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**NEWSLETTER OF THE  
ASSOCIATION FOR THE  
STUDY OF LANGUAGE  
IN PREHISTORY**

**Issue 11, September 1990**

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# ASSOCIATION FOR THE STUDY OF LANGUAGE IN PREHISTORY

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**OFFICERS:** Harold C. Fleming, *President*  
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The Association for the Study of Language in Prehistory (ASLIP) is dedicated to exploring all aspects of distant relationship among the languages of the world.

Membership dues (in U.S. dollars) are \$10.00 for the United States and Canada, \$16.00 for Latin America, and Western Europe, and \$18.00 elsewhere.

Inquiries, manuscripts and news items for inclusion in *Mother Tongue*, and applications for membership should be sent to:

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## EDITOR'S PAGE

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1. I would like to welcome back our President, Hal Fleming, who has just returned from a successful year of field work in Ethiopia. In the meantime, Hal has moved from Rockport, Massachusetts, to Pittsburgh, Pennsylvania. His new home address is:

Harold C. Fleming  
5240 Forbes Avenue  
Pittsburgh, PA 15217  
U.S.A.

2. I have moved as well during the past month, and my new address is:

Allan R. Bomhard  
73 Phillips Street  
Boston, MA 02114-3426  
U.S.A.

3. Enclosed is a ballot listing all of the ASLIP members who have been recommended for membership on the Council of Fellows. Please vote for five (5) of the candidates, and return the ballot in the envelope provided to the attention of the ASLIP Secretary, Anne W. Beaman, who will tally the votes. In the event that the envelope gets misplaced, Anne's address is:

Anne W. Beaman  
P.O. Box 583  
Brookline, MA 02146  
U.S.A.

4. We have begun to explore the possibility of launching a formal journal. This journal will be dedicated to exploring all aspects (linguistic, archaeological, anthropological, biological, etc.) of distant linguistic relationship. Manuscripts received for possible publication in the journal, which will be entitled *Mother Tongue*, will be submitted for review to members of an Advisory Editorial Board, consisting of area specialists. ASLIP members who are interested in serving on the Advisory Editorial Board, or anyone who would like to be Review Editor, should contact either Hal Fleming or Allan Bomhard at the above addresses. It should be noted that Vitalij Shevoroshkin has already expressed willingness to assist in reviewing articles dealing with Nostratic. Suggestions concerning the journal are actively encouraged.
5. Some still have not paid their 1990 membership dues. Please remit.

Allan R. Bomhard



## SOME NOSTRATIC ETYMOLOGIES

Allan R. Bomhard  
*Boston, Massachusetts*

In preparing their critiques of my paper entitled "Lexical Parallels between Proto-Indo-European and Other Languages", which was included as a Supplement to *Mother Tongue 9*, Karl Krippes and A. Murtonen had access to all of the lexical material I have gathered to date. The manuscript containing this lexical material is entitled *A Sample of the Comparative Vocabulary of the Nostratic Languages* and runs 610 typed pages, including references. This lexical material will form a part of the joint monograph currently in preparation by myself and John C. Kerns and tentatively entitled *The Nostratic Macrofamily*.

In order to give ASLIP members a taste of this material, I am including here the first 30 etymologies, which represents all of the etymologies for Proto-Nostratic \**b*. Feedback is warmly welcomed.

## PROTO-NOSTRATIC \*b

Proto-Nostr.	Proto-IE	Proto-Kartv.	Proto-AA	Proto-Uralic	Proto-Dravidian	Proto-Altaic	Sum.
<i>b-</i>	<i>b[h]-</i>	<i>b-</i>	<i>b-</i>	<i>p-</i>	<i>p-</i>	<i>b-</i>	<i>b-</i>
<i>-b-</i>	<i>-b[h]-</i>	<i>-b-</i>	<i>-b-</i>	<i>-w-</i>	<i>-pp-/ -vv-</i>	<i>-b-</i>	<i>-b-</i>

## 1. Proto-Nostratic \*baw-/ \*bəw- "to be or become aware of":

- A. Proto-Indo-European \*b[h]ewd[h]-/ \*b[h]owd[h]-/ \*b[h]ud[h]- "to be or become aware of": Sanskrit *bódhati* "to be awake, to observe, to notice, to understand", *buddhá-h* "awakened, enlightened, learned, understood, known"; Greek *πέυθομαι* "to learn of"; Lithuanian *budėti* "to be awake"; Old Church Slavic *bъděti* "to be awake", *buditi* "to awaken", *bъdrъ* "watchful". Pokorny 1959:150-52 \*bheudh-, \*bhu-n-dh- "to awaken"; Walde 1927-32.II:147-48 \*bheudh-; Mann 1984-87:75 \*bheudhō "to prompt, to arouse, to exhort; to be awake"; Watkins 1985:8 \*bheudh- "to be aware, to make aware"; Gamkrelidze and Ivanov 1984.I:174 \*b[h]eud[h]-, \*b[h]ud[h]-.
- B. Proto-Afroasiatic \*baw-/ \*bəw- "to be or become aware of": Proto-Semitic \*baw-ah- "to become known, to be revealed" > Arabic *bāḥa* "to become known, to be revealed"; Geez / Ethiopic *bōḥa* "to be seen, to be revealed, to be clear". Proto-Semitic \*baw-ah- "to be aware of, to be mindful of" > Arabic *bāḥa* "to understand"; Maghrebi *bawwah* "to stare"; Tamūdic \*bwh "to remember".

Buck 1949:15.11 perceive by the senses, sense; 17.16 understand; 17.24 learn; 17.31 remember.

## 2. Proto-Nostratic \*bur-/ \*bor- "cypress, pine, fir":

- A. Proto-Indo-European \*b[h]or- "pine, fir": Old Icelandic *barr* "pine-needles"; Old Church Slavic *borъ* "spruce, fir". Pokorny

1959:109 *\*bharu-*, *\*bharu-*, *\*bhors-* "something jutting out"; Walde 1927-32.II:131-33 *\*bhares-*, *\*bhores-*, II:164 *\*bhoru-*, *\*bhoru-*; Mann 1984-87:95 *\*bhorus*, *-uos* "pine; pine-needle"; Watkins 1985:5 *\*bhar-* (also *\*bhor-*) "projection, bristle, point".

- B. Proto-Afroasiatic *\*bār-* "cypress, pine, fir": Proto-Semitic *\*bur-āy[h]-* > Akkadian *burāšu* "pine"; Hebrew *bārōš* "cypress, pine"; Aramaic *bārōθ* "cypress, pine"; Gurage (Endegeñ) *burat* "a kind of tree". Proto-East Cushitic *\*bir-bir-* "juniper-like firtree" > Burji *birbiri* "juniper-like firtree"; Oromo *birbir-sa*; Konso *pirpir-ta*; Gawwada *pirpir-ko*; Gollango *pirpir-ko*. Sasse 1982:36.

Buck 1949:8.64 pine. Brunner 1969:27, no. 78.

3. Proto-Nostratic *\*bur-/bōr-* "to bore, to pierce":

- A. Proto-Indo-European *\*b[h]or-/b[h]r-* "to bore, to pierce": Greek *φάρω*, *φάράω* "to plow"; Latin *forō* "to bore, to pierce"; Old English *borian* "to bore, to pierce". Pokorny 1959:133-35 *\*bher-* "to work with a sharp tool"; Walde 1927-32.II:159-61 *\*bher-*; Mann 1984-87:110-11 *\*bhrāiō* (*\*bhur-*) "to bore, to pierce", 126 *\*bhurō*, *\*bhurāiō* "to incise, to bore"; Watkins 1985:7 *\*bher-* "to cut, to pierce, to bore"; Gamkrelidze and Ivanov 1984.II:707 *\*b[h]er-*.
- B. Proto-Afroasiatic *\*bar-/bār-* "to bore, to pierce": Proto-Semitic *\*bar-adz-* "to bore, to pierce" > Aramaic *bāraz* "to bore, to pierce"; Arabic *barzaḥ* "interval, gap, break"; Ḥaḍramawt *barzat-* "hole". Proto-Semitic *\*bar-bar-* "to hollow out" > Amharic *borābborä* "to hollow out, to cut a grove"; Tigre *bārabāra* "to pierce". Proto-Semitic *\*bar-ar-* "to pierce, to penetrate" > Geez / Ethiopic *barra*, *barara* "to pierce, to penetrate, to go through"; Amharic *bārrärä* "to pierce, to make a hole in a water jug", *bārr* "door, gate"; Tigrinya *bārri* "passage, entrance".
- C. Proto-Uralic *\*pura* "borer, auger": Finnish *pura* "borer, auger, (big) awl"; Vogul / Mansi *pore*, *porä* "awl"; Ostyak / Xanty *pōr* "borer, auger"; Hungarian *fúr-* "to bore, to drill"; Yurak Samoyed / Nenets *parō* "borer, auger"; Selkup Samoyed *pur* "borer, auger". Collinder 1955:52; Rédei 1986- :405.

- D. Dravidian: Tamil *purai* "tubular hollow, tube, pipe, windpipe"; Tuḷu *perevuni* "to be bored, perforated", *perepini* "to bore, to perforate", *burma*, *burmu* "a gimlet", *berpuri* "a borer". Burrow and Emeneau 1984:380, no. 4297.
- E. Proto-Altaic *\*bur-* "to bore through, to pierce": Mongolian *buryui-* "a piece of wire used to clean a smoking pipe"; Turkish *burmak* "to bore a hole"; Tatar *borau* "borer, auger".
- F. Sumerian *būr* "to bore through, to pierce".

Buck 1949:9.46 bore. Brunner 1969:27, no. 73; Möller 1911:33-34; Illič-Svityč 1971- .I:186-87, no. 21 *\*bura*.

4. Proto-Nostratic *\*bur-/bor-* "to strike, to fight":

- A. Proto-Indo-European *\*b[h]er-/b[h]or-/b[h]r-* "to strike, to fight": Latin *feriō* "to strike, to knock, to smite"; Old Icelandic *berja* "to beat, to strike, to smite"; Old Church Slavonic *borjō*, *brati* "to fight"; Sanskrit *bhāra-h* "war, battle, contest". Pokorny 1959:133-35 *\*bher-* "to work with a sharp tool, to cut, to split"; Walde 1927-32.II:159-61 *\*bher-*; Mann 1984-87:74 *\*bheriō* (*\*bhor-*, *\*bhr-*) "to strike", 74 *\*bhērā* "striker", 94 *\*bhoros* "stroke, blow, fight".
- B. Proto-Kartvelian *\*brg-* "to struggle, to fight": Georgian *brg-ola* "struggle, fight", *brgv-* "to struggle, to fight"; Mingrelian *burğ-ap-a* "to fight, to do battle"; Svan *li-bərg-əl* "to struggle, to fight". Klimov 1964:53; Schmidt 1962:99.
- C. Proto-Afroasiatic *\*bar-/bər-* "to strike, to fight": Proto-Semitic *\*bar-aw/y-* "to strike, to fight, to compete" > Arabic *barā* "to vie, to compete, to contend, to be rivals; to meet in a contest, to try each other's strength"; Sabaeen *brw* "to slaughter; to contend with, to attack".
- D. Dravidian: Tamil *poru* "to fight, to engage in battle, to compete, to dash against (as waves)", *pōr* "battle, fight, war, rivalry"; Malayalam *poruka*, *porutuka* "to fight, to vie, to emulate"; Kannaḍa *pōr* "to fight, to wrestle, to strive", *pōr* "quarrel, fight, battle, wrestling"; Tuḷu *pōriyuni* "to wrestle, to quarrel", *pordu* "battle, combat"; Telugu *pōru* "to fight, to contend, to struggle, to rival, to compete", *pōru* "fight, battle, war, quarrel, rivalry",

teasing"; Kui *prohpa* (*proht-*) "to rebuke, to upbraid, to reprove, to fight, to wage war", *pōru* "quarrel, contention". Burrow and Emeneau 1984:401, no. 4540.

