Arabic*)  $\{-n\bar{a}\}$  'us, our'

**3.Ba.** Briefer than  $\{?ni^{\vee}\}$  'I', but on some other grounds easier to compare with an IE pronoun, is the Semitic suffix with the same consonant but a different vowel: Hebrew  $\{-nu^w\}^{\vee}$  with a closed back-vowel,

as against Aramaic  $\{-no^{\vee}\}^{\vee}$ , Arabic  $\{-n\bar{a}\}^{\vee}$ , Ge'ez  $\{-na\}^{\vee}$

with an open vowel.<sup>12</sup> When attached to any noun, the suffix is translated 'our'; with verb-forms in general it can be the object-suffix 'us', but also — with the perfect stem of the verb — the subject-suffix 'we'; e.g.

<sup>10</sup> C. H. and M. G. Kraft, *Introductory Hausa* (Berkeley: University of California Press, 1973), 96-97, 350. Trombetti, *SaGl*, I, 246, cites these suffixes: under Sudanese "Hausa  $n\bar{i}$ ,  $n\bar{I}a$ ,  $na\ io$ ,  $-ni\ me$ ", under Hamito-Semitic "Semitico  $-n\bar{i}$ ,  $-niya\ me$ " and under Indo-European "Ario  $-ni\ io$ ". He does not, however, dwell upon these particular interrelations.

<sup>11</sup> Arthur H. Whitney, *Teach Yourself Finnish* (London: English Universities Press, 1956), 21, 51-53, 215-217.

<sup>12</sup> Gelb, *EbKiCi*, 25-26, identifies both  $\{-ni\}^{\vee}$  and  $\{-na\}^{\vee}$  in Eblaite as 'our'.



אֶרֶץ־נוֹ {ʔad(ə)mōtēnu<sup>w</sup>} 'our land' (cf. 1.Ga),

יְיָ־נוֹ {yāḇwəkəkēnu<sup>w</sup>} 'may he bless us' (cf. 2.Mb),

בָּאוֹנוֹ {bōʔnu<sup>w</sup>} 'we have come' (cf. 2.Fa,e).

Other tenses of the verb have the related subject-prefix {n-}, as in נְבַרְכֶּם {nəḇḇrék} 'we shall bless'; many Semitists have noticed this identical consonant recurring in prefix and suffix.

Sanskrit has an unaccented, enclitic pronoun, excluded from any initial position: नो<sup>√</sup> {nō} before a voiced consonant or an elidable {a-},

नः<sup>√</sup> {naḥ} before before most voiceless consonants or when final,  
{nas}<sup>√</sup> only before {t-} or {t<sup>h</sup>-} (*InEuSeLa*, 192-193).

To a large extent it is used like the Semitic suffix; e.g. क॒वी नो<sup>√</sup> {kavī nō} 'our two sages' (RV. 1.2.9a) would be in Arabic حَكِيمَانَا {Haki'y mā|nā}, and रक्षा॑णो<sup>√</sup> {rākṣā ṇō} 'protect us' (1.18.3c) would be in Hebrew הוֹשִׁיעֵנוֹ<sup>√</sup> {ho<sup>w</sup>ši'ye|nu<sup>w</sup>} or נוֹשַׁעֲנוֹ {šom(ə)rēnu<sup>w</sup>}. In constructions where most other pronouns, as well as nouns, would need either a genitive or a dative or an accusative ending, this Sanskrit pronoun serves indiscriminately; and so, like the Semitic suffix, it cuts across the case-system.

It cannot, however, serve as the subject of a verb; and it differs from the Semitic suffix also in not being strictly tied in syntax to the immediately prior word. Thus {nō}, coming second (as usual) in RV. 1.2.9a, may alternatively be construed with the verb दधा॑ते<sup>√</sup> {dad<sup>h</sup>ātē} later in the verse: '[they] grant US', as legitimately as with {kavī} 'OUR two sages'.

A phonetically and semantically similar pronoun, in combination with a phonetically and semantically similar noun or verb, would constitute a strong proof of common origin. The likeliest combination that occurs to me is the

Hebrew קָנָנוּ<sup>†</sup> {qənō|nu<sup>w</sup>} 'he has gotten/bought us' :

Skt. ज॒जा॑न॒नो<sup>†</sup> {ja|jāna nō} 'he has begotten us' (cf. 2.Ca).

With an imperative form of the verb, the correspondence would be phonetically more exact (see *InEuSeLa*, 434-436, 643-644):

קָנָנוּ<sup>†</sup> {qənēnu<sup>w</sup>} : ज॒ना॑नो<sup>†</sup> {jānā nō};

but it is harder to imagine a situation that would evoke an imperative verb with such a meaning. The pronoun may, however, have developed and diffused earlier than any cognate verb; for in various forms it occurs in many other IE and Semitic languages, and even beyond.

**3.Bb.** According to the most ancient grammarians, this Sanskrit long vowel was really a diphthong [ou] or [o<sup>w</sup>] (*InEuSeLa*, 152); so phonetically the pronoun is more like the Hebrew {nu<sup>w</sup>} than any other Semitic form. The Avestan cognate is {nō}<sup>↓</sup>, without the positional allophony (*sandhi*) so characteristic of Sanskrit. But early Avestan has {nā}<sup>↓</sup> for genitive or dative functions, and {nāē}<sup>↓</sup> for the accusative (Jackson, *AvGr*, 45, 111). This last is phonetically closest to the Arabic {-nā} or the Aramaic {-nō'}, while structurally it is most akin to the Latin *nōs*, which serves either as object 'us' — like the Avestan {nāē} — or as subject 'we'.<sup>13</sup>

However, Latin too has, besides *nōs* with a long vowel followed by *s*, the derived possessive adjective *nōstra*<sup>↓</sup> 'our' (to cite the nominative singular feminine), where the shortness of the vowel — reminiscent of the Sanskrit {nas} and the Hittite enclitic {-naš}<sup>↓</sup> 'us' — is most evident from the Romance derivatives, such as Spanish *nuestra*<sup>↓</sup> and Italian *nostra*<sup>↓</sup> (with [ɔ]) in contrast to *nos*<sup>↓</sup> " *noi* (" [o]) respectively from the Latin *nōs* (see Ernout – Meillet, *DiÉtLaLa*). The Germanic *uns*<sup>↓</sup> (reduced to *us*<sup>↓</sup> in English) shows no vowel-sound between the two consonants.

The Russian accusative or genitive *нас*<sup>↓</sup> (formerly *насъ*<sup>↓</sup> {nasə}, as in Church Slavonic), looks like what in Sanskrit is transcribed {nas} (the Sanskrit vowel is actually [ʌ]). But the Slavic [a] goes back to a prehistoric long vowel, and *насъ* is a closer cognate to the Latin *nōs*. Möller (*VeInSeWö*, 66, 68, 173) has compared these in particular to the Akkadian dative, which actually varies greatly in form: {na-a-šu}<sup>↓</sup> and the more frequent {na-a-ši}<sup>↓</sup> 'to us' or 'for us' are most like *насъ*, but {ni-ya-šim}<sup>↓</sup> is more archaic (*AsDi*, XI.2, 65). However impressive phonetically, this etymology

Akkadian {nāšu} : Church Slavonic, Old Russian, etc. {nasə} is weakened by the lack of neat correspondence in syntax; for the Akkadian dative would rarely overlap with any IE use of the accusative or the genitive.

<sup>13</sup> In Albanian 'we' is *na*<sup>↓</sup> (Pokorny, *InEtWö*, I, 758), very close in sound to the Avestan, Arabic, and Aramaic. Cf. Cuny, *InÉtCo*, 243.

But it would pretty well match the Hittite {-naš}, which has either a dative or an accusative function. Given the geographical proximity, as well as the manifest dependence of the Hittite cuneiform script upon the Akkadian, I cannot rule out some direct morphological influence of Akkadian on Hittite, or conceivably in the opposite direction. Yet in general this IE and this Semitic language have remarkably few structural features in common.<sup>14</sup>

Church Slavonic also has нѣ<sup>√</sup> {nəi} (usually transcribed {ny}), both accented and enclitic, for the dative as well as the accusative.<sup>15</sup> This Slavic vowel or diphthong regularly corresponds to *ū* outside of Slavic; so the Church Slavonic form is quite reminiscent of the Hebrew {-nu<sup>w</sup>}.

The most surprising correspondence, if not identity, arises between the geographically distant Old Irish form *-ni*<sup>√16</sup> and the Semitic suffix in its Akkadian form {-ni}<sup>√</sup>. However, I find the Irish *-ni* cited only as the subject or object of a verb, and the Akkadian {-ni} only as the possessive attached to a noun: Irish *guidmini*<sup>√</sup> 'we pray',

*manin·donadni*<sup>√</sup> 'unless thou deliver us';<sup>17</sup>

Akkadian {bēlni}<sup>§</sup> 'our lord' (Von Soden, *GrAkGr*, 42, 5\*).

**3.Bc.** Beyond IE and Semitic, the related suffix in Egyptian is {-n}<sup>√</sup> — the vowel, if any, is unknown; in Coptic it is simply *-N*<sup>√</sup>. Reinisch gives the following forms in Cushitic languages (*PeFü*, 239, 243, 248, 250):

"Im Saho und 'Afar ... *nōy, nūy, nō, na, ni*

... Im Somali und Dschäbärti ... *na uns*

... Im Galla ... *nū*

... In den Agausprachen ... Bilin ... *yinā* Chamir ... *yinā* Quara ... *aná* "

and "In den Berbersprachen ... *-nağ, -ağ, -na', -a'* (255-256). Some of

<sup>14</sup> Trombetti, *SaGl*, I, 6: "... l'accordo fra i pronomi ... va ben oltre i semplici elementi. Così, per esempio, l' Avaro [a language of the northern Caucasus] *ne-žē-r* = \**ne-šē-r* 'di noi, nostro' e l' antico alto Tedesco *un-sē-r* 'di noi, nostro' = \**ne-sē-r* sono formati degli stessi elementi, poichè da ambedue le parti *ne-* è il tema del pronome di prima persona, *-šē-, -se-* il suffisso del plurale e *-r* il segno del genitivo.... Un elemento di più troviamo nell'aggettivo Avaro *ne-žē-r-a* nostro = Gotico *un-sa-r-a* nostro." In *EIGl*, 202, he compares "Avaro *ni-ž* noi ... Indoeur[opeo] *ne-s*"; the latter, which ought to be starred, is based on Sanskrit {nas} (Hittite {-naš}) may also be adduced).

<sup>15</sup> Cf. Nandriş, *OICHSIGr*, 104.

<sup>16</sup> *ni*<sup>√</sup> also in Welsh, *ny*<sup>√</sup> in Cornish; both in Breton.

<sup>17</sup> Rudolf Thurneysen, *A Grammar of Old Irish*, tr. by D. A. Binchy and Osborn Bergin (Dublin Institute for Advanced Studies, 1946), 256, 261.

these look very much like Semitic and even IE forms. Reinisch, in writing up his enormous research, was chary of examples of any pronouns in combination with a verb or a noun; and such examples as he gives are — almost without exception — of singular pronouns. So I am unable to cite from any of these languages an expression or phrase that contains 'us' or the like along with something else — on the order of the Hebrew {qṛnō|nu<sup>w</sup>} and Sanskrit {jajāna nō} (3.Ba). With more information we would attempt to sketch how the 'us' or 'our' pronoun functioned at a very early time, so as to confirm or to modify what we can infer just from the Semitic and IE examples.<sup>18</sup>

At the opposite extreme geographically from those languages of Africa, the Uralic language Cheremis — spoken to the east and the northeast of Moscow — has the ending *-na*<sup>√</sup> (*-nā*<sup>√</sup> after a front-vowel) 'we' attached to verbs (Collinder, *SuUrLa*, 249, 257, 260; cf. Dolgopolsky, *PePr*, 90).

The Cheremis imperfect preterite *tol|na*<sup>√</sup> 'we came' could be translated

into Arabic as أَتَيْنَا {ʔatay|nā}

or into Aramaic as אִתְּנָא {ʔəte<sup>√</sup>|nə<sup>√</sup>}.

The shorter the suffix, the greater the possibility — in the abstract — of a purely accidental convergence; but in view of other pronominal correspondences between certain Uralic (or Finno-Ugrian) and Semitic as well as IE languages, we ought not to dismiss this *-na* of Cheremis as though irrelevant to a Semitic and IE comparative grammar.

Given the immense geographical spread of *n* forms for 'we', 'us', or 'our', and the overlappings between IE and other language-groups, all the forms need to be studied together.<sup>19</sup> No phonetic similarities such as

Avestan {nō} : Arabic {-nā}, Aramaic {-nə<sup>√</sup>} or

Old Irish *-ni* : Akkadian {-ni}

<sup>18</sup> In Bomhard (*ToPrNo*, 278) I find a further relevant citation, "CUSH[itic]: Oromo *nu* 'we' "; and in his unpublished *Sample of the Comparative Vocabulary of the Nostratic Languages* (sec. 381) he includes the Dravidian languages, among them "Kannaḍa *nāvu* (obl[ique] *nam-*) 'we'." The former is most reminiscent of the Sanskrit dual नौ<sup>√</sup> {nāu} 'us' or 'our' (which is also close to Dravidian geographically), the latter of certain Church Slavonic forms: *нама*<sup>√</sup> {nama} (dative or instrumental dual), *намѣ*<sup>√</sup> {namə<sup>√</sup>} (dative plural), *нами*<sup>√</sup> {nami} (instrumental pl.).

<sup>19</sup> The broadest collection of data from all over the world was made by Trombetti, *SaGl*, I (see especially 69-80, 114-119, 246-249).

should be dismissed as accidental or irrelevant.

### 3.C. IE (Latin) *tē* : Sem. (Heb.) {TE-} 'you'

(Skt.) {-t<sup>h</sup>a} : [-t<sup>h</sup>ɔ]

Among the languages of the world the consonant *t*, or some modification of it, is even more widespread in morphemes standing for the second person (the plural as well as the singular) than *n* in morphemes for the first person. Möller (*VeInEtWö*, 242) cites not only IE and "semit[isch]-hamit[isch]" — i.e. Afro-Asiatic — forms, but also Finnish *sina*<sup>√</sup> (< \**tina*) and its plural *te*<sup>√</sup>.<sup>20</sup>

**3.Ca.** Most immediately relevant to the present comparative grammar is the correspondence between Latin and Hebrew that extends not only to the subsequent vowel, conveying a stative sense for the pronoun, but also to the ensuing verb: *tē pud|et* 'you (sing.) are ashamed' : {tebóš|i<sup>y</sup>} 'you (fem. sing.) will be ashamed' (**2.Xa**). In either language this is often preceded by a negative:

*nōn tē pudet*<sup>√</sup> 'you're not ashamed' (Plautus, *Men.* 708, etc.),

לֹא תִבּוֹשִׁי לָךְ<sup>√</sup> {lō' tebóš'i<sup>y</sup>} 'you won't be " ' (Is. 54:4, Zeph. 3:11; see *InEuSeLa*, 525 ff.).

In Latin grammar *tē* is here analyzed as the accusative case (the same form serving for the ablative case in other contexts), and the verb *pudet* as impersonal — i.e. 'it shames you', or negatively 'it doesn't shame you'.

This pronoun, with its front-vowel, manifests precisely the Latin and indeed the IE equivalent to the Semitic subject-prefix, a consonant that must be followed by a front-vowel to show a stative, not an active, relation to the verb-root. Given an active verb, the vowel is not so restricted (**3.Cn**); e.g.

תִּפְנוּ<sup>√</sup> {tɪpnu'w} 'you (m. sing.) will flee',

תִּשְׁבוּ<sup>√</sup> {tɪšvū'w} ' " (f. " ) " return' (m. sing. תִּשְׁבּוּ {tɪšvū'w})

The approximate Greek cognate to *tē* is σε, particularly in σε χρή 'you (sing.) must/ought' (**2.Hc**). This expression is most remarkable for χρή remaining outside the pervasive system of suffixed inflection, unlike *pud|et* in Latin and unlike the Greek σε δεῖ<sup>√</sup> 'it behooves you', which is virtually a synonym for σε χρή and gradually superseded it in the post-Homeric period. For

<sup>20</sup> Illich-Svitych, *OpSr* (Введение), 6, gives also Altaic, Dravidian, and Kartvelian cognates. Dolgopolsky, *PePr*, 73 ff., goes into much more detail and brings in Elamite and Dravidian; see also Trombetti (*SaGl*, I, 279-281 et passim).

δεῖ has the normal structure of an impersonal verb (with third-person singular ending, as in πλεῖ<sup>√</sup> 'he/she sails', ῥεῖ<sup>√</sup> 'it flows', etc.), and with it σε functions simply as the accusative case of the pronoun. But in σε χρή we have the vestige of a different system of verb-inflection with a subject prefixed, as in Semitic and indeed the rest of Afro-Asiatic except for Egyptian and part of the Cushitic group — Agau and Galla (Trombetti, *ELI*, 743). This Greek combination, with the front-vowel ε, preserves the "marked" half of the fine distinction between a stative subject and an active subject, both sides of which are shown most clearly in Hebrew:

stative {t<sup>e</sup>/t<sub>e</sub>}, active {t<sup>o</sup>/t<sub>o</sub>} before a biconsonantal verb-root,

and רָקַחְתָּ<sup>√</sup> {t<sub>e</sub>Hōśār} 'you (will) lack' (stative)

לָקַחְתָּ<sup>√</sup> {t<sub>a</sub>Hból} ' " " take pawns' (active) before a triconsonantal if the first of the three consonants is guttural (*InEuSeLa*, 516-523).

In Biblical Aramaic too, given a suitable phonetic environment, the front-vowel serves to express a stative subject:

תֵּעָבְדָּךְ<sup>√</sup> {t<sub>e</sub>ʕdé<sup>h</sup>} 'you (will) pass away/change'<sup>21</sup>

but active עָבְדָּךְ<sup>+</sup> {t<sub>a</sub>ʕbúd} ' " " do".<sup>22</sup>

Classical Arabic vocalizes the prefix {ta-}<sup>√</sup> regardless of whether the verb is active or stative; but ancient dialects with {ti-}<sup>√</sup> are reported, especially that of Quḏāʕa (located not far from Hebrew territory).<sup>23</sup>

From Greek itself, supplemented by the other IE languages, we could only conclude that the morphological structure and the syntax of σε χρή are quite anomalous — χρή being unlike any known verb — and apparently inexplicable. But through a comparison with Semitic we arrive at a new and challenging analysis.<sup>24</sup>

<sup>21</sup> The occurrences in Dan. 6:9,13 refer not to 'you' but to 'she' or 'it' (fem.) — no formal distinction being made between what the Occidental grammars call "second person singular masculine" and "third person singular feminine".

<sup>22</sup> Only the plural 'you' form יִעָבְדְּכֶם<sup>√</sup> {t<sub>a</sub>ʕəḏúʕn}

or יִעָבְדְּכֶם<sup>√</sup> {t<sub>a</sub>ʕəḏúʕn} (the mss. and edd. vary) occurs

in the Bible (Ezra 6:8, similarly 7:18).

<sup>23</sup> Chaim Rabin, *Ancient West-Arabian* (London: Taylor's Foreign Books, 1951), 61, 158; J. Barth, "Zur vergleichenden semitischen Grammatik," *ZeDeMoGe*, 48 (1894), 4-6. The front-vowel for the stative is also traceable in Ugaritic; Gordon, *UgTe (Grammar)*, 71.

<sup>24</sup> So far as modern English has a counterpart to the ancient stative, it is expressed morpho-

**3.Cb.** The correspondence between Latin *tē pud-* and Heb. {teḇó<sup>(w)</sup>š(-)} is so far-reaching as to constitute the best proof of a truly common origin for the stative subject pronoun. The stative, non-active meaning, associated with the front-vowel, is more widespread in IE than in Semitic. For instance, in Old English the Latin *oportuit et tē miserērī* <sup>√</sup> 'it behooved thee too to pity' = 'you too ought to have pitied' (Matt. 18:33) is rendered by *gebyrede þē gemiltsian* <sup>√</sup> (OE [e] > modern English [i] in *thee*).<sup>25</sup>

The area within Semitic where this stative formation occurs is limited, not embracing Classical Arabic nor most of the Arabic dialects, nor Ethiopic, nor Akkadian. Yet it does not strike me as a mere borrowing from prehistoric IE languages geographically close to the northwestern extension of Semitic. Rather this gives the impression of

(1) an early development in a precursor — not to say THE precursor — of IE and Semitic, and

(2) a divergent evolution whereby it came to function differently in IE from Semitic.

The stative [E], not restricted to the combination [TE] but taking in the other persons too (**3.Cd**), was FIRMLY PREFIXED TO VERB-ROOTS in that part of Semitic where it caught on and lasted; but in IE, while also taking in the other persons, it was not so tied to the verb. A sequence such as *nōn tē pudet* is most impressive for showing *tē* second and followed immediately by the verb, and this particular expression is as invariable as the Hebrew {lo<sup>7</sup> teḇóšī<sup>7</sup>}; but otherwise *tē* comes often in quite miscellaneous positions, initial and final as well as intermediate, and it is used more as a direct object of active verbs, just like a noun with an accusative case-ending. Nearly the same applies to *οὐ σε χρὴ* <sup>√</sup> 'you ought/must not'.<sup>26</sup>

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logically by the prefix *α-* following the copulative verb, as in *you are ashamed* <sup>√</sup> (*alive* <sup>√</sup>, *asleep* <sup>√</sup>, *adrift* <sup>√</sup>, etc.).

<sup>25</sup> Walter W. Skeat (ed.), *The Gospel according to Saint Matthew in Anglo-Saxon, Northumbrian, and Old Mercian Versions* (Cambridge University Press, 1887; repr. Darmstadt: Wissenschaftliche Buchgesellschaft, 1970), 150-151. I thank my colleague, Prof. Paul Szarmach, for indispensable help in locating a valid example in Old English.

In the Greek original it is *ἔδει καὶ σὲ ἐλεῆσαι* <sup>√</sup>.

<sup>26</sup> E.g. *οὐ σε χρὴ εἶδέναι* 'you must not know' (Euripides, *Rhesus* 683).

The Hebrew {T-}, when referring to 'you' (rather than 'she'), is found mainly in non-initial position, whether or not the vowel is the stative {E} (*InEu SeLa*, 520-521); so that too constitutes a detail in the correspondence.

**3.Cc.**  $\sigma\epsilon$  and  $t\bar{e}$  are not regular IE cognates; for normally the Latin  $t$ - would be represented in Greek by the same consonant, and the quantity of the vowel would also match. The latter discrepancy might be disposed of by noting the rule of Latin phonology that the vowel at the end of any one-syllable word must be long; e.g. the preposition  $pr\bar{o}$  'in front/behalf of' :  $\pi\rho\bar{o}$ . A similar rule differentiates Avestan from Sanskrit: { $fr\bar{a}$ } in contrast to  $\text{𑀧}$  { $pr\bar{a}$ }; but the Sanskrit cognate to  $\sigma\epsilon$  and  $t\bar{e}$  is  $\text{त्व}\bar{a}$  { $tv\bar{a}$ } (quite in agreement with Avestan). So the length of the Latin vowel  $\bar{e}$  is shared by an ancient IE language — namely, Sanskrit — whose phonology would have allowed [- $\bar{a}$ ].

This Sanskrit consonant-group (actually pronounced [tw-] with a semi-vowel, not a fricative [-v-]) corresponds, however, to the Greek [s-] before a vowel, rather than to the simple Latin consonant [t-]. In view of the Germanic forms such as Old English  $\beta e$ , we are scarcely entitled to posit a uniform prehistoric IE  $*tw$ - that somehow just lost its labial component completely in the development of Latin. More likely the variation between [t-] and [tw-] goes very far back.<sup>27</sup> Only the former is represented in the Semitic languages, where a labio-dental group would be phonologically out of the question although a labio-velar was preserved in Ethiopic (1.Ka).

In Hebrew and Aramaic, the *sandhi* of the sentence determines whether the consonant will manifest itself as a plosive {t-} (nearly like the Latin  $t$ -) or as a fricative { $\bar{t}$ -} (more like the Greek  $\sigma$ - and nearly identical with the Old English  $\beta$ ). The fricative in these Semitic languages comes only after a word that ends in a vowel sound; otherwise it is the plosive. Outside of that particular Semitic area, a somewhat similar kind of *sandhi* recurs in the distant Celtic languages. They do not, however, show clear cognates to the Latin  $t\bar{e}$ , let alone to the Hebrew or Aramaic { $\bar{t}$ e-}. It would be unrealistic to credit a prehistoric or proto-language with a simpler, more uniform articulation than appears in well recorded languages, ancient or modern — although many lin-

<sup>27</sup> Szemerényi, *EiVeSp*, 99, 228, sets up as IE proto-forms "twe/te, twē/tē, twēm/tēm".

The Sanskrit accented accusative  $\text{त्व}\bar{a}$  { $tv\bar{a}$ } would go back to  $*tw\bar{e}m$ . The { $\bar{a}$ } of the Sanskrit reflex does not show whether it goes back to a prehistoric front-vowel.



guists have done so, with hardly a second thought. Where we have a script sensitive to phonetic nuances, we may be able — within a certain recorded language such as Biblical Hebrew or Aramaic — to set the limits, or at least some limits, upon the variable articulation. But that will scarcely enable us to say whether or not the unrecorded IE forerunner of Latin, Greek, Germanic, etc., also had much the same variation as we find in the Hebrew and Aramaic {*t̥*-}.

The only difference between the Latin *t* and the Hebrew ת {*t*} is that the latter was usually aspirate [*tʰ*], just like the English *t* (cf. 1.Cj, note 67; 2. Ab). This slight difference becomes even less important because Latin had no phoneme opposition between /*t*/ and /*tʰ*/ until Greek words with *θ* were borrowed in the classical period.<sup>28</sup> Latin and Hebrew agree on the voicelessness of this consonant, whereas in *tē pud-* : {*te*|*ḥó*(*ʷ*)*š*(-)} the first consonant of the root is voiceless in Latin but voiced in Hebrew, most likely because *\*b* was not yet available at that stage of IE prehistory (2.Xa).

3.Cd. *σ*ε and *tē* share the [e] quality of the vowel, notwithstanding the difference in length. In {*teḥó*(*ʷ*)*š*(-)} this vowel is just like the Latin. To be sure, its length is not established by the Hebrew notation -ת or -ת̄, in which the two dots stand only for the quality {*e*} in between {*i*} and {*ε*}. But Origen's transcription of this Hebrew verb with a different prefix,

τηβωσου<sup>√</sup> 'they shall be ashamed, may they be ashamed' for

יִשְׁבּוּ<sup>√</sup> {*yè*|*ḥó*(*ʷ*)*š*|*u**ʷ*} (Ps. 35:26)

and of an analogous Hebrew verb with a biconsonantal root,

תֵּלֵךְ<sup>√</sup> for תֵּלֵךְ<sup>√</sup> {*telék*} 'you shall go' (Ps. 32:8),

indicates [-ē-] according to the phonology of Greek in the third century of the Christian era (Brønno, *StHeMo*, 30, 35)

With a triconsonantal root, as in תִּהְיֶה<sup>√</sup> {*teHōár*}, the front-vowel is not only more open but presumably shorter, being checked by an immediate consonant in the same syllable {*teH-*}. In that regard (quite apart from fricativation of the preceding consonant) it resembles the Greek short vowel *ε* rather than the Latin *ē*. However, the surviving fragments of Origen's transcription contain no example that absolutely confirms this;

<sup>28</sup> In Arabic the cognate {*t*}<sup>√</sup> is not aspirate.

his  $\iota\epsilon\mu\text{pou}^\vee$  for  $\text{יִיְהוָה יִפְּחֵם}^\vee$  {yēHmərú<sup>w</sup>} ‘they (shall) foam, let them foam’  
(Ps. 46:4[3])

and  $\iota\epsilon\gamma\delta\epsilon\lambda^\vee$  for  $\text{גָּדָל יִהְיֶה}^\vee$  {yigdál} ‘he shall be/may he be great’ (35:27)  
are the strongest evidence in that direction (Brønno, 24, 35).

The front-vowel, characterizing the stative subject of many such verbs, is not limited to the subject ‘you’; but the other subjects, each differentiated by a preceding consonant, do not appear in Semitic with a consonant cognate to the IE. The glottal stop in  $\text{לֹא אֲבוֹשׁ}^\vee$  {ló<sup>ʔ</sup> ʔeḅó<sup>w</sup>š} ‘I shall not be ashamed’ does not match the labial in *nōn mē pudet*<sup>∇</sup> or in  $\tau\acute{\iota} \mu\epsilon \chi\rho\acute{\eta}^\vee$  ‘What need I?’,  $\epsilon\upsilon \pi\rho\acute{\alpha}\xi\alpha\acute{\iota} \mu\epsilon \chi\rho\acute{\eta}^\vee$  ‘I must do well/prosper’ (Euripides, *Hecuba* 371).<sup>29</sup>

Conceivably the semi-vowel {y-} in  $\text{יִבֹּשׁ}^\vee$  {ye|ḅó<sup>w</sup>š} ‘he will be ashamed’ could correspond to aspiration in Greek  $\epsilon^\vee$  [hε];

for  $\epsilon^\vee$  [hεk-] ‘he/she threw’

is cognate to Latin

*iēcit*<sup>∇</sup> [yêk-].

But Homer’s meter often calls for two initial consonants in  $\epsilon$  [hwe] (written *FHE*<sup>∇</sup> in a Pamphylian dialect inscription). So it is improbable, on balance, that the Semitic {y-} has an IE cognate (see **2.Hc, We**).

**3.Ce.** The plural ‘you’ subject of a verb in Semitic languages is shown by the same prefix but an added suffix; e.g. in Hebrew

$\text{לֹא תִבֹּשׁוּ}^\vee$  {lo<sup>ʔ</sup>-te|ḅóš|u<sup>w</sup>} ‘you will not be ashamed’

( $\text{וְאַתֶּם תִּבֹּשׁוּ}^\vee$ ) {wə<sup>ʔ</sup>attēm teḅóšu<sup>w</sup>} ‘and **you** will be ashamed’,

with the separate pronoun added for emphasis, in contrast to the previous subject). The IE pronominal forms that we have been studying — in particular the Latin *tē*, Greek *σε* — are strictly singular; their plural counterpart is nothing like this.

However, *-te* for the plural ‘you’ is prominent in IE languages AS A SUFFIX (Cuny, *InÉtCc*, 239-242). We have seen (**2.Fe**)

<sup>29</sup> {mā}, the Sanskrit cognate of *mē* (and *με*), appears in Rigveda 2.30.7 with impersonal verbs:  $\text{न मां त म ज्ञ श्रं म चो त तं द्र त्}^\vee$  {ná mā taman ná śraman nótá tandrat} ‘may I not faint, not fail, nor weary’. Franz Miklosich, *Subjectlose Sätze*, 2d ed. (Wien: Wilhelm Braumüller, 1883), 46, gives Slavic examples with *me* and the like AFTER THE VERB, such as “Nslov. [= modern Slovene?] ... *srbi me* es juckt mich [‘it itches me’]. *žeja me* mich düstet [‘I thirst’].”

the Greek βῆ/ᾱτε, meaning either 'you (pl.) came' or the imperative 'come'

The suffix is represented in Hebrew verbs also:

{bʷ} | tʰé | m/n 'you came, you have come'

{uʷ} | bʷ | tʰé | m/n 'and you are to come',

where the final {-m} and {-n} stand for masculine and feminine gender respectively. Whether it will be {-tʰé m/n} with a fricativated consonant or {-tʰém/n} with a plosive, depends on whether or not a vowel-sound precedes. {-tʰém} appears also in the separate pronoun {ʔattém} 'you';

the feminine plural is {ʔattén} in {tʰé} 'and you'

(but more often {tʰé} 'and you').<sup>30</sup>

This Hebrew suffix, in the two genders, has approximate Semitic cognates; but they are less close to the Greek -τε. On the IE side, the Sanskrit cognate of βῆ/ᾱτε is गा त √ {gā|tá} or — unaccented — गा त √ {gā|ta}, गा त न √ {gā|tana}. The longer ending {-tana}, limited to the earliest Sanskrit — i.e. Vedic — is more like the Hebrew with its nasal {-m/n}<sup>31</sup> and the Semitic cognates; e.g. (on the root, cf. 2.Da-b)

<sup>30</sup> The initial {ʔat-} is evidently the same morpheme as in {ʔän|íʷ} 'I' (3.Aa, note 1); instead of the nasal before the plosive, the plosive is strengthened. For its Semitic cognates are:

Biblical Aramaic	{ʔantúʷn} (masc.)		
Arabic	{ʔantum} √	"	{ʔantunna} (fem.) √
Ge'ez	{ʔantəmu} √	"	{ʔantən} √

which has cognates in Cushitic: Bilin *entin* √, Quara *entan* √, Awiya *antū* √ (Leslau, *CoDiGe*, 33). In Akkadian, however, as in Hebrew, the two consonants are assimilated: {at-tu-nu} √ (masc.), {at-ti-na} √ (fem.); so too in the Aramaic of some if not all Targums:

{ʔættuʷn} (masc.), and {wəʔæt|teʷn yədæʃ|tʰiʷn} 'and you (fem.pl.) know' (like the Hebrew {ʔattén}, except for the later spelling convention of the letter ' {y} to stand sometimes for the vowel [e]), also — but with a different vowel — {ʔættiʷn} in {ʔættiʷn} 'which you ....' — The difference in gender between {-tʰém} 'you (masc. pl.)' and {-tʰén} 'you (fem. pl.)' recurs, for example, in the Hebrew possessive suffix:

{ʔā bīʰém} 'their (masc.) father'

{ʔā bīʰén} " (fem.) "

<sup>31</sup> A fem. pl. verb with the longer ending occurs just once in the Hebrew corpus: {wəhišlāk|tén} 'and you are to cast forth' (Amos 4:3), instead of the

Aramaic  $\text{ܕܢܝܢܐ}$  √ {həweʔ|tōʔn} 'you were, you became'.

Sanskrit अ भू त न √ {a|bhū|tana}³² (aorist) " " " "

That longer ending has a cognate in Hittite {-tē/in} — e.g. {ešten} √ 'you were', {wa-al-aḥ-tin} √ 'you smote' — but not in any more recent IE language.

As a separate pronoun, *te* for the plural 'you' is found in Finnish and Estonian.<sup>33</sup> There are syntactical restrictions (not every time we say *you* in English with plural reference, would it be *te* in those languages); but because of my ignorance I cannot specify the limits — let alone relate them to the restrictions upon [TE] in IE or in Semitic.

**3.Cf.** The consonant {t} in the Sanskrit ending {-ta(na)} 'you (pl.)', as well as in Greek -τε, is definitely non-aspirate. But Sanskrit has in the present tense the ending {-tʰa} (rarely {-tʰana}), quite unlike Greek; e.g.

ज न य थ √ {janaya|tʰa} 'you engender'

(\*ज न य थ न √ \*{janaya|tʰana})

: Biblical Aramaic  $\text{ܕܢܝܢܐ}$  † {qəneʔ|tōʔn} 'you (have) got/bought'.<sup>34</sup>

normal {-tén}. But the separate pronoun is usually {ʔatténɔʰ} rather than {ʔattén}. The Hebrew FEMININE form {-tén(ɔʰ)} of this verb-ending, more closely than the masc. {-tém}, matches the Sanskrit {-tana}, which is not affected by gender. Cf. the 'you' (fem. sing.) ending (2.Fe, 3.Cp) and the 'she' ending (2.Va); the IE counterpart to these is also genderless.

32 भू त न √ {bhū|tana}, without the prefix {a-} that definitely expresses past time, could still be the aorist indicative 'you became/were'. But in the actual occurrences (Rigveda 7.59.10, 10.30.11) it functions rather as the aorist injunctive — virtually imperative, 'be'. See P. Persson, "Über den demonstrativen Pronominalstamm *no- ne-* und Verwandtes," *InFo*, 2 (1892), 253-254.

<sup>33</sup> Collinder, *SuUrLa*, 26, 149; perhaps also in other Uralic languages, about which he gives less information. In Hungarian the plural 'you' is *tí* √, whereas the singular 'you' is *te* √ (367, 380, 405, 409). Furthermore Illich-Svitych, *OpSr* (Введение), 7, in the Alt[ai]c column has "ʔ *ta* 'bm' [= 'you' pl.] (монг.) (= Mongolian)"; cf. Dolgopolsky, *PePr*, 69.

<sup>34</sup> The Biblical form  $\text{ܕܢܝܢܐ}$  √ {hāzeʔ|tōʔn} 'you have seen, you see' (Dan. 2:8) is most like {qəneʔ|tōʔn}. The Sanskrit {janaya|tʰa(na)} exhibits the causative stem, which in this verb does not differ appreciably in meaning from the simpler stem {jana-} (cf. 2.Ca); and the {-aya-} part is phonetically closer than the second {-a-} of {jana-} to {qəne-}. The

The distribution of {-t<sup>h</sup>a(na)} and {-ta(na)} for the plural 'you', according to the tense of the verb, is not at all like the allophonic or positional alternation in Aramaic between the plural {-tō<sup>w</sup>n} (with a plosive [t] after a consonant) and {-tō<sup>w</sup>n} (with a fricative [t̪] after a vowel sound), or in Hebrew between the plural {-tém} and {-tém}. The fricative must be nearly identical with the Avestan consonant (2.Xa, note 263), in the sparsely attested ending {-ḫa}† ([-ḫā]√ in Gāthīc Avestan; Jackson, *AvGr*, 129, 134, 143, 145, 154, 164).

**3.Cg.** However, {-t<sup>h</sup>a} (but not {-ta}) is also a 'you' (singular) ending in the Sanskrit perfect tense; and there we find a strikingly close Semitic parallel (briefly noted by Trombetti, *InSeFo*, 56). Strong though indirect evidence in Hebrew shows that the consonant ט was usually aspirate in this suffix.<sup>35</sup>

יָשַׁבְתָּ {yōšáḇ|tɔ} not only means the same as שָׂאֵת {sasát|t<sup>h</sup>a} 'you (have) sat' (2.Bf), except that the Hebrew verb-form is limited to the masculine singular, whereas Sanskrit verbs have no distinction of gender;<sup>36</sup> furthermore, the ancient spelling שָׁבַת — to the exclusion of שָׁבַתָּ — proves that the consonantal part of the suffix was pronounced [t<sup>h</sup>]. For in a striking minority of verbs a special phonetic environment resulted in the spelling תָּתַתָּ for the pronunciation [t<sup>h</sup>], which is most evident in תָּתַתָּ {nōtátto<sup>h</sup>} 'you have given, you gave' or 'you (have) put'; the consonants pronounced in ancient Hebrew were [n-t<sup>h</sup>-t-t<sup>h</sup>].<sup>37</sup> Essentially the same phenomenon of as-

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longer Sanskrit ending {-t<sup>h</sup>ana} is least infrequent in the very short verb स्थ न<sup>√</sup> {st<sup>h</sup>āna} 'you are' (only in Vedic, whereas स्थ<sup>√</sup> {st<sup>h</sup>a} is common throughout); here {-t<sup>h</sup>ana} comes right after a consonant, an environment in which Aramaic could not have the fricative {-t̪} but only the plosive {-t}. The Hittite present ending is exemplified by išta-maš|t<sup>h</sup>/a<sup>n</sup>i<sup>√</sup> 'you hear'.

<sup>35</sup> See *InEuSeLa*, 571-583, besides my article "The Hebrew of the Pentateuch" in *Fucus: A Semitic/Afrasian gathering in remembrance of Albert Ehrman*, ed. by Y. L. Arbeitman (Current Issues in Linguistic Theory, 58; Amsterdam: John Benjamins, 1988), 293-299, and my review of F. I. Andersen – A. D. Forbes, *Spelling in the Hebrew Bible*, in *Hebrew Studies*, 30 (1989), 96-97.

<sup>36</sup> The Hebrew fem. sing. is יָשַׁבְתְּ {yōšáḇt}.

<sup>37</sup> תָּתַתָּ {nōtátto} is much less frequent (8 occurrences in the Bible, compared to 23 of תָּתַתָּ) and lacking in the Pentateuch.

piration shows up in the rarer verb  $\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{ṣakkóṭ}}$  'you (have) put over'.<sup>38</sup>

The Greek cognate to Sanskrit {-t<sup>h</sup>a}, the 'you' (sing.) ending of the perfect tense, survives in  $\text{ῥῖσ|θα}$   $\sqrt{\text{óist}^h\text{a}}$  'you know' — also in the imperfect  $\text{ῥῖσθα}$   $\sqrt{\text{ṛist}^h\text{a}}$  'you were'. The Avestan cognate, however, is not aspirate but fricative:

{dadā|ṣa}  $\sqrt{\text{dadā|ṣa}}$  'you have given' or 'you have put'

(Sanskrit  $\text{ददथ}$   $\sqrt{\text{dadā|t}^h\text{a}}$  'you have given, you gave',

$\text{दधाथ}$   $\sqrt{\text{dadā|t}^h\text{a}}$  'you (have) put').<sup>39</sup>

On the Semitic side, Aramaic shows  $\text{𐤀𐤕}$  — instead of  $\text{𐤀}$  — only in one verb:

$\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{Hāzáy(ə)ṭ}}$  'you (masc. sing.) saw/have seen',

alongside of  $\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{Hāzáy(ə)ṭ}}$  (Dan. 2:41,43,45, 4:17),

where the particular phonetic cause for the variation eludes me. Otherwise

Aramaic has  $\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{hāwáy(ə)ṭ}}$  'you (masc. sing.) were/have been',

$\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{yadāṣt}}$  ' " " " know',

$\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{ṣābādt}}$  ' " " " done'.<sup>40</sup>

<sup>38</sup> The ancient pronunciation of the consonants was [X-kk<sup>h</sup>-t<sup>h</sup>] (the ancient sound of the initial letter  $\text{𐤀}$ , before it became simply [s], is problematical; see *InEuSeLa*, 325-333).

<sup>39</sup> In Gāthic Avestan {vōistā}  $\sqrt{\text{vōistā}}$  'you know' it is the simple plosive after the sibilant {-st-}. The Sanskrit cognate of this (and of ῥῖσθα) is वेत्थ  $\sqrt{\text{vētt}^h\text{a}}$ . Whereas in Gā-

thic (the earliest Avestan) any final vowel is long, in the Rīgveda (the earliest Sanskrit)

वेत्था  $\sqrt{\text{vētt}^h\text{a}}$  occurs only at the beginning of a verse (6.16.3, 8.24.24), and the long

vowel reflects a prehistoric STRESS upon that second syllable. The Hebrew  $\text{שַׁטַּת}$   $\sqrt{\text{šatt}}$

'you have set' (Ps. 90:8) occupies a similar initial position and displays the accent anomalously upon the suffix; the Hebrew and the Sanskrit are of nearly the same length, and are nearly equivalent in phonological as well as morphological structure (*InEuSeLa*, 620-622).

<sup>40</sup> In the limited corpus of Biblical Aramaic, no conditioning factor has emerged to account for the ending {-t} in a few verbs but {-ṭ} in the rest of them. The Hebrew cognate

$\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{ḥbzīṭ}}$  is rare; the usual Hebrew synonym, however, displays the variable spelling

of the suffix:  $\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{ṭzīṭ}}$  (4 times),  $\text{𐤀𐤕𐤍𐤏𐤕}$   $\sqrt{\text{ṭzīṭ}}$  (10 times). Other

Hebrew cognates are  $\text{שָׁדַסְתָּ}$   $\sqrt{\text{yadāṣt}}$ ,  $\text{שָׁדַסְתָּ}$   $\sqrt{\text{yadāṣt}}$ ;  $\text{שָׁבַדְתָּ}$   $\sqrt{\text{ṣābādt}}$  'you (masc. sing.) have served'.

The Aramaic evidence, without the Hebrew, would not establish that the spelling 𐤀- stood for [-tʰV] and 𐤀𐤀- for [-tʰVʰ]. In the Arabic cognate — e.g. وَثَبْتَ √ {waṭab|ta} 'you (have) sat'<sup>41</sup> — the sound of the letter ت is [t], an unaspirated plosive.

**3.Ch.** Sanskrit and Hebrew, far more extensively than any other IE or Semitic language, show the aspirate consonant [tʰ] in this cognate suffix. This utterly precise correspondence matters all the more because the aspirate थ otherwise is rather sparsely represented in Sanskrit and does not on the whole correspond to the Greek θ [tʰ] (*InEuSeLa*, 593-594). The fricative {β} of Avestan may be correlated with the fricativated {ṭ} mainly after a vowel in Aramaic (and exclusively so in Hebrew). In Avestan, however, the only environmental restriction upon the fricative appears in {voistā}, where the preceding sibilant forbids the sequence ??[sβ].

The morphological correspondence between Sanskrit and Hebrew becomes disyllabic in आ सिं थ √ {ās|itʰa} 'you were/have been'

אִיִּיִּיִּי √ {hɔy|itʰɔ} " " " "

(with unrelated roots; cf. **2.Db,Xb**, note 267, **3.Ce**).

The vowel [-i-] occurs where either language requires the preceding consonant to open a syllable, not to close it (*InEuSeLa*, 609-613).<sup>42</sup> The phonetic parallel extends even to raised pitch on the syllable before the [i] and descending pitch on that vowel itself:

व व चि थ √ {vavákṣitʰa} 'you (sing.) have grown great' (RV. 2.24.11),

אִיִּיִּיִּי √ {ʕólitʰɔ} 'you (masc. sing.) have gone up' (Ps. 68:19).

In ancient Hebrew, before the general fricativation of plosive consonants following a vowel, the letter 𐤀- (with no ensuing 𐤀) stood for an aspirate plosive [tʰ]; so the Sanskrit pattern [-CṼ-Citʰa] was reproduced almost exactly in Hebrew.

**3.Ci.** Besides serving as the 'you' (masc. sing.) suffix of verbs in the perfect tense, {-tɔ} occurs in the Hebrew independent pronoun:

<sup>41</sup> The usual meaning, however, of this verb in Arabic is 'leap' rather than 'sit'.

<sup>42</sup> Thus in Sanskrit {ṭa-kar-ti-tʰa} 'you (have) cut',  
but not so in Hebrew {kɔ-rát-tɔ} (**2.Ua**).

usually  $\text{𐤀𐤓𐤕}^\vee$  {ʔatt<sup>5</sup>}, especially in an initial position;  
 $\text{𐤀𐤓𐤕}^\vee$  {ʔtt<sup>5</sup>}, in a terminal (or pausal) position;  
 $\text{𐤀𐤓𐤕}^\vee$  {ʔátt<sup>5</sup>}, in an semi-pausal position.

The spelling without final  $\text{𐤀}$  - occurs very rarely:  $\text{𐤀𐤓𐤕}^\vee$  {ʔatt<sup>5</sup>}. In Arabic, even more clearly, the suffix {-ta} 'you' (masc. sing.) of verbs in the perfect tense recurs as the latter part of the independent pronoun  $\text{أَنْتَ}^\vee$  {ʔanta}. The same {ʔanta}<sup>∇</sup> is in Geʿez; the subject-suffix of the verb, however, has a different consonant: {-ka}<sup>∇</sup>.<sup>43</sup> Also  $\text{ʔanta}^\vee$  in one modern Semitic language of Ethiopia, Tigrinya; and modifications of it in related Semitic languages of the region (Leslau, *CoDiGe*, 32). The syllabic sequence {an-da}<sup>∇</sup> of Eblaite is interpreted by Gelb (*EbKiCi*, 25) as identical with the Arabic and Ethiopic. In Bibl. Aram. the independent pronoun is written  $\text{ܐܢܬܐ}^\vee$  {ʔnth},

like the verb  $\text{ܐܢܬܐ}^\vee$  'you (masc. sing.)  
have seen' (3.Cg);

but the pronoun is read  $\text{ܐܢܬܐ}^\vee$  {ʔánt},

like the verb  $\text{ܐܢܬܐ}^\vee$  {ʔābād|t} 'you  
masc. sing.) have done'.<sup>44</sup>

The {ʔan-} part is the pronominal base to which the differentiating pronominal suffixes are attached (3.Ce, note 30).

The pronoun {at-ta, at-ta-a, a-at-ta}<sup>∇</sup> in Akkadian is a clear Semitic cognate, and most like the Hebrew. The suffix {-āta}, however, is restricted to stative verbs, formed mainly from nouns or adjectives; e.g. {zika<sup>r</sup>āta}<sup>§</sup> 'you are a man' (Von Soden, *GrAkGr*, 41-42, 100-101, 8\*).

**3.Cj.** Also the 'you' (fem. sing.) suffix of Semitic has likely cognates in certain IE languages, although they make no distinction of gender in verbs. The

<sup>43</sup> Identical with the object-suffix of verbs and with the possessive suffix of nouns. In the Semitic languages outside of Ethiopia, {-ka} (or a cognate such as the Hebrew  $\text{כִּי}^\vee$  {-k<sup>o</sup>}) serves only as possessive or object-suffix.

<sup>44</sup> In Hebrew  $\text{אַתָּה}^\vee$  {ʔatt-} with masculine reference only in Num. 11:15, Deut. 5:24, Ezek. 28:14. {ʔatt}, however, is the normal Hebrew form for 'you' (fem. sing., either accented or else hyphenated to the next word); see 3.CL. — The Aramaic spelling  $\text{ܐܢܬܐ}^\vee$  for the masculine singular implies a pronunciation \*[ʔant<sup>5</sup>h], like the one that is well attested for Hebrew, except that Aramaic had the consonant group [-nt-] instead of [-tt-].



most obvious identity appears in

Arabic عَلِمْتَ<sup>45</sup> {ʿalim|ti} : Hittite {ša<sup>h</sup>ak|ti}<sup>46</sup> 'you know'.

In one of the Hittite conjugations the ending is usually {-ši} instead of {-ti}; e.g. 'you (sing.) kill' is {kueši}<sup>47</sup>, although {kuenti}<sup>48</sup> and {kueti}<sup>49</sup> occur too. {-ši} affords a quite regular correspondence to Sanskrit especially; e.g.

Hittite {arnuši}<sup>45</sup> : Sanskrit ऋ णो षि § {ṛṇōṣi} 'you (sing.) move'<sup>46</sup>

The Greek cognate to Sanskrit {-ṣi} survives only in the Homeric εἰσ|σιν<sup>47</sup> 'you (sing.) are'.

The closest Semitic parallel would be in Hebrew,

עָשִׂיתְּ<sup>48</sup> {ʿāši<sup>y</sup>|ti|m} 'you (fem. sing.) have made them'.<sup>47</sup>

Without the object-suffix {-m} it is

עָשִׂיתְּ<sup>49</sup> {ʿāši<sup>y</sup>|t} 'you (fem. sing.) have made/done' (Gen. 3:13, Ezek.

16:54, etc.); in the Ezekiel passage the spellings עֲשִׂית {ʿsy<sup>t</sup>} and עֲשִׂיתִי {ʿsy<sup>t</sup>y} are intermingled (16:48,54,59,63 and 16:31,42,47,51 respectively).

The Samaritan Hebrew text of the Pentateuch has עֲשִׂית pronounced 'āšīti (i.e. [ʿāšīti]), according to Murtonen (*EtVo*, 63) — formerly [-ti], but the dental plosives are no longer fricativated by the Samaritans.<sup>48</sup> With or without the vowel, the suffix in Hebrew has the same meaning 'you' (fem. sing.).<sup>49</sup>

<sup>45</sup> Dictionaries and grammars say that the Arabic perfect tense means 'you knew', like the English past; but the occurrences of the masc. sing. عَلِمْتَ<sup>45</sup> {ʿalimta} in the Qurʾān (11.79[81], 17.102[104], 21.65[66]; no instance of the fem.) clearly call for 'you know'. Similarly the Hebrew perfect {yāḏāʿt} (Aramaic {yāḏāʿt}) means 'you know'.

<sup>46</sup> For all we know from the awkward writing of Hittite in cuneiform characters (which the decipherers have had much trouble interpreting phonetically), this Hittite word may not have differed appreciably in sound from the Sanskrit ऋ णो षि.

<sup>47</sup> 'You' (fem. sing.) verb-forms with an object-suffix are extremely rare in the Biblical corpus, but יָלַדְתִּי<sup>48</sup> {yālādti<sup>y</sup>} 'you have borne me' will serve for a model (Jer. 15:10; cf. יָלַדְתְּ<sup>49</sup> {yālādt} 'you have borne').

<sup>48</sup> Cf. 2.Fe. Although the Samaritans, to supplement the twenty-two letter alphabet of Hebrew, never developed a notation approaching the accuracy and complexity of the Jewish Massoretic pointing, they did formerly make some good use of Arabic letters, and in particular used ث to show a fricative like the Massoretic ת {t} (and ז to show one like ד {d}).

<sup>49</sup> Gary Rendsburg regards the form with the vowel [i] as a dialect feature of Israelite as opposed to Judahite Hebrew.

In the Latin ending *-tī* 'you' (sing., regardless of gender, of the perfect tense) as in *dīx|tī* <sup>√</sup> 'you (have) said', only the consonant *-t-* has IE cognates. The long vowel *-ī* must be virtually the same as the one at the end of עֲשִׂיתָ in Ezekiel. Trombetti, however (*EIGl*, 744), compares this personal ending of Latin to one in the Cushitic languages with either a diphthong or a different long vowel: "Lat. *vīdis-tī* hai visto [= 'you have seen'] : Som[ali] *dig-tai* hai posto [= 'you have put'], Saho *ab-tē* hai fatto [= 'you have done/made']".

**3.Ck.** The Hebrew {סִי־יָ}, with the subject-suffix in its briefest form, is phonetically most like the Latin present *agis* <sup>√</sup>; and מַה עָשִׂיתָ הַיּוֹם {mé<sup>h</sup> סִי־יָ} 'What have you done?' (Jer. 2:23) could be roughly translated *quid agis* <sup>√</sup> 'What are you doing?' (Terence, *Heautontimorumenos* 611, etc.; cf. **2.Re-f**). Hebrew, like some other Semitic languages, has no present tense but only approximations to it;<sup>50</sup> so the semantic difference between {סִי־יָ} and *agis* is minimal. Now the *-i-* in *agis*, to judge from its Sanskrit cognate अजसि § {a|jasi},<sup>51</sup> would go back to something originally quite different from the Hebrew {-י-}; but we are here most concerned with the subject-pronoun suffix *-s* : {-t̄}. Being so brief, just a single consonant, it would not by itself count for much in a morphological comparison; however, the ALTERNATION between this consonantal morpheme and the syllabic [-si] : [-t̄i] adds somewhat. The IE side of that alternation, as explained so far, is between two separate languages; but Sanskrit has {-s} as well as {-si}: the imperfect आजः <sup>√</sup> {ājah} 'you (sing.) drove', or {ājas}§ if followed by {t-} or {t̄-}.

The Sanskrit distinction between {-si} for the present and {-s} for the (past) imperfect is not reproduced in Latin, where the imperfect *agēbās* <sup>√</sup> is a much more complex formation. If *\*-si* existed in the prehistory of Latin, the vowel has left no trace.<sup>52</sup> Within Sanskrit the distinction is not clear-cut; for

<sup>50</sup> In post-Biblical and especially in modern Hebrew, probably influenced by European languages, the participle has been made to serve as a present tense; e.g. אֲנִי בֹכֵיָהּ {ʔāni<sup>ʔ</sup> bō<sup>w</sup>kiyyō<sup>h</sup>} 'I [am] weeping (fem.)' (Lam. 1:16) was reinterpreted syntactically to mean 'I weep'.

<sup>51</sup> The meaning of the verb in Sanskrit is 'you drive' (**2.Re**).

<sup>52</sup> Only in the 3d person plural is a Latin cognate to the Sanskrit ending {-nti} <sup>√</sup> recorded

{-s}, the so-called "secondary" ending, is restricted to a past meaning only when the initial "augment" for past time is expressed. There are manifest cognates in Avestan to both Sanskrit endings, but not in the rest of IE; this may be due, in part, to the paucity of 'you' forms in the meagerly preserved corpus of certain ancient languages.

For the purpose of comparison with Semitic, this Sanskrit alternation is all the more impressive because another Sanskrit alternation — between {-tʰa} and {-ta}, as we have seen (3.Cf-h) — also finds a Semitic parallel, in Hebrew particularly, even though no semantic distinction as in Sanskrit goes with either of the two phonetic variations in Hebrew.

**3.CL.** The Semitic suffix for 'you' (fem. sing.) — {-ti} in Arabic, as well as Samaritan Hebrew — recurs in the independent pronoun, just as the suffixes for 'you' (masc. sing.) and for 'you' (pl.) do (3.Ce, note 30; 3.Ci). The Arabic independent pronoun is أنت<sup>√</sup> {ʔanti}, which agrees exactly with Geʿez and the modern Tigrinya ʔanti<sup>√</sup> (Leslau, *CoDiGe*, 32). The Massoretic (i.e. Jewish) Hebrew form is אַתָּ<sup>√</sup> {ʔátt} (pausal אַתָּ<sup>√</sup> {ʔətt}); but in six passages it is written אַתָּ<sup>√</sup> {ʔty}.<sup>53</sup> אַתָּ is the Samaritan spelling (Gen. 12:11, etc.), and the pronunciation that goes with it is [ʔétti] (Murtonen, *EtVo*, 44). In Akkadian it is {at-ti}<sup>√</sup>.

**3.Cm.** Apart from not distinguishing between masculine and feminine gender, the IE languages have an independent pronoun that corresponds semantically to the Arabic {ʔanti} and its Semitic cognates — namely Latin *tū*<sup>√</sup>, Greek *σύ*<sup>√</sup>, etc. But phonetically nothing besides the {t} seems to correspond, except that the Hittite {zig}<sup>√</sup> has also a front vowel of the same quality, and the Oscan {tio}<sup>√</sup> has presumably a front semi-vowel (rather than a vowel), indicating palatalization of the initial consonant.

The Greek vowel was [ü] in Attic and probably in Ionic, but [u] in the other dialects (so far as known); [ü] has the tip of the tongue forward like [i] but the lips rounded like [u]. The Indo-Europeanists have treated the [ü] as a peculiar dialectal development, limited to part of the Greek territory late in pre-history; however, a varied, unsettled articulation could go back much fur-

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that includes the vowel: *tremonti*<sup>√</sup> 'they tremble', once in a very old chant (otherwise always *tremunt*<sup>√</sup>).

<sup>53</sup> I Kings 14:22, II Kings 4:16, 8:1, Ezek. 36:13; Judges 17:2, Jer. 4:30.

ther.<sup>54</sup> The Slavic languages have a different vowel; e.g. Church Slavonic тѣ<sup>†</sup>, with what is written as though a diphthong [-əi] but may already have been pronounced [u] as in Russian (the tip of the tongue back like [u] and the lips unrounded like [i]). This odd Slavic vowel — nearly the opposite of [ü] — is regularly cognate to the Latin long *ū*, not to the Greek *ū*.

The only Semitic counterpart to the {-u} of so many IE forms is the rare Akkadian {at-tú}<sup>†</sup> 'you' (masc. sing.; *AsDi*, I.2, 503). The {-tú} part must be nearly identical with the Latin word *tū*. The accent, to be sure, does not represent any sort of emphasis upon the vowel, or other phonetic feature distinguishing [tú] from the plain [tu]; it is just an arbitrary device of the decipherers to indicate a cuneiform character different from the usual {tu} but phonetically equivalent to it.

**3.Cn.** Since we observed (3.Ca-d) that the front-vowel in Hebrew {ʔe-} : Latin *tē*, Greek *σε* is associated with stative meaning — 'you' in a definitely inactive role — it is fair to ask whether a different vowel, or possibly the mere lack of the front-vowel, indicates an active meaning. *σὺ* and *tū* function like nominative case-forms, generally for the sake of emphasis or insistence, and most often with an active verb. When the verb is imperative, it may carry no ending, as in *σὺ λέγε*<sup>†</sup> 'you speak, you say'. The Hebrew structure most like this, given a biconsonantal verb-root, is the so-called imperfect or jussive:

יָבוֹא<sup>†</sup> {ʔabō<sup>w</sup>} 'you come' (Gen. 24:41),

אַל-תָּבֹא<sup>†</sup> {ʔal-tabō<sup>?</sup>} 'don't (you) come' (Pr. 23:10).

Greek might theoretically have \**σὺ βά* 'you come', since compounds such as *πρόβα* 'come forth' are attested (2.Ff) and so the combination *σὺ πρόβα*<sup>†</sup> 'you come forth' is unattested only by accident.

The Hebrew {-ɔ-} is of course not a front-vowel, though quite unlike the Greek *υ*. Before a triconsonantal Hebrew verb-root, if the first consonant is guttural, there will be a more open vowel:

אַל-תַּחַרֹּץ<sup>†</sup> {ʔal-taḥrōš} 'don't (you) plot' (literally 'incise', Pr. 3:29),

to which *μὴ σὺ χάρασσ*<sup>†</sup> would be pretty close,

<sup>54</sup> Dolgopolsky, *PePr*, 88, even suggests that "the underlying pN [i.e. proto-Nostratic] vowel was \**ū*, which was later delabialized (mainly to \**i*) in several daughter-languages as a result of a qualitative reduction (i.e. of a phonemic feature) typical of grammatical morphemes and probably by analogy with \**mi* 'I'."

except for the difference in aperture between [ü] and [a].<sup>55</sup> The root **חַרַשׁ** is either homophonous or polysemous; for the stative

**אַל-תִּחַרְשׁ**<sup>√</sup> {ʔal-tēHěráš}, with its front-vowel, means 'don't (you) keep still' (Ps. 83:2, etc.).

A triconsonantal verb-root with other than a guttural first consonant shows the vowel {-i-} in the prefix, no matter whether stative or active.

**אַל-תִּקְרָא**<sup>†</sup> {ʔal-tiqrǝʔ} 'don't (you) call' is active,

no less than  $\mu\eta$   $\sigma\upsilon$   $\chi\rho\acute{\alpha}\tau$  (Ionic) or  $\mu\eta$   $\sigma\upsilon$   $\chi\rho\eta\acute{\tau}$  (Attic, **2.Ha-c**).<sup>56</sup>

Hebrew has no [ü] or [u], neutral between front and back quality; so [i] counts here as the minimal vocalic transition between the consonants {t-} and {-q-}. But in

**אַל-תִּקְרָב**<sup>√</sup> {ʔal-tiqrāḇ} 'don't (you) get close' (Ex. 3:5) the verb is stative, as shown by the wide-open vowel WITHIN the root — like {tēHěráš}, unlike {taHěróš} — although {tiq-} has come out sounding the same in {tiqrǝʔ} and {tiqrāḇ}, and thus has neutralized the distinction between stative and active in the pronominal prefix. The {-i-} in {tiqrǝʔ} is phonologically the best match that Hebrew can afford to the Greek [ü], while the fricativated {T-} after the other negative, **אַל-תִּקְרָא**<sup>√</sup> {loʔ-tiqrǝʔ} 'you don't/won't call' (Gen. 17:15), cannot be better matched in Greek by any other consonant than [s-].

**3.Co.** Most IE cognates correspond exactly, or nearly so, to the Latin *tū*.

Sanskrit, however, shows a final consonant: **त्वं**<sup>√</sup> {tvám} (which, as the meter of the Rigveda proves, was originally pronounced as two syllables). Avestan has both {tūm}<sup>√</sup> somewhat like Sanskrit and {tū}<sup>√</sup> just like Latin. Outside of Indo-Iranian, the only recurrence of a form with -m is in Oscan, a neighbor and relative of Latin: {tiium}<sup>√</sup>; Oscan also has {tio} without the final consonant (**3.Cm**). The Indo-Europeanists are inclined to explain the {-m} by analogy with the 'I' pronoun, {ahám} in Sanskrit (Avestan {azəm}<sup>√</sup>, Old Persian {adam}<sup>√</sup>); for Greek has  $\epsilon\gamma\acute{\omega}\nu$ <sup>√</sup> with a nasal consonant, besides the usual  $\epsilon\gamma\acute{\omega}$ .

<sup>55</sup> Cf. **2.Va-c**. Of course the negative  $\mu\eta$  is not cognate to {ʔal-}.

<sup>56</sup> The absence of **אַל-תִּקְרָא** (masc. sing.) in the Bible is just an accident of the corpus, as the feminine plural **אַל-תִּקְרָאנָה**<sup>√</sup> {ʔal-tiqréʔnā} does occur (Ruth 1:20).

In view of these forms, the Akkadian {at-ta-ma, at-ta-a-ma}<sup>√</sup> 'you' (m. sing., instead of the ordinary {at-ta}), {at-ti-ma, at-ti-i-ma}<sup>√</sup> " (fem. " " " " " {at-ti}) point to a morpheme {-m(a)}, shared by certain ancient IE languages and one very ancient Semitic. Except for Oscan, all of these are eastern, relative to the rest of IE and Semitic. The meaning of {-m(a)} is elusive, perhaps merely emphatic in some way. The Akkadian {-ma}, like the Indo-Iranian {-m}, recurs in the 'I' pronoun: {a-na-ku-ma, a-na-ku-ú-ma}<sup>√</sup> besides the ordinary {a-na-ku, a-na-a-ku}<sup>√</sup> and the occasional {a-na-ku-ú}<sup>√</sup> (*AsDi*, I.2, 106-110). {attama} has quite a bit in common with Sanskrit {tvám}, although it may be difficult or premature to set up a prehistoric proto-form from which both {-tama} and {tvám} developed.

**3.Cp.** Imperative forms in Greek, Sanskrit, and Avestan are divided into those which have no ending for the singular and those which have an ending. One such ending — Greek -θι

Sanskrit {-d<sup>hi</sup>i} (mostly replaced by {-hi} after a vowel)

Avestan {-di} ({-dī} in early or Gāthic Avestan) —

appears to be yet another manifestation of the pronominal morpheme that we have noted in Semitic as well as IE languages with the same vowel and a similar though not identical consonant (**3.Cj**):

Arabic, Samaritan Hebrew, and Hittite {-ti},

Hittite also {-ši}, Sanskrit {-si/-ṣi}, Greek -σι.

The Greek imperative βᾶ/ῆθι 'come' (**2.Fe**) —

Sanskrit cognate गहि<sup>√</sup> {gahi} —

is much like the Heb. {u<sup>√</sup>|bṣṭi} 'and you (fem. sing.) are to come', which would be [-ti] in the Samaritan tradition of Hebrew (formerly [-ṭi]).<sup>57</sup>

That both Greek endings, -θι and -θα, seem to have a twofold Semitic cognate — one cognate signifying 'you' (fem. sing.), the other 'you' (masc. sing., **3.Cg-h**) — would constitute rather a revelation than an embarrassment; for it throws some light on the prehistory of gender.<sup>58</sup> However, a problem is

<sup>57</sup> The fem. בָּאת occurs in II Sam. 14:3, I Kings 14:3, II Kings 2:4, Micah 4:10, Ruth 3:4 — not, however, in the Pentateuch, the only Scripture acknowledged and preserved by the Samaritans.

<sup>58</sup> J. P. Brown raises a fascinating question, "If we assume the base language 'masculine',

posed by the discrepancy in Sanskrit between

{d<sup>h</sup>} (voiced) in the imperative श्रुधि<sup>√</sup> {šrud<sup>h</sup>i} 'hear, listen',

बोधि<sup>√</sup> {bōd<sup>h</sup>i} 'be' (aorist singular)

and {t<sup>h</sup>} in the perfect बभूथ<sup>√</sup> {bab<sup>h</sup>ū<sup>t</sup>hā} 'you (sing.) have been'.<sup>59</sup>

I must leave this for some future clarification. The divergence in accent may be a clue; for the accent never comes on a syllable earlier than {-d<sup>h</sup>i}, but it usually does precede {-t<sup>h</sup>a}.<sup>60</sup>

### 3.D. Sem. (Akk.) {šuaššu} : IE (Old English) *swæs* 'his own'

**3.Da.** Going on from the "first" and "second person" to the "third", we find much less material for comparing IE with Semitic. Akkadian, however, especially in its Old Babylonian phase, has a dative {šua-ši-im}<sup>√</sup> 'for him/her', which is vaguely like some IE reflexives. The other Semitic languages, whose attestation does not go so far back, have no distinct dative forms; and Akkadian has them only for certain pronouns, both singular and plural, to which the suffix {-ši(m)} is attached:

{ni-a-ši, na-a-ši, ni-ia-šim, na-ši-ma}<sup>√</sup> 'for us';

{šua-nu-ši, šua-nu-ši-im-ma}<sup>√</sup> 'for them' (masc.) as an independent word, {-šua-nu-ši(-im)}<sup>√</sup> as a suffix.

The Greek accented σφ(ι)σι(ν)<sup>√</sup> 'for them' (often reflexive) would correspond roughly to {šunuši(mma)}, and the enclitic σφ(ι)σι(ν)<sup>√</sup> to {-šunuši(m)} — although the {-nu-} part is not at all like {-i-}.<sup>61</sup> The suffix -σι(ν)

can feminine verb forms be explained as something more remote from the speaker?" I do not see any pertinent evidence that would point to an answer.

<sup>59</sup> The Aramaic {hāwāy(ə)ṭṭ} is in part cognate to {bab<sup>h</sup>ū<sup>t</sup>hā} (cf. **2.Db**).

<sup>60</sup> In the early Sanskrit texts (accentuation is never marked in the later ones) verb-forms in initial position or in a subordinate clause bear an accent on a certain syllable, but not otherwise; so they are unaccented in the great majority of occurrences. — Except for the length of the vowel in the root, κλῡθι<sup>√</sup> is an exact Greek cognate of {šrud<sup>h</sup>i}, or rather of the unac-

cented श्रुधि<sup>√</sup> {šrud<sup>h</sup>i}. The Greek rule of recessive accent for nearly all verb-forms makes

as many enclitic syllables or syllable-parts (morae) as possible under the limitations of this language, whereas in Sanskrit there is no limit to the number of enclitic syllables.

<sup>61</sup> The ancient authorities on Greek accentuation disagreed on whether this dative plural is sometimes, always, or never enclitic; see LiScJo, s.v. σφεῖς. Frisk, *GrEtWö*, and Chantraine, *DiÉtLaGr*, relate the -φ- [p<sup>h</sup>] to the Latin reflexive dative *sibi*<sup>√</sup> (sing. or pl., usually shortened to *sibr*<sup>√</sup>; cf. Oscan {sífeí}<sup>√</sup>, SIFEI<sup>√</sup>, Church Slavonic себѣ<sup>√</sup> {sebě}, etc.).

serves much more widely for the dative plural of nouns and adjectives; and  $-\sigma(\nu)$  in  $\sigma\phi(\sigma)\nu$  is a REDUNDANT dative plural suffix, since  $\sigma\phi\iota^\vee$  (unaccented) by itself means 'for them'.

The transcription {š} for the Akkadian consonant should not commit to a definite phonetic interpretation of it as a palatal sibilant, opposed to [s]. The sibilants, within Akkadian and in relation to the other ancient Semitic languages, are perplexing in many details (see *InEuSeLa*, 325-333; Von Soden, *GrAkGr*, 29-30). At any rate, [s] in Greek — or generally in IE languages — must be fairly close to any voiceless sibilant of Semitic.

**3.Db.** As the dative denotes primarily THE PERSON INTERESTED OR AFFECTED (usually but not necessarily benefited), we are not surprised to find a possessive adjective morphologically similar to a dative pronoun. In Akkadian, especially in Assyrian texts, we occasionally find the word {šu-a-šu}^\vee, more emphatic than the mere suffix {-šu}^\vee 'his' that is attached to nouns.<sup>62</sup> The structure of {šu-a-šu} looks like a sort of reduplication. Von Soden, *AkHa*, 1255, s.v. **šūāšū(m)**, defines it as "Gen[etiv] des genannten, dieses" — i.e. 'belonging to the aforesaid, this one's'. We encounter an apparent cognate in the Germanic languages: Gothic {swes}^\vee, Old English *swæs*^\vee, etc. 'his own' (but sometimes used with possessives outside of the third person).<sup>63</sup> The Middle Assyrian combination {eqlu šu-a-šu}^\vee 'the field (nominative) of the aforesaid'<sup>64</sup> or 'his own field' would be

<sup>62</sup> When attached to verbs, it expresses the object 'him'.

<sup>63</sup> Dictionaries mark the Old English vowel with an apex *æ*<sup>̆</sup> to indicate length; whether the mss. give evidence for it in this particular word, I do not know. The Akkadian characters are similarly interpreted to stand for {šūāšū}, presumably because a short vowel would be expected to disappear in such an environment. The Gothic vowel is also considered long on the basis of IE and Germanic etymologies, although the source of this letter is the Greek Ε — which had for some six centuries stood for only a short vowel [e]. The vowel in Old High German and Old Saxon *swas*^\vee is also considered long.

<sup>64</sup> Erich Ebeling, *Keilschrifttexte aus Assur religiösen Inhalts*, I (Ausgrabungen der Deutschen Orient-Gesellschaft in Assur, E: Inschriften II; Leipzig, J. C. Hinrichs, 1919), 260 (Nr. 154. VAT [= Vorderasiatische Tontafelsammlung des Berliner Museums] 10164, Rückseite 8). The word for 'field' is, as usual, written ideographically with a Sumerian character, but the syllable {-lu} is added. In my inexperience I have been greatly helped by my learned colleague, Prof. Michael Heltzer, visiting the State University of New York at Binghamton from the University of Haifa. Von Soden cites "*eqlu u[nd]s[o]w[eiter]* šu-a-šu KAJ 149, 22; KAR 154 Rs: 8". The latter reference is to the passage I have just cited. The former is to Ebeling, *Keilschrifttexte aus Assur juristischen Inhalts* (Ausgrabungen, etc., E: Inschriften



in Gothic {akrs swes}†,<sup>65</sup>

in Old English swæs æcer § (cf. 1.Ia).

Actual Gothic examples are

{melam swesaim}√ 'in his own times' (καρποῖς ἰδίοις√, I Tim. 2:6),<sup>66</sup>

{swes ize praufetus}√ 'their own prophet' (ἴδιος ἑαυτῶν προφήτης√,

Titus 1:12);

OEng. *biþ him self sunu and swæ's fæder*√ (= Latin *ipsa sibi proles, suus est pater* 'he is son to himself, [and] his own father').<sup>67</sup>

**3.Dc.** This etymology is of particular import for tracing back to prehistoric or early historical times the consciousness of OWNING something. The word, lacking in the other Semitic languages, is somewhat sparsely represented in parts of the Akkadian corpus. In the old Germanic languages it seems more widespread, but it has not survived in their descendants. The Akkadian evidence tempts me to associate {šuaššu} with farm-land, the ownership of which must have marked a great step in the development of civilization; yet I cannot document this on the Germanic side, and the Indo-European cognates of *sw-* point rather to family connections (Benveniste, *Voln*, I, 214, 249-251, 330; Pokorny, *InEtWö*, I, 882, 1043-1044, 1051):

Gothic {swistar}√, Skt. स्वसौ√ {svāsā} (nom.; voc. {svasar}√),

Old Prussian *swestro*√, etc. 'sister';

" {swaihra}√ " श्वशुरः√ {švāšurah}, etc. 'father-in-law';

" {swaihro}√ " श्वश्रू√ {švašrūh},

Church Slavonic сѣкря√ {svekrāi}, etc. 'mother-in-law'.<sup>68</sup>

IV; 1927), 82 (#149. VAT 8942, line 22), transcribed in his *Urkunden des Archivs von Assur aus mittellassyrischer Zeit* (Mitteilungen der Altorientalischen Gesellschaft, VII. Band, Heft 1/2, 1933), 66: "tup-pu dannatu eqli šū-a-šū" 'a valid record of the field of the aforesaid'; J. P. Brown in Berkeley kindly looked up this later work of Ebeling for me.

<sup>65</sup> If the Greek Bible had a passage with ἄγρὸς ἴδιος† in that order.

<sup>66</sup> I Timothy 6:15, {in melam swesaim}; cf. Galatians 6:9, Titus 1:3.

<sup>67</sup> Joseph Bosworth, *An Anglo-Saxon Dictionary*, ed. by T. N. Toller (Oxford University Press, 1898), 942. The text evidently brings out the paradoxes of the Trinity.

The Latin nominative form *suus*, unlike the other cases, is very rare, since this possessive adjective is mainly used with something that belongs to the SUBJECT of the sentence.

<sup>68</sup> Sometimes it is the wife's mother, sometimes the husband's, as J. P. Brown remarks. Only a few passages are extant in Gothic (Matt. 8:14, 10:35, Mark 1:30, Luke 4:38).

These particular relationships are with a female or through marriage. Ownership, pure and simple, is expressed only by the Gothic {swes} as a neuter noun: {swes sein}<sup>√</sup> and {þata swes seinata}<sup>√</sup> 'his property' (Luke 15:12-13,<sup>69</sup> cf. 15:30).

**3.Dd.** Alongside the suffix {-šu} 'his, him', Akkadian has  
the feminine {-ša}<sup>√</sup> 'her' (genitive),  
{-ši}<sup>√</sup> " (accusative/dative).

In Eblaite Gelb cites {-sù}<sup>√</sup> 'him' and {-šum}<sup>√</sup> 'to him' (*EbKiCi*, 25-26). In the Minaean dialect of Ancient South Arabian the masculine singular suffix is {-s}<sup>√</sup> or {-sw}<sup>√</sup>, while the feminine singular is {-s}<sup>√</sup>.<sup>70</sup> The corresponding forms in other Semitic languages (including the Sabaeen dialect of Ancient South Arabian) have the consonant {h} instead of a sibilant.

But Hittite, though not distinguishing between masculine and feminine gender, has {-ša}<sup>√</sup> as well as {-ši}<sup>√</sup> for a possessive suffix of nouns —

e.g. {parnašša}<sup>√</sup> 'at his (her) home'  
{attišši}<sup>√</sup> 'to his (her) father'.

Such possessive suffixes are one of the great differences between Hittite and all the IE languages outside of Anatolia. Their function is strikingly like those of Semitic — especially Akkadian — and, in general, the rest of Afro-Asiatic, with the difference that some Hittite case-endings are attached not only to the noun immediately before the possessive but again to the possessive also: {attaš|maš}<sup>√</sup> 'my father's' ({-aš} being genitive singular).<sup>71</sup>

<sup>69</sup> Rendering τὸν βίον<sup>√</sup> and τὴν οὐσίαν<sup>√</sup> αὐτοῦ<sup>√</sup> respectively. In 15:13 the prodigal son treats it as his to squander.

The prior occurrence of τῆς οὐσίας<sup>√</sup> (genitive) in 15:12 is rendered {aigin|is}<sup>√</sup>, which like its synonym {swes} is a neuter adjective substantivized — originally a participle of the verb {aig|um}<sup>√</sup> 'we have'. The cognates of the adjective {aigin}, including own<sup>√</sup> (< Old English *agen*<sup>√</sup>), have prevailed throughout Germanic. The verb has an approximate Sanskrit cognate ई शे<sup>√</sup> {īṣ|ē} 'I own, he/she owns'.

<sup>70</sup> In the dialects of Qataban and Hadramaut only the masc. {-s}<sup>√</sup> and {-sww}<sup>√</sup> are extant; Maria Höftner, *Altsüdarabische Grammatik* (Porta linguarum orientalium, XIV; Leipzig: Otto Harrassowitz, 1943), 31-35; see also Brockelmann, *GrVeGr*, I, 311-313. For the information about Eblaite and South Arabian I thank Gary Rendsburg.

<sup>71</sup> This is vaguely reminiscent of the genitive *meines Vaters*<sup>√</sup> in German — where, however, the possessive is a separate word, unlike {-maš}, and precedes the noun.

The overlapping between the use of {-ša} in Hittite and in Akkadian can scarcely be explained as a mere Hittite borrowing; it seems rather to have survived from prehistoric times in both languages independently. Much as the Hittites of Anatolia absorbed from the civilization of Mesopotamia — including the cuneiform syllabary — still the structure of the Hittite language itself, as distinct from the script, was affected very little. By a paradox we find that geographically more distant IE languages — Greek above all — show more affinities to Semitic than Hittite does.