Buck 1949:20.11 fight (vb.).

5. Proto-Nostratic *\*bar-/bār-* "to swell, to puff up, to expand":

- A. Proto-Indo-European *\*b[h]er-/b[h]or-/b[h]r̥-* (also *\*b[h]ar-*) "to swell, to puff up, to expand, to bristle", *\*b[h]r̥st[h]i-s* "bristle, point": Sanskrit *bhr̥ṣṭi-h* "point, spike"; Old English *byrst* "bristle"; Old Irish *bairgen* "bread"; Latin *fermentum* "leaven, yeast". Pokorny 1959:108-10 *\*bhar-*, *\*bhor-*, *\*bhr̥-* "something jutting out", 132-33 *\*bher-* "to well up"; Walde 1927-32.II:131-32 *\*bhares-*, *\*bhores-*, II:157-59 *\*bher-*; Mann 1984-87:115 *\*bhr̥stis*, -os (*\*bhurst-*, *\*bhrust-*) "spike, shoot, twig, bristle"; Watkins 1985:5 *\*bhar-* (also *\*bhor-*) "projection, bristle, point". Proto-Indo-European *\*b[h]rews-/b[h]rows-/b[h]rus-* "to swell; swelling": Old English *brēost* "breast"; Old Irish *brú* "belly". Pokorny 1959:170-71 *\*bhreu-s-* "to swell"; Walde 1927-32.II:197-98 *\*bhreus-*; Mann 1984-87:102-03 *\*bhreus-* "chest, front, paunch"; Watkins 1985:9 *\*bhreus-* "to swell". Proto-Indo-European *\*b[h]ard[h]eA* "beard": Latin *barba* "beard"; Old Saxon *barda* "beard"; Old Church Slavic *brada* "beard". Pokorny 1959:110 *\*bhardhā* "beard"; Walde 1927-32.II:35 *\*bhardhā*; Mann 1984-87:65-66 *\*bhardhā* (*\*bharsdhā*), -os "beard"; Watkins 1985:5 *\*bhardhā* "beard". Proto-Indo-European *\*b[h]erw-/b[h]orw-/b[h]r̥w-*, *\*b[h]rew-/b[h]row-/b[h]ru-* "to bubble up, to boil": Latin *fervō*, *ferveō* "to boil, to seethe"; Middle Irish *berbaim* "to boil"; Old English *brēowan* "to brew"; Old High German *briuwan* "to brew"; Old Icelandic *brauð* "bread". Pokorny *\*bhr(e)reu-*, *\*bh(e)rū-* "to surge"; Walde 1927-32.II:167-69 *\*bhereu-*, *\*bheru-*, *\*bhreu-*, *\*bhrū-*; Mann 1984-87:75 *\*bheruō* (*\*bhreuō*) "to seethe, to ferment"; Watkins 1985:9 *\*bhreu-* "to boil, to bubble, to effervesce, to burn"; Gamkrelidze and Ivanov 1984.II:643 *\*b[h]rey-*. Proto-Indo-European *\*b[h]rend[h]-/b[h]rond[h]-/b[h]r̥nd[h]-* "to swell up": Lithuanian *brėstu*, *brėndau*, *brėsti* "to ripen, to mature". Pokorny 1959:167-68 *\*bhrendh-* "to swell up"; Walde 1927-32.II:205 *\*bhrend(h) ?-*; Mann 1984-87:102 *\*bhrendh-* "to be full, to be ripe". Proto-Indo-European *\*b[h]rew-/b[h]ru-* "to sprout, to swell": Latin *frutex* "shrub, bush"; Old Irish *broth* "whiskers"; Middle High German *briezen* "to bud, to sprout, to swell". Pokorny 1959:169 *\*bhreu-*,

\**bhreud-* "to sprout, to swell"; Walde 1927-32.II:195 \**bhreud-*; Mann 1984-87:106 \**bhrud-* "excrecent, bulging; excrescence, bulge", 110 \**bhrutos, -ios* "excrescence".

- B. Proto-Kartvelian \**ber-* "to blow, to inflate, to puff out": Georgian *ber-va* "to blow, to inflate, to puff out"; Mingrelian (*m*)*bar-* "to blow, to inflate, to puff out"; Zan *bar-* "to blow, to inflate, to puff out"; Svan *li-bēl-e* "to cause something to swell up, to swell up". Klimov 1964:50; Schmidt 1962:97; Gamkrelidze and Ivanov 1984.II:878.
- C. Proto-Afroasiatic \**bar-/bār-* "to swell, to puff up, to expand": Proto-Semitic \**bar-aw/y-* "to be puffed up, fat, swollen" > Hebrew *bārā?* "to be fat", *bārī?* "fat". Proto-Sam \**bar-ar-* "to swell" > Somali *barar* "to swell"; Boni *barer/bareera?* "to swell". Heine 1978:53.
- D. Dravidian: Tamil *paru* "to become large, bulky, plump; to swell"; Malayalam *paru* "gross, big", *parukka* "to grow bulky, stout"; Tuḷu *pariya* "plenty, exceeding, much"; Telugu *prabhu* "to increase, to extend, to flourish, to thrive". Burrow and Emeneau 1984:354, no. 3972. Tamil *per, perum, pēr* "great", *peru* "to grow thick, large, stout; to become numerous", *peruku (peruki-)* "to increase in numbers, to multiply; to become full, perfected; to rise, to overflow, to swell; to be increased, augmented, enlarged; to prosper, to grow"; Kannaḍa *per, pēr* (before vowels) "largeness, tallness, greatness; large, tall, great"; Koḍagu *perī-, perīm-* "big", *perī-* (*perīp-, perīt-*) "to increase"; Tuḷu *peri, periya* "large, great, high, superior", *percuni, pērcuni* "to rise, to increase"; Telugu *perūgu, per(u)gu, per(u)vu* "to grow, to grow up, to increase, to accumulate, to be augmented, to expand, to extend"; Malayalam *peru, pēr* "great, large, chief", *periya* "large, great", *perukuka* "to grow large, to be multiplied"; Kolami *perg-, (perekt-)* "to grow"; Konḍa *pergi-* "to grow up", *per, peri* "big, large, elder (of siblings)", *pir-* "to grow"; Kuwi *bir-* "to grow, to multiply"; Brahui *piring* "to swell (of the body or limbs)". Burrow and Emeneau 1984:389-90, no. 4411.
- E. Sumerian *bar* "to blow, to stretch or spread out, to ferment, to blow away", *bār* "to spread or stretch out, to lay out", *bàra* "to spread or stretch out", *bara<sub>4</sub>* "to spread or stretch out, to open wide", *bar<sub>7</sub>* "to blow at or upon".

Buck 1949:4.142 beard; 4.40 breast (front of chest); 4.46 belly; stomach; 10.31 boil (vb. intr.); 10.38 blow (vb. intr.); 12.53 grow (= increase in size). Illič-Svityč 1971- I:190-91, no. 24 *\*bur'a*; Möller 1911:34.

6. Proto-Nostratic *\*bar/\*bər-* "to bear, to carry, to bring forth":

- A. Proto-Indo-European *\*b[h]er-/b[h]or-/b[h]r̥-* "to bear, to carry, to bring forth": Sanskrit *bhāratī* "to bear, to support"; Armenian *berem* "to bear"; Greek *φέρω* "to bear, to carry, to bring forth"; Albanian *bir* "son", *burrë* "man"; Latin *ferō* "to bear, to carry, to bring forth"; Old Irish *biru* "to carry"; Gothic *bairan* "to bear, to carry, to bring forth", *barn* "son", *baur* "son, child"; Lithuanian *bėrnas* "son". Pokorny 1959:128-32 *\*bher-* "to carry, to bring"; Walde 1927-32.II:153-57 *\*bher-*; Mann 1984-87:74 *\*bherō* "to bear, to carry, to bring, to take", 74 *\*bhernos* "son, fellow", 94 *\*bhorn-* "son, fellow", 114 *\*bhr̥jos* "son, young man", 125 *\*bhūrn-*, *\*bhrūn-* "son, fellow"; Watkins 1985:7 *\*bher-* "to carry, to bear children"; Gamkrelidze and Ivanov 1984.I:340 *\*b[h]er-oH*.
- B. Proto-Afroasiatic *\*bar-/bər-* "to bear, to carry, to bring forth": Proto-Semitic *\*bar-aʔ-* "to bear, to bring forth, to create" > Hebrew *bārāʔ* "to shape, to create"; Aramaic *bārāʔ* "to create", *bar* "son"; Arabic *baraʔa* "to create"; Sabaean *brʔ* "to create"; Soqotri *bere* "to bring forth", *bar* "child". Proto-Semitic *\*bar-aw-* "to bear children" > Sabaean *brw* "child, son"; Harsūsi *berō* "to bear children", *ber* "son"; Soqotri *bíroh* "to bear children", *ber* "son"; Jibbāli *bíri* "to give birth", *ber* "son".
- C. Proto-Elamo-Dravidian *\*par* "child, young one": Middle Elamite *par* "descendants". Dravidian: Tamil *pārppu* "fledgling, young of birds, young of tortoise, frog, toad, lizard, etc.", *pārval* "fledgling, young of deer or other animals"; Malayalam *pārppu* "shoal of young fish, small fry"; Kannada *pāpa* "small child", *pāra* "boy"; Telugu *pāpa* "infant, babe, child", *pāpāḍu* "boy"; Parji *pāp* "child, babe, young of animals"; Gadba (Ollari) *pāp* "child, young one, small one (of articles)". Burrow and Emeneau 1984:364, no. 4095; McAlpin 1981:104. Dravidian: Tamil *poru* "to bear, to sustain, to endure, to tolerate, to excuse, to take responsibility, to wear, to be patient"; Malayalam *porukka* "to bear, to sustain, to tolerate, to pardon, to abide, to stay, to recover, to heal"; Kota *por-* (*pot-*) "to carry or take in arms", *per* "burden"; Toda *pīl-* (*pīt-*) "to carry", *par* "a load"; Kannada *por-* (*pott-*) "to take upon or bear on the head, to bear (as a burden), to carry, to support, to hold up,

to undertake, to endure", *pore* "a load, burden, measure, size"; Kodagu *pori*- "to carry", *pore* "a load". Burrow and Emeneau 1984:404, no. 4565.

Buck 1949:4.72 bear (of mother). Brunner 1969:27, no. 75; Möller 1911:34-35; Illič-Svityč 1971- .I:176-77, no. 8 *\*bari*.