This poses an enigma, which may well be focused first upon the discrepancy in regard to gender: Hittite, while distinguishing the neuter, disagrees from the rest of the early IE languages in not distinguishing the feminine from the masculine — the very point on which Semitic does agree with IE. I would conjecture a cultural basis for this: Unlike both the Semitic nations and the other Indo-Europeans, who went in for patriarchy, the ancient Anatolian society was strongly matrilinear; at the heart of its religion was a mother goddess, whose priests were self-emasculated. So the bias of the IE and Semitic gender systems, which treat the masculine as basic and the feminine as meaningfully divergent (Levin, *ThGrGe*), would appear to have been at odds with the hierarchy of life in Anatolia.<sup>72</sup>

**3.E.** Sem. (Heb.) {ʔo(ʷ)ṯóʷ} 'him, it' : IE (Gr.) ἑαυτό 'it'

**3.Ea.** ἑαυτό<sup>√</sup> {ʔoṯóʷ}, ἑαῖ<sup>√</sup> {ʔoʷṯóʷ} has no clear Semitic cognates, nor has ἑαυτό<sup>√</sup> in IE, apart from Phrygian (which is very meagerly attested).<sup>73</sup> But this Hebrew and this Greek pronoun have a lot in common with each other. Not only are they close in sound, but to a considerable extent they function the same — so much so that in the Septuagint the Greek word serves readily as just the right translation for the Hebrew; e.g.

<sup>72</sup> Armenian, which is documented from the 5th century of the Christian era, is devoid of grammatical gender, like the neighboring non-IE languages. Old Persian had the threefold gender typical of IE, but it has been subsequently lost. See Szemerényi, *EiVeSp*, 164.

<sup>73</sup> The Phrygian forms ΑΥΤΟΣ<sup>√</sup>, ΕΝΑΦΤΥΝ:ΑΦΤΑΖ<sup>√</sup> will be treated in 3.Ei. Because of the location of Phrygia, east of Greece and northwest of Israel (though bordering upon neither country), a Phrygian cognate would imply that this pronoun once enjoyed a wider and less interrupted distribution than appears from the surviving evidence, which is copious only for Greek and Hebrew.

For a recent attempt to identify Germanic cognates, see Fritz Mezger, "au- in au-dh 'eigen; Besitz'; gr. αὐτός; germ. \*au-fj-a 'abgelegen'," *ZeVeSp*, 82 (1968), 288 ff.

πολήσεις αὐτό<sup>√</sup>  
for יִתְּנֶהָ תַּעֲשֶׂה<sup>√</sup> {taššē<sup>n</sup> ʔotō<sup>w</sup>} ‘you will make it’ (Ex. 27:8).<sup>74</sup>

The two-word phrase in Hebrew is an alternative to יִתְּנֶהָ<sup>√</sup> {taššēnnu<sup>w</sup>}, with the object-pronoun suffixed to the verb (Ex. 28:15). The translator rendered this likewise πολήσεις αὐτό; for by that time (3d century B.C.) the enclitic object-pronoun μιν<sup>√</sup> was quite obsolete, and for him πολήσεις μιν<sup>†</sup> (which Herodotus might have used in his prose just as well as πολήσεις αὐτό)<sup>75</sup> was already out of the question.

The phrases יִבְנֶהָ אֵת<sup>†</sup> {bāné<sup>n</sup> ʔotō<sup>w</sup>}

and δέμει αὐτό<sup>†</sup> or δέμ’ αὐτό<sup>†</sup> ‘build it’,

using cognate imperative verbs (2.Ga) as well as these object-pronouns, would seem to have been quite possible.<sup>76</sup> In Greek, however, no forms of this verb are common; we do find, instead, a long denominative verb, based on the noun οἰκοδόμος ‘house-builder’ — e.g. οἰκοδόμησαν αὐτό<sup>√</sup> ‘they built it’ (the pronoun refers to the neuter noun τεῖχος ‘wall’; Aristophanes, *Aves* 1132). In Hebrew (where the word for ‘wall’ is feminine) this would be בָּנְתָהּ אֵת<sup>√</sup> {bōnú<sup>w</sup> ʔotō<sup>h</sup>}.<sup>77</sup> Another possible combination, almost exactly cognate in the two languages, is

וַיַּיִזְבַּח אֵת<sup>†</sup> {wayyizbāh ʔotō<sup>w</sup>}

καὶ ἔσφαξ’ αὐτό<sup>§</sup> [kaiēsphaḱsautó] ‘and he sacrificed it’ (cf. 2.Wb-c); only the Greek morpheme [-s-], expressing the aorist tense, corresponds to nothing in the Hebrew.

**3.Eb.** In Hebrew the {-ó<sup>w</sup>} of {ʔo(ʷ)ṭó<sup>w</sup>}, as we have seen, is a morpheme, opposed to the feminine {-ō<sup>h</sup>}; and in Greek the -ό of αὐτό is evidently a morpheme too, since the feminine (accusative singular) is αὐτήν<sup>√</sup> and the

<sup>74</sup> Here the translator is not open to the suspicion (which in some other passages is more reasonable) of having chosen a semantically less appropriate Greek word for the sake of a sound reminiscent of the Hebrew. αὐτό is perfectly normal Greek in any prose context of this sort; cf. ἐνέπρησαν αὐτό<sup>√</sup> ‘they burned it’ (Herodotus 4.123.1), which would be in Hebrew אֵת שָׂרַף<sup>√</sup> {šarəpū<sup>w</sup> ʔotō<sup>w</sup>}.

<sup>75</sup> μιν is also frequent in Homeric verse; νιν<sup>√</sup> is the equivalent in Pindar and Attic poetry.

<sup>76</sup> Likewise, in Hebrew, the imperative יִתְּנֶהָ<sup>√</sup> {šāšē<sup>n</sup> ʔotō<sup>w</sup>} ‘do it’; however, \*ἀγε αὐτό, while structurally similar (2.Rd), does not sound to me like idiomatic Greek.

<sup>77</sup> Jer. 32:31, where the feminine object-pronoun refers to יְרֵחוֹ<sup>√</sup> {hōšī<sup>r</sup>} ‘the city’.

masculine is ἑαυτοῦ|ν. {-óʷ} and {-śh} are identical with the Hebrew possessive suffixes 'his' and 'her' respectively that are attached to most singular nouns, and there is a frequent singular noun מִּסְתָּהּ {ʔóʷṭ} that means 'a sign'; remarkably, however, it never occurs with a possessive suffix.<sup>78</sup>

It would be easy, though not altogether safe, to infer that the original meaning of {ʔo(ʷ)ṭóʷ} 'him' was 'his sign'. The history of many languages does furnish instances where an erstwhile noun came to be used rather as a pronoun; and {ʔoʷṭ} with the meaning 'sign' would seem to lend itself, as readily as any other noun, to such a development.

**3.Ec.** When the object of the verb is not a pronoun but a noun,<sup>79</sup> it is preceded in Hebrew by מִּסְתָּהּ {ʔṣṭ-} (seldom accented מִּסְתָּהּ {ʔṣṭ}); e.g. בָּנָה מִּסְתָּהּ {bónáʰ ʔṣṭ-hammillóʷ} 'he (has) built the citadel' (I Kings 9:24, etc.). Now the unaccented [ʔṣṭ], a quasi-prefix or -preposition, was — conceivably — a mere phonetic reduction of [ʔóʷṭ]. Although there is no other instance in Hebrew of an alternation quite like this one, [ṣ] is indeed the minimal vocalic accompaniment to the glottal stop [ʔ], when followed immediately by another consonant that closes the syllable.<sup>80</sup> Instead of the vowel [o] of {ʔo(ʷ)ṭóʷ, ʔo(ʷ)ṭśh}, etc., we generally find [ṣ] where the suffix, which differentiates one pronoun from another, consists of two consonants with accented [é] in between them:

<sup>78</sup> Its plural does combine freely with possessive suffixes; e.g. מִּסְתָּהֶם {ʔoṭ óṭś(ʰ)w} 'his signs', מִּסְתָּהֵם {ʔoṭ óṭáʷ} 'my signs'. (The singular מִּסְתָּהּ {ʔo(ʷ)ṭíʷ} or מִּסְתָּהּ {ʔoṭíʷ} means 'me' — not found in the sense of 'my sign'.) Whereas the plural (without a possessive suffix) is variously spelled מִּסְתָּהֶם {ʔoʷṭóṭ} (Deut. 6:22), מִּסְתָּהֶם {ʔoṭ óṭí} (Is. 44:25, Ps. 74:4, 135:9, Jer. 32:20), מִּסְתָּהֶם {ʔoṭ óṭ} (Neh. 9:10), the singular noun is always spelled מִּסְתָּהּ, except optionally with certain prefixes in Exodus only: מִּסְתָּהּ {lǝʔóṭ} 'for a sign' (12:13; but מִּסְתָּהּ {lǝʔóʷṭ}, 13:9); מִּסְתָּהּ {hǝʔóṭ} 'the sign' (4:8 twice; but מִּסְתָּהּ {hǝʔóʷṭ}, 3:12) — in the other books uniformly מִּסְתָּהּ, לאות, האות.

<sup>79</sup> With certain restrictions: a noun that is either a name (personal or topographic) or else prefixed with the definite article or suffixed with a possessive, or in the construct state followed by another noun expressing the possessor.

<sup>80</sup> As in the subject-prefix 'I' of a verb: מִּסְתָּהּ {ʔṣṭ} 'I (will) call' (cf. 3.Cn).

הֵמָּה<sup>√</sup> {ʔē(ə)hém} 'them' (but usually הֵמָּן<sup>√</sup> {ʔōtəm} or  
הֵמָּן<sup>√</sup> {ʔo<sup>w</sup>təm});

הֵמָּן<sup>√</sup> {ʔo<sup>w</sup>təhém} only in Ezek. 23:45, with fem. reference);<sup>81</sup>

הֵנָּה<sup>√</sup> {ʔē(ə)hén} 'them' (fem.; הֵנָּן<sup>√</sup> {ʔōtən}, Ezek. 16:54;

הֵנָּה<sup>√</sup> {ʔo<sup>w</sup>təhén}, Ezek. 23:47; הֵנָּן<sup>√</sup> {ʔōtən<sup>h</sup>}, Ex. 35:26;

הֵנָּה<sup>√</sup> {ʔo<sup>w</sup>tən<sup>h</sup>}, Ezek. 34:21);

אַתָּם<sup>√</sup> {ʔē(ə)kém} 'you' (pl.;

אַתָּם<sup>√</sup> {ʔo<sup>w</sup>t(ə)kém} only in Joshua 23:15).

The phonetic conditioning is clear enough: this pre-accentual [ε] cannot arise unless two consonants intervene between it and the accented vowel. The quality [ε] of the unaccented vowel may have been influenced, at first, by the accented [é] of these suffixes; but it appears also before any noun — e.g.

וְאֵת־שֵׁם אֶת־חָם וְאֵת־יָפֶֿתֿ<sup>√</sup> {wayyó<sup>w</sup>léd nóaH ʔē-šém  
ʔē-Hóm wəʔē-yǝpēt} 'and Noah begat Shem, Ham and Japheth';

וְאֵת־אֲבִרָם<sup>√</sup> {wayyó<sup>w</sup>léd ʔē-ʔabróm} 'and he begat Abram'

(Gen. 5:32, 11:26).<sup>82</sup>

Also in the meager corpus of Phoenician inscriptions **𐤀** is found, chiefly in the later ones from North Africa; for in Phoenicia and also in North Africa earlier it is **𐤀** {ʔyt}. The vowel-sound in Phoenician, as distinct dialectally from Hebrew, does not show up in this consonantal writing. But it is indicated by the Latin poet Plautus, who has a Carthaginian character speak his own language for ten verses, beginning *ythalonimualonuthsicorathi*<sup>√</sup>,

which is then translated *deōs deāsque ueneror*<sup>√</sup> 'I worship the gods and goddesses' (*Poenulus* 930[940], 950); *yth* is not far from the Hebrew [ʔēt], if we figure that *y* stands for a Phoenician vowel of indistinct quality, suggested to a Latin ear by the Greek vowel-sound written Y [ū], a

<sup>81</sup> Also a significant minority of the instances of {ʔē(ə)hém, ʔo(ʔ)təm, ʔē(ə)kém} have a fem. reference, as the grammatical commitment to feminine gender in Hebrew is weaker in the plural than in the singular. See Rendsburg, *DiAnHe*, 35-61.

<sup>82</sup> One phonological restriction upon the vowel {ε} in Hebrew is that in a monosyllabic word it cannot bear an accent before a consonant. So when, under somewhat unusual circumstances, this word gets a sentence-accent, its vowel is actualized as {é}.

rounded front-vowel (neither [i] nor [u]).<sup>83</sup> The "Babylonian" vocalization of the Hebrew Scriptures, preserved in fragmentary manuscripts, shows it sometimes as  $\text{תָּֿ}^\vee$  {ʔēṭ},<sup>84</sup> with an indistinct vowel virtually the same as that Phoenician sound.

**3.Ed.** Besides the forms {ʔēṭ(ə)hém, ʔēṭ(ə)hén} 'them' and {ʔēṭ(ə)kém} 'you' (pl.), in which the quality of the accented vowel might readily have affected that of the unaccented one before it, another influence on {ʔēṭ-} (and the less frequent {ʔēṭ}) may have come from the preposition  $\text{ִּתְּֿ}^\vee$  ( $\text{תְּֿ}^\vee$ ) 'with'. In the authoritative Tiberias vocalization of the Hebrew Bible this normal preposition is identical with the particle we have been studying, unless a pronoun is suffixed to it.<sup>85</sup> Then the preposition 'with' shows the front-vowel [i], not {o}:

$\text{ִּתְּֿ}^\vee$  {ʔittóʷ} 'with him',  
 $\text{ִּתְּֿ}^\vee$  {ʔittóh} 'with her',  
 $\text{ִּתְּֿ}^\vee$  {ʔittíʔ} 'with me',  
 $\text{ִּתְּֿ}^\vee$  {ʔittóm} 'with them',  
 $\text{ִּתְּֿ}^\vee$  {ʔittakém} 'with you' (pl.).

<sup>83</sup> Similarly the first syllable in *bynmythymballe*  $^\vee$  (translated *Mytthumballis fili-um*  $^\vee$  'son of M.', 995, 997) corresponds to the Hebrew  $\text{בֶּן־}^\vee$  {ben-} (in certain phonetic environments  $\text{בִּן־}^\vee$  {bin-}; see *InEuSeLa*, 483-484, and Levin, *FaJoJe*, 19-22). The vowel *y* in *yth* must not, of course, be identified with the {y} which I (like most others nowadays) use for transliteration of the consonant ʔ. — So far as I can make out, there are no instances in the Phoenician corpus of either  $\text{תָּֿ}$  or  $\text{תְּֿ}$  accompanied by a pronominal suffix.

<sup>84</sup> Many instances in the best known "Babylonian" ms.; Israel Yeivin (ed.), *Bible-Hagiographa: Codex Berlin Or. Qu. 680 – Codex New York JTS 510* (Jerusalem: Makor, 1972). This particular vocalization is overlooked in Kahle's pioneering work, *MaTe*, 77, which instead gives  $\text{תָּֿ}$  {ʔēṭ}. See also his *MaOs*, 199.  $\text{תָּֿ}$  is indeed found in many mss., but so are  $\text{תָּֿ}^\vee$  {ʔæt} and  $\text{תָּֿ}^\vee$  {ʔēṭ}.

<sup>85</sup> However, in the "Babylonian" vocalization the preposition 'with' is  $\text{ִּתְּֿ}^\vee$  {ʔætt} or possibly [ʔæt] — certainly not [ʔæt̃] with the consonant  $\text{תְּ}$  fricativated. Kahle, *MaTe*, 37, 77 (and *MaOs*, 199), gives it as  $\text{ִּתְּֿ}$  [ʔitt]; but I find this only in II Chr. 10:6, whereas  $\text{ִּתְּֿ}$  is in Pr. 17:24, 22:24, 25:9, II Chr. 10:6, 16:3, 18:30 (twice), 22:5,6, 23:7, and  $\text{ִּתְּֿ}^\vee$  {wəʔætt} 'and with' in Pr. 3:32, 11:22, Job 36:7.

Nevertheless, in a small minority of instances, {ʔo(ʷ)ṭóʷ, ʔo(ʷ)ṭóh}, etc., occur where the sense evidently calls for 'with'; e.g. (II Kings 1:15)

וַיֵּרָד אִתּוֹ <sup>ו</sup> {wayyered ʔoʷṭóʷ} 'and he went down with him' —

rendered καὶ κατέβη μετ' αὐτοῦ in the Septuagint —

which is quite idiomatic Greek, not biased by a preference for something in Greek reminiscent of the sound of the Hebrew; for μετ' αὐτοῦ is used just as freely in pure Attic texts (Euripides, *Electra* 278, etc.). {ʔēt-} as a preposition is often combined with -מֵ <sup>ו</sup> {me-} 'from' when the noun in the construction refers to a person; e.g.

מֵאֶת־פַּרְעֹה <sup>ו</sup> {meʔēt-parʕóh} 'from Pharaoh' (Gen. 47:22, etc.).

'From him' is מֵאִתּוֹ <sup>ו</sup> {meʔittóʷ} 10 times in the Bible,<sup>86</sup>

but מֵאִתּוֹ <sup>ו</sup> {meʔoʷṭóʷ} 3 times (I Kings 22:7, II Ki. 3:11, 8:8)

and מֵאִתָּו <sup>ו</sup> {meʔoṭóʷ} 3 times (I Ki. 22:8, II Chr. 18:6,7).<sup>87</sup>

'From them', however, is מֵאַתָּם <sup>ו</sup> {meʔittóm} (10 occurrences), to the exclusion of <sup>ו</sup> {meʔo(ʷ)ṭóm}. Contrariwise, 'with them' is

often אִתָּם <sup>ו</sup> {ʔoʷṭóm} (18 times, mainly in Jer. and Ezek.)<sup>88</sup>

and אִתָּם <sup>ו</sup> {ʔoṭóm} 3 times (Num. 26:3, J. 33:9, E. 39:24),

against 39 occurrences of {ʔittóm}.

The match between {ʔoʷṭóm} and μετ' αὐτῶν <sup>ו</sup> [autón] 'with them' (II Kings 6:16, Jer. 16:8, etc.) is quite close. To be sure, in the period of the Bible translators (toward the end of the pre-Christian era) the vowel ω of the last syllable was probably [ō] rather than [ō̄]; but it had been [ō̄] in the classical age of Attic literature (μετ' αὐτῶν, Thucydides 1.40.3, etc.). -ων is a genitive plural case-ending, whereas the Hebrew {-óm} is masculine plural and has no such restriction as to case, except for never functioning as the subject of any sentence or clause. We have seen the feminine plural ending {-ón} in {ʔoṭón} 'them' (3.Ec); if <sup>ו</sup> {ʔo(ʷ)ṭón} 'with them' (fem.) existed in the Bi-

<sup>86</sup> Gen. 8:8, 26:31, Lev. 25:36, 26:24, Judges 19:2, I Sam. 8:10, II Kings 4:5, 5:19,20, Jer. 3:1.

<sup>87</sup> The Septuagint impartially gives παρ' αὐτοῦ in Lev. 25:36, II Kings 3:11, II Chron. 18:6, etc. — which is normal Attic (Aristophanes, fr. 649, etc.)

<sup>88</sup> Here Shelomo Morag, "On the Historical Validity of the Vocalization of the Hebrew Bible," *Journal of the American Oriental Society*, 94 (1974), 313-315, posits that Hebrew syntax was disturbed by contact with Akkadian or Aramaic.



ble, the Greek rendering of it would have been μετ' ἄυτῶν, just like the masculine but with the same final consonant as in the Hebrew {ʔōṯōn}.

**3.Ee.** The very closest match is between {ʔōʷṯōʷ} and μετ' | ἄυτοῦ 'with him', or between {me | ʔōʷṯōʷ} and παρ' | ἄυτοῦ 'from him' (disregarding the preposition {me-} : παρ(ὰ), which is unrelated).<sup>89</sup> I must, however, clear away two optical illusions:

(1) There is no good evidence that the Greek "smooth breathing" ᾿ was ever intended to stand for a consonant sound — specifically the glottal stop, which is represented by the Hebrew letter א.<sup>90</sup>

(2) The digraph -ου in the standard spelling of the genitive singular case-ending does not constitute evidence for a truly diphthongal pronunciation [-ou] (or for an off-glide after the vowel [-oʷ]). The history of Attic spelling, though not of the other dialects, is abundantly documented through inscriptions and shows that the ending was written -O, seldom -OY until well into the fourth century B.C. (Threatte, *GrAIn*, I, 238-259); e.g. ΑΥΤΟ<sup>√</sup> (*InGr*<sup>2</sup> 1.39.34, 446/5 B.C.; 1.103.6, 412/1 B.C.; 1.116.41, 409/8 B.C.; ΑΥΤΟΥ<sup>√</sup>, 2.109a.26, 363/2 B.C., etc.). The meter of poetry, together with other indications, proves that it was a long monophthong [-ō] (later [-ū]). Sporadic occurrences of -OY much earlier — such as ΑΡΙΣΤΟΝΙΜΟΥ<sup>√91</sup> from 483 B.C. — prove at most that some individuals tended to pronounce [ou] or [oʷ] in words which the bulk of the Athenians pronounced only with [ō]; for the diph-

<sup>89</sup> The phonetic correspondence {oʷ} : ay in the root is the same as in the indisputably cognate noun רִשְׁיִן<sup>√</sup> {šōʷr} : ταῦρον 'bull' (Arabic {ṣawran}, 1.Aa,c).

<sup>90</sup> The modern phonetic character ʔ is indeed a graphic descendant of ᾿ (1.Fa, note 104).

<sup>91</sup> George A. Stamires and Eugene Vanderpool, "Kallixenos the Alkmeonid," *Hesperia*, 19 (1950), 384. The previous vowel -i- (instead of -y-) is another irregularity on this ostrakon (cf. 1.Ha). The spellings ΑΡΙΣΤΟΝΥΜΩ<sup>√</sup>, ΑΡΙΣΤΟΝΥΜΥ<sup>√</sup> for the genitive also occur around that time, although the Ionic letter Ω was otherwise very little used as yet in Attic and not with its Ionic value [ɔ]; see Threatte, *GrAIn*, I, 47-49. (After the Athenians adopted the Ionic alphabet, this name was written ΑΡΙΣΤΟΝΥΜΟ<sup>√</sup>, *InGr* 2.865.24 [aristōnūmō]; in the later orthography familiar to us Ἀριστωνύμου<sup>√</sup>.) The diverse spellings of this genitive ending, especially on ostraca from the first half of the 5th century, may indicate an odd sound — not quite identical with the [ō] that the usual spelling -O suggests; however, the ostraca abound in all kinds of irregularities.

Only toward the end of the pre-Christian era did any Greeks begin to distinguish graphically between a long vowel and a short one of the same quality, even though vowel-quantity was phonemic in the language from the earliest period that we can discern.

thong was otherwise limited to OY<sup>√</sup> 'not' and its compounds, and a few other frequent words.

To be sure, any early tendency away from a pure vowel [ō] is worth noting as parallel to the Hebrew ʾ- {-o<sup>w</sup>}. It remains somewhat surprising that this phonetic similarity accompanies a syntactic disparity: the Greek genitive overlaps the function of {ʔo<sup>w</sup>tó<sup>w</sup>} just marginally in μετ' αὐτοῦ 'with him' and παρ' αὐτοῦ 'from him', since {ʔo<sup>w</sup>tó<sup>w</sup>} most of the time is the DIRECT OBJECT of a verb. In syntax, on the whole, {ʔo<sup>w</sup>tó<sup>w</sup>} corresponds oftener to the Greek accusative neuter αὐτό. This, however, ends in a short [ō], which in Greek is phonemically distinct from either [ō] or [ou]. For comparison with Hebrew, the shortness of the Greek vowel is a minor but not negligible disparity.

**3.Ef.** Greek etymologists with an exclusively IE point of view might object, besides, that the final -o in αὐτό comes from a prehistoric \*-od; for that is clearly so in the neuter singular accusative or nominative of morphologically similar words of IE origin, such as

ἄλλο<sup>√</sup> 'other' : Latin *aliud* <sup>√</sup>;<sup>92</sup>

τὸ<sup>√</sup> : OEng. *þæt* <sup>√</sup> (> *that* <sup>√</sup> stressed, *the* <sup>√</sup> unstressed), Sanskrit त त् <sup>√</sup>

{tát} ({tád} before any word beginning with a vowel or voiced consonant).

In these other words the Greek -o comes indeed from \*-od; and in the prehistory of Greek this or any final plosive that might have been inherited from proto-IE dropped out. So from then on, if a word borrowed from Hebrew or Phoenician (or their forerunner) ended in [-o] or [-o<sup>w</sup>], that ending could readily be identified with the Greek neuter singular — especially when the adaptation was compatible both morphologically and syntactically. Now the -o is limited to a few pronominal or quasi-pronominal words; otherwise the -ον ending of the masculine singular accusative is shared by the neuter — πολλόν 'much' (cf. **2.Jg**).

Accordingly, the Hebrew word {ʔo<sup>w</sup>tó<sup>w</sup>}, which is masculine — as the Semitic languages have no neuter gender — would correspond to the Greek neuter αὐτό, whereas the Greek masculine is αὐτόν. The [-n] does not correspond to anything in Hebrew, neither in αὐτόν nor in the feminine singular

<sup>92</sup> In Greek too the [d] shows up in the derived adjective ἄλλοδ|απός<sup>√</sup> 'foreign' (in which the suffix -απός is cognate to Latin *-inquus*, as in *longinquus* <sup>√</sup> 'distant'.

accusative ἑαυτῇ|ν (ἑαυτᾶν<sup>√</sup> outside of Attic and Ionic), which may well correspond otherwise to the Hebrew feminine {ʔo(ʷ)ṯóʰ} (1.Le). The feminine in Aramaic is ܐܝܬܐ<sup>√</sup> {yṯæh}, an approximate cognate to {ʔo(ʷ)ṯóʰ} but with the vowel [æ] of the suffix intermediate between the [ē] and the [ā] of Greek dialects.<sup>93</sup>

**3.Eg.** The meaning 'with' that is sometimes expressed in Hebrew by {ʔo(ʷ)ṯ-} (instead of the usual {ʔitt-}), followed by an accented pronoun-suffix, is not altogether devoid of a Greek parallel. In the dative case, without needing a preposition, the phrase ἑαυτοῖς ἁνδράσι<sup>√</sup> means 'men and all' — i.e. 'with the men'; e.g. μίαν μὲν ... ἑαυτοῖς ἁνδράσι λαμβάνουσι, δύο δὲ ἑτέρῃς ἄνευ τῶν ἁνδρῶν 'one [of the ships] they take, men and all, and two others without the men' (Thucydides 8.102.3; cf. 2.90.6, 7.25.4, 41.3). Besides this one recurrent expression, there are occasional instances in the singular as well as the plural (Herodotus 7.39; Aeschylus, *Prometheus* 219-221):

τὸν χρῆν πανοικίῃ ἑαυτῇ τῇ γυναικὶ συνέπεσθαι<sup>√</sup> 'whom it behooved to accompany [me] with [your] whole household, wife and all';

Ταρτάρου μελαμβαθῆς

κευθμῶν καλύπτει τὸν παλαιγενῆ Κρόνου

ἑαυτοῖσι συμμάχοισι<sup>√</sup> 'the deep black hold of Tartarus

covers the ancient Cronus, allies and all'.

**3.Eh.** If — for lack of IE cognates — we were to make a strictly internal study of this Greek pronoun, we would probably conclude that the primary use was emphatic: 'himself', 'herself', etc., in contrast to something else. For in the nominative case ἑαυτός<sup>√</sup>, ἑαυτή<sup>√</sup>, etc., that is uniformly so; and the less emphatic use of the other cases ἑαυτόν, ἑαυτήν, etc. — where English (like other modern languages) would simply use the pronouns of the third person

<sup>93</sup> In Biblical Aramaic 'her' would be ܐܝܬܐ<sup>√</sup>† {yṯáh}, but only the masc. pl. occurs: ܐܝܬܐ<sup>√</sup> {yṯáhšn} 'them' (Dan. 3:12; cf. the Hebrew forms, 3.Ec); the masc. sing. is ܐܝܬܐ<sup>√</sup> {yṯæh} (ܐܝܬܐ<sup>√</sup>† {yṯéh} in Biblical Aramaic). For unlike the Aramaic of the Targum, which regularly represents the Hebrew particle ֹאֵל by ܐܝܬܐ<sup>√</sup> {yṯ}, the original Aramaic of Daniel and Ezra uses the prefix -ܠ<sup>√</sup> {l-} for what we might call a direct object, as well as an indirect — much like a<sup>√</sup> in Spanish (which, however, occurs mainly when the object is a human being).

‘him’, ‘her’ — is almost entirely post-Homeric<sup>94</sup> and excluded from the initial position in a sentence. However, this unemphatic use is more characteristic of prose than of poetry, in the centuries when both kinds of literature were current; so — for all we know — it may have been frequent enough in the unrecorded colloquial speech of the Homeric age.

The Hebrew counterpart too is more characteristic of prose. Within Biblical Hebrew prose, however, the trend over the centuries was to use {ʔo(ʷ)ṭóʷ}, {ʔo(ʷ)ṭṣḥ}, etc., less — not more;<sup>95</sup> e.g., in a relatively early book

עַל־הַסּוּסִים וַיִּשָּׂאוּ אֹתוֹ {wayyis(ə)ʔúʷ ʔoʷṭóʷ ʕal-haʕssuʷsím}

‘and they carried him upon the horses’ (i.e. on horseback, II Kings 14:20), but when this sentence got incorporated in a later book, the wording was changed to וַיִּשָּׂאוּ אֹתוֹ עַל־הַסּוּסִים {wayyissəʔúhuʷ ʕal-haʕssuʷsím} (II Chr. 25:28) with the object-suffix {-huʷ} ‘him’ instead of the separate pronoun.

In both languages the longer forms

αὐτό, αὐτόν : {ʔo(ʷ)ṭóʷ},

αὐτήν : {ʔo(ʷ)ṭṣḥ}

must have been, at first, more expressive than the Greek enclitic μιν (3.Ea) or the Hebrew suffixes {-huʷ} ‘him’ or {-ḥə}ʷ ‘her’, although that advantage was soon lost. In the Hebrew Bible, passages are sparse where the emphatic or contrastive function of {ʔo(ʷ)ṭóʷ} or {ʔo(ʷ)ṭṣḥ} is clearly perceptible; e.g.

וַיִּשְׁלְחוּ אֹתוֹ וְאֶת־אִשְׁתּוֹ {way(ə)šalləHúʷ ʔoṭóʷ wəʔēt-ʔišṭóʷ}

‘and they escorted him(self) [i.e. Abram] and his wife out’ (Gen. 12:20);<sup>96</sup>

וְאַתָּה בְּיוֹם אֶחָד לֹא תִשְׁחַט בָּנֹךָ וְאֶת־בְּנֵי לֶךָ וְאֶת־בְּנֵי אִשְׁתְּךָ {wəšóʷr

ʔoʷ-séʰ ʔoṭóʷ wəʔēt-bənoʷ lóʷ ʔišHəTúʷ bəyóʷm ʔEHṣḏ}

‘And you shall not in one day slaughter an ox or a sheep/goat itself and its offspring’

(Lev. 22:28);<sup>97</sup>

<sup>94</sup> An exceptional instance of the unemphatic αὐτόν ‘him’ in *Iliad* 12.204 (see 3.EL).

<sup>95</sup> See Robert Polzin, *Late Biblical Hebrew: Toward an Historical Typology of Biblical Hebrew Prose* (Harvard Semitic Monographs, 12; Missoula, MT: Scholars Press, 1976), 28-31. I have Gary Rendsburg to thank for this information.

In Israeli Hebrew, except for the most highly literary style, the object-suffixes have been utterly rejected in favor of the separate pronouns אֹתוֹ, אֹתָהּ, etc. — doubtless under the influence of modern European languages.

<sup>96</sup> The Septuagint has συμπεριέμψαι (‘to escort’) αὐτόν καὶ τὴν γυναῖκα αὐτοῦʷ, interpreting וַיִּשְׁלְחוּ as jussive ‘that they should escort’ rather than preterite ‘and they escorted’.

<sup>97</sup> The two nouns {šóʷr} and {séʰ} — designating an individual beast of the larger species,

וַיִּהְיֶה אֵת הָעָרִים וְהַכֹּל הַנִּהְיָה שָׁם בְּיַד אֵשׁ-רָבָה {wayyaHārém ʔoʷṯóh wəʔeṯ-kol-hannépeš ʔāšer-bóh} 'and he destroyed her(self) [i.e. the city of Hebron] and every living thing that [was] in her' (Joshua 10:37).<sup>98</sup>

In Greek this sort of contrastive collocation is fairly common:

καὶ νυμφιδίοισι δέχεσθ' ὡδαῖς αὐτὸν καὶ τὴν βασιλεῖαν<sup>99</sup> 'and receive with nuptial songs him(self) [Pisthetaerus] and Kingship [personified as his bride]' (Aristophanes, *Aues* 1729-30);<sup>99</sup>

ἁλώπекες ... αἵτινες αὐτοὺς καὶ τὰ τέκνα ἐπιούσαι ἀναιροῦνται<sup>100</sup> 'foxes, which destroy both them [i.e. hares] and the[ir] offspring, coming upon [them]' (Xenophon, *Cynegeticus* 5.24).<sup>100</sup>

**3.Ei.** An exact cognate of αὐτός (nominative singular masculine) occurs in a Phrygian inscription from Roman times, when this language was written (in the Greek alphabet) almost exclusively for the purpose of cursing whosoever might desecrate a tomb — the rest of the grave inscription being in Greek (1.Ge). The phrase ΑΥΤΟΣΚΕΟΥΑΚΕΡΟΚΑΓΕΓΑΡΙΤΜΕΝΟΣ<sup>101</sup> is taken to mean something like 'himself and his children (?) accursed (or branded)'; a comparable phrase from a Greek inscription, found in Phrygia, reads

(Calder, *CoInNePh*, 165) KATHPAMENOSHTΩ 'accursed be  
ΑΥΤΟΣΚΑΙΤΕΚΝΑΑΥΤΟΥ himself and his children'.

Both Calder and Haas (*PhSp*, 60) consider the Phrygian form ΑΥΤΟΣ to be influenced by the Greek; but I cannot follow the implication that except for Greek influence it would have been somehow different from [autos]. After all, the -ΟΣ ending for the nominative singular occurs also in ΓΕΓΑΡΙΤΜΕΝΟΣ and several other Phrygian participles, none of which agree in their root with anything Greek (Haas, 222); and ΑΥΤ- as the base of the pronoun differs only

the ox, and the smaller species, the sheep or the goat, respectively — are grammatically masculine, even though they may well refer to a female, as the Septuagint understood in this passage: καὶ μόσχον ἢ πρόβατον, αὐτὴν καὶ τὰ παῖδια αὐτῆς οὐ σφάξεις<sup>98</sup>, etc. (αὐτὴν and αὐτῆς being fem., notwithstanding the neuter gender of πρόβατον; μόσχον, properly 'calf', is either masc. or fem.).

<sup>98</sup> ἐξωλέθρευσαν αὐτὴν καὶ ὅσα ἐν αὐτῇ<sup>99</sup> 'and they destroyed her and as much as [was] in her'.

<sup>99</sup> In Biblical Hebrew this would be \*{ʔo(ʷ)ṯóʷ wəʔeṯ-hammamloṣṣā}†.

<sup>100</sup> This would be {ʔo(ʷ)ṯóm wəʔeṯ-bāne'hém}†.

<sup>101</sup> Calder, *CoInNrPh*, 181. Another inscription, in very poor lettering (183), has ΑΤΟΣ<sup>101</sup> instead of ΑΥΤΟΣ.

in spelling from what we find in earlier Phrygian with distinctly Phrygian endings: FENAFTYN:AFTAZ:MATEPEZ<sup>102</sup> 'for himself [and?] for his (?) mother' — AY and AF being equivalent renderings of the diphthong [au]. Thus

Phrygian FENAFTYN is clearly cognate  
to the rare Greek dative <sup>1</sup>λυ <sup>2</sup>αυτῶν<sup>102</sup> (Hesiod, fr. 11 Rzach;<sup>102</sup>  
FINAYTOI<sup>103</sup> in the Doric of Gortyn<sup>103</sup>).

Our understanding of Phrygian is, at best, imperfect. If more texts come to light, we may reasonably hope that Phrygian will bring out some further links between Greek and Hebrew.<sup>104</sup>

<sup>102</sup> Quoted from a scholium on Apollonius, *Argonautica* 4.57. The problematical Phrygian letter Z is tentatively interpreted as [j] in AFTAZ:MATEPEZ (elsewhere often as [z]); if so, MATEPEZ would correspond almost exactly to the Doric Greek dative μᾶτερ<sup>1</sup> (Attic-Ionic μητρ<sup>1</sup>, also μητέρ<sup>1</sup> in Homer's Ionic; Sanskrit मा त्रे<sup>1</sup> {mātrē}, the final vowel being rather a diphthong [-eɪ]); see Haas, 194-197. Günter Neumann suggests that AFTAZ:MATEPEZ could mean 'für die Mutter allein'; *Phrygisch und Griechisch* (Österreichische Akademie der Wissenschaften, philosophisch-historische Klasse, Sitzungsberichte, 499. Band; Wien, 1988), 11.

<sup>103</sup> M. Guarducci, *Inscriptiones Creticae*, IV (Roma: Libreria dello Stato, 1950), 51.9, 72.2.40 (pp. 109-110, 128-129 and foldout facing p. 142).

<sup>104</sup> Haas (103-104) conjectured that ΔΑΔΙΤΙ NENYEPIA<sup>1</sup> in a bilingual grave inscription means 'amitae Nenyeria' (= 'to Aunt N.'), on the basis of an etymology: "zu *daditi* aus \**dhēdhid-i* vergl[eiche] gr. τῆθιδ-ι < \*θηθιδ-ι 'Tante'; and I would add the Hebrew <sup>1</sup>דָּדִי<sup>1</sup> {dōd ɔ̄i|ɔ̄} 'his aunt' (<sup>1</sup>דָּדִי<sup>1</sup>† {dōd ɔ̄i|i<sup>1</sup>} 'my aunt'). However, in *Monumenta Asiae Minoris Antiqua*, IV (Manchester University Press, 1933), 18 (p. 7 and pl. 14), the editors — W. H. Buckler, W. M. Calder, W. K. C. Guthrie — had already called attention to the Greek parallel

TH ΙΔΙ  
ΑΓΥΝΑΙΚΙΝΕΥΕΡΙΑ 'to [his] own wife N.'

The fundamental meaning of the Phrygian family term was probably neither 'aunt' nor 'wife' but 'darling, beloved', as the Latin *amita*<sup>1</sup> 'aunt' (on the father's side) was at first merely the perfect passive participle of the verb *amā*<sup>1</sup> 'love' (later superseded as a participle by *amāta*<sup>1</sup>), and somewhat similarly in Hebrew the masculine <sup>1</sup>דָּדִי<sup>1</sup>, <sup>1</sup>דָּדִי<sup>1</sup> {dō(ʷ)d|i<sup>1</sup>} can be either 'my uncle' or — in the mouth of a girl — 'my darling, my sweetheart' (Jer. 32:9, Cant. 2:3, etc.).

Gary Rendsburg brings in also the Arabic <sup>1</sup>عم<sup>1</sup> {ʿamm|un} 'uncle' (on the father's side). The feminine in the accusative case <sup>1</sup>عمة<sup>1</sup> {ʿammātun} 'aunt' (likewise on the father's side) is particularly close to the Latin accusative *amitam*<sup>1</sup>.

**3.Ej.** One very common Greek device for emphasis or contrast — 'αὐτὸς ὁ θεὸς<sup>✓</sup> 'the god himself' (or 'God himself'; Euripides, *Orestes* 668) — is more or less matched in post-Biblical but not in Biblical Hebrew:

אֵין אִישׁ וְאִתּוֹ הַיּוֹם אֵלָּא אוֹתוֹ הַיּוֹם {ʔeʷnuʷ ʔɔʷuʷr ʔelloʷ ʔoʷtoʷ hayyoʷm wəʔoʷtoʷ hɔʔiʷš} 'nothing is out of bounds [to Israelites] but the day itself [when a pagan performs a certain private ceremony] and the man himself' (ʿabdhodhah Zarah 1.3). In Greek 'the man himself' would be 'αὐτὸς ὁ ἄνθρωπος<sup>✓</sup> [autòs ho ántʰrōpos] (or 'αὐτὸς ὁ ἀνὴρ<sup>✓</sup>), and 'the day itself' 'αὐτὴ ἡ ἡμέρα<sup>✓</sup> [autē hē hēmērā] (although the compound word 'αὐθημερόν<sup>✓</sup> [autʰēmerón] 'the very day, the same day' is the usual expression).

Often the context favors an English rendering 'this' or 'this particular'; e.g.

הָיוּ בֵּית דִּין שֶׁל אֶחָד מִן הַשְּׁבִטִין וְעָשָׂה אוֹתוֹ הַשְּׁבִט עַל פִּיהֶם אוֹתוֹ הַשְּׁבִט הוּא חֵיב וְשָׂאָר כָּל הַשְּׁבִטִים פְּטוּרִים {hoʷruʷ bēʔ diʷn šel ʔeHɔḏ min haššəbɔʰtiʷn wəʔɔʰɔʰ ʔoʷtoʷ haššeβeT ʕal piʰhem ʔoʷtoʷ haššeβeT huʷ Hayyɔβ uʷšəʔar kɔl haššəbɔʰtiʷm pə-Tuʷriʷm} 'The court of one of the tribes has decided, and this tribe has done [it] upon their word — this (particular) tribe is culpable, and all the rest of the tribes are clear' (Horayoth 1.5). 'This man' in Greek is οὗτος [hou̯tos] ὁ ἄνθρωπος<sup>✓</sup>; 'this tribe' αὐτή [haútē] ἡ φυλή<sup>✓</sup>, since the Greek noun is feminine.

אֵין אִתּוֹ הַזֶּבַח לוֹ עָלָה לוֹ וְשָׂאָר כָּל הַזִּבְחִים עָלוּ לוֹ {ʔoʷtoʷ hazzeβaH luʷ ʕɔʰɔʰ loʷ uʷšəʔar kɔl hazzəbɔʰhiʷm ʕɔluʷ loʷ} 'This (particular) sacrifice has not gone up [i.e. counted] for him, but all the rest of the sacrifices have gone up for him' (Nazir 6.10[12]). It would be better translated τοῦτο [toúto] τὸ σφάγιον<sup>†</sup> (a neuter noun) than αὐτὸ [autò] τὸ σφάγιον<sup>†</sup> (cf. **2.Wa**), although the latter is closer phonetically. For the Greek demonstrative 'this' takes its initial consonant [ʰ/t] and the quality of the first half of the ensuing diphthong [ou/au] from the definite article:

[ou] if the article has a back-vowel [o] or [ɔ] (as in the dative τοῦτωι<sup>✓</sup> from τῶι<sup>✓</sup>),

but [au] if the article has an open vowel [a] or [ē] ([ā] in all dialects except Attic and Ionic; e.g. dat. fem. ταύτῃ/αὐ<sup>✓</sup> from τῇ/αὐ<sup>✓</sup>).

In the feminine singular the phonetic difference is the least; thus in **וְכֵן עִיר שִׁישׁ בָּהּ דְּבָר אוּ מְפֹלֶת אוֹתָהּ הָעִיר מְתַעֲנָה** {wāken ṣiʾr šeyyeš bōh dəbər ʔoʷ mappoʷlēt ʔoʷtōh hōṣiʾr mīṭṣannō<sup>h</sup>} ‘Likewise a city in which there is pestilence or collapse [of buildings], this (particular) city fasts’ (Taʿanith 3.4), {ʔoʷtōh hōṣiʾr} would be translated ἡ αὕτη [haútē] ἡ πόλις<sup>√</sup> ‘this city’, rather than αὕτη [autē] ἡ πόλις<sup>√</sup> ‘the city itself’, which is — however — slightly closer in sound to {ʔoʷtōh}.<sup>105</sup>

**3.Ek.** The relatively late appearance of this use of {ʔoʷtoʷ} and {ʔoʷtōh} in Hebrew suggests that it developed under Greek influence toward the end of the pre-Christian era, during the great spread of Hellenism. Conceivably it could have been current much earlier in colloquial Hebrew but altogether avoided by the Biblical writers for some stylistic motive; that, however, is improbable.<sup>106</sup> Its precursor in the Bible is a different noun {ṣēcēm} (literally ‘bone’, **1.Ci**), which is often used figuratively in one formula **הַיּוֹם הַזֶּה בָּעֵצָם הַיּוֹם** {bəṣēcēm hayyōʷm hazzē<sup>h</sup>} ‘on this very day’ (Lev. 23:28-30, etc.). Wherever {ʔoʷtoʷ hayyōʷm} is used in the Mishnah, the context is somewhat different; so we cannot flatly assert that the Biblical phrase is equivalent to the Mishnaic.

Was the Greek model αὐτό (neuter), αὐτός (masc.), αὐτή (fem.), or was it οὗτος (masc.), αὕτη (fem.)? It could have been both — not necessarily one to the exclusion of the other.

**3.EL.** For that matter, within Greek the etymology of the two pronouns is not clearly separate, although none of my predecessors has suspected a connection. They have been content to treat them under quite separate headings,

<sup>105</sup> Vocalized mss. of the Mishnah do not include accents, but no doubt the latter syllable was pronounced with stress just as in the Biblical {ʔoʷtōh}.

<sup>106</sup> As J. P. Brown says, “It is remarkable that the connection we have presumed between the Greek and the Hebrew continued to be felt into the Mishnaic period, so that the takeover of an idiom in the opposite direction [from Greek into Hebrew] was possible between words already cognate in the two languages.” Right before {ʔoʷtoʷ}, in the first Mishnah passage quoted in **3.Ej**, comes {ʔelloʷ} ‘but’, which is used only after a negative and has no Biblical Hebrew precedent. This is probably borrowed from the Greek ἀλλά<sup>√</sup>, or at least influenced by it (cf. the Arabic cognate **إِلَّا** <sup>√</sup> {illā}, **3.Fd**); for the Greek conjunction is most frequent after a negative. (To be sure, if this particular passage were translated into Greek, πλὴν<sup>√</sup> ‘except’ would be more idiomatic than ἀλλά.)



αὐτός and οὗτος; they note the lack of IE cognates but still posit a sort of compounding of a sequence of IE morphemes, whose semantic vagueness would permit nearly any possibility (see Frisk, *GrEtWö*, and Chantraine, *DiÉt LaGr*). I have stated my preference for deriving ἑαυτό or ἑαυτοῦ straight from a Semitic source close to the Hebrew {ʔoʷṯóʷ}, and probably ἑαυτή also from something close to {ʔoʷṯóh} (3.Ee-f). All the other Greek case-forms would have arisen from the absorption of ἑαυτό/ἑαυτοῦ/ἑαυτή into the Greek morphological system.

Furthermore, this borrowing in the prehistory of Greek could have led to the formation of the demonstrative ἑαυτή 'this' (nominative singular feminine), as well as the masculine οὗτος, the neuter τοῦτο, and the rest of the case-forms, by a merger of [Vut-] (not necessarily [aut-] at that stage) with the pronoun that is most familiar in classical Greek as the definite article, or rather with the first mora of it [CV̌].

The recessive accent of οὗτος, αὐτή, τοῦτο, etc. —

contrary to αὐτός, αὐτή, αὐτό — can be explained

(1) by positing that normally, as an initial pronoun,

ʔoʷ (masc.), ṯḡ (fem.), ʔó (nt.) was accented like the Skt. cognates  
स ṽ {sá}, सा ṽ {sā}, त त् ṽ {tát};<sup>107</sup>

(2) by noting the enclisis or loss of accent that affected the ἑαυτ- forms when non-initial and unemphatic, even as early as Homer. For what most manuscripts give as κόψε γάρ ἑαυτὸν ṽ 'for he struck him' (*Iliad* 12.206)

should be κόψε γάρ ἑαυτον, according to the best of the early Byzantine codices<sup>108</sup> and Apollonius, *De pronomine* 34.4-9 (Schneider).<sup>109</sup>

The circumflex accent on a diphthong was originally written ὀϚ — i.e.

<sup>107</sup> In the most widely used accentual notation for early Sanskrit texts, the pitch-contour is shown — somewhat paradoxically — by leaving the syllable with raised pitch unmarked, but marking a horizontal stroke under the preceding syllable with low pitch and a vertical (or slightly diagonal) stroke above the following syllable, where the pitch descends (examples in 3.Aa, etc).

<sup>108</sup> *Homeri Ilias cum scholiis: Codex Venetus A, Marcianus 454 phototypice editus* (preface by D. Comparetti; Leiden: Sijthoff, 1901), 158<sup>v</sup>.

<sup>109</sup> Likewise in other surviving specimens of the pre-Byzantine system of accents; see my article, "The Accentuation of the Boeotian Dialect, according to the Berlin Papyrus of Corinna," in *Boiotika: Vorträge vom 5. Internationalen Bötien-Kolloquium*, ed. by H. Beister and J. Buckler (Münchener Arbeiten zur Alten Geschichte, Band 2), 20-21.

raised pitch on the first half, lowered on the second.<sup>110</sup> So the emphasis in *τούτος* and *τούτο* came on the initial pronoun; the rest of the compound word was secondary, being a semantic reinforcement to what was already expressed by [ho-] or [to-]. In *αὕτη*, however, and most of the other case-forms, the phonological restrictions upon recessive accent determine that the raised pitch must come in the mora immediately before the last syllable, whenever the vowel of that last syllable is long; in this word the accented mora is [-ú-] — [ha-] is too far ahead of [-tē].

**3.Em.** Whether or not my proposed etymology of the Greek demonstrative *τούτος*, *αὕτη*, *τούτο* 'this' is right, certainly the sequence *ὁ αὐτός*, *ἡ αὕτη*, *τὸ αὐτό* was used in classical Greek to mean 'the same'. In Homer it is rare:

accusative, *τὴν αὐτὴν ὁδὸν* 'the same way/route' (*Il.* 6.391) [55]

genitive, *ἐκ δὲ τοκῆων/τῶν αὐτῶν* 'from the same parents' (*Od.* 7.54-  
τῆς αὐτῆς ἕνεκ) *ἀγγελῆς* 'for the sake of the same message' (16. 334)

dative, *ἡματι τῷ αὐτῷ* '(on) the same day' (7.326).

The only nominative occurrence in Homer, *ὥπτος ἀνὴρ* 'the same man' (*Il.* 5.396), displays in the initial long vowel [ῶ] a contraction of [o + a].<sup>111</sup> Con-

<sup>110</sup> Medieval penmanship tended to distort the ancient evidence, in spite of praiseworthy efforts by the Byzantine scholars to keep up the heritage from antiquity. Besides that, the ancient notation, even at its best, left too much room for ambiguity, particularly in regard to the grave accent — clearly it stood for something other than a raised pitch — but whatever suprasegmental feature (or features) it did stand for, remains unclear (see *InEuSeLa*, 183-186).

The convention (medieval rather than ancient) of not writing a grave accent on four forms of the definite article — masc. sing. nominative *ὁ*, fem. sing. nom. *ἡ*, masc. pl. nom. *οἱ*, fem. pl. nom. *αἱ* — serves to distinguish these from four forms of the relative pronoun: *ὃ* (neuter sing. nom./accusative), *ἣ* (fem. sing. nom.), *οἷ* (masc. pl. nom.), *αἷ* (fem. pl. nom.); and the relative pronoun may indeed have been pronounced in some way more strongly. But the other forms of the definite article, which begin with *τ*- — such as *τὸ* (neuter sing. nom./acc.) — are written with the same accent as their counterparts in the relative pronoun (which all begin with [h-]); for at least in Attic the initial consonant is enough to distinguish all but those four. I cannot escape the conclusion that the vowel [o] in both the masc. *ὁ* and the neuter *τὸ* — e.g. *ὁ πονηρός* 'the evil one' and *τὸ πονηρόν* 'the evil (thing)' — was pronounced the same, with no suprasegmental difference such as the grave accent on *τὸ* might suggest.

<sup>111</sup> The rare diphthong *ωυ* is definitely established in this verse. But the superscript <sup>ι</sup> (indicating no [h-]), although attested by the best extant mss., is somewhat more questionable; for in regard to such subsidiary marks the Byzantine practice rested upon a less ancient tradition.

In other Homeric passages there is no definite article although the sense calls for 'the

tracted forms in Attic, such as αὐτός<sup>1</sup> (masc. sing.; better written ἑαυτός) and τᾱυτό<sup>1</sup> (neuter sing., besides the anomalous τᾱυτόν<sup>1</sup>), are frequent. It is hard to tell whether the uncontracted ὁ αὐτός, τὸ αὐτό, etc., was mainly limited to formal literature.

οὗτος, αὕτη, τοῦτο was doubtless well established with the meaning 'this' or 'this one' (more emphatic than ὁ, ἡ, τό 'this' or 'he/she/it') before the combination ὁ αὐτός, ἡ αὕτη, τὸ αὐτό developed with the meaning 'the same'.<sup>112</sup> In no way did one inhibit the use of the other. Indeed, the further combinations ὁ αὐτὸς οὗτος<sup>1</sup> 'this same one, this very [man]' and the like occur quite often in Attic — the neuter collective τᾱὐτὰ ταῦτα<sup>1</sup> 'these same things' being especially favored by Plato.<sup>113</sup>

**3.F. Sem. (Heb.) {hazzé<sup>h</sup>} : IE (Gr.) ὅδε (ὁ δέ) 'this'**

**3.Fa.** The Hebrew word for 'this' — הַזֶּה<sup>1</sup> {zē<sup>h</sup>} (masc. sing.) — is prefixed with the definite article when it accompanies a noun that is so prefixed; e.g. הַזֶּה הַשִּׁנַּיִם<sup>1</sup> {hoʔiʔs hazzé<sup>h</sup>} 'this man' (Jer. 38:4, etc.). In the Septuagint it is rendered ὁ ἄνθρωπος οὗτος<sup>1</sup>, but the Greek language would have allowed the alternative ὁ ἄνθρωπος ὅδε<sup>1</sup>.<sup>114</sup> English and most other languages, including Hebrew, translate οὗτος and ὅδε alike, but there is a difference in Greek: ὅδε calls attention to one just arriving, or not noticed or mentioned before, whereas οὗτος is preferred otherwise.<sup>115</sup> The various

same': αὐτὴν ὁδὸν<sup>1</sup> 'the same way/route' (*Od.* 8.107, 10.263, 16.138),

αὐτὰ κέλευθα<sup>1</sup> 'the same paths' (*Il.* 12.215);

ἵπποι δ' αὐταὶ ἔσσι παροίτεραι αἰ τὸ πάρος περ<sup>1</sup> 'the same horses (fem.) are in front that [were] before' (23.480).

<sup>112</sup> {to-to we-to}<sup>1</sup> has been read on a Linear B tablet from Pylos, centuries earlier than Homer, and interpreted as 'this year'; Ventris – Chadwick, *DoMyGr*, 176, 587. In Homeric Greek this might be equivalent to \*τοῦτο (f)έτος; however, we would expect ?{to-u-to} according to Ventris and Chadwick's rules, and Chadwick in this second ed. (after the death of Ventris) interprets {to-to} as "\*tod-tod (Vedic tat-tad)".

<sup>113</sup> This is nearly of a piece with what we non-Greeks might consider redundant in reflexive constructions such as αὐτὸς ἑαυτὸν προαγωγέων<sup>1</sup> 'prostituting himself' (Aristophanes, *Nubes* 980), αὐτὸς σεαυτὸν αἰτιῶ<sup>1</sup> 'blame yourself' (*Ranae* 630).

<sup>114</sup> ὅδε is rare in the Septuagint and used only to translate הַזֶּה<sup>1</sup> {hinne<sup>h</sup>} 'lo' or 'behold' (which is more often rendered by the Greek imperative ἴδου<sup>1</sup> 'see, look').

<sup>115</sup> See my articles, "The Connective 'Particles' of Classical Greek Discourse," *CUNY Forum: Papers in Linguistics*, 5-6 (1979-80), 56-57, and *DeAr*, 1-15. The contrast between the

uses of -δε (some of them written as a separate word δεῖν) support my conjecture that this demonstrative syllable would accompany a gesture of the head towards wherever the speaker was moving on in his discourse.<sup>116</sup>

The IE etymology of ὅ is quite clear (3.EL), and that of -δε tolerably so (Pokorny, *InEtWö*, I, 181, 978-979). But the combination appears peculiar to Greek; so it becomes especially worthwhile to explore the similarity to the Hebrew combination. In both languages the demonstrative could easily attend a cognate noun; e.g.

ὁ ταῦρος ὅδεῖ 'this bull',  
הַזֶּה הַשֹּׁרֶן {haššóʔr hazzéʔ} (cf. 1.Ac).

The match would be closest, however, with a noun of the mercantile vocabulary that Greek manifestly borrowed from a Semitic source (2.AAc):

ὁ ἄρραβών ὅδεῖ 'this pledge/earnest'  
הַזֶּה הָעֶרְבֹן {hoʔerobōʔn hazzéʔ}.<sup>117</sup>

**3.Fb.** The sound of [hóde] is fairly close to [hazzé], although the double voiced sibilant is at several removes from the single voiced plosive. The vowel in the Hebrew article -ה־ undergoes considerable variation:

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two demonstratives is most easily recognised in narratives that frame a speech; e.g. Ἀρτάβανος ... ἔλεγε τάδε· ὦ βασιλεῦ 'Artabanus ... said this [i.e. the following]: "O king,"' etc., for three pages (Herodotus 7.10.1), then Ἀρτάβανος μὲν ταῦτα ἔλεξεῖν 'Artabanus said this' (or 'That is what Artabanus said', 7.11.1).

In poetry the choice between the given forms of the two demonstratives — ὅδε (ὅδ') or οὗτος, τάδε (τάδ') or ταῦτα (ταῦτ'), etc. — is affected by metrical motives.

<sup>116</sup> Cf. 1.Fg. However, the accented suffix, attached to οὗτοστί, ὅδτί 'this here', and other demonstratives in colloquial Attic (not attested in other dialects), probably accompanied pointing with the hand — a more vigorous or deliberate gesture.

<sup>117</sup> Only the quality of the vowel in the first syllable of the noun itself [a: e] deviates from normal correspondences in loan-words. However, the full vowel [e] before [r] (instead of its being reduced to a vocalic glide at such a distance from the accented final syllable) does constitute a normal Hebrew treatment of what appears in Greek as [Vrr-]. The Greek variant ἄραβών, besides ἄραβώ, may reflect a variable pronunciation of the consonant in the Semitic source-language. From Greek the noun went on into Latin — without the definite article, of course: *arrabō* (accusative *arrabōnem*, dative *arrabōnī*), often shortened to *arra*. Both the Hebrew and the Latin passages, though not the Greek, show the term specifically in bargaining with a prostitute or a pimp. See Brown, *LiCo*, 174-178.

For an old but still important treatment, see Karl Brugmann, *Die Demonstrativpronomina der indogermanischen Sprachen: Eine bedeutungsgeschichtliche Untersuchung* (Abhandlungen der philologisch-historischen Klasse der Königl. Sächsischen Gesellschaft der Wissenschaften, 22. Band, N° 6; Leipzig, 1904), especially 20-32.

{hɔ|ʔɣʕ} 'the man',

{hɛ|ʕɔnɔn} 'the cloud',

but this depends strictly upon the phonetic environment — whereas in Greek the difference is semantic: ὁ [ho] μόσχος<sup>√</sup> (masc.) and

ἡ [hē] μόσχος<sup>√</sup> (fem.) both = 'the calf',

but the article conveys the distinction of sex. The correspondence in the second syllable is weakened when we go beyond the masculine singular; for {zé<sup>h</sup>} is not used in the feminine nor in the plural. The feminine is illustrated by

הָאֶרֶץ הַזֹּאת<sup>√</sup> {hɔʔɣɛc hazzóʔt} 'this land' (Num. 32:5, etc.= ἡ γῆ ἥδε<sup>√</sup>, Herodotus 6.107.4).

The position AFTER the noun is obligatory in Hebrew, but optional in Greek: the same author has both

ὅδε ὁ λόγος<sup>√</sup> and ὁ λόγος ὅδε<sup>√</sup> 'this word/story' (Her. 4.16.1, 6.86.8= הַדְּבָר הַזֶּה<sup>√</sup> {haddɔbɔr hazzé<sup>h</sup>}, Deut. 22:26, etc.).

The repetition of the article {hɔʔɣʕ hazzé<sup>h</sup>, haddɔbɔr hazzé<sup>h</sup>, hɔʕɛɔbɔʔn hazzé<sup>h</sup>, etc., treats the demonstrative just like any adjective (including a participle):

הָאִישׁ הַחֲדָרִי<sup>√</sup> {hɔʔɣʕ hɔʔaHäróʔn} 'the later husband' (Deut. 24:3,translated ὁ ἀνὴρ ὁ ἑσχάτος<sup>√</sup>);הָאִישׁ הַשֹּׁכֵב עִמָּהּ<sup>√</sup> {hɔʔɣʕ haššɔkéb ʕimmóh} 'the man that lay[more literally 'the man, the one lying'] with her'<sup>118</sup> (22:9,(translated ὁ ἄνθρωπος ὁ κοιμηθεὶς μετ' αὐτῆς<sup>√</sup>).

In Greek — ὁ ἄνθρωπος ὅδε or ὁ ἀνὴρ ὅδε<sup>s</sup> 'this man, this husband' — the second [hɔ] differs accentually from the first, and [-de] is not inflected for gender or number. And whereas Hebrew has only (Joshua 19:40)

הַגּוֹרֵל הַשְּׁבִיעִי<sup>√</sup> {haggoʔrɔl haššɔbiʔɣɣ} for 'the seventh lot',Greek allows either ὁ κληρὸς ὁ ἑβδομος<sup>√</sup> — as in the Septuagint —or ὁ ἑβδομος κληρὸς<sup>s</sup>, which is indeed the more

frequent construction in texts composed originally in Greek.

<sup>118</sup> Given this verb, Biblical Hebrew idiom does not admit the alternative {ʔittóh} for 'with her' (3.Ed), but it does make a distinction between {ʕimmóh} and {ʔoʕʔittóh} that we can best approximate through the vulgar use of the verb 'lay' as either intransitive or transitive:

וַיִּשְׁכַּב עִמָּהּ<sup>√</sup> {wayyiskáb ʕimmóh} 'and he laid with her' (II Sam. 12:24),וַיִּשְׁכַּב אֹתָהּ<sup>√</sup> {wayyiskáb ʔotóh} 'and he laid her' (i.e. by force, Gen. 34:2).

**3.Fc.** A likely Arabic cognate appears in هَذَا الْقُرْآنُ {hāḏā (?)lqurʾānu} ‘this Qurʾān’ (6.19, etc.; etymologically ‘this reading’), with the demonstrative PRECEDING the noun — unlike the syntax of Hebrew. Also the Arabic definite article {(?)l-}, prefixed to the noun, appears to be morphologically unrelated to the Hebrew as in הַקֹּרֵאן {haq|qoréʾ hazzé<sup>h</sup>} ‘this reader’ (**3.Fe**). But the position of {hāḏā}, before the noun,

does recall that of ὁδε in ὁδε ὁ λόγος ‘this word’,  
whereas ὁ λόγος ὁδε adheres to the same order as  
in Heb. {haddōḇōr hazzé<sup>h</sup>}.

So the freedom of position in Greek bridges (as it were) the opposite constraints of the two Semitic languages. An ordinary attributive adjective, however, follows its noun in Arabic as in Hebrew: [cess’ (85.11).

ذَلِكَ الْفَوْزُ الْكَبِيرُ {ḏālika (?)lfawzu (?)lkabīʾru} ‘that is the great suc-

The Arabic feminine is exemplified by

هَذِهِ الْحَيَاةُ {hāḏihi (?)lHa-yā(ʾ)tu} ‘this life’,<sup>119</sup> which could be rendered in Greek ἡδε ἡ ζωὴ<sup>s</sup> or — with the reinforcing suffix -τί

(**3.Fa**, note 116) — ἡδὲ ἡ ζωὴ<sup>t</sup> ‘this here life’.

In Arabic morphology {-ihi} does not otherwise distinguish the feminine from the masculine, although the suffix {-iʾ}, added to the masculine, forms the feminine singular imperative in Arabic as in other Semitic languages (**2.Bd**). The sound of {hāḏihi} is even closer to the Greek [hēdī] than the transcription indicates; for the Arabic long vowel in the first syllable is very widely pronounced [æ], rather than [ā] as required by normative treatises, and on the Greek side the Ionic η may have been [æ] in some of the Ionian territory.<sup>120</sup>

<sup>119</sup> Qurʾān 40.39[42]; cf. **2.Ea**, note 48.

<sup>120</sup> \*ḥdī \*{hāḏī} ‘this here’ in non-Ionic dialects is possible; it would agree very neatly with the normative Arabic pronunciation [hāḏihi]. The suffix -τί does not appear anywhere in the limited dialectal corpus; even in the huge Attic corpus it is limited to literature with a colloquial tone — comedies, dialogues, some courtroom speeches. From a Megarian character in Aristophanes’ comedy (*Ach.* 769, 788) we do get examples of ἡδε<sup>v</sup> instead of the Attic-Ionic ἡδε, but none of -τί.

I know of no evidence for the letter H being pronounced [æ] rather than [ē] in Athens (where on the whole we have far more phonetic information than for any other place in ancient Greece); pan-Hellenic words with η such as μῆ<sup>v</sup> ‘not’ were spelled thus in Attic no less than words whose η was limited to Attic and Ionic. But on the nearby Ionian island of Ceos

The rare Syriac word ܗܕܐ<sup>h</sup> {hod<sup>h</sup>} 'this', and especially its feminine ܗܕܐ<sup>h</sup> {hode<sup>h</sup>} (Payne Smith, *CoSyDi*, 100), must be phonetically the closest thing in any language to Greek ὅδε [hóde],

which — to be sure — is masculine, so that for the most perfect semantic match we must take ὁδ<sup>h</sup> [hód] (the final vowel being elided before a word that begins with a vowel). Since Greek had immense cultural influence upon this relatively late Aramaic dialect (above all through the Christian religion), I can well conceive of the syntax of this Syriac demonstrative being affected by a Greek model (cf. 3.Ej). But I must leave it to the research of others to determine whether any Syriac translators methodically rendered the Greek demonstrative by their own similar-sounding demonstrative.

**3.Fd.** {hāḏā} is also used, like ὅδε, as the subject of a "nominal" sentence: ܗܕܐ ܐܝܠܐ ܣܝܗܪܘܢ ܡܒܝܢ ܡܝܢ {hāḏā ʔillā siHrun mubi<sup>h</sup>n un} 'this [is] but obvious magic' (Qurʾān 6.7) : ὁδ<sup>h</sup> ἑστὶν αἰτιος<sup>h</sup> 'this one is responsible' (Aristophanes, *Plutus* 135).<sup>121</sup>

So too the feminine {hāḏihi}:

ܗܕܐ ܬܕܝܚܐ {hāḏihi taḏkiratun} 'this [is] an admonishment' (76.29);

cf. ἡδὲ μὲν οὖν κεφαλῇ περιθετοσ<sup>h</sup> 'Well, this here [is] a put-on head' (i.e. a mask with wig; Aristophanes, *Thes.* 257-258).

To be sure, the -ī in Greek, unlike the Arabic {-ihi}, has nothing to do with gender.

In Hebrew 'this' as the subject of the sentence is {zé<sup>h</sup>}, to the exclusion of {hazzé<sup>h</sup>}; e.g. ܗܕܐ ܗܝܒܐܝܬ {zé<sup>h</sup> hébel} 'this [is] vanity' (Eccl. 6:2).

ὅ δέ<sup>h</sup>, accented differently from ὅδε and therein a little more like {hazzé<sup>h</sup>}, can occur, however, only in an initial position: λαβόντες δέ αὐτὸν οἱ Πέρσαι ἤγαγον παρὰ Κῦρον. ὁ δέ συννήσας πυρὴν μεγάλην ἀνεβίβασε ἐπ' αὐτὴν τὸν Κροῖσον<sup>h</sup> 'The Persians, upon capturing him

the same letter was restricted chiefly to the latter type of word — e.g. ΜΗΤΕΡΑ<sup>h</sup> 'mother' (accusative), i.e. the Attic-Ionic μητέρα, in contrast to ματέρα<sup>h</sup> of other dialects — whereas the same inscription (*InGr* 12.5.1.593) has ΜΕ<sup>h</sup> 'not', Ε<sup>h</sup> 'or' (pan-Hellenic ἤ<sup>h</sup>), etc. So H in Ceos stands for some more open sound, [æ] or a diphthong [eH] (cf. 2.f) and Levin, *Ni In*, 163-164).

<sup>121</sup> We could just as well write ὅδε ἑστὶν αἰτιος, since the short vowel ε can be elided at the end of any word and at the beginning of ἑστει(ν).

[i.e. Croesus], brought him to Cyrus. This one [i.e. Cyrus], upon heaping up a great pyre, made Croesus mount it' (Herodotus 1.86.2).  $\tau\omicron$   $\delta\epsilon$  is used very often in this fashion to shift the focus to a subject different from the one in the previous sentence.

**3.Fe.** The etymology of  $\tau\omicron$  can be separated from that of  $-\delta\epsilon$ , although the combination is what makes it most relevant to bring in the Hebrew {hazzē<sup>h</sup>} and the Arabic {hāḏā}. The most exact IE counterpart to  $-\delta\epsilon$  is Avestan {vaēsmən|da} : Homeric (F)οἶκον δέ<sup>v</sup>, (F)οἶκαδε<sup>v</sup> 'homeward' (cf. **1.Ea,f**), where everything in the Avestan word except the {-m-} is morphologically compatible with the Greek. The Indo-Europeanists on the whole treat the meaning of  $-\delta\epsilon$  as fundamentally or originally deictic in the '-ward' suffix as well as in  $\tau\omicron\delta\epsilon$ , although J. T. Hooker argues to the contrary.<sup>122</sup>

On the Semitic side, {zē<sup>h</sup>} — with its feminine  $\overline{\text{נִסְיָ}}^{\text{v}}$  {zō<sup>h</sup>} ( $\overline{\text{נִיָּ}}^{\text{v}}$  {zō<sup>h</sup>} in Ecclesiastes, rare otherwise in Biblical Hebrew) — has the following approximate Sem. cognates:

	masculine	feminine
Arabic	إِذَا <sup>v</sup> {ḏā}	هِيَ <sup>v</sup> {ḏi <sup>v</sup> }
Geʿez	{zə} <sup>v</sup>	{zā} <sup>v</sup>
Ugaritic	{d} <sup>v</sup>	{dt} <sup>v</sup> or {d} <sup>v</sup> (cf. <b>1.Cc</b> )
Aramaic	{d/ḏēk} <sup>v123</sup>	{d/ḏōk} <sup>v</sup>

In Aramaic the morpheme {-k} reinforces the demonstrative (**3.Ga**):

$\overline{\text{בֵּית־אֱלֹהִים}}^{\text{v}}$  {be<sup>v</sup>t-ʔēlōh<sup>h</sup> dēk} 'this/that (masc.) house of God',

$\overline{\text{קִירְיָתִי}}^{\text{v}}$  {qiryāt<sup>v</sup> ḏōk} 'this/that (fem.) city' (Ezra 4:19,

6:8, etc.). A cognate suffix appears in the Arabic إِذَاكَ<sup>v</sup> {ḏāka} (masculine,

<sup>122</sup> "Postpositive  $-\delta\epsilon$ ," *InFo*, 70 (1965), 162-171. But a key point of his is weak (163): "οἶκόνδε has no deictic function and always expresses or implies motion to a place.  $\delta\epsilon$  has nothing to do with motion..." In the Attic use of  $-\delta\epsilon$  '-ward' I must state a major restriction, which implies that  $-\delta\epsilon$  was indeed associated with turning the head in a certain direction (**3.Fa**): the only places that take  $-\delta\epsilon$  are pretty near Athens — e.g. Μέγαράδε<sup>v</sup> 'to Megara' but εἰς Κόρινθον<sup>v</sup> 'to Corinth' (further away). The speaker had to be in the habit of setting out for the place, or at least of seeing others do so; accordingly he used  $-\delta\epsilon$  as a GESTURING particle.

<sup>123</sup> The Aramaic {d} is phonetically identical with the established ancient pronunciation of  $\delta$  in Greek, which — however — changed gradually to the fricative sound [ð] that is universal in modern Greek. Cf. the Syriac {hoḏ, hoḏē<sup>2</sup>} (cf. **3.Fc**).



but closest to the Aramaic feminine). The feminine is تَاكَ<sup>√</sup> {tāka} or تِيكَ<sup>√</sup> {ti<sup>y</sup>ka}, at least in classical Arabic.<sup>124</sup>

**3.Ff.** The deictic sense of -δε in Greek is thus related to Semitic counterparts at least as clearly as it is to IE. Whether, beyond that, the deictic morpheme — both Semitic and IE — should be compared with the brief Egyptian noun {ʒ<sub>s</sub>}<sup>√</sup> 'man' (fem. {ʒ<sub>s</sub>.t})<sup>√</sup> 'woman'), is a worthwhile speculation.<sup>125</sup> The phonetic parallel to the Hebrew masculine {zē<sup>h</sup>} and feminine {zō<sup>h</sup>t} is particularly attractive, and nothing on the semantic side prohibits it. The Egyptian noun became a sort of pronoun 'someone, anyone' (Gardiner, *EgGr*, 79) — an indefinite, however, rather than a demonstrative.

In the development of languages over many generations, what starts out as a noun may eventually function only as a pronoun. So in Semitic and even in IE prehistory some noun — perhaps an exact cognate of the Egyptian {ʒ<sub>s</sub>}, or borrowed from it — began to devolve into a demonstrative. But since {ʒ<sub>s</sub>} disappeared before the period of Coptic, this idea lacks one kind of corroboration.

**3.Fg.** The etymology of the first half — <sup>τ</sup>ό in Greek — stands on firmer ground. Its IE cognates — Sanskrit {śá} (**3.EL**), Old English *se*<sup>√</sup>, etc. — show the normal phonetic correspondence: The initial consonant was weakened from [s-] to [h-] (rather than the opposite) in the prehistory not only of Greek but of Iranian; for the Avestan is {hō<sup>√</sup>} or {hā<sup>√</sup>} (masc.),

{hā<sup>√</sup>} (fem.; Jackson, *AvGr*, 117-

118; Pokorny, *InEtWö*, I, 978-979). However, to clarify the semantic or functional development such as we found in <sup>τ</sup>ο λόγος <sup>τ</sup>όδε 'this word' and <sup>τ</sup>ο κλη-ρος <sup>τ</sup>ο ἑβδομος 'the seventh lot', the early IE connections will scarcely serve; for neither in Sanskrit nor in the Iranian dialects did the cognate demonstrative become — even approximately — the definite article.

<sup>124</sup> تِيكَ<sup>√</sup> {ti<sup>y</sup>ka} is stigmatized as "vulgar".

<sup>125</sup> Cohen, *EsCo*, 158, also brings in the Berber "ɨd, ayd, ad, relatif démonstratif." Gary Rendsburg, however, prefers to connect the Egyptian word with the Akkadian relative or determinative {ša}<sup>√</sup> (originally accusative; also in the earlier period {šu}<sup>√</sup> nominative and {ši} genitive; see Von Soden, *GrAkGr*, 46-47, 191-193, 216-220), and with its Hebrew cognate -שׁוֹ<sup>√</sup> {še-}.

Accordingly the model for the Greek definite article came from a non-IE source, namely Egyptian — whether directly or indirectly.<sup>126</sup> Around or even before 1600 B.C., when very few other languages were written at all, the Westcar Papyrus shows the old Egyptian demonstrative {p3}√ (masc. sing.)  
 {t3}√ (fem. " )  
 {n3}√ (plural)

being used already as just the article in a colloquial narrative. In later centuries the articular function became very frequent. Gardiner (*EgGr*, 87) sketches the development: “*m t3 3t* ‘at this moment’ ... *m p3 hrw* ‘on this day’, ‘today’<sup>127</sup> .... Elsewhere, however, they have merely the force of the **definite article** [his emphasis], their regular use in Late Egyptian and onwards. So already before Dyn[asty] XVIII: ... *n3 n ʾt nty m p3 mhr* ‘the corn which is in the storehouse’.”

The morphological (as distinct from syntactical) contact between Egyptian and Greek appears in the Egyptian FEMININE {t3} and the Greek NEUTER τὸ.<sup>128</sup> As Egyptian — like Afro-Asiatic in general, including Semitic — dis-

<sup>126</sup> Detlev Fehling, “The Origins of European Syntax,” *Folia Linguistica Historica*, 1/2 (1980), 359-361; Burkhart Kroeber, *Die Neudgyptizismen vor der Amarnazeit* (Tübingen dissertation, 1970), 13-30 (I thank my colleague, Prof. Gerald Kadish, for lending me Kroeber’s detailed analysis of the definite article in late Middle Egyptian and its forerunners as early as 2300 B.C.). — In Coptic the article has for the most part been reduced phonetically to a one-consonant prefix: π-√ (masc. sing.), τ-√ (fem. sing.), Ν-√ (pl.) — all three subject more or less to be assimilated to the initial consonant of their noun.

<sup>127</sup> Cf. Hebrew יָמִינִי√ [hayyō‘m] ‘the day’ (Gen. 18:1, etc.) or ‘today’ (19:37, etc.).

<sup>128</sup> On the uncertain sound of the hieroglyph transcribed {3} see Introduction, note 15. By this period its original value as a consonant may have suffered some weakening; so it does not contradict the etymological proposition that this Egyptian demonstrative, functioning now as the article, sounded to an early or prehistoric Greek like a demonstrative in his own language — from proto-IE \*tod, but with the final consonant already blurred, perhaps lingering as a weak glottal stop. — Outside of the nominative case, all forms of the Greek article, regardless of gender, begin with τ-. So there were correspondences between the Egyptian feminine and the Greek feminine; e.g. {t3 drt}√ ‘the hand’ : τὴν χεῖρα√ (accusative).

A parallel to the feminine singular form of the article in ancient Egyptian has been found in Beja, a Cushitic language spoken in part of modern Egypt — e.g. *tū-būr*√ ‘the earth’; Werner Vycichl, “Der bestimmte Artikel in der Bedja-sprache: Seine Beziehungen zum Ägyptischen und Berberischen,” *Le Muséon*, 66 (1958), 373-79. Vycichl also makes brief mention of demonstratives in Tuareg (and other Berber dialects) that are cognate to masculine as well as feminine forms of the Beja article. Trombetti, *SaGI*, I, 302, 328-329, points to further cognates, especially “Ugrofinnico *tā* questo [‘this’, masculine or rather genderless] = Indo-europeo e Semitico *tā* questa [‘this’, feminine]”.

tinguishes feminine from masculine gender but has no neuter, it often uses the feminine form for what would be neuter from an IE point of view (cf. **2.Jg, Kb**). Now in Homeric Greek — dating, very roughly, from the tenth or ninth century B.C. — the articular use of τὸ, and of the masculine <sup>τ</sup>ο and the feminine <sup>τ</sup>η, is sparse; e.g. σοὶ τὸ γέρας πολὺ μείζον<sup>v</sup> 'for you the meed [is] much greater' (*Iliad* 1.167). We have no Greek prose until considerably later (only in the fifth century does it become voluminous);<sup>129</sup> but from the time that we can compare prose with contemporary poetry, the poets often omit the article where it would be normal or obligatory in prose. As Fehling remarks, "Both classical Hebrew and Greek poetry tend to shun it. This may be an additional indication that it was still a newcomer at about the time of beginning literacy. After that, the habit [of not using the article] was maintained for many centuries in the poetry of both languages; such a degree of conservatism is inconceivable in an unwritten language."

**3.Fh.** Hebrew, the Semitic language next to Egyptian geographically, may owe something to Egyptian influence in its syntactical development of the definite article; but of that there is no trace in the morphological expression. Ugaritic, though much like early Hebrew in many respects, does not use the article at all<sup>130</sup> — whether because the Ugaritic literature that has come to light ended too early in the second millennium B.C. to be influenced by Egypt in this regard, or for some other reason. Not far from Ugarit, however, a Phoenician inscription from Byblos, dated in the tenth century, has **𐤇𐤁𐤌𐤍**<sup>v</sup> {hbtm} 'the houses' (Donner – Röllig, *KaArIn*, I, 1 (4.2); II, 6), which conforms to the Hebrew **בֵּיתֵי הַבָּיִת**<sup>v</sup> {hab|bötī'm} (Ex. 12:7, etc.). In subsequent Phoenician, as well as Hebrew — the two being names for related dialects of essentially the same language — the article is very frequent.

It is strictly a prefix (not a precursory word as in Greek), although it can bear a minor accent under certain environmental circumstances; e.g.

**וְהָאָרֶץ**<sup>v</sup> {wə|hə|ʔādōm<sup>h</sup>} 'and the ground' (Deut. 11:17, cf. **1.Ga**). Its relationship to the Arabic prefix {hā-} in {hāḏā} is likely, though not exact.

<sup>129</sup> The meager texts in Linear B characters from the latter part of the 2d millennium B.C. are all in prose; they contain extremely few — and questionable — instances of demonstratives of any sort, and none of the definite article.

<sup>130</sup> Examples in Gordon, *UGTe: Grammar*, 65-66: "mlk . rb (118:226) 'the great king'.... l alpm mrim (1100:1) 'for the fat oxen'."

Moreover, within the Semitic languages, no demonstrative monosyllable is known from which such a prefix could readily have devolved. So I suggest that it was borrowed from the prehistoric Greek [h o] — feminine [hē] in Attic and Ionic, [hā] in the other dialects.<sup>131</sup> I see no chronological obstacle. We have only to posit

(1) that in the prehistoric Greek language the articular use of the neuter [to] had spread to the masculine [h o] (and the feminine [hē/ā]), since this suppletion according to gender is no peculiarity of Greek but common to the IE cognate languages;<sup>132</sup>

(2) that the register of Greek from which Hebrew-Phoenician-Moabite, about 1000 B.C. or earlier, took up this handy device was not the poetic but the unrecorded colloquial, where it was already employed much the same as in all Greek prose known to us from subsequent literary and inscriptional texts.

Though it seems round-about for the articular use of the demonstrative to have spread from Egyptian to Greek, and then from Greek to a Semitic language in the neighborhood of Egypt, I have inferred it from the traces that remain visible.<sup>133</sup> The Greek noun ὁ βωμός [hobōmós] ‘the altar’, represented in Moabite by {hbm̄t} and in Hebrew by {habbōmō<sup>h</sup>} (**2.Gb**), illustrates how the [h V -] morpheme could have entered Semitic.

**3.Fi.** The most striking syntactical parallel is the REPETITION of the article as it accompanies the attributive adjective following the noun (**3.Fb**):

ὁ κλήρος ὁ ἑβδομος : {haggo<sup>w</sup>ról haššōbi<sup>ʿ</sup>ʿi<sup>ʿ</sup>} ‘the seventh lot’, besides

ὁ ἱσχυρὸς ὁδός : {ho<sup>ʿ</sup>eroḏō<sup>w</sup>n hazzē<sup>h</sup>} ‘this pledge’ (**3.Fa**).

<sup>131</sup> In Hebrew, and presumably in Phoenician too, the phonetic variation in the vowel has nothing to do with gender — nor with number, for that matter (cf. **3.Fb**).

<sup>132</sup> Outside of the nominative case, the masc. and fem. forms begin with [t-] just like the neuter; but this has no bearing upon the [h-] of the Semitic prefix.

<sup>133</sup> In appealing to DIFFUSION to account for these morphological and syntactic facts, I dissent somewhat from Bernal, *BIAI*, I, 55-56: “It is only with the hypothesis of a genetic relationship between Afroasiatic and Indo-European, and areal features resulting from convergence, that one can explain such ‘coincidences’ as the remarkable similarity between the Hebrew *ha* (the) and the Greek nominative forms of the word, *ho* and *hē*. Both Greek and Canaanite seem to have transformed initial *s-* into *h-*, and both developed definite articles out of demonstratives. There may have been a direct influence or ‘contamination’ from the Semitic to the Greek forms, but the latter is too well-rooted in Indo-European to be considered as a loan.”

Wherever in the development of other languages, later on, a demonstrative evolved into the definite article, this sort of collocation did not result; e.g. in Romance languages, which place most attributive adjectives after the noun: Italian *la donna tecoita* 'the Tekoite woman' (not ??*la donna la tecoita*; II Samuel 14:9, translating יְהוֹשֻׁעַ הַתֵּקוֹיטָה<sup>h</sup> {hoʔiʃʃʊ<sup>h</sup> hattəqoʔiʔiʔ})

= ὡς ἡ γυνὴ ἡ Θεκωίτις<sup>h</sup>; in English versions 'the woman of Tekoa'). As this remarkable repetition does not go back to anything documented in Egyptian, it could have originated either in early Greek or in early Hebrew,<sup>134</sup> and then spread to the other language. That the two could have hit upon it independently, is conceivable but unlikely, in view of the many other structural features they have in common.

Arabic, as we have noted (3.Fc), shares this collocation of prefixed noun followed by prefixed attributive adjective. Geʿez and the more recent Semitic languages of Ethiopia do not; nor did Akkadian.<sup>135</sup> Phonetically, the Arabic article matches the Hebrew only in a limited environment — when combined with the prefix {k-} 'like' and followed by a noun that begins with an apical consonant (traditionally called a "sun letter" by the Arabic grammarians):

كَالشَّمْسِ<sup>h</sup> [kaššamsi] 'like the sun'

= כַּשֶּׁמֶשׁ<sup>h</sup> {kaššéməš} (Ps. 89:37);

not only the {ʔ} of the Arabic article but the {l} too disappears in pronunciation as the initial consonant of the noun itself is strengthened, whereas in Hebrew the {h} of the article becomes quite undiscernible, so that after this {k-} in both languages the article consists of {a} + strengthening of the ensuing consonant.

Much rarer in Biblical Hebrew and in classical Greek prose is the omission of the article before the noun while it is expressed before the adjective (the opposite of Romance syntax as in *la donna tecoita*); e.g.

<sup>134</sup> Although I would not insist on Hebrew as distinct from Phoenician, the oldest Phoenician instance that has come to light is from around 500 B.C. (later than much of the Hebrew Bible): הָאֱלֹהִים הַקְּדָשִׁים<sup>h</sup> {hʔlhm hqdsim} 'the holy gods' (Donner – Röllig, *KaArIn*, I, 3 [14.9]).

<sup>135</sup> Aramaic is uniquely noteworthy for the repetition of the SUFFIXED definite article:

הַאֱלֹהִים הַגְּדֹלִים<sup>h</sup> {ʔəlh[ʔ] rabb[ʔ]} 'the great God' (Ezra 5:8; cf. 1.Ab),

translated τοῦ θεοῦ τοῦ μεγάλου<sup>h</sup> (in the genitive case).

חֲצַר הַפְּנִימִי (Həcér hap|pəni'mí) 'the inner court' (Ezek. 40:28),<sup>136</sup>

πανηγύρεσι ταῖς κοιναῖς 'the common festivals' (Thucydides 1.25.4). This part of the parallel between the two languages — one Semitic and the other IE — is somewhat diminished by the observation that the adjectives treated thus in Hebrew are mainly ordinal numerals — יוֹם שֵׁשִׁי

{yó'm haš|šišší} 'the sixth day' (Gen. 1:31) — whereas in Greek they are mainly possessives or superlatives, neither of which correspond to any type of Hebrew adjective:

δεσπότης ὁ σὸς 'your master' (Xenophon, *Cyr.* 5.3.6),<sup>137</sup>

κωμωιδίᾱς τῆς φαυλοτάτης 'the meanest comedy' (Isocrates 2.44).

**3.Fj.** The prefixed definite article of Hebrew does not seem to have developed phonetically from the same demonstrative as its counterpart in Arabic. The likeliest source of {haC-/hə-/hə-} is the demonstrative adverb that appears in Hebrew as הֵן 'hén) or (unaccented) הֶן {hén}; e.g.

הֵן כֶּסֶף אֲשֶׁר מָצְאנוּ בְּפִי אֲמַתְּחֵינוּ הַשִּׁבְנוּ אֵלָיךְ {hén ké-sep 'āšér məcə'nu bəpī 'amtəHo'é'nu hššib'nu 'elé'kə} 'behold silver that we found in the mouth of our sacks, we have brought back to you' (Gen. 44:8; nearly = הַכֶּסֶף {hakkésep} 'the silver that we found ...');

הֵן עָם כְּלָבִיא יָקוֹם {hén-šəm kələbī' yəqú'm} 'behold a people [that] stands up like a lion' (Num. 23:24).

The source of the Arabic اَلْ {ʔaL-} was apparently a prehistoric demonstrative, which in Arabic survives as such only in the plural form أُولَئِكَ {ʔulā(ʔ)} 'these' or 'those'. The Hebrew cognate {ʔélle<sup>h</sup>} (**3.Ga**) has a rare short form, best attested in I Chronicles 20:8: אֵל נִוְלְדוּ לְהַרְפָּא בְּגַת {ʔél nu(ʔ)llədú 'ləhərcəp š' bəgāt} 'these were born to the giant in Gath'.<sup>138</sup>

<sup>136</sup> Rendered with both articles in the Septuagint: τὴν αὐλὴν τὴν ἑσωτέραν. For more examples see Rendsburg, *DiAnHe*, 107-109.

<sup>137</sup> In Hebrew 'your' would be expressed by a suffix: אֲדֹנָיִךְ {ʔədōné'kə} (Gen. 24:51, etc.). See B. L. Gildersleeve – C. W. E. Miller, *Syntax of Classical Greek from Homer to Demosthenes*, II (New York: American Book Co., 1911), 280-283; Paul Joüon, *Grammaire de l'hébreu biblique*, 2d ed. (Rome: Institut Biblique Pontifical, 1947), 429.

<sup>138</sup> {ʔél} cannot have here the ordinary meaning of its singular homophone 'God', because it is the subject of a plural verb.

This demonstrative {ʔél} stands in the same phonetic relationship to the Arabic article as {hén} to the Hebrew article.

**3.Fk.** Within IE the closest correspondence — syntactic as well as morphological — to the Greek ὁ (masc.), ἡ (fem.), τὸ (neuter) is in the early Germanic languages, Gothic and Old English.<sup>139</sup> For they use the cognate demonstrative forms also as the definite article, though not to nearly the same extent as in Greek; e.g. in John 10:11,

Greek: ἐγὼ εἰμι ὁ ποιμὴν ὁ καλός, ὁ ποιμὴν ὁ καλός 'I am the good

Gothic: {ik im hairdeis gods, hardeis sa goda shepherd; the

OE: ic eom god hyrde, god hyrde good shepherd

τῇν ψυχὴν αὐτοῦ τίθησιν ὑπὲρ τῶν προβάτων<sup>✓</sup> gives his life for  
saiwala seinā lagjiþ faur lamba<sup>✓</sup> the sheep.  
sylþ his lif for his sceapon<sup>✓</sup>

Whereas the Gothic is a direct translation from Greek, the Old English is from the Latin version, which of course had no article, and accordingly there are no articles in the Old English rendering of this verse. The next two verses, however, begin thus:

ὁ μισθωτὸς δὲ ὁ δὲ μισθωτὸς 'but the hireling'  
{iþ asneis iþ sa asneis}  
se hyra se hyra

The Old English translator, with no clue from the Latin, inserted the definite article from his own sense of English syntax.

Where Gothic reproduces the Greek definite article, seldom is the Gothic form phonetically close to the Greek; e.g. {þana mannan}<sup>✓</sup>

for τὸν ἄνθρωπον<sup>✓</sup> 'the man' (accusative singular masc., Luke 8:35). I see little or no evidence that a similarity in sound fostered the change in syntax, bringing this Germanic language more into line with Greek — as the Egyptian {t3} much earlier had favored such an adaptation of the Greek demonstrative beginning with {t-}, and in turn the other Greek forms, beginning with {h-}, had favored a like-sounding prefix to serve as the definite article in Semitic.

<sup>139</sup> Old Norse also has the cognate demonstratives *sá*<sup>✓</sup>, *sú*<sup>✓</sup>, *þat*<sup>✓</sup>; but for the definite article it uses a different demonstrative *enn*<sup>✓</sup>, suffixed to nouns, which was originally cognate to Gothic {jains}<sup>✓</sup>, English *yon*<sup>✓</sup>, etc.).

Germanic languages or dialects were spoken by strong but backward nations for several centuries before any Christian missionary undertook a translation of the Bible for their benefit. However, we lack evidence whether or not the Germanic peoples were already — say, in the time of Tacitus, around A.D. 100 (cf. 1.Fb) — using these IE demonstratives in the manner I have just shown; for until Christianity spread northward, we have very little documentation of Germanic speech apart from the Germanic names in Latin and Greek texts. It would have been easiest for the Goths, before any other Germans, to pick up the articular use of the demonstratives from Greek, when they moved south of the Danube close to Greece. Nevertheless an earlier diffusion — even a much earlier one — must not be ruled out as impossible but rather acknowledged to be untraceable. At any rate, within Germanic territory it must have spread irresistibly, if not rapidly, and in the Christian era if not earlier.

**3.FL.** As the Romance languages subsequently developed their definite article out of the Latin demonstrative *ille*<sup>↓</sup> (fem. *illa*<sup>↓</sup>), we can scarcely doubt Germanic influence upon their syntax. In a few Romance areas the article came, instead, from the emphatic *ipse*<sup>↓</sup> (fem. *ipsa*<sup>↓</sup>); e.g. in the Logodurian dialect of southern Sardinia *kon isos omīnes*<sup>↓</sup> ‘with the men’

(< *ipsōs*<sup>↓</sup> ‘themselves’, accusative pl. masc.).<sup>140</sup>

Here it was possibly the Germanic *s*-forms that favored this choice, given the availability of both *ill*- and *ips*-forms from Latin. But that would seem least likely on an island rather far from the continent; for the migrating Germans went much more by land than by sea. Also on the Balearic island of Mallorca it is *es*<sup>↓</sup> (fem. *sa*<sup>↓</sup>).

On the mainland, however, there was at least one likely contact, in southwestern France. For a great Visigothic kingdom had its capital in Tolosa (now Toulouse), and the Romance dialect of Gascony showed in former times some traces of the definite article derived from *ips*-, such as

*es cavals*<sup>↓</sup> ‘the horse’

< *ipse caballus* § ‘the nag himself’.

And for all we know, within Germanic — through most of the first millennium of the Christian era — the *s*-forms of the nominative singular masculine and feminine may well have been shared by virtually all dialects, rather than being a characteristic peculiarity of Gothic, Norse, and Old English.

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<sup>140</sup> Wilhelm Meyer-Lübke, *Grammatik der romanischen Sprachen*, II (Leipzig: O. R. Reisland, 1894; repr. Hildesheim: Georg Olms, 1972), 129-130.



In any event, it was a syntactic influence of the Germanic article upon Romance (not the reverse) that overcame the long-standing aversion inherited from Latin, whereas the Greek model had never availed to alter this negative feature of Latin — perhaps the most striking contrast between the two classical languages.<sup>141</sup> Definite evidence of priority comes out in the Strasburg oaths of the French and German armies on February 14, 842, quoted in a Latin history of Charlemagne's grandsons:

*Romana lingua ... Silodhuuigs sagrament que son fradre karlo iurat conseruat ...*

*Teudisca autem lingua — Oba karl theneid then er sinemo bruodher ludhuuuige gesuor geleistit....*<sup>√</sup> 'in the Roman[ce] language ....., "If Louis keeps [the] oath that he swore to his brother Charles...." In the German language, "If Charles keeps the oath that he swore to his brother Louis...." '<sup>142</sup> — *sagrament* still with no article in the earliest Old French (*le*

<sup>141</sup> See Jacob Wackernagel, *Vorlesungen über Syntax mit besonderer Berücksichtigung von Griechisch, Lateinisch und Deutsch*, 2d ed., II (Basel: Birkhäuser Verlag [1928]), 129-130.

That Arabic too influenced the Romance languages, is not out of the question; for of all the Romance renderings of *ille* (nominative), *illum*<sup>√</sup> (accusative), *illō*<sup>√</sup> (ablative), the Castilian *el*<sup>√</sup> 'the' is closest phonetically — as well as geographically — to the Arabic prefixed article {ʔal-}. Many nouns were borrowed from Arabic with this prefix; e.g. *alcalde*<sup>√</sup> (formerly also *alcaldi*<sup>√</sup>, *alkaldi*<sup>√</sup>, *alcade*<sup>√</sup>, etc.) 'judge, mayor' < الْقَاضِي<sup>√</sup> {ʔalqāḍi<sup>√</sup>} 'the judge'. (Classical Arabic, however, drops the [ʔa] except in an initial position; in the Qurʾān even the beginning of a verse is treated as non-initial, being linked to the last word of the previous verse.) Supposing that such an Arabic influence began when Ṭarīq conquered most of Spain in 711-13, I find it difficult, though not quite inconceivable, that in the subsequent generations the definite article could spread to the other Romance countries (including, perhaps, even the Balkans). — As J. P. Brown reminds me, the first syllable *al-* has never functioned IN SPANISH as the definite article; 'the mayor' is *el alcalde*<sup>√</sup>. At most, if *al-* is not a mere fossil inseparable from *-calde*, it serves here as a sort of classifying morpheme for nouns that would seldom occur with the indefinite article; *un alcalde*<sup>√</sup> 'a mayor', while not a contradiction in terms, is much less frequent. The Egyptian word πῖρωμις<sup>√</sup> 'man', used by Herodotus (2.143.4) with the Greek nominative case-ending -ς, somewhat similarly includes the Egyptian definite article *pi-*, not functioning as such in Greek but rather constituting an inseparable syllable of this noun. However, in the Coptic version (Bohairic dialect) of John 19:5 πῖρωμις<sup>√</sup> renders ὁ ἄνθρωπος 'the man'.

<sup>142</sup> Nithard, *Histoire des fils de Louis le Pieux*, ed. and tr. by Ph. Lauer (Paris: Honoré Champion, 1926), 106-108, but rather than Lauer's transcription I follow the facsimile plates to the letter.

*serment*<sup>√</sup> in modern French), but already *then eid* ‘the oath’ in German (*den Eid*<sup>√</sup> in modern German).

The history of the definite article in Christendom, from post-classical Greek to the Germanic and the Romance languages, is not as fully documented as one would like; but still it gives us some idea of how, more than a millennium earlier, the definite article could spread from Egyptian to prehistoric Greek and Hebrew-Phoenician. Here is one grammatical device that appears to have been adopted gradually, with differences of detail from one language to another, but more and more widely — in IE territory, at any rate, as well as in Semitic — because it made for clearer communication, by means of EXPLICIT REFERENCE.

**3.Fm.** One surprising phonetic resemblance remains to be explored. The Old English *se* (nominative sing. masc.) has a feminine as in *seo eorþe*<sup>√</sup> ‘the earth’. The diphthong *eo* in the article, just as in the noun, seems to correspond to a variable Hebrew vowel (**1.Ff**). Depending upon the conditions of sentence accent, the Heb. noun is either אֶרֶץ {ʔérec} or אָרֶץ {ʔʕrec}.

When the article is prefixed, this noun is always אֶרֶץ הָ {həʔrec} ‘the earth’; but {hə-} turns up with certain other nouns, provided that they begin with a different guttural consonant, followed by the vowel {ɔ}, as we saw in עֶנַן הָ {həʔɔnɔn} ‘the cloud’ (**3.Fb**).

Furthermore, in both languages the variable vowel is accented, or at least accentable. In regard to Old English, this statement is open to some doubt because the written language had no regular means to show stress. But the modern English stress upon any noun such as *earth* makes it safe to posit stress upon the first syllable of *eorþe* (whereas the unstressed vowel of the second syllable has now vanished); and on the other hand, the definite article in Old English was probably not so weak as our [ðɜː] — which, even so, we can on occasion pronounce emphatically [ðɪ] as in *the earth*, *the champion*<sup>√</sup>. The Hebrew notation shows the article accented in certain special environments: אֶת־הָעֶנַן {ʔet-həʔɔnɔn} ‘the cloud’ (Ezekiel 10:4),

וְהָאָדָמָה {wəhəʔădɔmɔʔ} ‘and the ground’ (**3.Fh**).

**3.G. Sem. (Aram.)** {ʔillék} : *IE (Latin) illic, illaec* ‘those’

Within early IE, unless the languages are very closely related — like Sanskrit and Avestan — the demonstratives afford few clear correspondences from

one language to another (Jackson, *AvGr*, 117-123). So it is all the more remarkable that one of the Latin demonstratives, which has only the faintest IE connections, finds a good match in several Semitic languages.

**3.Ga.** In modern English *ille* is glossed 'that', but the archaic 'yon' would more precisely express the meaning AT A DISTANCE — what we raise the eyes to look at (Levin, *ViPhCo*, 470-473). Forms with the reinforcing suffix -c or -ce (limited to demonstrative words) are less frequent, but still well attested. The alternative to the nominative singular masculine *ille* is *illic*<sup>143</sup>. The Latin plural forms have a twofold parallel in Aramaic:

Lat. nom. masc.	nom. fem.	nom./acc. neuter	Aramaic
<i>illī</i> <sup>143</sup>	<i>illae</i> <sup>144</sup>	<i>illa</i> <sup>145</sup>	ܐܝܠܠܐ {ʔélle <sup>h</sup> } (seldom),
<i>illīc</i> <sup>144</sup>	<i>illaec</i> <sup>144</sup>	<i>illaec</i> <sup>145</sup>	ܐܝܠܠܝܟܐ {ʔillék} (often).

{ʔélle<sup>h</sup>} is also in Hebrew, and far more frequent, with the meaning 'these' rather than 'those'. In the two Aramaic occurrences (Jeremiah 10:11, Ezra 5:15) the English distinction between 'these' and 'those' (or 'yon') is hardly relevant: ܐܝܠܠܝܟܐ ܫܡܝܝܐ {šəmayyāʔ ʔélle<sup>h</sup>}, although translated 'these heavens', is certainly something to look up to.<sup>146</sup>

<sup>143</sup> ILLEI<sup>143</sup> in early Latin; cf. **1.Ac5,Le**, etc.

<sup>144</sup> That the second *i* is long cannot be proved from the meter of Plautus, *Menaechmi* 997. A whole series of editors have emended the *illic* of the mss. (*quid illic homines ad me currunt* 'Why are those men running up to me?') to *illisce*, for no better reason than that they have also emended the nom. pl. masc. *hic* in 958 to *hisce* (which in early Latin is not limited to the dative/ablative plural). But granted that in pre-classical Latin the -s at the end of *his* 'these' (and of nearly any other word) was liable to be dropped in pronunciation and therefore in writing, and likewise the final short vowel -e, still that is not enough to justify the restoration of them in any particular text without positive evidence. The spelling of the mss. constitutes evidence that no [s] and no [e] was pronounced in *illic* and in *hic*, at least in these occurrences.

<sup>145</sup> A different neuter plural in an archaic formula *illace suouitaurilia*<sup>145</sup> 'these sacrifices of boar, ram, and bull' (Cato, *De agri cultura* 141.1), and in the rare compound *postillac*<sup>145</sup> 'afterwards' (literally 'after those things'; *Menaechmi* 683). The *a* is probably long (to judge by analogy with the less rare *postillā*<sup>145</sup> and the frequent *posthāc*<sup>145</sup> 'after these things'), but the meter of *Men.* 683 would allow either a long or a short vowel in this position of the verse, and of course the prose of Cato gives no indication either.

<sup>146</sup> As no other word in the Aramaic corpus ends in {-e<sup>h</sup>}, this one is open to the suspicion that the vocalization is not truly Aramaic here but contaminated by Hebrew; Bauer – Leander, *GrBiAr*, 82-83, argue that in Aramaic it should have been either \*ʔillē or \*ʔillē. But a de-

That the {-k} in {ʔillék} is a demonstrative morpheme, like the Latin -c, appears from the Aramaic singular forms

{ʔāḏék} (masc.), {ʔāḏék} (fem., 3.Fe).

The Hebrew cognates are {zēḥ} " {zōḥ} " with no {-k}.

The Latin letter c stands for a velar plosive [k]; in Aramaic, coming after a vowel, this consonant is fricativated.

**3.Gb.** Although accents are not written in Latin, we have much evidence from the ancient grammarians and from certain meters in poetry. Beyond doubt,

*illa* was normally stressed on the first syllable,<sup>147</sup> like {ʔélleḥ}

and *illic*, *illaec* " " second " " {ʔillék}.

The vowels in the last syllable of *illa*: {ʔélleḥ} and of *illic*: {ʔillék} are at least roughly similar but do not quite match.

All fourteen instances of {ʔillék} and the two of {ʔélleḥ} in Biblical Aramaic refer to male persons or a grammatically masculine noun, whereas {ʔilléḥ} clearly allows either masculine or feminine reference (e.g. Dan. 6:3, 7:17). {ʔélleḥ} in Hebrew is noteworthy for making no distinction of gender.<sup>148</sup>

**3.Gc.** Whereas the Aramaic and Hebrew cognates are limited to the plural, the Akkadian masc. sing. {ul-lu-u}ᵛ 'that, yon' (rarely {al-lu-u}ᵛ) corresponds rather to archaic Latin *olle*ᵛ or *ollus*ᵛ (nom. sing. masc. = *ille*), and the Akkadian genitive {ul-li-i}ᵛ to the Latin dative *olli*ᵛ (arch. = *illi*ᵛ). Early Akkadian {ul-lu-um}ᵛ and {ul-le-em}ᵛ, with a nasal consonant at the end, are reminiscent of the Latin accusative singular masculine *illum*ᵛ, *OLLOM*† (cf. **1.Ac1,Bb**). However, I have not found any syntactical correlation be-

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monstrative word, in various languages, is liable to be phonologically abnormal; e.g. the Russian этиᵛ [éti] 'these' (neuter singular этоᵛ [éto] 'this') is the only native word that begins with unpalatalized [e].

<sup>147</sup> Like *ella*ᵛ in Italian and Spanish (cf. French *elle*ᵛ [el]) from the Latin feminine singular *illa*, identical with the neuter plural. The definite article *la*ᵛ 'the' (fem. sing.), however, and the object pronoun *la*ᵛ 'her' (< *illam*ᵛ, accusative sing. fem.) go back to a colloquial Latin pronunciation with the initial weakened or lost, as the meter of Plautus and Terence often shows.

<sup>148</sup> The Geʿez cognate does distinguish between {ʔəllu}ᵛ (masc.) and {ʔəllā}ᵛ (fem.) 'these'.

tween the *-m* forms of Latin and those of Akkadian. So it would be premature to claim that the suffixed morpheme *-m* besides the base, is cognate in these two languages.<sup>149</sup>

The variation between *o* and *i* is anomalous in Latin, and so is the discrepancy between the Aramaic {ê/i} and the Akkadian {u} and {a} anomalous within Semitic. It probably points to something very archaic, preserved into the historical period of these languages by the peculiar niche of a demonstrative word in their vocabulary.

**3.Gd.** The Latin double *-ll-* is a puzzle to IE etymologists, since proto-IE is not supposed to have had any geminates. To be sure, the ancient IE languages (apart from Avestan and Old Persian) have plenty of them, but seldom in words cognate from one language to another; so the geminates are explained mostly as former consonant-groups that have undergone assimilation — e.g. *ollus* from *\*ol-no-s* (Pokorny, *InEtWö*, I, 24). The geminate is found in the Oscan cognate {olleis}<sup>√</sup> (genitive singular masc.); but more often a single consonant was written in that language, however it may have been pronounced:

{ulum}<sup>√</sup>, accusative singular masculine

OLV<sup>√</sup>,<sup>150</sup> genitive plural

{ulas}<sup>√</sup>, " singular feminine

{olam}<sup>√</sup>, accusative " "

In Latin the adverb *ōlim*<sup>√</sup> 'long ago', vaguely related to *oll-*, *ill-*, has a single *-l-*. The rare preposition *uls*<sup>√</sup> 'beyond' and the common derivatives

*ultrā*<sup>√</sup> 'beyond, further' (adverb or preposition),

*ulterior*<sup>√</sup> 'further' (adjective),

*ultimus*<sup>√</sup> 'furthest'

cannot show *-ll-* even if called for by the etymology, because the immediately ensuing consonant precludes a geminate. Old Irish has *tall*<sup>√</sup> 'there, beyond', *anall*<sup>√</sup> 'thence'.

If Oscan were more copiously preserved, or if we had texts in a Celtic language from the pre-Christian era, they might show exact cognates to this Latin demonstrative. As it is, nothing from within IE is nearly as close to *illic* as the

<sup>149</sup> The Akkadian feminine singular {ullītu(m)}<sup>√</sup> is worth mentioning because the {-t-} is possibly cognate to the dental consonant at the end of the Latin neuter *illud*<sup>√</sup> (cf. **3.Ef**). Like other Semitic languages (and Afro-Asiatic in general), Akkadian has no neuter nouns; but the feminine forms of some pronouns and adjectives are used much like the IE neuter.

<sup>150</sup> From a relatively late Oscan inscription in Latin letters instead of the native alphabet.

Aramaic {ʔillēk}; besides, {ʔelle<sup>n</sup>} and the Akkadian {ull-} forms reinforce this Semitic-IE correspondence. So in spite of the geographical gap it can hardly be coincidental.

### 3.H. Concluding Remarks on Pronouns

Alongside the innumerable nouns and verbs of any language, the pronouns constitute a very small part of the vocabulary, but they are used with disproportionate frequency. For our comparative purpose we have found them also disproportionately conspicuous among the cognates that link IE to Semitic. Without pursuing any weaker leads, such as the IE interrogative — Latin *qu|is* <sup>√</sup> ‘who’, etc. — which Möller (*VeInSeWö*, 125) compared to the Arabic كَمْ <sup>√</sup> {k|a m} ‘how much/many’,<sup>151</sup> I would invite attention to the pronouns that we have examined in this chapter. They take in the first, second, and third persons; the connections in the third person, to be sure, seem to be somewhat less strong and not to reach so far back into remote prehistory. Furthermore, these pronouns of the third person overlap with demonstratives. While less than half of the IE pronouns in each of these categories have a manifest Semitic cognate, still they amount to a sizable minority — whereas among nouns and verbs the cognates, in the dozens (or possibly hundreds), are a tiny minority, though nonetheless significant.

Why would pronouns thus be relatively prominent among the key etymologies? A general cause lies in their high frequency, which minimizes — without

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<sup>151</sup> Also Illich-Svitych, *OpSr* (b-k), 355-356. The Latin interrogative adverb *qu|am* <sup>√</sup> ‘how, how much’, rarely ‘how many’, would afford a more plausible cognate:  
*quis pudor heu nostrōs tibi tunc audire labōrēs,*

*quam referam uīsās tua per suspīria gentēs* <sup>√</sup>

‘What a shame, alas, [will it be] for you then to hear our labors [instead of having shared in them]? Through how many sighs of yours shall I relate the nations [that we have] seen?’ or ‘How many nations shall I report [we have] seen, through your sighs?’ (i.e. while you sigh on and on as you listen; Valerius Flaccus 1.172-173);

كَمْ أَهْلَكْنَا مِنْ قَبْلِهِمْ مِنْ قَرْنٍ <sup>√</sup> {kam ʔahlaknā min qablihim min qarnin} ‘How many a generation [literally ‘a horn’, 1.Bb] have we destroyed before them?’ (Qurʔān 6.6, 38.2[3]). In both languages this interrogative is especially common in questions that are exclamatory rather than for the purpose of eliciting information.

Also in Geʿez the cognate is “used occasionally as an exclamation; e.g. *kama šannāy raʔyatu* ‘how fair is his appearance!’ ” (Leslau, *CoGiGe*, 284). A fairly literal Latin translation would be *quam pulchra eī specīēs* §.

eliminating, however — the liability to obsolescence. So they perpetuate themselves through the many generations of speakers; and besides, in a favorable situation of intimate bilingual contact, they may even go across from one language to another — less readily, to be sure, than certain kinds of nouns do, especially those nouns that designate new things, experienced in the course of bilingual contact. A strongly felt need to borrow a pronoun would seldom arise in a language, and only under somewhat special circumstances, since each language — presumably — was already equipped with an ample repertory of pronominal expressions. But some of the etymologies in this chapter may take us back to a primitive stage indeed, when the very basic devices of verbal communication were first being formulated within particular languages that were destined to live on for thousands of years.

## Chapter IV PREPOSITIONS

Languages that share prepositions have either a common origin or, at any rate, a common background so intimate that minor, inconspicuous details of vocabulary could pass from one language to another. It is one thing to borrow a phrase that includes a preposition, as some educated speakers of English have taken *par excellence*<sup>✓</sup> from French or *sub judice*<sup>✓</sup> from Latin; it is another thing to borrow the preposition *par* or *sub* for use apart from such a formula, and this in fact has not happened. However, one Latin preposition, *per*<sup>✓</sup> ‘through’, has gained some limited currency as an English preposition:<sup>1</sup> While Englishmen in their bookkeeping gradually shifted from Latin to their native tongue, an entry such as *vi d. [= denarii] per diem*<sup>✓</sup> was often not fully rendered into *six pence a day*; instead *per diem* (as well as *per annum*<sup>✓</sup>) was kept in Latin.<sup>2</sup> More recently, other expressions of time developed in hybrid form: *per month*<sup>✓</sup>, *per week*<sup>✓</sup> — where the pure Latin expression, being less familiar, did not come to mind — and on that model, also *per day*<sup>✓</sup> and *per year*<sup>✓</sup>. Nowadays the syntagma of *per* + a singular noun (with no article) is widely extended in the sequel to almost any numerical expression, such as *three drinks per person*<sup>✓</sup> and *two children per family*<sup>✓</sup> (see *OxEnDi*, s.v. “per”).

The borrowing of prepositions does not depend on whether the languages involved were akin prehistorically, as English and Latin were, but on the kind of contact between them at the time of borrowing. An incontestable instance, which involves languages that were very distantly related at best, is the Span-

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<sup>1</sup> *Per* happens to be the source of the French *par*. — As a PREFIX, *sub-* serves in English compound words, such as *subcommittee*<sup>✓</sup>, *subcontract*<sup>✓</sup>, *sub-group*<sup>✓</sup> (spelled with or without a hyphen). In a few of them it is even attached to a native English base: *sub-field*<sup>✓</sup>, *sub-head*<sup>✓</sup>.

<sup>2</sup> Perhaps *a* was no longer recognised here as a vestigial English preposition (the weak alternant of *on*<sup>✓</sup>), but rather interpreted as the indefinite article



ish *hasta*<sup>↓</sup> 'until, up to' < Arabic حَتَّى {Hattā(?)} (in Old Castilian also *ad-ta*<sup>↓</sup>, *fasta*<sup>↓</sup>, *fata*<sup>↓</sup>; Levin, *DiQuQu*, 415-416). Large parts of Spain were bilingual for centuries after the Muslim conquest (which began in A.D. 711); but to account for the spread of this particular preposition into the Romance vernacular, Yakov Malkiel invokes "the role played in medieval Christian Spain by Moorish land-surveyors."<sup>3</sup> To pinpoint the locus of contact in such an etymology from a historical period, documentary evidence can sometimes be adduced. While that is out of the question in the much earlier etymologies that we are about to study, we can state the pertinent facts from each recorded language and go on to theorize upon a possible *Sitz im Leben* for the prehistoric sharing of these prepositions. I would scarcely entertain the alternative conception that they constitute the meager remnant of a once full set of prepositions in a remote proto-language, called "Nostratic".

**4.A. Sem. (Heb.) {ṣēber} 'across': IE (Old English) [?]ofer > over**

**4.Aa.** As a verbal root, {ṣbr} 'cross, go across or beyond' is more widely used in Semitic than the preposition represented

in Hebrew by יַעְבֵּר {ṣēber},

in Aramaic by יַעְבֵּר {ṣābār},

in Akkadian by {e-ber}<sup>↓</sup> (chiefly in {eber nāri})<sup>↓</sup> 'across/beyond the river [Euphrates]'; *AsDi*, IV, 8),

in Arabic by عَبَرَ {ʿabra}.

On the other hand, in IE the preposition is widespread, but no verb:

Greek ὑπὲρ<sup>↓</sup> 'over' (in Homeric Greek also ὑπερῖρ<sup>↓</sup>),

Sanskrit उपरि<sup>↓</sup> {upāri},

Gothic {ufar}<sup>↓</sup>, Old Norse *yfir*<sup>↓</sup>, etc. (*InEuSeLa*, 555-557;

Levin, *SeEv*, 257-260; Pokorny, *InEtWö*, I, 1105).

The Old English *ofer*<sup>↓</sup> (sometimes written with an apex *ōfer*<sup>↓</sup>) differs from its IE cognates in having a less closed vowel. Moreover there is an identical noun in Old English that means 'shore' or 'bank' (now obsolete except in the place-names *Over*<sup>↓</sup>, *Wendover*<sup>↓</sup>, *Westover*<sup>↓</sup>, etc.); and the Hebrew word also functions as a noun — the bank or side of a river, or a mountain-pass.

The semantic match is most precise when the place is a river:

<sup>3</sup> *Theory and Practice of Romance Etymology* (London: Variorum Reprints, 1989), 66.

יַעְבָּר הַיַּרְדֵּן {ʿéber hayyardén} ‘the Jordan’s bank’ or ‘across/beyond the Jordan’ (Joshua 13:27, etc.)

is reminiscent of ὑπὲρ (τὸν) Ἰάρδανον† ‘over (or across) the Iardanos’.<sup>4</sup> Although no river in England favors us with a cognate name, we can cite the verse  
*ofer eástreámas is brycgade*† ‘over streams  
 ice made a bridge’,<sup>5</sup>

and the translation of Bede’s *Historia ecclesiastica* (3.2):

*Lundenceaster on ófere* <sup>6</sup> *geseted fæs foresprecenan streames*† (for the Latin original *Londonia ciuitas ... super ripam praefati fluminis posita*†) ‘London town, set on [the] bank of the aforesaid river’, where -e is the dative case-ending. In the accusative case no ending is added:

*on ðone ofer*† ‘on the bank’.

In Hebrew the noun is seldom accompanied by the article:

וַיַּעְבָּר דָּוִד הָעֵבֶר {wayyaʿăḇór dāwīd hāʿéber} ‘and David went to the other side’ or ‘went beyond the pass’ (I Sam. 26:13).

<sup>4</sup> Cf. ὑπὲρ ποταμοῦ† ‘across [the] river’ (*Iliad* 23.73), ὑπὲρ τάφρου† ‘across [the] ditch’ (18.228), ὑπὲρ οὐδὸν† ‘over [the] threshold’ (*Od.* 7.135, etc.).

Ἰάρδανος† is the name of several little-known rivers in the Peloponnese, Crete, and Lydia; also the one “in the land of the Hebrews”, according to the pagan writer Pausanias 5.7.4 — although the Jewish sources in Greek (the Septuagint, the New Testament, and Josephus) make it Ἰορδάνης†, with an unexplained vowel -o- contrary to the {-a-} of {yardén} in the Massoretic Hebrew text. The great rivers Ποδανός† in Gaul (now *Rhône*†) and Ἠριδανός† (Hesiod, *Theog.* 338; Herodotus 3.115, etc.; later identified with the river Πάδος† *Padus*† > *Po*† in northern Italy) manifest somewhat different forms of the same name, widespread in the Mediterranean region. There used to be also a little Ἠριδανός in Attica (Pausanias 1.19.5, etc.). I owe most of my information to J. P. Brown; see his article, “The *Templum* and the *Saeculum*: Sacred space and time in Israel and Etruria,” *ZeA/Wi*, 98 (1986), 421-422. This is an important toponymic etymology, but it eludes any exact conclusions.

<sup>5</sup> *The Legend of St. Andrew* 2523-24; J. M. Kemble, *The Poetry of the Codex Vercellensis* (London: Ælfric Society, 1843), 73. The compound noun with *ea-* ‘water-streams’, instead of the plain *streamas*†, is evidently for the sake of “alliteration”: two words in the first half of the verse and at least one in the second must begin either with the same consonant or with any vowel — i.e. with an unwritten glottal stop [ʔ] before the vowel of the initial syllable (1.Cb, Fa, 4.Ae).

<sup>6</sup> As in other Old English texts, often the scribe’s diagonal stroke may look to an editor like a Greek acute accent rather than a Latin apex. The scribe’s purpose was, presumably, to show lengthening of the vowel — which, however, would seldom occur in an unstressed syllable. Whatever shape a modern editor (or printer) may choose, is of little concern, unless it were to be demonstrated that some Old English scribes used both ´ and ˆ for different phonetic purposes.

It often has a preposition prefixed to it for greater precision:

בַּעֲבֵר הַיַּרְדֵּן {bəʿéḇer hayyardén} ‘on the bank of the Jordan’,

מֵעֲבֵר הַנָּהָר {meʿéḇer hannəḥór} ‘from the bank of the river [Euphrates]’ (Gen. 50:10, etc.; II Sam. 10:16);

but ‘across the Jordan’ or ‘across the river’ is also a valid translation.

The difference between a NOUN IN THE CONSTRUCT STATE and a PREPOSITION is blurred. Just as it would be a futile refinement of terminology to argue that in פֶּרֶץ־מִצְרָיִם {ʔēt-parʿóḥ} ‘with Pharaoh’ (Gen. 41:9, etc.) {ʔēt} is a preposition but in {meʔēt-parʿóḥ} ‘from Pharaoh’ (3.Ed) {ʔēt} must be a noun because {me-} is prefixed to it, likewise the prefixing of {me-} in {meʿéḇer} scarcely determines that here {ʿéḇer} still ranks as a noun but that with nothing prefixed {ʿéḇer} ceases to be a noun and becomes a preposition instead.

**4.Ab.** Through our comparison with Semitic (and particularly with Hebrew) we have already brought out something relevant to IE etymology that had not been perceived by strictly IE researchers. For they somewhat oddly disregarded the identity of the Old English noun and preposition *ofer*, as though it were mere homophony. Not that it is peculiar to English; in Dutch too the preposition is *over*<sup>↓</sup>, and the noun in Middle Dutch was either *oever*<sup>↓</sup> or *over*<sup>↓</sup>.<sup>7</sup> In German, to be sure, the noun is *Ufer*<sup>↓</sup> and the preposition *über*<sup>↓</sup>, but only the preposition comes from Old High German (where at least eight forms or spellings are attested: *ubar*<sup>↓</sup>, *ubur*<sup>↓</sup>, *ubir*<sup>↓</sup>, *uber*<sup>↓</sup>, *upar*<sup>↓</sup>, *upur*<sup>↓</sup>, *upir*<sup>↓</sup>, *uper*<sup>↓</sup>); the noun is descended from Middle High German *uover*<sup>↓</sup>, which presumably came in from a Low German dialect.<sup>8</sup>

A likely Greek cognate of the noun is ἡπειρος<sup>↓</sup> ‘seashore’ or ‘mainland’ (Pokorny, *InEtWö*, I, 53). The gap between ἡπειρος and ὑπέρ may have kept the Indo-Europeanists from connecting the English (and Dutch) noun and preposition, although ὑπέρ (the rare Homeric form of the preposition) does much to bridge the gap. Anyhow the perfectly clear connection in Hebrew

<sup>7</sup> Nowadays only *oever* [úvər] is current as a noun, unless -*over* survives in some Dutch place-names like *Wendover* in English.

<sup>8</sup> The forms of the preposition with -*p*-presuppose no accent on the first syllable, according to Verner’s “law”. — *Ober*, nearly identical with the English and Dutch except for the voiced plosive [-b-], is widely used in modern German as a prefix to NOUNS — e.g. *Oberherr*<sup>↓</sup> (cf. *overlord*<sup>↓</sup>) — but not to verbs.

leaves no room for doubt: the preposition is merely a special use of the noun.

This one Semitic-IE etymology matters all the more AS A KEY TO THE PREHISTORY OF NOUN-INFLECTION. Whereas the Sanskrit {upáři} lends itself to a morphological analysis that would make {-i} a locative case-ending (although no other cases of {upar-} exist in Sanskrit), the Greek ὑπὲρ shows that to function as a preposition the word does not need an ending.<sup>9</sup> The Akkadian {eber} lacks the case-endings {-u} (nominative), {-a} (accusative), {-i} (genitive)<sup>10</sup> that normally mark an Akkadian noun UNLESS IT IS IN THE CONSTRUCT STATE — i.e. requiring another noun (or a possessive suffix) right after it. While Arabic nouns have case-endings in the construct state no less than otherwise, Akkadian nouns in the construct have no accusative ending at all, and seldom the nominative ending {-u} except in early poetry, but the genitive ending {-i} is maintained more often.<sup>11</sup> So an IE preposition such as {upáři} would be most like any Akkadian construct genitive, although ?{eberi} itself does not occur; but ὑπὲρ is like the actual Akkadian {eber} without an accusative ending, whereas the Arabic {ʿabr|a} has it.

**4.Ac.** Inflections for case are at best meager in the Semitic languages, compared to IE. Not only {upáři} but some other IE prepositions contain a more or less vestigial case-ending. ὑπὲρ, however, and *ofer* (in contrast to the noun *ofere* with the case-ending called “dative” in Old English grammar)<sup>12</sup> are noteworthy for typifying a special use of the noun — namely the prepositional use — EXEMPT FROM CASE-INFLECTION, which is otherwise such an

<sup>9</sup> In ὑπὲρ the last two letters can be explained by metathesis of \*[-ry] (as the Sanskrit {upáři} becomes {upáři}√ before any word that begins with a vowel); but even so, the metathesized [-i-], being no longer final, ceases to be recognisable as a functioning case-ending. Nearly the same applies to the OHG forms in *-ir*, as this vowel is explained by the prehistoric effect of \*[-y] or \*[-i] upon the vowel before the consonant [r]. Furthermore, the modern *über* — with Umlaut in the first syllable — reflects the influence of the *-i-* formerly pronounced in the subsequent syllable.

<sup>10</sup> Usually {-um, -am, -im} in the earlier period, which is much less copiously documented.

<sup>11</sup> I cannot quite reconcile two statements of Von Soden, *GrAkGr*:

“die Gen.-Endung *-i* ohne Mimation in ihm aAK [= Old Akkadian] und z. T. auch noch aB und aA [= Old Babylonian and Old Assyrian, both a little later than Old Akkadian] ... erhalten geblieben ist” (82);

“Die Gen.-Formen ohne Suff. nur archaisch” (5\*).

<sup>12</sup> The term “locative” would fit just as well.

overwhelming characteristic of nouns in the ancient IE languages. Akkadian and — to some extent — Arabic afford an instructive parallel to ancient or prehistoric IE, morphologically as well as syntactically: In Akkadian the noun construed with the preposition will normally be in the genitive case, and so, if singular, it will end in {-i}; for the preposition itself is like a construct noun in relation to the ensuing noun. On this point Arabic is similar for the most part; but the substantial minority of “diptote” (i.e. two-case) nouns have only the accusative ending {-a}, serving in otherwise genitive as well as accusative functions: عَبْرَ الْبَحْرِ {ʕabra (?)lbaḥr|i} ‘across/beyond the sea, overseas’,

عَبْرَ بَيْرُوتَ {ʕabra bayruʔt|a} ‘beyond Beirut’.<sup>13</sup>

IE prepositions are more flexible than this in the case construction of the nouns that go with them; but they share with the Arabic and Akkadian prepositions and construct nouns a negative rule against the nominative case: just as in Akkadian the nominative ending {-u} makes ??{eber nāru} virtually impossible, so in Greek ??ὑπὲρ ποταμός or ??ὑπὲρ ἰάργανος with the nominative ending is a contradiction in terms (‘overseas’ is ὑπὲρ πόντου<sup>14</sup>, *Od.* 13.257, not ??ὑπὲρ πόντος).

**4.Ad.** The phonological resemblance between the Hebrew {ʕēḇer} and the Old English *ofer* — both as noun and as preposition — is close, except for the stressed vowel.<sup>14</sup> The inter-vocalic consonant ʕ is a voiced bilabial fricative,<sup>15</sup> according to the best evidence from the Massoretic pointing of Tiberias in the early middle ages; most Jewish communities since then have pronounced a voiced labio-dental fricative [v] in Hebrew just as in their vernacular languages. The [v] sound between vowels was a voiced fricative in Old English,

<sup>13</sup> I owe the example to my colleague, Dr. Kevin Lacey. Most of the “diptote” nouns that could be used after {ʕabra} are place-names not originally Arabic. This one is from Phoenician, Hellenized to Βήρυτος<sup>16</sup> (cf. Hebrew בְּאֵרֵי {bəʕerōʔi} ‘Wells’ in ancient Israel; II Sam. 4:2, etc.; cf. 2.Md). The Arabic {bay-} is actually pronounced [beʔ-] or [bē-], the latter being the Greek pronunciation of the first syllable in the early centuries of the Christian era.

<sup>14</sup> Trombetti, *SaGl*, III, 199, cites both the Hebrew and the OE noun, along with forms from many other languages, but seems unaware of the prepositional use.

<sup>15</sup> The sound that we encounter in a similar environment in standard Spanish; e.g. *debes*<sup>17</sup> ‘you ought’.

though written with the letter *f* (Campbell, *OlEnGr*, 179-180); in all subsequent English it has certainly been labio-dental, not bilabial.

**4.Ae.** Although no initial consonant is written in English or other Germanic languages, there is direct evidence of a glottal stop in modern German [ʔ] *ober-*, [ʔ] *über*, [ʔ] *Ufer*, and indirect evidence of it earlier through alliterative verse, especially in Old English: [ʔ] *ofer* [ʔ] *ea-* [ʔ] *i-* (**4.Aa**). [ʔ-] is not identical with the Semitic {ʕ-}, but both of these consonants are guttural, and they are voiced in contrast to the other gutturals, {h} and {H}.

The evidence for a glottal stop in the prehistory of Sanskrit {upári} — \*[ʔu-] — is more indirect still: the voicing of {-t} at the end of the previous word, as in

ति॒ र॒ श्री॒ नो॒ वि॒ तं॒ तो॒ र॒ श्मि॒ रे॒ षा॒ म॒ धः॒ स्वि॑ दा॒ सी॒र॒ दु॒ प॒ रि॑ स्वि॒ दा॒ सी॒र॒ त्√  
{tiraščīnō vītatō raśmīr eṣām ad<sup>h</sup>aḥ svid āsī<sup>3</sup>d upári svid āsī<sup>3</sup>t}

‘Their cord is stretched horizontal. **Was** it below? **Was** it above?’ (RV. 10.129.5). The third person singular ending of the verb {āsī|t} ‘he/she/it was’ comes up voiced in Sanskrit when followed by a word that begins with a vowel or a voiced consonant, although within a word {-t-} or any other voiceless consonant is not so affected by a vowel or a semi-vowel — as {vītatō} in this very verse illustrates. This phonological fact of Sanskrit supports the theory that in IE prehistory the voiced plosive developed from a voiceless but glottalized plosive \*[tʔ] (**1.Db**, **2.Pd**). Accordingly, in {āsī<sup>3</sup>d upári} the consonant at the word-boundary is voiced, not because it comes between vowels, but because [-du-] resulted from \*[tʔu-].<sup>16</sup>

**4.Af.** It is harder to derive the Greek [h-] in ἥπτερ from a prehistoric \*[ʔ-]. Before any other vowel [h-] could reflect either \*[y-] or \*[s-] (cf. **3.EL**,

<sup>16</sup> In Sanskrit texts it does not matter whether the ensuing word ({upári} in this instance) begins a syntactically new sentence — unless there is a phonological break, marked graphically by a vertical dividing stroke |; otherwise the priests would evidently recite or chant the words linked to one another, syllable by syllable, with the end of one word merging into the beginning of the next one. The raised pitch, limited to one syllable of most Sanskrit words, must have helped (as in Greek) to keep each word recognisable. Sanskrit verbs, however, are normally unaccented unless initial or in a subordinate clause, in which case we should expect {āsī<sup>3</sup>d}√; for a past verb-form carries initial accent, when accented at all. But {āsī<sup>3</sup>d} in this verse, where it is neither initial nor subordinate, has a manifestly abnormal accent, and so is {āsī<sup>3</sup>t} at the end of the verse abnormal — apparently to emphasize the contrast.

**Fg**); but [h-] before u appears also where the Sanskrit and other IE cognates would lead us to expect no initial consonant in Greek — e.g.

ῥῶδωρ<sup>√</sup> (genitive ῥῶδατος<sup>√</sup>) 'water'

: उ द क म्<sup>√</sup> {udakám} 'water'.

Latin *unda*<sup>√</sup> 'wave' (with infixed -n-).<sup>17</sup>

The noun ῥῥεῖρος indeed has none (see 1.Fa, note 104), since Greek had a general rule of phonology that a word cannot begin with [u-] ([ü-] in Attic), and so the weak consonant [h-] was pronounced before that vowel. However, in the preposition ῥπὲρ the [h-] could be cognate to the initial consonant of Latin *super*<sup>√</sup>. That, at any rate, is of a piece with the preposition of opposite meaning in both languages, ῥπὸ<sup>√</sup> : *sub*<sup>√</sup> 'under' (Ernout – Meillet, *DiÉtLaLa*); here, however, the Sanskrit उ प<sup>√</sup> {úpa} means 'to(ward)'. The

Indo-Europeanists (e.g. Pokorny, *InEtWö*, I, 1105-1106) are inclined to derive the longer preposition from the shorter one, although in that case the -(V)r morpheme resists identification and semantic analysis; and so does the s-, whether or not the Greek [h-] goes back to this sibilant prehistorically.

At this point I would posit an IE proto-form \*[s/ʔ u/ø pér(i)], subject to revision, of course. The next question, in view of the Semitic {ʕ-}, is whether the back-vowel in the first syllable of the IE preposition constitutes indirect evidence for an initial \*h<sub>3</sub>- (a LABIALIZED laryngeal) in proto-IE, since the IE words for 'eye' — such as

OHG [ʔ]ouga (genitive/dative [ʔ]ougen, [ʔ]ougin; 1.Ce-f) —

appear cognate to Hebrew {ʕáyin, ʕýyin},

Arabic عَيْن<sup>√</sup> {ʕayn|u n} (nom. absolute), etc.

The Semitic languages afford no clear clue; for apart from Ethiopic they seem to have lost any prehistoric labialization of other consonants (1.Ka-b), and this consonant {ʕ} never — to my knowledge — manifests labialization even in Ethiopic.<sup>18</sup> It would be bold — although perhaps justified — to posit, in the forerunner of *over*, an initial syllable \*[ʕwe-] common to proto-IE and proto-Semitic, but reflected divergently by the Hebrew {ʕe-} and by the Germanic [ʔ]o- or [ʔ]u-, the prehistoric Sanskrit \*[ʔu-], etc.

<sup>17</sup> See Eduard Schwyzler, *Griechische Grammatik*, I (Handbuch der Altertumswissenschaft, 2. Abteilung, 1. Teil; München: C. H. Beck, 1939), 303-305.

<sup>18</sup> The Geʕez word for 'eye' is {ʕayn}<sup>√</sup>. The Semitic root {ʕbr} is not represented in the Ethiopic languages, nor are Afro-Asiatic cognates of it reported.

**4.Ag.** In the first syllable of this word a back-vowel predominates in the IE languages, although *u* in Attic (and possibly some other Greek dialects) was rather a rounded front-vowel, like the German *ü*.<sup>19</sup> Of the Semitic languages, Hebrew definitely has a front-vowel {e} (always accented), and the transcription of Akkadian also gives {e}. The Aramaic {ʿāḇār}, however, has an unaccented central vowel of minimal length, which is most congenial to this guttural consonant. The Arabic preposition {ʿabra} has a central vowel too; but the noun 'shore, bank', according to the dictionaries, admits of all three vocalizations: Lane (*ArEnLe*, 1938) gives

عَبْرٌ {ʿibr|u n} first, which corresponds to the Hebrew {ʿéḇer};<sup>20</sup>

then عَبْرٌ {ʿubr|u n}, which is most like the IE vocalization of the preposition,<sup>21</sup>

and عَبْرٌ {ʿabr|u n}, whose accusative construct form {ʿabr|a} serves as a preposition.

So much variation is somewhat unusual in Arabic, though not unparalleled. The Arabic evidence for this particular word, which must go far back into prehistory, helps us to envisage how a vocalic variation in prehistoric IE too could have led to the gross difference in the first syllable of ὕπερ (ῥυπεῖρ) and ἥπειρος. All in all, the phonetic (as well as the semantic) correspondence between the Semitic and the IE preposition is very close.

**4.Ah.** Since the meaning of this preposition, either in IE or in Semitic, is so readily associated with motion, we are not at all surprised to find the consonantal root widely used as a verb in Semitic; e.g. the Hebrew imperative עָבַר {ʿāḇór} 'cross, come over'. I would not rule out the possibility that such verbal use of the root was a secondary development within Semitic; but the preserved facts draw our attention rather to the intimate link between motion expressed by an uninflected preposition and motion expressed by an inflectible verb.

We may fairly ask why there is no cognate verb in IE. Perhaps it got eliminated at an early stage of IE prehistory, because a verb-root such as

<sup>19</sup> Neither is it a back-vowel in the noun ἥπειρος (ῥᾱ- except in Attic and Ionic).

<sup>20</sup> Before an accented suffix עָבַרְתָּ {l̥ə|ʿēḇr|ō} 'to his side' (Is. 47:15).

<sup>21</sup> The {-u n} ending is nominative absolute. The accusative absolute ending {-an} would be the closest Semitic cognate to the Greek accusative ἥπειρ|ον (1.N).



[ʔ-pr-], with the second consonant plosive and the third liquid, was contrary to the normal IE patterns (which admit a much smaller range of combinations than the Semitic patterns),<sup>22</sup> and so it could not compete successfully — in miscellaneous inflectional forms — with other verbs of similar meaning. Sanskrit has indeed a verb त र √ {tara} or ति र √ {tira} 'cross over' (imperative singular); its apparent Latin cognate survives in the compound *in|trā* √ 'cross over into' (> French *entre* √ > English *enter* √)<sup>23</sup> and uncompounded in the preposition *trāns* √ 'across', which is readily analyzable as a participle 'crossing' (cf. *stāns* √ 'standing' from the imperative verb *stā* √ 'stand').<sup>24</sup>

Beyond the evident conclusion that the IE and Semitic preposition, exemplified by Old English *ofer*, Greek ὑπὲρ : Hebrew {ʕéber} — and the IE and Semitic noun — have a common origin, it seems to me most likely that the shorter IE preposition — Greek ὑπὸ, Sanskrit {úpa} — goes back still further, though not at all traceable in Semitic. Accordingly, the preposition and noun would not be an early IE borrowing from Semitic, but might have gone in the other direction, from IE into Semitic. At any rate, Semitic had no constraint against the three consonants {ʕbr} serving as a verb-root.

This etymology is a good candidate for going back to the most distant prehistory, shared by IE and Semitic. I am wary, however, of ascribing this or any other particular item to a pre-IE-Semitic — or "proto-Nostratic" — core. That remote common source, if it indeed existed once, is extremely hard for us to define, on the basis of the preserved evidence.

<sup>22</sup> A verb-root in an IE language, similar to [ʔ-pr-], appears in the Greek "middle" participle ἄγροῦμενοι √ 'gathering' (nominative pl. masc., *Iliad* 7.134,332, etc.; fem. ἄγροῦμεναι √, *Od.* 20.123). But the indicative is ἄγέροντο 'they gathered' (2.Ra), and a purely metrical constraint excludes \*ἄγέρομεν-, with four short syllables in a row, from dactylic verse. Syncope of the vowel -ε- yields a dactylic measure ~ ~ ~, and thus the semblance of a root ἄγρ-.

<sup>23</sup> Besides being an inflectible verb (e.g. the imperative plural is *intrāte* √), *intrā* serves as an adverb and preposition 'inside, within'.

<sup>24</sup> Also *trā-* survives as an inseparable prefix (like *re(d)-* and *sē-*, 2.Ba-e) in the compound verbs *trā|ice* √ 'throw across', *trā|de* √ 'hand over', *trā|dūc(e)* § 'lead across'; cf. *re|ice* √ 'throw back', *re|de* √ 'give back', *re|dūc(e)* § 'lead back', *sē|dūc(e)* § 'lead aside' (uncompounded *iace* √ 'throw', *dā* √ 'give', *dūc(e)* √ 'lead'). Most verbs use the longer prefix; e.g. *trāns|ī* √ 'go across'.

**4.Ai.** The feminine gender of the Greek noun ἡπειρος, which is somewhat anomalous in the “second declension” (1.Gd,Ld), has a possible Semitic counterpart in the Akkadian noun {e-bi-ir-tim<sup>✓</sup>, a-bar-tim<sup>✓</sup>} ‘bank’ (genitive) — usually referring to the OTHER bank, but {e-bi-ir-tam annītam<sup>✓</sup>} ‘[on] the near bank’ (accusative; *AsDi*, IV, 9). The feminine marker {-at-} is here reduced phonetically to {-t-}, because it is preceded by a syllable with a short vowel and a single consonant. The case-forms of this feminine noun, including even the nominative {e-be-er-tum<sup>✓</sup>}, are used with the preposition {ina<sup>✓</sup>} ‘in, on’: ‘on the (other) bank’. Without {ina<sup>✓</sup>} and without the final consonant {-m}, we find the genitive form {e-bi-ir-ti<sup>✓</sup>, a-ba-ar-ti<sup>✓</sup>} and occasionally the accusative {e-bi-ir-ta<sup>✓</sup>} or the nominative {e-bir-tu<sup>✓</sup>} serving as a preposition ‘across’.

**4.Aj.** Besides the spatial meaning ‘over’, the Greek preposition ὑπέρ has a metaphorical use ‘for (the sake of), in/on behalf of’; e.g. θανεῖν ὑπὲρ τέκνου<sup>✓</sup> ‘to die for [my] child’ (Euripides, *Andromache* 420). This presumably developed from the spatial sense, in a context of PROTECTION, such as τεῖχος ἔτειχίσσαντο νεῶν ὑπερ<sup>✓25</sup> ‘they built a wall over (i.e. in defense of) the ships’ — a wall that the enemy must surmount to get at the ships (*Iliad* 7.449). ‘For (the sake of)’ is expressed in Hebrew by means of a noun from the same root as {ʿēber} but vocalized quite differently:

וְאֶעֱשֶׂה עִמּוֹ חֶסֶד בְּעִבּוֹר יְהוֹנָתָן<sup>✓</sup> {wəʔeʕšēʔ ʕimmoʔ Həʕəd baʕāḇúʔr yəhoʔnəṯn} ‘and I will do him a kindness for the sake of Jonathan’ (II Sam. 9:1). The noun {āḇúʔr} is frequent, though only with this preposition -ב ‘in’ prefixed to it: {baʕāḇúʔr}, which is mostly construed with an infinitive ‘in order to’ or a clause ‘in order that’. I cannot discern any more physical or tangible meaning that this noun may once have enjoyed; no Semitic cognate, matching this vocalization, turns up.<sup>26</sup>

<sup>25</sup> In Greek, when a disyllabic preposition comes after the noun, it is accented on its first syllable (*InEuSeLa*, 553-557).

<sup>26</sup> An apparent homophone of {āḇúʔr}, meaning ‘fruit’, occurs in Joshua 5:11-12:

וַאֲכָלוּ מִעֲבוֹר הָאָרֶץ<sup>✓</sup> {wayyōʔālúʔ meʕāḇúʔr həʔōʔrec} ‘and they ate of the fruit/produce of the earth’. (Gary Rendsburg, however, considers the two uses of {āḇúʔr} to

be etymologically related.) The Aramaic rendering is וַאֲכָלוּ מִעֲבוֹרָא דְאָרְעָא<sup>✓</sup>

**4.B. IE (OHG) *durec* 'through' : Sem. (Heb.) {dérék} 'by way of'**  
(OEng.) *ðerh*, *þuruh*

**4.Ba.** Nearly parallel to the foregoing etymology, or even overlapping it to some extent, is the case of a Semitic triconsonantal root {drk} and its cognates. Besides being verbal —

e.g. the Hebrew דָּרַךְ {dōrák} 'he has trodden' —

it has a derived noun דֶּרֶךְ {dérék} 'way, road, journey'

(pausal דֶּרֶךְ {dřek}),

and the noun becomes virtually a preposition in many combinations:

אֲלֶיךָ הַיָּם עָבַר הַיָּרְדֵּן {dérék hayyóm 'éber hayyardén} 'along the sea (or 'the sea road'),<sup>27</sup> across the Jordan' (Is. 8:23, cf. 4.Aa);

שָׂא נָא עֵינֶיךָ צָפוֹנָה {šá-ná' š'e'néy'ká dérek cōpō'no<sup>h</sup>} 'pray raise your eyes toward the north' (Ezek. 8:5, literally 'northward way'; cf. 2.Oc).

וַיֹּסֶב אֱלֹהִים אֶת־הָעָם דֶּרֶךְ הַמִּדְבָּר יַם־סוּף {wayyaoséβ ?'élohí'm ?'et-há'óm dérek hammidbór yam-sū'p} 'and God took the people around [by] the wilderness route [to the] Reed Sea' (Ex. 13:18).

{dérék hammidbór} 'by way of the wilderness, via<sup>28</sup> the wilderness' is here, in effect, 'through the wilderness' — the Hebrew construct noun being equivalent to the Germanic preposition exemplified by Gothic {þairh}<sup>↓</sup>, Old English *ðerh*<sup>↓</sup>, and Old High German *durec*<sup>↓</sup>. Other forms (or spellings) are OE *ðærh*<sup>↓</sup>, *ðurh*<sup>↓</sup>, *þurh*<sup>↓</sup>, *þuruh*<sup>↓</sup>, *þurg*<sup>↓</sup>, *þorh*<sup>↓</sup>;  
OHG *duruc*<sup>↓</sup>, *durc*<sup>↓</sup>, *durih*<sup>↓</sup>, *duruh*<sup>↓</sup>, *duroh*<sup>↓</sup>, *dhurah*<sup>↓</sup>, *dure*<sup>↓</sup>,  
*duri*<sup>↓</sup>, *dur*<sup>↓</sup>.

The neatest correspondence is הוֹצִיאָנִי דֶּרֶךְ הַשַּׁעַר {wəho'ci'ʔáni<sup>ʔ</sup> dérek haššá'ar} 'and he brought me out [by] way of the gate' = 'and he brought me out through the gate' (Ezek. 42:15, cf. 44:4).

{wæʔə'kælu<sup>w</sup> me'əbū'w<sup>ʔ</sup> dəʔærə'w<sup>ʔ</sup>}. — The Arabic noun اَلْعُبُورُ {(ʔ)|'ubu'r|u} 'the star Sirius' has no perceptible semantic connection with the Hebrew {ʔābū'w<sup>r</sup>} in either sense.

<sup>27</sup> Probably referring to the Sea of Galilee.

<sup>28</sup> The Latin noun *uiā*<sup>↓</sup> 'way', in the ablative case, has supplied the English language with a preposition, mainly restricted to contexts that reflect the record-keeping habits of clerks in past centuries, shifting over from Latin to English (see *OxEnDi* and the introductory paragraph of this chapter).

**4.Bb.** The back-vowel *-u-*, which prevails in Old English and persists uniformly in High German down to the modern *durch*<sup>✓</sup>, resembles the Hebrew back-vowel {-ṣ-} in the pausal form {ḏšreḵ} rather than its non-pausal counterpart {-é-}; and the rare *-o-* of Old English is still closer to the Hebrew {-ṣ-}, but the pausal form cannot serve as a preposition. On the other hand, not only does the Old English *-e-* in *ðerh*<sup>29</sup> match the first vowel in the non-pausal {déreḵ}, but so does the Gothic digraph {ai}, stands almost certainly for a monophthong [e]. For the Gothic alphabet was based primarily on the Greek alphabet as it functioned in the fourth century of the Christian era, when the erstwhile diphthong *AI* had become a monophthong in nearly everyone's pronunciation.

Also the final consonant in most of these Germanic forms must have been nearly identical with the Hebrew velar fricative. It is so in modern German, and the Middle English with *-gh* indicated a similar sound (**2.Ge**, note 77), which has been silent now for several centuries.<sup>30</sup> High German, from the earliest record down to the present, matches Hebrew not only in the voiceless fricative at the end but also in the voiced plosive at the beginning; only *dhu-rah* gives any evidence of an initial fricative. The other early Germanic languages do show clearly an initial fricative [β], except that in Old English the two letters *ð* and *þ* were used interchangeably, and the likeliest inference we can make is that it did not matter whether one pronounced the inter-dental fricative with or without voicing. In modern English, to be sure, initial [ð] — while extremely frequent — is limited to *the* and related pronominals, *that* (**3.Ef**), *they*<sup>✓</sup>, etc., and the conjunction *though*<sup>✓</sup>. But this present restriction did not already obtain in Old English, to judge from the varied spelling;<sup>31</sup> and *ðerh* or

<sup>29</sup> Although the front-vowel is meagerly attested in this OE preposition, it occurs in one of the earliest texts, the Lindisfarne Gospels (Mark 15:10, as a gloss on the Latin *per*).

<sup>30</sup> The spelling *thro*<sup>✓</sup>, frequent in early modern English, was not adopted in the age of standardization (around 1700), probably because by then the vowel was pronounced [u] and that incongruity tipped the balance in favor of the familiar *-ough* — however absurd.

<sup>31</sup> The practice of the OE scribes does not show that a voiced pronunciation [ð-] prevailed in some regions and a voiceless [β-] in others. However, in Shakespeare's time (around 1600) the voiced labio-dental fricative *v-* instead of the normal *f-* marks the speech of a peasant in southeastern England: *voke*<sup>✓</sup>, *vor*<sup>✓</sup>, *vortnight*<sup>✓</sup> instead of *folk*<sup>✓</sup>, *for*<sup>✓</sup>, *fortnight*<sup>✓</sup>, and likewise *zir*<sup>✓</sup>, *zø*<sup>✓</sup> instead of *sir*<sup>✓</sup>, *so*<sup>✓</sup> (*King Lear* IV.vi.233-240). In one word *vixen*<sup>✓</sup> — originally 'a female fox' — the dialect form prevailed over *fixen*<sup>✓</sup> and has become the standard one. Shakespeare had no ready means to distinguish in writing between a voiced

*ðærh*, with the initial voiced fricative, is extremely close to the Hebrew {*dérek*} with fricativation after a vowel, as in: *וַיָּרֶךְ בִּיתָהּ יָצְעָהּ* (*wə-dérek be'tšh yic'sd*) 'and [all the] way to her house he marches' (Pr. 7:8, cf. Gen. 31:35)

**4.Bc.** Furthermore, the difference between a preposition and the related adverb in Germanic is mainly a matter of position. *Through* (like *over*) often comes at the end; and in this connection I note a surprising resemblance to the use of the PAUSAL form of this Hebrew noun: *פָּנוּ-סְלוּ-פָנוּ-רָךְ* {*σollu<sup>w</sup>-σóllu<sup>w</sup> pannu<sup>w</sup>-dšrek*} 'pave, pave, clear a road' or 'push through' (Is. 57:14; the precise meaning of the verb {*pannu<sup>w</sup>*} can only be inferred from this and a few similar passages).

An exact cognate of this Hebrew word is found in Phoenician (another dialect of the same language), but not in Semitic otherwise: *ללכת דרך* {*llkt drk*} 'to go [his] way' (Donner – Röllig, *KaArIn*, I, 5, no. 26.II.5; an inscription of King *אחזר* {*?ztwd*}, unearthed at Karatepe), which again would allow the rendering 'to go through' (cf. *לְהַלֵּךְ לְבֵטָח דְּרָכֶיךָ* {*te-lék lōbēTaH darkék*} 'you will go your way safely', Pr. 3:23). The Akkadian {*da-rag-gu*}<sup>32</sup> 'path' does not correspond closely in sound; for the third consonant (as well as the first) is voiced, and strengthened too — if we are in a position to make reliable statements about the phonology of a long-extinct language, known to us only through a decipherment (1.Ia).<sup>32</sup> I have not seen

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inter-dental fricative and a voiceless one, as the OE letters *ð* and *þ* had long since been discarded.

<sup>32</sup> *AsDi* designates this word as "SB" — i.e. standard Babylonian — but gives such meager citations as to make me think it must have been quite rare. However, the common Arabic word *دَرْج* {*daraj|un*} 'way' (construct *دَرْج* {*daraj|u*} '[so-and-so's] way') corresponds well to {*daragg|u*}, except that the Akkadian word has a geminated consonant; for Arabic stands out from the bulk of the Semitic languages in having the affricate {*j*} instead of {*g*} (1.Kb; the colloquial Arabic dialect of Egypt, however, has {*g*} — contrary to standard Arabic). — The rare Hebrew noun {*ma|dreg|š*} in *מַדְרֵגָה* 'the cleft' (Cant. 2:14, cf. Ezek. 38:20) appears to be formed from the same triconsonantal verb-root, but its semantic relation to the Akkadian and Arabic words is obscure; in post-Biblical Hebrew *מדרגה* came to mean 'step'. The Aramaic {*dærg|i'n*} in *בְּדַרְגִּין* 'by steps/stairs' (Ex. 20:23) exhibits this meaning. I owe most of this information to Gary Rendsburg.

evidence of any related word in a Semitic language — other than {d/ḏēreḱ} in Hebrew — serving as virtually a preposition.

**4.Bd.** Sanskrit shows an apparently cognate preposition; e.g.

ति॒रः प॒वि॒त्रं मा॒श॒वः॑ √ {tirāḥ pavītram āśāvah} ‘swift[ly] through the strainer’ (Rigveda 7.59.8). I am not sure whether a single IE prototype can be posited for this Sanskrit word and for some, at least, of the Germanic forms (see Pokorny, *InEtWö*, I, 1073, 1076). The Germanic velar fricative would normally correspond to Sanskrit {ṣ}; and {tirāṣ}√ indeed occurs, but — under the Sanskrit rules of sandhi — only if the next word begins with {č-} or {čʰ-}. At the end of a Sanskrit word any prehistoric difference between \*š and \*s is neutralized. {tirás}√ appears only before a word beginning with {t-} or {tʰ-}; before most other voiceless consonants it is {tirāḥ}, before any voiced consonant {tirō}√, and before most vowels {tirá}√.

The vowel {-i-}, however, is very hard to square with any IE cognates. The Avestan cognate is either {tarō}√ or {tarə}√; and this {-a-} would fit well enough with the Germanic forms, or — for that matter — with the Hebrew {é/3}.

{tirāṣ/h} is evidently related to the Sanskrit (and IE) biconsonantal verb-root that we have seen exemplified in {tira, tara} ‘cross (over) (imperative singular, 4.Ah). Extensions that make the root triconsonantal have been cited by scholars in other IE languages, but they remain problematical. In Gothic {þairh þairko neþlos}√ means ‘through a needle’s hole’ (i.e. ‘eye’; Luke 18:25, Mark 10:25); the ending {-o} marks a neuter singular noun of the “weak” declension (cf. 1.Cb,f). The Old High German word for ‘hole’ evinces a different suffix but a plainly cognate root: *durh|il*√

(Middle High German *dürch|el*√, *dürk|el*√; cf. OEng. *þyr|el*√); and the related OHG *dur(i)hhil*√ ‘bored’ is still more clearly a verbal adjective. Yet we find no outright verb that means ‘bore’ — i.e. ‘push through’ — and is clearly triconsonantal.

**4.Be.** τρέχε[trékʰ|e], one of the Greek verbs that mean ‘run’, is phonetically a rather attractive parallel to the Hebrew {dēreḱ}; but the resemblance on the semantic side seems too vague. Only in the compound adjective ῥαλί-τροχος√, which is glossed ‘running through the sea’ by LiScJo (s.v. ῥαλί-τροχος), might it be claimed that ‘through’ catches the meaning of -τροχ-

more precisely than 'run(ning)'; and the claim cannot be settled, since the context in which the poet Ibycus (fr. 50 Bergk) used this adjective has not been preserved by the much later grammarian Choeroboscus, citing the word as an example of "metaplasm" — i.e. the accusative singular ending -α of the "third declension" instead of the normal or expected "second declension" form ἑλπίτροχον<sup>√</sup>.

Gothic, besides the preposition {*þairh*} 'through', has the verb {*þra-gjai*}<sup>√</sup> translating τρέχῃ<sup>√</sup> 'it run' (subjunctive, II Thess. 3:1)<sup>33</sup> and exhibiting possibly a mere phonetic modification of the same root as in {*þairh*}. The tri-consonantal root {*þrag-*} would also correspond well enough to τρεχ-, if nothing but "Grimm's law" were involved —

Germanic fricative : Greek voiceless plosive,

Germanic voiced plosive : Greek aspirate plosive.

But this etymology has not been embraced by the Indo-Europeanists, because it conflicts with the Greek evidence for aspiration in the first as well as the third consonant: the aorist tense is ἔθρεξε<sup>√</sup> [é|tʰreḵ|se] 'he/she ran';

and furthermore the noun τροχός<sup>√</sup> 'wheel' has a neat cognate  
in the Old Irish *droch*<sup>√</sup> "

besides the Armenian {*durg|n*}<sup>√</sup> 'potter's wheel',

but these, as well as the Greek verb 'run' depend on a prehistoric IE root \**dʰr-gʰ*. This masculine noun τροχός would be a quite normal derivative from the root τρ-χ- 'run'; and it is also acceptable semantically if we understand τροχός as 'a runner', in reference not to a person but to a man-made contrivance.<sup>34</sup>

**4.Bf.** As with the other IE preposition *over* (OE *ofer*), ὑπέρ, etc., that also expresses a sort of motion, we come out here with no IE verb expressing the same motion as the preposition. To be sure, the Germanic languages are the only ones within IE that have a preposition cognate to *through* (OE *ðerh*,

<sup>33</sup> τρέχῃ<sup>√</sup> in Attic.

<sup>34</sup> This part of the etymology has caused some uneasiness (Chantraine, *DiÉtLaGr*, and Frisk, *GrEtWö*, s.v. τρέχω). The nominative plural τροχοί<sup>√</sup> 'wheels' is especially close in sound to מִדְּרָגִים<sup>√</sup> {*dərɔḵɔy*} 'my ways' (cf. Brown – Levin, *EtPa*, 101), but in meaning this tri-consonantal root — as it appears in Greek — does not match the Hebrew {*drk*} exactly enough for any serious etymology. On the correspondence in the ending -οί : {-ɔy} see *InEu SeLa*, 134-136.

*ðærh*, *ðurh*, etc.). The Gothic verb {þrag-} ‘run’ comes closest to standing in the same relation to the preposition {þairh} as the Semitic verb exemplified by the Hebrew {ʕāḇór} ‘cross’ comes to the preposition {ʕēber} ‘across, over’. On the Semitic side of the correspondence between *ðerh* and {d̥érek} there is a verb דָּרַךְ {dārók}, which means ‘tread’; e.g.

הָאָרֶץ אֲשֶׁר דָּרַךְ רַגְלְךָ בָּהּ (həʔārec ʔāšēr dārəkəḥ ragləkə bəh) ‘the land that your foot has trodden on’ (Joshua 14:9). This verb has somewhat clearer Semitic cognates, especially in Aramaic, than the noun {d̥érek} has: the Targum for {ʔāšēr dārəkəḥ} is דִּרְרֵי כֹת {di|dreʕkæt}. Accordingly {d̥érek} could have meant at first ‘where one treads’, and from that would come not only its main meaning as a noun ‘a road, a path’ but its virtually prepositional use in Hebrew, and even that of the Germanic {þairh}, *ðerh*, etc.