7. Proto-Nostratic *\*bar-/\*bār-* "to twist, to turn":

- A. Proto-Indo-European *\*b[h]er-/\*b[h]or-/\*b[h]r-* "to plait, to weave": Greek φόρος "a large piece of cloth, web; cloak, mantle", φορμός "a seaman's cloak, mat"; Lithuanian *būrė* "sail". Pokorny 1959:137-38 *\*bher-* "to plait, to weave"; Walde 1927-32.II:164 *\*bher-*; Boisacq 1950:1016; Chantraine 1968-80.II:1179; Frisk 1970-73.II:993-94; Hofmann 1966:392.
- B. Kartvelian: Georgian *br-un-va* "to turn, to twist", *bor-b-ali* "wheel, potter's wheel", *bru* "dizziness" in *tav-bru* "dizziness in the head". Schmidt 1962:98.
- C. Proto-Afroasiatic *\*bar-/\*bār-* "to twist, to twine, to weave": Proto-Semitic *\*bar-am-* "to twist, to twine, to weave" > Hebrew *bārōmīm* "variegated cloth"; Akkadian *birmu* "a kind of clothing"; Arabic *barama* "to twist, to twine", *barīm* "rope, string, cord, twine". Proto-Semitic *\*burd-* "garment" > Arabic *burd* "garment"; Harsūsi *berdīg, berdōg* "piece of rag, cloth". Akkadian *barru* "a piece of apparel".

Buck 1949:6.21 cloth; 10.88 sail (sb.). Brunner 1969:27, no. 77.

8. Proto-Nostratic *\*buw-/\*bow-* "to go, to come, to proceed, to spend (time)":

- A. Proto-Indo-European *\*b[h]ewH-/\*b[h]owH-/\*b[h]uH-* "to spend (time), to abide, to dwell": Sanskrit *bhāvati* "to become, to be, to exist, to live, to stay, to abide", *bhūmi-h* "earth, soil"; Albanian *buj* "to spend the night"; Gothic *bauan* "to dwell, to inhabit"; Old Icelandic *ból* "lair". Pokorny 1959:146-50 *\*bheu-*, *\*bheuə-* (*\*bhūā-*, *\*bhūē-*): *\*bhōu-*: *\*bhū-* "to grow, to prosper"; Walde 1927-32.II:140-44 *\*bheu-*; Mann 1984-87:97 *\*bhouən-* "dwelling"; Watkins 1985:8 *\*bheuə-* (also *\*bheu-*) "to be, to exist, to grow".



- B. Proto-Afroasiatic *\*baw-/\*baw-* "to come, to go (in), to enter": Proto-Semitic *\*baw-a?* "to enter, to go in, to abide, to dwell" > Hebrew *bō?* "to come in, to come, to go in, to enter"; Arabic *bāʾa* "to come again, to return, to come back; to take a place, to settle down, to live or stay at a place, to reside", *mabāʾa* "abode, dwelling, habitation"; Old Akkadian *buāʾum* "to come"; Ugaritic *bā* "to come, to enter"; Sabaeen *bw?* "to enter"; Geez / Ethiopic *bōʾa* "to enter"; Harari *bōʾa* "to enter, to go in". Egyptian *bw, bw?* "place". Faulkner 1962:81-82. Proto-East Cushitic *\*biy-* "earth, land, place" > Hadiyya *beyy-o* "place"; Oromo *biyy-a, biyy-ee*; Arbore *bii*; Burji *bíy-a* "world; earth, soil, sand". Sasse 1979:45 and 1982:37. Beja / Beḍawye *bi?* "to return home, to rest". North Bauchi Chadic *\*buw-* "to come" > Warjanci *buw-*; Jimbinanci *bō-*; Miyanci *bā-/bu-*; Mburkanci *bū-*; Kāriyanci *bə-/bū-*. Skinner 1977:16.
- C. Dravidian: Tamil *pō* (*pōv-/pōkuv-/pōtuv-, pōṇ-/pōyin-*; neg. *pōk-*) "to go, to proceed, to go away, to reach a destination, to be admissible, to become long, to extend, to spread, to exceed, to be tall, to become expert in, to undergo, to cease, to abandon, to go by, to lapse, to disappear, to be lost, to die", *pōkai* "departure", *pōvi* "to cause to go, to lead", *pōkku* (*pōkki-*) "to cause to go, to send, to complete, to perform, to pass or spend (as time), to ruin, to kill"; Malayalam *pōka* "to go, to go away, to go towards, to be lost, to be able", *pōkkuka* "to make to go, to remove"; Kota *pōk-* (*pōky-*) "to spend (time)"; Kannada *pō, pōgu, pōguha* "going, departing, proceeding", *pōgu, hōgu, ōgu* "to go, to go away, to pass away, to be spent"; Tulu *pōpini* "to go, to go away, to be lost, to disappear, to depart, to start, to pass (of time)"; Telugu *pōvu* (stems *pō-, pōy-*) "to go, to proceed, to pass, to be over, to be lost, to disappear, to be ruined, to die, to begin", *pōka* "going, movement, departure, conduct, behavior"; Konḍa *pōk-* "to spend"; Pengo *pōk-* "to spend". Burrow and Emeneau 1984:404-05, no. 4572.

Buck 1949:7.11 dwell. Möller 1911:37.

9. Proto-Nostratic *\*buw-/\*bow-* "to become, to arise, to come into being, to grow":  
 A. Proto-Indo-European *\*b[h]ewH-/\*b[h]owH-/\*b[h]uH-* "to become, to arise, to come into being, to grow": Sanskrit *bhāvati* "to become, to be, to arise, to come into being, to exist", *bhūtá-h* "become, been, gone, past", *bhūti-h, bhūtí-h* "well-being, prosperity, wealth, fortune"; Greek

φύω "to bring forth, to produce, to put forth; to grow, to increase, to spring up, to arise"; Latin (perf.) *fui* "to be, to exist", *fīō* "to be made, to come into existence"; Old Irish *buith* "being"; Old English *bēon* "to be, to exist, to become, to happen"; Lithuanian *būti* "to be, to exist", *būvis* "existence"; Old Church Slavic *byti* "to be". Pokorny 1959:146–50 \**bheu-*, \**bheuə-* (\**bhuā-*, \**bhuē-*): \**bho-*: \**bhū-* "to grow, to prosper"; Walde 1927–32.II:140–44 \**bheu-*; Mann 1984–87:76 \**bheuō* "to be", 116 \**bhū-* (\**bhu-*) "to be"; Watkins 1985:8 \**bheuə-* (also \**bheu-*) "to be, to exist, to grow"; Gamkrelidze and Ivanov 1984.I:178 \**b[h]eu-*, I:198 \**b[h]euH-*, I:206 \**b[h]euH-/b[h]uH-* > \**b[h]ū-*.

- B. Proto-Afroasiatic \**baw-/bəw-* "to be or become full, filled; to become large": Proto-Sam \**buuḥ-* "to be full" > Rendille *buh*; Somali *buuḥ-so*, *buh*. Heine 1978:54. Proto-Sam \**buuḥ-i*, \**buuḥ-ica* "to fill" > Rendille *buh*; Somali *buuḥi*; Boni *buuhi*, *buuhia*. Heine 1978:55. Proto-Sam \**buur* "big (of things)" > Rendille *buur*; Somali *buur-an* "stout". Heine 1978:55.
- C. Proto-Uralic \**puwa* "tree, wood": Finnish *puu* "tree, wood, firewood"; Cheremis / Mari *pu* "wood, firewood"; Votyak / Udmurt *-pu* "tree, wood"; Zyrian / Komi *pu* "tree, wood"; Vogul / Mansi *-pā* "tree"; Hungarian *fa* "tree, wood"; Yurak Samoyed / Nenets *pææ*, *pææ*, (acc. pl.) *pīi* "tree, wood, stick, cane, forest"; Tavgi Samoyed / Nganasan *faa* "tree"; Yenisei Samoyed / Enets *fεε*, *pεε*, *päe* "tree"; Selkup Samoyed *puu*, *poo* "tree, wood, firewood, stick"; Kamassian *pā* "tree, wood, firewood, forest". Collinder 1955:53; Rédei 1986: 410–11 \**puwe*; Décsy 1990:106 \**punga*.
- D. Dravidian: Tamil *pū* "to blossom, to flower, to bloom, to flourish, to menstruate, to produce (as flower), to create, to give birth to"; Malayalam *pū*, *pūvu* "flower, blossom, comb of a cock, menses", *pūkka* "to blossom, to bud, to expand, to menstruate"; Kannaḍa *pū* (*pūt-*) "to flower, to blossom, to bloom", *pūvu* "flower"; Telugu *pū* "flower, blossom", *pūvu*, *puvvu* "flower, blossom", *pūcu* "to flower, to blossom, to bloom"; Kolami *puv* "flower"; Gadba (Ollari) *pūp-* (*pūt-*) "to flower, to blossom"; Konda *puyu* "flower, blossom; cataract of eye", *pū-* "to flower, to blossom". Burrow and Emeneau 1984:384, no. 4345.
- E. Proto-Altaic \**būi-* "to become, to arise, to come into being, to increase, to grow": Classical Mongolian *bū-* (*bö-*) "to be", *bütü-* "to be finished,

ended, accomplished; to have taken place, been fulfilled"; Evenki *bi-* "to be"; Manchu *bi-* "to be"; Turkish *büyük* "great, large, high, important, elderly", *büyüme* "to grow large, to grow up, to increase in importance". Poppe 1960:99, 111, 112, and 125.

Buck 1949:1.42 tree; 9.91 be; 9.92 become. Illič-Svityč 1971- .I:184-85, no. 19 *\*buHi*.

10. Proto-Nostratic *\*bul-/bol-* "to swell, to expand":

- A. Proto-Indo-European *\*b[h]el-/b[h]ol-/b[h]l-* "to swell, to puff up, to inflate, to expand, to bubble up, to overflow": Greek φαλλός "penis"; Latin *follis* "leather bag, bellows, puffed-out cheeks"; Old English *bolla* "bowl", *beald* "bold". Pokorny 1959:120-22 *\*bhel-*, *\*bhlē-* "to blow up"; Walde 1927-32.II:177-80 *\*bhel-*; Watkins 1985:6-7 *\*bhel-* "to blow, to swell". Proto-Indo-European *\*b[h]le2-/b[h]lo2- > \*b[h]lē-/b[h]lō-* "to puff up, to inflate, to blow up": Latin *flō* "to blow"; Old English *blāwan* "to blow", *blæd* "blowing, breath"; Old High German *blāsen* "to blow". Pokorny 1959:120-22 *\*bhel-*, *\*bhlē-* "to blow up"; Walde 1927-32.II:177-80 *\*bhel-*; Mann 1984-87:81 *bhlāiō* "to blow, to blossom", 82 *\*bhlēiō* "to blow, to inflate"; Watkins 1985:9 *\*bhlē-* (also *\*bhlā-*) "to blow". Proto-Indo-European *\*b[h]elg[h]-/b[h]olg[h]-/b[h]lg[h]-* "to swell": Irish *bolg* "belly, bag"; Gothic *balgs* "skin"; Old English *bielg*, *bylig* "leather bag". Pokorny 1959:125-26 *\*bhelg[h]-* "to swell"; Walde 1927-32.II:182-83 *\*bhelg[h]-*; Watkins 1985:7 *\*bhelgh-* "to swell". Proto-Indo-European *\*b[h]lekʷ-/b[h]lkʷ-* "to swell, to expand": Greek φλέψ "vein"; Old High German *bolca*, *bulchunna* "a round swelling". Pokorny 1959:155 *\*bhlegʷ-* "to become bloated"; Walde 1927-32.II:215 *\*bhlegʷ-*. Proto-Indo-European *\*b[h]leyrʹ-/b[h]loyrʹ-/b[h]liṛ-* "to overflow": Greek φλιδάω "to overflow with moisture, to be ready to burst", (Hesychius) φλοιδέω, φλοιδάω "to seethe"; English *bloat* (< Proto-Germanic *\*blaitōn*). Pokorny 1959:156 *\*bhleid-* "to blow up"; Walde 1927-32.II:211 *\*bhleid-*; Mann 1984-87:85 *\*bhloid-* "to seethe, to swell"; Watkins 1985:9 *\*bhlei-* "to blow, to swell". Proto-Indo-European *\*b[h]lew-/b[h]low-/b[h]lu-* "to overflow, to pour over, to flow": Greek φλέω "to abound, to teem with abundance", φλύω, φλύζω "to boil over, to bubble up"; Latin *fluō* "to flow"; Old Church Slavonic *bljujō* "to vomit". Pokorny 1959:158-59 *\*bhleu-* "to blow up"; Walde 1927-32.II:212-14 *\*bhleu-*; Mann 1984-87:85 *\*bhleuō* "to blow, to bellow, to belch, to gush", 86 *\*bhluiō*, *-iō* "to well up, to surge, to gush"; Watkins 1985:9

*\*bhleu-* "to swell, to well up, to overflow".