#### 4.C. Egyptian {Hnt(y)} : IE (Latin) *ante* ‘in front of’

4.Ca. The Latin preposition *ante*<sup>✓</sup> (construed with the accusative case) has several IE cognates, but none of them quite shares the meaning ‘in front of’ or ‘before’. In the meagerly preserved Oscan language, which was genetically as well as geographically closest to Latin, {ant}<sup>✓</sup> occurs twice in an unclear context, where it might mean ‘to’ or ‘at’ — although ‘in front of’ is also possible.<sup>35</sup> The Greek ἀντί (with the genitive case) shows a normal phonetic correspondence to *ante*, but it means ‘instead of’.<sup>36</sup> The discrepancy in meaning may be visualized as originating prehistorically in a separate point of view upon the same (or nearly the same) physical reality: Imagine two men about to trade some livestock; one brings what would become

in classical Latin      *octō ouīs ante duo bouēs* † ‘eight sheep in front  
of two oxen’,

but in Homeric Greek ὀκτώ (F)ῖς ἀντί δύο βοῶν † ‘eight sheep in place  
of two oxen’.<sup>37</sup>

<sup>35</sup> See Robert von Planta, *Grammatik der oskisch-umbrischen Dialekte*, II (Strassburg: Trübner, 1897; repr. Berlin: Walter de Gruyter, 1973), 443, 606.

<sup>36</sup> Any short \*-i at the end of a word in the prehistoric forerunner of Latin shifted to -e. So the few occurrences of final -i in Latin — e.g. *hērī*<sup>✓</sup> ‘yesterday’, *mīhī*<sup>✓</sup> ‘me’ (dative) — are due to “iambic shortening” of *hērī*<sup>✓</sup>, *mīhī*<sup>✓</sup> so as to make the final unaccented syllable no longer than the initial accented one.

<sup>37</sup> Conversely, ‘in front of two oxen’ would be, in Greek, πρὸ δύο βοῶν †, and ‘in place of (in return for) two oxen’, in Latin, *prō duōbus būbus* †.



The Sanskrit अं ति<sup>√</sup> {ánti} is an adverb, 'in front' or 'opposite'; *ante* in Latin also serves as an adverb. Finally, in Hittite the adverb {Ḥa-an-ti}<sup>√</sup> 'apart' may admit of the meaning 'in front', according to some but not all authorities (see Pokorny, *InEtWö*, I, 49-50; Illich-Svitych, *MaSrSl*, 354).

The last of these is phonetically as well as geographically closest to the Egyptian adverb and preposition {Ḥnty}<sup>√</sup>, which functions much like *ante* in Latin (see Bomhard, *ToPrNo*, 262-263). The scholars transcribing Egyptian and Hittite use the same character ḥ-; no one is able to determine whether the sound was virtually identical in both languages, but it is pretty clear that the word began with a consonant, not the vowel *a-* as in the IE languages related to Hittite. Egyptian hieroglyphic writing — however defective, however redundant — points to two alternative consonantal skeletons of this adverb and preposition besides {Ḥnty}: {Ḥnt}<sup>√</sup> and {Ḥntw}<sup>√</sup>, of which the former serves also as a noun 'face' and the latter may have survived in Coptic as μτο<sup>√</sup> (either 'face' or 'in front of').

So this preposition too would seem to have originated in a specialized use of a word that was primarily a noun, designating a person's face — as someone perceived it in a spatial relation to something else. A prehistoric IE noun *\*ant-* 'face' was indeed posited by several Indo-Europeanists before the decipherment of Hittite, and without any attention to Egyptian. But this etymon was not accepted by Walde – Pokorny (*VeWö*, I, 67),

because ἄντι admits of a morphological analysis ἄν|τι like

the other preposition προτι<sup>√</sup> 'toward' as a derivative of προδ<sup>√</sup> 'before'.<sup>38</sup>

I see no rational basis now for rejecting a noun behind the IE preposition; however, we are not required to determine whether — and to what extent — *\*ant-* (or *\*Ḥant-*) actually functioned as a noun in IE, as the cognate did in Egyptian.<sup>39</sup>

**4.Cb.** Between the Egyptian {Ḥnty} and its IE cognates there is no evident

<sup>38</sup> Also the Greek adverb ἄντα<sup>√</sup> 'face to face' could conceivably, though less plausibly, be analyzed as ἄν|τα, like κάτω<sup>√</sup> 'down'.

<sup>39</sup> Another noun of spatial meaning — OE *ende*<sup>√</sup> (> *end*<sup>√</sup>) : Sanskrit अं तिः<sup>√</sup> {ántaḥ} 'end' — is possibly related to this preposition; but the semantic link defies our speculation. Could this — like the semantic divergence between the Latin *ante* and the Greek ἄντι — come down to a DIFFERENCE IN POINT OF VIEW, so that what to one was the END of something was to another a certain person's FACE?

Semitic link (cf. **3.Fg**). However, the Latin adjective *antīqu*<sub>c</sub>|*us*<sup>√</sup> ‘front’ or ‘ancient, old’ (i.e. from before) — especially its feminine *antīqu*<sub>a</sub>|*a*<sup>√</sup> — is remarkably close to an Aramaic adjective which in the meager Biblical corpus occurs only in construction with one noun (Dan. 7:13,22):

‘[the] ancient of days’ (i.e. before עֲתִיק יוֹמָיָא {ʿatti<sup>y</sup>q yo<sup>w</sup>mayyāʿ})

IN TIME; cf. 7:9),

feminine עֲתִיקָה {ʿatti<sup>y</sup>q|āʿ<sup>h</sup>}.<sup>40</sup>

In Biblical Hebrew it is rare, and attested only in the masculine plural

עֲתִיקִים {ʿatti<sup>y</sup>q|ī<sup>m</sup>}

(I Chr. 4:22, an obscure passage in a late book).<sup>41</sup>

The frequency of this adjective in post-Biblical Hebrew undoubtedly reflects Aramaic influence.

**4.Cc.** The morphological relation between *ante* and *antīqu*<sub>c</sub> is unparalleled in Latin, although the semantic connection between the two words is palpable (see Ernout – Meillet, *DiÉtLaLa*). The formation of this adjective is unlike anything else in Latin; in Aramaic, however, the structure {C<sub>1</sub>aC<sub>2</sub>C<sub>2</sub>ʾC<sub>3</sub>} is very common, and in Hebrew too it serves extensively to derive an adjective or a noun from a verbal root. Furthermore {ʿtq} exists as a verbal root; e.g.

the Arabic active عَتَقَ {ʿataqa} ‘he (has) preceded’

and stative عَتَقَ {ʿatuqa} ‘it (masc.) has grown/is old’,

and the Hebrew stative עָתָהָה {ʿāṭāḥā<sup>h</sup>} ‘it (fem.) has grown old’.<sup>42</sup>

<sup>40</sup> In the Targum, though not in the brief Biblical Aramaic corpus, we have an attestation of the feminine singular form with suffixed article:

בְּרִיכָא עֲתִיקָהָה {bəre<sup>y</sup>kāṭāʿ ʿatti<sup>y</sup>q|āʿ<sup>h</sup>ʾ} (Is. 22:11),

translating הַבְּרִכָּה הַיְשָׁנָה {habbərēkšā<sup>h</sup> hayəṣṣnā<sup>h</sup>} ‘the old pool’ (cf. **2.Ma**).

<sup>41</sup> The masc. pl. construct occurs in Isaiah 28:9, expressing a paradox:

{ʿēt-mī<sup>y</sup> yo<sup>w</sup>rē<sup>h</sup> dēʿš<sup>h</sup>}

wəʿēt-mī<sup>y</sup> yobī<sup>y</sup>n šəmu<sup>w</sup>ʿš<sup>h</sup>}

gəmu<sup>w</sup>lē<sup>y</sup> mēḥlāṣ ʿatti<sup>y</sup>qē<sup>y</sup> miššāḏšyīm }<sup>√</sup>

אֶת־מִי יוֹרֶה דָּעָה

וְאֶת־מִי יִבִּין שְׂמוּעָה

גְּמוּלִי מִחֻלָּב עֲתִיקִי מִשְׁדָּרִים:

‘Whom shall he teach knowledge, and whom shall he tell the news? Those who are through with milk, too old for [their mothers’] breasts.’ {ʿatti<sup>y</sup>q|ē<sup>y</sup>} is like the nominative plural masculine *antīqu*<sub>r</sub><sup>√</sup>, in pre-classical Latin [antīk<sup>w</sup>|ēy] (as attested in the ablative plural MORIBVS-ANTIQVEIS<sup>√</sup> ‘by ancient customs’, *ColnLa* 12.632.3).

<sup>42</sup> The masc. form of this stative verb is recorded only as an adjective (cf. **2.Ja,e**):

So offhand we would be inclined to posit a Semitic source for the Latin adjective, rather than a prehistoric IE source for the Semitic adjective.<sup>43</sup>

But then we must reconcile that with the lack of a Semitic preposition (or adverb) corresponding to *ante*. The Egyptian {Ḥnty} affords the likeliest clue, provided we acknowledge that in general our data give us access to the REMAINS only of a prehistoric vocabulary which extended over the forerunners of quite a few languages, both IE and Semitic (or Afro-Asiatic):

(1) Either the triconsonantal adjective {ʿattīʿq} was formed within Semitic from a base something like *\*ʿ<sub>H</sub>antiʿ* 'in front, before', similar to the Egyptian {Ḥnty} but with {-tt-} instead of [-nt-] — gemination normally serving instead of pre-nasalization in Hebrew and often in Aramaic too (cf. 3.Ce, note 30) — and afterwards that base *\*ʿ<sub>H</sub>antiʿ* was lost in Semitic, while the derived adjective spread to some extent in prehistoric IE but survived only in Latin.

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הוֹן עִתִּיק <sup>ḥōʿn ʿṣēq</sup> 'old (i.e. hereditary) wealth' (Pr. 8:18). The feminine of that Hebrew adjective, עִתִּיקָה <sup>ʿṣēqāḥ</sup>, would correspond precisely enough to the Latin rendering [útika] of the Phoenician place-name, if we allow first for the vague impression that the reduced vowel in the first initial syllable would make upon a Latin ear, and then for the Latin recessive accent hitting that syllable.

Other Hebrew verb-forms from the root עתק do not seem relevant, either semantically or phonetically, to our comparison with Egyptian and IE.

<sup>43</sup> The adjective 'old' in Arabic is عَتِيقٌ <sup>ʿatiʿq|un</sup>, without strengthening of the middle consonant as in the Aramaic and Hebrew {ʿattīʿq}. Furthermore (as J. P. Brown points out) the name of the early Phoenician settlement in North Africa, rendered Ἰτύκη in Greek and *Vtica* in Latin (with single consonants), presumably meant — with its feminine ending — 'Old [city]', in contrast to the later town of Καρχηδών or *Carthāgō*

= קרחת חדשת <sup>qr|Hdst</sup> 'New City'.

In the Aramaic documents found at Elephantine (upper Egypt) it may be assumed that the word spelled עתק (or, with the suffixed article עתיקא <sup>ʿtyqʾ</sup> 'the old') was pronounced [ʿatt-] with a strengthened consonant as in Biblical Aramaic.

The fem. sing. of the Arabic adjective is عَتِيقَةٌ <sup>ʿatiʿq|at|un</sup>, with the pausal pronunciation [ʿatiʿqah]<sup>†</sup> that nearly corresponds to the Latin *antiqua*, not only as fem. sing. but also as neuter plural. For although Arabic has no neuter gender, the "broken plural" of innumerable nouns — no matter whether masc. or fem. in the singular — is treated syntactically as a fem. sing. noun, calling for a fem. sing. adjective.

(2) Or conceivably the Latin form, with its [-nt-] and [-kʷ-], could be truer to the ancestral morphology (apart from the loss of the initial guttural consonant), but this morphology failed to maintain itself elsewhere in IE, and *antīqu-* in Latin too is an archaic anomaly, saved from obsolescence perhaps by the very association of its meaning with the distant past — whereas the prehistoric Semitic cognate of this adjective was fitted into the recorded Aramaic language through modification to {ʕattīʕq}, in conformity with a Semitic pattern of growing importance for derivation of adjectives.

What gives the edge to the second hypothesis is Ernout – Meillet's analysis of *antīquus* as *anti-* + \**akʷ-o-* [i.e. \**h<sub>3</sub>kʷo-*; cf. 1.Ce] '[with the] eye forward', which fits the spatial meaning of *antīquus* — the temporal meaning being thus secondary, although the temporal meaning is more widely attested and proved to be more persistent.<sup>44</sup> The {q} in the Semitic languages cannot be traced to any Semitic source; and indeed a vexing problem in Semitic linguistics is how to account for the numerous triconsonantal roots that evidently go back to a pre-existing biconsonantal, while the third consonant seems to have been added out of nowhere.

**4.Cd.** Our present etymology — *antīqu-* : {ʕattīʕq}, and especially the masculine plural ANTIQV|EI : {ʕattiʕq|éʕ} — may turn out to be a good starting-point for research into the development of triconsonantality during the prehistory of Semitic. A prehistoric IE type of compound adjective, consisting of a prepositional prefix + a noun (with various inflectional endings), was — or became — utterly untenable in early Semitic, UNLESS REINTERPRETED AS A TRICONSONANTAL ROOT WITH INTERNAL INFLECTION (cf. 2.Ta-b). Accordingly the verb forms cited above —

Arabic	{ʕataqa} 'he (has) preceded', {ʕatuqa} 'it (masc.) has grown/is old';
Hebrew	{ʕṭāqṣ <sup>h</sup> } 'it (fem.) has grown old',
as well as the Phoenician place-name <i>Vtica</i> —	

<sup>44</sup> The latter part of *antīquus* would be cognate to the latter part of the Sanskrit adjective नीचः √ {nīcāḥ} 'low' (etymologically '[with the] eye down'; the prefix \*nī- means 'down'). In the Rigveda only the ablative singular नीचात् √ {nīcāt} 'from below' occurs (1.116.22); see Mayrhofer, *KuEtWōAl*, II, 171, 182.

should rather be regarded as back-formations from the adjective {ṣattī'q}.

A likely Semitic cognate (suggested by J. P. Brown), without that third consonant, is the Hebrew עֵת {ṣēt} 'time'; for quite often it means virtually the same as the Germanic word *end* and the Sanskrit {ántah} (4.Ca, note 39): מָן לֹא יָדַע הָאָדָם אֶת-עֵתוֹ {lō?-yedáṣ hō?dōm ?ēt-ṣitt|óʷ} 'Man does not know his time' (i.e. his end; Eccl. 9:12). The strengthened {-tt-}, as often in Hebrew, represents \*-nt- (cf. 2.Jg). 'Time' in rabbinical Aramaic is עֲנָתָא {ṣnt?}, with no well-attested vocalization but a likelihood that {-nt-} formed a tight consonant group, as in Sanskrit and other IE languages.<sup>45</sup>

4.D. IE (Gothic, Gr.) {ana} : Sem. (Akk.) {ana} '(up)on, to'

4.Da. The IE preposition represented by *on* in modern English is widespread, though not universal, in the older languages — being absent from Sanskrit and Latin. The Gothic cognate {ana}<sup>√</sup> is phonetically identical with a Greek and an Avestan preposition (at least they would be transcribed identically in the phonetic as well as in the ordinary Latin alphabet), and the IE etymology is undisputed (see Pokorny, *InEtWö*, I, 39-40). The range of meaning within a language is considerable; and the difference from one language to another, while perhaps no greater than one should expect, does call for some comment. The Avestan {ana}<sup>√</sup> is glossed 'along, upon' (Jackson, *AvGr*, 204),<sup>46</sup> the Greek ἀνά<sup>√</sup> 'on' but more often 'up' or 'throughout'. In what is preserved of the Gothic Bible {ana} serves only once to render ἀνά:

{gawaurkeiþ im anakumbjan kubituns ana hvarjanoh fimf tiguns}  
for κατακλῖναι αὐτοὺς κλισίᾱς ἀνά πεντήκοντα<sup>√</sup> 'make them  
lie down [in] groups of fifty each' (Luke 9:14).

But {ana} is used much more to translate other Greek prepositions; e.g.

{lagjan gawairþa ana airþa}<sup>√</sup> (Matt. 10:34, cf.  
for βαλεῖν εἰρήνην ἐπὶ τὴν γῆν<sup>√</sup> 10:29)  
'to cast/lay peace (up)on earth'.

<sup>45</sup> {-?} is the suffixed definite article, doubtless pronounced with the vowel [ə] as in Biblical and Targum Aramaic (Levin, *DeAr*, 7-8). After the Biblical period the article lost its function and was generally attached to singular nouns regardless of definiteness.

Another Hebrew derivative is הָעַתָּה {ṣatt|ṣḥ} 'now'; in Ugaritic, as I am informed by Gary Rendsburg, {ṣnt}<sup>√</sup>.

<sup>46</sup> Not found in the early Avestan texts (the Gāthas).

After noting the frequency of {ana airḫa} (the accusative case) as well as {ana airḫai}√ (dative) in Gothic, I am startled to find in Akkadian not only the same preposition but also the cognate noun accompanying it (cf. 1.Fc):

{arāda ana erceti}√ 'to go ashore' (i.e. 'on land', *AsDi*, IV, 313).<sup>47</sup>

When nowadays we say *on earth*√, we can still discern the resemblance not only to the cognate Gothic expression but even to the Akkadian four thousand years ago, or more! The meaning, however, of the Akkadian preposition is more often 'to', which in some contexts agrees with Gothic if not English usage: ἤλθεν εἰς τὰ μέρη Μαγδαλά√ 'he came (in)to the parts/region of

Magdala' (Mark 8:10)<sup>48</sup> was translated

{qam ana fera magdalan}√. In Akkadian too this preposition is sometimes construed with the verb 'come':

{enūma ... ana bīti šātu i-ba-ú-ma}√ 'when ... he comes (in)to this house' (*AsDi*, II, 181; cf. 1.Ec).

The imperative with this preposition 'come (in)to' —

Akkadian {bām ana}§ : Gothic {qim ana}†<sup>49</sup> —

would be a very tight match in syntax as well as morphology. But I doubt whether this particular collocation can be documented, since within Akkadian {bām} is nearly limited to Old Assyrian, and the Old Assyrian corpus — like the Gothic — is meager.

**4.Db.** No Semitic language besides Akkadian shares this preposition {ana}. Moreover, in Akkadian, where it takes the place of the Semitic {l-}√ 'to', it behaves unlike a Semitic preposition, in that it never takes a pronoun-suffix (Von Soden, *AkHa*). That is a further impressive resemblance to an IE preposition, which does not incorporate a pronoun in the Semitic manner; e.g.

Heb./Aram. לִי√ {l|i}√ 'to me', Heb. לָהֶם√ {l|hém} 'to them' (masc.)

Aram. לָהֶם√ {lə|hóm} " " "

<sup>47</sup> To judge from the other citations in *AsDi*, after the preposition {ana} this noun is seldom spelled out syllabically {er-ce-ti} but instead represented by the Sumerian ideogram {KI}.

<sup>48</sup> The place-name and the noun before it vary greatly in the Greek mss.; τὰ μέρη Μαγδαλά is the reading closest to the Gothic version. The parallel passage in Matthew (15:39) is not preserved in the Gothic; it has ἤλθεν εἰς τὰ ὅρια Μαγδαλά√ 'he came to the boundaries of Magdala', with only minor variants.

<sup>49</sup> The prehistoric labio-velar consonant at the beginning of the verb is treated divergently (2.Fc-d).

For in the early IE languages even the mere collocation of a preposition followed by a pronoun is somewhat untypical; and where the Semitic languages share a preposition with IE —

namely, Hebrew {עָבַר}, etc. : Greek ὑπὲρ, Old English *ofer*, etc. —

they rarely combine such a preposition with a pronoun-suffix (for an exception see 4.Ag, note 20).

So the restriction upon {ana} in Akkadian reveals, or at least suggests, something about its prehistoric genesis: it is an UN-SEMITIZED element in this Semitic language. We should not infer that it must have been borrowed relatively late in the prehistory of Akkadian from a near-by IE language (say, the forerunner of Avestan). It could instead go back as far as {1-} does in the prehistory of the other Semitic languages, or even further; but at any rate it escaped being absorbed into the Semitic pattern. As such, it becomes for us a disproportionately interesting item, along with a few others in which one Semitic language stands closer to IE than to its Semitic kindred, or the converse. Since Akkadian was recorded so early, it would be implausible to posit that it had once shared the Semitic {1-}, but that this {1-} was subsequently ousted by {ana}.

That leaves any reconstruction of “proto-Semitic” a less clear-cut but also a less deceptive theory; for we are no longer committed to positing that at a certain time (perhaps around 3000 B.C., or somewhat earlier) such-and-such a feature was present in the ancestor of all the attested Semitic languages, and that at that time another feature was not present. Rather we should allow for much variety and unevenness, such as is actually reflected in the recorded languages, both Semitic and IE.

**4.Dc.** The phonetic identity of the Akkadian {ana} and the Greek ἄνᾱ extends even to the frequent abridgement {an}√ : ἄν√. However, ἄν is typical of the Aeolic dialect only; otherwise we find ἄνᾱ except when followed by a vowel. The {n} of the shorter form may furthermore be liable, both in Akkadian and in Aeolic Greek, to assimilation to the ensuing consonant:

Akkadian	{a-na mi-ni-im}√ or {am-mi-ni-im}√	‘why’ (literally ‘on/for what’; <i>AsDi</i> , X <sup>2</sup> , 94);
Greek	ἄνάπνυε†	or ἄμπνυε√ ‘take a breath’ (literally ‘breathe back’, <i>Iliad</i> 22.222),
	ἄναλέξει†	or ἄλλέξει√ ‘to pick up’ (21.321).

**4.E. Sem. (Eblaite, Akk.)** {in} : IE (Latin, etc.) *in*  
 (Heb.) {bin} : (Ch. Slavonic) [vən] 'in'

**4.Ea.** Although the preposition *in*<sup>✓</sup> is a little shorter than {ana}, it is otherwise an even more impressive heritage that the oldest Semitic languages share with much of IE. Not only is it more widespread geographically, but in all the languages where it occurs, it is very frequent — far beyond any preposition we have considered up to now. In Eblaite, which after Sumerian is the most anciently written language of Asia, Pennacchietti (*SiPrEb*, 298) reports {in}<sup>✓</sup> to be the commonest preposition of all. Likewise {in}<sup>✓</sup> in Akkadian, although the longer form {i-na}<sup>✓</sup> prevails after the early Akkadian period (Von Soden, *GrAkGr*, 164). We are struck by the fact that it does not turn up in the rest of Semitic, but instead over much of the IE realm:<sup>50</sup>

*in* in Latin, Old Irish, Gothic and the rest of Germanic (Pokorny, *InEtWö*, I, 311-312; {in-}<sup>✓</sup> as a prefix in Tokharian B);

*in*<sup>✓</sup> in Arcadian Greek, but <sup>✓</sup>εν<sup>✓</sup> in the other Greek dialects  
 (sometimes <sup>✓</sup>εν<sup>✓</sup> in poetry).<sup>51</sup>

Such variation in the degree of aperture of the vowel is minor; we cannot prove that what the decipherers of Eblaite and Akkadian have transcribed {in} was really pronounced with [i] or [ɪ] rather than [e].

**4.Eb.** Of the nouns often construed with this preposition, the ones most relevant to Semitic and IE etymology are

Akkadian {ina er-ce-tim}<sup>✓</sup> 'in the earth', {in er-ce-et}<sup>✓</sup> 'in the land'  
 of so-and-so (*AsDi*, IV, 310-311; **1.Fc**)  
 : OHG *in erdo*<sup>✓</sup>, *in erdu*<sup>✓</sup>, *in erda*<sup>✓</sup>, 'in(to) the earth';

Akkadian {ina GĀN-lim}<sup>✓52</sup> (*AsDi*, IV, 251; **1.Ia**)  
 : Latin *in agrō*, Greek <sup>✓</sup>εν <sup>✓</sup>αγρῶν<sup>✓</sup> 'in the field';

<sup>50</sup> In Hittite, however, only postpositions — not prepositions — seem to have been native. {ina}<sup>✓</sup> occurs, along with other Akkadian prepositions, in phrases borrowed from Akkadian.

<sup>51</sup> Once in Oscan EN.EITVAS<sup>✓</sup> 'in [regard to] money' (*Tabula Bantina* 9), but otherwise this is not a preposition but a suffix after the accusative or other case-ending: even in the same inscription (20), CENSTOMEN<sup>✓</sup> 'into the census'. Similarly a suffix, not a preposition, in Umbrian: {arvamen}<sup>✓</sup> 'into the field' (*Tabulae Iguvinae* III.11, accusative; = Latin *in ar-*

*uum*<sup>✓</sup>, *in agrum*<sup>✓</sup>),

{arven}<sup>✓</sup> 'in the field' (III.13, ablative; = Latin *in aruō*<sup>✓</sup>, *in agrō*<sup>✓</sup>).

<sup>52</sup> The Akkadian word for 'field', if written phonetically, would be {eqlim}; but in most Akk. texts, part or all of it is written ideographically, using one or two Sumerian syllabic characters (which the cuneiform specialists conventionally transcribe in small capital letters).



Greek  $\epsilon\iota\nu$  (F)οἰκωι<sup>√</sup> (*Od.* 1.359, etc.; **1.Ec**)

: Akk. {ina bi-tim}<sup>√</sup> 'in the house', {ina bi-ti atappim}<sup>√</sup> 'in the house [= area] of the canal' (*AsDi*, II, 284, 292).

As the cases of nouns are nearly rudimentary in the Semitic languages, we find with any preposition in Akkadian only the so-called genitive case, ending in {-i} or {-i m} (though the ending is usually omitted when the noun is in the construct state; **4.Ab-c**). It sounds as if cognate to the Greek -ι, which is traditionally called "dative" in Greek grammars but corresponds rather to the locative ending of Sanskrit and Avestan. The -ι is added directly to the base-form of some nouns; e.g.  $\epsilon\iota\nu$  χεῖρ<sup>√</sup> 'in hand' (*Euripides, El.* 610;

cf. Akkadian {ina qá-ti}<sup>√</sup>, *AsDi*, XIII, 189).<sup>53</sup>

The morphological and syntactical correspondence between

Greek {en —i} and early Akkadian {in —i-}

is more exact than their IE and their Semitic cognates show, except perhaps for the Eblaite (to which I have meager access). It could go back to very remote times, so that the associated nouns which originally exemplified it have either undergone some phonetic and morphological changes disguising the correspondence  $\epsilon\alpha\rho\omega\iota$  : {eqli[m]} and (F)οἰκωι : {bīti(m)}, or else been replaced before the historical period by semantically equivalent nouns from miscellaneous sources.

**4.Ec.** The other Semitic languages express 'in' by the prefix {b-}<sup>√</sup> (in Ugaritic sometimes set off as a separate word). In Arabic this is uniformly vocalized  $\text{بـ}^{\sqrt{}}$  {bi-}; in Geʿez {ba-}, but with some variation in the vowel (*Leslau, CoDiGe*, 82). In Hebrew and Aramaic the vowel varies greatly, but most often it is  $\text{ב־}^{\sqrt{}}$  {bæ-}; when closely conjoined to the preceding word that ends in a vowel, the consonant is fricativated:  $\text{ב־}^{\sqrt{}}$  {bæ-}.

The Church Slavonic  $\text{въ}^{\sqrt{}}$  {və} is extremely close to this in sound, as well as meaning.<sup>54</sup>

How, if at all, to relate the Slavic preposition to the IE forms discussed above, has puzzled the Indo-Europeanists. A Semitic parallel suggests that all these forms may have a common origin. Before certain pronouns that begin with a vowel, the Slavic preposition adds a transitional consonant [n], which

<sup>53</sup> In both languages a possessive usually follows, telling WHOSE hand.

<sup>54</sup> Also  $\text{въ}^{\sqrt{}}$  in Russian; but as the vowel ceased to be pronounced, a spelling reform after the great revolution has simplified it to  $\text{в}^{\sqrt{}}$ .

is written as the first letter of the pronoun:  $\text{вѣ немѣ}^\vee$  [ $\text{vən}^\vee \text{em}^\text{i}$ ] ‘in it, in him’; otherwise the pronoun is  $\text{ѣмѣ}^\vee$  [ $\text{yem}^\text{i}$ ]. Now one Hebrew expression, describing a gourd, contains { $\text{b}^\vee \text{in}$ } where the context would lead us to expect { $\text{b}^\vee \text{ə}$ }:  $\text{דָּבַר לַיְלָה וַבַּיְלָהָהּ שָׁבַב}^\vee$  { $\text{šeb}^\vee | \text{bin} - \text{lāy}(\text{ə}) \text{lə}^\text{h} \text{həy} \text{d}^\text{h}$   $\text{u}^\text{w} | \text{bin} - \text{lāy}(\text{ə}) \text{lə}^\text{h} \text{šəb}^\vee \text{d}^\text{h}$ } ‘which in a night has been [i.e. come into being; cf. **2.Da**] and in a night has perished’ (Jonah 4:10).<sup>55</sup> So { $\text{b}^\vee \text{in}$ } would be very close, in sound and meaning, to the Church Slavonic [ $\text{vən}$ ]; Hebrew cannot have [ə] in this environment, but [i] is the usual positional alternant to [ə].

Ancient South Arabian has both {b} and {bn}, but with a distinction in meaning: the latter is ‘from’,<sup>56</sup> the former ‘in’ and closely related senses. Ugaritic is noteworthy for using {b} indiscriminately either as ‘in’ or as ‘from’ (Gordon, *UgTe*, 93-97, 370); the context would determine which interpretation is appropriate, or possibly a unwritten vowel differentiated what to us appears to be one and the same preposition or prefix.

**4.Ed.** The odd distribution of {in} and {b(Vn)} in Semitic and of comparable forms in IE makes it likely that very early in the prehistory of these language groups the labial form co-existed with the non-labial, although we do not find both forms used by any one population. A further possibility is that the labial form arose as a mere variant of the other, which is more anciently attested; but I see no way of tracing how this could have come about. The cuneiform script of Akkadian and Eblaite, as it has been deciphered, cannot tell us whether {in} had a glottal stop [ʔ] at the beginning, or conceivably another

<sup>55</sup> { $\text{b}^\vee \text{in}$ } in this passage has usually been taken by commentators to be the same word as { $\text{b}^\vee \text{in}$ } is elsewhere, the construct form of ‘son’ (although ‘son’ has the vowel [e] apart from special phonetic environments). In my book, *FaJoJe*, 20, I too followed the customary analysis that the combination means literally ‘son of a night’ — which, from what we know of Biblical Hebrew idiom, would do tolerably for the first occurrence but much less well for the second. I am now persuaded by Gary Rendsburg that  $\text{ב}$  here is the longer form of the preposition; in “Sabaic Notes to Hebrew Grammar,” *Abr-Nahrain*, 27 (1989), 110-111; he cites a likely occurrence of  $\text{ב}$  ‘in’ from a Phoenician inscription (Donner – Röllig, *KaAr In*, I, 10, no. 41.13). The rendering in the Septuagint of Jonah,  $\text{ὑπὸ νύκτα}^\vee$  ‘overnight’, rather favors this interpretation; the Greek translator, however, may have had stylistic motives for avoiding  $\text{*υἱὸς νυκτὸς}$ , even if he believed ‘son of a night’ to be the literal meaning.

<sup>56</sup>  $\text{مِنْ}^\vee$  {min} ‘from’ in Arabic; likewise  $\text{מִן}^\vee$  {min} in Hebrew and Aramaic (cf. **3.Ed**).

guttural consonant — one associated with a certain movement of the lips (cf. 1.Ce).

**4.F. Sem. (Heb., Aram.) {ʕād} : IE (Latin) *ad* 'to, until'**

**4.Fa.** Another brief preposition affords an exact phonetic match, so far as the divergence phonologies of the respective Semitic and IE languages permit. For the Latin *ad*<sup>√</sup> has no guttural consonant to correspond to the initial one in Hebrew and Aramaic אַד<sup>√</sup> {ʕād}; and the voiced plosive at the end of the Latin word is bound to come out fricativated in these Semitic languages.

Semantically the match is good, but quite incomplete (Möller, *VeInSeWö*, 1). In Latin *ad* is very frequent, expressing motion TOWARD A PLACE (or a person), but not into it. The meaning of {ʕād} in Hebrew and Aramaic is more precise or limited: 'all the way to, as far as'. *Ad* in the Vulgate most often represents the Hebrew preposition אֵל<sup>√</sup> {ʔel}; yet there are many instance of *ad* for {ʕād} — e.g. (Gen. 38:1, 15:18)

וַיֵּט עַד-אִישׁ עַדְלָמִי {wayyēt ʕād-ʔʕš ʕādullamī} 'and he turned  
aside to an Adullamite man'  
is translated *diuertit ad uirum odollamitem*<sup>√</sup>.

וַיֵּט עַד-הַנָּהָר {ʕād-han|nəḥór} '(all the way) to the river' (referring to the  
Euphrates) is translated  
*usque ad fluuium*<sup>√</sup>; but there is, besides, a river in Italy actually  
called *Nār*<sup>√</sup>,<sup>57</sup> a tributary of the Tiber, and so the phrase *ad Nārem* § 'to  
the Nar' was a natural Latin combination.

**4.Fb.** Especially in certain expressions of time the semantic match between the Hebrew and the Latin preposition is striking:

<sup>57</sup> The disyllabic form NAHAR<sup>√</sup> is scantily and indirectly attested:

(a) by the derived ethnic NAHARTIS<sup>√</sup> 'a Nahar-man' (genitive) in one Latin inscription (*Coln La* 11.4213.4) — otherwise NART<sup>√</sup> — referring to the inhabitants of Interamna on the Nar;  
(b) by the Umbrian forms NAHARCER<sup>√</sup> (genitive), NAHARCE<sup>√</sup> (dative), NAHARCOM<sup>√</sup> (accusative; also — in the indigenous Umbrian alphabet {naharkum}<sup>√</sup>) in tablets concerned with cursing the unfriendly neighbors of Iguvium (now Gubbio).

Although *Nār*/NAHAR has the ear-marks of a recurrent river-name (cf. 4.Aa, note 4), I would not simply dismiss a different etymology, given by Servius on *Aeneid* 7.517: *Sabini lingua sua nar dicunt sulfur; ergo hunc fluuium ideo dicunt esse Nar* [an *Narem* restituendum?] *appellatum quod odore sulfureo nares contingat*<sup>√</sup> 'The Sabines call sulphur *nar* in their language; therefore they say this river was called *Nār* because it touches the nostrils with a sulphurous smell.'

עַד-הַנִּנָּה<sup>∇</sup> {ʿad-hénno<sup>h</sup>} = *adhuc*<sup>∇</sup> ‘up to now’,

עַד-מָתַי<sup>∇</sup> {ʿad-mōtáy} = *quoad*<sup>∇</sup> ‘till when, how long’, the corresponding interrogative. Also the Latin conjunction *atque*<sup>∇</sup>, in which the consonant of *ad* was devoiced in syllabic linkage to [k<sup>w</sup>], is somewhat reminiscent of {wə|ʿad} ‘down to, even to’ (literally ‘and to’), and was actually used to translate it in one passage:

וְהַמָּתָה מְאִישׁ עַד-אַשָּׁה מֵעַלְלָל וְעַד-יֹנֵק מִשּׁוֹר וְעַד-שֶׁה מִגִּמְל  
{wəhemattó<sup>h</sup> meʔiʃ ʿad-ʔiššó<sup>h</sup> meʔolél wəʿad-yo<sup>w</sup>néq :  
miššó<sup>w</sup>r wəʿad-šé<sup>h</sup> miggomól wəʿad-Hāmó<sup>w</sup>r}<sup>∇</sup> ‘and you are to kill [everyone] from man to woman, from infant even to suckling, from ox even to sheep (or goat),<sup>58</sup> from camel even to ass’ (I Sam. 15:3); in the Vulgate, *sed interfice a uiro usque ad mulierem, et paruulum atque lactentem, bouem et ouem, camelum et asinum*<sup>∇</sup>. Since עַלְלָל and יֹנֵק — unlike the other three pairs of nouns — are virtual synonyms,<sup>59</sup> the translator chose *atque* to link *paruulum* with *lactentem*; for in the classic age of Latin this was indeed the main use of *atque* in preference to *et*<sup>∇</sup>, which served in between two quite separate entities.

In early Latin the IE enclitic *-que*<sup>∇</sup> ‘and’ ( : Sanskrit च<sup>∇</sup> {ča}, Greek τε<sup>∇</sup>) predominated, regardless of this fine distinction; but it gradually lost ground to *et* and to the compound *atque*, which had started out with a much stronger meaning ‘and even’. Nothing in Latin idiom (nor, for that matter, in English) comes close to the Hebrew construction that I would gloss literally

<sup>58</sup> שֶׁה means ‘one of the flock’, without distinguishing between the two species (cf. 1. Fb).

<sup>59</sup> The verb-root ע(ו)ל means ‘suckle’, ינק ‘suck’. In the Latin Bible *adhuc*, though often used where the Hebrew has עוֹד<sup>∇</sup> {ʿo<sup>w</sup>ḏ} ‘still’, never represents {ʿad-hénno<sup>h</sup>}; *quoad* is lacking in the Bible, except for two occurrences of the combination *quoadusque*<sup>∇</sup> (Cant. 2:7, Ps. 93[94].14):

*quoadusque ipsa uelit*<sup>∇</sup> for עַד שֶׁתִּחַפֵּץ<sup>∇</sup> {ʿad šetteḥp̄ʕc} ‘until she list’;

*quoadusque iustitia conuertatur in iudicium*<sup>∇</sup> ‘until righteousness turns into judgement’ for כִּי-עַד-צֶדֶק יָשׁוּב מִשְׁפָּט<sup>∇</sup> {kī<sup>y</sup>-ʿad-ʿādeq yəšú<sup>w</sup>b mišp̄ʕt} ‘for judgement shall return to righteousness’.

'from A and to B'; but *atque* and {wəʕad} originally had it in common that they signal an unexpected or extreme addition.

**4.Fc.** The cognates of Hebrew and Aramaic {ʕad}, within Semitic, include

Ugaritic and Ancient South Arabian {ʕd}√ (vowels not indicated),

and Akkadian {a-di}√, less often {a-du}√, {ad}√, etc.<sup>60</sup>

{a-di i-na-an-ni}√ 'up to now' (*As*, I<sup>1</sup>, 119) is the frequent Akkadian counterpart to the Hebrew {ʕad-hénno<sup>h</sup>}. The vowel that makes {adi} disyllabic in Akkadian has nothing to correspond to it in the few IE languages that show a cognate to this Semitic and Latin preposition:

Gothic, Old Norse, English *at*√ (Old English *æt*√)

Old High German *az*√

Oscan *az*√.<sup>61</sup>

In these IE languages other than Latin, the preposition expresses motion less often; e.g. Gothic {qam at imma}√ 'he came to him' (Mark 1:40, etc.)

= Latin *uenit ad eum*√

(ἐρχεται πρὸς αὐτὸν√ in the original).

In modern English *he came at him*√ (with heavy stress on the preposition) expresses violent motion indeed; but otherwise *at* is used mainly for vague location, less precise than *in*. Thus the Oscan {az hortom}√ (the sole occurrence of this preposition in the meager Oscan corpus) is neatly rendered 'at the

<sup>60</sup> Eblaite {a-dè}√ (Pennacchietti, *SiPrEb*, 293) does not appear with the meaning 'up to, until', but rather '(in return) for' — like ἄντι in Greek (**4.Ca**).

<sup>61</sup> As a prefix *ad-* is found not only in Latin but in Oscan and in Irish and other Celtic languages ({af-}√ in Umbrian). But the Semitic preposition is not susceptible to such use as a prefix. The closest it comes to that is in a Phoenician inscription:

וַעַד יְהוָה לְאֶדְן מַלְכָּם {wʕd ytn ln ʔdn mlkm} 'and the lord of kings gave us besides' (Donner – Röllig, *KaArIn*, I, 3, no. 14.18); {ʕd ytn} has nearly the meaning of the Latin *addidit*√, a compound of *ad-* + *dedit*√. Like most Phoenician inscriptions (but unlike Hebrew texts) this one shows no separation between words — neither by dots nor by spaces (see a facsimile of the original lettering — which I have replaced with the familiar Hebrew-Aramaic "square" characters — in Mark Lidzbarski, *Handbuch der nordsemitischen Epigraphik nebst ausgewählten Inschriften*, II [Weimar, 1898; repr. Hildesheim: Olms, 1962], Tafel IV.2); so it does not tell us whether {wʕdytn} constituted two words, as in Hebrew, or just one. — In none of these IE languages are there prepositions of the structure VCV, like the Akkadian {adi} or the Greek ἄπὸ√, Sanskrit अ॒प॒ (ápa) '(away) from', whose Latin cognate is *ab*√.

grove'; the Latin *ad hortum*<sup>√</sup> (AD.HORTOM† in the earliest historical period) can be either 'at the grove' or — more often — 'to the grove'.<sup>62</sup>

**4.Fd.** The difficult etymology of one Latin compound *admodum*<sup>√</sup> 'very much' is clarified by the Hebrew phrase  $\text{בְּכָל-לִבְּךָ וּבְכָל-נַפְשְׁךָ}$  {*ʿad-məʔód*} (two words, but always hyphenated in the Bible), which means exactly the same as the Latin adverb — 'very much', or often, with an adjective 'very'. {*məʔód*} without {*ʿad*} functions as an adverb, with scarcely any difference in meaning; at most {*ʿad*} serves to reinforce {*məʔód*}. Now as a noun {*məʔód*} is quite rare; but the meaning displayed in the famous passage —

$\text{בְּכָל-לִבְּךָ וּבְכָל-נַפְשְׁךָ וּבְכָל-מְאֹדְךָ}$  {*bəkol-ləbḥəḥək uʔbəkəl-naḥṣək uʔbəkəl-məʔodḥək*} 'with all your heart and with all your soul and with all your might' (Deut. 6:4, cf. II Kings 23:25) — accords perfectly with the adverbial meaning, just like *mighty*<sup>√</sup> in colloquial or old-fashioned English or the adverb *ualdē*<sup>√</sup> in Latin.<sup>63</sup> The Latin noun *modus*<sup>√</sup> 'measure', on the other hand, does not square readily with *admodum*, unless the adverb — or the phrase *ad modum* — is interpreted etymologically as 'to the [full] measure, up to the limit' (Ernout – Meillet, *DiÉtLaLa*, s.v. *modus*), rather than 'to a degree, to some extent'.

Within the Latin community, I suspect, the understanding of *admodum* as 'up to the limit' was influenced, if not determined, by hearing the Phoenician or Punic dialect equivalent to the Hebrew {*ʿad-məʔód*}, probably with the interior glottal consonant weakened so that  $\text{מֹד}$  sounded like [mod] — nearly the same as the base of the Latin noun *mod-*. For in the early Latin comedies *admodum* comes up often as a one-word response, with a slangy ring: 'Very' or 'Very much so'; e.g.

<sup>62</sup> The English *yard*<sup>√</sup> is a probable cognate of this noun; but we would say *in the yard*<sup>√</sup> rather than *at the yard*<sup>√</sup>, unless we were talking about a freight-yard (or the like) not adjacent to a house.

<sup>63</sup> Formed from the adjective *ualid* |*us*<sup>√</sup> 'strong, mighty'; but this adverb, being much more frequent and colloquial, underwent the phonetic process suppressing (or syncope) the weak interior vowel, while this adjective remained in the paradigm that linked the adjectival suffix *-id-* to verbs if the "second conjugation" (in *-et*) and to nouns in *-or*.

A: *bellan uidetur speciē mulier?* B: *admodum*<sup>✓</sup> (Plautus, *Bac.* 838)  
 'A: Does the woman seem nice-looking? B: Very' (cf. 1111, *Rud.* 143, 269,  
 840, 1081; Terence, *Phor.* 315, etc.).<sup>64</sup>

A comparable passage in the Bible is מְאֵדָה יְפֵהָ הַיְּתִיבָה  
 {wəḥannaʿārś<sup>h</sup>yōpōś<sup>h</sup>ad-məʔód} 'And the girl [was]  
 mighty pretty' (I Kings 1:4).

To pick up a Phoenician expression that sounded to the Latins like [(ʿ)admod], they did not have to be bilingually skillful to such an extent in their dealings with Carthaginians (or other Phoenicians settled in North Africa) that they could extract this from the midst of a Phoenician sentence. Rather, they could absorb it as a separate utterance, whether it was uttered in the course of bargaining over a beautiful harlot or on some other occasion.<sup>65</sup>

4.G. Sem. (Akk.) {maHri(š)} 'before' : IE (Gr.) μέχρις 'until'

4.Ga. The Akkadian noun {ma-aH-ri, maH-ri}<sup>✓</sup> (genitive case) means 'of the past'; and like some other nouns it also serves as a preposition (cf. 4.Aa, c, Bc). The construct {ma-Ha-ar, ma-Har}<sup>✓</sup> is the most frequent form in a quasi-prepositional function 'before', but {maHri} in combination with pronominal suffixes is common too; e.g.

{ma-aH-ri-ni}<sup>✓</sup> 'before us',

{maH-ri-ka}<sup>✓</sup> 'in your presence' (*AsDi*, X<sup>1</sup>, 107).

Among the other forms employed similarly, the one most pertinent to our comparison with IE is {maH-ri-iš, maH-riš}<sup>✓</sup> — the {-iš} being an adverbial suffix (Von Soden, *GrAkGr*, 163, 167-168).

No Semitic cognates to {maHri(š)} have been pointed out; but the Greek μέχρι<sup>✓</sup>, μέχρις<sup>✓</sup> 'until, up to' is strikingly similar in form, and not far from it

<sup>64</sup> J. P. Brown calls attention to this adverb in the mouth of a Punic character, Asterastilis, who describes women without make-up as *Insulsaē admodum atque inuenustae*<sup>✓</sup> 'quite flavorless and unattractive' (Plautus, *Poen.* 246).

<sup>65</sup> Although *admodum* is copiously attested in classical literature, it was never used in the Latin Bible. Perhaps it was obsolescent in the ordinary vocabulary by that time. At first the Latin version was made from the Greek by Christians in Rome, without reference to the Hebrew; and when Jerome around 400 brought his personal knowledge of Hebrew to bear upon the defects of the existing translation, his policy was to abstain in general from mere stylistic changes. So he did not introduce *admodum* for מְאֵדָה to replace his predecessors' renderings: *nimis*<sup>✓</sup> 'very much' (properly or classically 'too much'), *vehementer*<sup>✓</sup> 'vehemently', *usquequaque*<sup>✓</sup> 'everywhere, altogether', etc.

in meaning. While usually classed as a preposition by the Greek grammarians, it is neither accented like one (grave on the second syllable, as we have seen in ὑπὲρ, ἀνὰ, etc.), nor ever treated as a prefix. These two limitations go together, and suggest that it was formed, or borrowed, with a fixed initial accent too late in prehistory for full integration into the prepositional pattern.

The only IE cognate that has been cited is Armenian {merj}ᵛ 'near' or 'with'. In meaning this seems more like the Akkadian {ma-aḥ-ri-ka}ᵛ 'with you' than like the Greek μέχρ(ις). Moreover, Armenian and Greek are among the few copiously documented IE languages that are not far from the ancient Akkadian territory. So contact in prehistoric times is likely (first suggested by Bernal, *BIAt*, I, 60).

**4.Gb.** Especially the variation between μέχρ(ι) and μέχρ(ις) points to an Akkadian source, or else a source common to Akkadian and Greek. For nothing quite like this is found within Greek, except for the synonymous word ἄχρ(ις)ᵛ. The -ι forms are used before a consonant, the -ις forms before a vowel.<sup>66</sup> The Indo-Europeanists (e.g. Pokorny, *InEtWö*, I, 702) derive μέχρ(ις) from \**me-gh̑ri-(s)*, and ἄχρ(ις) from \**ṛ̑-gh̑ri-(s)*, identifying the base as the locative case of the noun 'hand' — χεῖρᵛ in Greek.<sup>67</sup> This word for 'hand' is a perplexing problem of IE etymology, because no one reconstruction accounts successfully for both the Hittite {keššar}ᵛ and the Tokharian A {tsar-}ᵛ, B {šar-}ᵛ (see Van Windekens, *ToCo*, I, 521). If, however, we limit our consideration to the Greek and to the Armenian {jeṛn}ᵛ, the reduced grade -χρ- would offer no difficulty; and the analysis of the first syllable με- as a prefix, which reappears in the preposition μετὰᵛ 'with' (cf. **3.Ee**), will also hold.

It seems likely, then, that one Semitic language — and no other — has borrowed a compound word from the prehistoric IE of the region, rather than a

<sup>66</sup> ἄχρ(ις) at the end of a verse (*Iliad* 17.599).

<sup>67</sup> The recessive accent resting upon the [ā] of ἄχρ(ις) might be an obstacle to the second half of this derivation; for the "zero grade" \*ṛ̑- is associated with lack of accent. However, ἄχρ(ις) is alien to Attic (although common in the later κοινὴ, which was based mainly upon Attic) and also rather infrequent in Homer. Since our information about accent is much weaker outside of these two dialects, I can conceive of an oxytone form \*ἄχρ(ις) having existed, though nowhere attested. The occurrences of ἄχρ(ις) in Homer may be attributed to the Aeolic component of his literary dialect — Aeolic being noted for RECESSIVE accent at or near the beginning of every word, unlike the complex patterns of accent that characterize the other dialects.



borrowing in the opposite direction. To be sure, the ATTESTATION in Akkadian is a good deal earlier, but that fact is hardly decisive. Although the more advanced civilization of Mesopotamia (in the third and the second millennium B.C.) must naturally have diffused many vocabulary items into the outlying areas, this argument loses its force when applied to a particular word whose meaning in Greek 'until, up to' differs appreciably from the Akkadian meaning 'before'. The IE morphological analysis of μέχρη, as originally signifying 'into the hand of', would allow a somewhat divergent semantic development within prehistoric Greek and Akkadian — and of course within Armenian too.

**4.Gc.** Whether ἄχρι(ς) — as well as μέχρη(ς) — has a Semitic cognate, is more problematical. The closest thing to ἄχρις is the Akkadian adverb {a-ḫur-riš}√ 'hereafter' (*AsDi*, I<sup>1</sup>, 216: 'for the future ... in time to come'); but neither phonetically nor semantically is this a neat match. Indeed the many Akkadian {aḫ(V)r-} forms, with the meaning 'after', seem quite opposite to {maḫr-} 'before'.

The Hebrew preposition and adverb אַחֲרַיִם√ {ʔaḥár} 'after(ward)' is clearly related to Akkadian {aḫurriš}, etc. Hebrew, however, also has מָחָר√ {mḥór} 'tomorrow' (and often loosely, 'hereafter'), as well as the derivative הַמָּחָר הַבֹּרֵךְ√ {yóʷm ham|mḥór|ḥt} 'the morrow, the day after' (not 'before', Num. 11:32). The disparity between the {mV-} and the {(?)a-} forms in these Semitic languages involves somehow a primeval variation, if not confusion, in talking about past and future time.<sup>68</sup>

#### 4.H. Concluding Remarks on Prepositions

The common ground between IE and Semitic prepositions is less extensive than that between IE and Semitic pronouns, but still noteworthy. No prepositions are nearly so widespread as the [TE] forms that mean 'you' — which indeed take in still other phyla of languages (**3.Ca-n**). The cognates of *over* are the most nearly pan-IE and pan-Semitic. The cognates of *at* are virtually pan-Semitic (aside from Arabic) but of restricted distribution in IE; almost the converse applies to *in*.

<sup>68</sup> A lone occurrence of {ma-ḫa-ri} 'tomorrow' in an Akkadian tablet from El-Amarna (Egypt) mentions Megiddo (a Canaanite town), and doubtless reflects a West Semitic word — Hebrew {mḥór} — not normally a part of the Akkadian vocabulary.

The Semitic prepositions are no more than a shade different from nouns in the construct state. But in the early IE languages, with noun-inflection so highly developed, the prepositions look rather like an anomalous sub-set, and in their syntax they matched the Semitic prepositions only in part; for their position in the sentence was relatively free, and rather pre-verbal than pre-nominal.<sup>69</sup> Afterwards these IE languages (at least the ones that lasted)<sup>70</sup> came to use prepositions more and more in the Semitic manner — whether or not this was due to any cultural or typological influence from Semitic languages, somewhat like the spread of the definite article (3.Fg-m).

The phonetic correspondence of the Semitic {ʿad} to the voiced consonant of Latin *ad* — whereas Germanic has *at* — is of a piece with Hebrew {red} '(go) down' : Latin *red-* 'back' (2.Ba-d). If this preposition had a Greek or Sanskrit cognate also with {d}, it might argue for a relatively late prehistoric diffusion, after the voiced plosives were established in most of the IE languages (cf. 2.AAg). But I hesitate to base any such conclusion upon the limited evidence at hand.

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<sup>69</sup> This is most evident in Vedic Sanskrit, recorded in sacred texts that may well go back to the second millennium B.C. They were kept unwritten until the Muslim conquest of India gave the Brahmins a motive for displaying their oral lore in Scriptural form, so as to prove that they too were a "people of the Book" and accordingly entitled to toleration.

<sup>70</sup> Little if any of the cuneiform corpus of Hittite, which had only postpositions (4.Ea, note 50), reaches into the first millennium B.C. Lycian, however, a later relative of Hittite but written in a consonant-and-vowel alphabet, developed several prepositions (none of them, apparently, cognate to the ones discussed in this chapter). See Emmanuel Laroche (et al.), *La stèle trilingue du Létôn* (Fouilles de Xanthos, VI; Paris: C. Klincksieck, 1979), 88-90. This information comes to me from J. P. Brown.

## Chapter V NUMERALS

Counting is one of the simplest manifestations of intellect through language. Very young children begin to count, in any environment where they are encouraged to. But ethnographic studies have shown that it is not universal; some languages are reported to have no word for 'four' or any higher number. And in languages whose vocabulary reaches up to the 'thousands', the upper numerals may be outside of the basic vocabulary and familiar only to a minority of experts.

An illustration comes from IE comparative grammar: In the cognates

Greek  $\epsilon\acute{\xi}\eta\kappa\omicron\nu\tau\acute{\alpha}\nu$ <sup>√</sup> : Latin *sexāgintā*<sup>√</sup> 'sixty'

the pan-Hellenic (as distinct from the Ionic and Attic)  $\eta$  [ē] does not normally correspond to Latin [ā], nor voiceless [k] to voiced [g], nor [on] to [in], nor short [ǎ] to long [ā]. The recurrent discrepancy between the phonetic segments is best explained by positing that among the prehistoric forerunners of these two languages the phonological habits of the few persons who transmitted such numerals diverged somewhat from the prevailing habits of the rest of the community. Such words were eventually integrated into the general vocabulary, but with many phonemes different from the ones exemplified by the other cognates; e.g.

$\tau\acute{\eta}\kappa\epsilon$ <sup>√</sup> : *iēcīt*<sup>√</sup> 'he/she threw';

*māter*<sup>√</sup> :  $\mu\acute{\alpha}\tau\epsilon\rho$ <sup>√</sup> 'mother'

(Ionic-Attic  $\mu\acute{\eta}\tau\epsilon\rho$ <sup>√</sup>).

(*F*) $\omicron\iota\kappa\omicron\nu$  : *uīcum* (1.Ea-b);

*agō*<sup>√</sup> :  $\acute{\alpha}\gamma\omega$ <sup>√</sup> 'I do'.

$\epsilon\acute{\pi}\omicron\nu\nu\tau\alpha\iota$ <sup>√</sup> : *sequuntur*<sup>√1</sup> 'they follow'; *intus*<sup>√</sup> :  $\epsilon\nu\tau\acute{o}\varsigma$ <sup>√</sup> 'inside'.

$\gamma\acute{\epsilon}\nu\epsilon\acute{\alpha}$ <sup>√2</sup> : *generā*<sup>√</sup> 'kinds';

*stāte*<sup>√</sup> :  $\sigma\tau\acute{\alpha}\tau\epsilon$ <sup>§</sup>

(Ionic-Attic  $\sigma\tau\acute{\eta}\tau\epsilon$ <sup>√</sup>) 'stand' (imper. pl.).

<sup>1</sup> The -ur ending of the Latin passive does not, of course, correspond to the Greek "middle" ending -αι. Cf. the active Doric  $\tau\rho\acute{\epsilon}\mu\omicron\nu\nu\tau\iota$ <sup>†</sup> (Ionic-Attic  $\tau\rho\acute{\epsilon}\mu\omicron\nu\sigma\iota$ <sup>√</sup>) : pre-classical Latin *tremonti* (classical *tremunt*) 'they tremble' (3.Ck, note 52).

<sup>2</sup> Attic  $\gamma\acute{\epsilon}\nu\eta$ <sup>√</sup> by contraction of the two short vowels to one long.

The oddities within IE exemplify how the use of numerals of a certain order depended upon the level of culture. Between IE and Semitic we shall find the connections in numerals mainly at a very early stage of arithmetical awareness.

**5.A. Sem. (Aram.)** {šēṭ} : **IE (Skt.)** {ṣát} 'six'  
**(Heb.)** {šēṭ/ṣāṭ} : **(OEng.)** seofon 'seven'

The most obvious resemblances are in a pair of numbers so tightly bound together that the cultural influence is easy to detect (Möller, *VeInSeWö*, 217-218, 227; Mayer, *RiPrRa*, 99). 'Six' was a pivotal number in early Mesopotamian civilization; quite a few holdovers of that linger into our own time, standing out as anomalies since the triumph of the decimal system. 'Seven', right after 'six', was and remains climactic, above all in the grouping of days (cf. 1. **Da** and note 70).<sup>3</sup> This Mesopotamian way of thinking about numbers — and in particular about these numbers — did not necessarily originate in that region, but at any rate the oldest definite evidence comes from there.<sup>4</sup> The IE as well as the Semitic cognates testify to the spread of 'six' and 'seven' in prehistoric or early historical times, perhaps when the Mesopotamians were beginning to write but other peoples were still quite illiterate. The spread of these particular numerals seems due, at least in part, to borrowing rather than inheritance from a remote ("Nostratic") forerunner of proto-IE and or proto-Semitic.

**5.Aa.** The most obvious trace of an odd origin for the numeral 'six', unlike a typical IE development, is in the initial consonant of Sanskrit षट् {ṣát}. No other word in the language begins with this cacuminal sibilant (articulated with the tongue turned up into the dome of the palate); in many non-initial environments it is frequent, occurring under the influence of certain vowels and consonants. Here it must reflect something borrowed prehistorically from a non-IE language, or else (conceivably) an aberrant phonology peculiar to a sub-set of

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<sup>3</sup> The ordinal 'seventh' — Latin *septimus*, Greek ἑβδομος, Sanskrit सप्तमः {sap-tamah} (5.Ag) — was evidently the source of the superlative suffix *-timus*, {-tamah}.

<sup>4</sup> For my purpose it is not necessary here to go into the speculations of scholars as to what in the first place caused men to attach special significance to these numbers, rather than others — e.g. whether it was the few planets visible to the naked eye (including the sun and the moon) in contrast to the immense multitude of stars that move uniformly night after night, or contrariwise the number *seven* had fascinated them even earlier and so prompted them to search for phenomena embodying it.

IE speakers — the few persons who talked about numbers. The phonological anomaly of {š-} in a certain Sanskrit word proved to be tenacious, both because of a semantic motive — the unique prestige of this pivotal number — and because of a syntactic peculiarity: The numerals were employed primarily in counting, and just secondarily in ordinary discourse; so, apart from the lowest ones, they resisted the IE pattern of noun and adjective inflection, and were brought into sentences in their basic, uninflected form.<sup>5</sup>

The Avestan cognate is {xšvaš}<sup>√</sup>, with an initial consonant-group unparalleled in IE. Given the generally tight kinship between these two languages, the Sanskrit {śát} looks like a drastic and very odd simplification of a prehistoric form that Avestan has preserved more or less intact — however three such consonants, one right after the other, may have arisen in the first place. The remaining IE languages leave the discrepancy between {xšv-} and {š-} problematical. Pokorny (*InEtWö*, I, 1044) posits no less than six IE proto-forms to account for the divergences among the attested ones: “*syēks, sēks, kseks, ksyēks, yēks (ūks)*” (unstarred, as usual in his book). \*[ksu-] would be a credible antecedent for the Avestan {xšv-} and perhaps also for the Sanskrit {š-}.

But the Sanskrit {śát}, though not the Avestan {xšvaš}, could just as well have been adapted from a single Semitic consonant, such as we find in Aramaic 𐤑𐤕<sup>√</sup> {šēt} (also 𐤑𐤕<sup>√</sup> {šīt}), Hebrew שׁשׁ<sup>√</sup> {šēš}. The palatal sibilant pronunciation [š] is well attested for these two languages in the Christian era; earlier it may have been somewhat different. The Hebrew final {-š} is reminiscent of the Avestan; the Aramaic {-t̄} rather of the Sanskrit. The latter point, however, is less impressive because Sanskrit phonology severely restricts final consonants and makes {-t̄} substitute for quite a variety of other consonants or consonant-groups.<sup>6</sup> The other Semitic forms have, likewise, just a single initial consonant, {š-} or {s-}, the same as in certain IE languages — Latin

<sup>5</sup> The Sanskrit plural case-endings — instrumental, dative/ablative, genitive, and locative (but not the nominative and accusative) — were optionally added; however, in early Sanskrit the forms with case-endings are rare, except for दशभिः<sup>√</sup> {daśābhīḥ}, the instrumental case of 'ten'. See Levin, *ViPhCo*, 474.

<sup>6</sup> The Sanskrit श, which I transcribe [š], is usually transliterated ś (formerly ç). Probably it was identical in sound with ש, or nearly so.

*sex*<sup>√</sup> [seks], Gothic {saihs}<sup>√</sup>, etc. — and thus throw no light upon the labial [w], not only in Avestan but in the Welsh *chwech*<sup>√</sup> (Gaulish SVEXOS<sup>√</sup> 'sixth') and the Armenian {veç}<sup>√</sup>.<sup>7</sup>

**5.Ab.** The closest Akkadian cognate \*{šeš} — identical with the Hebrew, or nearly so — is unfortunately not attested; for in that huge corpus (as in the texts of certain other ancient languages) the cardinal numbers — the ordinals too, for that matter — are seldom spelled out.<sup>8</sup> The short form, with no suffix, accompanies only feminine nouns in Hebrew, Akkadian, and their ancient Semitic relatives. Masculine nouns call for a suffixed form: Hebrew שֵׁשִׁי<sup>√</sup> {šišš|š<sup>h</sup>},<sup>9</sup> Akkadian {šeš-šet, ši-iš-šet, ši-ši-it}<sup>√</sup>, etc. The Arabic cognate,

<sup>7</sup> The initial IE \*s- is regularly lost in Armenian. The Greek ἑξ<sup>√</sup> [héks] could represent either \*s- or \*sw-; but FEΞ<sup>√</sup>, in inscriptions of the dialects that preserved the consonant [w], points much rather to \*sw-, and ἑξ in Homeric verse is more often than not treated metrically as though it began with an unwritten consonant [w]. — The Old Prussian ordinal *uschts*<sup>√</sup> 'sixth' displays the homorganic vowel [u], the "zero grade" instead of [w + e]; *usch-* reflects the same three initial sounds as the Avestan [xšv-], but in the opposite order. Roland G. Kent was the first to reason that \*wēks was the oldest IE form: "from an original \*uēks the forms \*suēks and \*sēks can be derived by contamination with IE \*septm 'seven,' and numerals are notoriously subject to the influence of higher numerals with which they are serially associated"; review of J. B. Hofmann, *Etymologisches Wörterbuch des Griechischen*, in *AmJoPh*, 72 (1951), 80. See also Szemerényi, *SilnEuSyNu*, 78.

<sup>8</sup> Numbers written ideographically seem to go further back in Mesopotamia than the cuneiform syllabary for writing words. The same cultural preference for ideographic numbers has deprived us of the Hittite numeral words spelled out in cuneiform. — *AsDi*, XVII<sup>2</sup>, 337, s.v. "šešset", gives a cross-reference to šiš, which I guess may be the briefest known form of the numeral 'six' in Akkadian. Von Soden, however, makes no mention of it, either in *AkHa* or in *GrAkGr*. This matter, no doubt, will be clarified when XVII<sup>3</sup> comes out.

<sup>9</sup> The apparent feminine ending (1.Ac7, Dd, Gd, Ld, f, m), when attached to numerals in the Semitic languages, expresses paradoxically a masculine rather than a feminine agreement (Levin, *ThGrGe*): שֵׁשִׁי בָנִים<sup>√</sup> {šiššš<sup>h</sup> bōnī'm} 'six sons' (Gen. 30:20

but שֵׁשִׁי בָּרָהֶן<sup>√</sup> {šišš<sup>h</sup> šeš-bəru<sup>h</sup>ōt} 'sheep or goats, six choice ones (fem. pl.)' (Neh. 5:18). The unsuffixed or primary form of each numeral form 'three' to 'ten' is the form used for counting FINGERS, as in אַרְבַּע אֶצְבָּעוֹת<sup>√</sup> {ʔarbāʔ ʔec-bō|ōt} 'four fingers' (Jer. 52:21). Since this noun is feminine, all other nouns of feminine gender call likewise for an unsuffixed numeral. It takes a noun of opposite — i.e. masculine — gender to evoke the gender suffix {-š<sup>h</sup>}, which fundamentally stands not so much for feminine gender as for whichever gender is DIVERGENT from the central or basic. — The cognate

which includes a case-ending, is <sup>١٠</sup> {sitt|u n} (fem. nominative),

<sup>١١</sup> {sitt|at|u n} (masc. nominative);

the former is represented in Geʿez by {səssu}. Thus a double, not a single consonant occurs at the end of the base, provided that the word does not end there.<sup>10</sup>

As far as it goes, the geminate sibilant of Hebrew, Akkadian and Geʿez constitutes a better counterpart to the IE consonant group, as in the Latin [seks], than a single sibilant would be. But where the Semitic languages show not a geminate but two distinct consonants, the former one is {d}, as in Geʿez {səds} 'six' (functioning as a feminine noun; Leslau, *CoDiGe*, 486). Most of the Semitic occurrences are [dVs], rather than a consonant-group [ds]; e.g. Arabic <sup>١٢</sup> {sādis|u n} 'sixth'.<sup>11</sup> So it is possible to interpret the [d] as a dissimilation, avoiding the tongue-twister of the same sibilant three times, \*[sVsVs] or \*[šVšVš], with a vowel separating the first occurrence from the second and another vowel separating the second from the third.

Conceivably the consonant group [ks] in Latin, and its cognates in certain other IE languages, arose also by dissimilation, albeit in another direction. For at some stage of prehistoric IE any geminate consonants were — if present at all — rare or severely restricted. Although plentiful in most of the anciently attested IE languages (2.Lb and note 132), hardly any of these geminates are cognate between them; e.g. no Greek word with -σσ- is cognate to a Latin word with -ss-, a Sanskrit word with {-ss-}, etc. So, supposing that this Semitic numeral, pronounced \*[šešš] or \*[sess], came into prehistoric IE at that stage, the geminate might well have undergone dissimilation.<sup>12</sup>

Egyptian word {ḏḥ} 'finger' is masculine. Accordingly, instead of following the Semitic pattern, in Egyptian the gender agreement of the numeral with the noun makes both of them end in {-w} for masculine plural, and in {-t} for feminine; Gardiner, *EgGr*, 191-194. My colleague, Prof. Gerald Kadish, has given me valuable assistance on this point.

<sup>10</sup> Often, however, the Akkadian script gives no indication of the {š} at the end of the first syllable, as in {ši-ši-it}; and the Geʿez script is altogether defective in this regard.

<sup>11</sup> However, in South Arabian {ṣḥ} 'six' (with a masc. noun) and Ugaritic {ḥḥ} 'sixth', all vowels are unrecorded; so we do not know what sound, if any, separated {d} from {ḥ}. As for the Geʿez {səds}, in the Ethiopic script the same stroke for modifying a consonantal letter serves either for the blurred vowel {ə} or for no vowel (just like <sup>١٣</sup> in Hebrew and Aramaic); so in early times it may have been pronounced [sədəs].

<sup>12</sup> That does not suffice, however, to account for the Avestan {xšvaš}. Even positing a sub-

**5.Ac.** The Egyptian {šjś}<sup>√</sup> (so transcribed by Erman – Grapow, *WöAeSp*, IV, 40) indirectly confirms that both the velar [k] in some IE languages and the dental [d] in some Semitic languages may have arisen through dissimilation of a sibilant sandwiched in between two like sibilants.<sup>13</sup> I cannot make out on what basis they add that {šjś} was “ursprünglich šrś”, but this too would accord with what the IE and the Semitic pattern have in common: the first and third consonants of the word identical, while the intermediate one differs. The divergence of that consonant goes one way in IE, another in Semitic, and still a third way — so it would seem — in Egyptian.

The Egyptian form, however, can be brought closer to the IE, provided that we are not bound to derive {šjś} from \*šrś. The German Egyptologists use the letter *j* in their transcription to suggest that the hieroglyph, which materially depicts a flowering reed, stands for the sound of a palatal semi-vowel, written *y* in many other modern languages (including English), especially at the beginning of a word. Now the Latin [k] developed into a Romance [y] in certain non-initial environments. Most tellingly [seks] has become *seis*<sup>√</sup> in Spanish and Portuguese; one option for showing the “falling” diphthong in phonetic characters is [seys]. The Egyptian script did not, in principle, indicate vowels; so it does not tell us whether that intermediate character stood for an intervocalic consonant or the consonantal (i.e. semi-vocalic) part of a diphthong. This Egyptian spelling, in three hieroglyphic characters, is compatible with a pronunciation just like the Spanish and Portuguese word thousands of years later.<sup>14</sup> However, a “rising” diphthong, as in the Old English *siex*<sup>√</sup>, cannot be absolutely ruled out for Egyptian.<sup>15</sup>

sequent metathesis of the velar consonant to the beginning of the word, the {-v-} would still seem to have come out of nowhere.

<sup>13</sup> The hieroglyphic characters are followed immediately by three and three plain vertical strokes; so the meaning ‘six’ is beyond dispute. Normally, apart from the very early “Pyramid Texts”, only the six strokes are written, without the word for ‘six’; Gardiner, *EgGr*, 191-192.

<sup>14</sup> This cannot be confirmed by the Coptic forms from the early centuries of the Christian era — ⲓⲟⲩⲩ<sup>√</sup>, ⲓⲁⲩⲩ<sup>√</sup>, ⲓⲉⲩⲩ<sup>√</sup> (fem. ⲓⲟ<sup>√</sup>, ⲓⲉ<sup>√</sup>, ⲓⲟⲩⲩⲉ<sup>√</sup>, ⲓⲁⲩⲩⲉ<sup>√</sup>, ⲓⲉ<sup>√</sup>); they supply only a bewildering range of vowels, varying from one Coptic dialect to another), and no consonant after the initial [s-].

<sup>15</sup> Other Old English forms of the same word are *sȳx*<sup>√</sup>, *sīx*<sup>√</sup> (identical with the modern),



Furthermore, the vowel of the Biblical Aramaic {šēṭ} (in a pausal position of the verse, unlike the non-pausal {šēṭ}) may conceivably reflect the prehistoric influence of a palatal consonant following it.<sup>16</sup> Certainly in Catalan and Old French *sīs* <sup>√</sup> the vowel reflects Latin [ek].<sup>17</sup>

**5.Ad.** The common etymon behind most of the IE forms, as well as the Semitic and the Egyptian, can be formulated \*SeCS — the capital *S* standing for a sibilant (or the related fricative {ṣ}), and *C* for an unspecified consonant. The Sanskrit {ṣát} is closer to Aramaic and other Semitic forms than to Egyptian; but those IE forms that end in [-Ks] (Latin, Greek, Germanic) are closer to Egyptian than to Semitic, and neither Semitic nor Egyptian throws light on the labial consonant in the Avestan, Celtic, and Greek dialect forms, or on the Old Prussian *u-*. These links, however perplexing, are firm enough to discredit, as self-defeating, the attempts of a whole line of Indo-Europeanists who have methodically — even willfully — ignored the Semitic evidence or rejected it as irrelevant and shown no awareness of the Egyptian evidence (e.g. Szemerényi, *StInEu*, 79-146).

Kent and Szemerényi, who posit \*weks as the independent IE proto-form, attribute the prevailing initial *s-* to the influence of the next number, \*septm̄ (Latin *septem* <sup>√</sup>, Sanskrit सप्त <sup>√</sup> {saptá}, etc.). But the close association between these particular numerals is itself characteristic of Mesopotamian culture; and thus Kent and Szemerényi's posited change from \*w- to *s-* or *sw-* would not be in an IE vacuum but would involve a Semitic model even so. For the Semitic connection is, if anything, even more palpable in

Heb. שבע <sup>√</sup> {šēbaʿ} (pausal שבע <sup>√</sup> {šēbaʿ})<sup>18</sup> : OEngl. *seofon* <sup>√</sup>, in which the intervocalic *-f-* was voiced, just as in the modern English *seven* <sup>√</sup>. Illich-Svitych (*DrInSeJaKo*, 7-8; Dolgopolsky, *InEuHo*, 15) treated this as a Semitic loan in IE, because he saw the Semitic form going back to Afro-

*seox* <sup>√</sup>, *sex* <sup>√</sup>. No Germanic or other IE language shares this *-ie-* with OE; see Campbell, *OIEGr*, 129-130, 282.

<sup>16</sup> See Bauer – Leander, *GrBiAa*, 23-24. The Targum, however, manifesting a later stage of Aramaic, has the vowel {e} uniformly in this word.

<sup>17</sup> The subsequent French spelling *six* arose from a convention of subservience to Latin orthography for etymological motives, regardless of the actual French sounds.

<sup>18</sup> The pausal form occurs only in the place-name באר שבע <sup>√</sup> {baʿér šēbaʿ} 'Seven Well(s)'.

Asiatic; doubtless he had in mind the Egyptian {šfḥ}√.<sup>19</sup>

The reluctance of many Indo-Europeanists to face, or even to mention, the Semitic counterparts must be rooted in some deep prejudice — perhaps an unexpressed fear that if the import of Semitic evidence is acknowledged in this part of the vocabulary, then proto-IE as a whole can no longer be kept apart from Semitic. For to establish the prehistoric reality of IE, nothing else was so utterly convincing to the mind of the eighteenth and nineteenth century as a comparison of the decimal number system in Greek, Latin, and the other ancient languages of Europe and India. Hence the acceptance of Semitic cognates of 'six' and 'seven' — close cognates at that — would seem to compel a fundamental reconsideration. I would argue, however, that 'six' and 'seven' are a special case: The cultural prestige or psychological ascendancy of these elemental concepts brought, or kept, the prehistoric IE and Semitic (and Egyptian) languages together more strikingly than just about any other word in their entire vocabulary.

The Avestan {xšvaš} 'six', however (5.Aa), is enough to cast grave doubt upon any simple theory of IE borrowing from some known Semitic language, or from prehistoric Semitic for that matter. Neither is the initial velar consonant of Avestan readily explicable WITHIN IE, through metathesis from the next-to-last position, where we find it in Latin *sex* [seks], Gothic {saihs}, etc.; for at the end of a word Avestan evidently tolerated a few consonant-groups, including {-xš}, as in {druxš}√ 'fiend' (Jackson, *AvGr*, 59). If anything, the metathesis is likely to have gone the other way, from an initial [xš] as in Avestan to a final [xš] as in Latin and many more languages.<sup>20</sup> Such an odd initial cluster would go back to an unidentifiable source-language, with

<sup>19</sup> Cuny, *ÉtPr*, 470, cites the Berber forms: *sa*√ (dialect of Chilhe), *saa*√ (Mzambit), *išša*√ (Zénaga) 'seven', *sez*√ (Chilhe), *sezza*√ (Mzambit), *šoduš*√ (Zénaga), *setsef*√ (Ghdames) 'six'; also the Cushitic (Kafa) *sabato*√ 'seven'. I cannot make out to what extent these may have been influenced, if not simply borrowed, in fairly recent times from Arabic or some other Semitic language. — Trombetti, *UnOrLi*, 30-31, adduces "Jakuto *sättä*" from "la forma protouralica \**sāb-te*, \**sāv-te*", as he derives the Italian *sette*√ (with [-ê-], < Latin *septem*) from "indoeuropeo o preindoeuropeo \**sép-to-*."

<sup>20</sup> In early Latin, when XS rather than just X was generally written, the velar sound was probably not plosive but fricative. So too in Attic, written HEXΣ√ (until the adoption of the Ionic alphabet entailed ΕΞ instead), and in some Germanic languages such as OHG *sehs*√; the modern German *sechs*√, although still spelled to show a fricative sound, has come to be pronounced [zeks].

simplified reflexes in the rest of IE as well as Semitic and Egyptian; and accordingly the Semites of Mesopotamia and beyond would be the heirs and developers of the 'six' mentality, rather than the originators of it.<sup>21</sup>

**5.Ae.** The Akkadian {se-ba}<sup>√</sup> or {se-bi}<sup>√</sup> differs in its initial sibilant from the preceding numeral {šešš-}. This reminds us of {saptá} and {ṣāṭ} in Sanskrit and of сѣдмь<sup>√</sup> {sedm<sup>i</sup>} 'seven' and шесть<sup>√</sup> {šest<sup>i</sup>} 'six' in Church Slavonic, whereas many other Semitic and IE languages have the same consonant beginning both numerals. Since Akkadian was a very ancient language totally forgotten and then recently recovered through decipherment — by working from one inference on to another — we are in no position to vouch for phonetic identity between the Akkadian and the Slavic {s} and between the Akkadian and the Slavic {š}.<sup>22</sup> But at any rate a PHONEMIC distinction between the Akkadian characters transcribed {š-} and {s-} is amply established.

So here we have a sort of isogloss that takes in certain Semitic and IE languages — {š-/s-} 'six/ṣ, seven' — while the rest of the languages in both groups stand together in not making this contrast. On a map, to be sure, the areas would at best be roughly contiguous; but we should allow for the circumstance that in prehistoric times most if not all of those populations were migratory, rather than settled. Besides that, the phonetic developments within the prehistory of Akkadian, Indo-Iranian, Slavic, etc., leave room for many possibilities. In any case, the recorded forms of the numerals are important data.

**5.Af.** Another surprising correspondence is between Germanic and Semitic in regard to the *t*. The absence of the dental consonant in Gothic and Old High German *sibun*<sup>√</sup>,<sup>23</sup> Old English *seofon*, etc., has long been noted as anom-

<sup>21</sup> Trombetti, *SaGI*, II, 108, 153, derived all the forms — Egyptian, Semitic, and IE — from \**sédgi*-s. He also cited, somewhat confusingly, Berber forms — among them "Zenaga *šoduš* .... Ghat *saḡis*, *seḡis* .... Ahaggar *sedis* .... Kel Ui *sadis* .... Kandin *šišes* ...." (100-103) — and 'Hausa *šidda*, *siddu*", etc. (78-79, although Hausa, in his classification, is a Sudanese rather than a Chadic language). Furthermore he related the Semitic 'six' to the Cushitic 'three': "Somali *sádde-h*, *sade* .... Galla *sadē*, *sadi*", etc. (102-103). But when he came back to the subject a few years later (423), he backed away from some of this: "Indo-europeo .... L'analisi del 6 non è facile e quella tentata a pag. 153 seg. probabilmente non regge. La connessione col 6 semitico forse non si può mantenere."

<sup>22</sup> Likewise in Lithuanian, *septyni*<sup>√</sup> 'seven' but *šeši*<sup>√</sup> 'six'.