- B. Proto-Afroasiatic *\*bal-/bəl-* "to swell, to expand": Proto-Semitic *\*bal-al-* "to overflow, to pour over" > Hebrew *bālal* "to mingle, to mix, to confuse, to anoint"; Phoenician *bll* "a type of offering"; Arabic *balla* "to moisten, to wet, to make wet", *billa*, *balal* "moisture, humidity"; Old Akkadian *balālum* "to pour out"; Sabaeen *bll* "wet, moist"; Jibbāli *eblēl* "to give (animals) their fill of water"; Geez / Ethiopic *balla* "to moisten, to wet"; Tigre *bālāl* "to be full, to overflow, to flow, to rain". Proto-East Cushitic *\*bald-/ballaad-* "broad, wide" > Somali *ballaad* "broad"; Burji *bal?* "to be broad"; Oromo *bal?*-, *ball-*, *bald-*. Sasse 1979:22 and 1982:33.
- C. Dravidian: Tamil *poli* "to flourish, to prosper, to abound, to increase, to live long and prosperously", *polivu* "prosperity, abundance", *pular* "to mature (as grain)"; Malayalam *poliyuka* "to be accumulated", *polikka* "to measure corn-heaps, paying the reapers in kind", *poli*, *policcal*, *polippu* "increase", *polivu* "accumulation, contribution", *polima* "increase, excellence"; Kannaḍa *hulisu* "to increase in bulk, to thrive, to grow rich", *hulusu* "increase, richness"; Koḍagu *poli* (*poliv-*, *poliñj-*) "to increase"; Tuḷu *poli* "interest in kind, increase, abundance", *pollusu*, *polsu* "interest, gain, luck", *pollelu* "abundance, increase"; Telugu *poli* "gain". Burrow and Emeneau 1984:402, no. 4550.
- D. Sumerian *bul* "to blow, to breathe, to puff".

Buck 1949:4.46 belly; stomach; 5.17 mix; 10.32 flow (vb.); 10.38 blow (vb. intr.); 12.61 wide, broad. Möller 1911:26-27.

11. Proto-Nostratic *\*bulṣ-/bolṣ-* "to ripen, to blossom, to bloom, to sprout, to mature" (extended form of the preceding):
- A. Proto-Indo-European *\*b[h]ulṣh̑-/b[h]olṣh̑-*, *\*b[h]loṣh̑-* > *\*b[h]lō-* (later also *\*b[h]lē-*) "to blossom, to sprout": Greek φύλλον "leaf"; Latin *folium* "leaf"; Tocharian A *pält*, B *pilta* "leaf"; Gothic *blōma* "flower"; Old English *blōwan* "to bloom, to flower", *blēd* "shoot, branch, fruit, flower"; Old Irish *bláth* "flower". Pokorny 1959:122 *\*bhel-*, *\*bhlē-*, *\*bhlō-*, *\*bhlə-* "leaf, bloom"; Walde 1927-32.II:176-77 *\*bhel-*, *\*bhlē-*, *\*bhlō-*; Mann 1984-87:85 *\*bhlōs-* (*\*bhlōj-*) "flower, bloom", 122 *\*bhūlos*, *-ō(n)*, *-jom* "leaf, layer, film, tissue"; Watkins 1985:7 *\*bhel-* "to

thrive, to bloom"; Gamkrelidze and Ivanov 1984.II:468  
*\*b[h]el-/ \*b[h]loH-/ \*b[h]lH-*.

- B. Proto-Afroasiatic *\*balʕ-/ \*bəlʕ-* "to ripen, to mature, to attain puberty": Proto-Semitic *\*balay-* "to ripen, to mature, to attain puberty" > Arabic *balāḡa* "to reach, to arrive, to come, to attain puberty, to ripen, to mature"; Ḥarsūsi *belōḡ* "to arrive", *bēlēḡ* "to reach puberty, to be fully grown"; Mehri *bōlēḡ* "adult"; Jibbāli *bēlēḡ* "to reach puberty".
- C. Proto-Altaic *\*bōl-* "to become": Classical Mongolian *bol-* "to be, to become, to exist, to be possible"; Kalmyk *bol-* "to become"; Old Turkish *bol-* (= *bōl-*) "to become"; Turkish *bol* "wide, loose, ample, copious, abundant"; Yakut *buol-* (< *\*bōl-*) "to become". Poppe 1960:99.
- D. Sumerian *buluḡ<sub>3</sub>* "to grow, to make grow".

Buck 1949:8.56 leaf; 8.57 flower; 12.53 grow (= increase in size). Illič-Svityč 1971- .I:181-82, no. 16 *\*bolʔi*.

12. Proto-Nostratic *\*bul-/ \*bol-* "to mix, to mix up, to confuse":

- A. Proto-Indo-European *\*b[h]lend[h]-/ \*b[h]lond[h]-/ \*b[h]lnd[h]-* "to mix; to make blind, to be blind": Gothic *blandan* "to mix", *blinds* "blind"; Old English *blandan* "to mix", *blendan* "to blind, to deceive", *blind* "blind"; Old Icelandic *blanda* "to blend, to mix", *blinda* "to blind", *blindr* "blind", *blunda* "to shut the eyes", *blundr* "dozing, slumber"; Lithuanian *blendžiù*, *blęsti* "to become dark"; Old Church Slavonic *blędō*, *blęsti* "to go blindly". Pokorny 1959:157-58 *\*bhleindh-* "dim, reddish"; Walde 1927-32.II:216 *\*bhleindh-*; Mann 1984-87:82 *\*bhleindhō* "to mix, to confuse, to dazzle", 84 *\*bhlnđh-* "to confuse, to deceive, to err; confusion, error", 84 *\*bhlonđh-* "to confuse, to stir, to mix, to blur, to deceive".
- B. Proto-Afroasiatic *\*bal-/ \*bəl-* "to mix, to mix up, to confuse; to be blind": Proto-Semitic *\*bal-al-* "to mix, to mix up, to confuse" > Akkadian *balālu* "to mix, to mix up, to confuse, to mingle"; Hebrew *bālāl* "to mingle, to mix, to confuse"; Syriac *bālīl* "mixed, confused"; Geez / Ethiopic *balla* "to spoil, to ruin, to destroy, to mix, to confuse". Proto-Semitic *\*bal-bal-* "to confuse, to mix" > Arabic *balbala* "to disquiet, to make uneasy or restive, to stir up, to rouse, to disturb, to trouble, to confuse"; Geez / Ethiopic *bābbala* "to be mixed up, messed

up, confused, scattered", *ʔabābbala* "to mix, to confuse"; Tigre *ʕabālbāla* "to be confused"; Amharic *bolābbolä* "to combine *nug*-seeds with flax seeds". Proto-Semitic *\*bal-aš-* "to be confused" > Hebrew *bālaʕ* "to be confused". Coptic *blle* "blind". Vycichl 1983:27; Černý 1976:23. Proto-East Cushitic *\*balf-/ballaš-* "blind, one-eyed" > Burji *balʔ-áa* "blind"; Oromo *balla-a* "blind"; Sidamo *balʔ-icca ~ ball-icca* "blind"; Darasa *ballaʔ-a* "blind". Sasse 1982:33. Proto-Southern Cushitic *\*balaš-* "blind" > Kʼwadza *balangayo* "blind person". Ehret 1980:320.

- C. Proto-Altaic *\*bul-* "to mix, to mix up, to confuse": Mongolian *bulangir* "muddiness, dirt; muddy, dirty", *bulya* "tumult, commotion, turmoil"; Evenki *bolgon* "tumult, commotion, turmoil, confusion, panic", *bolgo-* "to become confused"; Old Turkish *bulyaq* "revolt, rebellion, turmoil"; Turkish *bulut* "cloud", *bulamak* "to smear, to bedaub, to dirty, to soil, to mix". Poppe 1960:75 and 86. Note: the Mongolian forms are considered to be Turkic loans.

Buck 1949:4.97 blind; 5.17 mix. Illič-Svityč 1971- .I:185-86, no. 20 *\*bula*; Möller 1911:27-28.

13. Proto-Nostratic *\*bul-/bol-* "to become worn out, weak, tired, old":

- A. Proto-Indo-European *\*b[h]ol-* "worn out, weak; misfortune, calamity": Greek *φλαῦρος* "bad, useless, mean, shabby"; Gothic *balwjan* "to torment, to plague", *blauþjan* "to abolish, to make void"; Old English *bealo* "evil, calamity, injury", *blēat* "miserable"; Old Icelandic *blauþr* "soft, weak"; Old Church Slavic *bolěti* "to be sick"; Lithuanian *blúkšti* "to become weak". Pokorny 1959:125 *\*bheleu-* "to hit, to weaken", 159 *\*bhlēu-*, *\*bhləu-*, *\*bhlū-* "weak, miserable"; Walde 1927-32.II:189 *\*bhol-*, II:208-09 *\*bhlau-*; Mann 1984-87:81 *\*bhlauros*, *\*bhlausros* (?), 81 *\*bhlautos*, *-ijos* "limp, timid"; Watkins 1985:7 *\*bhelu-* "to harm".
- B. Proto-Afroasiatic *\*bal-/bəl-* "to become worn out": Proto-Semitic *\*bal-ay-* "to become worn out, weak, tired, old": Hebrew *bālāh* "to become old and worn out", *bāleh* "worn out, old", *bālī* "destruction, defeat, failure"; Aramaic *bālē* "to become worn out"; Akkadian *balū* "to come to an end, to become extinguished"; Arabic *baliya* "to be or become old, worn", *balīy* "worn, decrepit, old, shabby", *balīya* "trial, tribulation, affliction, distress, misfortune, calamity"; Jibbāli *bélé* "to tire

out, to nag"; Geez / Ethiopic *balya* "to be old, worn out, decrepit, obsolete"; Tigre *balā* "to be old, worn out".

- C. Dravidian: Tamil *pulampu* (*pulampi*-) "to fade", *pular* "to fade, to wither, to faint, to become weak, to decrease"; Malayalam *poliyuka* "to be extinguished", *polikka* "to extinguish", *policcal*, *polippu* "destruction", *polivu* "extinction"; Telugu *poliyu* "to die, to be destroyed or spoiled", *poliyincu* "to kill", *poliyika* "death, destruction"; Kuṛux *polnā* "to be unable, to fail"; Malto *pole* "to be unable, to be helpless, to be vanquished", *poltre* "to vanquish, to tire out". Burrow and Emeneau 1984:404, no. 4571.

Buck 1949:4.84 sick; sickness; 16.72 bad. Möller 1911:28-29; Illič-Svityč 1971-:172, no. 1 *\*baHli*.

14. Proto-Nostratic *\*baly-/baly-* "to shine, to be bright":

- A. Proto-Indo-European *\*b[h]el-/b[h]ol-* "shining, white": Sanskrit *bhāla-m* "splendor"; Greek φαλός "shining, white"; Old Church Slavic *bělъ* "white"; Lithuanian *bālas*, *bāltas* "white". Pokorny 1959:118-20 *\*bhel-*, *\*bhela-* "glittering, white"; Walde 1927-32.II:175-76 *\*bhel-*; Mann 1984-87:63 *\*bhal-* "white, pale, white-spotted, palor", 63 *\*bhāl-*; Watkins 1985:6 *\*bhel-* "to shine, to flash, to burn; shining white and various bright colors". Proto-Indo-European *\*b[h]les-/b[h]los-* "to shine": Old English *blæse* "torch, fire"; Middle High German *blas* "torch". Pokorny 1959:158 *\*bhles-* "to glitter"; Walde 1927-32.II:217 *\*bhles-*. Proto-Indo-European *\*b[h]liyC-/b[h]leyC- > \*b[h]līC-/b[h]lēC- (\*b[h]liyV-/b[h]leyV-)* "to shine": Old English *blēo* "color, appearance, form", *blīcan* "to shine, to glitter", *blāc* "bright, white"; Old Church Slavic *blědъ* "light green, yellow". Pokorny 1959:155-56 *\*bhlēi-*, *\*bhlai-*, *\*bhlī-* "to glitter"; Walde 1927-32.II:210 *\*bhlei-*; Mann 1984-87:83 *\*bhlīgsō*, *-īō* (*\*bhlīks-*, *\*bhlīsk-*; radical *\*bhlīg-*) "to shine, to flash", 82 *\*bhlēdh-* "pale". Proto-Indo-European *\*b[h]lu-, \*b[h]luH- > \*b[h]lū-* "to shine": Old High German *bluhhen* "to burn, to light up"; Old English *blysa* "torch, fire"; Middle Irish *blosc* "clear, evident", *bloscad* "radiance"; Czech *blčeti* "to flash, to blaze", *blýskati* "to lighten, to flash"; Polish *blýsk* "lightning". Pokorny 1959:159 *\*bhlēu-*: *\*bhlau-*: *\*bhlū-* "to glitter"; Walde 1927-32.II:214 *\*bhleu-s-*; Mann 1984-87:85-86 *\*bhluk-* "to flash, to shine, to turn white", 86 *\*bhlus-*, 86 *\*bhluskos* "light, bright, pale". Proto-Indo-European *\*b[h]elk'-/b[h]olk'-/b[h]l{k'-*,

\*b[h]lek'–/\*b[h]lok'– "to shine": Sanskrit *bhārgas*– "splendor, radiance"; Old Church Slavic *blagъ* "good"; Greek φλέγω "to burn, to blaze"; Latin *flagrō* "to blaze, to burn, to glow", *fulgor* "lightning"; Old English *blæcern*, *blācern* "lantern". Pokorny 1959:124–25 \*bheleg– "to glisten"; Walde 1927–32.II:214–15 \*bhleg–, \*bhelg–; Mann 1984–87:80 \*bhlāg– "to blaze, to flash", 81 \*bhlağrō, –āiō "to burn, to flame", 82 \*bhleğ– "bare, blank; to look, to shine".

- B. Proto-Afroasiatic \*bal–/\*bəl– "to shine, to be bright": Proto-Semitic \*bal–ag– "to gleam, to shine" > Hebrew *bālay* "to gleam, to smile"; Arabic *balāğ* "to shine, to dawn", *baliğ* "to be happy, glad", *ʔablağ* "bright, clear, gay, serene, fair, beautiful, nice". Proto-Semitic \*bal–bitš'– "to gleam, to glitter" > Neo-Syriac *balbiš* "to gleam, to glitter". Proto-Sam \*bil–ig– "to flash (lightning)" > Somali *bilig* "to flash"; Boni *bilikso* "lightning". Heine 1978:54.
- C. Dravidian: Tamil *paḷapaḷa* "to glitter, to shine"; Malayalam *paḷapaḷa* "gleaming", *paḷunṇuka* "to glitter"; Kannada *paḷakane*, *paḷacane*, *paḷaccane*, *paḷaṇce* "with a glitter, with pure brightness, with a flash; brightness, pureness"; Tuḷu *paḷḷena* "to light, to shine"; Telugu *paḷapaḷa* "glitteringly". Burrow and Emeneau 1984:357, no. 4012.

Buck 1949:1.55 lightning; 15.57 bright; 15.64 white; 16.22 joy; 16.25 laugh (vb.), smile (vb.). Möller 1911:25–26 and 29–30.

15. Proto-Nostratic \*bar–/\*bər– "to shine, to be bright":

- A. Proto-Indo-European \*b[h]erEk'–, \*b[h]reEk'– > \*b[h]rēk'– "to shine, to gleam, to be bright": Sanskrit *bhrājate* "to shine, to gleam, to glitter"; Gothic *bairhts* "bright"; Lithuanian *brėkšti* "to dawn"; Hittite *pār–ku–uš* "pure, clean"; Palaic *pa–ar–ku–i–ti* "to clean, to purify"; Welsh *berth* "beautiful". Pokorny 1959:139–40 \*bherag–, \*bhrēg– "to glitter"; Walde 1927–32.II:170–71 \*bherēg–; Mann 1984–87:73 \*bherg– "brightness, bright"; Watkins 1985:7 \*bherag– "to shine; bright, white"; Gamkrelidze and Ivanov 1984.II:620 \*b[h]erHk'–. Proto-Indo-European \*b[h]rek[h]– "to shine, to glitter": Sanskrit *bhrāśate* "to shine, to glitter"; Old Icelandic *brjá* (< Proto-Germanic \*breḡan) "to sparkle, to flicker, to gleam". Pokorny 1959:141–42 \*bherək–, \*bhrēk– "to glitter"; Walde 1927–32.II:169 \*bherek–; Mann 1984–87:102 \*bhrēk– "to shine"; Watkins 1985:8 \*bherək– "to shine, to glitter".



- B. Proto-Kartvelian *\*berts'q'-/bɾts'q'-* "to shine": Georgian *brc'q'inva* "to shine; brightness", *brc'k'iali* "to light, to illuminate", *brc'q'invale* "white"; Svan [*berc'q'-*]. Schmidt 1962:99; Klimov 1964:50.
- C. Proto-Afroasiatic *\*bar-/b̄ar-* "to shine, to be bright", *\*bark'-/b̄ark'-* "lightning": Proto-Semitic *\*bar-ak'-* "to shine, to glitter, to sparkle, to flash", *\*bark'-/b̄irk'-* "lightning" > Hebrew *bārāḵ* "to flash", *bārāḵ* "lightning"; Aramaic *barḵā* "lightning"; Ugaritic *brḵ* "lightning"; Arabic *baraḵa* "to shine, to glitter, to sparkle", *barḵ* "lightning"; Akkadian *birkū* "lightning", *barāḵu* "to flash"; Sabaeen *brḵ* "lightning"; Jibbāli *bóróḵót* "to flash"; Harsūsi *hebērēḵ* "lightning", *berḵōt* "to flash, to lighten"; Geez / Ethiopic *baraḵa* "to flash like lightning"; Harari *bārāḵ* "lightning"; Gurage *b̄arāḵ* "lightning". Proto-Semitic *\*bar-at'-* "to sparkle, to shine" > Akkadian *barāṣu* "to sparkle, to shine brightly"; Geez / Ethiopic *tabāraša* "to twinkle, to glitter". Proto-Semitic *\*bar-ar-* "to be or become clear or bright, to purify, to clean" > Hebrew *bārar* "to purify", *bar* "pure, clean"; Akkadian *barāru* "to glitter, to glisten, to glimmer, to sparkle", *barīru* "rays"; Ugaritic *brr* "clean, pure"; Geez / Ethiopic *b̄arur* "silver". Proto-Semitic *\*bar-ah-* "to light up" > Geez / Ethiopic *barha* "to light up"; Amharic *bār̄ra* "to be lit", *abār̄ra* "to be aglow, to shine, to be bright", *mābrat* "lamp, light", *b̄arhan* "light, glow, flame"; Tigre *bārha* "to be bright, to be clean, to shine". Egyptian *brg* "to give light"; Coptic *eb̄rēḥe* "lightning" (Semitic loans [cf. Černý 1976:33; Vycichl 1983:39]). Proto-East Cushitic *\*bark'-/b̄irk'-* "lightning" > Dasenech *bidd'i* (< *\*birk'-ti*) "lightning"; Elmolo *i-birga* "lightning". Sasse 1979:49. Proto-East Cushitic *\*bar-/b̄er-/b̄or-* "dawn, morning, tomorrow" > Saho-Afar *beera* "tomorrow"; Somali *ber-r-i(to)* "tomorrow", *ber-iy-* "to dawn"; Bayso *bar-i* "morning"; Oromo *bor-u* "tomorrow". Sasse 1982:34. Proto-Southern Cushitic *\*birik'-* "lightning" > Dahalo *birík'ina* "lightning". Ehret 1980:321.
- D. Dravidian: Kannaḍa *pare* "to dawn"; Telugu *parāgu* "to shine"; Malto *parce* "to shine brightly, to be seen clearly". Burrow and Emeneau 1984:354, no. 3980.
- E. Sumerian *bar* "to shine, to light, to illuminate, to sparkle, to glitter, to glisten; bright, shining; light, brightness".

Buck 1949:1.55 lightning; 15.57 bright; 15.87 clean; 17.34 clear, plain. Brunner 1969:27, no. 74.