<sup>23</sup> However, a medieval lexicon lists the problematical OHG *septun*<sup>√</sup>, which on its face is

alous from the IE point of view. But the Semitic languages have, for each of the numerals from 'three' up to 'ten', both a long form with {T} and a short form without it; e.g.

the Hebrew {šēba<sup>ς</sup>} is used with feminine nouns,

but  $\text{šib}^{\text{ς}}\text{āt}$  {šib<sup>ς</sup>āt} with masculine (**5.Ab**, note 9).

In Semitic the longer form clearly includes a suffix; both forms, of course, are frequent. It appears that the Germanic part of the IE domain has fastened upon the shorter of two forms that were prehistorically available.

On the other hand, the forms with *t* —

Sanskrit {saptá}, Avestan {hapta}<sup>√</sup>, Greek ἑπτά<sup>√</sup>, etc. —

may be explicable through metathesis in the second syllable, given an original form such as is reflected in the Hebrew {-<sup>ς</sup>āt},<sup>24</sup> Akkadian {se-bet}<sup>√</sup>.<sup>25</sup> The resulting consonant-group [-pt-] is, in itself, congenial enough to all these IE languages. But why should the prehistoric Indo-Europeans, apart from the forerunners of Germanic, have preferred a *t* form? Perhaps because it was used in Semitic so often with the word for 'days':

Akkadian {se-be-it ūmim}<sup>√</sup>,

Hebrew  $\text{šib}^{\text{ς}}\text{āt}$   $\text{yom}^{\text{m}}$  {šib<sup>ς</sup>āt yom<sup>m</sup>} (Gen. 8:10, etc.).

This, however, would entail a weighty inference about the cultural setting in which the populations made contact: that the numeral made an impression upon the Indo-Europeans in the specific context of SEVEN DAYS' TIME. Even if they did not yet perceive it to be uniquely relevant for keeping track and making sense of human experience (as the bulk of mankind has since done, under the influence partly of the Bible and partly of astrology), at least they caught something of the power of this number to fascinate the mind (**5.Dn**).<sup>26</sup>

much closer to the Latin *septem* than to anything Germanic. So it is suspected, whether or not rightly, of being a Latinization; Pokorny, *InEtWö*, I, 909.

<sup>24</sup> Aramaic also has {šib<sup>ς</sup>āt}<sup>√</sup>.

<sup>25</sup> The spelling with four cuneiform characters {se-bé-e-et}<sup>√</sup> (*AsDi*, XV, 203) suggests a laryngeal consonant still pronounced (like the Hebrew and Aramaic {<sup>ς</sup>}), or else a vowel prolonged when that consonant disappeared from the Akkadian language.

<sup>26</sup> J. P. Brown calls to my attention the report that the great fire in Rome (A.D. 64) raged *per sex diēs septemque noctēs*<sup>√</sup> 'for six days and seven nights' (Suetonius, *Nero* 38.2). In that connection, however, it may be relevant that the blame for the fire was placed upon the recently noticed sect of Christians (16.2; cf. Tacitus, *Ann.* 15.44), whose leaders were certainly Jews, and the city had a large Jewish population, although our information about the fire comes from pagans. So whatever may have been the objective facts, the story about

**5.Ag.** The vowel and consonant at the end of {šḇaʿ} can more easily correspond to the {-a} of Sanskrit, Avestan, and Greek than to the -em of Latin *septem*, or to the -Vn of the Germanic forms. Within IE linguistics that {-a} has been regarded as though it were the normal treatment of a prehistoric syllabic nasal \*-ṃ; for the ordinal number {saptam|áh} : ἑβδομ|ος 'seventh' (**1.Da**), cognate to the Latin *septim|us* (nominative singular masculine), appears to be formed from the cardinal + the "thematic" vowel and case-ending. Early Sanskrit, however, has सप्तः √ {saptát|ah} also, and Avestan has only {haptaβō}.<sup>27</sup> Moreover, the accent upon \*-ṃ, which is posited in view of Sanskrit {saptá} and Greek {heptá},<sup>28</sup> must be reckoned incongruous, since the "zero grade" of a nasal or any other sonant is normally associated with lack of accent.

The Semitic guttural consonant {ʿ} may well have been reinterpreted by some prehistoric Indo-Europeans as a nasal. Something like that happened during the middle ages, when the Sephardic Jews, lacking any such sound in their Hispano-Romance vernacular, substituted the velar nasal [ŋ] for it in their pronunciation of Hebrew.<sup>29</sup> The velar nasal, to be sure, is further from the labial

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the duration of it was perhaps influenced, directly or indirectly, by the Biblical heritage (cf. Job 2:13). — Prof. Franklin Horowitz, of Columbia University, has suggested to me in a letter an alternative etymology for the IE *sept*, deriving it from a Semitic noun that means 'halt' or 'cessation': Hebrew שָׁבַת √ {šḇet} (Pr. 20:3 שִׁבְתּוֹ √ {šibṭ|ó} 'his idleness', Ex. 21:19). This is a homophone, or perhaps a semantic specialization, of {šḇet}, the usual sense of which is 'seat' or 'sitting' (**2.Bf**). Anyhow the triconsonantal שבת functions as an ordinary verb שָׁבַת √ {šḇat} 'he (has) halted, rested'; and from it is formed a well-known noun, as in Ex. 16:26: שִׁבְתִּי הַשְּׁבִיעִי וַיָּבֹאוּ {uʷbayyoʷm haššḇiʷy šab-bṭ} 'and on the seventh day a halt' (Ex. 16:26). Horowitz's idea, if right, would imply that the Indo-Europeans looked upon *seven* as the stopping point. — Less plausible is Trombetti, *SaGl*, II, 109, positing "un Presemitico \*sabad-ʿ [ʿ being his printer's substitute for {ʿ}], che ricorda immediatamente il 'Mandinga' sambad-ga 7 (CLARKE 244)."

<sup>27</sup> Szemerényi, *StInEu*, 88, argues tendentiously against positing "an Aryan [i.e. Indo-Iranian] \*saptatha-" on the basis of this evident cognate between Sanskrit and Avestan.

<sup>28</sup> Avestan texts do not record any accentuation.

<sup>29</sup> This phenomenon extends somewhat beyond the Sephardic Jews. While the Ashkenazic Jews (whose vernacular is a High German dialect) generally drop the letter ש in pronouncing Hebrew words, in the name יֵעֶקֶב √ {yaʿäqób} they make it [yánkəv] √ or [yánkəv] √.

[m] of Latin than from the dental [n] of Germanic.<sup>30</sup>

**5.Ah.** A final weighty point is the correspondence

between the Old English diphthong in *seofon*  
and the Hebrew alternation in the accented vowel of {šēbaʿ} (non-pausal)  
{ššbaʿ} (pausal).

We have seen this before in [ʔ] *eorþe* : {ʔē/ʕrēc} 'earth' (1.Ff; Levin, *VePr Ph*, 225); certain environments favor the diphthong *eo* in Old English, while the Germanic cognates show the simple vowel *e* (Campbell, *OLEnGr*, 57, 85-89, 282). But in this word the cognates show no consistency: *i* in Old High German and Gothic (as we have observed); Old Norse has *siau*<sup>√</sup>; most like Old English is the Old Frisian *sowen*<sup>√</sup>, *sawen*<sup>√</sup>.<sup>31</sup> Old English more than any other IE language and Hebrew more than any other Semitic language preserve a primeval wavering in the articulation of vowels, and the wavering itself displays a somewhat similar pattern between the tongue toward the front or toward the back of the mouth.

### 5.B. The Displaced Numerals

*Sem.* (Aram.) {təreʰ} 'two' : *IE* (Skt.) {trī, tráy|aḥ} 'three'

(Heb.) {téšaʿ} 'nine' : {dáša}, (Gr.) δέκα 'ten'

**5.Ba.** If we could overlook the disparity in meaning, the phonetic correspondence between the Semitic 'nine' and the IE 'ten' would be as cogent as that between the Semitic and the IE 'seven':

<sup>30</sup> The formation of the Akkadian ordinals, such as {šeš-šu}<sup>√</sup> 'sixth' (nom. masc.), {se-bu-ú}<sup>√</sup> 'seventh', from the base of the cardinal is fundamentally like that of *septim|us Septimum*<sup>√</sup> in the accusative case (-OM or -O in pre-classical Latin), along with its IE cognates ἑβδόμων<sup>√</sup> and सप्तमम्<sup>√</sup> {saptamám}, corresponds morphologically to the archaic Akkadian {sebām}<sup>§</sup> (thereafter {se-ba-a}<sup>√</sup>, with loss of the nasal consonant); for the Akkadian long vowel contains a vestige of the Semitic consonant [ʕ], which is well preserved in the cognate Semitic languages. The Latin ordinal *decim|us*<sup>√</sup> 'tenth' shows a similar correspondence to Akkadian {tišām}<sup>§</sup> 'ninth', and *nōnum*<sup>√</sup> 'ninth' to {[sa]-am-na-am}<sup>√</sup> 'eighth' (cf. 5.Ba, Ca-b).

<sup>31</sup> Within Old English there are more than a dozen forms besides *seofon*; but *seofon* is far more frequent than all the rest together (at least 442 occurrences of it in Richard L. Venezky, *A Microfiche Concordance to Old English* [Newark, DE: University of Delaware, 1980]), while *seofan*<sup>√</sup>, *seofen*<sup>√</sup>, and *seofo*<sup>√</sup> — with the same diphthong — outnumber all the other variants, of which *syfan*<sup>√</sup> (15 times) is the most noteworthy.

Hebrew עֶשְׂרִי<sup>√</sup> {tēša<sup>ς</sup>}, Aramaic עֶשְׂרִי<sup>√</sup> {te<sup>ς</sup>šæ<sup>ς</sup>}, עֶשְׂרִי<sup>√</sup> {təšæ<sup>ς</sup>},<sup>32</sup>

Akkadian {ti-še<sup>√</sup>}, Arabic تِسْعٌ {tis<sup>ς</sup>|u n}, Ge<sup>ς</sup>ez {təs<sup>ς</sup>}<sup>√</sup>;

Sanskrit दश<sup>√</sup> {dāša}, Gr. δέκα<sup>√</sup>, Gothic {taihun}<sup>√</sup> (1.Ff, note 108),

Old Saxon *tehan*<sup>√</sup>, Armenian {tasn}<sup>√</sup>, Latin *decem*<sup>√</sup>, etc.

(Pokorny, *InEtWö*, I, 191). The Hebrew (and Aramaic) {tēša<sup>ς</sup>} has the same initial consonant [t<sup>h</sup>] as in the Germanic languages — apart from High German *zehan*<sup>√</sup> (now *zehn*<sup>√</sup>). It has the same accented vowel as in Greek, and after that the same consonant as in Sanskrit. The unaccented {-a<sup>ς</sup>} at the end corresponds well enough to the unaccented {-a} of Sanskrit and Greek (also {dasa}<sup>√</sup> in Avestan; 5.Ag, note 28).

The Semitic languages agree with Armenian on the voiceless initial plosive and on the sibilant. On the latter they agree with Indo-Iranian also; but no other etymology up to now manifests this precisely. For in Greek ἄγορῆ/ᾱ: Hebrew {ʿācorš<sup>h</sup>} 'gathering, assembly' the Greek [g] is voiced, unlike the [k] in δέκα; the Hebrew sibilant is probably voiceless (2.DDL). The agreement between Semitic and Germanic on the initial consonant [t<sup>h</sup>], but not on the subsequent one, is puzzling indeed. We have not met, before this, a correspondence involving the dental (or apical) plosive; but the correspondence of the initial velar plosive [k<sup>h</sup>] (1.Lf) is of the same sort:

Hebrew {kišbaṭ} 'ewe-lamb': Old English *cilfor*|*lamb*

(plural {kiš(ə)boṭ}): Old High German *kilbur*).

North of IE territory, while the word for 'ten' in Finnish is the unrelated *kymmenen*<sup>√</sup>, nevertheless a cognate to the Greek δέκα, Latin *decem* [-k-], Avestan {dasa}, etc., is indirectly attested in

*yhdeksän*<sup>√</sup> 'nine' (i.e. one [from] ten),

*kahdeksan*<sup>√</sup> 'eight' (two [from] ten);

for *yh-* and *kah-* are the reduced or basic forms of *yhte*<sup>√</sup> 'one', *kahte*<sup>√</sup> 'two'. In Estonian *übeksa*<sup>√</sup> 'nine', *kaheksa*<sup>√</sup> 'eight', a phonetic change eliminating the voiced plosive \**d* has disguised the IE connection. I can even conceive how the consonant group -*ks-* may preserve — with or without me-

<sup>32</sup> These Aramaic forms are found in the Targum (which lacks accentuation), as the numerals — including \*{təšá<sup>ς</sup>} 'nine' — are inadequately exemplified in Biblical Aramaic. Hebrew has {təšá<sup>ς</sup>}, but only in certain combinations:

עֶשְׂרִי עָשָׂר {təšá<sup>ς</sup>-ʿesré<sup>h</sup>} 'nineteen'

מֵאוֹת עֶשְׂרִי {təšá<sup>ς</sup> meʾot<sup>h</sup>} 'nine hundred'.

tathesis<sup>33</sup> — something more primeval in this word than the simple consonant of any IE language, and how both the Finnish (and Estonian) *k* before the sibilant and the Semitic guttural consonant {ʕ} after the sibilant may represent the same original sound.

**5.Bb.** We would probably dismiss this phonetic match between the Semitic ‘nine’ and the IE ‘ten’ as irrelevant, if not for a similar phonetic match with an equivalent discrepancy in meaning:

	‘two’		‘three’
Aramaic	ܬܪܝܢܐ <sup>√</sup> {təreʔ} <sup>34</sup> : Sanskrit	त्री <sup>√</sup> {trī} (Vedic nom./acc. neuter;	
		also त्री णि <sup>√</sup> {trī ṇi})	
		त्रयः <sup>√</sup> {tráy aḥ} (nom. masc.);	
		Avestan {prāyō} <sup>√</sup> (nom./acc. masc.,	
		nom. fem.),	
Anc. So. Arab.	{ḥny} <sup>√</sup> :	Old English	þrie <sup>√</sup> , þri <sup>√</sup> (nom./acc. masc.),
		þreo <sup>√</sup> (nom./acc. fem. & neuter); etc.	
		Gothic	{þrins} <sup>√</sup> (accusative masc. & fem.),
		Old Irish	tri <sup>√</sup> (nom./acc./gen. masc./neuter).

The other IE languages show many close cognates, which need not be enumerated here (see Pokorny, *InEtWö*, I, 1090-1092).<sup>35</sup> Within Semitic, however, the consonant {-r-}, apart from Aramaic, is found in the Mehri and So-

<sup>33</sup> Cf. the metathesis in Finnish *tarvaan*

: Greek ταῦρον, Lithuanian *taūrz*, Arabic {fawran} (1.Ak-L).

<sup>34</sup> In the Bible this form of the numeral is limited to the combination תרי"ג<sup>√</sup> {təreʔ-ʕāšār} ‘two [plus] ten’ — i.e. twelve — with masculine agreement.

<sup>35</sup> τρεῖς<sup>√</sup>, the Greek cognate of {tráyah}, looks as though it were nearly identical with the Aramaic {təreʔ}, except for the final -ς. But the spelling with -ει- does not truly represent a diphthong in this Greek word (and many others). For in Attic of the “golden age” it was ΤΡΕΣ<sup>√</sup> — i.e. the long monophthong [-ē-] resulting from contraction of [-ee-], which was uncontracted in the Cretan dialect: ΤΡΕΕΣ<sup>√</sup> (disyllabic, like the Sanskrit {tráyah}). The Aramaic ܬܪܝܢܐ, on the other hand, does represent at least a vestigial diphthong, of which the latter part was the semi-vowel [-y]; but from the period when the quality of the vowel [e] is attested by the pointing ܬܪܝܢܐ, it no longer made a difference in pronunciation whether the letter written after that vowel was ܬܪܝܢܐ, ܬܪܝܢܐ, or ܬܪܝܢܐ.



qotri dialects of southern Arabia:  $\beta ru^{\vee}$ . Besides the Ancient South Arabian {ḥny} there is the Ugaritic {ḥn}<sup>√</sup> (masc.), which — along with the Aramaic {t-} and the Hebrew יָשָׁן<sup>√</sup> {šəné<sup>y</sup>} (masc.), Akkadian {ši-na}<sup>√</sup> (masc.)<sup>36</sup> — points to a proto-Semitic \* $\beta$ , with the same match between Semitic and Germanic that we observed in the very first noun to be analyzed (1.Ab, note 4): Old Norse  $\beta ri\ddot{o}r|r$  : Ugaritic {ḥr}, Arabic ثَوْر<sup>√</sup> {ḥawr|un} 'bull'.<sup>37</sup>

The Egyptian word for 'two' is {šn w}<sup>√</sup> (> Coptic  $\epsilon\nu\alpha\nu^{\vee}$ ,  $\epsilon\nu\epsilon\nu^{\vee}$ , etc.). {šn wj}<sup>√</sup> 'the two' — in which the transliteration {j} of Erman – Grapow (*Wö Aesp*, IV, 148) is equivalent to my {y} — is still closer to Semitic, especially to the Hebrew {šəné<sup>y</sup>}. The IE consonant -r- in the word for 'three' is represented by {-n-} in the Egyptian and alike in the Semitic word for 'two',<sup>38</sup> except for the {-r-} in Aramaic and a couple of South Arabian dialects. This circumstance does not make the etymology less cogent; it only takes us back to remote antiquity. For the  $r/n$  alternation, besides being familiar in early IE, is (as we have seen, 2.Le), unmistakable in one Semitic noun of the most basic vocabulary:

Aramaic {bar}, Mehri *bir* : Hebrew {bən} 'son', etc. ;  
and we further noted this alternation in the etymology that links  
the Semitic, particularly the Hebrew words {ʔéḇer} 'wing', {ʔéḇen} 'stone',  
to the IE, " " Greek "  $\pi\tau\epsilon\rho$ - "  $\pi\epsilon\tau\rho$ - " .

So far, the IE-Semitic-Egyptian prototype of 'three' : 'two' comes out  
\* $\beta r/nVy$ .

<sup>36</sup> Also Geʿez {sanuy}<sup>√</sup> 'two [days]'; otherwise a quite different word for 'two', {kəbe}<sup>√</sup>, is used (Leslau, *CoDiGe*, 509, 753).

<sup>37</sup> The Arabic اِثْنَيْنِ<sup>√</sup> {ʔiḥnayni} — in which the [ʔi-] goes unpronounced except in an initial position (cf. 1.Hd) — serves mainly as a dual pronoun 'them' (genitive/accusative). [-ḥnayni] is cognate to the fuller form of the Hebrew numeral 'two'

שְׁנַיִם<sup>√</sup> {šənáyim} (pausal שְׁנַיִם<sup>√</sup> {šəṇāyim} : Arabic [-ḥnayn]; cf. 1.Ac4)

Aram. תְּרֵין<sup>√</sup> {təre<sup>n</sup>}.

<sup>38</sup> Also several Berber languages show *sin*<sup>√</sup> (masc.): Alfred Willms, *Grammatik der südlichen Berberdialekte* (Afrikanistische Forschungen, VI; Hamburg and Glückstadt: J. J. Augustin, 1972), 172; A. Hanoteau, *Essai de grammaire de la langue tamachek* [= Tuareg] (Alger: Adolphe Jourdan, 1896), 127; *sen*<sup>√</sup> (masc.): Huyghe, *DiFrCh*, 186. Cuny, *ÉtPr*, 466, cites "Mzambit *sen*, *sent*; Zenaga *šin-an*; Zouaoua *sin*, *senath*".

**5.Bc.** The meaning ‘two’ that belongs to the Aramaic {təreʿ} is not something alien to IE; for it turns up there in the comparative suffix, as exemplified by Skt. प्रियतरः √ {priyá|tarah} ‘dearer’ (nom. sing. masc.),

Greek	φῑρ τερος <sup>√</sup> ‘better’ ( “ “ “; pl. φῑρ τεροι <sup>√</sup> ),
Latin	al ter <sup>√</sup> ‘other, second’ “ “ “ “ al teri <sup>√</sup>
Gothic	{an þar} <sup>√</sup> “ “ “ “ “, nom./acc. sing. neuter),
Hittite	{kattera} <sup>√</sup> ‘lower’ (nom./acc. sing. neuter), ‘below’ (adverb). <sup>39</sup>

In some comparative adjectives, such as the Greek κατώ|τερος<sup>√</sup> ‘lower’ (nom. sing. masc.) — formed from the adverb κάτω<sup>√</sup> ‘below’<sup>40</sup> — the etymological sense ‘of two the one below’ is evident. The superlative κατώ|τατος<sup>√</sup> ‘lowest’, on the contrary, contains the suffix characteristic of ordinal numbers higher than two: τρίτος<sup>√</sup> ‘third’ (**5.Dd**; occasionally τρί|τατος<sup>√</sup> in poetry,

τέταρτος <sup>√</sup> ‘fourth’,	[with the fuller disyllabic suffix],
πέμπτος <sup>√</sup> ‘fifth’,	
ἑκτος <sup>√</sup> ‘sixth’,	[1.Da). <sup>41</sup>
δέκατος <sup>√</sup> ‘tenth’,	whereas ‘second’ is δεύ τερος <sup>√</sup> (cf.

This evidence of an IE suffix whose meaning relates it to the Aramaic ‘two’, rather than to the IE word for ‘three’, invites us to explore the phonological match more minutely, and with amazing results.

**5.Bd.** After Rudolph Růžička characterized the variation between *r* and *n* in a few words of Aramaic and modern South Arabian dialects as “ein uraltes Lautwechsel”,<sup>42</sup> D. Testen on the contrary diagnosed the *r* as unoriginal, both in ‘two’ and in ‘son’: “Proto-Semitic \**n* becomes *r* when it is the second element of an initial consonant cluster — #*Cn* -> #*Cr*.”<sup>43</sup> This can apply to the Aramaic forms {təreʿ} ‘two’ and בֶּרֶךְ<sup>√</sup> {bəreḥ} ‘his son’,<sup>44</sup> only if we treat

<sup>39</sup> Cf. the Greek preposition κατὰ<sup>√</sup> (Aeolic κατ<sup>√</sup>) ‘down’ (**4.Dc**).

<sup>40</sup> Likewise ἄνω|τερος<sup>√</sup> ‘upper’ from ἄνω<sup>√</sup> ‘above’.

<sup>41</sup> The rare δεύ|τατος<sup>√</sup>, with the superlative suffix, means ‘last’.

<sup>42</sup> “Konsonantische Dissimilation in der semitischen Sprachen,” *Beiträge zur Assyriologie und semitischen Sprachwissenschaft*, 6.4 (1909), 69.

<sup>43</sup> “The Significance of Aramaic *r* < \**n*,” *Journal of Near Eastern Studies*, 44 (1985), 145.

<sup>44</sup> In post-Biblical Aramaic many other forms with a possessive suffix are recorded: בְּרִי<sup>√</sup> {bəreʾi} ‘my son’, בְּרֵךְ<sup>√</sup> {bəreḥ} ‘her son’, etc.

the weak vowel {-ə-} as a transition that developed between the two consonants, although they had originally constituted a tight cluster. *Cn-* clusters, to be sure, are much rarer than *Cr-* clusters in the languages of the world; the latter are doubtless easier to pronounce, and therefore likely to replace *Cn-*. So far I can agree with Testen's reasoning, which he presented very succinctly.

Within Aramaic, however, no difference has been preserved between the weak vowel in the singular {bər-} and in the plural {bən-} 'sons'. In order to reconstruct a vocalic difference in the prehistory of Aramaic, we must recur to Semitic cognates.<sup>45</sup> Furthermore, where a clear and distinct vowel stands between the initial consonant and the {r} in Aramaic — as in the unsuffixed singular {bar} 'son' and in the feminine ܒܪܬܐܢܐ {tarté<sup>y</sup>n} 'two'<sup>46</sup> — this can be attributed to the influence of the simpler and more frequently used *Cr-* forms. The Biblical Aramaic corpus is too small to prove it; but any sampling of the Targum, the Aramaic translation of the Hebrew Scriptures, will bring out the great frequency of 'my son,' 'his son', etc., as well as the masculine {təre<sup>y</sup>, təre<sup>y</sup>n} 'two'.

**5.Be.** Moreover the IE correspondence carries us much further. The total lack of *\*tn-* or *\*fn-* in IE must be connected with the tightness of the cluster. What was a *TENDENCY* in prehistoric Semitic phonology shows up in IE as an utter prohibition of an unwieldy consonant-group. The words for 'three' begin *tr-* or *fr-*.<sup>47</sup>

But also its apparent allomorph, which functions as a comparative suffix, is uniformly *-tVr-* or *-fVr-* in the majority of the ancient IE languages. Lat-

<sup>45</sup> E.g. the Arabic singular عيسى ابن مريم (ʿĪsā(ʿ) (ʿ)bna maryama) 'Jesus son (accusative construct) of Mary' (Qurʾān 2.87, etc.; cf. 1.Ag, note 26), in contrast to the plural أخواتهن بني {baniʿ ʾaḥwātihinna} 'their sisters' sons' (24.31), shows how the Aramaic {bər-} 'son' may well go back to a pre-historic *\*br-* (< *\*bn-*), whereas its plural {bən-} 'sons' would go back to *\*Wn-*.

<sup>46</sup> The sequence {tart-} is reminiscent of the Latin ordinal *tert|ius* √ 'third' (5.Df-L).

<sup>47</sup> In Hittite, where only the case-ending of a numeral is often written in syllabic characters — whereas the rest of the word is normally shown by a number ideogram (as in Akkadian and Sumerian; see 5.Ab, note 8) — a lone occurrence of the genitive is spelled out syllabically {te-ri-ja-aš} √ but interpreted to stand for [tri-]. For the syllabary, being based upon the phonology of the Sumerian language, had no better way to show [tri-] than with two {CV} characters, even if there was no vowel in Hittite between the two consonants.

in, to be sure, where the meaning of the suffix is not so much comparative as contrastive, has *-tr-* rather than *-ter-* in some words:

*nos* | *trae*<sup>√</sup> 'our' in contrast to *ues* | *trae*<sup>√</sup> 'your' (nom. pl. fem.;  
cf. Greek ἡμεῖς | τεραῖ<sup>√</sup> 'our', ὑμεῖς | τεραῖ<sup>√</sup> 'your');  
and similarly *u* | *trum*<sup>√</sup> 'which [of two]' : πὸ | τερον<sup>√</sup>,

Sanskrit क त र म्<sup>√</sup> {ka | tarām}.

'The right [hand]' is either *dextra*<sup>√</sup> or (less often) *dextera*<sup>√</sup>; 'the left' is always *sinistra*<sup>√</sup>. But some Latin words, such as *alterī* 'other, second' (5. Bc), have only *-ter-*.<sup>48</sup>

We can readily understand how, within Latin, this variation between *-CC-* and *-CeC-* would have operated in favor of *-t(e)r-* and against *\*-t(e)n-*, if there was a prehistoric *\*-t(e)n-*; for the consonant-group *\*[(-)tn-]* was incompatible with the phonology of this language, whereas *[(-)tr-]* was perfectly compatible. The other early IE languages, however, pose a greater problem. Their *-tVr-* or *-ḡVr-* (to the exclusion of *-tr-*, *-ḡr-*) seems explicable only if it goes back to a remote time when the meaning of this suffix was close to the meaning of the numeral *tr-* or *ḡr-*; i.e. when it meant 'two' in prehistoric IE, as its cognate does in Semitic and Egyptian. For that is how we accounted for the {r} after a vowel in the Aramaic {tartē<sup>√</sup>n} 'two' (fem.), under the influence of {t(ə)re<sup>√</sup>, t(ə)re<sup>√</sup>n} 'two' (masc.), and likewise {bar} 'son' under the influence of {b(ə)rēh} 'his son', {b(ə)ri<sup>√</sup>} 'my son', etc.<sup>49</sup>

**5.Bf.** In regard also to the initial consonant, whether plosive or fricative, the language groups turn out to be strangely interlocked. Of all the languages, Aramaic occupies the most intermediate position; for the plosive {t-} is fricativized when it follows a vowel: שְׁתִּי<sup>√</sup> | שְׁתִּי<sup>√</sup> | שְׁתִּי<sup>√</sup> | שְׁתִּי<sup>√</sup> {šənti<sup>√</sup>n šittī<sup>√</sup>n}

<sup>48</sup> In the nominative singular masculine, where the prehistoric case-ending — if any — has disappeared (1.If), all these words end in *-ter-*: *noster*<sup>√</sup>, *uester*<sup>√</sup>, *uter*<sup>√</sup>, *dexter*<sup>√</sup>, *sinister*<sup>√</sup>, *alter*.

<sup>49</sup> In the case of {tartē<sup>√</sup>n}, dissimilation would also have favored [tVrtVn] over *\*[tVntVn]*, and perhaps similarly in {t(ə)re<sup>√</sup>n}. However, there is no such dissimilation in the ordinal תְּנִינִי<sup>√</sup> {tēnyɔn<sup>√</sup>} 'second' (Dan. 7:5, fem.; the masc. תְּנִינִי<sup>√</sup> {tēnyɔn} occurs in the Targum of Gen. 1:8, 30:7, etc.); the Hebrew ordinal שְׁנִי<sup>√</sup> {šəni<sup>√</sup>} evinces a prehistoric *\*ḡVn-*.

wəṭartē<sup>n</sup> 'sixty and two years' (Dan. 6:1).<sup>50</sup> The same alternation obtains

in תורין<sup>√</sup> {to<sup>w</sup>ri<sup>y</sup>n} 'bulls' (Ezra 6:17) [6:9]

וּבְנֵי תורין<sup>√</sup> {u<sup>w</sup>bənē<sup>y</sup> to<sup>w</sup>ri<sup>y</sup>n} 'and sons of bulls' (= young bullocks,

כְּתורין<sup>√</sup> {kəto<sup>w</sup>ri<sup>y</sup>n} 'like bulls' (Dan. 4:22, etc.;

cf. **1.Ac5**). Within Aramaic it does not matter whether the {<sup>t</sup>t̥} corresponds to an Arabic {ḥ} and Hebrew {š}, or to an Arabic (and pan-Semitic) {t}, since these Semitic phonemes have merged in Aramaic. However, words beginning with {t} from the latter source are scarce, apart from the multitude of verb-forms with the 'you' or 'she' prefix (Dan. 2:30, 4:23; **3.Ca-b**):

תִּדְעָ<sup>√</sup> {tindá<sup>s</sup>} 'you (masc.) will know'

מִן־הַיּוֹם תִּדְעָ<sup>√</sup> {min-dí<sup>y</sup> tindá<sup>s</sup>} 'from when you will know' (4:23).

The Semitists have treated this alternation as an Aramaic development, subsequent to the merger of the two phonemes in that language (cf. **1.Ed**). But I would not rule out the possibility that the Aramaic merger amounted rather to a phonological rearrangement, as the erstwhile plosive and fricative phonemes became mere positional allophones of each other. Furthermore we gain an idea of how it was in prehistoric IE, with Avestan preserving the clearest traces of allophonic variation between plosive and fricative (**3.Cg** and note 39), while other IE languages have settled either for the plosive *t*, excluding any fricative alternant, or vice versa. It can scarcely be an accident that Aramaic and Avestan were geographically rather close in historical times; the Avestan alphabet, besides, was derived specifically from the Aramaic stylization of the twenty-two-letter Semitic alphabet. But that does not determine how far back this areal phenomenon, an apparently shared variation, may go in Semitic and IE prehistory. The plosive {*t*-} in the Aramaic numeral 'two' matches the Sanskrit {*t*-} in 'three' and its many IE cognates, while the Aramaic fricativated {*t̥*-} matches rather the Avestan and Germanic fricative *f*, as well as the same fricative in Arabic and certain less well known Semitic languages.

**5.Bg.** While Avestan and Aramaic share an important and interesting alternation, only to a limited extent are the conditions that govern it similar in the two languages. Thus the numeral 'three' (masculine and neuter) in Avestan begins

<sup>50</sup> Likewise fricativated in חַיִּינָה אֶחָדִי תִּנְיָנָה<sup>√</sup> {He<sup>w</sup>3<sup>n</sup> ʔaḥḥrī<sup>y</sup> tīnyɔn3<sup>n</sup>} 'another, a second animal' (Dan. 7:5; cf. **2.Ea** and **5.Be**, note 49).

invariably with {ḡ-}, not {t-}<sup>51</sup> — unlike the Aramaic ‘two’, which begins with {t̄-} when immediately following a vowel but otherwise with {t-}. For no Avestan word can begin with ??{tr-}; initial consonant groups that involve the other voiceless plosives, ??{pr-} and ??{kr-}, are likewise barred. But Avestan has an opposite constraint, inside a word, against {-ḡr-} or indeed any internal {-ḡ-} after a sibilant or nasal consonant (Jackson, *AvGr*, 29-34); hence

{uṣṭrəm}√ ‘camel’ (accusative);  
 Sanskrit उष्ट्रम्√ {úṣṭram} ‘buffalo’, later ‘camel’),  
 and Avestan {paṇtānəm}√ ‘path’ (acc. sing.) but {paḡō}√ (acc. pl.;  
 cf. पन्थानम्√ {pānthānam} “ “ “ पथः√ {paṭhāḥ} “ “  
 before any voiced consonant पथो√ {paṭhō}).

That resembles the Aramaic constraint to this extent: Any precedent consonant inhibits fricativation, as we observe in {tarté<sup>y</sup>n, wəṭarté<sup>y</sup>n} or in

למנתן√ {ləmintán} ‘to give’,  
 וַיִּשְׁתּוּ√ {wəyištō<sup>w</sup>n} ‘and they will drink’.

The Avestan {ḡ} and {t} are opposed phonemes, at any rate in intervocalic positions, whereas the Aramaic {t̄} is never more than a positional allophone of {t}. But when it comes to the voiced counterparts, the two languages agree perfectly; or rather, Avestan FROM AFTER THE PERIOD OF ZOROASTER agrees with Aramaic. His Gāthās, however, have only the voiced plosives; subsequently the voiced plosives are fricativated after any vowel, just as voiced and voiceless plosives alike are fricativated in Aramaic. The phonological parallel between Avestan after Zoroaster and modern Spanish makes it likely that in Avestan too the voiced fricatives were quite homorganic with plosives, while the voiceless fricatives differed from plosives in their point of articulation — the {ḡ} being interdental, and the {f} labio-dental.<sup>52</sup> Although no dates of

<sup>51</sup> On the Avestan feminine forms, see 5.DL.

<sup>52</sup> The difference in sound between the homorganic {t̄} (dental or alveolar) and the non-homorganic {ḡ} is small but not negligible. For the unvoiced apical [t̄] : [ḡ] this may not be readily provable in any modern language, but for the voiced labial it is well documented that Spaniards, in particular Castilians, are sensitive to anyone who pronounces a labio-dental [v] instead of their bilabial [b]; e.g. “Yo no puedo soportar — escribe Unamuno — a los actores que dicen *vive*, pronunciándolo como las *uvés* francesas” ‘I can’t stand — writes U. — actors who say *vive* [‘live’ (imperative sing.) or ‘he/she lives’], pronouncing it like the French *v’s*’

Zoroaster are on record, doubtless he lived well before 500 B.C. The post-Zoroastrian voiced fricatives betoken a regional tendency, centered in Aramaic but affecting Avestan on one side, Hebrew on the other.<sup>53</sup>

Since the Avestan voiceless fricatives, as in the numeral 'three', go back further in time than that, we must ask whether they tap not only into the pre-history of Aramaic but into the Semitic background of Arabic, South Arabian, and Ugaritic also. The Germanic fricative *f*, which is in no way a positional alternant of *t*, lines up with these Semitic languages against IE as a whole, notwithstanding the remoteness of the Germanic territory.

**5.Bh.** The phonetic match between the Semitic 'two' and the IE 'three'  
and " " " 'nine' " " " 'ten'

can scarcely be just a double coincidence. It demands of us an effort to understand how the meaning could have diverged — all the more so because WITHIN IE *tʃ(V)r-* as a suffix has a comparative sense (**5.Bc**) which clashes with the meaning of the IE numeral 'three' but fits comfortably with that of the Semitic numeral 'two'. The Semitic evidence should indeed enable us to recover the hidden link, never suspected by the Indo-Europeanists, between the IE comparative suffix and the IE numeral 'three'.

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(i.e. [vive] instead of [bibe] or — if the preceding word ends in a vowel [bibe]), quoted by T. Navarro Tomás, "Lecciones de pronunciación española," *Hispania*, 4 (1921), 4.

<sup>53</sup> Fricativation in Hebrew appears to be traceable, mainly if not entirely, to Aramaic influence. See Levin, *DeAlRe*, 72-76, and my review of Andersen and Forbes (**3.Cg**, note 35) in *HeSt*, 30 (1989), 97, note 2. It is no simple matter, however, to determine in which of these languages the phenomenon of fricativation after a vowel is attested the earliest. The extant mss. of the Avesta would hardly take us back even a thousand years from the present, but surely they perpetuate a difference between Zoroastrian and post-Zoroastrian (but still pre-Christian) Avestan, which was not only in older mss., now lost, but also in the texts as transmitted orally before they were ever written down. The Biblical Hebrew and Aramaic codices, with the marked letters ת פ צ ק ג ב, were copied no earlier than A.D. 800 (or thereabouts), since the Jews had been slow to adopt the codex form and would not disfigure a sacred scroll with any such marks besides the letters themselves; see Levin, *FrSc*, 6-7, and "The Medieval Transformation of the Jews' Oral Heritage" (forthcoming). The Syriac version of the Nestorian Christians had an equivalent mark (a dot rather than a horizontal line) at least two hundred years earlier; see J. B. Segal, *The Diacritical Point and the Accents in Syriac* (Leeds Oriental Series, 2; London: Oxford University Press, 1953), pl. III [pp. 158-159]. It is safe to assume that fricativation in Aramaic was really much more ancient than that, though not shown in writing nor precisely traceable through other kinds of evidence.

In the Appendix to *InEuSeLa* (736-737) I speculated, "However hard it is to conceive of a displacement in connection with the objects counted, it becomes more intelligible if we think of each numeral word as a pet name for this or that finger at a prehistoric stage of intellectual development." Let's suppose that the middle finger of the right hand was called *Three*, and the little finger of the other hand *Ten*. It is easy, though not essential, to picture the right thumb as the active counter, touching each of the fingers in turn. Now, if the speaker begins by counting the right thumb (just shaking it, or touching it with something else), the middle finger *Three* accordingly is counted third and gets its IE arithmetical meaning, and the little finger of the left hand *Ten* likewise gets its IE meaning. However, if he counts the right forefinger first, then the middle finger is counted second and gets what is actually the Semitic meaning 'two', and the little finger of the other hand gets the meaning 'nine'.

This visualization of our prehistoric forerunners counting becomes plausible if they took a sort of childish delight in counting on the fingers. That is psychologically more likely than to suppose their interest in numbers was merely utilitarian from the outset, as it is for many adults nowadays. Granted that in the long run it would not do to waver on the arithmetical meaning of a given numeral word, yet at a formative stage the fun of fooling around with numbers and fingers might well be uppermost.

**5.Bi.** Counting-out games and rhymes ("rimbles") give us some notion of how people like to play with numbers. They continue among children to this day and preserve some whimsical alternatives to the standard numerals of English and other modern languages. Especially pertinent is the well-known jingle

*Eeny, meeny, miny, mo,  
Catch a nigger by the toe,<sup>↓</sup>*

in which the second verse appears to be a crude English adaptation from the French of Canada: *Cache ton poing derrière ton dos*<sup>↓</sup> 'Hide your fist behind your back' — where the point is to tease by not letting anyone else see how many fingers you have.<sup>54</sup> The first and second words *eeny meeny* are

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<sup>54</sup> See Charles F. Potter, in *Funk & Wagnalls Standard Dictionary of Folklore, Mythology and Legend*, ed. by Maria Leach, I (New York, 1949), 339-340. Presumably the French words were heard but not understood; and according to Potter, American children in the 19th century applied the jingle whimsically to fugitive slaves. — The information about such counting games was supplied to me by J. P. Brown and reawakens memories of my own childhood. Gary Rendsburg reminds me that when he was a boy, *nigger* had been replaced by *tiger*.



similar to each other, and so are the second and third *meeny miny* similar, like the Semitic 'two' and the IE 'three'.

*Eeny* (or *eena*<sup>v</sup>, as reported from England) appears to be based on the Welsh word for 'one': *un*<sup>v</sup>, pronounced [i n]. This does not necessarily reflect a recent influence of the Welsh substrate upon the English of a border population; for also in parts of England far from Wales there have been reported "in oral tradition some other sets of counting words, reaching to twenty, and used by shepherds for counting sheep, fisherman for reckoning their catch, and old knitting-women for their stitches." This includes *ina mina tethera methera pin*<sup>v</sup> 'one, two, three, four, five,' etc., in Yarmouth<sup>55</sup> — of which *mina* and *tethera* were derived not from anything Welsh or Cumbrian or otherwise Celtic, but from *ina* and *methera* respectively.<sup>56</sup> As the Anglo-Saxon immigrants to Britain in the early middle ages were, if anything, inferior to the natives in arithmetical skill, the English language did not gain a total ascendancy within this limited sphere of counting. Some natives held on to the Celtic numerals, at least in part, and some of the immigrants may readily have picked up from them a non-Germanic number chant.

**5.Bj.** But in order to integrate the prehistory of these displaced numerals — 'two/three' and 'nine/ten' — with that of 'six' and 'seven', where we find no such discrepancy between IE and Semitic (and Egyptian), we must infer that the displaced numerals are left over from the earliest traceable state of these languages, and that the agreement upon 'six' and 'seven' came about more recently, though still in prehistoric times. Such a sequential development in the number system poses no difficulty on top of what we have encountered before; we had already concluded that the Indo-Europeans adopted 'six' and 'seven' through the influence of the nascent Mesopotamian civilization upon the neighboring areas and beyond (**5.Ad-f**).

My theory about 'two/three' and 'nine/ten' will be strengthened if other numerals lend themselves to a similar analysis.

<sup>55</sup> Iona and Peter Opie (edd.), *The Oxford Dictionary of Nursery Rhymes* (Oxford University Press [1983]), 12-13.

<sup>56</sup> 'Four' in Welsh is *pedwar*<sup>v</sup>.

### 5.C. The More Problematical Displaced Numerals

*Sem. (Heb.)* {šəmoné<sup>h</sup>} 'eight': *IE (Latin)* nouem 'nine'

{ʔarbáʕ} 'four': (*Skt.*) {pāñča} 'five'

#### 5.Ca. A discord within IE between

Latin nouem<sup>√</sup> and Greek ἑννέα<sup>√</sup> (for \*ἑννέ(F)α?)<sup>57</sup>

Sanskrit नव<sup>√</sup> {náva} Thracian ENEA<sup>√58</sup>

OHG, Gothic niun<sup>√</sup> Armenian {inn}<sup>√</sup>

etc. (Pokorny, *InEtWö*, I, 318-319)

reminds us of a similar discord in a noun of the most basic vocabulary:

Latin nōmen Greek ὄνομα, οὐνομα, ONYMA, ENYMA-

Sanskrit {nāma} Armenian {anun}

OHG, Gothic namo<sup>√</sup>, etc. (1.H).

There we found a complex and surprising correspondence to the Semitic word for 'name', embracing in particular the Aramaic and Akkadian {šum}, which resembles the Aeolic ONYMA and the Doric ENYMA- except for the {š-}. Through further IE and Finno-Ugrian cognates, we observed the extreme variability especially of the initial sound or sounds of this word from one language to another, even within a well defined family; so the Semitic sibilant — Hebrew {šem}, Arabic {(?)isman}, etc. — did not after all bar the correspondence to IE.

That opens up the possibility that also in the numeral 'nine' the IE variation between *n*- and {Vn-} has a Semitic counterpart; for 'eight' in Hebrew is

<sup>57</sup> More definitely the discrepancy between the Attic ordinal ἑννατος<sup>√</sup> 'ninth' and the Homeric ἑνωτος<sup>√</sup> points to an underlying or prehistoric \*[enwa-], as also in the Homeric compound adverbs or neuter adjectives ἑννάετες<sup>√</sup> 'for nine years' (*Od.* 14.240), ἑννάνυχες<sup>√</sup> 'for nine nights' (*Iliad* 9.470); here the digraph *ει* stands not really for a diphthong but merely for the vowel [ē]. (In the course of the 4th century B.C., as the inscriptions show, [ei] and [ē] merged in Athens, and *Ei* soon became the normal spelling for [ē] in all Greek dialects.) However, the meter has influenced the choice between ἑννα- [ēna-] and ἑνα- [ēna-]; for in all these Homeric forms ἑνα- would yield an unmetrical sequence of three short syllables, and on the other hand the feminine form of the ordinal ἑνάτη<sup>√</sup> (2.313), with a short initial vowel, avoids a different unmetrical sequence - - - .

<sup>58</sup> Albrecht v. Blumenthal, "Die Ringinschrift von Ezerovo," *InFo*, 51 (1933), 113-166, has deduced the meaning 'nine' for the sequence of these four letters from an ancient text found in Bulgaria and thought to be funerary. Like most texts in Greek capital letters, this one shows no word-boundaries; and since the language here is not Greek, scholars' opinions have differed as to where a word begins and ends. However, Blumenthal's effort of interpretation of the text as Thracian is the most successful.

𐤇𐤌𐤍𐤅<sup>√</sup> {šəmoné<sup>h</sup>}, in Akkadian {sa-ma-ni, ša-ma-ni}. The middle consonant {m}, a labial nasal, in this Semitic root corresponds well enough to the *IE* labial semi-vowel [w], as exemplified by the Latin *nouem* and variously modified in Sanskrit, Germanic, etc.<sup>59</sup> And the Semitic {n} recurs exactly in Germanic, besides the Latin ordinal *nōn|us*<sup>√</sup> ‘ninth’.<sup>60</sup>

**5.Cb.** The initial fricative in Arabic شَمَانٍ<sup>√</sup> {šamānin} ‘eight’

Ugaritic {ṣm n }<sup>√</sup> " as well as

the initial plosive in Aramaic שְׁמַנִּי<sup>√</sup> {tæmne<sup>y</sup>},<sup>61</sup> affords a regular correspondence to the Hebrew sibilant in {šəmoné<sup>h</sup>} (Gen. 5:4, etc.), but not the same correspondence as in Arab. {ʔiṣman}, Ugaritic {ṣm }<sup>√</sup>, Aramaic {ṣu m }, Heb. {še m }.

The evidence from Akkadian is inconsistent and confusing:

The usual {s-} in this Akkadian word for ‘eight’ is at odds with the Semitic pattern; but so, for that matter, is {seba} ‘seven’ (**5.Ae**)

at odds with Hebrew {šēba<sup>ʕ</sup>}

and its Aram. cognate שְׁבַע<sup>√</sup> {šēbæ<sup>ʕ</sup>}.<sup>62</sup>

The instances of {š-} instead of {s-} in Akkadian are assigned to the Assyrian dialect (*AsDi*, XV, 110, s.v. “samāne”). Once it is acknowledged that in prehistoric times the numerals constituted a somewhat special vocabulary, we can make room for minor deviations, at any rate, from the regular phonetic correspondences.

Then, by extension, we are ready to reckon with the gulf between the Semitic and the *IE* initial consonant. The likeliest factor is dissimilation of nasals; for in no language has the numeral ‘nine’ more than two nasals: All the *IE* languages show the initial *n*- (or {Vn-}), but the consonant after that is the labial semi-vowel or a reflex of it — whereas in Semitic the second consonant is the

<sup>59</sup> Cf. the same semi-vowel in *hanow*, the Cornish word for ‘name’, whereas Latin has *nōmen* — and likewise most *IE* languages.

<sup>60</sup> In a brief archaic inscription NEVEN.DEIVO<sup>√</sup>, of unclear meaning, from Ardea in Latium (*ColnLa* I<sup>2</sup>.455), some have taken the first word to mean ‘nine’.

The Greek and Sanskrit {-a} here, as often, represents a prehistoric vocalic nasal \*ŋ.

<sup>61</sup> Like several other numerals, ‘eight’ is lacking in the brief corpus of Biblical Aramaic. If it were on the scale of the Biblical Hebrew corpus, we would expect to find the initial plosive alternating with a fricative {t/ṭ}, as in **5.Ae**.

<sup>62</sup> The derived masculine {šib<sup>ʕ</sup>āt} (**5.Ae**) is in Biblical Aramaic as well as Hebrew.

labial nasal {-m-}, but the first is non-nasal. The Aramaic dental plosive {t-} could have resulted from a dissimilatory denasalization of \*n-, while the sibilants in the Hebrew and Akkadian 'eight' may reflect some influence from the preceding numeral 'seven'.

'Eight' in Egyptian is {Ḥm n}√, matching the Semitic except for the initial consonant, which the Egyptologists regard as a velar fricative [x] (as in the German name *Bach*). In Coptic, however, it is {šmoun}√,<sup>63</sup>

which is especially close to Hebrew {šəmoné<sup>h</sup>}.

Cuny (*ÉtPr*, 469) cites from Kafa, a Cushitic language, *šminta*, *šmitto*, and several Berber forms: "Mzambit *tam*, *tamet*; Zénaga *ittem*; Chilhe *tham*".

**5.Cc.** Offhand, the sounds of Hebrew and Aramaic אַרְבָּע {ʔarbá<sup>s</sup>} 'four' do not seem to match Greek πέντε√ 'five' at all. Sanskrit पंच√ {pāñča} "

has indeed two vowels similar to those in the Semitic word, but the Sanskrit consonants are no closer than the Greek {p-nt-} to the Semitic {ʔ-rb-<sup>s</sup>}.

Only when we recall another etymology (**2.Lc-f**)

Greek πέτρον (accusative) : Hebrew {ʔēḇen} 'stone'

πέτροι (nominative plural) : {ʔaḇ(ə)ne<sup>y</sup>} (construct plural)

do we begin to see a recurring pattern, {p—t-} : {ʔ—b-}, in both etymologies.

To account for such a drastic divergence, I located the motive for it in the initial consonant-group of the alternant πτερόν 'feather' or 'wing' (plural πτερρά): Passing into a prehistoric Semitic language, where such an initial [CC-] was unmanageable, it was liable to a complicated modification, which yielded a minimal initial voiced consonant, the glottal stop, and the second consonant a voiced labial. Semitic habits of articulation called for some vowel sound to creep in between the two consonants. It amounts to only a minimal vocalic glide {ʔāḇ-} in the Hebrew absolute plural אֲבָנִים√ {ʔāḇənī<sup>y</sup>m} 'stones'; but in other forms of the noun the vowel is more substantial, as we see above in the accented {ʔēḇen} and in {ʔaḇ(ə)ne<sup>y</sup>}. My etymology of πέντε 'five' : {ʔarbá<sup>s</sup>} 'four' posits that even an intervening consonant would not have

<sup>63</sup> The digraph ou, as in Greek of the Christian era, stands for a plain vowel [u]. The Achmimic dialect has a different initial consonant ʕ {h}, instead of the Sahidic and Bohairic ʕ {š}.

blocked the dissimilatory process within Semitic.

However, the IE comparison of πέντε with Sanskrit {pāñča}, Latin *quīnque*<sup>✓</sup>, etc., brings out, further, a prehistoric labio-velar preserved in the Latin -qu- (Pokorny, *InEtWö*, I, 808).<sup>64</sup> So the labial quality of the Hebrew {-b-} in the numeral is actually a little closer than the {-ḅ-} in the word for 'stone' or 'feather' to something IE in the corresponding position of the word. Moreover, this casts quite another light upon the posited dissimilation: Both in IE and in Semitic, it obviates the recurrence of A DIFFERENT LABIAL at the beginning of the second syllable from the one that begins the first. The Indo-Europeanists reconstruct \*pérqʷe (and the like); but the attested IE languages either substitute a non-labial in the second syllable (πέντε, {pāñča}) or else make both labials the same (*quīnque*, Aeolic πέμπε<sup>✓</sup>, Welsh *pimp*<sup>✓</sup>, *pump*<sup>✓</sup>, Gothic {fimf}<sup>✓</sup>, etc.). In Semitic the latter remedy would scarcely be feasible within any normal phonetic pattern — ?{barbáʕ}; so the Semitic solution is to recur to the minimal consonant {ʔ} at the beginning of the word.<sup>65</sup>

**5.Cd.** The IE languages have a nasal consonant [-N-], the capital letter indicating its variable quality, which depends on the ensuing consonant. The Semitic {-r-} corresponds loosely to the nasal consonant; for we have seen, WITHIN early IE and WITHIN early Semitic (**5.Bd-e**), an appreciable amount of <sup>r</sup>/<sub>n</sub> variation. However, for the numeral {ʔarbáʕ} still another variation comes into play:

The Hebrew word for 'finger' is אֶבְיָר<sup>✓</sup> {ʔebbár}, with cognates throughout Semitic, besides the Egyptian {ḏbʕ}. This is reminiscent of the relation in Old High German of *finger*<sup>✓</sup> to *finf*<sup>✓</sup> — and similarly, if not quite so clearly, in Old English *finger*<sup>✓</sup> : *fif*<sup>✓</sup> and in Germanic otherwise.

A cognate suffix in Armenian {hing|er|ord}<sup>✓</sup> 'the fifth'

(formed from {hing}<sup>✓</sup> 'five') serves to establish a semantic

<sup>64</sup> The Hittite hieroglyphic {paʔta} agrees apparently with the Greek consonants and the Sanskrit vowels; but I cannot say how Pokorny, or his source, arrived at this phonetic interpretation of the Hittite character.

<sup>65</sup> Dombrowski (*NuNuSy*, 341) cites some rough cognates to the Semitic 'four' from the Cushitic languages; of these, "Dasenech 'affur'" is structurally the least remote from Hebrew and Aramaic {ʔarbáʕ} (which is also the pausal pronunciation of Arabic أَرْبَع<sup>✓</sup> {ʔarbaʕ|un}).

link between this numeral and the Germanic noun *finger*.<sup>66</sup>

Variation between a sibilant and *r* is characteristic of certain IE languages — notably Latin and Germanic — while not occurring at all in most of the others. In Semitic it occurs meagerly. The one surest instance — involving, however, a different sibilant from the **š** in {ʔe**š**báʕ} — is the Hebrew

דְּבַשׁ<sup>√</sup> {dəbʃʃ} ‘honey’ : דְּבַר<sup>√</sup> {dəbər|ɪʔm} in בְּרֵי דְּבַר<sup>√</sup> ‘the bees’

with its Semitic cognates;<sup>67</sup> the semantic parallel in Greek morphology

μέλι<sup>√</sup> ‘honey’ : μέλισσα(ι)<sup>√</sup> ‘bee(s)’

illustrates how natural such a derivation is, and the feminine gender of ‘bee’ in both languages adds a little more to the parallel. Besides, the Egyptian cognate {dbʕ}<sup>68</sup> shows that in {ʔe**š**báʕ}, no less than in {ʔar**š**báʕ}, the initial consonant {ʔ-} is prothetic; as Gary Rendsburg points out, that is an infrequent feature of noun-formation, and so the sharing of it by these two words emphasizes the semantic link between them.

Both in Semitic and in Germanic the relation of {ʔe**š**báʕ} ‘finger’ to {ʔar**š**báʕ} ‘four’ and of *finger* to *finf* ‘five’ is phonetically odd; but it captures the original, intimate connection between the numeral words and the fingers (which we have explored in **5.Bh**). At that very early stage, counting did not go beyond one hand; the prehistoric Semitic mode then — as I visualize it — was to use the thumb for counting but to count only the other four fingers, whereas the Germanic mode was to count the thumb along with the rest.<sup>69</sup>

<sup>66</sup> Without the Armenian parallel the morphology of *-er* or *-ar* in this Germanic word would be opaque.

<sup>67</sup> The singular of {dəbər|ɪʔm} is דְּבַר<sup>√</sup> {dəbər|ʃʔ}, found in the Bible chiefly as a woman’s name. In the Targum the Aramaic cognates of both nouns have of course the same meaning as the Hebrew nouns that they translate; but the Syriac (i.e. later Aramaic) cognate of {dəbərʕ<sup>√</sup>} designates another stinging insect, the wasp.

<sup>68</sup> {d} with an underline stands for an Egyptian consonant of uncertain phonetic value, but distinct from {d}. I acquiesce reluctantly in the Egyptologists’ use of this diacritical device; for I prefer to reserve the underline for a quite different purpose, calling attention to a certain letter within a word — {ç}, {š}, {r} in this section.

<sup>69</sup> Counting on the fingers of both hands will help to explain the resemblance in Greek between δέκα ‘ten’ (**5.Ba**) and δάκτυλος<sup>√</sup> ‘finger’, and in Latin between *decem* and *digitus*<sup>√</sup>. The anomalous phonetic relation between the accented vowels <sup>ε</sup>/a or <sup>ε</sup>/i and between the consonants [k/g] has not been satisfactorily explained. See Jaan Puhvel, “‘Finger’ in Greek, Latin and Hittite,” *InFo*, 81 (1976), 25-26.

**5.Ce.** I conclude that before the prehistoric Indo-Europeans learned the numbers ‘six’ and ‘seven’ from the Semites with the same numerical value, there was already a more extensive correspondence with a recurrent arithmetical discrepancy of one. From that corresponding series the following members survive:

Semitic	Indo-European
<b>‘two’</b>	<b>‘three’</b>
‘four’	‘five’
‘eight’	‘nine’
<b>‘nine’</b>	<b>‘ten’</b>

The clearer etymologies are shown here in bold type. The others, by themselves, would scarcely be convincing; but taken all together, they make a powerful impression.

As for the rest of the series, I see no evidence to back up the guess that the Semitic ‘five’ (Arabic خَمْسٌ<sup>√</sup> {Hams|u n}, Hebrew חֲמִשָּׁה<sup>√</sup> {Həméš}, etc.) should also have had an IE cognate that meant ‘six’, until the Egyptian and Semitic ‘six’ (and ‘seven’) spread triumphantly throughout IE.<sup>70</sup> In **5.Dd-L** I will show how the Semitic ‘three’ (Arabic ثَلَاثٌ<sup>√</sup> {ṭalāṭ|u n}, Hebrew שְׁלֹשָׁה<sup>√</sup> {šəlōš} — or, at any rate, the ordinal ‘third’ — has IE relatives. Certain other numerals (as we shall see in **5.E**), while phonetically similar in Semitic and IE, appear to have undergone a drastic revaluation.

**5.Cf.** J. P. Brown has suggested a quite different origin for the semantic discrepancy between Semitic ‘four’ and IE ‘five’, etc., from what I propose in **5.Bh**. Citing the inveterate habit of herdsmen to count up their sheep, which is not only well documented throughout historical times but reaches deep into folklore, both ancient and modern,<sup>71</sup> he posits that the prehistoric Semitic herdsmen just took for granted their one male beast,<sup>72</sup> without actually count-

<sup>70</sup> Gary Rendsburg accounts for the discrepancy between the Arabic consonant-group {-ms} and the Hebrew {-mVš} by assimilation of the latter so as to rhyme with the ensuing numeral {ššš}; thus also in the derived masculine, חַמִּישָׁה<sup>√</sup> {Hāmišš<sup>h</sup>} rhyming with {šššš<sup>h</sup>} (cf. **5.Bi**).

<sup>71</sup> Cf. Luke 15:7 and the best known device for dropping off to sleep (often depicted in comic strips).

<sup>72</sup> That one male has been known in England, for the past thousand years or so, as a bell-wether. Of course it is not necessary to suppose that the bell itself (or some equivalent device

ing him in along with the females and young, whereas the IE herdsmen did count him in. Either way a herdsman must have used his fingers to count, pointing to one sheep after another.

In support of Brown's idea, I would narrow down the divergence in meaning by linking it to a Semitic peculiarity of gender agreement, which gives primacy to the counting of feminine things — whether fingers or livestock (**5. Ab**, note 9):

Heb., Aramaic {ʔarbáʕ} = 4 females : Gr. πέντε = 5 regardless of gender

" {šəmonéʕ} = 8 " " ἑννέα = 9 " " "

(Aram. {təmnēʕ})

" {téšaʕ} = 9 " " δέκα = 10 " " "

To count males, or anything of grammatically masculine gender, requires in Semitic a certain suffix, presumably because counting them was somewhat a departure from the most routine counting:

אַרְבָּעָה כְּפָּיִם {ʔarbáʕ|ʕəbɪʕɪm} 'four cups' (Ex. 25:34, 37:20),

שְׁמֹנֶה בָּנִים {šəmon|ʕəbɪʕɪm} 'eight sons' (I Sam. 17:12),

תִּשְׁעֵי פָּרִים {pərɪʕɪm|tiʕɪʕ} 'nine bullocks' (Num. 29:26).

To the Greek herdsman (and his IE forerunner), δέκα was nine females, including their young, plus the one male, while {téšaʕ} to the Hebrew-speaking Jacob and his Aramaic boss (cf. Gen. 31:36 ff.) meant nine females, not counting the male.

The more ancient of the IE languages make no gender distinction in their numerals from 'five' up to 'ten'. Evidently the divergent handling of gender by IE and Semitic has some extensive ramifications, although the two language-groups are both notable for the pervasive development of gender. It must not be overlooked, however, that the low number {təreʕ} 'two' (masc., Aram.)

: {trɪ́} (neuter), {tráyah} (masc.) 'three' (Skt.)

does not fit the pattern of a Semitic short feminine corresponding to a IE genderless form, as the other numerals do. Instead, the shortest form of 'two' in Aramaic is masculine rather than feminine (cf. **5.DL**).



**5.D. Sem. (Heb.) {šéšeť} 'six' : IE (Latin) *sexte* 'sixth'**

(Aram.) {ṭ(ə)liṭṭy(ṣ)} : (Gr.) τρίτωι, τριταῖο|ς 'third'  
 {ṭaltiṭ} : (Latin) *tertī*

**5.Da.** A parallel emerges between a Semitic masculine cardinal and an IE ordinal. The masculine cardinal in Semitic requires the addition of a suffix after the base, which without that suffix is feminine; e.g.

Arabic {sitt|at|u n} 'six' (masc.) < {sitt|u n} (fem.)

Hebrew {šišš|ṣḥ} or שִׁשָּׁהּ {šéšeť|ēť} (masc.) < {šéšeť} (fem., **5.Aa-b**).

The Hebrew masculine form in {-ēť} appears wherever the "construct" form is required, as before a noun prefixed with the definite article (Ex. 25:33,35, 37:19,21): שִׁשָּׁהּ הַקִּנֵּי {šéšeť haqqōnīm} 'for the six shafts'; but otherwise it is limited to formulaic combinations, presumably a holdover from a prehistoric time when {šéšeť} was in general preferred to {šiššṣ<sup>n</sup>}:

שִׁשָּׁהּ יָמִים {šéšeť yōmīm} 'six days' (Ex. 16:26, etc.),

שִׁשָּׁהּ אֲלָפִים {šéšeť ʾālōpīm} 'six thousand' (Num. 3:34, etc.).

A particular use of the "construct" masculine cardinal employs a subsequent accented suffix {-ōm}, which would otherwise be the possessive 'their', to express 'the six of them': שִׁשָּׁהּ תֵּי {šiš|t|ōm} 'the six of them'; here {-ēť} in a pre-accentual position is reduced to {-t-}.<sup>73</sup>

Now {šéšeť/šišt-} 'six' is phonetically close

to the Latin ordinal *sext|us* 'sixth' —

except, of course, for the case ending. The briefest form, and hence the very closest to the Hebrew, is the masculine vocative *sext|e* 'sixth'; and this short vowel at the end of a word, especially in pre-classical Latin, was liable to be dropped. The vocative of this particular ordinal adjective was in daily use, because it

<sup>73</sup> Actually attested are

שִׁלֹּשָׁה תֵּי {šəlōš|t|ōm} 'the three of them' (Num. 12:4; also שִׁלֹּשָׁה אֲנָכֶם {šəlōš|ə|ānākem} 'the three of you') < שִׁלֹּשָׁה {šəlōš|ēť} 'three' (masc.),

אַרְבָּעָה תֵּי {ʾarbāʿ|t|ōm} 'the four of them' (Dan. 1:17) < אַרְבָּעָה {ʾarbāʿ|āť} 'four' (masc.),

שִׁבְעָה תֵּי {šəbāʿ|t|ōm} 'the seven of them' < שִׁבְעָה {šəbāʿ|āť} 'seven' (masc., **5.Af**).

served as a masculine praenomen.<sup>74</sup> In the IE languages outside of Italy the ordinal numbers were not applied to such a purpose within the household;<sup>75</sup> but apart from that, we find clear enough cognates:

Greek ἑκτ|ος, Sanskrit षष्ठः √ {ṣaṣṭ|áḥ}, etc.

To explain how the suffix, whose essential sound was [T], could function in a Semitic language to mark a cardinal number as masculine but in an IE language to make it ordinal, we should again visualize a pastoral setting: The females with their young are ‘five’ — an unsuffixed numeral in either language, as this part of the counting is just a routine matter; but the adult male after that is something else, something conspicuous, often lagging behind, and thus evoking a morphological supplement in the speech of the impatient herdsman.

Such was the prehistoric experience shared by Semites and Indo-Europeans, or at least by certain influential ones among them; from that point, however, they diverged greatly. In Semitic the suffix upon the numeral was understood to denote ‘male’, and hence was extended to the counting of anything of masculine gender. In IE, on the contrary, the suffix put emphasis on the climax and completion of the count; this form of the numeral — unlike cardinals such as *quinque*, *sex*, *septem* — became an adjective fully integrated into the syntax of the sentence by means of case endings (Levin, *ViPhCo*, 473-475, 478-479).

**5.Db.** The foregoing is, of course, a reconstruction. From the corpus of ancient literature we cannot quote a Hebrew herdsman, or his Latin counterpart, actually counting up his beasts thus:

<sup>74</sup> We cannot cite a passage where the Roman name *Sexte* was definitely pronounced [sekst], with no final vowel; for the evidence could come only from the meter of a comedy, and the comic poets whose works were preserved — Plautus and Terence — chose to limit themselves to adapting many an existing Greek play to the Latin language (*fābula palliāta*), rather than setting a new play in Rome (*fābula togāta*) as some of their rivals did.

<sup>75</sup> As a Latin praenomen *Sextus* probably referred in origin — like *Quīntus*<sup>√</sup> and *Decimus*<sup>√</sup> — not to the sixth child (or sixth son) born to a couple, but rather to one born in the sixth month; for the praenomen *Mārcus*<sup>√</sup> (< \**mārtikos*) undoubtedly meant ‘born in March’ (*mēnse mārtiō*<sup>√</sup>). Through many centuries of Roman history the rule was, indeed, to give the first son the same praenomen as the father, regardless of the original sense. One surprising survival is the praenomen *Spurius*<sup>√</sup>, originally ‘Bastard’ but perpetuated in some prominent Roman families.

חֲמִישׁ שְׁלֹשׁ אַרְבָּע הָיִים שְׁלֹשׁ אֲחֵי הָאֵלִים {ʔaHāṭ šṭáyim šlōš ʔarbāʕ  
Hmēš šéšēṭ} 'one, two, three, four, five [all feminine so far], six (masc.)';<sup>76</sup>  
*ūna, duae, trēs, quattuor, quinque, sextus*<sup>†</sup> 'one, two, three, four,  
five, (the) sixth (masc.)'.

We have, indeed, a famous specimen of MEN being counted, at the beginning of Plato's *Timaeus*: εἷς, δύο, τρεῖς· ὁ δὲ δὴ τέταρτος ἡμῖν, ὧ φίλε Τιμαίε, ποῦ τῶν χθὲς μὲν δαιτυμόνων, τὰ νῦν δὲ ἐστιᾶτόρων<sup>†</sup> 'One, two, three; but the fourth — where [is he] for us [to see], dear Timaeus, of those who were dinner guests yesterday, hosts today?'<sup>77</sup> Making certain adjustments for gender, we can with some confidence transpose the numerical part of this passage back into a pastoral scene.

The reconstruction enables us, further, to understand some otherwise baffling phenomena of the languages. In Arabic, although the great majority of nouns, whether masculine or feminine, form a "broken" plural that regularly calls for FEMININE SINGULAR agreement of any verb, pronoun, or ordinary adjective (1.Ag), still the form of the cardinal number depends solely upon the gender of the singular noun: ثَلَاثَةٌ {ʔaḫwār|un ḡalāḡ|at|u n} or — more often — ثَلَاثَةٌ {ḡalāḡ|at|u ʔaḫwār|i n} 'three bulls'. I trace this anomaly back to the paramount importance of the animal's sex.

<sup>76</sup> What makes 'one' and 'two' explicitly feminine is underlined in the transliteration; 'three', 'four', and 'five' are implicitly feminine, for lack of any additional morpheme to shift them (5.Ab, note 9). — One passage that in highly imaginative fashion draws upon the numerical vocabulary of animal husbandry is Ezekiel's vision of four beasts

(חִזְיוֹן אַרְבַּע חַיִּיִּם<sup>†</sup> {ʔarbāʕ Hayyōʿī}, 1.5; cf. 2.Ea, note 48) which he saw in the midst of the heavenly fire. In his description he keeps saying לְאַרְבַּעֵיהֶם<sup>†</sup> {lə|ʔarbaʕ|t|ṣm} or לְאַרְבַּעֵיהֶן<sup>†</sup> {lə|ʔarbaʕ|t|ṣn} 'to the four of them' — i.e. 'the four of them had'. In the suffix 'of them' he wavers between masculine and feminine gender, feminine in agreement with {Hayyōʿī}, masculine since each beast has four faces — of a man ({ʕḡḡm}, cf. 1.Gb), a lion (אַרְיֵה<sup>†</sup> {ʔaryēʿ}, a bull or ox ({šōʕr}, 1.De, note 15), and an eagle ({né-šer}, 1.Be, note 40), all of which are masculine. Before that suffix, however, he uniformly inserts {-t-} to make the number 'four' masculine.

<sup>77</sup> Chalcidius (ca. 300 A.D.) translated this somewhat loosely into Latin: *Vnus, duo, tres; quartum e numero, Timae, uestro requiro ut, qui hesterni quidem epuli conuiuae fueritis, hodierni praebitores inuitatoresque ex conducto resideatis*<sup>†</sup>.

**5.Dc.** From *Sextus*, as from several other praenomina, a family name (*nō-men gentīle*) was formed very early in the history of Rome, if not prehistorically; e.g. *Mārc|ius*<sup>√</sup> < *Mārc|us*<sup>√</sup>. However, besides *Sext|ius*<sup>√</sup>, there is also *Sēst|ius*<sup>√</sup> with the simpler consonant group [-st-] instead of [-kst-], and with compensatory lengthening of the vowel; for the semantic connection to the cardinal number *sex* [seks] was now quite vestigial.<sup>78</sup> But such a family name must have meant ‘son of Marcus’, ‘son of Sextus’, in the generations before it too became hereditary (cf. **5.Da**, note 75). The vocative *Sēst|ī*<sup>√</sup>

is close in sound to the Hebrew ordinal שִׁשִּׁי<sup>√</sup> {šiššīy}  
 ‘sixth’.<sup>79</sup> More evidence is needed to show whether the final vowel in Latin has any real — i.e. morphological — relation to the Hebrew {-īy}, and how the -t- fits into the formation of ordinals. We must turn to an ordinal earlier in the series.

**5.Dd.** ‘Third’ in Greek is conventionally cited in its nominative singular masculine form τρίτος (**5.Be**); but the dative singular masc./neuter τρίτῳ<sup>√</sup> corresponds better to Aramaic {tālīʿtɔy},

which to my knowledge occurs only in one passage of the Targum: [10].

יּוֹם חֲלִיטִי<sup>√</sup> {yoʿm tälīʿtɔy} ‘(the) third day’ (Gen. 1:13; Levin, *DeAr*,

The Greek ordinal in the dative case, much oftener than the nominative, is used when the noun — expressed or understood — is ‘day’, as in the earliest attestation: οἱ δὲ τρίτῳ ἡματι πάντες/ ἤλθον<sup>√</sup> ‘but they on the third day all came’ (*Iliad* 11.707-708; ἡματι is neuter).

Aramaic, which has no case distinctions, uses the {-ɔy} suffix only in a narrative enumerating days or sons;<sup>80</sup> elsewhere a longer form of the ordinal is required:

<sup>78</sup> The length of the vowel is proved by the Greek rendering ΣΗΣΤ<sup>√</sup>.

<sup>79</sup> This was pointed out to me by J. P. Brown.

<sup>80</sup> יּוֹם רְבִיעִי<sup>√</sup> {yoʿm rəbīʿtɔy} ‘(the) fourth day’ (Gen. 1:19),

יּוֹם חֲמִישִׁי<sup>√</sup> {yoʿm Həmiʿtɔy} ‘(the) fifth day’ (1:23),

יּוֹם שְׁתִּיתִי<sup>√</sup> {yoʿm šəṭīʿtɔy} ‘(the) sixth day’ (1:31);

בֶּר חֲמִישִׁי<sup>√</sup> {bær Həmiʿtɔy} ‘(the) fifth son’, 30:17,

בֶּר שְׁתִּיתִי<sup>√</sup> {bær šəṭīʿtɔy} ‘(the) sixth son’, 30:19).

But only {tālīʿtɔy} — unlike these other ordinals — presents a close resemblance to an IE ordinal. — In the Septuagint of Gen. 1:13, where the Hebrew יּוֹם שְׁלִישִׁי<sup>√</sup> {yoʿm

בְּיוֹמָא חֲלִיתָאָה {bəyoʷmɔ' ɛəliṭəʔəh} 'on the third day' (Gen. 34: 25, etc., in the Targum),

but בְּיוֹמָא חֲלִיתָאָה {byɔwɔmɔ' ɛliṭəʔə} (in the Nestorian Syriac version) The disyllabic ending {-əʔə} in {ṭiṭi|əʔə} recalls [sion].<sup>81</sup>

a Greek secondary adjective τριτ|αῖος 'on the third day'.

Most times it is nominative and agrees in gender and number with the personal subject; e.g. τριταῖοι ἀφῆκοντο 'on the third day they (masc.) arrived' (Thucydides 1.61.5).<sup>82</sup> But on occasion the longer suffix seems to be used redundantly, as in τριταῖαν γ' οὖς ἀστὸς ἡμέραν 'she], being unfed for the third day' (Euripides, *Hippolytus* 275, where τρίτην — with or without the article τὴν — would be normal if ἡμέραν 'day' is expressed, or else just the nominative τριταῖα γ' οὖς ἀστὸς† without ἡμέραν).

ἑλῖσί' 'third day' has only a loose link to the rest of the sentence (and similarly in 1:19,23,31), the Greek conveys this in the most literal manner by the nominative case: ἡμέρα τρίτη. This Greek feminine noun is used as early as Homer (in the Ionic dialect form ἡμέρη ἦδε 'this day'; cf. 3.Fb), but the neuter ἡμαρ was preferred in that age; subsequently, however, ἡμαρ dropped out, except as a poetic archaism.

<sup>81</sup> On my normalization of the Syriac cursive to the more familiar "square" lettering, see 1. Da, note 71. — The defective or confusing notation, added to the letter-text in both the Targum and the Syriac, leaves me in some doubt about the fricativation of ܬ at the beginning of the second word in such a conjuncture. The closest thing to it in Biblical Aramaic, which has the fullest notation, is וּמַלְכוֹתָא חֲלִיתָאָה {uʷmalkuʷ ɛəliṭəʔəh} 'and a third kingdom' (Dan. 2:39), with a definitely fricative -ܬ. This is a feminine noun and its adjective, WITHOUT the definite article. חֲלִיתָאָה is the text as READ (קרי {qəri}); the WRIT-TEN or letter-text (כתיב {kətiṭb}) is חֲלִיתָאָה {tlyṭy?}, which is more like the Syriac, while חֲלִיתָאָה goes rather with the Aramaic of the Targum. This particular discrepancy between the two Scriptural text traditions, the written and the read, recurs several times in the brief corpus of Biblical Aramaic (2.Qc, note 205; 5.Dh, note 93).

<sup>82</sup> No instance of this adjective in Homer as an alternative to ἡματι τρίτωι; but that it must have been already available in the language, is evident from another adjective of the same series: πεμπταῖοι δ' Αἴγυπτον εὐρρεῖτην ἰκομένεσθα 'on the fifth day we arrived at fair-flowing Egypt' (i.e. at the Nile; *Od.* 14.257; πεμπτ|αῖοι formed from πέμπτ|ος, pl. πέμπτ|οι 'fifth'). The dactylic meter was adverse to τριταῖος, τριταῖοι, etc.; the first syllable is short, but the initial consonant group makes the last syllable of the previous word long, thus producing an incompatible sequence - ~ - (cf. 1.Ec, note 88; 5.Ca, note 57).

**5.De.** Now {-צוֹ} could have arisen within Aramaic, by adding the suffixed definite article {-וֹ} (cf. **3.Fi**, note 135) to the already existing {תְּ(א)לִי־צוֹ}. And in Greek too an adjective in -αίο- (fem. -αία) could have been formed, quite separately from Aramaic, by attaching the IE [-io-] to the FEMININE of the ordinal number, τρίτη<sup>↓</sup> 'third' (τρίτᾱ<sup>↓</sup> outside of Attic and Ionic); for τῆς τρίτης<sup>↓</sup>, even without the noun ἡμέρᾱ<sup>↓</sup>, is 'on the third (day)'.<sup>83</sup>

The primary — or, at any rate, the most obvious — meaning of [-io-] is 'son of';<sup>84</sup> and ἐξ ἀγορᾶς ἑχθύδια τριταία<sup>↓</sup> is indeed 'from market, tiny fish three days old' (Aristophanes, fr. 387.8-9 Hall – Geldart).<sup>85</sup> But even if τριταίο- was formed within Greek independently of Aramaic, its syntax still has something in common with {תְּלִי־צוֹ} — namely, τριταίο- and other such Greek adjectives, unlike the simple ordinals, are seldom (if ever) used with the precursory definite article; the meaning of the definite article is virtually there already in the last syllable, as it is expressly in the Aramaic {-וֹ}.

Moreover, the phonetic correspondence is so impressive as to demand the most thorough analysis. Could Aramaic have borrowed from the prehistoric forerunner of Greek, inasmuch as no other language, Semitic or IE, has such a precise cognate either to τριταίο- or to {תְּלִי־צוֹ}? We must acknowledge a noticeable shade of difference in meaning: The Greek -αίο- always refers to the third DAY, the fourth DAY, etc., whereas the Aramaic ordinal in {-צוֹ} does not by itself carry that implication — it ACCOMPANIES {yo<sup>w</sup>m|וֹ} 'the day', or many another noun,<sup>86</sup> but {yo<sup>w</sup>m|וֹ} very often. A major use, or per-

<sup>83</sup> Cf. English *on the third* <sup>↓</sup> (i.e. day of the month).

<sup>84</sup> In early Greek these adjectives were derived mainly from feminine nouns of the "first declension"; e.g. βοῦν ἀγελαίην<sup>↓</sup> 'a cow, daughter of the herd' (accusative case, *Iliad* 11.729, etc.; ἀγέλη<sup>↓</sup> 'herd'). Cf. the explicit Hebrew expression פָּר בֶּן־בָּקָר {pár ben-boqár} 'a bullock, son of the herd' (Lev. 4:3, etc.; cf. 4.Ec).

<sup>85</sup> Cf. the Hebrew וַיְמַלְּ אֶבְרָהָם אֶת־יִצְחָק בְּנוֹ בֶּן־שְׁמֹנֶת יָמִים {way-yómol aḇrāḥām ʔēt-yiḥāq bənoʔ ben-šəmonát yomíʔm} 'and Abraham circumcised Isaac his son, eight days old' (literally 'son of eight days', Gen. 21:4). ὄγδο|αῖον<sup>↓</sup> would be a neat, idiomatic Greek equivalent, but the Septuagint resorts to the paraphrastic alternative τῇ ὀγδῷ ἡμέρᾱ<sup>↓</sup> 'on the eighth day'. (I omit the subscript iota, as alien to the Greek of the Bible. Editors did not find it in Biblical mss. but introduced it as a sort of normalization to the earlier classical Attic, which had the full-sized letter ι.)

<sup>86</sup> E.g. וְיָסְדָּרָא תְּלִיתִי {wəiṣḏrāʔ təlīṯiʔ} 'and the third row' (Ex. 28:19, 39:12).

haps the main use, of the ordinal numbers in the vocabulary was to keep track of how many days had passed since a certain starting point.<sup>87</sup>

**5.Df.** One more correspondence in the ordinal ‘third’ will prove that we are dealing with a deeper interaction between IE and Semitic. Aramaic has, besides the shorter {ṭəlīṭ|ṣy} (cf. Greek τρίτωι) and the longer {ṭəlīṭ|ṣyʿ} (cf. Greek τριταίω-), a third ultra-short {ṭalt|íʿ} in one Biblical passage,

יְשַׁלֵּט בְּמַלְכוּתָא יְהִי־לֵתִי<sup>√</sup> {wə|ṭalt|íʿ bəmal(ə)ḵuʿtśʿ yišláT} ‘and he will rule third in the kingdom’ (Daniel 5:7),

besides two occurrences with the suffixed definite article instead of {-íʿ}:

יְשַׁלֵּט בְּמַלְכוּתָא יְהִי־לֵתֵּא<sup>√</sup> {wə|ṭalt|ś bəmal(ə)ḵuʿtśʿ yišláT} ‘and he will rule, the third in the kingdom’ (5:16);

שְׁלִיט תִּלְתָּא<sup>√</sup> {šallíʿT ṭalt|śʿ} ‘the third ruler’ (5:29).

Each time the point is *THIRD IN RANK*, not third in chronological order. The structure of {ṭaltíʿ} matches the Latin ordinal *terti|us*<sup>√</sup> and especially its vocative *tertī*<sup>§</sup> (which must have occurred fairly often, since this ordinal served as a Roman cognomen).<sup>88</sup>

In view of {ṭalt|íʿ} and {ṭalt|śʿ} we cannot argue that this Aramaic ordinal is simply derived from the pre-existing cardinal תִּלְתָּא<sup>√</sup> {ṭəlōt} ‘three’,

cognate to Hebrew	{šlōš},
Arabic	{ḥalāḥ u n },
Akkadian	{ša-la-a-aš} <sup>√</sup> = {šalāš},
Geʿez	{šalās} <sup>√</sup> .

<sup>87</sup> J. P. Brown reminds me that ‘on the third day’, by ancient reckoning, would include the present day as the first. Thus Hosea 6:2,

יְחַיֵּנוּ מִיָּמִים בְּיוֹם הַשְּׁלִישִׁי יִקְמְנוּ וְנִחְיֶה לְפָנָיו<sup>√</sup> {wəḥayyénuʿ miyyomšayim bayyóʿm haššəlīʿšíʿ yaqiménuʿ wəniHyēḥ ləpənəʿ(ʿ)w} ‘He will revive us after two days; on the third day, he will stand us up and we will live in his presence’ (cf. the English *two days from now*). — Such a mode of expression makes it a little easier for us to understand how the cardinal number ‘two’ — {təreʿ} in Aramaic — could indirectly give rise to the ordinal {ṭəlīṭ|ṣy} ‘(the) third’.

<sup>88</sup> The best known individual is Paul’s amanuensis Τέρτιος<sup>√</sup> (Romans 16:22). His praenomen and *nomen gentile* were not recorded; but, for that matter, we are told only the Apostle’s cognomen Παῦλος<sup>√</sup> (= *Paulus*<sup>√</sup>, 1:1, etc.) and his Hebrew name Σαούλ<sup>√</sup> (Acts 9:4 = שָׁאוּל<sup>√</sup> {šəʾūʿl}, usually Hellenized to Σαῦλος<sup>√</sup> (9:1, etc.).

Since the setting of these passages is Mesopotamia and the context is royal — or rather imperial — power, the Akkadian language from centuries past (if not millennia) is likely to have influenced Aramaic.<sup>89</sup> The Akkadian ordinal, when written out syllabically (which is somewhat unusual), shows the following forms:

nom.masc. {šalšum}§	nom.fem. {ša-li-iš-tum, ša-lu-uš-tum, šá-lul-tum}√
later {šal-šu, ša-aš-šu}√	later {šaluštu}§
gen.masc. {ša-al-ši-im, ša-aš-ši-im}√	gen.fem. {ša-li-iš-tim}√
later {šal-ši, ša-aš-ši}√	later {ša-lu-ul-ti}√
acc.masc. {ša-al-ša-am}√	acc.fem. {ša-lu-uš-tam}√
later {šal-ša}√	later {ša-lu-uš-ta, ša-lu-ul-ta}√

The early feminine forms have either {i} or {u} between the second and third consonants<sup>90</sup> (followed by the suffixed consonant {t}), but later on only {u}. In the masculine, since a vowel follows the third consonant, any short vowel before that consonant was bound to disappear — given a prehistoric sequence \*VCVCV.

The Aramaic {taltʿ} resembles the Akkadian genitive case {šalši}, and {taltʿʿ} the Akkadian accusative {šalša}; but their function in the Aramaic sentences has nothing to do with the cases of Akkadian. Their {CaCC-} structure is borrowed from Akkadian, which unlike Aramaic requires a normal vowel — never a reduced vowel or vocalic glide — between the first and second consonants. In Aramaic an initial {CəC-} is quite acceptable, as in {təliʿtəy}. We must pin down the precise extent of the parallel to the IE sequences, exemplified by Latin *tertī* and Greek τρίτωι, τριταίο-.

**5.Dg.** These correspondences between Semitic and IE languages are limited to the ordinal ‘third’. On the cardinal ‘three’ they diverge from each other; and the best Semitic cognate of Sanskrit {trī, trāyaḥ}, Old English *þri(e)*, etc., is Aramaic {təreʿ} ‘two’ (**5.Bb**). Within IE the various ordinal forms are all derivable, more or less clearly, from the cardinal. So if we can explain the Semitic forms for ‘third’ from IE forms, the way would lie open for a subsequent derivation of the Semitic cardinal ‘three’ from the ordinal. There are, however, great difficulties to surmount.

<sup>89</sup> *AsDi*, XVII<sup>1</sup>, 265: “*rubāʿum ... ana ša-al-ši-ni ubāʿim ituwar* is the ruler (of GN [= geographical name]) to become a ruler equal to us (lit. our third one)?”

<sup>90</sup> Except for an occurrence of the anomalous nominative {šal-šá-tum}√.



The IE cardinal 'three', however variable from one language to another, contains not only the two consonants [Ṗ/ṛ] but also either the vowel [i] or the related semi-vowel [y] — or, at any rate, clear reflexes of these sounds,<sup>91</sup> which have Semitic counterparts, especially in the Aramaic {təreʾ} 'two'. The IE ordinal 'third' has the same three sounds, plus another [t] (or the like) either after them or inserted before the [i]. The morphological alternative suggests that the suffixed or infixed dental consonant arose as a repetition of the initial consonant, rather than that it was an established suffix, already habitual in 'fourth', 'fifth', etc., not to mention other sorts of adjectives. While the [i] part of the [ti] sequence in *terti*|us 'third' is not shared by *quārt*|us<sup>ᵛ</sup> 'fourth',  
*quīnt*|us<sup>ᵛ</sup> 'fifth',  
*sext*|us 'sixth', it has a cognate in

Sanskrit तृ ती यः<sup>ᵛ</sup> {ṭṛtīy|aḥ}, and so it originated far back in prehistory.

**5.Dh.** In the Aramaic {ṭ̥altīʾ} the structure of the language would allow the third consonant to be taken either as a repetition of the initial consonant or as a suffix independent of that consonant; for {ṭ̥} figures in many Semitic suffixes (as well as prefixes). Either way we must allow in Aramaic for positional allophony; i.e. plosive {t} unless fricativated after a vowel {Vṭ̥}, including a vowel at the end of the previous word when the rhythm of the sentence conjoins the two words.<sup>92</sup> But in Akkadian the third consonant {š} of this numeral can never be suffixal, and that applies to the {š}, {ṣ}, or {s} of the other

<sup>91</sup> The Latin monosyllable *trēs* (nominative pl. masc./fem.) is shown by its disyllabic Sanskrit cognate {tráyah} to have lost the inter-vocalic semi-vowel during its prehistory, exposing the two short vowels to merge into one long.

<sup>92</sup> In Biblical Aramaic, marking makes it quite clear whether the letter 𐤌 (as well as 𐤌 𐤊 𐤌 𐤊 𐤌) has a plosive sound {t} or a fricative {ṭ̥} (Levin, *DeAlRe*, 72-76). In Syriac too, when the notation is fully employed, the distinction is shown, although the multiple uses for graphically similar dots may be confusing. In the Targum, unfortunately, the notational system has some grave defects. My transcription of it ventures to supply what it lacks — in this case by means of the superscript horizontal line, to indicate a fricative pronunciation wherever other information about Aramaic seems to justify the addition. For there are some fragmentary manuscripts that show the Targum marked much more thoroughly; for specimens, see Paul Kahle, *Masoreten des Ostens: Die ältesten punktierten Handschriften des Alten Testaments und der Targume* (Leipzig: J. C. Hinrichs, 1913; repr. Hildesheim: Georg Olms, 1966), especially 19-22, 26-28, 217. I wish that more of such Aramaic material could be made conveniently accessible.

Semitic languages — all differing in this regard from Aramaic with its {T}. Furthermore, in Aramaic itself the other forms of the ordinal 'third',

{ʔəliʔtəy} and {ʔliʔtəyʔ}, belong to a series exemplified by {rəbiʔəy} " רַבִּיעַ <sup>ʔ</sup> {rəbiʔəyʔ} '(the) fourth',<sup>93</sup>

{Həmiʔəy} " חַמִּישׁ <sup>ʔ</sup> {Həmiʔəyʔ} '(the) fifth' (5.Dd, note 80);

so the second ח in {ʔəliʔtəy, ʔliʔtəyʔ} is also — or at any rate it has become — part of the root.

Throughout Semitic the root 'three' is treated as absolutely TRIconsonantal. That may well have helped to symbolize, even before the invention of writing, how the meaning 'three' differs from 'two'. The sound of ח, recurring as the third consonant of Aramaic חלת (or, in Hebrew, ש as the third consonant of ששל, or similarly ث in the Arabic ثلث), captures or exploits the very ODDNESS of this number, in contrast to the evenness of *two*.<sup>94</sup>

5.Di. If we could somehow disregard the cardinal 'three', it would be easier to derive the Greek ordinal τριτ- from a Semitic source much like the Aramaic

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<sup>93</sup> The Aramaic of the Targum has רַבִּיעָא <sup>ʔ</sup> {rəbiʔəyʔ<sup>h</sup>}, just like {ʔəliʔtəyʔ<sup>h</sup>} (5.Dd). But the Biblical Aramaic of Dan. 3:25 testifies, paradoxically, to both the Targumic and the Syriac form. The text as READ, cf. 5.Df, note 81), with full vocalization and accentuation, agrees with the Targum: וְרִבְעָא דִּי רִנָּה <sup>ʔ</sup> {wərewéh diʔ rəbiʔəyʔ<sup>h</sup>} 'and the appearance of the fourth' (masc.); but the text as WRITTEN — a mere consonantal skeleton — gives the last word as רַבִּיעַ <sup>ʔ</sup> {rəbiʔəyʔ}, spelled like the Syriac and doubtless pronounced \*[-כע]. In the Syriac version (where the verse is numbered 3:92, because of a long interpolation that begins right after 3:23) the words are וְרִבְעָא דִּירְנָה <sup>ʔ</sup> {wəzeweh dirəbiʔəyʔ<sup>ʔ</sup>}. — The other occurrences of this ordinal in the original Aramaic text of Daniel are feminine:

with suffixed article, רַבִּיעֵיָא <sup>ʔ</sup> {rəbiʔəyʔəiʔ<sup>ʔ</sup>} 'the fourth' (7:19,23; cf. 2.Ea)

without " " רַבִּיעָא <sup>ʔ</sup> {rəbiʔəyʔ<sup>ʔ</sup>} 'a fourth' (2:40, 7:7, as READ;

WRITTEN רַבִּיעֵיהַ <sup>ʔ</sup> {rəbiʔəyʔ<sup>h</sup>}).

<sup>94</sup> The earliest Akkadian has {šalištim} 'third' (genitive fem., 5.Df) with dissimilation between the first and the third consonant. (The transliteration {š} stands for a sibilant of undetermined quality; Von Soden, *GrAkGr*, 29-30.) Geʿez {šālās} also shows dissimilation. Certain later Akkadian forms — {šalulti, šalulta} — have another kind of phonetic modification.

{t̪əliʔ} than the reverse.<sup>95</sup> For on purely phonetic grounds, the Greek [r] as the second consonant seems a likely substitution for [l], given that Greek — like other ancient IE languages — had no [ə] to separate the two consonants; for many languages have the initial group *tr-* but few have *tl-*. Greek, however, has words beginning with τλ- from one root (**2.Ib**), though far more beginning with τρ-. Moreover this Greek ordinal has an exact IE cognate in Tokharian {trit}<sup>✓</sup> (the "A" dialect) and {trite}<sup>✓</sup> (the "B" dialect; Van Windekens, *ToCo*, 514).

To posit borrowing in the opposite direction, from prehistoric Greek into Semitic, invites an immediate objection: Why wasn't the Greek (and IE) consonant [r] kept in Aramaic, as well as in any other Semitic language? The disparity is not utterly unexampled, since we have noted Aramaic {Hæqle<sup>✓</sup>}, etc. : Greek ἄγροί, Latin AGREI 'fields' (**1. Ia-b**), without discerning any particular cause for the Semitic {l}. For our present problem, we are justified in contemplating a deliberate change [r > l], to dissociate the ordinal 'third' {t̪əliʔ} from the cardinal 'two' {təre<sup>✓</sup>}. Only Aramaic, to be sure, among the Semitic languages has {r} in 'two'; the rest have {n}; and in the ordinal {tinyon} 'second', Aramaic too has {n} like the others (**5.Be**, note 49).

The {l} in 'third' and 'three' would not forbid us to derive this Semitic number either from 'two' within Semitic or from the IE 'third'. For we have

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<sup>95</sup> The Syriac — i.e. Christian Aramaic — notation (ܬܪܬܝܢ, etc.) lacks any mark for [ə]; where Jewish Aramaic texts with vocalization show a weak vowel, the Syriac counterpart leaves the letter bare. This does not prove that the Christian dialects of Aramaic pronounced no [ə], but rather that the Christian notation, having been worked out much earlier than the Jewish (Levin, *FrSc*, 6-7), never hit upon a device to represent such a vague, elusive sound graphically. The grammar and the vowel letters of Greek had not furnished any precedent for taking account of this obscure phenomenon. But later on, the Hindus' invention of the zero, after being transmitted to the Arabs along with the rest of the Indian numerical notation, indirectly led Jewish scholars to adapt it to a phonological purpose. The Muslim scholars before them used a tiny zero above a letter to show سُكُونٌ {suku'n} 'quiescence' — i.e. no vowel sound accompanying the consonant. When the Jews finally got around to applying to their own texts the experience of the Christian and Muslim vocalizers, they used an equivalent sign ְ in the Tiberias notation, sometimes to show the lack of a vowel but sometimes an indistinct vowel, especially between the first and second consonants of a word. There were also many border-line cases, where the transition between consonants might or might not sound vocalic; these I transcribe {(ə)} (cf. Levin, *DeAIRE*, 69-72). In the "Babylonian" notation, however, ְ stands only for an indistinct vowel.

also seen {l} and {n} as counterparts, most strikingly in

Greek κλέπος : Hebrew {g(ə)nəḇōṯ-} 'stolen thing' (**2.Oa**;

cf. **2.DDj**, note 333). Amidst the lingering uncertainties, we gain a worthwhile insight, that the ordinal 'third' could be older than the cardinal 'three' — at any rate in Semitic — because to men in prehistoric times THE THIRD was richly climactic, with nothing else expected to follow, whereas THREE implied a readiness for more.<sup>96</sup>

**5.Dj.** While Aramaic comes closest of the Semitic languages to the [t—t-] in ܬܪܬܢܐ, we should not insist that the point of contact had to be in a Semitic region where [t] but not [β] was current. Arabic ثَالِثٌ {βāliṣun} 'third' on the Semitic side and Gothic {βridja} on the IE side (along with other early Germanic languages, as well as modern English) share the initial [β-], and so does Avestan in words like {βrityō} 'third' (beginning with {βr-}, **5.Bb, g**). It is safe to posit there were some areas, not only in Semitic territory but in IE territory also, where [t] and [β] competed. North of Arabia and very near Aram (= Syria) was the city of Ugarit, where {βlβ} (written without vowels) stands indifferently for 'three' and 'third'. We cannot prove that the speakers of this extinct language from the second millennium B.C. pronounced their letter 𐎧 like the ث of classical Arabic; indeed, some modern Arabic dialects do not maintain the true fricative sound [β].<sup>97</sup> But the inscribed Ugaritic tablets do show that letter almost exclusively in words whose Arabic cognates have ث {β}.

On the other hand, the transcription {š} in Akkadian {šalāš} 'three', etc., should not be taken for a commitment to the same sound as in the Hebrew cognate שָׁלוֹשׁ {šəlōš}. The surviving — or rather, rediscovered — graphic evidence of Akkadian (cf. **1.Ae**) is too vague and diverse to prove definitely no [β] but only [š].<sup>98</sup> In any transcribed Akkadian word the {š} is convenient

<sup>96</sup> The most momentous tale that bears this out is in the New Testament: τοῦτον ὁ θεὸς ἤγειρεν ἐν τῇ τρίτῃ ἡμέρᾳ 'him God raised on the third day' (Acts 10:40, cf. Luke 24:7, 21, 46, I Cor. 15:4; cf. **5.De**, note 85).

<sup>97</sup> For instance, J. P. Brown informs me that in Lebanon (where he lived for several years) the word for 'snow' is colloquially pronounced [talj] (instead of [β-]; cf. **2.Ne**).

<sup>98</sup> For Hebrew we have much more exact phonetic information. Furthermore, the letter 𐤄 was brought into the Cyrillic alphabet (ca. A.D. 850) precisely to represent a Slavic sibilant for which no Greek letter would do; in its modern Russian shape ы the Hebrew source is still

but still tentative; it does not stand for a single character but for the consonantal component of many syllabic characters.

**5.Dk.** My argument that the second [t] in the IE ordinal — Greek τρίτος, Latin *tertius* (*tertī*), Sanskrit {tṛtīyaḥ}, etc. — came probably from inside the root, is not conclusive. But at any rate it invites us to be more flexible, and at the same time more cautious, in the study of prehistoric word-formation. We allow for the [i] in τριτ- and in *terti-* to be carried over alike from the cardinal (as in the preserved neuter nominative/accusative τρία<sup>√</sup> = *tria*<sup>√</sup>), while divergence in the placement of [t] has produced both sequences, [it] and [ti].

Gothic {ḡridja} and Avestan {ḡrityō} display yet another development: the vowel [i] before the added consonant, but also the related semi-vowel after that consonant.<sup>99</sup> This seeming compromise between the Greek and the Latin or Sanskrit way could go back to something like \*[ʔṛṭty-], but modified by a sort of Umlaut — [i] inserted into the first syllable to anticipate the homorganic semi-vowel at the beginning of the second syllable, and then instead of the awkward “falling” diphthong \*[ṛi] the more natural sequence [ri].

The Hebrew ordinal שְׁלִישִׁי<sup>√</sup> {šəliʔšiyʔ}, with {iʔ} both before and after the third consonant, resembles the structure of the Gothic and the Avestan ordinal. Especially the Hebrew feminine {šəliʔšiyṯ<sup>h</sup>}

matches the Gothic and Avestan fem. {ḡridjo}<sup>√</sup>, {ḡrityā}<sup>§</sup>, in one prophetic passage (Isaiah 19: 24),<sup>100</sup>

quite recognisable. And when Hus (ca. 1400) reformed the spelling of Czech — another Slavic language, but written in the Latin alphabet — he introduced the diacritical mark called *háček* (literally ‘a little hook’) to distinguish one sibilant *š* from the more frequent *s* and so discarded the clumsy trigraph *sch* (which the Germans favored). The Jews of Bohemia (as well as neighboring countries) identified the *š* with their traditional pronunciation of the Hebrew שׁ, and Gentiles learning Hebrew perceived it also. Eventually this gave scientific Hebraists the idea of regularly transcribing the Hebrew consonant thus. However, the evidence that the [š] sound in Hebrew goes back to pre-Christian times is meager (2.DDg, note 327).<sup>99</sup> {j} for the semi-vowel in Gothic is a tradition of scholarship, owing to the predominance of Germans in this field of research. I ought perhaps, for the sake of consistency within my book, to make it {ḡridya}.

<sup>100</sup> The other occurrence of this feminine ordinal (Is. 15:5, Jer. 48:34) is in an obscure combination שְׁלִישִׁי אֶבְיָלָה<sup>√</sup> (ʔəglāt šəliʔšiyṯ<sup>h</sup>), apparently a place in Moab ‘Three-year-old Heifer’. The Greek translator of Jeremiah (31:34) seems to have merely transcribed the two words, but the first one got corrupted in copying to the Greek word ἀγγελία<sup>√</sup> or ἀγγε-

{bayyó<sup>w</sup>m בַּיּוֹם הַהוּא יִהְיֶה יִשְׂרָאֵל שְׁלִישִׁיָּה לְמִצְרַיִם וּלְאַשּׁוּר  
 ha hú<sup>w</sup> yihyé<sup>h</sup> yiśrō<sup>ʔ</sup>él šəli<sup>ʔ</sup>šiyyō<sup>h</sup> בְּרִכָּהּ בְּקֶרֶב הָאָרָץ:  
 ləmicráyim u<sup>w</sup>lā<sup>ʔ</sup>aššú<sup>w</sup>r bəro<sup>k</sup>š<sup>h</sup> baqé<sup>r</sup>ēb hō<sup>ʔ</sup>šrec<sup>ʔ</sup>}<sup>√</sup> ‘On that day shall  
 Israel be third to Egypt and to Assyria, a blessing in the midst of the earth’.

**5.DL.** From the recurrent [t] in the ordinal Greek τρίτος, Latin *tertius*, Sanskrit {tṛtīyah}, and even more from the modified recurrence in Gothic {þri-dja}, Avestan {þrityō}, we go on to a more altered recurrence — with more drastic metathesis —

the Sanskrit feminine cardinal ति त्रः <sup>√</sup>{tisr|áh} ‘three’ (nom./acc.;

masc. nom. {trāyah}, acc. त्री न <sup>√</sup>{trín}).

It has a cognate not just in Avestan {tišr|ō, tišar|ō}<sup>√</sup> (accusative only)  
 but also in Old Irish *teora*<sup>√</sup> (nom./acc./gen.;  
 nom. also *teoir*<sup>√</sup>, *teuir*<sup>√</sup>).

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λίαν<sup>√</sup> ‘message’ (quite inappropriate to the context); σαλιστα<sup>√</sup>, his transcription of the other word, has survived, at least in some manuscripts. The translator of Isaiah made it δάμαλις γάρ ἐστίν τριετής<sup>√</sup> ‘for she is a three-year-old heifer’. The Targum in both passages has בְּלִחָם תְּלִילָת <sup>√</sup>{æglæt tæltō<sup>w</sup>m}, which is thought to mean ‘a third-born calf’.

In form, {ʔəglāt šəlišiyyō<sup>h</sup>} would correspond almost perfectly to a Greek combination ἄμυνος τριταία<sup>†</sup> ‘a three-day-old she-lamb’ (1.La-e; whether it is three days or three years old, is not EXPRESSED by a certain morpheme within the ordinal adjective, which etymologically would mean at most ‘daughter of the third [day or year, or whatever]’). If this were not a place-name in Moab, we would expect the Hebrew absolute {ʔəglš<sup>h</sup>} when followed by an agreeing feminine adjective; for {ʔəglāt} is construct in Hebrew and would need a noun right after it, indicating WHOSE heifer. But in the Moabite dialect, a feminine noun in the absolute state ends in ת - (2.Gb).

In Hebrew the short form of the masculine ordinal :שְׁלִישׁ<sup>√</sup> {šli<sup>ʔ</sup>š} refers either to a certain measure, probably for liquids (Ps. 80:6, Is. 40:12) or to a subordinate official (II Kings 7:2, etc.). In the latter sense, the addition of an accented possessive or plural suffix — שְׁלִישׁוֹ<sup>√</sup> {šli<sup>ʔ</sup>šō<sup>w</sup>} ‘his tertiary’ (translated ὁ τριστατης αὐτου<sup>√</sup> ‘his third-standing man’), וְהַשְּׁלִישִׁים<sup>√</sup> {wəhaššli<sup>ʔ</sup>ší<sup>ʔ</sup>m} ‘and the tertiaries’ — does not (as usual in Hebrew, 2.Gb, note 72) entail the reduction of {š} to {š}. This aligns the Hebrew {šli<sup>ʔ</sup>š} with the Arabic ordinal {βāliβ|un} ‘third’ (masc. sing. nominative), rather than with the Akkadian {šalš-} (fem. {šališt-}, 5.Df). See Chaim Rabin, “Hittite Words in Hebrew,” *Orientalia*, 32 (1963), 133-134.

Somewhat similarly, except for accent, Sanskrit builds from

the masculine च त्वा रः √ {čatvār|aḥ} 'four' (nominative;

accusative च तु रः √ {čatúr|aḥ} √,

and the neuter nom./acc. च त्वा रि √ {čatvār|i})

a feminine च तं स्रः √ {čátasr|aḥ}.<sup>101</sup>

A distinct feminine form for all adjectives, of whatever declension, is required in certain IE languages; the requirement was extended — somewhat unevenly — to the cardinal numbers, insofar as they are declined. But the manner of forming the feminine 'three' and 'four' in Sanskrit, Avestan, etc., is most anomalous, even bizarre (Wackernagel, *AIGr*, III, 349-350). To be sure, the vowel {i}, advanced to second position, is traceable — through metathesis — to a similar vowel or semi-vowel at a later point in the masculine cardinal. But the source of the Sanskrit {s} or the Avestan {š} seems unfathomable, unless it came about through sibilization of a fricative \*[-β-]. Avestan has indeed an initial {β-}, not only in the ordinal but in the masculine cardinal (**5.Bb**). The initial plosive {t-}, at least in the Avestan feminine {tiš(a)r-}, may be reckoned a dissimilation; given a prehistoric \*[βiβ-], the two occurrences could both have been altered, but in different ways.

Semitic too, except for Geʿez and the modern languages of Ethiopia (**1.Kf**), has a strict rule of gender distinction in adjectives. But as applied to the cardinal numbers from 'three' to 'ten', the rule leaves the feminine as the unaltered basic form and adds a suffix to form the masculine.

**5.Dm.** Many Indo-Europeanists have endeavored to single out the most ancient IE prototype of the ordinal 'third', but they disagree sharply.<sup>102</sup> Some of them, in their thinking about prehistoric time, suffer from what the philosopher and mathematician Whitehead, writing about physical space, called the "Fallacy of Misplaced Concreteness".<sup>103</sup> They have assumed an essentially unitary

<sup>101</sup> In Avestan {čaβwārō} √ (nom./acc. masc.), but {čataβrō} √ (acc. fem.; Jackson, *AvGr*, 107)); in Old Irish, however *ceth(a)ir* √ (nom. masc./neuter), but *cethoir* √ (nom. fem.; also *cetheora* √, nom./acc./gen. fem.).

<sup>102</sup> E.g. Szemerényi, *StInEu*, 81, note 69: "Brugmann's view: 'Die altertümlichste Bildung scheint gr. τρίτος zu sein' (Grdr.<sup>2</sup> [= *Grundriß der vergleichenden Grammatik der indogermanischen Sprachen*, 2d ed. 1896-1916] II 2, 54) is out of the question...."

<sup>103</sup> *Science and the Modern World* (New York: MacMillan, 1925), 77, 85, etc.

proto-language, every speaker of which had one and the same word for 'third' — base, suffix, and inflections alike. But the evidence from the known languages points to a more fluid milieu in earlier ages, which afforded men a great deal of opportunity to experiment with various new resources for extending the coverage of their language.

**5.Dn.** At this point we can add to the previous argument (**5.Af**) about the *t* absent from the Germanic forms of 'seven' (Old English *seofon*, etc.), but present in Latin *septem*, Greek ἑπτά, Sanskrit {saptá}, etc.: that the forms with [tV], THROUGH METATHESIS, are cognate to the longer or masculine form of the Semitic cardinal — Hebrew and Aramaic {šibʿāṭ}, Arabic سَبْعَةٌ<sup>√</sup> {sabʿat|u n}, Geʿez {sabʿattu, sabāʿtu}<sup>√</sup>, Akkadian {sebēt, sebit}, whereas *seofon* is cognate to the Semitic feminine, exemplified by the Hebrew {šēṣṣāʿ}. We have seen (**5.Da**) how the same suffix could serve to mark either an ordinal derivative or a masculine cardinal; for both of them share a certain excitement, a climax in contrast to the mere routine of counting.

So now is the time to ask and answer why that most climactic ordinal *septim|us* (and its IE cognates) has no *t* added to the cardinal *septem*, unlike the previous ordinals *quār|t|us* (from *quattuor*<sup>√</sup> 'four'),<sup>104</sup> *quīn|t|us*<sup>105</sup> (from *quīnque*), *sex|t|us* (from *sex*, **5.Dg**). Well, the *t* was there already; the enhanced or strengthened form of this number had been chosen in most of the IE realm, to the exclusion of *?sepem* (or *?[hepa]* in Greek, etc.).<sup>106</sup>

**5.Do.** The Sanskrit ordinal तु री यः<sup>√</sup> {turīyaḥ} 'fourth'

is formed from {čatúr|aḥ} 'four' (accusative masc.);

but how the initial syllable of the cardinal disappeared in the process, demands an explanation. The Indo-Europeanists have reasonably posited first the dropping of the vowel, and in consequence the simplification of an unwieldy

<sup>104</sup> Here the -*t* AFTER -*r* may have been extruded from the cardinal through a complicated metathesis (cf. **1.Gf,Hd**), leaving in the ordinal no trace of its former position, other than the lengthening of the vowel [ā].

<sup>105</sup> The older form *quīnctō*<sup>√</sup> (ablative case) is also attested (Plautus, *Trinummus* 524, etc.).

<sup>106</sup> Also in *octāu|us*<sup>√</sup> 'eighth', from *octō*<sup>√</sup> 'eight' (cf. Sanskrit अष्टौ<sup>√</sup> {aṣṭāu} 'eight',

**5.Ea**), the -*t* may have been interpreted as an enhancement.



consonant group.<sup>107</sup> It remains for me to point out that the weakening of that vowel, when the accented suffix {-īy-} displaces it from the PRE-accentual position, corresponds startlingly to what has happened in Hebrew to {šəli'ys|ī'} 'third' (cf. {šəlōš} 'three') — unlike other Semitic languages: The full vowel {-o-}, when no longer pre-accentual, is reduced to a minimal glide (*InEuSeLa*, 190-197); that glide, however, still suffices to separate the consonants, and thus protects the initial {š-},<sup>108</sup> whereas the prehistoric IE languages had to cope with a tight juxtaposition of incompatible consonants (cf. **2.Ja**).

**5.Dp.** The syntax of the ordinal numbers in Akkadian agrees more with early IE than with the other Semitic languages. As a general rule in Semitic, an attributive adjective must follow its noun; and on the whole this applies to Akkadian, but with some exceptions (Von Soden, *GrAkGr*, 187-188). An Akkadian ordinal very often comes before the noun, and it so happens that the one ordinal which in sound most resembles an IE ordinal is the one that particularly favors an IE rather than a Semitic position: "In attributive use *šalšu* as a rule precedes the substantive" (*AsDi*, XVII<sup>1</sup>, 266). IE ordinals, while freely placed either before or after the noun, are more frequent in the former position; such adjectives, with their case endings, express agreement even when separated from the noun (as in τριταῖον ... ἡμέραν '[the] third day', **5.Dd**).

Another Akkadian correspondence to IE appears in "*in santim sa-lī-iš-tim* in the third year" (XVII<sup>1</sup>, 264). While the feminine ordinal follows in this instance, the same preposition {in} that is shared by many IE languages (**4.Ea**) governs the phrase. So we have an unrelated word for 'year', but the other two words belong to the vocabulary that cuts across the language phyla.

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<sup>107</sup> Mayrhofer, *KuEtWöAl*, I, 515: "mit Vereinfachung der Anlautgruppe aus \*q<sup>h</sup>tur-"; see also Wackernagel, *AlGr*, III, 349, 407. Other forms of 'fourth' are तुर्थः √ {túryah} and चतुर्थः √ {čatur<sup>h</sup>āḥ}.

The Greek personal name Τυρταῖος<sup>√</sup> is thought to have resulted from a like IE process of deriving 'fourth' from 'four', whereas τέταρτος<sup>√</sup>, the ordinary word for 'fourth' does not manifest this. I question, however, whether Τυρταῖος is definitely a variant of τέταρτος<sup>√</sup> 'on the fourth day'; it could, alternatively, be a by-form of τριταῖος.

<sup>108</sup> Likewise חַמִּישׁ<sup>√</sup> {Ḥāmi'ys|ī'} 'fifth' from {Ḥōméš} 'five', except that here the guttural consonant makes the vocalic glide wide-open, and hence of the quality [a].

5.E. *Sem. (Akk.)* {ištēn} 'one' : *IE (Skt.)* {aṣṭá} 'eight'  
*(Heb.)* {ʿaštēʿ ʿešrē<sup>h</sup>} 'eleven' {sa|hásram} 'a thousand'

5.Ea. The Akkadian word for 'one' is {iš-te-en}<sup>√</sup> (masculine), {iš-te-et}<sup>√</sup> (feminine) — with several minor variants.<sup>109</sup> Its Hebrew cognate appears only in the combination that means 'eleven'; e.g. (Num. 7:72, II Kings 25:2)

יום עָשְׂרֵי יָמִים<sup>√</sup> {ʿaštēʿ ʿešr yóm} 'eleven day(s)' (masc.),

שְׁנֵי עָשָׂר שָׁנִים<sup>√</sup> {ʿaštēʿ ʿešré<sup>h</sup> šōnō<sup>h</sup>} 'eleven year(s)' (fem.).

Of course the latter part of the numeral means 'ten', as though we were to say 'one-teen' instead of 'eleven'. But the vocalization of 'ten' —

עָשָׂר<sup>√</sup> {ʿéšer}, עֶשְׂרִי<sup>√</sup> {ʿéšer} (fem.), עָשְׂרֵי<sup>√</sup> {ʿašrō<sup>h</sup>} (masc.) —

differs from '-teen': {ʿešrō<sup>h</sup>} (masc.), {ʿešré<sup>h</sup>} (fem.).<sup>110</sup>

{ʿaštēʿ} in turn differs from other Hebrew numerals in being devoid of gender agreement. The Ugaritic {št šr}<sup>√</sup> (masc.), {[š]t [šr]h} (fem.)<sup>111</sup> may be like Hebrew in this respect.

{ʿaštēʿ} is close in sound to Sanskrit अष्ट<sup>√</sup> {aṣṭá} 'eight' (in early Sanskrit usually अष्टा<sup>√</sup> {aṣṭā} or अष्टौ<sup>√</sup> {aṣṭāu}) — and even a little closer to Avestan {ašta}<sup>√</sup>. The first syllable of the other IE forms of 'eight' — Greek ὀκτώ<sup>√</sup>, Latin *octō*, etc. — is much less similar to the Hebrew {ʿaš-}. This in itself might suggest diffusion rather late in prehistory, through a Semitic contact with Indo-Iranian only; but the great difference in meaning demands some other explanation.

<sup>109</sup> The Minaean dialect of Ancient South Arabian has {ʿs1t}<sup>√</sup>; A. F. L. Beeston, *A Descriptive Grammar of Epigraphic South Arabian* (London: Luzac, 1962), 40. Also an Aramaic cognate has been identified in the problematical word כַּעֲשָׂתָא<sup>√</sup> {b|ʿst?} 'by the one (cubit-measure)'; Emil G. Kraeling (ed.), *The Brooklyn Museum Aramaic Papyri: New documents of the fifth century B.C. from the Jewish colony at Elephantine* (New Haven: Yale University Press, 1953), 173.

<sup>110</sup> Cf. the vocalic difference in Latin between *decem*<sup>√</sup> 'ten' and *undecim*<sup>√</sup> 'eleven', *duodecim*<sup>√</sup> 'twelve', etc. In English the difference between *ten* and *-teen* (the vowel being pronounced [i] in recent centuries) is easily traced to unequal stress; for in a typical context — such as *ten years*, *thirteen years* — *ten* is weaker than the ensuing noun, but *-teen* is the strongest syllable of a polysyllabic word. Only in counting do we habitually make it *thirteen*, *fourteen*, *fifteen*, etc.

<sup>111</sup> Brackets indicate obliterated or damaged letters, restored editorially (see Gordon, *UgTe*, 46, 231).

What indeed have {ašta} or {aṣṭá} 'eight' and {ṣaštéʸ}, the first part of 'eleven', in common semantically, beyond being numerals? Well, both of them mark the resumption — or recommencement — of a count, after pausing upon the climactic number 'seven' or 'ten' (cf. 1.Da). As the meaning 'one' is definitely established in Akkadian, the very earliest attested of all the languages here involved, I infer that other words for 'one' have taken over elsewhere in Semitic and IE, leaving only these relics of the otherwise superseded word. The Vedic Sanskrit {aṣṭ|ā, aṣṭ|āu} has an apparent dual ending (1.Ad, note 14), which recurs in the Greek ὀκτ|ώ; this can now be explained as signifying originally 'one in the second series'. {-eʸ} in the Hebrew {ṣašt|éʸ} is also a dual ending. Furthermore, after the period of the Pentateuch, {ṣaštéʸ ṣōšór} and {ṣaštéʸ ṣešréḥ} tended to be replaced by the combinations that use the ordinary Hebrew word for 'one':

יָוֹם עֶשְׂרִי וְאַחַד {ʔaHád ṣōšór yóʿm} 'eleven day(s)' (first in Deut. 1:2),

וְשָׁנָה עֶשְׂרִי וְאַחַת {wəʔaHát ṣešréḥ šōnōḥ} 'and eleven year(s)' (II

Kings 23:36, etc.).

In Aramaic, at least from the age of the Targum on, the replacement is complete; e.g. (Num. 7:72, Deut. 1:2, etc.)

יָוֵם עֶשְׂרִי וְאַחַד {Hæd ʕəšær yoʿmiʿn} 'eleven days',

שָׁנִי עֶשְׂרִי וְאַחַד {Hædæʿ ʕæseʿ šəniʿn} 'eleven years', etc.<sup>112</sup>

Classical Arabic, which of course does not antedate the Christian era, likewise has

أَحَدٌ عَشَرَ {ʔaHada ʕašara} (masc.),

أَحَدَى عَشْرَةَ {ʔiHdāʕ ʕašrata} (fem.);

{ʔaHada}, like the Aramaic {Hæd}, is obviously cognate to the Hebrew {ʔaHád}, not to {ṣaštéʸ}.

**5.Eb.** Without any attention to Semitic, the first syllable of the Sanskrit सहस्रम् {sahásram} 'a thousand' is revealed to be, etymologically, a prefix \*sm- 'one' (like the English indefinite article).<sup>113</sup> For within Sanskrit

<sup>112</sup> 'Eleven' does not occur in Biblical Aramaic.

<sup>113</sup> \*sm- is cognate to the word for 'one' in Greek — ἓν (nom./acc. neuter), μί (nom. fem., < \*sm-) — and in Tokharian — {sām} (nom. fem.); A. J. Van Windekens, "Études de morphologie tokharienne VI: structure et flexion du nom de nombre 'un'," *OrBuln*, 18 (1969), 167-172. 'A thousand' in Avestan is {hazagrəm}.

the same prefix recurs in स कृ त् √ {sa|kṛt} 'for one time, once'; and the Greek cognate of {sahásram} lacks this syllable:

Thessalian (Aeolic) ΧΕΛΛΙΑΣ<sup>√</sup> 'a thousand' (accus. fem. = Attic χιλιάς<sup>√</sup>),

Chian (Ionic) ΧΕΛΙΑΩΝ<sup>√</sup> " " (genitive = " χιλίων<sup>√</sup>),

" " ΤΡΙΣΧΕΛΙΑΩΝ<sup>√</sup> 'three thousand' (gen. = Attic τρισχιλίων<sup>√</sup>).

The Greek dialect forms evince a prehistoric prototype *\*k<sup>h</sup>ésl-*, cognate to Sanskrit {-hasr-}; the *\*-s-* in a vulnerable position has been absorbed so as to lengthen either the ensuing consonant [l] or the preceding vowel [e].<sup>114</sup>

Of all the Semitic forms of the numeral 'ten' or '-teen', the closest to {-hasr-} and *\*k<sup>h</sup>ésl-* is the Hebrew {ʿéšer} 'ten' and {ʿéšr-} in

{ʿaštéʿ ʿéšré<sup>h</sup>} 'eleven',

עֶשְׂרִים עָשָׂר {štéʿm ʿéšré<sup>h</sup>} 'twelve',

עֶשְׂרֵי שָׁלוֹשׁ {šəlóš ʿéšré<sup>h</sup>} 'thirteen', etc.

The guttural {ʿ-} is not the Semitic consonant most like {-h-} or χ-, but that is no great obstacle to the present etymology. The Semitic {r} matches the Indo-Iranian {r}, rather than the {l} of Greek; this is reminiscent of one earlier etymology,

Avestan {darəga}, Sanskrit {dīrgā}, Greek δολιχή, Russian {dolga},

Lithuanian *ilgà* 'long' (fem.) : Hebrew {ʔərākō<sup>h</sup>} (2.Ka, AAb).

The IE meaning 'thousand' (ten times ten times ten) is at a considerable remove from the simple Semitic meaning 'ten'. Either way, however, *\*k<sup>h</sup>ésl/-* : {ʿéšr-} would be a pivotal number. In view of our theory that the Semitic {téša<sup>ʿ</sup>} 'nine' as well as the IE δέκα (Greek) or {dáśa} (Sanskrit) 'ten' was originally either a pet name for the little finger of the left hand (5.Bh) or at any rate was used gesturally in counting sheep and the like (5.Cf), the Semitic meaning of {ʿéšer} or {ʿéšr-} 'ten' would serve easily after {téša<sup>ʿ</sup>} 'nine' to complete the count. But *\*k<sup>h</sup>ésl/-* had no such ready niche after the IE 'ten'.

<sup>114</sup> The wavering between ΧΕΛΙΑ- and ΧΕΛ-, in an early inscription of Chios, points to an impending merger of the diphthong [ei] and the long monophthong [ē] in that part of Ionic territory. — The Latin *mille* √ 'a thousand' (*mīlia* √ 'thousands'; *MEILIA* √ in an inscription from 132 B.C., *ColInLa* 1<sup>2</sup>.638.3,8) shows only blurred vestiges of *\*sm-* + *\*-h(e)sl-*. However, those competing IE etymologies that have denied the morphological analysis of Sanskrit {sa|hásram} as 'one thousand' leave certain relevant facts out of account: This Sanskrit numeral functions as a neuter SINGULAR noun, whereas the Greek χίλιοι √, χίλια √, χίλια √ is a PLURAL adjective (masculine, feminine, and neuter respectively) and accordingly was less compatible with a prefix meaning 'one'.

**5.Ec.** The briefest form of the number ‘ten’ in Arabic is the feminine عَشْرٌ<sup>√</sup> {ʕašr|u n}, which along with the Geʕez {ʕašru}<sup>√</sup> resembles closely the structure of the Sanskrit {-hasr-}. {ʕašara}, the Arabic masculine form that is used in combination with any lower number (hence like -teen in English, **5.Ea**), is phonetically identical with a verb of the simplest conjugation; it means ‘he took/has taken one from ten’ (Lane, *ArEnLe*, 2050-51) and is doubtless denominative — a verb formed from a pre-existing noun, the numeral. But in a derived conjugation (called the “third” in traditional Arabic grammars) the root takes on a strikingly different meaning: عَاشَرَ<sup>√</sup> {ʕāšara} ‘he (has) mingled, consorted, associated with’.<sup>115</sup>

Upon a suggestion from J. P. Brown, I propose that the numerical meaning — ‘ten’ in Semitic but ‘thousand’ in certain IE languages — arose from a more basic sense of GROUPING. If the simple verb {ʕašara}, or its prehistoric Semitic forerunner, originally meant something like ‘he (has) got a whole set’ (of men, or whatever), we can sense how that came, in time, to stand specifically for a group of just the right size — i.e. ten, an ideal group. For that is what would satisfy human psychology, powerfully influenced by the anatomical reality of the fingers; that is as far as you can readily count with the help of them. But from the time that ‘ten’, the new meaning of {ʕšr}, was established, it was liable to spread and prevail nearly throughout the forms of this root; so the vaguer meaning ‘group’ has lingered only where the meaning ‘ten’ somehow did not take over.

**5.F. Egyptian** {š(n)t} : *IE (Skt.)* {šatám} ‘a hundred’

**5.Fa.** Although numbers are very seldom spelled out phonetically in hieroglyphic texts, Erman – Grapow (*WöAeSp*, IV, 399, 498) list {šn.t}<sup>√</sup> and {š.t}<sup>√</sup> ‘hundert’; and at least of the former they show clear instances.<sup>116</sup> With the nasal, {šn.t} recalls most precisely the Lithuanian *šim̃t|as*<sup>√</sup> (apart from the masculine singular case-ending; cf. Old English *hund*<sup>√</sup>). Without the nasal, {š.t} recalls several IE forms, especially Sanskrit शतम्<sup>√</sup> {šatám},

<sup>115</sup> Also, secondarily, in the “eighth” Arabic conjugation, تَعَاشَرُوا<sup>√</sup> {taʕāšaru“(?)} ‘they (have) mingled’ — i.e. with each other. See Dombrowski, *NuNuSy*, 372.

<sup>116</sup> The dot separating {t} from the rest of the word does not represent anything actually written in Egyptian. Rather it is a convention of the Egyptologists whenever the character {t} marks feminine gender.

Avestan {satəm}<sup>∇</sup>, and Church Slavonic сѣто<sup>∇</sup> {səto}. The Avestan {a} (and the first Sanskrit {a}), however, can easily go back to a syllabic nasal \*ṁ (or \*ṇ), as it does in many other words, while the Slavonic {ə} would be from \*VN (vowel + nasal consonant).

**5.Fb.** The main difficulty that faces us is to reconcile the close resemblances to Egyptian (noted above) with the prehistory of IE, as reconstructed from many words in which the sibilant of Indo-Iranian, Baltic, and Slavic contrasts with a velar plosive in other European languages:

Latin *centum* [k-] (Pokorny, *InEtWö*, I, 192, s.v. *ḱm̥tóm*)

Greek <sup>ε</sup>|κατόν<sup>∇</sup> (originally 'one hundred')

Welsh *cant*<sup>∇</sup> (= Breton *kant*<sup>∇</sup>), etc.

The sibilant has been explained as a secondary development within part of the IE realm, somewhat like what happened later, in historical times, to the Latin [k] before a front-vowel: In the eastern half of Romance territory it became [č], as in Italian *cento*; in the west it changed to [ts] and eventually to [s], as in French *cent* (except that in Castilian it ended up as the interdental fricative [θ]; cf. **1.Ee**, note 95); only in Sardinian does *kentu*<sup>∇</sup> remain to the present.

Several theories could account for the sibilant shared by Egyptian with several eastern IE languages. The word might be of strictly IE origin<sup>117</sup> — spreading, however, to Africa from a prehistoric IE language which by that time had this sibilant [š], [s], or whatever. Or it might have spread from Africa to IE territory so early that the sibilant was just an allophone, characteristic of certain IE dialects, while the other Indo-Europeans — upon learning the word — spontaneously replaced the sibilant allophone with its non-sibilant counterpart as appropriate to their dialects. I would be less inclined to trace this word for 'hundred' back to a remote or shadowy age of "proto-Nostratic", although nothing rules that out absolutely.

**5.G.** *IE* (Gr.) ἄμφολ(ι)ν : *Sem.* (Heb.) {ʔappōyim} 'both'

Greek ἄμφω<sup>∇</sup> 'both' (nominative/accusative) has an obvious IE cognate in the Latin *ambō*<sup>∇</sup>, and less exact cognates in Vedic Sanskrit ॐ ॥<sup>∇</sup> {ub<sup>h̥ā</sup>}, Church Slavonic оба<sup>∇</sup> {oba}, Lithuanian *abū*<sup>∇</sup>. The ending of the

<sup>117</sup> Most Indo-Europeanists posit a consonant group \*dk-, on the basis of δέκα, *decem* 'ten' (**5.Ba**). Their underlying assumption is that the prehistoric word for 'hundred' ought to be morphologically analyzable as a derivative of 'ten'.

Greek genitive/dative ἄμφω(ι)ν<sup>118</sup> lacks IE cognates; but the Hebrew אִפְּיִם<sup>119</sup> {ʔapp|ɔyim} (pausal) means something surprisingly like 'both' in I Samuel 1:5, which describes Elkanah's preference for Hannah over his other wife: "and he would give portions to Peninnah, his wife, and to her sons and daughters. And to Hannah he would give one portion for both/each [= for her and another]; for Hannah he loved, and/but the LORD had shut her womb." The context shows he was treating Hannah as though pregnant and in need of extra food.

The dual אִפְּיִם<sup>120</sup> {ʔapp|áyim} (non-pausal) means 'nostrils' elsewhere in Hebrew;<sup>118</sup> but that makes no sense in the passage at the beginning of Samuel. The Biblical Aramaic cognate אִפְּיִם<sup>121</sup> {ʔanp|ó"hi"} 'his nostrils' illustrates how a strengthened consonant such as {-pp-} is the regular treatment in Hebrew of a Semitic consonant preceded by a nasal.<sup>119</sup> The strengthened {-pp-} amounts to complete assimilation, whereas Greek is characterized by partial assimilation to the homorganic — i.e. the labial — nasal [-mp<sup>h</sup>-] (cf. 4.Cb-c). The absolute form of 'nostrils' in Biblical Aramaic would be אִפְּיִם<sup>121</sup> {ʔanpáyin}.

If ἄμφω(ι)ν<sup>121</sup> occurred in the Homeric corpus, the phonetic match with Hebrew {ʔappɔyim} (and Aramaic {ʔanpáyin}) would be even closer.<sup>120</sup> Since the other case-form ἄμφω is frequent there, the absence of ἄμφω(ι)ν is probably just accidental. A longer form ἄμφότεροι<sup>121</sup>, with the same meaning, takes its place.<sup>121</sup>

## 5.H. Concluding Remarks

**5.Ha.** While the Semitic numerals from 'two' to 'ten' are shared by all the ear-

<sup>118</sup> Most often in the figurative phrase אִפְּיִם אֶרֶךְ<sup>121</sup> {ʔérek ʔappáyim} 'patient' (Ex. 34:6, etc.; literally 'long-nostrilled', cf. 2.Kb).

<sup>119</sup> In the Aramaic of the Targum, however, it is {ʔapp-} as in Hebrew.

<sup>120</sup> ΑΝΦΟΙΥΝ<sup>121</sup> 'for both', with the Arcadian form of the dual ending (1.Dc), is reported in a brief and badly spelled dedicatory inscription from the Doric city of Epidaurus (*InGr* 4. 1611). However, the identification of the fifth letter as l is somewhat doubtful; see L. H. Jeffery, *The Local Scripts of Archaic Greece* (Oxford: Clarendon Press, 1961), 180 and pl. 34, #12.

<sup>121</sup> The IE source of ἄμφω and Latin *ambō* Trombetti compares with forms from Bantu languages: "cfr.... con *am-bho-* [should be starred], femm. *am-bha-* il Kupa *am-ba*, Goali *m-ba* ecc. 2 [= 'two']."

ly Semitic languages,<sup>122</sup> and likewise the IE numerals from ‘two’ to ‘ten’ are pan-IE, only ‘six’ and ‘seven’ are unequivocally common to both families. Several other numerals reveal a more complex, problematical interaction between prehistoric Semitic and IE. Above all, our study should warn us to consider more carefully what we take to be BASIC VOCABULARY. Items that are basic Semitic vocabulary, or basic IE vocabulary, need not have been basic in more remote times.

As we have seen, in this small part of the total vocabulary the correspondences of Semitic to IE are about as good as those of Semitic to Egyptian. For the rest of Afro-Asiatic I have only the impression that the cognates are fewer.<sup>123</sup> The very incompleteness of the correspondences uncovered in this chapter suggests something to me: it was during the formative period of interaction, before either language-group arrived at the structure so characteristic of the classical IE and the classical Semitic languages, that the numerals — at least those up to ‘ten’ — moved gradually into the general vocabulary, familiar to the speech-community as a whole. Neither in IE nor in Semitic were most of the numerals integrated straight into the system of noun and adjective declension; the Semitic treatment of masculine gender, however, is significantly unlike the IE exemption of numerals from any sort of inflection (**5.Aa,Da**).

A. Murtonen has recently made the valid point that the numerals are *Kulturwörter* (no less than the terms for tools and agricultural produce): “Their primary *Sitz im Leben* is in [the] organized economy of major communities and institutions as well as in intertribal and -national commerce by means of which they have spread from language to language so as to appear to be common Semitic, some perhaps found outside Semitic too. However, the fact that they show irregular phonetic variations between different languages — and also compared with other words from the same roots within single languages — betrays their origin as loan words, often borrowed through unusual channels, as other wandering words.”<sup>124</sup> I would go on to generalize that prehistoric developments of language must always have gone hand in hand with the change or growth of culture.

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<sup>122</sup> In Geʿez the Semitic word survives only in {sanuy mawāʿəl}√ ‘two days’ and some related expressions. Otherwise ‘two’ is expressed by another word {kəlʔe}√, whose Semitic cognates point probably to an original meaning ‘a yoke’ (Leslau, *CoDiGe*, 282, 509).

<sup>123</sup> Cohen (*EsCo*, 46) decided, without stating a reason, to exclude from his selection of vocabulary “les prépositions, et les noms de nombre”.

<sup>124</sup> “On Proto-Semitic Reconstructions,” in Kaye, *SeSt*, 1122.



**5.Hb.** Broader conclusions, from juxtaposing the etymologies of this chapter and the earlier chapters, will have to wait until the sequel, when I can control them through a methodical examination of the morphology shared by the ancient Semitic and IE languages. Right now, however, it does seem to me that animal husbandry for various purposes — plowing among them — was the cultural development by which, most of all, the populations learned from one another. It motivated the spread of vocabulary: the numerals to keep track (or rather, to keep a count) of the beasts, as well as the words for different species, according to age and sex. In particular, the pervasive contrast between masculine and feminine gender, which differentiates IE and Semitic (along with its Afro-Asiatic relatives) from nearly all other languages, is understandable as the outcome of shared experience in raising animals SELECTIVELY (Levin, *PrInEuThDe*, 128-129).

## ADDENDA

Here are a few final remarks, prompted mainly by the most recent letters from J. P. Brown and Roy Kotansky.

To p. 66 (1.Ga): Witold Tyloch cited also “Arab. *’i’dāmat* ‘soil without stones’.”<sup>1</sup> Lane (*ArEnLe*, 37) treats this noun *إِيدَامَةٌ* {ʔiʔdāmatun} at much greater length.

To p. 73 (1.Ge): The IE consonant *D* comes out *l* in several Latin words:

Greek δάκρυ<sup>√</sup> ‘tear’ (Gothic {tagr}<sup>√</sup>, etc.) : *lacrima*<sup>√</sup>;<sup>2</sup>  
*sedē* ‘sit’ (2.Bf, note 26), but *solium*<sup>√</sup> ‘seat’; etc.

To p. 137 (1.Af): The Germanic verb cognate to Latin *ale* is likewise transitive; e.g. Old English *aleþ*<sup>√</sup> ‘(they) produce/nourish, *ol*<sup>√</sup> ‘(she) nourished’. A lone occurrence of the Gothic participle {al|ands}<sup>√</sup> ‘(being) nourished’ is intransitive (I Tim. 4:6, translating *ἐντρέφόμενος*<sup>√</sup>).

To pp. 192-193 (2.Lb): The phonetic difference between gemination and pre-nasalization is not clear-cut, particularly in the Semitic consonantal scripts with added marks. The Hebrew pointing *פִּתִּי* might serve for [-<sup>n</sup>t-] (a sort of blurred pre-nasalization), scarcely distinct from [-tt-]. Josephus (*AJ* 3.144), in his Greek paraphrase of Exodus 25:39 — *כִּכָּר זָהָב טָהוֹר*<sup>√</sup> {kikkár

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<sup>1</sup> “The Evidence of the Proto-lexicon for the Cultural Background of the Semitic Peoples,” in J. and Th. Bynon (edd.), *Hamito-semitica: Proceedings of a colloquium held ... at the School of Oriental and African Studies, University of London ...* (The Hague: Mouton, 1975), 56; I owe the reference to Dr. Gábor Takács. Wytold’s list includes brief but informative remarks on *’kr* ‘ploughman’, *ḥlq/ḥql* ‘field’ (cf. 1.Ia,h), *’rd* ‘earth’ (1.Fa), *b’/wr* ‘well’ (2.Md), *gm* ‘threshing-floor’ (1.Ka-d), *ḥmr* ‘ass’ (1.Mf), *’gl* ‘calf’, etc. (1.La), *šdw/y* ‘mountain’ (1.Ic), *ḥwr* ‘bull’ (1.Ac).

<sup>2</sup> In Ernout – Meillet, *DiÉLaLa*, the feminine *lacrima* (pre-classical *lacruma*<sup>√</sup>) is treated as an early borrowing from the rare, poetic Greek neuter noun δάκρυμα (best attested in the dative pl. δακρύμασι).

zohšb Ṭohóʿr}, literally ‘a talent of pure gold’ — remarked, “The Hebrews call it κίγχαρες”, i.e. [-ḡk<sup>h</sup>].<sup>3</sup>

To p. 208 (2.Nd, note 166): Roy Kotansky calls attention to many cases of alternation in Greek between β- and μ-. The most pertinent are

βύστακας <sup>✓</sup> (Antiphanes	instead of the normal Attic μύστακας <sup>✓</sup> ‘mus-
apud Athen. 4.21.143a)	[taches’ (acc. pl.);
BAPNAMENOI <sup>✓</sup> ( <i>InGr</i> 21.943.46)	" " " " μαρνάμενοι <sup>✓</sup> ‘fighting’;
ΒΟΛΥΒΔΟΣ <sup>✓</sup> ( <i>InGr</i> III.3.1077.4)	" " " " μόλυβδος <sup>✓</sup> ‘lead’
	(cf. Latin <i>plumbum</i> <sup>✓</sup> );

βόρμαξ· μύρμηξ<sup>✓</sup> ‘ant’ (gloss of Hesychius; cf. Latin *formīca* <sup>✓</sup>),

βύρμακας· μύρμηκας<sup>✓</sup> ‘ants’ ( " " " ; accusative plural).

The context of βύστακας suggests that β- may be the Laconian dialect pronunciation. In the other words a labial consonant recurs in a subsequent syllable. Kotansky also cites the well known alternation between σμῑκρός and μῑκρός ‘little’.

To p. 209 (2.Ne): See my article, “‘Snow’, an Early Indo-European Loanword in Semitic,” *GL*, 34 (1994), 75 ff.

To pp. 214-215 (2.Oa): As cattle in early times were the main object of thievery — e.g. (Ex. 21:37)

יִגְנוֹב־אִישׁ שׁוֹר ... חֲמִשָּׁה בָּקָר יִשְׁלֹם  
 ... Hămiššá<sup>h</sup> ḥ̄ḇq̄r yəšallēm} ‘if a man steals an ox ... he shall restore five cattle’ — it is worthwhile to compare {ḇḇq̄r} (Arabic بَقَرٌ <sup>✓</sup> {baqar|u n}) with the Latin neuter noun *pecus* <sup>✓</sup> (pl. *pecor|a* <sup>✓</sup>), which corresponds more fully to the Semitic noun than to anything IE.<sup>4</sup> Can this be a Semitic borrowing from a prehistoric IE language which (like Latin) changed \*[<sup>s</sup>/<sub>z</sub>] to *r* in certain environments?

<sup>3</sup> His ending -ες does not correspond to anything present (or reconstructible) in the Hebrew of the Bible.

<sup>4</sup> However, the archaic Latin neuter *pecu* <sup>✓</sup> (rare except in the plural *pecua* <sup>✓</sup>) corresponds exactly to the Sanskrit पशु <sup>✓</sup> {páśu} (Gothic {faihu} <sup>✓</sup> ‘money’; cf. the Latin derivative *pecūnia* <sup>✓</sup>).

To pp. 224-225 (2.Qc): Besides the two verb-roots אהב and עגב, both of which mean 'love', a tantalizing etymological connection appears in אוֹיֵב<sup>√</sup> {ʔo<sup>w</sup>yéb} 'enemy'. It has the structure of an active participle, although the root איב scarcely functions as a verb otherwise. What has it in common semantically with אֹהֵב<sup>√</sup> {ʔohéb} 'loving'? Both אהב and איב deal PASSIONATELY with an outsider, somewhat like the well-known IE etymology,

Latin *hostis*<sup>√</sup> 'enemy' (originally 'foreigner'), but

Gothic {gasts}<sup>√</sup>, English *guest*<sup>√</sup>.

To p. 271 (2.Zj, note 305): The derived noun μέγθος<sup>√</sup> 'greatness, grandeur' is very close, at least phonetically, to the Hebrew poetic noun {méğed} in שִׁמְיָהּ מִמֶּגֶד<sup>√</sup> (Deut. 33:13) 'from heaven's excellence (or grandeur?)'.

## INDICES

Scholars	460
Languages	463
Grammatical or Linguistic Terms	464
Miscellaneous Topics	467
Linguistic Forms (alphabetical by languages)	469
<i>From Prehistoric Languages</i>	505
English Glosses	507

## Index of Scholars

- Andersen, F.I. 315  
 Anttila, R. 25-26  
 Apollonius 343  
 Arbeitman, Y. vii 6 79  
 Aspesi, F. 4  
 Barth, J. 308  
 Bauer, H. xv 361 407  
 Baumgartner, W. 125  
 Beer, G. 102  
 Beeston, A.F.L. 448  
 Benveniste, E. xv 5 56 73  
     206 241 327  
 Bernal, M. xv 120 354 398  
 Berneker, E. 221  
 Blau, J. 253  
 Böhtlingk, O. 42  
 Bomhard, A.R. xv 4 15 29  
     39 86 91 93 105 135-37  
     147 158 176-77 191 203  
     206 220 240 243 306 383  
 Bosworth, J. 327  
 Brockelmann, C. xv 95-96  
     328  
 Brønno, E. xv 157 311-12  
 Brown, J.P. v, vii, xv 3 14-17  
     28 33 40 50 96 104-05  
     123 134 145-47 161 164-  
     165 169 174 179 191 196-  
     199 204 217-20 223 229  
     231 234 237 246-47 252  
     256-57 260 281-85 288-93  
     324 327 342 346 359 368  
     381 385 387 397 400 410  
     422 429-30 434 437 442  
     451 456  
 Brugmann, K. 346 445  
 Brunner, L. 66  
 Buckler, W.H. 340  
 Bugge, S. 218  
 Burkert, W. xvi 247  
 Burrow, T. 187  
 Calder, W.M. xvi 72 339-40  
 Campbell, A. xvi 64 201  
     301 372 407 412  
 Campbell, L. 138  
 Caspari, C. xvi 16 24 31  
     275  
 Černý, J. 208  
 Cerulli, E. 38  
 Chadwick, J. (see Ventris)  
 Chang, Ts. 116  
 Chantraine, P. xvi 26 53 111  
     125 168 175 202 236 246-  
     248 325 343 381  
 Choeroboscus 381  
 Cohen, G.L. 225  
 Cohen, H.H. 223  
 Cohen, M. xvi 8-9 44 82 86  
     91 94 96 109 116 134-37  
     152 162 171 194 252 272  
     277 351 454  
 Collinder, B. xvi 302 306  
     314  
 Comparetti, D. 343  
 Conti, G. xvi 272 277  
 Conti Rossini, K. 187  
 Conway, R.S. 236  
 Corré, A. 34 51  
 Cuny, A. xvi 4-5 15 65 78-  
     79 91 93 96 140 158 164  
     179 204 259 282 298 304  
     312 408 415 426  
 Dallet, J.-M. 162  
 Debrunner, A. 213  
 Deroy, L. 28  
 De Vries, J. xvi 26  
 Dillmann, A. 102  
 Dolgopolsky, A. xvi 15 21  
     51 96 115 247 302 306-07  
     314 322 407  
 Dombrowski, F.A. &  
     B.W.W. xvii 427 451  
 Donner, H. xvii 19 46 116  
     138 164 177 231 353 355  
     379 392 395  
 Δραγουμης, Σ.Ν. 290  
 Ebeling, E. 326  
 Ehret, C. 6  
 Emeneau, M.B. 187  
 Erman, A. xvii 107 134 191  
     198 212 257 293 406 415  
     451  
 Ernout, A. xvii 267 32 44  
     99 119 126 132 144 156  
     159 163 192 251 273 278  
     304 373 384 386 396 456  
 Faulkner, R.O. 257  
 Fehling, D. 352-53  
 Feldstein, R.F. 185  
 Fick, A. 118  
 Forbes, A.D. 315  
 Fortunatov, F.F. 185  
 Frankel, E. 72  
 Friedrich, P. 21  
 Frisk, H. xvii 26 111 125  
     163 168 175 185 202 217  
     236 246 248 258 325 343  
     381  
 Gamkrelidze, T.V. xvii 15  
     26 29 46 86 103-07 115  
     120 146-48 289 292  
 Gardiner, A. xvii 143 163  
     257 351 405-06  
 Gelb, I. xvii 298 302 318  
     328  
 Gevirts, S. 126 225  
 Gibson, J.C.L. 19  
 Gildersleeve, B.L. 356  
 Gimbutas, M. 61  
 Gordon, C. xvii 33 61 248  
     253 308 353 392 448  
 Grapow, H. (see Erman)  
 Grassmann, H. 75 89 165  
     258 281 285 289  
 Greenberg, J.H. 24 148  
 Griffen, T.D. 15

- Grimm, J. 15 285 381  
 Grimme, H. 96  
 Guarducci, M. 340  
 Güterbock, H.G. 165  
 Gusmani, R. 79  
 Guthrie, W.K.C. 340  
 Haas, O. xvii 72 339-40  
 Hanoteau, A. 415  
 Havers, W. 216  
 Heltzer, M. 326  
 Helvigius, M.A. 29  
 Hetzron, R. 6  
 Heubeck, A. 72 79  
 Hirt, H. 145 185  
 Hodge, C. vii 20 94 134 138  
 143 208 243 285 287 291  
 Höftner, M. 328  
 Hofmann, J.B. 404 (see also  
 Walde)  
 Hoftijzer, J. (see Jean)  
 Hooker, J.T. 350  
 Hopper, P. 46-47 86 145  
 Horowitz, F. 411  
 Hübschmann, H. 40  
 Humann, K. 50  
 Hus, J. 443  
 Huyghe, G. xvii 162 415  
 Ibañez, E. 162  
 Ibn-Manẓūr 29  
 Illich-Svitych, V.M. xvii 5  
 15 29 38 44 79 84 91 96  
 103 105 136 147-48 155-  
 156 171 177 179-80 185-  
 187 191 194 196 200 203-  
 204 253 255 272 277 279  
 307 314 364 383 407  
 Ivanov, V.V. (see Gamkre-  
 lidze)  
 Jackson, A.V.W. xviii 304  
 315 351 361 387 408 420  
 445  
 Jamme, A. 16  
 Jean, C.-F. 19  
 Jeffery, L.H. 453  
 Jessen, O. 72  
 Jóhannesson, A. 27  
 Johnson, S.E. 236  
 Jones, H.S. (see Liddell)  
 Joüon, P. 356  
 Kadish, G. 352 405  
 Kahle, P. xviii 333 439  
 Kasovsky, Ch.Y. 101 205  
 Kemble, J.M. 368  
 Kent, R.G. 404 407  
 Koehler, L. 125  
 Koerner, K. ix  
 Kotansky, R. vii 59 62 456-  
 457  
 Kraeling, E.G. 448  
 Kraft, C.H. & M.G. 302  
 Kroeber, B. 352  
 Kuhn, S.M. 33  
 Kuiper, F.B.J. 192  
 Kuryłowicz, J. 5  
 Lacey, R.K. 23 371  
 Lane, E.W. xviii 23 98 103-  
 104 144 153 221 374 451  
 Landsberger, B. 98  
 Laroche, E. 168 400  
 Latte, K. 59  
 Lauer, Ph. 359  
 Leander, P. (see Bauer)  
 Leed, R.L. 185  
 Leemhuis, F. 100  
 Lejeune, M. 246  
 Leslau, W. xviii 35 44 69 82  
 94 97 102 105 109 134  
 141 154 160 204 243 245  
 262 272 298 313 318 321  
 364 391 415 454  
 Liberman, A. 212  
 Liddell, H.G. xix 246 325  
 Lidzbarski, M. 395  
 Lodge, G. 258  
 Maher, J.P. 195  
 Malkiel, Y. 367  
 Manessy-Guitton, J. 291  
 Margalith, O. 165  
 Masson, O. 246-47  
 Mayer, M.L. xx 4 29 59 164  
 207 278 402  
 Mayrhofer, M. xx 204 208  
 271 386 447  
 McKenzie, R. (see Liddell)  
 Meillet, A. 2 9 34 70 87 (see  
 also Ernout)  
 Meyer-Lübke, W. 126 358  
 Mezger, F. 329  
 Miklosich, F. 312  
 Müller, C.W.E. 356  
 Möller, H. xx 4-6 20 30 39  
 42 48 59 91 93 96 103  
 115 135 140 151 155 158  
 176-79 189 191 196 201  
 204 214 219 226 228 241  
 243 247 259 263 267 273  
 278 282 289 304, 307 364  
 393 402  
 Morag, Sh. 334  
 Morewedge, R. 98  
 Moscati, S. 96  
 Munkácsi 255  
 Murtonen, A. xx 111 152  
 160 319 321 454  
 Nandriş, G. xx 209 305  
 Navarro Tomás, T. 421  
 Neumann, G. 340  
 Noreen, A. 61  
 Nussbaum, A. 31 40  
 Opie, I. & P. 423  
 Origen 156-57 160 279 311  
 Pafford, J.H. 265  
 Pavlovskis-Petit, Z. 201  
 Payne Smith, J. xx 101 218  
 349  
 Pedersen, H. 218  
 Pennacchietti, F.A. xx 390  
 395  
 Persson, P. 314  
 Petersen, W. 73  
 Plazikowsky-Brauner, H. 253  
 Pokorný, J. xx 26 38 41 43  
 67 71 77 84 86 95 98-99  
 103 106 111 119 125 148  
 152 156 158 162 168 171  
 175 187 189 193-94 198  
 201-06 209 213 217-20  
 226-27 232 241 246 257  
 262 264 267 270-71 277  
 288 303 327 346 351 363  
 367 369 373 380 383 387  
 390 398 403 410 424 427  
 452 (see also Walde)  
 Polzin, R. 338  
 Porzig, W. xx 70 98  
 Pott, A.F. 14 29  
 Potter, Ch.F. 422

- Prop, W.H. 88  
 Puhvel, J. 428  
 Rabin, Ch. 234 308 444  
 Redard, G. 171  
 Reidy, J. 33  
 Reinisch, L. xx 7 96 162  
     212 301 305-06  
 Rendsburg, G. vii xx 19 24  
     32 57 70 84 87 95 100  
     109 115 126 180 211 216  
     225 244 262, 264 293 298  
     319 328 332 338 340 351  
     356 376 379 387 392 422  
     428-29  
 Renisio, A. 162  
 Ribezzo, F. 236  
 Risch, E. 217  
 Röllig, W. (see Donner)  
 Rössler, O. 6  
 Rosén, H.B. 145  
 Roth, R. 42  
 Ruhlen, M. 298  
 Růžicka, R. 416  
  
 Santoro, C. 236  
 Saussure, F. de 5 185  
 Schmidt, J. 195  
 Schmitt, R. xxi 80  
 Schwyzer, E. 373  
 Scott, R. (see Liddell)  
 Segal, J.B. 421  
 Selivanov, S. 290  
 Semaan, Kh. 210  
 Senn, A. 74  
 Servius 393  
 Sievers, E. 111  
  
 Skardžius P. 72  
 Skeat, W.W. 69 309  
 Specht, F. xxi 216 222  
 Speiser, E.A. 56  
 Sperber, A. 118  
 Sperling, S.D. 227  
 Stamires, G.A. 335  
 Steiner, R.C. xxi 42 65 89  
     111  
 Steinmeyer, E. 111  
 Strunk, K. xxi 185 189  
 Szarmach, P. 309  
 Szemerényi, O. xxi 5 197-98  
     234 255 310 329 404 407  
     410 445  
 Takács, G. 456  
 Testen, D. 416-17  
 Theodosius 2  
 Threatte, L. xxi 65 335  
 Thurneysen, R. 305  
 Toller, T.N. 327  
 Trombetti, A. viii xxi 37-38  
     44 48 60 66 146 155 177  
     179 191 200 204 237 242  
     247 273, 277-78 298 302  
     305-08 320 352 371 408-  
     410 453  
 Tryphon 226  
 Tsevat, M. 253  
 Tuttle, E.H. 79  
 Tyloch, W. 456  
 Ullendorff, E. 96  
 Ulmann, C.C. 201  
 Vaillant, A. 269  
 Vanderpool, E. 335  
  
 Van Windekens, A.J. xxi 78  
     398 441 449  
 Vasmer, M. xxi 101 194  
 Vendryès, J. 27  
 Venezky, R.L. 412  
 Ventris, M. xxi 282 345  
 Verner, K.A. 141 369  
 V[on] Blumenthal, A. 424  
 V[on] Dies, W. 50  
 Von Planta, R. 382  
 Von Soden, W. xxi-xxii 8-9  
     17 46 53 87 92-93 112  
     126 159 179 202 226-28  
     252 279 305 317 326 351  
     370 388 390 397 404 440  
     447  
 Vycichl, W. 222 352  
 Wackernagel, J. xxii 359 445  
     447  
 Walde, A. xxii 39 41 44 120  
     159 187 218 278 383  
 Wallfield, J. 225  
 Wells, L. 98  
 Whatmough, J. 236  
 Whitehead, A.N. 445  
 Whitney, A.H. 302  
 Whitney, W.D. 203  
 Willms, A. 415  
 Wright, W. (see Caspari)  
 Yahuda, J. xxii 39 42 52 134  
     147 173 175 212  
 Yeivin, I. 333  
 Zaborski, A. 6



## Index of Languages

(see also the Index of Linguistic Forms, pp. 469-506)

- Afro-Asiatic 4 6 9 94 162
  - 171 187 191 194 274 279
  - 307-08 363 385 455
- Akkadian 15 27 78 96 188
  - 240 309 334 335
  - transcription 8-9 92
- Arabic 15 27 96 136 160
  - 162 290 309 399 408
  - orthography 21 153
- Aramaic (including Syriac) 7
  - 96 240 291 334
- Avestan 15 193 321 360 363
- Baltic 28 75 101 198 201
  - 209 263
- Basque 57
- Beja 6-9
- Berber 8-9 27 136-37 171
  - 352
- Brythonic 80
- Canaanite 124 230
- Catalan (see Spanish)
- Celtic 22 25-27 101 140 189
  - 407
  - numerals in dialect English 423
- Chadic 6 9 27 136 182
- Coptic 137 351
- Cushitic 6-9 27 96 136-37
  - 171 277 308
- Dravidian 5 136 194 307
- Dutch 139
- Eblaite 264
- Egyptian 7 9 14 27 137 308
  - 423
  - in Herodotus 359
  - definite article 352-55 359-360
- Elamite 307
- English 358
- French 139
  - spelling 166
- Gaulish 22
- Ge'ez 286 309 355 445
- Germanic 58-61 96 101 140
  - 209 215 239 270 274 295
  - 311 328 381 446 456
  - definite article 358-60
- Gothic 144 358
  - spelling 32
  - vowels 63
- Greek 25 359-60 400
  - modern 10
  - spelling 335
- Hamito-Semitic (see Afro-Asiatic)
- Hebrew 7
- Hittite 2 400
- Hurrian 56
- Kartvelian 5 187 194 277
  - 307
- Latin 25 357
  - in Greek letters 231
- Linear B (prehistoric Greek) 353
- Lycian 400
- Moabite 232
- (Old) Norse 358
- Nostratic 4 25 27 180 206
  - 253 289 367 375 402 452
- Omotic 6 9
- (Old) Persian 193 280 363
- Phoenician 39 124 162 172
  - 336 354 360 371 396-97
- Phrygian 128 339-40
- Proto-Indo-European 4 295
- Proto-Semitic 389
  - labio-velars 96
- Romance 10 56 154
  - article 355 358-60
  - pronouns 297 304
- Russian spelling 209
- Sanskrit 15 360 400
- Slavic 25 28 136 198 209
  - 213 263 270
- South Arabian 36 136
- Spanish 57 269
- Sudanese 409
- Syriac script 45 205
- Thracian 72-73 118 128
- Tigrinya 240
- Ugaritic 96 353
  - cases 27
- Uralic 5 25-27 77-79 85 187
  - 194 253 255 277

## Index of Grammatical or Linguistic Terms

- Ablaut 28 144 227
- abnormal feminines 215
- accent, agreements in 227
  - Balto-Slavic 268-69
  - conjunctive 190
  - Latin 76 362
  - minimal 48
  - of constructs 48
- accental alternation 268-69 344
- accentuation 185-86
- accusative 16 54 107 127-29
  - meaning 20
- acrophonic names 38
- active vs. stative 216
- addition, unexpected 395
- Aeolic forms 260
- affected person 326
- agreement in numerals 404
- alliterative poetry 35 60 107 368
- allophony 37
- alphabet 172 319
- alternation *n*/174 107 209 214
  - r*/186 93 95 188 280
  - r*/*n* 125 195-97 415
- anomaly, phonological 403
- apex 368
- article, avoided in verse 353
- articulation, uniform 310
- variable 37
- aspirates, 133 285 289 314-317 381
- aspiration, Hebrew 133 311 315
- augment 160 321
- [b] unavailable 157 251 282
  - in Semitic roots 281
- Babylonian vocalization 12 333 441
- biconsonantal roots 206 217 241 276 386
- "broken" plural 22-23 92 117 385 433
- cacuminal sibilant 402
- cardinals & ordinals 412 439
- case-inflection, types 22
- cases, Semitic 27 370
- causative 137 314
- centum* languages 452
- changes, prehistoric 3
- classifying suffix *n* 35 104 129
- cohortative (or coaxing) 223 240
- collective ethnics 165
- combinations 33
- comparative suffix 416
- compatibility, phonetic 237
- typological 131
- context of loan-words 241-42
- compounding 63
- consonantal correspondence, criterion 136
- constraints on root consonants 12
- construct nouns & prepositions 369-70
- construct plural 17 163
- {d} in Semitic roots 283
- dative, meaning of 326
- declension, thematic 22 25
- definite article 346-61
- deictic pronoun 351
- demonstrative syllable 346
- demonstratives 343-52 357
- denominative verbs 92
- determinative, Egyptian 36
- diffusion of syntax 354
- diminutives 117 120
- diphthongs & monophthongs 210 335 443
- diptote nouns 371
- displacement of numerals 412-30
- dissimilation 79 155 202 405 445
  - of labials 150 158 161
- divergent phonology in numerals 401
- dual 2 16 18 29 104 107 128
- emphatic pronoun 300
- emphatic suffix, Aramaic 15
- emphatics 31 42 148 172 176 222 286 288 293
- epenthesis 51
- equivalences, consonantal 4
- erosion, phonetic 297
- ethnics 165
- euphemism 217 219 252-54
- exemption from case-inflection 370
- extension of roots 73
- feminine 128 174 183 211 227 352 363 436
  - construct 108
  - derivatives 17 24 108
  - gender 61 101-02 113 169
  - marker 70 229 250 252
  - of action 134
  - verb forms 324-25
  - vestiges of 71
- first person plural 302-07
- singular 298-302
- fricativation 89 99 120-21 214 362 418-21
- fricative-laterals 111
- fricatives 15 36 52 59 141 249 251 315 381
- functional vocabulary 207
- fusion & hyphenation of suffix 300
- fusion of pronoun with verb 300
- future & past 399
- {g} in Semitic roots 284
- gemination 193 363 405 456 & nasal infix 192 385