16. Proto-Nostratic *\*bar-/\*bār-* "to be kind, charitable, beneficent; to do good":

- A. Proto-Indo-European *\*b[h]er-/\*b[h]or-/\*b[h]r-* "to be kind, charitable, beneficent; to do good": Armenian *bari* "good"; Greek φέριστος, φέρτατος "bravest, best", φέρτερος "braver, better"; Old High German *bora-* "better"; Avestan *bairišta-* "the most willing to help, the most helpful". Boisacq 1950:1021; Meillet 1936:155.
- B. Proto-Afroasiatic *\*bar-/\*bār-* "to be kind, charitable, beneficent; to do good": Proto-Semitic *\*bar-ar-* "to be kind, charitable, beneficent; to do good" > Arabic *barra* "to be reverent, dutiful, devoted; to be kind, charitable, beneficent; to do good", *birr* "piety, good action"; Tamūdic *br* "to be righteous", *hbr* "beneficence, charity, benevolence"; Sabaean *brr* "to make upright".
- C. Proto-Finno-Ugrian *\*para* "good": Finnish (superl.) *paras* "best", (comp.) *parempi* "better, superior"; Lapp *buorrel/buorrē* "good, kind, pleasant"; Mordvin (Erza) *paro*, (Moksha) *para* "good"; Cheremis / Mari (Birsk) *poro* "good"; Votyak / Udmurt *bur* "good, kind, benevolent"; Zyrian / Komi *bur* "good". Rédei 1986- :724.

Buck 1949:16.71 good (adj.). Illič-Svityč 1971- :175-76, no. 7 *\*bara*.

17. Proto-Nostratic *\*bad-/\*bād-* "to split, to cleave, to separate, to divide":

- A. Proto-Indo-European *\*b[h]ed[h]-/\*b[h]od[h]-* "to prick, to pierce, to dig": Hittite *píd-da-i*, *pád-da-i* "to dig"; Latin *fodiō* "to dig"; Gaulish *bedo-* "canal, ditch"; Welsh *bedd* "grave"; Lithuanian *bedù*, *bèsti* "to dig, to bury"; Old Church Slavic *bodq*, *bosti* "to stick, to prick". Pokorny 1959:113-14 *\*bhedh-* "to stab, to dig"; Walde 1927-32.II:188 *\*bhodh-*; Mann 1984-87:69 *\*bhedō*, *-iō* "to stab, to dig, to bury"; Watkins 1985:6 *\*b h e d h-* "to dig"; Gamkrelidze and Ivanov 1984.I:154 *\*b[h]ed[h]-/\*b[h]od[h]-*.
- B. Proto-Afroasiatic *\*bad-/\*bād-* "to split, to cleave, to separate": Proto-Semitic *\*bad-ak'-* "to split, to cleave" > Hebrew *beḏek* "breach, fissure"; Aramaic *bəḏak* "to penetrate"; Akkadian *badāku* "to cleave, to

split"; Geez / Ethiopic *bədəḳ* "fissure". Proto-Semitic \**bad-ad-* "to split, to divide, to separate" > Hebrew *bāḏaḏ* "to be separated, isolated, alone", *baḏ* "part, piece, portion"; Arabic *badda* "to divide, to separate, to spread"; Sabaean *bdd* "to distribute, to share out"; Ḥarsūsi *abdōd* "to separate, to sever"; Jibbāli *bedd* "to separate"; Geez / Ethiopic *badada*, *badda* "to separate, to detach, to make single". Cushitic: Bilin *bid* "to open"; Beja / Beḏawye *bādo* "furrow"; Sidamo *badi* "to separate"; Mocha *bādda(ye)* "to split wood". Leslau 1987:86.

- C. Proto-Finno-Ugrian \**peḏā-* "to prick": Lapp *bæḏḏâ-/bæḏâ-* "to prick, to make a hole in"; Mordvin *pele-* "to bore, to drill"; Vogul / Mansi *peel-* "to prick"; Ostyak / Xanty *pel-*, (S.) *pet-* "to prick". Collinder 1955:74.
- D. Dravidian: Konḍa *paḍ-* "to burst out", *paṭ-* "to break"; Pengo *paḍ-* (*paṭt-*) "to break (intr.)", *paṭ-* "to break (tr.)"; Maṇḍa *paḍ-* "to break (intr.)"; Kuwi *paḍ-* "to break, to split, to crack (intr.)", *paṭ-* "to smash". Burrow and Emeneau 1984:345, no. 3854.
- E. Sumerian *bad-du* "to separate, to divide, to part", *bad<sub>5</sub>* "to divide, to separate".

Buck 1949:8.22 dig; 9.27 split (vb. tr.).

- 18. Proto-Nostratic \**burgy-/borgy-* "to protrude, to be prominent":
  - A. Proto-Indo-European \**b[h]erg[h]-/\*b[h]org[h]-/\*b[h]r̥g[h]-* "high; mountain, hill": Sanskrit *brhánt-* "high, tall, great, strong"; Avestan *bərəzant-* "great, lofty"; Armenian *barjr* "high"; Old English *beorh*, *beorg* "hill, mountain"; Hittite *pār-ku-uš* "high"; Tocharian A *pärk-*, *park-*, B *pärk-* "to rise (sun)". Pokorny 1959:140-41 \**bheregh-* "high, noble"; Walde 1927-32.II:172-74 \**bhergh-*; Mann 1984-87:74 \**bhergh-* "high; height"; Watkins 1985:8 \**bhergh-* "high"; Gamkrelidze and Ivanov 1984.I:217 \**b[h]erġ[h]-*. Proto-Indo-European \**b[h]urg[h]-* (?) "fortress, citadel": Greek (pre-Greek loan) *πύργος* "tower"; Armenian *burgn* "pyramid"; Albanian *burg* "prison"; Latin (Germanic loan) *burgus* "castle, fort, fortress"; Old Irish (Germanic loan ?) *brugh*, *brog*, *borg* "castle"; Gothic *baurgs* "city, town"; Old High German *burg* "castle"; Old English *burg* "fortified place, (fortified) town, city". The Germanic forms are ambiguous (< Proto-Indo-European

\*b[h]r̥g[h]- ?). Mann 1984-87:125 (\*bhurgh-, \*bhrugh-); Gamkrelidze and Ivanov 1984.II: 744-45; Frisk 1970-73.II:629-30; Ernout and Meillet 1979:78; Walde and Hofmann 1965-72.I:124; Feist 1939:85-86; Lehmann 1986b:64-65; Georgiev 1981:99 and 100; Katičić 1976.I:71-72, 93, and 94. Indo-European loans in Semitic (Syriac *būrgā* "tower"; Aramaic *burgin*, *burgon*; Arabic *burg* "tower, castle") and Urartean (*burgana*- "palace").

- B. Proto-Kartvelian \*br̥g- "strong, powerful, high, large": Georgian *br̥ge* "high, imposing"; Svan *bəg-i* "firm, bold". Gamkrelidze and Ivanov 1984.II:879.
- C. Proto-Afroasiatic \*bargy-/ \*b̥argy- "to protrude, to stand out": Proto-Semitic \*baradz- "to stand out, to protrude" > Arabic *baraza* "to show, to appear, to come into view, to emerge; to jut out, to protrude, to be prominent, to stand out", *burūz* "prominence, projection", *bārīz* "protruding, projecting"; Jibbāli *ebrēz* "to cause to stand out"; Gurage (Wolane) *b̥arāzāzā* "to dream". Cushitic: Beja / Beḍawye *birga* "high, tall"; Oromo *borgi* "height".
- D. Dravidian: Tamil *porai*, *porrai* "mountain, hill"; Malayalam *porra* "a slight elevation in rice grounds"; Naiki (of Chanda) *por* "hill, the top", *portal* "from above", *portun* "above"; Gondi *parrō* "on top", *parro* "on, above", *poro* "top"; Kuṛux *partā* "mountain, hill". Burrow and Emeneau 1984:404, no. 4567. Kannada *bōre* "hill, hillock"; Tuḷu *bōrē* "top of a hill". Burrow and Emeneau 1984:406, no. 4595.
- E. Proto-Altaic \*burgan- "(wooded) mountain, (wooded) pasture, promontory": Mongolian *buryasun* "bushes, brushwood, scrub, thicket, undergrowth"; Buriat *burgāhaŋ* "twigs, scrub"; Manchu *buṣan* (< \*burgan) "woods, forest"; Evenki *burgan* "land along a riverbank which is subjected to annual flooding (and, as a result thereof, is overgrown with scrub)"; Yakut *burān/murān* "hill, mountain crest". Poppe 1960:21, 79, 88, and 101.

Buck 1949:1.22 mountain, hill; 1.41 woods, forest; 4.62 dream (vb., sb.); 8.55 branch; 12.31 high. Illič-Svityč 1971- .I:177, no. 9 \*berg/i/.

# 19. Proto-Nostratic \*bah-/ \*b̥ah- "to shine":

- A. Proto-Indo-European \*b[h]eh-(\*[b[h]ah-])/ \*b[h]oh- > \*b[h]ā-/ \*b[h]ō- "to

shine": Sanskrit *bhāti* "to shine"; Greek φάω "to give light, to shine", φαίνω "light, bright, joyous", φαίνομαι "to bring light, to make clear; to show, to appear", φάος, φῶς "light"; Old Irish *bán* "white"; Old English *bōnian* "to polish". Pokorny 1959:104–05 \**bhā-*, \**bhō-*, \**bhə-* "to glisten"; Walde 1927–32.II:122–23 \**bhā-*; Watkins 1985:5 \**bhā-* "to shine" (contracted from \**bha₂-*).

- B. Proto-Afroasiatic \**bah-/bəh-* "to shine": Proto-Semitic \**bah-ar-* "to shine" > Hebrew *bahīr* "bright, brilliant, clear"; Arabic *bahara* "to glitter, to shine"; Aramaic *bəhar* "to shine". Proto-Semitic \**bah-aw-* "to be beautiful, shining, brilliant" > Arabic *bahā* "to be beautiful", *bahīy* "beautiful, splendid, brilliant, radiant, shining". Proto-Semitic \**bah-ag-* "to be shining, beautiful, bright, brilliant; to rejoice" > Arabic *bahīḡa* "to be glad, happy"; *bahuḡa* "to be beautiful", *bahḡa* "splendor, magnificence, beauty"; Tigre *bāhagā* "to rejoice". Proto-Semitic \**bah-ak'-* "to shine, to be white" > Hebrew *bōhaq* "a harmless eruption on the skin, vitiligo"; Aramaic *bəhaq* "to shine"; Arabic *bahaq* "herpetic eruption, a mild form of leprosy"; Ḥarsūsi *behōḡ* "having uncolored (white) blotches on the skin"; Jibbāli *bhōḡ* "white patches on the skin".

Buck 1949:15.56 shine; 16.22 joy; 16.81 beautiful.

20. Proto-Nostratic \**bah-/bəh-* "to say, to speak":

- A. Proto-Indo-European \**b[h]eh-* ([\**b[h]ah-*]) > \**b[h]ā-* "to say, to speak": Greek (Doric) φᾶμί "to declare, to make known"; Latin *fārī* "to say, to speak"; Old English *bōian* "to boast"; Russian Church Slavonic *bajati* "to tell, to heal". Pokorny 1959:105–06 \**bhā-* "to speak"; Walde 1927–32.II:123–24 \**bhā-*; Mann 1984–87:61–62 \**bhāiō*, \**bhāmi* "to utter, to declare, to make known"; Watkins 1985:5 \**bhā-* "to speak" (contracted from \**bha₂-*).
- B. Proto-Afroasiatic \**bah-/bəh-* "to say, to speak": Proto-Semitic \**bah-al-* "to say, to speak" > Arabic *bahala* "to curse"; Akkadian *bālu* "to implore, to beseech"; Jibbāli *behlēt* "word"; Geez / Ethiopic *bəhla* "to say, to speak"; Harari *bāya* "to say, to name"; Gurage *balä* "to say".