- gender 109 141 157 160 318  
 329 445 455  
 agreement in numerals 404  
 genitive 16 127-29 334  
 Arabic 21  
 gesturing 350  
 glottal stop 35 60 82 107  
 137 294-95 372  
 glottalized plosives 46 147-  
 148 176 204 222 286 372  
 Grassmann's law 75 165 281  
 285  
 Grimm's law 15 381  
 {guṇa} 53  
 harmony in voicing 238  
 hieroglyphic 8  
 Hirt's law 185  
 homophony 244  
 hypocoristic 117 120  
 identity of parallel forms 156  
 imitation of sounds 275  
 imperative 131-33 137 146  
 171 192  
 feminine (Lesbian) 233  
 impersonal verb 173 308  
 inarticulate sounds 258  
 inceptive or inchoative 237  
 infinitive & nominative 155  
 inflection of nouns 370  
 injunctive 314  
 initial consonant group 212  
 incipient inflections 109  
 intensives 183-84 192 224-  
 227 276  
 interrogatives 364  
 iota subscript 436  
 jussive 7 147 210 235  
 {k} prefix 44  
 ⚭ Slavic suffix 268  
 labials, two, in noun 163  
 labialized laryngeal 373  
 labio-velars 95-99 105-06  
 155-56 209-12 273-75  
 284-87 388  
 laryngeals 5 35 37 43 137  
 229 243 278 295 410  
 laterals 111  
 letter-names 172  
 metaplasm 381  
 metathesis 25-26 39 66 73  
 116-17 167 273 283 292  
 444 446  
 morpheme, subsidiary 2  
 morphology & vocabulary 2  
 12  
 morphology of nouns 126-30  
 nasal expressing first person  
 302  
 nasal infix 192 210 240 276  
 nasals, latent 57  
 neuter 30 265 352 363 380  
 collective 189  
 emergence of 112-13  
 inflection 41  
 nominative 16 107 127-28  
 dual 18 129  
 singular 30  
 object noted 20  
 obscenity 254  
 obsolescence, resistance to  
 365  
 onomatopoeia 119 257-58  
 275 277  
 order in compounds 161  
 ordinals (see cardinals)  
 palatalized *n* 78  
 paradigm, noun 16-17  
 paradoxical agreement of  
 numerals 404  
 parallels, why rare 3  
 participles 134 225 270  
 passive 181 222  
 past & future 399  
 pausal accent in Sanskrit 145  
 perfect (Sem.) & aorist 205  
 260-70  
 phonology of numerals, di-  
 vergent 401  
 phrases, two-word 11  
 pitch, raised & descending  
 317  
 plosive/fricative alternation  
 55  
 plosives, emphatic 46  
 glottalized 148  
 plural & singular suffixes  
 104 127-29 250 312  
 pluralization 22-24  
 plurals, feminine 122  
 in -r 113 265  
 poetic license 21  
 possessive suffixes, Hittite  
 328  
 praenomina, ordinals as 432  
 preemption 152  
 prefix & imperative 138  
 prefixed subject 308  
 preliminary imperative 232  
 pre-nasalization 192-93 385  
 456  
 prepositions, borrowing of  
 366-67 377  
 present tense lacking 178  
 preterite 210  
 pronominal prefix, second  
 person 307  
 pronouns as anomalous 297  
 pronouns, frequency of 365  
 pronouns from nouns 351  
 pre-nasalization 456  
*r* as stable consonant 280  
 recessive accent 398  
 redundant suffixes 326  
 reduplication 45 272  
 reference, explicit 360  
 reinforcing suffix 361  
 relative pronouns 344  
 repetition of article 354  
 root, verbal 73 131-33 206  
 241  
 root-extension 206 241 267  
 roots (IE) as consonantal 133  
 rudimentary speech 83  
 sandhi 65 90 304 310 380  
*satəm* languages 56  
 Saussure's law 185  
 second person pronouns 307-  
 325  
 segmental notation 295  
 signals of attestation 1  
 sociolinguistics 27 119  
 sound plurals 23  
 sound-shift, Germanic 39  
 stative 222 227 250 308  
 stress, syllabic 316  
 suffix, feminine 183

- superlative suffix 416
- suppletion 152
- suppression, dissimilatory 202
- syntagmas 11-12 173 230 239 250
- thematic inflection 149
- thematic vowel 144 .
- topicalization 21
- transcription 9
- transitivity 138
- triconsonantal 'three' 440
- triconsonantal roots 203 206 217 241 276 279-80
- triconsonantality, origins of 210 386
- Umlaut 22 443
- unsteadiness in vowels 33 63 137 412
- utterance, one-word 242
- variation 27
- velarization 148 286
- ventive (Akkadian) 159
- verbal function as prior 190
- Verner's law 141 369
- vestige, pronominal 299
- vocabulary & morphology 12
- vocabulary, basic 454
  - common 1
  - popular 26
- vocalization of Hebrew 12 333
- volitional statements 299
- weak declension 62 77 266 380
- word order 21 24 63 109
- Z (sound in Greek), 65 118 154 248
- zero grade 53
- zero vowel 441

## Index of Miscellaneous Topics

- Acel dama 86  
 Achaeans 165  
 Adam 69 74  
 Agapa (woman's name) 223  
 agriculture 91-92 244  
 ambiguity of etymology 76  
 Anatolian matrilinearity 329  
 anchor-stones 197-98  
 animal husbandry 119  
     and gender 455  
 Aphrodite 164 230  
 Apollo 171  
 artifacts 95  
 Ashtoreth, Astarte 164 230  
 audibility of languages 10  
 aurochs 25  
 Baal 252  
 baby animals 113 265  
 Bardiya 20  
 blessings 150 199-200  
 body-parts 30  
     paired 37  
 bulls, yoke of 19 130  
 burro 125  
 Byblos 285  
 Carthage 385  
 childbirth 264  
 city names as plural 65  
 counting rhymes 422  
 counting sheep, modes of  
     429-30  
 cow 17  
 cultural words, numerals as  
     454  
 cuneiform 8-9 53  
 Dedan, etymology of 47  
 Delphi 95  
 Didyma 50  
 Dindymon (mountains) 49-  
     50  
 Dionysos 33  
 divergence 142  
 divine name, Hebrew 152  
 Dorian tribes 53  
 Earth goddess 60-61  
 Ecclesiastes 40  
 Edom, etymologies of 46-47  
     76  
 eight-syllable verses 150  
 Eshbaal 253  
 Eucharist 231  
 Europe, prehistoric 61  
 eye & ear 40  
 fallacy of misplaced concrete-  
     ness 445  
 female & young animal 113  
 Fertile Crescent 86  
 fingers, used in counting 404  
     422  
 fire of Rome (A.D. 64) 410  
 Gezer calendar 18  
 Gibeon, altar at 164  
 Gideon 255  
 goddess 61  
 Hivites 165  
 Jason 19  
 Jordan river 368  
 Kadmos 284  
 kneeling & blessing 200  
 Lascaux 28  
 learning in context 241  
 legal vocabulary 214  
 Lesche, woman's name 290  
 livestock, twinned 51  
 male beasts 29  
 man & earth/ground 70-75  
 mangled beast 220  
 matriarchy 61  
 matrilinear societies 329  
 Mesopotamia, pivotal 'six'  
     in 402  
 milk-animals 115  
 Mishnah, pronouns in 342  
 month of birth 432  
 Moorish land-surveyors 367  
 Nerthum(?) 60  
 Nestorian pointing of Syriac  
     55  
 nomadism 54-55  
 Oedipus 256  
 Origen's transcription 157  
     311-12  
 ostraca, spelling on 30 335  
 ownership 317  
 paired body-parts 34  
 Pamplona 28  
 patriarchy 329  
 Petronius 124  
 Plautus' use of Punic 56 121  
     156 332 397  
 Quintilian 70  
 Qur'ān, dialect of 181  
 rectangularity 89  
 rimbles 422  
 ritual of Moses from Sinai  
     64  
 rivers 393  
 Samaritan 152 160 256 319  
 Saphon, Mount 216-17  
 satyrs 28 115  
 seat of god(s) 145  
 Semele 72  
 Sephardic pronunciation 411  
 seven days' time 410  
 Smerdis 208  
 stealing & hiding 214 217  
 Strasburg oaths (AD 842)  
     359  
 streets, paved 234  
 taboo 41  
 Targum 12 24  
     vocalization 71 439  
 Terra mater 60  
 third day 442

- Thomas 45  
Tiberias vocalization 12 33  
traders, vocabulary of 13  
trading (item in container)  
    182  
trees, feminine 71  
triplets 49
- Ugarit 87  
un-Semitized items in Sem-  
    itic 389  
uniformity, schematic 142  
Visigothic kingdom 358  
water, control of 198
- weather verbs, feminine 211  
week 410  
wine trade 239  
wonder, primeval 207

## Index of Linguistic Forms

(alphabetical by languages)

### 1. Akkadian (for Afar and Agaw see Cushitic)

- |                             |                          |                            |
|-----------------------------|--------------------------|----------------------------|
| {a(-)} 206 363              | {bucu} 293               | iqqaratum} 92-93           |
| {-a(m)} 20 91 127 159 370   | {būru, bu-ru-im} 126 202 | {ilid} 261 296             |
| {(-ā)} 19 295               | {bu-?-šū} 256            | {imēri} 126                |
| {abarti(m)} 376             | {buštum} 252             | {in} (Assyrian {ēn}) 53-54 |
| {ad(i/-u)} 395              | {c} 245                  | {in(a)} 376 390-92 447     |
| {aḫturriš} 399              | {daraggu} 379            | {inanni} 395               |
| {allū} 362                  | {e} 30 87 374            | {innaḫi} 278               |
| {amniḡa} 168                | {eber, ebirtum/ebirtu,   | {iqnūni} 146               |
| {an(a) (minim)/             | ebirti(m)/-a(m)} 367     | {i(r)rišu} 243             |
| amminim} 387-90             | 370-71 374 376           | {-iš} 397                  |
| {anākuma} 298 324           | {ecemtum} 42             | {ištēn/-t} 448             |
| {-ānu/-i} 17                | {ela} 138                | {-īt} 93 446               |
| {arḫa} 18                   | {emata} 153              | {iwe} 153                  |
| {arkam, arik, ariktum,      | {-ēn} (Old Assyrian) 29  | {-ka} 397                  |
| arakam} 190-91              | {eqlam/-u/-i(m)} 86-88   | {kabsu(tu)} 110            |
| {aruš} (Canaanite {ḫarišu}) | 91 93 127 326-27 390-91  | {kaldu} 112                |
| 243                         | {ercetum/-i(m)/-am,      | {karātu} 242               |
| {-at(u)} 109-10 376         | ercet} 61 388 390        | {kaspum} 112               |
| {atanum, atānam} 120,       | {errišu} 243             | {kimi, kumu, kumī}         |
| 127                         | {ešur} 228               | 146-49                     |
| {(a-)atta(ma)/attu, -āta}   | {-ēt} 446                | {-ku} 298                  |
| 318 322 324                 |                          |                            |
| {atti(ma)} 321 324          | {gadū} 115               | {l} 112                    |
| {bām} 158-59 287 388        | {gurnu(m)/gunnu} 98      | {laḫrum} 43                |
| {-bār, bā'iru} 136          | 103                      | {m} 20 31 94 112 158-59    |
| {barraqtu, barāšu, bircu}   | {ḫ} 43 243-44 279        | 363 376 425-26             |
| 206-7                       | {ḫaric, ḫarīcu} 244 247  | {-ma} 324                  |
| {baštu} 252                 |                          | {maḫri(š), maḫrini/-ka,    |
| {barziya} 208               | {i(-)} 206 210           | maḫari} 397-99             |
| {bēlni} 305                 | {ī} 53                   | {mildu} 261 296            |
| {bēru} 202                  | {-i(m)} 20 370-71 391    | {muniq} 115                |
| {bi-?-iš} 257               | {i-ba-ū-ma} 388          | {mūtibāšti} 253            |
| {bī(ā)m, bītu(m),           | {ibriq, ibarruc} 205-07  |                            |
| bīti(m)} 51 53 127 261      | {idā} 18                 | {n} 112 389 425            |
| 388 391                     | {ikkarum/inqaru(m),      | {nāšu/-i, niyašim} 304     |
|                             |                          | {nabū} 82                  |

- {nāri} 367  
 {ni-, -ni} 206 303 397  
 438  
 {niaši(m)/nāši(ma)} 325  
 {-nu-} 325  
 {pūru} 126  
 {q} 86 95  
 {qarnu(m)/-am/-ū-/ā,  
 qarnim/-n} 4 14 17 29-  
 34 41 127  
 {qati} 391  
 {qerbi/-am, qerebni/-ša,  
 qerebka/-i,  
 qerebkun(u)/-kin(a),  
 qerbišu(nu), qerebšin,  
 qerbī tum} 8-9 93-95  
 {(-)q(-)n-} 148  
 {r} 112  
 {rāmu/-i, rēmi,  
 rāmam} 226-27 280  
 {rid} 138 283  
 {s, š, š} 15 110 212-13 245  
 326 424-26 439-42  
 {samani, [sa]-am-na-am}  
 412 425
- 2. Albanian**  
 emen/r 77 80
- 3. Altaic**  
 dolu (Turkish) 182  
 kār- (Yakut), kār- (Turk-  
 ish), kertši- (Mongolian),  
 kār-tji- (Tungus) 242
- 4. Arabic** (for Ancient South Arabian see **South Arabian**)
- | 21 60 183 202 221 294  
 415 427  
 | 23-24 128  
 | - 16 19 21 31 74 91 102  
 108 127 129  
 | 120 127
- {seba/-i, sebēt/se-be-it,  
 se-bū, sebā(m)} 409-12,  
 425 446  
 {ša} 351  
 {-ša/-ši} 328-29  
 {šadū(m)/-i, šad(w)i(m)}  
 88 456  
 {šalāš, šal<sup>1</sup>/šū(m),  
 šal<sup>1</sup>/šī(m), šalša(m),  
 šalu<sup>s</sup>/tu(m)),  
 šal<sup>is</sup>/u<sup>1</sup>ti(m).  
 šalu<sup>s</sup>/ta(m)} 437-44 447  
 {šalgum} 208  
 {šamani} 425  
 {šarrāqum} 92  
 {šiš, šeššet, šeššu} 404-05  
 412  
 {ši, šu} 351  
 {šina} 415  
 {šiqlum} 145 286  
 {-šu} 93 326 328  
 {šuāšu(m)/-im} 325-26  
 {šum(u)} 81-84 424  
 {šunuši(mma)} 325  
 {šūram/-i(m)/-u/-ā/  
 -ēn} 16-17 20 26 30
- na 304
- m 84  
 qol-gi-da- 272
- qith 119
- sättä (Yakut) 408  
 ta (Mongolian) 314
- أَحَدٌ 427  
 إِحْدَى 449 451  
 إِيدَامَةٌ 74  
 456  
 أَذْنًا، أَذْنًا، أَذْنًا،  
 أَذْنَيْنِ 36 40 128
- أَرْضُ 427  
 أَرْضُ، أَرْضُ، أَرْضًا،  
 أَرْضُ، أَرْضُ، أَرْضُ،  
 أَرْضِي 14 58-59 62 127  
 294 456



92 أَكَّارَةٌ, أَكَّارٌ, أَكَّرَ  
456

359 348 355-56 أَلَى, أَل-

342 349 إِلَّا

22 129 - أَنْ

298 302 أَنَا

318 أَنْتَ

321 أَنْتِ

313 أَنْتَن, أَنْتَم

277- أَنْح, أَنْصَتِ / أَنْصَتَ  
278

56 ب

391 ب-

157 بَا

202 بَشَرٌ

213 بَرَدٌ

204 بَرَقَ

457 بَقَرٌ

207 أَبْلَجَتِ الشَّمْسُ

أَبْنِي, أَبْنَى, أَبْنَى

417 24 بَنِي, بَنِينَ

127 51 56-57 بَيْتَا

371 بَيَّرُوا

419 311 109 56 ت

308 تَ-, تَ-

318 275 - تَ

324 321 - تَ

211 207 156 - تَ / - تَ  
276

446 431 433 - تَ

413 تَبَسَّعَ

351 تَبِكَ / تَاكَ

تَوَّامِينَ, تَوَّامًا, تَوَّامًا  
222 127-28 48-51

251 13-212 145 26 15 ث

421 439-42 319 294

294 213 144 وَثَبْتَ, ثَبَ

145 ثَقُلَ

ثَلَاثَةٌ, ثَلَاثَةٌ, ثَلَاثَ

433 429 ثَالِثٌ

44-437

تَثْلَجَ, تَثْلَجَ, تَلَجَ

أَثْلَجَتِ السَّمَاءُ

12-208 ثَلَجَتْ, أَثْلَجَ  
285 294 442

425 ثَمَانٍ

415 إِثْنَيْنِ

ثَوْرًا, ثَوْرًا, ثَوْرًا, ثَوْرًا

13-16 5 2 ثَوْرَيْنِ

129 119 62 51 31 20-28

145 212-3 335 414-15

21 17 ثَوْرٍ, ثَوْرٍ, ثَوْرٍ

456 34 الثَّوْرُ, الثَّوْرُ, الثَّوْرُ

17 ثَوْرَةٌ

23 أَثَوَارًا, أَثَوَارٍ, أَثَوَارٌ  
433

ثَبِيرَةٌ, ثَبِيرَةٌ, ثَبِيرَةٌ

23 ثَبِيرًا, ثَبِيرًا

31 22-23 17 ثَبِيرَانِ

379 274 100-99 ج

285 جَبَلٌ

جَدِي, جَدِي, جَدِي

127 115-105 جَدِيَانِ

129

242 جَرَزَ

103 جَرَشَ

جَرِينٌ, جَرِنًا, جَرِنَ

129 103-98 جَرَنَ

75-274 جَلَّتْ, جَالَ, جُلَّ

مَجْنُوبٌ, مَجْنُوبٌ

مَجْنُوبَةٌ, مَجْنُوبِينَ

جَنَبَهُ, جَنَبِي, جَنَبَ

19-216

294 79-278 45-244 ح

367 حَتَّى

44-243 حَرَثْتُ, حَرَثَ

حَشَرَةٌ, حَشَرٌ, حَشَرٌ

أَنْحَشَرُوا, أَنْحَشَرُ

292 232 228-29

127 91 88 86 حَقْلٌ, حَقْلًا

456 294

27 124-119 أَحْمَرٌ, جَمَارًا

- حَيَوةٌ / حَيَاةٌ، حَيَّةٌ  
153 348  
خ 244-45 278-79  
خَمْسٌ 429  
د 142 283  
دَرَجٌ، دَرَجٌ 379  
ذ 36 319  
ذِي، ذَا 350  
يَذْبَحُ، أَذْبَحَ، ذَبَحَ  
247-79  
تَذَبُّحُوا 12  
ذِكْ، ذَاكَ 350-51  
ذَلِكَ 348  
رَأَى، رَأَى 261  
رَأَمَ، رَجَمَ 227  
رَحَلَ 14  
وَرَدَ، رَدِي، رَدَ  
وَرَدًا، وَرَدَتْ  
138-42 283 286  
س 424  
س 44  
سَبْعَةٌ 446  
سَادِسٌ، سِتَّةٌ، سِتٌ 405  
429 431  
سُكُونٌ 441  
سَرَقَةٌ، سَارَقٌ 92
- أَسْمٌ، إِسْمٌ، إِسْمًا  
14 77 80-83 127  
424-5  
سَمِعْتُ 298  
ش 32 228  
كَالشَّمْسِ 355  
ط 222  
أَطْرَفٌ، يَطْرِفُ، طَرَفٌ  
طَرِفتُ، تَطْرِفُ  
221 طَرِفتِي، طَرِفةٌ  
ظ 46  
ع 43 60 414  
عَبَرٌ، عَبَرَ، عَبَرَ، عَبَرَ  
367  
370-71 374  
أَلْعَبُورُ 377  
عَتِيقٌ، عَتَقَ، عَتَقَ  
384-86  
عَجِيبٌ 225-26  
عَجَلِينَ، عَجَلًا، عَجَلًا  
عَجَلَةً، عَجَلَةً، عَجَلٌ  
عَجَلَةً، عَجَلَةً، عَجَلَةً  
عَجَلَةً 105-09 127-28  
تَعَاَسَرُوا، عَاشَرُ، عَشَرَ  
451  
عَظْمٌ 42  
عَقْرَبٌ 282
- 137 عل  
319 عَلِمْتُ، عَلِمْتُ  
340 عَمَّةٌ، عَمٌ  
115 عَنَاقُ  
373 عَيْنٌ / عَيْنٌ، عَيْنَيْنِ  
288 294 غَرَبٌ  
135 ف  
348 الْفَرَزُ  
289 34 86 95 145  
242 قَرَحَ  
147 قَنَتَ / قَنَتَ  
171 أَقْرَأَ  
348 الْقَرَاءَانُ  
قَرَنٌ، قَرْنَيْنِ، قَرْنٌ ثَوْرٍ  
11 30-33 قَرْنَا، أَلْقَرْنُ  
41 127-28 289  
44 قَصٌّ  
127 93 95 قَلْبًا  
359 الْقَاضِي  
158 قَمٌ  
355 ك-  
348 الْكَبِيرُ  
232 110 كَبَشٌ  
تَكْتَبِي، تَكْتَبُ، يَكْتَبُ

نَكْتَبُ , أَكْتَبُ  
تَكْتَبُنْ , يَكْتَبُنْ  
7 92 كَتَبَ , كَاتِبٌ  
362 كَمْ

ل 86 107 213 441  
266 تَلِدُ , لِدَة  
لَحِكْتُ / لَعِقْتُ / لَعِقْتُ  
275-77 لَقَى  
8 210 لَمْ

مَطَرٌ 287 296  
263 مَلِدَتْ , مَلِدَ  
181-82 مَلَى , مَلَأَ , مَلَأُ  
392 مِنْ  
34-35 44 104 129 ن -  
302-06 نَا -  
109 128 ن - ه ,  
348-49 353 هَذَا  
156 هَوَيْتَ / هَوَيْتَ

و 23 51 141 183 262  
وَلَدِي , وَلَدَ , وَلَدْتُ / وَلَدَ  
262-63 281 283 وَلَدْتُ  
23 183 202 ي  
30 - ي  
18 يَدَا  
33 - يَنْ  
30 108 128 يَنْ / يَنْ

# 5. Aramaic (including Syriac)

(-) 67 82 176 202 218  
230 355 387 414 427 436-  
447

197 אֲבָנָא , אֲבָנָא

66 69 71 אֲדַמְחָא

36 אֲוֹדִין

355 אֱלֹהָא

360- אֱלִין / אֱלֹהִים / אֱלֹהִים  
364

110 אִימֶר , אִימֶרִין

298 אֲנַכְי / אֲנַכְי / אֲנַכְי

453 אֲנַפְוָהִי , אֲנַפְוָהִין

318 אֲנַתְ / אֲנַתְ

רִאֲחִין , אֲתֹחִין / אֲתֹחִין  
313

426-27 430 אֲרַבַּע

/ אֲרַעָא , אֲרַעָא

59 66 אֲרַעִי , אֲרַקָא  
376

82 אֲשַׁם

אֲחֵנִי , אֲחֵנִי , אֲחֵנִי  
120- אֲחֵנָא , אֲחֵנָא  
123 128

55 145-46 421 439 ב

391 בְּ- / בְּ-

257 בְּאִשׁ

251 תְּבַחְתִּין , בְּחֵתִי  
292

202-03 בִּירָא

55 בִּיחָה

בְּרִי , בְּרִי , בְּרִי

24 בְּנִין , בְּנִי , בְּרָה  
196 415-19 434

384 בְּרִיכְתָא

203-08 (בִּרְק) בְּרִק  
285

100 421 439 ג

116 גְּדִיא , גְּדִי

98 101 גְּוֹרְנָא (Syriac)  
103

219 בְּבַחַ

218 גְּנֻבָּתָא

36-37 47 67 350 421 ד , דַּ  
439

דִּיכַח , דִּיכַח

12 247-48 תְּרַבְחִין

428 רְבוּרָה

350 361 רִדְ , רִדְ

רִיֻּצָּה , רִיֻּצָּה

118 128 רִיֻּצָּא

316 תְּ- / תְּנַנְעָ , יִרְעָה  
319 419

379 דְּרִגִּין

382 דְּרִיֻּכָּת

85 251 414 ה

109 118 129 153 הְּ- , הְּ

361 הְּ- , הְּ

349-50 הָרָא , הָרָא

- הוֹיִתָּה, לְהוֹן, הוֹי  
 הוֹיִתוֹן 150-53 314 316  
 הֶן - 85 129  
 ו 54 262 268  
 ח 43 279  
 עֶסְרִי, חֵד עֶסֶר  
 חָדָא 449  
 חוֹיִתָּה/חוֹיִתָּה, חוֹיִתוֹן  
 314-18  
 חוֹיִתָּא, חוֹיִתָּה  
 419 153-54  
 חמישי, חמישי  
 440 434  
 חֶקְלִי, חֶקֶל  
 חֶקֶלֶן, חֶקֶל־תְּהוֹן  
 86-90 128-29 292 441  
 ט 46  
 י 313  
 י- 54 141 268  
 י- 437  
 י- 71 108 121 128 414  
 439  
 יָא - 435-37 400  
 יָה 81  
 יוֹמִין, בְּיוֹמָא, יוֹם  
 434-36 449  
 תְּכַל/תּוֹכֵל, יְכָלָת  
 268  
 ין - 2 108 128  
 יָתָה, יָתָה/יָתָה, יָת  
 יָתָהן 337  
 כ 271 421 439  
 כ־ 350 362  
 כבשא (Syriac) 110  
 כְּרֶךְ 246  
 כתיב 435  
 ל 86 213 268 337 441  
 ל- 150  
 לָהֶם, לִי  
 לבנָתָא 282 388-89  
 מ 426  
 מוֹמָא 170  
 מְלִי־תָא 184  
 מן 392  
 מִנֵּן, מְנִי 168-69  
 נ 34-35 44 104 196 416  
 441  
 נ- 85 90 121 129  
 נָא - 302-06  
 נָשָׁר 31  
 נת- 387  
 סְקִי 124 128 376  
 ע 59 410-14  
 תְּעַבְדוֹן, תְּעַבְדָּ  
 עֲבָדָת, תְּעַבְדוֹן  
 308 316 318  
 מַעְבוֹרָא, עֲבָר  
 367 374 376  
 עגלי, עִיגֵל, עגלא  
 עגֵלָת 105-09 444  
 עֵר 393 395 400  
 תְּעַבְדָּה 308  
 עֵטִם 42  
 עֶשֶׂר 414  
 עשחא 448  
 עֶתִיקָה, עֶתִיק  
 עֶתִיקָתָא, עֶתִיקָא  
 ענחא 384-87  
 פ, פ־ 421 439 453  
 פלקחא 236  
 צ 118  
 ק 86 204 292  
 קוֹם/קוֹם 158  
 קְנִיתוֹן, קְנִי 146 161  
 314  
 קְרִי/קְרִי, קְרָא  
 יְקִרוֹן, תְּקִרִי  
 קְרִי, קְרָא 171-77  
 435  
 קְרוֹן, קְרִי 2-3 29-32  
 128  
 ר 414-17 439 441  
 רָבָא 355  
 רַב־יַעֲרָה, רַב־יַעֲרִי  
 רַב־יַעֲרָה, רַב־יַעֲרִי  
 רַב־יַעֲרָה 434 440  
 רַהוּט 251  
 רַחֵל, רַחֵלָא 43  
 ש 17 82 110 424  
 שָׁבַע, שָׁבַע 410 425  
 446

שורה 17  
שָׁמָּה, שָׁמָּה, שָׁמָּה  
שְׁמָהָּ, שְׁמָהָּ 77 81  
84-85 129 424-25

שְׁמָיָא 361  
שְׁמַעְתָּ 298  
שָׁתָּ/שָׁתָּ 402-03 407  
וְשִׁשְׁתֹּן 420  
שְׁתִּיתִי 434

ת 15 55 57 71 145 212 251  
293 308 311 403 413-15  
419-21 426 435 439-40

תָּ - 108-09 410 446

תָּ - 128 154

תָּ- (תה) 151 316-17

תְּאוֹמִי/תְּאוֹמִי,  
תְּאוֹמִי/תְּאוֹמִי,  
תְּאוֹמִי 44-45 87 128  
יְתָב, חִיב/חִב 144 213  
294  
תְּאוֹ-תְּאוֹ/תְּאוֹ 315  
תְּאוֹ/תְּאוֹ,  
תְּאוֹ/תְּאוֹ,  
תְּאוֹ/תְּאוֹ,  
תְּאוֹ/תְּאוֹ/תְּאוֹ  
14-17 26 29 31 87 108  
145 419

תְּלָג (תְּלָג) 208 212 294  
437  
תְּלָתָא/תְּלָתִי, תְּלָת  
תְּלָתִי/תְּלָתִי/

תְּלָתִי/תְּלָתִי,  
תְּלָתִי/תְּלָתִי,  
431 434-41 444  
תְּמַנִּי 425 430  
לְמַנְתֹּן 420  
תְּנִינָה, תְּנִין 418-21 441  
יְתָקוּל 145  
תְּרִין/תְּרִין-  
תְּ-תְּרִין/תְּ- 412-21 430  
437-41  
תְּשַׁע, תְּשַׁע 413

(in Greek letters)

AKELADAMA 86

(in Latin letters)

Aceldama 86

## 6. Armenian

{akn, unk} 40

{aṭbiur, aṭbeur} 201-02

{anun} 78 83 424

{art} 87 89

{durgn} 381

{-er-} 428

{erek} 288

{erkan} 99

{erkir, erkri, erku} 60 66

{hing(erord)} 427-28

{inn} 424

{išank} 120

{jern} 398

{jmeṛn} 125

{koloput} 218

{merj} 398

{tasn} 413

{veç} 404

## 7. Austronesian punō, pēnoh, penoh, vonu 182

## 8. Avar(o) ne-žē-r(a), ni-ž 305

## 9. Avestan (for Awiya see Cushitic)

{a} 380 413 452

{-ā} 19

{ā} 85

{aē} 55 211

{-aēbja} 30

{ān} 85 129

{ana} 387-90

{āni} 299

{aza} 232

{azəm} 323

{-əm} 127

{bava} 151

{čaṣwārō, čatanrō} 445

{-da} 350

{dadāpa} 316

{darāga/-əm} 188-91 280

289 450

{dasa} 413

{-di/-di} 324

{druxš} 408

{frā} 310

{gərəbəm} 94-95 127

{gāt} 158

{had-} 251

{hapta(ṣō)} 410-11

- {hazaŋrəm} 449  
 {hō/hā} 351  
 {-i-} 211 443  
 {karənō} 41  
 {kərənaiti} 242  
 {-m} 323  
 {mravāni} 299  
 {nāmān/-āni} 77 85 129  
 {-ni} 299-300  
 {nō, nā, naā} 304 306  
 {-ō} 444  
 {paṇtānəm, paḥō} 420  
 {pauru, pouru} 181 186
10. **Baltic** l/r 218
11. **Bantu** (a)m-ba (Kupa, Goali) 453  
 (n-)kje 66
12. **Basque** erri 66
13. **Beja**  
 ane 298  
 biʔ 159  
 b̥r 195  
 ʔa-dbil, ʔi-dbil,
- ʔi-dbil-na 7  
 hāy 152  
 ʔktib, t̥ktib(a/i), áktib,  
 níktib, (t)ektibna 7
14. **Berber** (for Bilin see Cushitic)  
 a(y)d 351  
 akāl (Tuareg, Sus) 86  
 as (Tuareg, Kabyle) 253  
 əgəyd (Tuareg) 116-17  
 əlləg- 277  
 bəšši 252  
 ebnu/benu/ibna/benna  
 162
- fr 195  
 ʔd 351  
 ʔgar (Sus) 86  
 ʔhi (Tuareg) 152  
 ʔl̥s/ʔgs 44  
 -(n)ag, -naʔ, -na 305
- sa(a)/ʔšša, sez(za)/šoduš/  
 setsef/saḥis/seḥis/  
 sedis/said/šišes 408-09  
 sin/sen(t)/šin-an/senath  
 415  
 tam(et) (Mzambit), ittem  
 (Zénaga), tham (Chilhe)  
 426
15. **Breton**  
 (h)anu/hanff 78-83  
 kant 452
- korn, karn 32  
 ni/ny 305
16. **Bushman** ʔku 48
17. **Byelorussian** імя, імені 80
18. **Carian** -vua 50  
 (for Castilian see Spanish; for Catalan see Romance)
- {pərənā/-əm} 185 188-89  
 {r} 280 289 450  
 {s} 57 452  
 {satəm} 56 452  
 {snaēžaiti} 211 285  
 {-st-} 316  
 {staorəm} 26  
 {t} 410 445  
 {tarō/-ə} 380  
 {-ti} 211  
 {tiš(a)rō} 444-45  
 {tvā, tū(m)} 310 323  
 {β} 251 317 419-21 442 445  
 {βā} 315
- {prāyō} 414 417 421  
 {prityō/-ā} 442-44  
 {u} 181  
 {uši} 41  
 {ušt̥rəm} 420  
 {v} 55  
 {vaēsəm/-ō/-mānda,  
 vīsəm} 51 54-57 127 350  
 {vōistā} 316-17  
 {xšvaš} 403-08  
 {zš} 77  
 {ž} 211

19. **Caucasian** 'ar-ši (Arci) 60 uži (Lazo) 38
20. **Celtic** ad- 395 h- 77
21. **Chadic** (for Chilhe see **Berber**)  
 fal (Hausa) 182 kaši (Hausa) 44 tauai (Hausa) 48  
 ka:ma (Hausa), gəma nī(a)/na, ni/ni 302  
 (Gidder) 148-49 šidda/siddu (Hausa) 409
22. **Chinese** {ka:t} > {tɕie<sup>2</sup>, jie<sup>2</sup>} 117 {man<sup>3</sup>} 182
23. **Church Slavonic**  
 агѡа 106 нась, нѣ намъ/-и 304-06 ты 322  
 въ немъ 390-92 оба 452 тоура/-и 16  
 зѣмля 66 72 128 ослъ 119 шѣсть 409  
 имѡ, имени 14 77 84 127 пѣтича 194 ѡ 452  
 козѡ, козыль 115 ролити 267 281 ы 322  
 конъ 147 с 452 я 72 128  
 кость 43 свѣкры 327 юмъ 392  
 локати 277 ѡбѣ 325 ѡ 127  
 мого/-ы/-лы/-ла/-лю 269-70 седмъ 409  
 млѡды/-а 263 267 снѣгъ 209 212  
 мнѡгъ 187 сѣто 452
24. **Coptic**  
 ANOK 298 NOYB 163 соуу/сау/сѣу-,  
 εβρHε 208 ou 426 со(ε)/соууε/сѡε/са 406  
 {h/š} 426 π-, πρῶμι 352 359 {šmoun} 63  
 кас 44 ραν/ρεν/ριν 84 т- 352  
 N- 352 сѡуу/сѣуу 415 тѡрп/торп 222  
 (-N) 305 сок/сѡк/сак 288
25. **Cornish**  
 corn, carn 32 hanow 77-83 425 ny 305
26. **Cushitic**  
 ab-tē (Saho) 320 el (Quara, Khamir) 44 hăy (Bilin), hay (Saho,  
 'affur (Dasenech) 427 entin (Bilin), entan (Quara) 313 Afar), 154  
 an (Bilin, Quara, Khamir), 313 il (Afar, Somali), 'il (Bilin)  
 anu (Saho, Afar) 298 301 erkē (Afar) 66 44  
 ana (Quara) 305 eš (Agau) 253 is (Mağği) 253  
 antā (Awiya) 313 frī (Agaw, Bilin) 134 na/ni/nō(y)/nū(y) (Saho,  
 arās (Bilin) 243 gargar (Saho) 273 Afar, Somali, Jābārti,  
 bus (Saho, Afar), bōsā gūal 109 Galla, Oromo) 305-06  
 (Sidama) 252 harās (Saho, Afar) 243 qarō (Kafa) 35  
 dig-tai (Somali) 320 hay (Somali) 152 qōn (Čangero) 147

- sabato (Kafa) 408  
 sādde-h/sade (Somali),  
 sadē/i (Galla) 409  
 sum(-ta) (Hadiya,  
 Wolamo) 82
- 27. Czech**
- 28. Danish** tyr 14
- 29. Dravidian**  
 {m} 84  
 (nakku) (Tamil, Kannaḍa)  
 277
- 30. Dutch**  
 gront (Middle) 67  
 hōken (MLGerman) 115
- 31. Eblaite**  
 {a-dē} 395  
 {an-da} 318
- 32. Egyptian**  
 {3} 8 94 352  
 {idn} 36-37  
 {ink} 298  
 {is/lz} 143  
 {iw} (yw) 152  
 {ʿ} 225  
 {ʿgny} 107  
 {ʿntj} 279  
 {b8q} 208  
 {brkt, brq} 198  
 {bw.t, bw(t)} 257  
 {dbʿ} 405 427-28  
 {drt} 352  
 {ḥmn} 426  
 {ḥnt(y/-w)} 382-85  
 {ḥww(i)} 162  
 {hrd} 264
- šən (Bilin) 82  
 šminta/šmittto (Kafa) 426  
 wašē (Sidamo) 38  
 wäläd (Quara) 262  
 wäräd (Bilin, Quara) 141
- š (háček) 443
- {nāvu, nam-} (Kannaḍa)  
 306
- o(e)ver 369  
 voos 257
- {a(n)-na} 298  
 {in} 390-92
- {j} = [y] 406 415  
 {kpn/kbn} 285  
 {kr.ty} 34  
 {k} (see {q})  
 {msḍr} 36  
 {n} 212 415  
 {-n} 305  
 {n3} 352  
 {nbl} 162-63  
 {npr, pry/i/t} 134  
 {p.t (nw.t)} 211  
 {p3} 352  
 {ptt} 191  
 {q3b(.l/.n/.k/.t/ṭn/f/.s/  
 .sn)} 8 94  
 {ql} 162  
 {qs} 44
- wārānā (Bilin), wārna  
 (Khamir) 97  
 wēs 38  
 yinā (Bilin, Khamir) 305
- tur 14  
 (for Dasenech see **Cushitic**)
- {nōḍ-, hū-/sū-/tū,  
 sūḍ/r} 79  
 {pala/-u/-avu} 187
- {-ni/-na} 302  
 {-sū, -šum} 328
- {rd, rdw} 138-39  
 {rn} 84  
 {sī/zī} 143  
 {sk3} 243  
 {šfḥ} 408 429  
 {šjś} (\*šrs') 406-07 429  
 {šnw(j)} 415 418  
 {šnʿ} 212  
 {š(n).t} 451-52  
 {šš} 293  
 {-t} 405 451  
 {t3} 352 357  
 {-ty} 34  
 {-w} 405  
 {w3ḍt} 293  
 {ʿs(.t)} 351
- 33. Elamite** {pir-ti-ya} 208



## 34. English, including O[ld]E[n]glish]

- a (*indefinite article*) 366 449  
 a- 309  
 -a- 77  
 ā > o 209  
 adrift 309  
 adūne > down 139  
 [ʔ]æcer, [ʔ]acras > acre(s)  
     86 90 294  
 æt > at 395-96 399  
 agen > own 328  
 alef (OE) 456  
 alive 309  
 -an 62 127  
 -as 90  
 ashamed, asleep 309  
 ass, arse 125  
 ber(st) > bear('st), berestu  
     > bearest 178 301  
 beseech, besought 167  
 beware 260  
 breht/be(o)rht > bright  
     204 285  
 bring, brought, [bræŋ,  
     brʌŋ] 167  
 brydgum > brydegrome >  
     bridegroom 68  
 burna (-brunna) > burn  
     201-02  
 buy, bought, [baid] 167  
 cairn 32  
 call 174  
 came 395  
 can, could 268 270  
 catch, caught, [kæçt, kɛçt]  
     167  
 -cc- 117  
 ce(a)lf(ru), cælf(es),  
     c(e)alf(ur), cealfra/-um  
     110-14  
 ch 166 283  
 champion 360  
 cild(a) > child(e);  
     cildas/-(e)ru >  
     childr(en) 113 264-66  
     283 296  
 cilforlamb 110-14 413  
 circle 273  
 cum > come 158-59  
 cweorn(e)/cwyrn > quern  
     95-98 101 105-06 284  
 cwicu > quick 155 287  
 -d(-) 70-71 142 283-84  
 donkey 125  
 drench 57  
 dune, down 139  
 -ð 142 378-79 (see also þ)  
 e 33 88 266 378  
 [ʔ]ea- (OE) 368 372  
 [ʔ]e(a)ge/-an/-ena >  
     eie/eye 14 34 41 62 104  
     116 129 294  
 [ʔ]eald > old 38 137 294  
 [ʔ]eanian (eanigendum) >  
     ene > (y)ean 106-07 294  
 eeny(/-a) meeny 422-23  
 emerald 207  
 -en 266  
 ende > end 383 387  
 enter 375  
 eo 33 62-64 360 412  
 eom > am 297 357  
 [ʔ]eorðan/-e  
     ([ʔ]eorþan/-e) > erthe >  
     earth 14 33 58-64 68 294  
     360 388 412  
 f- 378  
 [fai v] 10  
 fay 10  
 fifteen 448  
 filled/full 181-84  
 finger, fif > five 427  
 for 357  
 fourteen 448  
 fruit 134  
 fyll(est/-end) > fill 184  
     186  
 G g 39 45 68 74-75 86  
 gāt, gæte > goat 116  
 gebyrede (OE) 309  
 gecyndu > kind 148  
 gh 166 378  
 girl 265  
 go 159  
 god > good 357  
 gr- 75  
 g(r)om(a/-e) > groom 66-  
     70 74 76  
 grund > ground 67-70  
 guest 458  
 guma(n) > (ME) gume 68  
     74 77 84 297  
 -h- > -gh- 166  
 healf > half 219  
 hang in 178  
 hēcen (OE) 115  
 hilp(e)sð/-t > help(e)st  
     301  
 his 357  
 horn/he(o)rn, 32-33 104  
     129  
 Huh 242  
 hund (OE) 451  
 hus > house 162  
 hweohhol/-wol/-gol >  
     wheel 274  
 hyra > hire(ling) 357  
 hyrde > -herd 357  
 -i- 265  
 ic > I 297 357  
 in 390 395-96 399  
 ina mina 423  
 [ʔ]is > ice 368 372  
 is 253

- kid(e) 119 265  
 i 39 112  
 lad, lass 266  
 lick(ing) 277  
 lif > life 357  
 lomb > lamb 106  
 manig (monig) > many 187  
 mæg > may (might) 268 270  
 me 297  
 methera 423  
 mighty 396  
 miscian (OE), mix(t/-ed) 239  
 mouth 141  
 mylen > mill 99  
 n 41 74 84 106 129  
 noma(n)/nama(n) > name 77 84  
 -o- 378  
 -o/a- 77  
 [?]ofer(e) > over 367-75 379 381 389 399  
 ofdūne (OE) 139  
 ol (OE) 456  
 on 366 368 387-88  
 owe, ought 167  
 per day/year/person/family 366  
 pin 423  
 pray 200  
 puh/pugh/pue 258  
 punch 132 295  
 quick 155  
 r 113 204 266 280  
 recent 147  
 rip off 220  
 s 294 301  
 sceapon > sheep 357  
 se, seo (OE) 351 357 360  
 seek, sought 166-67  
 seofon/-an/-en/-o (syfan) > seven 402 409 412 446  
 Sh 242  
 short arm 256  
 sing, sang, sung 167  
 sit, sat, seat 144-45 294  
 si(e)x/syx/se(o)x > six 406-07  
 sow 124  
 sna(w) > snow 209  
 spearwa > sparrow 194  
 -ss 266  
 -st 301  
 stan > stone 197  
 steor > steer 26  
 stone, tone 43 197  
 streamas/es > stream(')s 368  
 subcommittee/-contract (etc.) 366  
 sure 79  
 swæs (OE) 325-27  
 t 311  
 -t(u) 166 184 301  
 ten, -teen 422 448  
 tethera 423  
 they, though 378  
 think, thought 167  
 third 436  
 thirteen 448  
 ticcen (OE) 117  
 tow(e)ard 141  
 treasure 203  
 þ 142 310 378-79  
 þæt > that/e 336 360 378  
 þē > thee 309-10  
 þri(e), þreo > three 414  
 417 422 438 442  
 þu/ðu > thou 301  
 þur(u)h/þurg/þorh/ðærh/ðurh > thro(ugh) 377-82  
 -u- 378  
 us 304  
 v 53 214 378  
 vile 53  
 vixen, voke, vor, vortnight (f-) 378  
 w 53 260  
 water 287  
 way 260  
 wearþ/ð, wurdon 141-42 283  
 Wendover, Westover 367 369  
 wile 53  
 work, wrought 166  
 y 38-39 106 184  
 yard 396  
 ylðo (OE) 38  
 yon 357  
 you 314  
 zir, zo (s-) 378

### 35. Estonian (for Ethiopic see Geʿez)

kaheksa 413-14  
 märg 201

nimi 78  
 tarvas 25-26

te 314  
 übeksä 413-14

**36. Finnish**

as- 253	nimi 78 82-83	te 314
kahdeksan (kahte-), kymmenen 413-14	sina 307	torvi 26
märkä 201	tarvas/-aan/-ain 25-27	yhdeksän (yhte-) 413-14
minä, -n(i) 302	414	
	teuras 26	

**37. French** (for Finno-Ugrian see **Uralic**; for Flemish see **Dutch**)

cent 56 452	griex (OF) 69	-s 301
ch 166	il, jo > je 300-01	sagrament > serment 359-
charte, chaine, chose 166	le, la 359 362	360
dis/t 300-01	[lʲ] > [y] 75	[ʃk] 10
elle 362	me 301	sis > six 407
entre 375	nombre 168	trésor 203
fée 10	œil 75	vache 166
fruit 134	par (excellence) 366	yeux 75

**38. Frisian**

-a/o- 77	quern 97
grund 67	sowen, sawen 412

**39. Gaelic** (Scotland) cairn 32 tarbh 14**40. Gaulish** (for Galla and Čangero see **Cushitic**; for Gascon see **Romance**)

καρνων 32	SVEXOS 404	TARVI, TARVOS 16 25-27
-----------	------------	------------------------

**41. Geʼez**

{-a} 27	{d} 293	{mank*arāk*ər} 272 274
{ʔ-/ʕ-} 107	{f} 135	281
{ʔana} 298 301 303	{fērī} 134	{-na} 302
{ʔangargara} 272	{g, g*} 97-98	{q} 287
{ʔanta/-i} 318 321	{gergel, gargel} 272-73 281	{qalb} 94
{ʔantəmu/n} 313	{g*ərən(ā)/gorn/gurn} 95-	{qanaya} 148
{ʔəllu/-ā} 362	99 102-07 212 284	{qarn} 32
{ʔəzn} 36-7	{Haql} 86	{qum} 158
{ʕaḏm} 42	{Harasa(t)} 243	{r} 273
{ʕəg*l/ʕəg*al/ʔəg*l/ ʔəg*alt, ʔəg*əlt} 105-09	{Haywa} 154 287	{s} 15 213
284 294	{Haraca} 244	{sabʕattu/sabāʕtu} 446
{ʕašru} 451	{-ka} 318	{saql/saql} 287
{-at-} 446	{kama} 364	{sanuy} 415 454
{ʕayn} 44 373	{kəbe} 415	{səm} 82
{ʕawda ʔəkl} 97	{kəlʔe} 454	{səssu, səds} 405
{boʔa} 157	{-k*arāk*ər} 272-73	{sor} 17 212
{c} {ʕsʔ} 89 143	{l} 107 273	{sʔ, ʕsʔ} 89

- {s} (see {c})  
 {šalāš} 437-40  
 {tāsʿ} 413  
 {-t(-)} 109
- 42. German**, including O[ld]H[igh]G[erman]  
 -a 62 114 128  
 [ʔ]Acker 86  
 [ʔ]alt 137 294  
 [ʔ]Auge 38  
 az (OHG) 395  
 Brunnen 201  
 ch 426  
 c(h)alba/chalpa/-ir  
   (OHG) 113-14  
 -d 67 71 142  
 d(h)ur(u)c/-uh/-ih/-oh  
   /dur(e/-i) > durch 377  
 durhil (> MHG  
   dürchel/dürkel),  
   dur(i)hhlil 380  
 e 37 62  
 eid 359-60  
 eigir (OHG) 113  
 ero, [ʔ]erda/-o/-u > Erde  
   59 66 390  
 esil (OHG) 119  
 farhir (OHG) 113  
 fasel (OHG) 256  
 fingar, finf (OHG) 427-28  
 fülleſt 184  
 g 118  
 geiz (gaiz/keiz/kaiz) >  
   Geiß 115-18  
 geföſen (Swiss) 257
- 43. Germanic** (for Gidder see Chadic)  
 -a- 77  
 ai 209  
 at 400  
 b 285  
 d, t 284
- {w-} 141  
 {wacʔa/waɖʔa} 143 293  
 {waladat} 262  
 {warada} 140  
 (wayn) 54  
 grunt/d 66 71  
 hatele (MHG) 115  
 honir/huanir (OHG) 113  
 hrindir (OHG) 113  
 in 390  
 [ʔ]ist 253  
 k 86  
 kalb(a) > Kalb(e) 114 128  
 [kʰ] 148 413  
 kilbur/chilburra/  
   chilpura/kilb(i)ra  
   (OHG) 105 111-14 128 265  
 kīlād 264  
 komm 158  
 lamb, lembir (OHG) 111  
   113 265  
 mag 270  
 meines 328  
 miskan (OHG) 239  
 n 129 425  
 namo, niun (OHG) 424-25  
 Ober(herr) 369  
 [ʔ]oren > [ʔ]Ohr 14 34-35  
   38 104 129 294  
 [ʔ]ouga/-en/-in (OHG)  
   39 43 373  
 pfui 258  
 queman (OHG) 158 287
- {z} 36  
 {zə, zā} 350  
 quirn 96  
 r 113  
 sch 443  
 sehs > sechs 408  
 sibun/septun (OHG) 409  
   412  
 -s(t) 301  
 stein 197  
 stior (OHG) 26  
 swas 326  
 -t(-) 67 142  
 then > den 359  
 ubar/ubur/ubir/uber/  
   upar/upur/upir/upur  
   > über 369-70  
 ü 374  
 -un 62  
 uover > Ufer 369  
 unser 305  
 vësel/visel (MHG) 256  
 ward, wurtun > wurden  
   142 283  
 zebar (OHG) 26 247  
 zehan > zehn 413  
 ziga > Ziege 117  
 zik(k)in/zicchi(n) > Zicke  
   117  
 g, gr 67 69 76  
 grund, guma(n) 69 77  
 half 219  
 horn 31-32 104  
 in 390

[kʷ] 96 106 284

[kʷ-rn] 103

l/n 264

long 189

mag(-) 270-71

n 35 37 41 84 104 197 201

412 425

o 32

r (&lt; \*z &lt; \*s) 67 111 201

265-66 428

(-)s 301 358

sit 144-5 294

st- 26

[tʰ-] 413

ḥ 15 415 419 421 442

uns 304

-Vn 411

**44. Gothic** (for Goali see **Bantu**)

AI 63 378

{aigin(is), aigum} 328

{airfa(i)} 62-63 387-88

{akr(s)} 86 327

{aland(s)} 456

{ana} 387-90

{anfar} 416

{asilu} 119

{asiluqairnus} 96 98 102

{asneis} 357

{at} 395

AY 32 35

{augo/-ins/-in} 39

{ausin} 35

{brunna} 201

E 326

{f} 215

{faihu} 457

{faur} 357

{fera} 388

{fimf} 427

{fulljands} 184 186

{gaits} 115

{gamain} 39

{gasts} 458

{giblin} 285

{gods} 357

**45. Greek**

α 31 34 40 58 118 218 227

247-48 401 413 425 428

-ά 411

ᾱ 2 71 109 128 156 175 177

ᾰ 354

-α-α-ε 245

{guma/-an/-ins/-in}

74

{h} 215

{hairdeis} 357

{halba(i)} 219

{haurn} 63

{hlifan(d)} 215 218-19

{i} 443

{ik} 357

{in} 390

{ize} 327

{iḥ} 357

{j} = [j] 184 443

{jains} 357

{k} 86

{kalbo(ns)} 114 128

{kuni} 148

{lagjiḥ, lamba} 357

{ligiḥ} 236

{mag} 270

{mannan} 357

{n} 74 201 425

{namo/-in, niun} 80 424-

425

{-o} 114 128 380

{qim(an), qam} 158 388

395

{qiwai} 155

[-s] 301

{sa, saiwala} 357

{saihs} 404

{sein(a/-ata)} 328 357

{sibun} 409 412

{snaiws} 209 212 294

{stain} 197

{stiur} 26

{swes(aim)} 326-28

{swistar, swaihra/-o} 327

{tagr} 456

{taihun} 413

{ḥ} 442

{ḥairh ḥairko, ḥragjai} 377

380-82

{-ḥar} 416-18

{ḥata/-na} 328 357

{ḥridja/-o} 442-44

{ḥrins} 414 417

{ufar} 367

{unsara} 305

{warḥ} 141 283

ᾰγάπη/-ᾰ (ΑΓΑΠΗ) 222-27

281-82 292

ᾰγγελία(v) 443-44

ᾰγε(τε)/ΑΓΓ(Τ'), ᾰγε(v),

ᾰγω, ᾰγοντες 227 230-33

292 330 401

ᾰγέλη, ᾰγελαῖην 436

ᾰγορή/-ᾰ, ᾰγέροντο/

ᾰγερεν, ᾰγρόμενοι/-αι

227-29 232-33 291-92 375

413

ᾰγρόν/-οί/-ῖσι/-ῶν/-ός/

ᾰι 86-91 127-29 229 292

390-91 441

- ἄγνια, ἄγναι 234  
 ἄδε 348  
 ἀδελφ(ε)ῶς/-ν 95  
 αε 175  
 ΑΙ 63  
 -αι 401  
 ἄι, ἄι 344-45  
 αἰγινόμων 170  
 αἰδώς/-οί(α) 252  
 -αῖο-, -αῖα 436  
 αἰπόλος 274  
 ἀκροποσθία/-η (ἀκρο-  
 βυστία), ἀκρωμιά,  
 ἀκρωνυχία(ν/-ς) 254 293  
 ἀλίτροχα/-ος/-ον 380-81  
 ἄλλα 342  
 ἄλλεξι 389  
 ἄλλο(ς), ἄλλοδαπός 213  
 336  
 ἄλοχος 235  
 ἀμύνω/-ός/-οί/-ώ/-οῖν/  
 -ή/-ᾶ 106-08 127-28 294  
 444  
 ἄμπνυε 389  
 ἀμῦμων 170  
 ἀμφίδυμοι 48  
 ἄμφω, ἀμφοῖ(ι)ν/ΑΝΦΟΙΤΝ,  
 ἀμφοτέρω(ι)ν 128 452-53  
 -ἄν 223  
 ἀνά(-), ἄν 138 387 389-90  
 398  
 ἀνάπνυε, ἀναλέξι 389  
 ἀνδράποδον 72  
 ἀνθρωπος/-ν, ἀνὴρ 69 345  
 347 357 359  
 ἄντι, ἄντα 382-83 395  
 ἄνω, ἀνώτερος 416  
 ἀνώνυμος 82  
 ἀπέδρα 159  
 ἄπειρος 374  
 ἀπὸ 395  
 ἀπόγεμε 148  
 ἀπόδρεπε 220  
 -ἀπός 336  
 ἀποσφάξω 249  
 ἀπόχρη/ἀποχρή 173  
 ἄρδα(ν) 62-63  
 Ἀριστωνύμου/-Ο/-Ω/-Υ  
 335  
 ἄ(ρ)αβῶ(ν) 281 346 354  
 ἄρτος 183  
 Ἀστάρτη 230 252  
 ἀστρονόμος 170  
 -ἄτ- 2 29  
 -ατα 85  
 ΑΥ αυ 63 335 341  
 ἄυθημερόν 341  
 ἄυλῆν 356  
 ἄυλός 26  
 ἄυτη 341-45  
 ἄυτό(ς/-ν),  
 ἄυτῶν/-οῦ/-ῶι/-οὺς/-ᾶ,  
 ἄυτοῖς/-σι, ἄυτή(ν)/  
 -ἄν/-ῆ/-ῆς/-αῖ 327-31  
 334-49 357 444  
 ἄυτός 345  
 ἄφευε 230  
 Ἀφροδίτη 230  
 Ἀχαι(Ε)οί 165  
 ἄχρη(ς) 398-99  
 β 52-53 58 99 157 159 201  
 218 248 255 281-82 293  
 457  
 βαῖνε 158 161  
 βάλαμον 112  
 ΒΑΡΝΑΜΕΝΟΙ 457  
 βαρύ 104  
 βέλεσσι(ν) 145  
 ΒΕΛΦΟΝ 95  
 Βερενίκη (Φ-) 285  
 βῆ/-ᾶ, βῆτε/βάτε, βάθι, -βᾶ  
 58 156-63 279 282 288  
 313 322 324  
 βῆμα/βάμα 163  
 Βήρως 371  
 βιβλίον 53  
 βίος/-ν 153 155 328  
 ΒΟΛΥΒΔΟΣ, βόρμαξ 457  
 βουκόλος 274  
 βοῦς/-ν 27 436  
 βρέχε/-ω, -βρεχές,  
 βροχή, βρέγμα(τα) 198-  
 201 214 220 280 289  
 Βύβλος/-ιος 285  
 βύρμακας 457  
 βύσσος 293  
 -βυστ- 254  
 βύστακας 457  
 βωμός/-οί/-μῶν 161-64  
 170 250 354  
 Γ γ 52 86 145 149 208 222  
 225-29 248 271-72 286-87  
 291-92 413  
 Γαλάται 32  
 -γεμε/γέμε(ι), γέντο,  
 γένος, γενού/-εῦ 146-49  
 γένεα/γένη 401  
 γῆ 347  
 -γι- 153  
 γνάθος 183  
 γνώφος 73  
 -γόνε/-οι/-ου 146-47 170  
 222 286  
 γούρνα 98  
 γρύπες 287  
 δ 52 145 188-89 222 283  
 286 336  
 δάκρυ(μα), δακρύμασι 456  
 δάκτυλος 428  
 δαπάνη 247  
 δ-δ- 46 222  
 δέ, -δε 58 127 345-46 349-  
 351 357  
 δει 307-08  
 δέκα(τος) 412-13 416 428  
 430 450 452  
 -δελεχ- 188 190 289  
 Δελφοί/-ός/-όν 95  
 δέμ(ε) 161-62 168 170 283  
 330  
 δεσπότης 356  
 δεύτατος/-τερος 416  
 δίδυμος/-οι, διδύμω/  
 -οιν(ΟΙΤΝ)/-αιν,  
 διδύμη/-ᾶ(ς), Δίδυμα  
 44-49 76 127-28 222  
 διζα· αἶξ 118 128  
 Δίνδυμον 49-51  
 Δι(Ε)ὸς θυγάτηρ 11  
 διοτρεφές, Διοτρεφες,  
 Διοτρέφης 198  
 δίφρος 133  
 -διμη- 163  
 δινόθος/-οι 73  
 δολιχή/-όν/-ᾶ 188-90 280  
 289 450  
 δολφός/-ν 95 127  
 -δόμει 161

- δρα, -δραμε 159  
 -δρεπε, δρέμμα, δρ-π-,  
 δρύπτω/-εν, δρυφή/-οί,  
 δρώπτειν 47 220-22 286  
 δύο (-δου-) 45 60 433  
 δύσφημον 254  
 δῶκε 236  
 δῶρον 20  
 Ε € 63 248 308 311 326  
 349.450  
 †ε- 160 171 173 177  
 †ε-/FHE 312  
 †ε- 452  
 €- 204 218 222-23 227 428  
 €(ν) 65 134 192 233-34  
 245  
 †εαυτὸν 345  
 ἔβᾱ/-η 156  
 ἔβδομος/-ν 45 347 351  
 354 402 410 412  
 ἔβω 153  
 (€)γένετο 149  
 ἐγώ(ν), ἐγῶμαι 300 323  
 357  
 †έδει 309  
 †έδος/-εσαι(ν) 145 251 256  
 283 294  
 ἔδραμε 159  
 €€- 190  
 †έζη 153  
 ἔθρεξε 381  
 (-)€ι- 414 424 450  
 εἶδε 176  
 εἶμι 302  
 εἰνάτος, εἰνάτες/-νυχες  
 424  
 †εις 350 388  
 †εις 433  
 †εισόρωντες 260  
 †εκάλεσα 174  
 †εκατόν 452  
 †εκάβ 160  
 †εκρύβη 215  
 †έκτος 416 432  
 ἔλαφος 111  
 ἔμσγον 239  
 †έν 449  
 †εν(ι) 390-91  
 ἐνδελεχή 190  
 ἑννάα, ἑνάτος, ἑνάτη  
 424-25 430  
 ἑντός 401  
 ἑντρεφόμενος 456  
 ΕΝΥΜΑΚΡΑΤΙΔΑΣ 78 424  
 ἐνύπνια 260  
 †έξ/FEΞ/HEXΣ 404 407-08  
 ἔξαγε 232  
 †εξήκοντα 401  
 €ο 193 256  
 †εορτή(ν) 227-30 250 252  
 256 260 292  
 -€ος 256  
 -€-ος 214  
 †επέχραον 175  
 †επι(-) 236 387  
 †έπονται 401  
 †επτά 410-1 446  
 ἔραζε, ἔρεσιμήτην,  
 ἔρα(ν)ς 58-60 63-66 127  
 293  
 †εράν, ἔρος 223  
 ἔρεβος 288 294  
 ἔριφος 125  
 -ές, €(σ)- 198  
 †εσαι 319  
 -εσαι(ν) 145  
 †επιφράναι 133  
 †εστι, (€)στὶν 253 293 349  
 †εσφαξε(ν)/-αν 249 282 330  
 ἔσχατος 347  
 †εσωτέραν 356  
 ἔτλη/-ᾱ, ἔτλην 177-78 280  
 291  
 (F)έτος 345  
 εν 197  
 Ευαῖοι 165  
 ἑυδήτων 163  
 †ευαῖ/-ᾱς/-ή (ΕΥΝΑ) 197-  
 198  
 †ευφήμει, ἑυφημείτε,  
 †ευφημισμός 254  
 †ἔχρα/-η, ἔχρα(F)€ 171-77  
 †εῳᾱ 260  
 F 202 404  
 Ζ ζ 65 72 118 154 237 248-  
 249  
 ζέφυρος, ζόφον 216  
 ζη(ι), ζωός/-ή, Ζωφόθεις,  
 ζήση 153-55 231 348  
 η 401  
 †η 349  
 †η, †η 341-47 353-57  
 -η (-η) 71 109 128 154 175  
 177 180 230-31 252 260  
 †ηγ(ν) 233  
 †ήδε, †ηδῖ 347-49 435  
 †ήκε 312 401  
 †ημέρῃ/τ(ν), †ήμαρ, †ήματι  
 341 434-35 442 447  
 †ημέτεροι 418  
 †ημιβρεχή 199  
 †ημιόνοιν 108  
 †ήπειρος/-ν 369 373-76  
 †Ηριδανός 368  
 -ης 198  
 †ἦθα 316  
 Θ θ 52 133 172 255 257  
 288-89 311 317  
 -θα 316 324  
 -θαλμ- 40  
 θεοί/-οὐ 72 355  
 Θίβαζε/-σδε, Θίβας 65  
 θήκε 236  
 θησαυρός 203  
 θήτα 172  
 -θι 160 324  
 θριξ 75  
 Θωμάς 45  
 ι 45 233 287 325 391 436  
 †ί 347-48  
 †Ιάρδανος/-ν, †Ιορδάνης  
 368  
 †ιδιος, †ιδίους, ΙΔΙΑ 327 340  
 ἰδου 345  
 †ιερός 230  
 -(F)ικ- 53  
 ΙΝ 390  
 †ιν αὐτῶι (FINAYTOI) 340  
 †ἵπποιιν 108  
 †Ιτύκη 385  
 -ιτ- 443  
 κ 56-57 172 215 247 284-89  
 401 413  
 Κάδμος, Καδμείωνας 284  
 και †ε- 173 177 249 280 282  
 καινός 147

- κάλει/-εε/-εσσα 174  
 καλός 357  
 καλύπτω/-ψω/-βη,  
     κάλυπτε 216 218  
 κάμηλοι 13  
 καμηλοπάρδαλι 118  
 κάνη(ς)/-ᾱ, κάνεον 288  
 κάππα 172  
 κάπρος/-ον/-ου 124  
 Καρχηδών 385  
 κασιᾶ 288-89  
 κάτ(α)/κατᾶ, κάτω, κα-  
     τώτερος/-τατος 383 416  
 κατάβα 161  
 καταχθόνιοι 72  
 κατεσφάγη 248  
 Καύκωνες 118  
 κεβλήν 285  
 κείρουσι 241  
 κέκλοφεν 214  
 κέλυσος 218  
 κέρας, κέρατα, κεράτιον 2  
     29-34 128 189  
 κέρασον 239  
 κερούσι 241  
 κεφαλή(ν) 285 349  
 κεχάραται 247  
 κιθών 289  
 κίρκος 273  
 κλέος 271  
 κλέπος, κλέπτουσι(ν)  
     /-οντι, -κλοφ-, κλέμμα  
     214-22 282-86 442  
 κλήρος 347 351 354  
 κοιμηθεῖς 347  
 κοινή/-αῖς 10 356 398  
 -κόλος 274  
 κόππα 172  
 κρέας, κρεά(τ)οι, κρεοῖν 3  
     34  
 κρίνη 201  
 κρίκος 273  
 κρυφεί(ς)/-ῆι(-ᾱ), κρύφα,  
     κρύπτω/-ε, κρυψίνους  
     214-18 222  
 Κύβελα/-ον 285  
 κύκλος 273-74  
 κωμωδία 356  
 λ 73 174 188 207 214 218  
     271 280-84 290 442 450
- Λάκωνες 118  
 λαμπαδηφορία 134  
 λέγε 322  
 λείχει/-ουσι (-οντι) 276  
 λέχος, λέ(υ)χεται,  
 λελοχία, λέξο, λέσχη/-ᾱ  
     (ΛΕΣΧΕ) 235 285 290  
 -λλ- 185  
 λόγος 347-8 351  
 λόγχι/-αι/-ᾱς 281  
 -λσ- 112  
 λύκε/-ος/-ον/-οιο/-ω/  
     -ους/-οις/-ων 18  
     μ 82 106 148 272  
 μάζα, μαζονόμος/-ον/-ων  
     170 293  
 μακροπτερυγός 190  
 μάλα, μαλερός 179  
 μαρνάμενοι 457  
 με 302 312  
 με- 398  
 μέγα(ς), μεγάλη/-οι/-αι/  
     -α/-ου, Μεγακλής  
     (ΜΗΕ-) 271-72 355  
 μέγεθος 458  
 μέλι, μέλισσα(ι) 428  
 μέμονε 171  
 μέρη 388  
 μετ(ᾱ) 334-36 347 398  
 μέχρι(ς) 397-99  
 μή (ΜΕ) 322-23 348-49  
 μή/ᾱτερ, μή/ᾱτέρη/μητρί,  
     μή/ᾱτέρα 340 349 401  
 μήτρᾱ 59 95  
 μηχανή/μᾶχανᾱ/μήχαρ 271  
     290  
 -μι 302  
 μία 449  
 μῆκος 457  
 μιν 330  
 μίσγε/-ω/-ον, μ(ε)γίνω 237-  
     39  
 μισθωτός 357  
 -μν- 106  
 μνά 169  
 -μο- 45  
 μόλυβδος 457  
 μόσχος/ν 26 339 347  
 μύλη, μυλίκος 96 98 267
- μύρμηξ/-κας, μύστακας  
     457  
 μῶμος, -μῶμ- 170  
 ν 51 148 158 209 217 271  
     288 389  
 ναρδοφόρε/-οι 134  
 νείφε, νείφει 209-10 285  
 νέμε/-ω, νεμηθήτω,  
     νεμίαντες 161 168-71  
 νεοδρεπείς 220  
 νεότης/-ᾱς 120  
 νεύρον 26  
 νεφέλη 73  
 νικᾶφορία 134  
 Νίκη 154  
 νιν 330  
 νίφα 209 211 294  
 νόμος/-οι/-ων, -νόμος/-ε,  
     νομή 168-70  
 νύκτα, νυκτός 392  
 ξ 235  
 Ο ο 38 43 63 186 217 223  
     227 248 335-36 368  
 'ο(-), 'ο 20 260 341 343-59  
 'ογδόη, 'ογδοαῖον 436  
 'οδ(ε), 'οδτ 345-51 364  
 οι 54 71 108 128 165 180  
     260 381  
 'Οιδίπους 256  
 -οι(ι)ν 2 19 30 108 128  
 (F)οῖκον, Fοῖκαδε, (F)οῖκωι,  
     'οικοδόμει/-οι 51-53 56  
     58 127 161 330 350 391  
     401  
 'οῖμαι/οῖομαι 300  
 (F)οῖνον/-ς, Fοῖνον,  
     (F)οῖνοφόρε/-οι 54 134  
     136 239  
 'οιονόμος 170  
 'οῖσθα 316  
 'οῖστοι 293  
 'οκτώ 448-49  
 ὄμμα 38 43  
 -ον(-) 16 19 57 127 129  
     217 336 401  
 ὄνομα/ΟΝΥΜΑ, ὀνόματα  
     77-78 81 83 85 424  
 ὄνος/-ους, ΟΝΟΝΣ 121  
 ὄπ- 43



- ὄρα, ὄραυ/ὄρη (\*ὄραω)  
 178 259-60  
 ὄρος 50  
 -ος 17 91 108-09 127 155  
 198 411 432  
 ὅσσε 43  
 ὅστέον/όστούν 43  
 ου 78 149 193 256 335 341  
 343 426  
 οὐ 309 336  
 οὐνομα 78 424  
 οὐράνιοι 72  
 οὐς/ΟΣ, οὔατος/-α,  
 οὔατοιν 35-40 128  
 ουσίαν/-ς 328  
 οὔτος, οὔτοσθ 342-46  
 ὀφθαλμός/-οι(ι)ν 38 40 43  
 π, πτ 133 172 218 231 255  
 258 281-83 292 426  
 Πάδος 368  
 παιδογόνε 146  
 παλλακή/-ις/-οὺς 224 234-  
 235 238  
 πανηγύρεσι 356  
 παρ(ᾶ) 334-36  
 πατέρες 278  
 Παῦλος 437  
 παῦρος 26  
 πεί 172  
 πέμπτος/-ι, πεμπταῖα 435  
 πέντε/πέμπε 426-27 430  
 πέος 255-57 282 293  
 πέπταται, πέτου,  
 πέτρον/-ου/-ᾶ/-η 192-97  
 415 426  
 πίζω 236  
 πῖρωμις (Egyptian) 359  
 πλεί 308  
 πλείη, πλείοι/-ον,  
 πλησιφαῖς, πλησίγναθος  
 180-83 186-87 215  
 πλὴν 342  
 πλῆθος 283  
 ποδοῖν 3  
 ποίει, ποιεῖτε 231  
 ποιμὴν 357  
 πολύ(ς),  
 πολῦδακρυν/-χρῦσος,  
 πολλή/-όν 13 180-81  
 185-86 336 353  
 πόσθη(ν) 252-55 293  
 πότερον 418  
 πούς 256  
 πρέπει, -πρεπές 198  
 πρὸ 310 382-83  
 πρόβα 160 322  
 πρόβατον, προβάτων 339  
 357  
 πρόμος 45  
 πρὸς/πρὸς 383 395  
 πρόφερε 135  
 περά/-όν, πτήθι 189-94  
 197 291 415 426  
 π(τ)όλεμος/-ν 231-32  
 πύος/-ους, πύθεται/-ομαι  
 256-58  
 πυρρός 125  
 ρ 172  
 ρ 86 174 196 202-03 207  
 217-18 271 281 441  
 Ραχήλ (Heb.) 43  
 ρεῖ 308  
 ῥοδανός 368  
 Σ σ -ς 72 207 235 256-57  
 310 359 414  
 σάκκοι 124 288-89  
 σάτυροι 28-29  
 Σαῦλος 437  
 σβέσαι 248  
 -σγ- 237  
 σε (χρή) 9 173 175 297 307-  
 312 322  
 σεαυτὸν 345  
 Σεμέλη/ᾶ 72 75 128  
 ΣΗΣΤ- 434  
 -σι(ν) 242 324-26  
 -σι- 186 215  
 σῆγᾶ, σῆγλός/-ή 269  
 σίγλῃ/-ος 145 286-87  
 -σκ(ᾶ) 237 280 290  
 σκορπίος 282  
 (σ)μάραγδος, σμαραγεῖ(ν)/  
 -ήσημ, Σμάραγον/-ε,  
 Σμερδὺς 207-08 286  
 (σ)ῆκρος 457  
 σὸς 356  
 σπ- 248  
 -σσ- 245-47 405  
 στάτε/στήτε 401  
 στεφανηφορίᾱ(ν) 134  
 στέργειν, στοργή 223  
 σύ 321-23  
 συμπροτέμψαι 338  
 σὺς, συὸς/-ῶν 124  
 σφαγή/-αί, σφάζε, σφάζεις,  
 σφάζαντες/-α 247-50 282  
 σφίσι(ν), σφι 325-26  
 τ 2 15 145 172 232 294 341  
 354 357 410 426 442-46  
 -τα 383  
 τάδ(ε) 346  
 ταῖς 356  
 τάλαντον 178  
 -τατος 416  
 ταῦ 172  
 ταυρόκερων 33  
 ταῦρον/-οι/-ε/-ος, ταῦρω/  
 -οιν/-ων, ταῦρ', Ταυρώ 2  
 5 13-20 24-31 51 62 71  
 119 129-30 170 250 294  
 335 346 414  
 ταυροσφάγωι/-σφαγοῦντες  
 250  
 ταῦτημ/-αί, ταῦτ(α) 341 346  
 ταῦτό(ν)/-ᾶ 345  
 τᾶς 226  
 τε 394  
 -τε 312-14  
 τεκνογόνοι 147  
 τελαμῶν 178  
 τέλει/-εσσα, τέλος/-ε(σ)-  
 174  
 τέμενος 291  
 -τερ- 416-18  
 Τέρτιος 437  
 τέταρτος, τεταρταῖος 416  
 433 447  
 τηθίδι 340  
 τη(ι)/τάι, τῆς, τὴν 341 344  
 352 356-57 436 442  
 -τι 242 383  
 τῆτυροι 28-29  
 τλ- 441  
 τλήθι, τέτληκε(ν) 178 291  
 441  
 τὸ(ν), τοῦ 20 336 343-45  
 352-57 368  
 τοῦτο, τούτωι 341-45  
 τρ- 441

τρέις/ΤΡΕΣ/ΤΡΕΕΣ 414 433

τρέμουντι/-ουσι 401

τρέφε/-ος 198

τρέχε/-η(ι) 380-81

τρι- 49

τρίδυμοι 49

τρία, τρι(τα)τος/-ωι,

τρίτῃ/π(ν)-ι, τριταῖος/

-ου/-α, τριταῖα(ν) 416

431 434-47

τριετής, τριστάτης 444

ΤΡΙΣΧΕΛΩΝ/τρισχελίων 450

τρίχα, τριχός/-ι 75

τροχός/-οι, -τροχ- 380-81

-ττ- 245 247

τ—τ 442-43

Τυρταῖος 447

τῶι, τῶν 341 344 357

υ 45 82 181 216-18 222 321

332 373-74

ὑγιής 153

ὑδρισφόρε 134

ὑδωρ/-ατος 287 373

ὑιὸς 392

ὑμέτεροι 418

-υο- 257

ὑπέρ/ὑπεῖρ/ὑπερ 357 367-

376 381 389 398

ὑπο(-) 236 373 375 392

ὑποπετριδίων 195

φ φ 52 133 135 151 218

248 258 285 289 325

φαιλοτάτης 356

φέρει, δέρε(ε)τε, φερέοικου

(-)φόρος/-ε/-οι, -φορία

131-36 146 279

φέρτερος/-ι 416

φεῦ 258

φιλῆιν/-ία 223

φλέγεται, φλόξ/-γα 204

207 285-86

(-)φορ- (see φέρε)

φρέαρ/-ατα (ΦΡΗΡ/φρείαρ,

φρείατα) 201-03

φῦ 151 258

φύλαξ/-κος/-σσ- 246-47

Χ χ 52 67 133 172 177 188

194 235 245 271 288-90

450

χάλαζα 212

Χαλδαῖοι 112

χαμαί/-ᾶζε 64-68

χάρασσ(ε)/-ττε/-ξ/-κος,

χαρασσέμεναι, χαρακτήρ

243-47 280 322

χάρις/-ιτας, χάρτης 166

χείμα/χειμών, χειμέριος/

χειμερινός 125

χείρ, χείρα, χεῖρ 352 391

398

ΧΕΛΛΙΑΣ, ΧΕΙΛΩΝ 450

Χετταῖοι 165

χθαμαλούς 73

χθές 67

χθών, χθονί/-ός 14 66-70

73-76 194

χίλιον/-α(ι), χιλιάς/-ων 450

χίμαρος/-ν 115 119 124-27

χιτών 13 289

-χρ- 398

χρά(ι)/-ή(ι), χρή, χρεῖω,

χρέος/-ως (χρεῖος),

χραύσηι 171-76 288 307-

309 312 323

χρῦσός, χρῦσονόμιε/

-νομου/-γονου 13 170

ψυχῇν 357

ω 19 71 108 128 130 163

221 238 449

ᾠκοδόμησαν 330

ᾠκύπτερος 196

-ών 90 129 334

ᾠτὸς 344

#### 46. Harari ān 301

(for Hadiya see Cushitic; for Hausa see Chadic)

#### 47. Hebrew

א 36 60 66-67 150 176-77

185-90 194 200 202 225

229 281 289 294 312 331

335 427-28

א.. 183 191 259

אֶבְיָהֶם/אֶבְיָהֶם 313

אֶבְיָהֶם, אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם 31 189-90 193-

197 415 426

אֶבְיָהֶם, אֶבְיָהֶם, אֶבְיָהֶם

46 76

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם 14

66-76 127-28 184-85 199

303 353 360 387 433

אֶבְיָהֶם 356

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם, אֶבְיָהֶם

אֶבְיָהֶם 156

אֶבְיָהֶם, אֶבְיָהֶם 14 34-40

104 128-29 294

אֶבְיָהֶם, אֶבְיָהֶם 433 449

אֶבְיָהֶם, אֶבְיָהֶם 347

399

אֶבְיָהֶם 458

אֶבְיָהֶם, אֶבְיָהֶם

69 253 341 345 347 393-

394 457

אֶבְיָהֶם 92

אֶבְיָהֶם 299 322-23



- בָּשָׁחֲכֶם, בָּשָׁחַ/בָּשָׁחַ 299-300  
 תִּבְּשׁ, בּוֹשִׁי, בּוֹשׁ 347-48  
 תִּבְּשִׁי, תִּבְּשׁוּ, דְּבָרִים, דְּבָשׁ  
 אֲבָשָׁה, אֲבָשׁ 428  
 יִבְּשׁוּ, יִבְּשׁ 250-56  
 282 292-93 299 307-12  
 בָּשָׂמִי, בָּשָׂם/בָּשָׂם 47  
 112  
 בָּשָׂר, בָּשָׂר 340  
 32  
 ג 225 236 272 283-86 292  
 421  
 גָּבִי 219  
 גָּבַל, גָּבַל 285  
 גָּדִיָּה, גָּדִי/גָּדִי  
 גָּדִיתִי/גָּדִיתִי 316 319  
 116 119  
 גָּדְלִי/גָּדְלִי, גָּדְלִי  
 יִגְדֹּל 272 312  
 גָּדְלוֹן 255  
 גָּלְגַּל 272-73  
 גָּמְלִיָּהֶם 13  
 גָּנְבִנִי, גָּנְבָהוּ, גָּנַב  
 גָּנְבוּ/גָּנְבוּ, גָּנְבוּ  
 גָּנְבִתִּי, גָּנְבוּךָ  
 גָּנְבוּכִים, גָּנְבוּ  
 92 214-  
 220 282-86 442 457  
 גָּזְרִל 347 354  
 גָּרְנוֹת, גָּרְנוֹת, גָּרָן  
 96-105 128 456  
 גָּשָׁם 287  
 ד 47 67 142 267 272 283  
 319 421
- אֲדַבְּרָה 299-300  
 הִדְבַּר 347-48  
 דְּבָרִים, דְּבָשׁ  
 דְּבָרָה 428  
 דָּרָן 47  
 דָּרְתִּי, דָּרְתָּו, דָּ(ו)רְתִּי  
 340  
 יִדְעָה/יִדְעָה 316 319  
 דָּרַכְךָ, דָּרַךְ/דָּרַךְ  
 דָּרַךְ, דָּרַכְּ  
 דָּרַךְ, דָּרַכָּה  
 מְדַרְגָּה 377-82  
 ה- 19 133 225  
 ה- 338  
 ה- 57 150-51 165 292  
 294 341-42 345-48 353-56  
 ה- 52 57-58 65 71 75  
 109 114 118 127-28 174  
 180-81 185 229 238 266  
 291 298-300 404 431  
 ה- 154  
 ה- 177 234  
 ה- 101 330-31  
 ה- 234  
 הִיא/הִיא/הִיא  
 הִיא/הִיא, הִיא  
 הִיא/הִיא, הִיא  
 149-53 161 191 294 317  
 392  
 הִן, הִן 313  
 הִנֵּה/הִנֵּה/הִנֵּה 345 356-57  
 הִנֵּה 394  
 הִרָה גָּסוּ 57
- ו 18 54 141 255 261-62 268  
 280  
 ו 23 251 330-31 335-36  
 ו 181  
 ו- 90-91 102 128-29 155  
 404  
 ז 37  
 הִנָּא, הִנָּא 347  
 350-51 362  
 זָבַחְתֶּם, זָבַחְתִּי, זָבַח  
 אֲזַבְּחָהּ, זָבַח  
 נִזְבַּחוּ, נִזְבַּח  
 שְׁנֵי זָבָחוּ, נִזְבַּח  
 מִזְבֵּחַ 164 247-50 282  
 330  
 הִנֵּה, הִנֵּה 342 345-51 354  
 362  
 ז 157  
 זָמַר 118  
 ח 43 165 191 243-45 248  
 279 295  
 תִּחְבַּל, תִּחְבַּלְהוּ 245  
 308  
 חֲחֲנִי 165  
 חֲחִית 316  
 חֲזָנוֹת, חֲזָן 218  
 חֲזַק, חֲזַק 200  
 חֲחִית, חֲחִיתוֹ, חֲחִיהַ  
 חֲחִי, לְחֲחִיתוֹ, חֲחִיהַ  
 153-55 253 433  
 חֲמָרִים, חֲמָ(ו)ר  
 חֲמָרָה 122-25 394 456  
 יֲחֲמָרוּ 312

חֲמִשָּׁה, חֲמִשָּׁה, חֲמִשָּׁה  
חֲמִשָּׁה 429 433 447  
457  
חֲחִסֵּר 308 311  
חֲצִי 293  
חֲצָרִי, חֲצָרִי,  
חֲצָרִי, חֲצָרִי 86-91  
127-28 210 292 356  
חֲרוּץ 13 170 180  
חֲרֹשׁ/חֲרֹשׁ,  
חֲרֹשׁ, חֲרֹשׁ,  
חֲרֹשׁ, חֲרֹשׁ,  
חֲרֹשׁ, חֲרֹשׁ,  
חֲרֹשׁ, חֲרֹשׁ,  
חֲרֹשׁ, חֲרֹשׁ  
243-46 280 323  
חֲחִי 165  
ח 46 172 222 286-88  
חֲמִי 191  
חֲרֹף, חֲרֹף,  
חֲרֹף, חֲרֹף,  
חֲרֹף, חֲרֹף,  
חֲרֹף 47 220-22 286  
- 54 141 144 150 233  
264-68 280 296 312 333  
- 165 298 443  
- 30 71 108 128 180 384  
449  
- 55  
- 381  
יָד 18 81  
יָמִים, יָמִים, יָמִים,  
יָמִים 341-42 352 356

/כְּשֶׁבָה, כְּבֶשׂ/כְּשֶׁב  
 כְּבֶשֶׂה/כְּבֶשֶׂה,  
 כְּבֶשֶׂה/כְּשֶׁבָה,  
 /כְּשֶׁבָה, כְּבֶשֶׂה/  
 כְּשֶׁבָה, כְּבֶשֶׂה,  
 כְּשֶׁבָה 105 110-14  
 128 232 413  
 כְּשָׂרִים, כְּשָׂר 112  
 כְּתָנָה 13 289  
 ל 209 213 268 281 284  
 290  
 לָהֶם, לִי 388-89  
 לֹא 157 268 307 309 312  
 323  
 /לִלְדָה, לִדְתָה/לִדָּה,  
 וְלֹד, תִּלְדִּי, לִלְדָה,  
 יִלְדִּי/יִלְדִּי, הוֹלִי(י)  
 יִלְדָה, יִלְדִּי  
 יִלְדִּי, יִלְדָה  
 יִלְדִּי(הוֹ-/הֵם)  
 /יִלְדָה, יִלְדָה/  
 יִלְדָה/יִלְדָה, יִלְדָה  
 יִלְדָה, יִלְדָה 261-  
 266 269 280 283 296 319  
 לַחֲכָה, לַחֲכִי 276  
 הִלַּחֲתָם, לַחֲמִם  
 וַיִּלַּחֲחֵם, הִלַּחֲחֵם  
 הִתְלַחֲחֵם  
 מִתְלַחֲחִים  
 מִלְחָמָה/מִלְחָמָה:  
 231-32  
 לִילָה 392

לָכֶּה, לָךְ/-לָךְ.