Buck 1949:18.21 speak, talk; 18.22 say.

21. Proto-Nostratic \**bak'-/bək'-* "to cleave, to split, to break open":

- A. Proto-Indo-European *\*b[h]ek'-/b[h]ok'* "to break": Sanskrit *bhanákti* "to break, to shatter"; Armenian *bekanem* "to break"; Old Irish *bongid* "to break, to reap". Pokorny 1959:114-15 *\*bheg-*, *\*bheng-* "to smash"; Walde 1927-32.II:149-51 *\*bheng-*, *\*bheg-*; Mann 1984-87:69 *\*bheg-* "to break, to pierce"; Watkins 1985:6 *\*bheg-* "to break"; Gamkrelidze and Ivanov 1984.I:141 *\*b[h]ek'-*. Proto-Indo-European *\*b[h]ak'-* "to divide, to distribute": Sanskrit *bhájati* "to divide, to distribute, to receive, to enjoy"; Greek φαγεῖν "to eat, to devour"; Tocharian A *pāk*, B *pāke* "part, portion". Pokorny 1959:107 *\*bhag-* "to apportion"; Walde 1927-32.II:127-28 *\*bhag-*; Mann 1984-87:60 *\*bhag-*, *\*bhāg-* "to enjoy; enjoyment", 61 *\*bhāgos* "part, share"; Watkins 1985:5 *\*bhag-* "to share out, to apportion, to get a share"; Gamkrelidze and Ivanov 1984.I:141, fn. 1, *\*b[h]ak'-*.
- B. Proto-Afroasiatic *\*bak'-/bək'* "to cleave, to split, to break open": Proto-Semitic *\*bak'-af-* "to cleave" > Hebrew *bāqā'* "to cleave, to break open or through"; Aramaic *bāqā'* "to cleave"; Ugaritic *bḳ'* "to split". Proto-Semitic *\*bak'-ar-* "to split open" > Arabic *baḳara* "to split open, to rip open, to cut open"; Hebrew *bāqar* "to inquire, to seek"; Sabaeen *bḳr* "to bore, to excavate". Proto-Semitic *\*bak'-ak'-* "to split, to break open" > Hebrew *bāqāq* "to lay waste"; Geez / Ethiopic *baḳḳa* "to split, to break up (clods of earth)"; Amharic *bāḳḳākä* "to open"; Gurage *bwākākä* "crack in the ground after the rainy season". Proto-East Cushitic *\*bak'-* "to crush" > Afar *bak-* "to crush"; Somali *baq-* "to curdle"; Oromo *bak'-* "to melt", *bak'ak'-* "to crack"; Burji *bak'-* "to split". Sasse 1979:48 and 1982:32.
- C. Proto-Finno-Ugrian *\*pakka-* "to burst, to rend, to split": Finnish *pakku-* "to burst, to rend, to split"; *pakahtu-* "to burst, to break (intr.), to rend, to split (intr.)"; Vogul / Mansi *pokat-* "to open, to come out, to blossom"; Hungarian *fakad-* "to spring, to ooze, to blossom". Collinder 1955:105; Rédei 1986- :349-50.
- D. Dravidian: Tamil *paku* (*pakuv-*, *pakk-*) "to be split, divided; to be at variance; to be separated; to divide; to distribute; to apportion", *pakir* "to divide into shares, to distribute, to break, to split, to separate"; Telugu *pagulu* "to break, to crack, to go to pieces, to burst"; Tuḷu *pagiyuni* "to split, to rend, to fall in pieces, to give way"; Maṇḍa *pak-* "to split (firewood)". Burrow and Emeneau 1984:340-41, no. 3808.

Buck 1949:9.26 break (vb. tr.).

22. Proto-Nostratic *\*ba/\*bə* "in, into, with, within, among":

A. Proto-Indo-European *\*(-)b[h]i/y-*, *\*-b[h]o-* "in, with, within, among": Gothic *bi* "by", *bai* "both"; Greek (suffix) *-φι*, *ἀμ-φί* "on both sides, around", *ἄμ-φω* "both"; Latin *ambō* "both", (plural case ending) *-bus*; Sanskrit *a-bhī* "to, towards", *u-bhau* "both", (instr. pl. ending) *-bhis*, (dat.-abl. pl. ending) *-bhyas*, (instr.-dat.-abl. dual ending) *-bhyām*. Pokorny 1959:34-35 *\*ambhi* "around", *\*ambhō(u)* "both", *\*ṃbhi*, *\*bhi*; Walde 1927-32.I:54-55 *\*ambhi*, *\*ṃbhi*, *\*bhi*; *\*ambhō(u)*; Mann 1984-87:1 *\*abhāi* (*\*abhāi*) "both", 1 *\*abhi* (*\*abhī*) "round, about", 1-2 *\*abhū* (*\*abhūdu*, *\*abhūduə*) "both", 18 *\*ambh-* (*\*ambh-*, *\*ṃbh-*) "round", 18-19 *\*ambhi* (*\*ambhi*, *\*ṃbhi*) "on both sides, around", 19 *\*ambhō* (*\*ambhō*, *\*ṃbhō*) "both", 77 *\*bhī-* "by, at", 862 *\*obhi*, *\*obh-* "athwart, against, at"; Watkins 1985:2 *\*ambhi* (also *\*ṃbhi*) "around", 2 *\*ambhō* "both"; Gamkrelidze and Ivanov 1984.I:288, 380, 381, 394, and 396 *\*-b[h]i/\*-b[h]i-s*, *\*-b[h]os*; Brugmann 1904:386, 389, 467-68, and 468.

B. Proto-Afroasiatic *\*ba/\*bə* "in, with, within, among": Proto-Semitic *\*ba/\*bi* "in, with, within, among" > Hebrew *bə-* "in, at, on, with"; Arabic *bi* "in, within, among"; Ugaritic *b* "in, with, from"; Sabaean *b* "from, of, in, on, at"; Jibbāli *b-* "at, about, by, with, in"; Ḥarsūsi *b(e)-* "in, with, by"; Geez / Ethiopic *ba* "in, at, with"; Harari *-be* "with, from, by, of, in, on, at"; Gurage *bä* "with, in, at, by, out, out of, from".

Brunner 1969:27, no. 81.

23. Proto-Nostratic *\*bar-/\*bər-* "grain, cereal":

A. Proto-Indo-European *\*b[h]ars-* "grain": Latin *far* "spelt, grain"; Old Icelandic *barr* "barley"; Old English *bere* "barley"; Old Church Slavic *brašeno* "food". Pokorny 1959:111 *\*bhāres-* "barley"; Walde 1927-32.II:134 *\*bhāres-*; Mann 1984-87:66 *\*bhars-* "wheat, barley"; Watkins 1985:5-6 *\*bhāres-* (*\*bhars-*) "barley"; Gamkrelidze and Ivanov 1984.II:872-73 *\*b[h]ar(s)-*.

B. Proto-Afroasiatic *\*bar-/\*bər-* "grain, cereal": Proto-Semitic *\*barr-/\*burr-* "grain, cereal" > Hebrew *bar* "grain"; Arabic *burr* "wheat";

Akkadian *burru* "a cereal"; Sabaean *brr* "wheat"; Harsūsi *berr* "corn, maize, wheat"; Mehri *ber* "corn, maize, wheat". Cushitic: Somali *bur* "wheat".

Buck 1949:8.44 barley. Brunner 1969:27, no. 79.

24. Proto-Nostratic *\*bay-/\*bəy-* "to apportion, to divide into shares, to distribute, to allot":
- A. Proto-Indo-European *\*b[h]ey-/\*b[h]oy-* "to give": Hittite *pa-a-i* "to give"; Palaic *piša-* "to give"; Luwian *piya-* "to give"; Hieroglyphic Luwian *pia-* "to give"; Lycian *piye-* "to give".
  - B. Proto-Afroasiatic *\*bay-/\*bəy-* "to separate into equal parts, to divide into shares, to apportion": Proto-Semitic *\*bay-af-* "to sell" > Arabic *bāʿa* "to sell, to offer for sale"; Tāmūdīc *byʿ* "to sell"; Punic *bʿt* "tariff". Proto-Semitic *\*bay-an-* "to separate, to distinguish" > Arabic *bāna* "to part; to be separated; to be or become plain, evident; to be clear", *bayn* "separation, division, interval", *bayna* "between, among, amidst"; Hebrew *bīn* "to understand, to perceive", (constr.) *bēn* "interval, space between", (prep.) *bēn* "between"; Syriac *bayyen* "to show, to discern", *bayna-* "between, among, within"; Ugaritic *bn* "between, among"; Sabaean *byn* "to be separated, dislocated", *byn* "between"; Jibbālī *bēn* "to appear", *ebyīn* "to reveal, to make someone out from a distance"; Harsūsi *beyōn* "to appear", *abyōn* "to distinguish something from something, to reveal all of something"; Geez / Ethiopic *bayyana* "to discern, to distinguish, to remark, to pay attention, to notice, to recognize, to consider, to demonstrate, to decide, to judge", *bayn* "interval, distance", *bayna* "between"; Tigre (adj.) *bāyən* "separate"; Tigrinya *bāyn-* "alone, apart". For a discussion of the semantics, cf. David Cohen 1970- :62 (fascicle 2), under *byn*. Arabic *bayyaha* "to cut into pieces and distribute".
  - C. Proto-Altaic *\*bāya(n)* "rich": Classical Mongolian *bayan* "rich"; Kalmyk *bayn* "rich"; Turkmen *bāy* "rich"; Old Turkish *bay* "rich"; Yakut *bāy* "rich". Poppe 1960:66 and 97. Semantic development as in Old Church Slavic *bogotъ* "rich", *bogatiti* "to be rich" < *\*bogъ* "share, portion" < Proto-Indo-European *\*b[h]ak'-* "to divide, to distribute" (cf. Sanskrit *bhājati* "to divide, to distribute, to receive, to enjoy"; Tocharian A *pāk*, B *pāke* "part, portion").



D. Sumerian *ba* "to give as a gift or ration".

Buck 1949:11.42 wealth, riches; 11.51 rich; 11.82 sell. Arbeitman 1987:19–31.