לָךְ 139-40 143 267

311 379

לָקוּ, לָקוּ, יָלָק

לָשְׂכָה 290

מ 425-26

מ- 42 129 160 313 319

334 431 433

מֵאֵתוֹ, מֵאֵת-מֵ,

מֵאֵתָם, מֵא(וֹ)תוֹ

334 369

מֵאֵדָךְ, מֵאֵד 396-97

מֵגֵד 458

מֵזֵר 112

מֵזֵגִי, מֵזֵגוּ, מֵזֵג/מֵזֵג

237-39

מֵחֶרֶת, מֵחֶר 399

מֵחֶרֶת, מֵחֶר, מֵחֶר

211 287 296

מֵלֵא, מֵלֵא, מֵלֵו

מֵלֵאֲתִי/מֵלֵאֲהָ

מֵלֵאֲהָ/מֵלֵאֲהָ

מֵלֵאוּ, מֵלֵאִי

מֵלֵאוּ/מֵלֵאוּ, מֵלֵא

מֵלֵא, מֵלֵאֲהָ

מֵלֵאֲהָ 13 179-89 215

259 268

מֵלֵוֹתִי, מֵלֵוֹת 103

מֵלֵד 31

מֵוֹם 170

מֵן 392

מֵנִים, מֵנָה, מֵנָה

מֵנָה, מֵנָה, מֵנָה

מֵנִיּוֹת, מֵנִיּוֹת

מֵנִיּוֹת, מֵנִיּוֹת 168-71

מֵסֵךְ, מֵסֵךְ, מֵסֵךְ

מֵסֵכִי, מֵסֵכִי

מֵסֵכָה, מֵסֵכָה/

מֵסֵכָה 237-39 280

מֵצִוָּה, מֵצִוָּה 170 293

מֵתִי 394

נ 30 34-37 40 44 104 129

160 162 195-7 214 218

282 284 290 303 313 441-

442

נֵן, 334 433

נָבִיא 84

נָבִלָתוֹ, נָבִלָה 193 220

נָהָר 393

נֹו( )- 302-6

נֹו-נֹוהוּ/נֹו- 234

נֹוִים 307

נָרָד 134

נָשְׁכָה 290

נָשָׁר 31 433

נָתַתְּ(הָ) 315

נֹ 111 213 237

נֹסֶה, נֹסֶה 75

נֹסְתָה 316

נֹ 38 60 225 229 255 294

410-14

נֹבֶדֶת 316

לָעֵבֶר, (מֵ-/בֵּ) עֵבֶר

(בֵּ) עֵבֶר, (וֵ) עֵבֶר

367-69 373-77 382 389

עֵבֶרְתָּה, עֵבֶרְתָּה

נֹתַעֲבָדָה/נֹתַעֲבָדָה

עֵבֶרִים 224-25 281-82

עֵבֶלָה, עֵבֶלִים, עֵבֶל

עֵבֶלְתִּי, עֵבֶלְתִּי 105-09

127-30 294 443-44 456

עֹד, עֹד(וֹ) עֹד 393-97 400

עֵינִי, עֵינִים, עֵינִי עֵינִי

14 34 38-42 54 104 107

116 119 130 294 373

הָעֵל/הָעֵלָה, עֵלָה

נֹתַעֲלָה, הָעֵלָה

יָעֵלָה, מֵעֵלָה

עֵלִיתִי 137-40 294 317

עֵלָל 394

עֵמֶד- 246

עֵמָה 347

יָעֵנָהוּ, יָעֵנָהוּ, עֵן 234

הָעֵנָן 346 360

עֵסָה, עֵץ 81

בָּעֵצִים, עֵצִים/עֵצִים 34

42 129 342

עֵצָרָה/עֵצָרָה

עֵצָר, עֵצָרָה 227-33

260 291 413

יָעֵקֵב 411

עֵרֵב 288 294

עֵרֵבֹן, עֵקֵב

עֵרֵב 281-82

עֵרֵבֹן(הָ) 281 346 354

עָשׂוּ, עָשָׂה, עֲשֵׂה

עֲשִׂינָהּ, עָשִׂי

יַעֲשֶׂהוּ, תַּעֲשֵׂה

וַיַּעֲשֶׂה, יַעֲשֶׂהוּ

עָשׂוּיָהּ, עָשׂוּי

עָשִׂיתָ, עֲשׂוֹיֹת

עֲשִׂיתָם, עֲשִׂיתִי 161

223 227-34 292 319-20

330

עָשָׂר, עֲשָׂרָה, עֶשֶׂר

עֲשִׂיתִי עֲשָׂרָה 122

448-50

עֲשִׂתָּרוֹת, עֲשִׂתָּרָה

עֲשִׂתָּרוֹת 230

עֲתִיקִים, עֲתִיק

עֲתִיק, עֲתִיקִי

עֲתִיקָה, עֲתִיקָה

עֲתָה, עֲתָה 384-

387

פָּ, פֶּ 133 279 286 289

421 453

לִפְעֹל, פָּה 121

פִּילִלְגָּשׁוּ, פִּילִלְגָּשׁ

234-38 285

פָּנוּ 379

הַפְּנִימִי 356

פָּרָה, פָּרָה 75 436

פָּרָה, פָּרָה, פָּרָה

הַפָּר, הַפָּר, פָּרִיָּה

וַיִּפֹּר 131-36 146 279

פָּרָעָה 289 369

פָּתָה, פָּתָה, פָּתָה

פָּתִי, פָּתִי, יָפָתָה

57 191-92 280 290-91 456

צָ 42 65 89 143 228 291-93

413 428

צָא, צָא 138 142-43

293

צָוָה, צָו

צָפֹן, צָפֹן, צָפֹן

216 377

צָפִיר, צָפִיר

צָפָרִים, צָפָרִי

115 124

צָרְנָה, צָרְנָה 234

קָ 57 95 145 172 177 208

286-89

קָדְמָי 284

קָדְמָי, קָדְמָי 158

קָנָה, קָנָה, קָנָה

קָנִיהֶם, קָנִיהֶם

קָנִי, קָנִי, קָנִי

146-48 245 303 306

קָצִיעָה, קָנָה, קָנָה

288-9

קָרִיאָה, קָרִיאָה

וַיִּקְרָא, תִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא

וַיִּקְרָא, וַיִּקְרָא 9 160

171-76 323 331 348

קָרַב, קָרַב

קָרַב, קָרַב

קָרַב, קָרַב

קָרַב, קָרַב

קָרַב, קָרַב

קָרַב, קָרַב 8

94 323 444

קָרַב, קָרַב

קָרַב, קָרַב 2-3 29-34 40 104

128-29 189 289

קָשָׁה, קָשָׁה 191

קָשָׁה, קָשָׁה 195-97 256 280 289 346

428 450

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה 138-43

262 267 279 283 400

קָשָׁה, קָשָׁה 104

קָשָׁה, קָשָׁה 43

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה

קָשָׁה, קָשָׁה, קָשָׁה 222

226-27 295

קָשָׁה, קָשָׁה 280

9 רפי

רוץ 251

ש, ש, ש 15 32 82 111

145 212-23 232 235 237

245 256 287 292-93 403

419 424-28 439-43 447

ש- 351

ש- 405

וישאו אתו/וישאוהו

338

שאלתי, שאלה

שאלתי 193 202

שאוול 437

ישב/ישב, שב/שב

שב/שב, שב/שב

שב, שב, שב 138

144-45 183 213 256 267

283 294 315 411

שב/שב, שב/שב

שב, שב, שב 347 354 402

407 410-12 425 429 446

שב, שב, שב, שב

שב 411

שב 88

שב 338 394

שב, שב, שב 139-

140 307

שור, שור, שור

19 23-26 33 145 250 335

338 346 394 433 457

שית 146

שב, שב, שב

שב, שב 160 347

של/של, של/של

השליכה 203 208-11

283 294

שלח/שלח, שלח

וישלחו 205 338

והשלכתנה 313

שלש, שלש/שלש

שלשום (-הם)

429-33 437-42 447 450

שלישי, שלישי

שליש, שלישי

והשלישים 434 437

443-44 447

שמות, שמות

שמות 79 81 85 424-25

שמנת, שמנת, שמנת

424-26 430 436

שמעתי 298

כשמש 355

שני, שנים/שנים/שני

415 418 441

שעיר, שעיר

שעיר, שעיר

115

שגי 124 128 288-89

השקו 57

שקל, שקל, שקל

145 286

שש (noun) 293

ששה/ששה, שש

ששום 403-05 429-33

הששי, הששי 356 434

שח 146

שח 316

שח 57

שחים/שחים/שחים

67 433 450

(-ה) 55 57 133 233 251-52

256 286 289 297 307-10

319-22 399 413 419 421

425 433

ח 193 241 267 311 387

456

ח - 71 108-09 410 446

ח - 229 267 431

ח/ח- (-חה) 151 183

307 315-17

חאמי/חאמי

חאמי/חאמי

חאמי, חאמי

חאמי 45-48 128 222

חאמי 48

חאמי/חאמי 160

חלה, חלה

חלה, חלה

חלה 177-78 280 291

חח (-ח/ח-)

חח (-ח/ח-) 313-15

חח, חח

חח 291

חח 289

חח 355

חח, חח

412-13 430 450

(in Greek letters)

bā 156-57 279

Γεδών 255



Θαμαρ 289  
 θηληχ 311  
 θαν 172  
 ιηβωσου, ιεμρου, ιεγδελ  
 311-12  
 κίγχαρες 457

**48. Hittite**

{-a-} 78  
 {aḫḫiyawa} 165  
 {-ai} 43  
 {-an} 16-17 78  
 {arnuši} 319  
 {-aš} 328  
 {a-ta-ma-ī-na} 79  
 {attišši, attašmaš} 328  
 {<sup>d</sup>/aluḡ/k-} 188  
 {ešzi} 253  
 {ḫanti} 383  
 {ḫarašzi} 243  
 {ḫaštai/iyas/it} 43  
 {IGI} (Sumerian) 43  
 {ina} (Akkadian) 390  
 {ištamašteni/-ani} 315

λῶ, ζοῦ 157  
 σαλυσια 444  
 Σαούλ 437  
 τηθ, χαφ, φη 172  
 Χανασαν, Φαραώ 289  
 ΧΕΡΟΥΒ(ΕΙΝ) 287

(in Latin letters)  
 cherub 287

{kattera} 416  
 {keššar} 398  
 {kuerzi, kuirzi, kartānun,  
 karašzi/-ten} 242-43  
 290  
 {kueši/- (n)ti} 319  
 {lāman} 77-79 82-83  
 {mallanzi} 103  
 {-maš} 328  
 {n} 84 196  
 {-naš} 304-05  
 {pa<sup>n</sup>ta} 427  
 {parnašša} 328  
 {pattar, paddanaš} 196  
 {r/n} 196 271  
 {-ša/-ši} 328-29  
 {šakti/šekti} 319  
 {šakuwa} 43  
 {-ši, -ti} 324  
 {t} 287  
 {tēkan} 66 76  
 {-ten/-tin, -teni/-tani}  
 314-15  
 {te-ri-ja-aš} [tri-] 417  
 {walaḫtin} 314  
 {watar, witenas/-z} 287  
 296  
 {-zi} 242-43  
 {zig} 321

**49. Hottentot** ḱkoa-m, ṭga-m 48 (for Hungarian see Uralic; for Icelandic see Norse)

**50. (Old) Irish**

ad- 395  
 ainm n- 78 80  
 anall 363  
 asan 119  
 bráu, bró(n) 99 104  
 ceth(a)ir, cethoir/-eora  
 445  
 co-art 66

corn, carn 32  
 droch 381  
 es-ert 66  
 ferb 27  
 in 390  
 miscaim 239  
 -ni 305-06

snigid 210  
 tall 363  
 tarb, tairb 22 25  
 tlenaid 179  
 tri, teora, teoir/teuir 414  
 417 444

**51. Italian** (for Jäbärti, Kafa, and Khamir see **Cushitic**; for Kabyle see **Berber**)

cento 56 452  
 ella 362  
 fata 10  
 io 301

la (donna tecoita) 355 362  
 nōi, ne, nostra 297 304  
 Po 368  
 scimmia 79  
 sette 408  
 tòro 63

**52. Kartvelian m 84**

**53. Khmer** {tə:} 140

(for Kamara, Kannaḍa, and Kui see **Dravidian**)

## 54. Latin

- A a 35 82 123 138 243 274  
     361  
 ā 401  
 ab 395  
 accipiter/-trem/-tris 196  
 ad(hūc) 361 393-96 400  
 addidit 395  
 admodum 396-97  
 adultus 137  
 æ (AI) 116  
 aeuum 155  
 agō, age(ndō), agis, agēbās  
     231-32 292 320 401  
 agnum/-us/-ī/-a/-e,  
     AGNEI 105-08 111 123  
     127-29 284  
 AGREI(S), ager, agrum/  
     -ō/-icola 86-91 127-29  
     274 390 441  
 al-, ale/-uit, altus 131  
     137-38 294 456  
 alius/-d 213 336  
 alter(ī) 416-18  
 aluus 26  
 amā(ta), amita(m) 340  
 ambō 452-53  
 anima, anhēlus/-āre 278  
 ante, antiqus/-a/-ī,  
     ANTIQVEIS 382-86  
 arat 243  
 arbosem > arborem 121  
 arrabō(nem/-nī), arra  
     346  
 aruum/-ō 390  
 asinōs/-us/-um/-ī/-a,  
     asellus 119-20 123-24  
     127-29 394  
 atque 394-97  
 atrōx/-cis 43  
 auē/-eō/-eās/-et 156  
 auillus 106-07 284  
 auris, auscultā 35 38 119  
 b 57  
 bellum/-ō 232  
 bisacciō 124  
 bōs 27  
 burrus/-a(m), bur(r)icus  
     125-26  
 C c [k] 56-57 75 89 91 124  
     166 192 273 289 413 428  
     452  
 -c(e) 361-62  
 caballus/-ī 13 358  
 calō/-ā(re) 174  
 canna 288  
 caper, caprum 124  
 cāritās, catēna, causa 166  
 Carthāgō 385  
 centum 56 452  
 ceruus 34  
 ch, charta, charitas 166  
 circ(ul)us, circum 272-73  
     281  
 clare 174  
 clepe/-unt 215 218  
 -cola, cole/-uistī 274-75  
     281  
 commūne 39  
 cordis 94  
 cornu(m)/-ua/-ūs 4 14  
     17 29-34 127  
 cornū taurī 11 33 289  
 costa 44  
 -cul- 217  
 d 141 145 251 282 291-93  
     363  
 dā 375  
 decem, decimus/-m 45  
     412-13 428 432 448  
 dedit 395  
 dexter/-t(e)ra 418  
 diēs 410  
 digitus 428  
 Dindymus 50  
 dīxī/-it/-tī 300-01 320  
 domum 58  
 dūc(e) 375  
 du(o/-ae) 51 60 433  
 duodecim 448  
 ē 183 191 259 310-11 439  
 -E (e), -EI, -EIS 22 71 90  
     108 120-21 128 154 274  
     361 382 428 431 448  
 ecce hūc 297  
 ego 297 300-01  
 -em 411  
 equa/-us/-ōs 123  
 est 253  
 et 394  
 -et 156 396  
 exige 232  
 explē 183  
 f 56 121 135  
 faciō 151  
 fāta 10  
 femur/-inis 196  
 fer(t/-te) 131-38 178 279  
 ferōx/-cis 43  
 fī(at/-et), FITO, -fit 149-  
     152 191  
 flecto 200  
 fluuium 393  
 fōrs 132  
 frug-, frūctus, fruor 134  
 fu 263  
 fuī /-istī /-eram 151  
 fulgit/-us/-ur(ī) 207  
 G g 86 91 284 401 428  
 gene/-it/-uit, gigne/-it  
     146-49  
 genera 401  
 genu 34  
 gere 232  
 -gn- 106  
 graue 109  
 -gu- 212 284

- h- 278  
h(a)edum/-us/-ī/  
-ōrum (HAIDOM) 105  
115-19 127 129  
hasta 255  
hauē 156  
herī 382  
hic, his(ce) 361  
homō, hominem/-is/-ī,  
humus/-ō 66-71 74-7 84  
127  
hortum 396  
hostis 458  
ī, I 21-22 54 90 120 127  
129 154 320 363 382 428  
439 443 448  
iace, iēcit 312 375 401  
-id- 396  
ille/-a(m)/-um/-ō/  
-um/-ī(-EI)/-ae/-ic/  
-aec/-ac(e)/-ud 300  
358-63  
in 390 399  
-in- 401  
incola, inquilīnus/-a 274  
-inquus 336  
intrā(te) 375  
intus 401  
ipse/-a/-ōs 358  
ī(te) 139  
-it 207  
iūncta 154  
-ius 434  
K 91  
[ks] 405-06  
l 107 174 273 281 456  
lacrima/-uma 456  
lactentem 394  
lectus, -lex 235-36  
lingit/-unt 276  
-ll- 120 179 363  
longa/-um 189 281  
longinquus 336  
m- 179  
-m 363 412  
mālus 71  
Mārc(i)us, mārtiō 432  
māter 401  
mē 297 302 312  
melior 179  
mihī 382  
mīlle, mīlia/MEILIA 450  
mina 169  
miscē/-uit, mixtus 237-39  
280  
modus/-m 396  
mola/-īna/-e/-it 99 103  
267  
mollis 263  
mōns 50  
multum 179 295  
n 74 77 84 158 196 209 291  
373 425  
Nār(em), NA(HA)RTIS,  
nar(es) 393  
-nd- 192-93  
Nerthum 60  
nebula 73  
NEICE 154  
neruus 26  
NEVEN 425  
[-ng-] 189  
nimis 397  
nix, niuem, ning(u)it,  
nīuit 209-12 284 294  
-nn- 196  
nōmen, nōminis/-ī/-e  
77 83-84 424-5 434  
nōn 307 309  
nōnum/-s 412 425  
nōs, nōbīs, noster/-tra(e)  
297 304 418  
nouem 424-5  
nouitās 120  
-nt- 386  
nūbēs 73  
numerus 168  
nummus 169  
o 32 34 76 363  
ō 121  
occule 217  
octō/-āuus 446 448  
oculus/-um/-ōs 43 75  
olle/-us/-ī, OLLOM,  
ōlim 362-63  
-O(M) 412  
oportuit 309  
-or 396  
ōs 43-4 121  
-O(S), -OM, -OI, -OD 17  
22 71 109-10 120-21 129  
p- 179 251 258 282  
pacit, paciiscitur 192  
Padus 368  
paelex/-icis 234-38  
pande/-it, pangit 192 280  
291  
pare 135 279  
paruulum 394  
patet, patēfit, patēfiet,  
patēbit, pete 191-93 280  
Paulus 437  
pecu(a), pecus/-ora,  
pecūnia 457  
pēnis 256  
penna 196  
per (diem/annum) 366  
410 415  
ph 36  
pirus 71  
-ple(re), plentur, plūs  
179 183 186 259 295  
postillā(c), posthāc 361  
precor 200  
premit, pressit 159  
prīmus 43  
prō 310

- pudet, pūs/-ra/-tet 250-  
 251 255-57 282 292 307-  
 312  
 -qu- 386 427  
 quam/-is 364  
 quattuor, quārtus/-m 433  
 439 446  
 -que, quoad(usque) 394  
 quīnque, Quīntus,  
 quīn(c)tō 427 432-33 439  
 446  
 r 86 119 121 183 196 273  
 281 428 441 446 457  
 re(d)- 138-43 279 283 375  
 400  
 rebellā(uit) 138  
 recent- 147  
 recipe 140  
 redde 375  
 redī(te) 139  
 redormī(re) 140  
 redūc(e), reice 375  
 replē 183  
 reuertere 140  
 s 17 120 141 145 235 294  
 304 320 361 373 428  
 saccī (SACCEI) 124 128  
 sacer, SAKROS 91  
 sagittae 293  
 saluē(te) 156  
 -sc- 238 280  
 s-d- 138  
 sē- 138 142 293 375  
 sēcēde, sēditiō, sēpōne  
 142-43  
 sedē, sēdī 143-46 213 251  
 294 456  
 sēdūc(e) 375  
 septem, septimus/-m 45  
 402 407-12 432 446  
 sequuntur 401  
 55. **Latvian** kaza 115  
 56. **Linear B**  
 Sēstī/-ius 434  
 sex 404-10 432  
 sexāgintā 401  
 sexte/(i)us 431-34 439  
 sibī 325  
 sī mia 79  
 siniste†/-tra 418  
 solium 456  
 Spurius 432  
 -ss- 405  
 stā(ns/-te) 375 401  
 sub (judice) 366 373  
 sum 151  
 suouitaurilia 361  
 super 368 373  
 sustulit, sustollit 179  
 suus 327  
 t 15 141 145 213 257 275  
 310-11 434 439 443-46  
 taurum (TAVROM), taurī  
 (TAVREI), taurus  
 (TAVRV/TAVRO), taurā 2  
 14-17 21-30 33-34 62  
 -te 139  
 tē 250 297 307-12 322 399  
 templum 291  
 tē(n)saurus 203  
 -t(e)r(-) 417-18  
 tertī/-ius 417 431 437-39  
 443-44  
 -timus 402  
 trā(ice/-de/-dūc),  
 trāns(ī) 375  
 treme/-ulus/-ula,  
 tremonti/-unt 269 321  
 401  
 trēs, tria 433 439 443  
 t—t- 443-44  
 tū 321-2  
 tulit (TOLIT), tollit 178-79  
 u 53-57 154-55 210 251 255  
 284 425  
 ū 257 322  
 uacca 166  
 ualdē, ualidus 396  
 uallum 247  
 uehementer 397  
 uenī, uēnit/-erit 158-59  
 395  
 uerēre 259-60 280  
 uerte, uersus, uorsus  
 140-41 283  
 ueruēx 27  
 uester/-trae 418  
 uīā 377  
 uīcum (VEIC-, VEC-,  
 VEQ-), uīcī num 53-55  
 58 401  
 uīdistī 320  
 uīlicus 92  
 uīnum, uīnifera/  
 -um/-ī/-ae 54 134,  
 239  
 uir(um/-ō) 69 393-94  
 uīua/VEIVA, uīxī/VEIXEI,  
 uīuī/VEIVEI 154-55  
 uls, ultrā/-terior/-timus  
 363  
 -u(m) 16-17 120 127  
 ūna/-us 433  
 unda 373  
 undecim 448  
 -ur 401  
 ūre 230  
 -u(s) 17 71 127 411 431  
 434 437 439 446  
 usque ad 393-94  
 usquequaque 397  
 uter, utrum 418  
 Vtica 385-86  
 XS 408  
 vārdš 78  
 {wo-(i)ko-de} 58  
 merga, marga 201  
 {to-to we-to} 345

# 57. Lithuanian

-a, -as, -ą 16 102 127

abù 452

āsilas/-ą 119 127

ausis 35 38 119

ę 80

-į 74

gĩma/-ōs/-ą 99-104 127-128

ilgā, ilgą 188-90 268-69

280 289 450

kertù 242

krópti 218

1 280 450

lāka 277

móka 271

n 74 77 185

-ōs 102 128

pilnà, pilna 185-88 268-69

septynì 409

sniēgas 209 212-13 294

spašnas 194 197

šiřntas 451

{atimā/-ana/-ai} 79 83

taūra/-as, taurù/-ai/-ų/

-ė/-ais 2 16-17 25-26

62-63 414

uo 74

vařdas 78

žarstýti, žeřti, žeriù 246

žēmē 66 72

žmuoř, žmúnį, žmonà 74-

75

# 58. Luwian

{atimā/-ana/-ai} 79 83

{wiyana-} 54

# 59. Lydian {ētamv} 79

(for Mağğī see **Cushitic**; for Mallorcan see **Romance**)

# 60. Mandinga sambad-ga 411

# 61. Messapic ΠΙΔΟ, ΒΕΡΑΔΑ, ΗΙΠΤΑΔΕΣ 235-36

{-s} 237

# 62. Moabite (for Mongolian see **Altaic**)

אנך 298

ואלתחם, הלתחם 231

ת- 444

הבמת 164 354

ךך 138

# 63. Munda-Polynesian inaku/(i)ná-kke 298

# 64. (Old) Norse (for Mzambit see **Berber**)

at 395

kið 119

stein 197

auga 39

koma 158

stiórr 26

enn 357

kvikr 155

sú 357

fiqðr 195

kvern/kvörn, kvarnar/

tarfr 25-27

geit 115-9

-ir 96 98 101-02

þ- 26 213

grund, grunn(r) 67 71

Niörðr 60

þat 357

gymsr 125

ord 260

þiörr 15 26 415

haðna 115

-r 101-02

vin (w-) 260

horn 32

sá 357

yfir 367

io 63

sazt 144

iorð 61-62

siau 412

# 65. Oscan (for Old English see **English**; for Old High German see **German**, etc.)

{ad-} 395

(-)EN 390

ТАУРОМ 16 30

{ant} 382

{kombened} 159

{tio/tiium} 321

{az hortom} 395

OLY, (olam) 363

{ulum/-as} 363

b 99

SIFEI 325

**66. (Old) Persian**

{adam} 323 {puruv} 181 186  
 {ḥajrdiy[a]} 208 {viḥam} 54-57 127

**67. Phoenician**

א 116	𐤀 54	שד 88
אנכי/אנך 298	י 55	ת 120
א(י)ת 332-33	חצר 89	תאם 46
גבל 285	ללכת 379	(in Greek letters) Θουρά 17
גדא 116	עגלת, עגל 105 109	(in Latin letters)
הבתם 353	ועד 395	alonimualonuth 121
האלום הקדשם 355	פ 121	auo 156
דרך 379	קרתחדשת 385	byn 333
		liful, pho 121
		ph-, -f- 56 121
		yth 332-33

**68. Phrygian**

ΑΥΤΟΣ, FENAFŦYN:AFTAZ 329 339-40	ζέμελεν, (Σ)ZEMEΛΩΣ/ [Σ]IMEΛΩΣ/ [Σ]IOMOLΩ 66 72-74	-ΩΣ 339
ΔΑΔΙΤΙ 340	MATEPEZ 340	Σ- 72
ΔΕΩΣ/ΔΙΩΣ/ΔΙΟΣ 72-73	ONOMAN 78	
FENAFŦYN 340		

**69. Polish**

ę 80	mógł 269	ziemia 72
grunt 67	snieg 213	

**70. Portuguese**

borro 126	seis 406
-----------	----------

**71. Prakrit {maragadam} 208****72. (Old) Prussian**

auklipts 218	mal dai/-enikis 263 267	swestro 327
emmens, emnen 78 84	snaygis 209 213	uschts 404 407

**73. Pul dido 48**(for Punic see **Phoenician**; for Quara see **Cushitic**)**74. Romance**

b 57	j 154	[ts] 89
es, sa, isos (Gascon, Mallorcan, Sardinian) 358	kentu (Sardinian) 452	[y] 406
	sis (Catalan) 407	

**75. Russian (for Saho see **Cushitic**)**

вѣ) 391	долга, долго 188-89 268	жёрнов/а 101
грунт 67	280-81 289 450	земля 72 128
д 283	дрѣпать/-ает (лжя-) 221	імя, імени 77 85

кость 44  
л 280-81 290 450  
мог(а)/о, мог(ы), мог(о)лть  
261 268-69 296  
м(о)л(о)д(ь), молюд(а) 261-63 268  
281 296  
нас(ы) 304

о 270  
пер(о), п(ь)т(и)ча 194  
полн(а), полна 185-89 268  
ролиты 267  
сад(ь), сад(у) 88  
с(и)ег (сн(ь)г(ы)) 203 209

ш 442  
эти/о 362  
ъ 262 270  
ы 322  
я 72 128

## 76. Sanskrit (in the order of the Nāgarī alphabet)

{a} 132 144 150 204 206  
274-75 295 304 310 313  
411 413 425  
{ākṛta} 240  
{ākṣi, akṣṇāḥ, akṣān} 41-43  
{aja/ājā, ajasi} 232 320  
{ājram/-ās/-ēṣu} 86-91  
127-28  
{-ati} 133 156 276  
{-an-} 42  
{āniti/-ati} 277-78  
{ānti/-aḥ} 383 387  
{anyāḥ} 213  
{āpa} 395  
{api-} 235-36  
{ab<sup>h</sup>rāt} 203 206  
{ab<sup>h</sup>avan, ab<sup>h</sup>ūtana} 150  
314  
{-am} 16 31 57 127  
{ayā(ni)} 299  
{-āva} 150  
{āvati} 156  
{aṣṭāu/-ā/-ā} 446-49  
{āsti} 253 293  
{ast<sup>h</sup>ān, ast<sup>h</sup>ā, ast<sup>h</sup>nāḥ} 34  
41-43 129  
{ahām} 299-300 323  
{-aḥ} 91 411 432 439 444-446  
{ā} 16-19 31 71 128 144  
153 204 226 295 299-300 310  
{ājaḥ/-s} 320  
{-āni} 298 301

{-ām} 17 31  
{āyuh} 155  
{āvart/-d} 140-41  
{-ās/-āḥ} 90-91 128 154  
{āsi<sup>h</sup>a} 317  
{āsi<sup>3</sup>d/-t} 372  
{-i(-)} 241 276 278 317  
370 380 445  
{iṣirāḥ} 230  
{īṣe} 328  
{-īy-} 447  
{u} 104 181 186  
{udakām, ūpa} 373 375  
{upāri/-y} 367 370 372  
{ub<sup>h</sup>ā} 452  
{úṣṭram} 420  
{ū} 150  
{ūd<sup>h</sup>ar/-an/-naḥ} 196  
{ṛ, ṛ} 132  
{ṛṇōṣi} 319  
{ē} 52-53  
{ēmi} 302  
{ō} [o<sup>o</sup>] 304  
{-āu} 18  
{k} 67 242  
{katarām} 418  
{kanyā} 147  
{kārnāḥ/-ā} 41 128  
{kālpam/-tē} 220  
{kṛṇavā(ni)} 299

{kṛtā, karta(na), kṛntāti, kṛtā(ni)} 240 242 280  
290 300-01  
{kṣ} 41 66-67 76  
{kṣāmi, kṣmāḥ/gmāḥ/jmāḥ, kṣāḥ} 67 69 73 77  
{g} 95 284  
{gama, gāmati} 158 161  
{gārb<sup>h</sup>am/-h} 93-95 111  
{gahi, gāt, gāta(na)} 58 158  
313 324  
{gṛnāti} 176  
{grāvā, grāv<sup>n</sup>ā, grāvānā(u), gurū} 99  
101 104 284  
{č-, č<sup>h</sup>-} 380  
{ča} 394  
{čakartā/-i<sup>h</sup>a} 240-41 317  
{(ča)čar<sup>h</sup>/a/-i<sup>h</sup>a, čačār<sup>h</sup>/a} 274  
{čatvārah/-i, čatúrah, čatasrah, čaturthāḥ} 445-447  
{j} 86-89 154 203-04  
{jana, jānat(i), jajāna, janayat<sup>h</sup>a(na)} 146-48  
303 306 313  
{jaratē} 176  
{jiryati} 103  
{jivā(h/-s)} 153-56 287  
{jmāḥ} 73  
{-t} 203 403  
{lh} 276

- {t, tʰ} 42 90 142 145 150  
 154 203 255 303 317 320  
 372 380 410 419 445-46  
 {tāt/-d} 336 343  
 {-tʰá(na)} 313-17 321  
 {-tamah.} 402  
 {tara/tira, tirá(h/-š/-s)/  
 -ō} 375 380  
 {-tarah} 416-19  
 {-ti} 158 242  
 {turíyah/túryah} 446-47  
 {trī(ṇi), tráyah, trīn,  
 tísrah, tṛtíyah} 412 414  
 417 419 430 438-39 443-  
 444  
 {tvā/tvām, tvām} 310  
 323-24  
 {-tʰa} 151 241 275 307 325  
 {d} 142 145 188-89 281 372  
 {dadāʰa, dadʰāʰa} 316  
 {daśá(bʰih)} 403 412-13  
 450  
 {divō duhitar} 11  
 {dīrgʰā/-ām} 188-90 280  
 289 450  
 {dōḥ, dōṣī/-āṇī} 41-42  
 {drānti, dramanti,  
 drāvanti} 159  
 {-dʰi} 324-25  
 {(~)n(-)} 41 129 425  
 {nama} 168  
 {náva} 424-25  
 {naḥ/-ō/-a, nāu} 302-  
 306  
 {náma, námāni} 77 83 85  
 424  
 {ni-} 386  
 {-ni} 299 302  
 {nīḥaḥ/-āt} 386  
 {-nti} 320  
 {p} 258 282  
 {pāñca} 424-27  
 {pata} 193  
 {páttram} 196  
 {pántʰanam, patʰāḥ/-ō}  
 420  
 {parṇám} 194  
 {pāšu} 457  
 {pasaḥ/-s} 255-56 282 293  
 {pi-} 235-36  
 {pitārah} 278  
 {purú} 181  
 {pūyati} 257  
 {pūrṇā/-ām} 188-89  
 {pūrvī} 185  
 {prā} 310  
 {priyātarah} 416  
 {prāṇiti} 278  
 {brāvāṇi} 299  
 {bōdʰi} 325  
 {bʰ} 135 150-51  
 {bʰāra(ta), bʰār(a)ti,  
 bībʰarti, bibʰmāsi,  
 bibʰrati} 132-33 236  
 {bʰāvā/bʰava(n), bʰūt,  
 babʰūtʰa} 149-51 158 294  
 325  
 {bʰrāt, bʰrājatē, bʰrāśatē}  
 203-07 285  
 {-m(-)} 159 323  
 {magʰām/-vā} 271  
 {marak(a)tam} 207  
 {mardati} 263 283  
 {māhi} 271  
 {mā} 312  
 {mātrā} 59  
 {mātré} 340  
 {mṛdūḥ, mṛdnāti} 263  
 283  
 {mṛṇa} 103  
 {r, l} 86 93 95 188 204 274-  
 276 280 289 450  
 {rájah} 288  
 {rāmam/-ā, rámatē} 222  
 226-7 280 295  
 {lihati, rihánti, rēlhi}  
 275-76  
 {v} 52 99 104 154  
 {-vart(at)} 141 279 283  
 286  
 {vavākṣītʰa} 317  
 {vāti, váyati, vāyati} 155  
 {vīt, víśam, vēśam/-h,  
 vēśām, viśa} 51-56  
 {virājāni} 298  
 {vr̥ka/-aḥ/-am/-asya/  
 -ā/-ān/-āiḥ/-ām/  
 -āu} 18  
 {vētʰā} 316  
 {ś} 32 206 380 403 452  
 {śatām} 56 451  
 {śṛṅgam} 32  
 {śrudʰi} 325  
 {śvāśuralḥ, śvaśrúḥ} 327  
 {śāt} 402-03 407 409  
 {śaṣṭhāḥ} 432  
 {s} 145 213 282 293-94 320  
 380 445  
 {sa-} 448-50  
 {sá, sã} 343 351  
 {sakṣt} 450  
 {sáktʰi, saktʰnā} 41  
 {ságarbʰaḥ} 95  
 {sadā, sátsi, saddʰi, sasāda,  
 sasáttʰa, sádaḥ/-s  
 (sādaḥ)} 144-45 213 251  
 256 294 315  
 {saptā, saptamāḥ/-m  
 (saptátʰaḥ)} 402 407-11  
 446  
 {sahásram} 448-50



{-si/-ṣi} 319-20 324	{snihyati} 211	{-hasr-} 450-1
{-st <sup>h</sup> }- 42	{svāsā, svasar} 327	{-hi} 324
{st <sup>h</sup> ā(na)} 315	{-ss-} 405	

**77. (Old) Saxon** (for Sardinian see **Romance**; for Scandinavian see **Norse**)

-a 62	kind 264	quern 97
erthun/erdon 60	mag 270	swas 326
grund 67	ôga/-on 39	-un 62
herta 94	[ʔ]ôrun 35	

**78. Slavic** (for Sidama and Somali see **Cushitic**)

[a] 221 304	me 312	[v] 391
{i-} 77 80 85	mog- 271	{zemlĭā} 72-74
l 269	p- 194	
m- 296	{š, s} 409 442	

**79. South Arabian** (in the order of the Arabic alphabet)

{ʔdm} 69	{ḫ} 421	{sdḫ} 405
{b(n)} 392	{ḫny} (ḫru, Mehri, Soqotri)	{ʕd} 395
{bʔr} 202	414-15	{ʕst} 448
bir(t) (Mehri, Soqotri) 196	{ḫwrn/ḫwrn, ḫwrhn} 16	farr (Mehri) 195
415	{-s/-sw(w)} ({-h} Sabaeen)	{mnʕ, maniʕ} 187
{brkt} 198	328	

**80. Spanish** (Castilian)

a 337	dedo 36	la 362
adta 367	el 359	[ɲ] 411
alca(l)de 359	ella 362	nos, nuestra 304
b 57 214	fa(s)ta 367	seis 406
bebe 53	Filipino 15	toro 28
burro/-a 125-26	g 57	vecino 57
ciento 56 452	hada 10	vive 420-21
d 57	hasta 367	yo 301
debes 371	junta 154	

**81. Sumerian** (for Sus see **Berber**; for Syriac see **Aramaic**)

{a-gār, a-da-ar, en-ga-ar}	{MA.NA.TUR} 169
86-92	{temen} 291

**82. Tagalog** Pilipino 15

(for Tamil see **Dravidian**)

**83. Teda** (?) -dun, tom 162

**84. Thracian** ENEA 424

**85. Tigre** ʔaddam 69 ʔəgal 105

86. **Tigrinya** ʔane 301 ʔanta/-i 318 32187. **Tokharian** (for Tuareg see **Berber**; for Tulu see **Dravidian**)

{in-} 390	{sām} 449	{trit(e)} 441
{ñomāntu, ñemna} 78 82-	{tkam/kem, tkanis,} 66	{tsar-/sar-} 398
83	69-70 76	

88. **Ugaritic** (in the order of the Arabic alphabet) (for Tungus and Turkish see **Altaic**)

{ʔf} 253	{ḫql} 145 286	{šm} 425
{ʔgrt, u-ga-ri-it} 87	{ḫlḫ} 442	{cpn} 216
{ʔdm} 69	{ḫmn} 425	{ʕlt} 109
{ʔdn} 36	{ḫn} 415	{ḫd} 395
{ʔrc(h)} 61 65 253	{gdy} 116	{ʕst ʕsr(h)} 448
{ʔn(k)} 298	{grn} 97 99	{ʕzm} 42
{b(-)} 391-92	{Hrḫ(t), ʔHtrš} 243-44	{qrnm} 33
{bʔr} 202	{Hʔr/HTr} 89 91	{k} 238
{bḫ, tbḫn} 251 292	{Hy} 253	{msk} 237
{bʕl} 253	{H}, {ḫ} 245	{-h} 57 65
{-t} 244	{d, dt} 36 350	{wld, yldy} 262
{-t} 109	{rd} 138	{y-} 54 141
{ḫ} 251 292 421 442	{s} 237	{yrʔa/ʔ} 259
{ḫt} 145	{š} 244	
{ḫdḫ} 405	{šd} 88	
{ḫr(m)} 15 33 415		

89. **Ukrainian**

жорно/-а, жорен 99 101	ім'я, імені 80
104 129	и 129

90. **Umbrian**

*ager, AGRVR 90 127	BENVST 159	{re-} 138
{arv(am)en} 390	{fuia/-est} 152	SEVAKNE/SEVACNE 249
{aī-} 395	NAHARCE(R)/-COM	
{b} 99	((naharkum)) 393	

91. **Uralic**

én (Hungarian) 302	nīm (Ziryene, Votyak) 78	ti, te (Hungarian) 314
m(-) 84 302	83	
-na/-nä (Cheremis) 306	tā 352	

92. **Watchandies** a-taua-ra 4893. **Welsh** (for Wolamo see **Cushitic**; for Yakut see **Altaic**)

anu 78 80	cant 452	ni 305
asyn 119	chwech 404	pedwar 423
breuan 99 104	corn, carn 32 41	pimp/pump 427

u 99

94. Yiddish װ [v] 411 קום 158

95. Zulu -gewele, -zele 182 (for Zénaga se Berber; for Ziryene see Uralic)

*Prehistoric Languages***1\*. Afro-Asiatic (or Hamito-Semitic)**

\*br- 136

\*(h)m/ʒ/ 38

\*? pl 180

\*ǧ<sup>l</sup>-m- 158

\*hw(j) 156

**2\*. Nostratic**\*ʔsn<sup>ʔ</sup>m 82-83

\*mi 322

\*SeCS 407

\*bh-r- 201

\*m/o/n/(g/)<sup>ʔ</sup>Λ, 187

\*sédg-i-s 409

\*ǧ-r- 242

\*n- 426

\*ǧ<sup>r</sup>/<sub>n</sub> Vy 415\*g<sup>l</sup>-rā- 176\*n<sup>e</sup>/<sub>o</sub>mi- 79

\*ü &gt; \*i 322

\*k<sup>ʔ</sup> 204\*[<sup>ʔ</sup>e-] 373

\*Y-ǧ- or \*Y-ǧ- + n- 39

\*m 84

\*p alΛ 186-87

\*p arΛ 194

**3\*. Proto-Dravidian**

\*n- &lt; \*l- 277

\*sn- 79

**4\*. Proto-Germanic**

\*e 63

\*H-wa(-)n 35

\*u 32

\*[ʔózen] 37

\*[-i] 370

\*[-y] 370

\*[gz-] 67

\*tebras 26

\*z 37 67

**5\*. Proto-Indo-European**

\*a 271

\*eu- 48

\*h<sub>2</sub>e- 15

\*ag- 86

\*euse 230

\*h<sub>3</sub>k<sup>w</sup>o- (\*ək<sup>w</sup>-o-) 386

\*anjos 213

\*g < \*k<sup>ʔ</sup> 86 146-48 204 222

\*Hagr-, \*Hajr- 91

\*ant- 383

229

\*Hant- 383

\*au-dh, \*au-ǧj-a 329

\*gem- 148

\*H-ws, \*Hews<sup>n</sup>, \*Heus-

\*b 56 146 162 180 281-83

\*g<sup>h</sup> 236 271

35 38

311

\*ǧhd- 67

\*i 382

\*b<sup>h</sup> 236

\*gher- 246

\*isəros 230

\*bher- 133

\*ghozdhā 255

\*k- 44

\*d (\*<sup>ʔ</sup>) 146 222 372\*ǧ<sup>ʔ</sup>r-nu-, \*ǧ<sup>ʔ</sup>erənu- 98

\*(-)k(-)l-, \*(-)kl-p- 217

\*d<sup>h</sup> 236\*ǧ<sup>w</sup>, \*ǧ<sup>w</sup>y- 104 106 153-54

219

\*d<sup>h</sup>r-ǧ<sup>h</sup>- 381

282

\*k<sup>ʔ</sup> 89 204 222 229 291

\*dk- 452

\*(-)ǧ<sup>w</sup>(-)m(-) 158

\*ǧ en- 148

\*dy- 154

\*ǧ<sup>w</sup>h 209 284\*k<sup>ʔ</sup>és<sup>l</sup>/r- 450

\*e 15

\*-ǧy- 248

\*ǧ<sup>ʔ</sup>k<sup>ʔ</sup><sub>ʔ</sub>-n-, \*ǧ<sup>ʔ</sup>k<sup>ʔ</sup><sub>ʔ</sub>er-,

\*-eti 207

\*ə 278

\*k<sup>ʔ</sup><sub>ʔ</sub>n-, \*kern- 29 32 34\*h<sub>2</sub>, \*h<sub>3</sub>, 35 38 373

- \*k̄m̄tóm 452  
 \*k-r- 242  
 \*ks(ū)ek̄s/\*s(ū)ek̄ s/\*uek̄ s  
 (\*ūk s) 403-04  
 \*KT- 76  
 \*k<sup>u</sup>- (\*k<sup>w</sup>-) 273-75  
 \*k<sup>w</sup>el- 274  
 \*-ky- 246  
 \*xl-g<sup>h</sup>- 189  
 \*ṛṇ 77 452  
 \*māg<sup>h</sup>/\*meṛg<sup>h</sup>- 271  
 \*me-ghri-(s)/\*ṛṇ-ghri-(s)  
 398  
 \*m(e)ig- 280  
 \*men(H) 171  
 \*ml- 180 295  
 \*ṇ, \*-N 2 31 40 58 201 425  
 452  
 \*n-b<sup>h</sup>- 73  
 \*nēmṇ, \*nem-,  
 \*nōm-ṇ- 78 84-85  
 6\*. Proto-Semitic  
 \*A-ū-m- 48  
 \*[ay] 53  
 \*ʔUZ(n) 36  
 \*ō 37-38  
 \*g 274  
 \*g-r- 242  
 \*-nl- 120  
 \*-ṇti 133  
 \*o 271  
 \*-od 336  
 \*-oj- 30  
 \*ok<sup>w</sup>- 38-39  
 \*ol-no-s 363  
 \*-ōn 74  
 \*-ons 121  
 \*pelu, \*pleh- 180  
 \*pénk<sup>w</sup>e/\*pénq<sup>w</sup>e 10 427  
 \*pés<sup>o</sup>/es 256  
 \*pet(-) 192 195  
 \*pǝx-ú-, \*pǝllu- 185  
 \*pt- 194 197  
 \*q<sup>w</sup>tur- 447  
 \*r/n 197  
 \*ṛ 32  
 \*reg<sup>u</sup>os 288  
 \*s 37 119 183 265 372 404  
 457  
 \*septṛ 404 407-08  
 \*sott<sup>h</sup>a, \*sede 144-45  
 \*sk- 280  
 \*sm̄-/sm̄- 449  
 \*sn(V)y<sup>g</sup>w- 213  
 \*[s<sup>h</sup>/u<sup>u</sup>/opér(i)] 373  
 \*t<sup>ʔ</sup> 46 222 293  
 \*t<sup>h</sup>lauro- 15  
 \*-ti 276  
 \*TK- 76  
 (\*tn-, \*ṛn-) 417  
 \*tod 352  
 \*t/irt̄y- 443  
 \*twe/te, \*twē/tē,  
 \*twēm/tēm 310  
 \*ṛ 145  
 \*u 262  
 \*ur- 267  
 \*ū-rt- 140  
 \*ʔUZ(n) 36  
 \*y- 154 372  
 \*sabad-ṣ 411  
 \*šešš/\*sess 405  
 \*š 79  
 \*ṛ- 415  
 \*w- 268  
 \*ṛanti<sup>y</sup> 385  
 \*ṛarn- 29  
 \*ṛ-r- 242  
 \*(-)n 42 416  
 \*nb- 84  
 \*-nt- 387

## Index of English Glosses

- able 270
- abomination 257
- above 372
- accretions 230
- accords with 220
- accustomed 103
- acquire(d) 146-48
- across 367-68 371 375-76 382
- Adam 74
- address commandingly (prophetically) 175 288
- admire 225
- aforesaid 326
- afraid 259
- after(wards) 361 399
- again 140
- agreed 159
- alive 153 155 287
- all the way to 393
- allotted 168
- along 387
- altar 161-65 250
- altogether 397
- am 299
- ancient 384
- and (even) 173 249 394-97
- and all 337
- animal 153 419
- another 213
- answer(s) 173 234
- ant(s) 457
- anyone 351
- apart 138 142 293 383
- apple-tree 71
- are 319
- area 391
- arms 18
- around 272-73
- arrive(s) 138 253
- arrows 293
- as far as 393
- ashamed 250-58 282 292 299 307 311-12
- ashore 388
- aside 142 219 375
- asleep 235
- ass(es) 119-27 394 456
- assembly 291 413
- associated 451
- at 382 395-96
- at a distance 361
- aunt 340
- author 146
- average 98 104
- away from 395
- back 138-40 143 219 279 283 375 389 400
- bad 257
- bailiff 92
- bal(sa)m 112
- bank 367-69 374 376
- barley-cake 293
- basin 98 100
- basket 288
- Bastard 432
- be(en) 149-53 294 314-17 325 392
- bear(ing/-er) 106 131-38 147 178 262 267 279 281
- beast 26 125 221
- become(s), became 141 149 153 158 191 314
- bed 197-98 235-36 290
- bedecked 179
- bee(s) 428
- befall, befell 171 174-77 288
- befits 173
- before 382-85 397 399
- beg 200
- (be)get(ting), begot/-at, begotten 146-49 262 286 303
- beginning 147
- behalf 376
- behold 345 356
- behooves 173
- belly 26
- belonging 326
- beloved 226-27 280 295 340
- below 59 386 416
- bench 290
- bend 168 200
- benefit 134
- besides 235 285 395
- better 416
- beyond 363 367-68 371
- bier 290
- billy-goat 115
- bird(s) 115 194
- birth 267
- blaze(s) 204 285-86
- bleinish 170
- bless(ed/-ing) 199-200 280 303 444
- blow(s) 155
- boar 124 361
- boil 230
- bone 34 44 342
- book 53
- bore(d) 380
- bore, (-)born(e) 147 149 262 269 283 319 432 444
- both 128 452-53
- bottom 71
- bounty/-iful 271
- bow 168
- bread 183
- breast-bone 44
- breath(e(s/-d), breath 277-79 389
- breed 148
- brick 283
- bride's 68
- bright(en) 207
- bring (into/forth), bringing, brought 133-35 141 262 267 285

- brother 95  
 brown 125  
 buffalo 420  
 build(er/-ing), built 161-63  
     167-68 177 283 330  
 bull(s) 2-3 13-29 34 87 119  
     126 129 250 294 335 346  
     361 415 419 433 456  
 bullock(s) 75 419 436  
 bull's horn 11 33  
 burn(ed) 230 330  
 but 341 349 357  
 buttocks 146  
 buy(ing), bought 146-47 303  
     314  
 by way of 377  
 byss 293  
 cairn 32  
 cake(s) 170  
 calf/-ves 26 105 107-14  
     127-30 250 339 347 444  
     456  
 call(ed) 84 160 171-77 323  
     331  
 came (*see* come)  
 camel(s) 13 221 420  
 can 270 272 296  
 cantor, cantillation 218  
 carrying/-ied (off) 134 178-  
     179 222 338  
 casing 218  
 cassia 288  
 cast forth 313  
 catch 136  
 cattle 113 457  
 cavity 26  
 cessation 411  
 Chaldeans 112 224  
 chamber 289  
 change(d) 153 308  
 chariot-board 133  
 charming 226  
 check 183  
 chick(en)s 113  
 child(ren) 146 261-72 283  
 child-bearing/-birth 147 266  
 circle/-ing 272-74  
 cistern 201-02  
 city 330 385  
 clans 53  
 clear, cleft 379  
 cliff 195  
 close 323  
 cloud 73 347 360  
 clump of houses 53  
 come(s)/came (forth/out) 57  
     134 139-40 150 152 156-  
     161 286-87 297 303 313  
     322 324 374 388 395  
 comes to terms 192  
 come(s) up 138  
 comedy 356  
 command 192  
 common 356  
 concubine(s) 224 234-37 285  
 congregated 228  
 consorted 451  
 constrain 175  
 contends 255  
 contrivance 271  
 corpse 193 220  
 couch 235  
 could 261 268-70 289 296  
 count(ing) 161 168-71  
 country 62  
 court(s/-ed) 89 224 292 356  
 cover 216 218  
 cow(-) 166 274 436  
 craftsman 244  
 crash(es) 208  
 create/-ing/-or 136  
 cross(ing) 374-75 382  
 crush(es) 103 263 267  
 cursed 91  
 custom 168  
 cut(s/-ting) (through, down)  
     221 239-48 280 290 300  
     317  
 dark(ness) 216 226 288 294  
 darling 340  
 daughter 11 147 436  
 day(s) 341-42 352 410-11  
     431 434-36 442 447-49  
 dearer 416  
 dearness 166  
 deer 111  
 (to a) degree 396  
 delights 156  
 Delphian 95  
 device 271  
 die 247  
 different 187  
 dignity 252-53  
 dirt 62 72  
 dispensing 170  
 displeasing 257  
 distant 336  
 distribute, divided/-sion 168-  
     169  
 ditch 247  
 diverse 187  
 do(ne/-ing) 121 223 227  
     230-34 240 292 299 308  
     312 316-20 330 401  
 donated 236  
 donkey 126  
 don't 322-23  
 down 139-43 161 262 267  
     279 283 286 383 386 400  
 down to 394  
 drag off 148  
 dread 260  
 dreams 260  
 drench(ed/-ing) 198-99 280  
     289  
 drink 53 57 420  
 drinking horn 26  
 drive, drove 232 320  
 drizzle 201  
 each 453  
 eager 156 171  
 eagle 31 433  
 ear(s) 14 34-44 104 119 128  
     294  
 earnest 281 346  
 earth(ward) 14 58-66 72 75-  
     76 97 127 146 185 293-94  
     388 390 352 360 390 444  
     456  
 eastern(er) 284  
 eggs 113  
 eight(h) 412-13 424-26 429-  
     430 436 446 448-51  
 eleven 448-51  
 embarrassment 252  
 emerald 207  
 enclosure(s) 86 88 128 210  
 encounter 175  
 end 383 387

- endure(d/-ing) 177-79 280  
     291  
 enemy 458  
 engender(s/-ed) 146-47 314  
 engrave(d/-r) 244-47  
 enjoy(s/-ment) 134 226  
 entered 157  
 equal (to) 220 438  
 escort(ed) 338  
 even to 394  
 evening 288 294  
 everywhere 397  
 ewe-lamb(s) 43 105-14 128  
     265 413  
 examine 221  
 excellence 458  
 except 342  
 exile 177  
 exists 253  
 expense 247  
 (to some) extent 396  
 eye(s) 14 34 38-44 53-54 75  
     104 108 116 294 373 380  
     386  
 face (to face) 383 383  
 fairy 10  
 famous 84  
 farmer 92 274  
 fashion 163  
 father(s) 278 313 327-28  
 father-in-law 327  
 fear(s/-ed/-ing/-some/  
     -fully) 259-61 280  
 feather(s) 189-98 291 426  
 feed 198  
 feet 3  
 fell upon/out 175 177  
 female 108 378  
 festivals 356  
 (a) few 23  
 field(s) 86-95 128 229 274  
     292 294 326-27 390 441  
     456  
 fiend 408  
 fifth 416 427 434-35 439-40  
     446-47  
 fight(ing), fought 138 231  
     457  
 fill(ed/-s/-ing) 179-83  
 finger(s) 36  
 gender 404-05  
     meaning '4' (Sem.) 427-28  
     meaning '5' or '10' (IE)  
     427-28  
 fine 98  
 finish(ed) 174  
 fit(s) 220  
 five 423-33 447 457  
 fixes 192  
 flame-colored 125  
 flashed/-es 203-08 285  
 flawless 170  
 flee 307  
 flesh 32  
 flock 394  
 flows 308  
 fly 193-95  
 foal 126  
 foam 312  
 follow 401  
 foot 138 256  
 for (both) 304 325-26 357  
     376 389 395 410 415 453  
 forearm 41  
 foreign(er) 336 458  
 foreskin 254 293  
 foster 198  
 foundation stone 291  
 four(th) 401 404 416 423-34  
     439-40 445-47  
 fox 378  
 fresh(-) 147 220  
 from 334-36 369 386 392  
     394-95  
 front (*see* in front of)  
 fruit(ful) 134-25 376  
 full, -ful 13 179-87 215 268  
 further/-est 363  
 gable 285  
 gasp(ing) 278  
 gather(ed/-ing) 227-29 250  
     291-92 375 413  
 Gauls (= Galatians?) 32  
 gave 236  
 gazelle 118  
 get(ting), got 146-48 236  
     286 303 314 323 451  
 gift 20 271  
 gild 163  
 giraffe 118  
 girl(s) 147 263-65  
 give(n), gave 315-16 375  
     420  
 gleams/-ed, glitters 203-06  
     286  
 gloom 73 216-17  
 go/gone (down/out/off) 138-  
     143 157 267 279 283 293  
     299 302 311 375 379 400  
 go after 193  
 go along 159  
 go(ne) round 274-75  
 go(ne) up 134 137-40 231-36  
     294 317  
 goat(s) 29 115-19 124 127  
     274 338 394  
 goatherds 170  
 goblet 26  
 god(s), goddesses 72 121  
     355-56  
 going-off 143  
 gold(-) 13 163 170  
 good 357  
 grain circle 97  
 grandeur 458  
 grasped 148  
 grazes/-ed/-ing separately  
     (waywardly) 221  
 great (glory) 187 271-72 312  
     317 348 355  
 greatness 458  
 Greek 68-69  
 green fabric 293  
 griffins 287  
 grind, ground 103 267  
 groan 277  
 groom, ground (*noun*) 14 64-  
     76 184-85 194 199 353  
     360  
 group 451  
 grove 396  
 grow(n) 139 317 384 386  
 guarantee 282  
 guardian 253  
 guest 458  
 hail 212-13  
 hair 75  
 hairy 115  
 half 219-20  
 halt(ed) 411

- hand over 375  
 handle/-ing 41 170  
 hand-mill 99-100 104  
 hand(s) 18 81 352 391 398-399  
 hang, hung 177-79 256 280 291  
 hard 191  
 harvest 134  
 hate 457  
 have 328  
 hawk 196  
 he(-) 8 115-16 122 124 205 240 275 278 308 312  
 head 29 285 349  
 healthy 153  
 hear(d/-ing) 38 40 298 315 325  
 heart 93-95 146  
 heaven(ly) 11 72 146  
 heavy 104  
 heifer 75 107-09 126 443-44  
 her(self) 81 93 101 325 328 333 337-39 347 362 416  
 (-)herd 274 436  
 here 121 346-49  
 hereafter 399  
 hew 239  
 hide/-ing/-den 214-20  
 high(er) 137 294  
 highland 88  
 hill(top) 285  
 him/it 325 328-39 343 392  
 himself 337-41 345 358  
 hireling 357  
 his (own) 81 93 207 325-33 338-40 357 374 416-18  
 hit 219  
 Hittites, Hivite(s) 165  
 hole 380  
 holiday 227-30 250  
 holy 91 230 355  
 home(ward) 52 57-58 127 328  
 honey 428  
 hook 443  
 horn(s) 2 4 11 14 26 29-34 41 63 104 128 189 364  
 horse(s) 13 75 108 122 358  
 house(s/-builder) 51-58 134 161-62 261 330 353 391  
 how (much/many) 364  
 how long 394  
 humble 73  
 hundred 56 451-52  
 hung (*see* hang)  
 hunter 136  
 husband 347  
 hush(ed) 254 269  
 husk, hut 218  
 I 200 206 216 268 297-302 312 322 324 331 357  
 idleness 411  
 in 139 376 390-92 447  
 incise/-ing/-ed 243-45 280 322  
 infant (boy) 68 394  
 in front (of) 382-87  
 inhabitant 274  
 inner 356  
 insert 133 228  
 inside 8 57 93-94 375 401  
 instead of 382  
 instruct(ion) 79 192  
 into 375 388  
 inward 52  
 irrigate/-ion 198-99  
 is 253 349  
 it 308 329-30 392  
 itself 341-42  
 jaw 183  
 Jordan 368-69 377  
 journey 377  
 judge 359  
 jump 144  
 keep still 323  
 kid(s) 105 115-19 125  
 kill 319  
 kind(s) 148 401  
 king 31  
 knee(l), knelt 34 199-200  
 know(s) 272 316 319 419  
 lack 308  
 Laconians 118  
 lamb(s) 105-13 127-28 232 265 284 444  
 lance(s) 281  
 land 59 71 303 347 382 388 390  
 landholder, landless 66  
 later 347  
 law 168  
 lay (aside), laid 142 347  
 lead (*metal*) 457  
 lead(er/-ing) 45 232 234 375  
 leap 317  
 left 418  
 let 210 299-300 312  
 lick(s/-ed/-ing) 275-77  
 lie(s/th), lying (down) 160 234-37 285 347  
 life (*see* live)  
 lifting 179  
 like 198 355  
 lightning 203-08 286  
 (up to the) limit 396  
 (fine) linen 293  
 lion 433  
 little 26 443 457  
 listen 325  
 live(d/s)/-ing, life(time) 153-156 231 253 278-79 287 357 378 420  
 lo 345  
 loaded 148  
 long 188-91 268 280 450 453  
 longs 156  
 look here 297  
 look through 221  
 looking (darkly/wild) 43 260  
 lord 146 305  
 lot 347 351 354  
 a lot of 23 117 129  
 loud- 208  
 love(s/-d/-ing/-ly/-r) 156 166 222-27 280-81 292 295 340 458  
 low(er/-est/-ly) 59 73 386 416  
 luck 177  
 mainland 369  
 make/-ing, made 135 138 192 200 203-04 224 230-234 319-320 330  
 male 29 108 124-25 265 432



- man(kind), men 66-76 253  
     318 341 345 347 351 357-  
     359 393-94 433 457  
 mangle(d) 220-21  
 many (a) 23.187  
 March 432  
 mare 75 122-23  
 master 252-55 356  
 matches 220  
 may 298-99  
 mayor 359  
 me 297-302 312 319 382  
     388  
 meanest 356  
 measure 59 396  
 mercy 227  
 met in battle 175  
 midst 8 444  
 might(y) 187 230 272 396-  
     397  
 mill(stone) 96-100 104 129  
     267  
 mingled 451  
 miracle-worker 161  
 missiles 145  
 mist 73  
 mix(ed/-ture) 237-39 280  
 moat 247  
 moisten 198  
 money 457  
 monkey 79  
 months 18  
 more 179-81  
 mortar 98 103  
 mother 340 349 401  
 mother-in-law 327  
 mountain 50 88 254 285 456  
 mountain-ward 57  
 mouth-filling 183  
 move (about) 274 319  
 move aside 142  
 much(-) 179-80 187 208  
     336  
 mules 108  
 multiplies 255  
 muscle 26  
 must 173 307 312  
 mustaches 457  
 my 221 302 331-33 340 381  
     416-18  
 myrrh 112  
 nag(s) 13 358  
 name(s) 14 77-85 424-25  
 nanny-goat 118  
 nard- 134  
 near 94 398  
 negotiates 192  
 neighbor 55 57  
 new(ly arrived) 147 385  
 new-born lamb 106  
 newness 120  
 night(s) 392 424  
 nine/-th 412-14 421-25 429-  
     430 450  
 north(ward) 216-17 377  
 nostrils 393 453  
 not 307 336 348-49  
 nourish(ed) 137 456  
 now 394-95  
 number 170  
 oak(s) 121  
 oath 359-60  
 off-down 139  
 offspring 256 261  
 old 38 137 180 384-86 436  
     443-44  
 old-time(r) 284  
 on 368-69 376 387-90  
 on(c)e 347 413 423 433 448-  
     452  
 open(s/-ing) 57 191-98 280  
 opposite 383  
 or 349  
 order 79  
 other (side) 368 416  
 ought 173 307  
 our 302-06 418 438  
 out 142-43 160 232  
 other 336 376  
 ought 371  
 over(seas) 367-71 374-76  
     382  
 overnight 392  
 own 325-28  
 ox 25 250 338 433 457  
 paired 34 104 129  
 palisade 246  
 particular 342-43  
 parts 388  
 pass (away) 159 308  
 pass (*noun*) 368  
 passed out 168  
 past 397  
 path 379 382 420  
 patient 453  
 patron 253  
 peacock 226  
 pear-tree 71  
 penis 252-56 282 293  
 people 69  
 perfect 249  
 petition 193  
 phew 258  
 pick up 389  
 pig(let)s 113  
 pipe 26  
 pit 202  
 pitcher- 134  
 pity/-ies 227  
 (in) place of 382  
 platform 163  
 pledge 281-82 346 354  
 plot 322  
 plow(s/-ed/-ing/-man/  
     -men) 92 243-44 456  
 pluck(ed) 220-22 286  
 plunder 222  
 pod 218  
 pond, pool 198 384  
 portion 169  
 potter's wheel 381  
 preceded 384 386  
 precinct 291  
 presence 397  
 presses 263  
 pride 253  
 produce 376 456  
 property 328  
 prophecy/-sy/-sies 171-74  
 prophet 84  
 prosper 312  
 pus 256  
 push 379-80  
 put (away/over) 146 217 236  
     315-16 320  
 quench 248  
 quern 95-105 284  
 quiescence 441  
 quite 397

- rain(s/-ing) 210-12 220 287  
     296  
 raise(d) 137 198 294  
 rake 246  
 ram 110 232 361  
 ramble 274  
 read(ing/-er) 171 176 348  
 rebelled 138  
 red(dish) 47 125-26  
 reed 288  
 refill 183  
 region 388  
 relish 223  
 remember(s) 171  
 remove 219  
 replete 148  
 represent 36  
 reproduce(d) 146  
 request 193 202  
 resembles 198  
 reside 253  
 rested 411  
 return(ed) 157 159 307  
 (in) return for 382 395  
 reverence 252  
 rich 271  
 ridge(s) 164 254  
 right 418  
 ring 272-73  
 ripe 103  
 rise 158  
 river 367-68 393  
 road 377 379 382  
 rob(bed) 216 222  
 roll(ed), rotated, round(s)  
     140-41 272-75 279 286  
 rot(ten) 103 256-57  
 route 377  
 routine 104  
 rubbed 103  
 rule 298-99  
 run(ning/-ner)/ran (about)  
     159 251 380-82  
 run of the mill 98  
 sack(s), saddle-bags 124 288  
 sacrifice(d/-s) 249-50 330  
     361  
 sails 308  
 (for the) sake of 376  
 (the) same 341 344-45  
 say, said 299-300 320 322  
 scent 112  
 scorpion 282  
 scratch(es/-ing/-ed),  
     scrape/-ing 221-22 246  
 scribe 92  
 sea 380  
 seashore 369  
 seat 145 256 283 411 456  
 second(est) 45 416 418 441  
     449  
 secret 215  
 see(ing/-s/-n), saw 40 178  
     259-61 314-20  
 seed(ing) 134 243  
 seize(d) 136 146-49 222  
 -self 337  
 send/-t (up) 137 205  
 serve(d/-r/-ing) 170 316  
 set 316 451  
 seven(th) 45 347 351 354  
     402 407-12 423 429 431  
     446 449 454  
 several 187  
 shake/-y 269  
 shall 312  
 shame 252-56 282 293 364  
 shape 136  
 share/-ing 169  
 sharpen 246  
 she(-) 8 108 116 121-23 127-  
     128 211 221 240 250 268  
     275-78 308 310-14 419  
     444  
 sheep 29 338 357 394  
 shekel 145 286  
 shepherd 170 357  
 shine(s)/-ing 206-08  
 shoal 71  
 shore 367-68 374  
 showers 220  
 shown 261  
 shut 228  
 side 219 368 374  
 sigh(ing) 277-78  
 sign(s) 331  
 silent 269  
 silver 356  
 sinew 26  
 sit(s/-ing), sat (upon) 138  
     143-45 213 236 253 267  
     283 294 315 317 411 456  
 sister 327  
 six(th) 402-12 423 429-34  
     439 454  
 sixty 401  
 sky 211  
 slapped 277  
 slaughter(ed) 247-50 282  
 slave 72  
 sleep 235  
 slip 246  
 smell(ed) 257  
 smoke 258  
 smote 314  
 snow(s/-ed/-ing/-y) 203  
     208-13 284-85 294 442  
 soak(ed) 198  
 soft 263 283  
 so-and-so's 111 263 265 289  
 soil 456  
 someone 351  
 son(s) 196 205 263 281 392  
     404 415-18 430 434 436  
 soot 258  
 soul 278  
 south (wind) 216  
 sow(s) 124  
 sparkle 206  
 speak 299 322  
 speak oracularly 171  
 speak well 254  
 spear 255  
 spearhead 195  
 spongy 257  
 spread (out) 192-93  
 spring 116 130 201  
 sprinkle 201  
 squeeze(s/-d) 159 236 263  
     283  
 stag 34  
 stairs 379  
 stairway 138  
 stake 246  
 stallion 126  
 stamp 247  
 stand(s/-ing) 158 163 375  
     401 444

- steal(ing/-s), stolen 92 179  
 214-20 282 284 442 457  
 steer 25  
 stench, stink(s) 256-57  
 step(s) 163 379  
 steppe 88  
 still 394  
 stir 274  
 stone(s) 31 195-98 415 426  
 456  
 stool 133  
 storeroom 203  
 story 347  
 street 234  
 streams 368  
 strong, strengthen 200 396  
 stylus 244  
 substandard 98  
 success 348  
 suck(le/-ling) 115 394  
 suffices 173  
 sullied 191  
 sun 207 355  
 sweetheart 340  
 swift-winged 196  
 Swollen-foot/penis 256  
 take(n), took 136 148 168  
 219 232 451  
 take pawns 308  
 talent 457  
 tall 137 294  
 tallies 220  
 tank 198  
 tear(s), tore/-n 220-22  
 tear(ful) 180 456  
 -teen 448 450  
 Tekoite 355  
 ten 122 403-04 412-14 421-  
 423 429-30 445 448-54  
 tend(ed/-er) 274-75  
 tenth 416  
 tender (adj.) 263  
 tertiary/-ies 444  
 thanks 166  
 that, the 341-62 434-37 440  
 there (is/are), thence 253 293  
 363  
 they, their, them(selves) 180  
 311 313 319 325-26 332-  
 334 358 388 431 433  
 thief/-ves/-very, theft 92  
 218  
 thigh 41 196  
 thing 166  
 think, thought 171 216 300  
 third 416-17 429 431-47  
 thirteen 450  
 this, these 108 326 341-56  
 361-62 435  
 those 360-64  
 thousand(s) 448-51  
 three 49 404 409 412-23  
 429-33 436-47 450  
 threshing-floor 95-105 284  
 456  
 those 356  
 through 366 377-82  
 throughout 387  
 throw, threw 312 375 401  
 thunder(ing) 208  
 till (*see* until)  
 till(ed) 274-75  
 time 384 387 450  
 tip 254  
 to 65 140 328 350 373 382  
 387-88 393-97  
 to me 159  
 to us 304  
 today 352  
 tomorrow 399  
 too much 397  
 top 29  
 torch- 134  
 tore (*see* tear)  
 toward 141 291 373 377  
 tread(s), trodden 377 382  
 tree 81 121  
 tremble 321 401  
 trumpet 32  
 tube 26  
 tunic 13 289  
 turn(ed) 140-41 272  
 twelve 414 448 450  
 twin(s) 44-51 76 87 222  
 two 45 48-49 60 67 130  
 412-23 429-30 433 437-41  
 453-54  
 two-carrier 133  
 two-fold 48  
 udder 196  
 unblemished 170 249  
 uncle 340  
 under 236 373  
 underground 72  
 underneath the rock 195  
 unleavened bread 293  
 until/till 367 393-99  
 (up)on 140 235 387-89  
 up(ward) 137-38 387 389  
 up to 361 367 394-97  
 us 297 302-06 397 438  
 used to 234  
 various 187  
 vassal 55 69  
 vehemently 397  
 venerable 252  
 very (much) 179-80 396-97  
 the/this very 341-42 345  
 victim 26 247  
 (-)victory 134 285  
 vigor 252-53  
 vitality 155  
 wall 330  
 wallowed 272  
 wander(ed) 274-75  
 (waging) war 231-32  
 -ward 57 65 350  
 warrant 282  
 was 372  
 wasp 428  
 watch(man) 246  
 water(s/-ing) 57 141 199  
 201 216 287 296 368 373  
 wave 373  
 (by) way (of), ways 377-81  
 we 206 297 302-06  
 wearing 134  
 weigh(t) 145 197  
 well (*adv.*) 156 163 254 312  
 well(s) 201-02 371 407 456  
 went (out) 58 143 157 267  
 275 283 294 368  
 were 150 314-17  
 west (wind) 216 288 294  
 wet 198 201 289  
 wether 126  
 what 389  
 wheel, whirl 272-75 281 381  
 when 394  
 which 418

- who 364  
 why 389  
 wide-open 191-92 290-91  
 wife 235 340  
 wild ox 25  
 will, would 234 300  
 wine(-) 54 134 136 239 260  
 wing(s/-ed) 189-98 291 415  
     426  
 wink 221  
 winter(ling), wintry 119 124-  
     127  
 wish 156  
 with 333-37 347 369 398  
 withdraw 142
- withers 254  
 within 375  
 wolf 3 18  
 womb 93-95 127 227  
 woman 75 351 355 394  
 wonder 225  
 word 260 347-48 351  
 work-horses 13  
 work magic 244  
 -worker 161  
 wreath 134  
 write(rs), wrote, written 7-8  
     18 92 245  
 year(s) 345 424 443  
 yearling ewe 125
- yesterday 382  
 yoke 454  
 yon 361  
 you 160 206 240 250 268  
     275 297 307-25 332-33  
     398-99 419  
 young(sters) 115 261-63 296  
 young animal 105 109 232  
     284 294 419  
 your 356 397 418  
 yourself 345  
 youth 120  
 Zeus's-fosterling 198

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