25. Proto-Nostratic *\*banʷ-/bənʷ-* "to join together, to fit together, to fasten, to twist together, to form or produce in any way":

A. Proto-Indo-European *\*b[h]en-d[h]-/\*b[h]on-d[h]-/\*b[h]n-d[h]-* "to join together, to fit together, to fasten, to twist together, to form or produce in any way": Sanskrit *badhnāti*, *bandhati* "to bind, to tie, to fix, to fasten; to bind round, to put on; to catch, to take or hold captive; to arrest, to hold back, to restrain, to suppress, to stop, to shut, to close; to join, to unite; to fold (the hands), to clench (the fist), to knit or bend (the eyebrows), to arrange, to assume (a posture), to set up (a limit), to construct (a dam or a bridge); to form or produce in any way; to cause, to effect, to do, to make, to bear (fruit), to take up (one's abode)", (caus.) *bandhayati* "to cause to bind or catch or capture, to imprison; to cause to be built or constructed; to cause to be embanked or dammed up", *bandhā-h* "binding, tying; a bond, tie, chain, fetter", *bāndhu-h* "connection, relation, association", *baddhā-h* "bound, tied, fixed, fastened, chained, fettered; captured, imprisoned, caught, confined; joined, united, tied up, combined, formed, produced; conceived, formed, entertained, manifested, shown, betrayed, visible, apparent; clenched (as a fist), folded (as the hands); built, constructed (as a bridge); embanked (as a river)", *bandhura-h* "bent, inclined; curved, rounded, pleasant, beautiful, charming"; Bengali *bādh* "bond, dam", *bādhā* "a fastening, settlement", *bāadhan* "bond, tie, knot"; Marāṭhī *bādh(h)* "dam", *bādhā* "structure"; Gothic *bindan* "to bind", *bandi* "band, bond"; Old English *bendan* "to bind; to stretch, to bend", *bindan* "to bind, to fetter", *bund* "bundle"; Old Icelandic *binda* "to bind, to tie, to fasten, to tie up", *benda* "to bend", *benda* "band, tie", *bendi* "cord"; Old Irish *bann* "bond, belt, hinge, chain, law"; Thracian *βενδ-* "to bind"; Greek *πενθερός* "father-in-law"; Lithuanian *beñdras* "friend, companion". Pokorny 1959:127 *\*bhendh-* "to bind"; Walde 1927–32.II:152 *\*bhendh-*; Mann 1984–87:72 *\*bhendh-* "to bind", 87 *\*bhñdh-* "bound, binding", 92 *\*bhondhos*, *-ā*, *-us* "band, thong, company"; Watkins 1985:7 *\*bhendh-* "to bind"; Gamkrelidze and Ivanov 1984.I:174 *\*b[h]end[h]-*, *\*b[h]ñd[h]-*.

B. Proto-Afroasiatic *\*ban-/bən-* "to join together, to fit together, to fasten, to twist together, to form or produce in any way": Proto-Semitic

\**ban-aw/y-* "to build, to construct"; \**bin-/bun-* "son, (f.) daughter" > Hebrew *bānāh* "to build", *bēn* (*ben-* in compounds) "son, grandson" (pl. *bānīm* "children [including daughters]"); Aramaic *bānā* "to build"; Akkadian *banū* "to build, to construct, to form (a city, building, wall, canal, or parts thereof, a tomb, etc.), to make, to manufacture, to shape (a stela, statue, implement, boat), to construct (a geometrical figure, in math); to engender, to produce; to create (said of a deity); to devise a plan, to act in a specific way, to create a situation", *banū* (f. *banītu*) "well-formed, well-made, of good quality, fine, beautiful, friendly, propitious", *binītu* "creation, creature; form, structure; eggs, roe", *bintu*, *buntu*, *bunatu* "daughter", *bīnu* (*binnu*), *būnu* "son", *binūtu* "make-up, form, figure, shape, structure, construction; creation, creature, product; fish eggs, roe", *būnu* "features, face; plan, shape, appearance"; Arabic *banā* "to build, to erect, to construct, to set up (something)", *bināʔ* "building, construction, erection, setting up; structure, setup, makeup", *binya*, *bunya* "structure, setup, make-up", *binya* "build, frame, physique, physical constitution", *mabnan* "building, construction, erection, setting up; form, foundation, fundament, basis", *mabniy* "built, set up, erected; founded, based, resting (on); fixed, established", *ʔibn* "son; descendant, scion; offspring"; Ugaritic *bnw/y* "to build", *bn* "son"; Sabaeen *bny* "to build, to construct", *bnw*, *bny* "building, construction", *bn* "son, (f.) daughter"; Harsūsi *benō* "to build", *bēni* "building", *ḥe-būn* "sons, children"; Soqotri *bēne* "to build"; Jibbāli *ebnī* "to build"; Mehri *bānō* "to build", *bēni* "building", *ḥa-bōn* "children". Egyptian *bnn* "to beget". Faulkner 1962:82-83. Proto-Chadic \**bən-* "hut, house" > Bole *bono* "hut, house"; Mubi *beni* "to build"; Mokulu *bīnu* "hut, house". Newman 1977:28.

- C. Dravidian: Tamil *paṇ* "service, work, business, employment, decoration", *paṇi* "act, action, performance, work, service, decoration", *paṇikkaṇ* "master-builder, carpenter", *paṇṇu* (*paṇni-*) "to make, to effect, to produce, to adorn"; Malayalam *paṇi* "work, labor, service, building, exertion", *paṇiyuka* "to build"; Kannada *paṇṇu* "to make ready, to prepare, to equip, to decorate"; Telugu *paṇi* "work, deed, workmanship, art"; Koḍagu *paṇi* "work"; Kolami *paṇṇī* "work, labor"; Naikri *paṇi* "work"; Parji *pandp-* (*pandt-*) "to make, to do"; Konda *pand-* "to prepare, to construct, to devise, to plan"; Gondi *pand-* "to build (house)". Burrow and Emeneau 1984:347, no. 3884.

Buck 1949:9.11 do, make; 9.12 work, labor, toil (sb.); 9.13 work, labor, toil

(vb. intr.); 9.16 bind (vb. tr.); 9.44 build; 9.75 plait (vb.).

26. Proto-Nostratic *\*bay-/bāy-* "bee, honey":

- A. Proto-Indo-European *\*b[h]i-* "bee": Old English *bēo* "bee"; Old Irish *bech* (< *\*b[h]i-k[h]o-s*) "bee"; Lithuanian *bìtė, bitis* "bee"; Old Church Slavonic *bъčela* "bee". Pokorny 1959:116 *\*bhei-* "bee"; Walde 1927-32.II:184-85 *\*bhī-*; Mann 1984-87:80 *\*bhit-* "bee"; Watkins 1985:6 *\*bhei-* "bee"; Gamkrelidze and Ivanov 1984.II:611, fn. 1, *\*b[h]i-t[h]-*.
- B. Afroasiatic: Egyptian *bī-t, by-t* (< *\*bāy-*) "bee, honey", Demotic *ibī-t* "honey"; Coptic *ebiō* "honey". Faulkner 1962:79; Erman and Grapow 1921:46; Vycichl 1983:38; Černý 1976:32.

Buck 1949:3.82 bee; 5.84 honey.

27. Proto-Nostratic *\*bun-/bon-* "to puff up, to inflate, to expand, to make to swell"; (extended form) *\*bung-/bong-* "to swell, to fatten, to increase, to expand":

- A. Proto-Indo-European *\*b[h]eng[h]-/\*b[h]ong[h]-/\*b[h]ng[h]-* "to swell, to fatten, to grow, to increase", *\*b[h]ng[h]u-* "swollen, fat, thick": Sanskrit *bamhate* "to grow, to increase", *bahú-h* "much, abundant, great, large"; Greek *παχύς* "thick, stout, fat, massive"; Old Icelandic *bunki* "heap, pile"; Old High German *bungo* "clod, lump"; Latvian *bīezs* "thick"; (?) Hittite *pa-an-ku-uš* "all, whole". Pokorny 1959:127-28 *\*bhengh-*, *\*bhnggh-* (adj. *\*bhngghú-s*) "thick, dense"; Walde 1927-32.II:151 *\*bhengh-*, *\*bhnggh-* (adj. *\*bhngghú-s*); Mann 1984-87:87 *\*bhnggh-* "big, mass, lump", 124 *\*bhunghos, -ā* "hump, bulge, growth"; Watkins 1985:7 *\*bhengh-* "thick, fat"; Gamkrelidze and Ivanov 1984.I:174 *\*b[h]eng[h]-, \*b[h]ng[h]-*.
- B. Proto-Finno-Ugrian *\*puŋka, \*poŋka* "rounded protuberance, lump": Estonian *pung* "rounded protuberance (bud, knob, etc.)"; Lapp *bug'ge* "bump, lump; hump; swollen or expanded object"; Mordvin *pokol'* "lump, protuberance"; Zyrian / Komi *bugyl'* "hump, ball, globe"; Vogul / Mansi *puuŋhläp* "having a knob (or knobs)"; Ostyak / Xanty (S.) *poŋgal* "knob, knoll, protuberance; gnarl on a tree; clod of snow", *poŋgat* "abscess, boil, gnarl on a tree"; Hungarian *bog* "knob; thickening on a plant stalk; gnarl on a tree". Collinder 1955:109; Rédei 1986- :404.

C. Proto-Dravidian *\*poŋk-* "to increase, to swell, to expand": Tamil *poŋku* (*poŋki-*) "to boil up; to bubble up by heat, foam, and rage; to increase; to swell; to shoot up; to be elated; to burst with anger; to be swollen; to rise; to grow high; to abound; to flourish; to be fruitful; to cook", *poŋkam* "increase, abundance, joy, splendor"; Malayalam *poŋnuka* "to boil over, to bubble up, to spread"; Kota *poŋg-* (*poŋgy-*) "to increase magically in number"; Kannada *poŋgu* "to boil over, to burst open, to expand, to open, to blossom, to swell, to be elated, to exult, to be overjoyed"; Kodagu *poŋŋ-* (*poŋŋi-*) "to swell"; Tulu *boŋguni* "to be distended", *boŋka* "big, large", *boŋgu*, *boŋgu* "protuberance"; Telugu *poŋgu* "to bubble up, to boil, to effervesce, to rejoice, to be elated, to be puffed up, to be proud"; Kolami *poŋg-* (*poŋkt-*) "to boil over"; Naikri *poŋg-* "to expand". Burrow and Emeneau 1984:395-96, no. 4469.

D. Sumerian *bún* "to blow, to inflate; breath".

Buck 1949:12.63 thick (in dimension); 13.13 whole; 13.15 much, many. Illič-Svityč 1971- .I:182-83, no. 17 *\*bongä*.

28. Proto-Nostratic *\*bury-/bory-* "brown":

A. Proto-Indo-European *\*b[h]er-*, *\*b[h]ru-* "brown": Sanskrit *babhrú-ḥ* "reddish brown, brown"; Latin *fiber* "beaver"; Old English *brūn* "brown", *bera* "bear", *beofor* "beaver"; Old High German *brūn* "brown", *bero* "bear"; Old Icelandic *brúnn* "brown", *björn* "bear", *bjórr* "beaver"; Lithuanian *bėras* "brown", *bebrūs* "beaver"; Old Church Slavonic *\*bebrъ* "beaver"; Russian *bobr* "beaver"; Greek *φρύνη* *φρῦνος* "toad". Pokorny 1959:136-37 *\*bher-* "glittering, bright brown"; Walde 1927-32.II:166-67 *\*bhěro-s*, *\*bheru-s*; Mann 1984-87:69 *\*bhebhros*, *-us* "red-brown, beaver", 108 *\*bhrūnos* "dun, brownish; brown or dun-colored creature"; Watkins 1985:7 *\*bher-* "bright, brown".

B. Afroasiatic: Proto-East Cushitic *\*boʔr-* "yellow, brown, red, dark-colored" > Burji *bóor-ee* (n.) "yellow color"; Somali *bor-a* "gray, dirty"; Arbore *bur-iy-ḏa* "red"; Dasenech *bur* "red"; Elmolo *burr-i-ḏa* "red"; Oromo *boor-uu* "ash-colored, dim, dull"; Konso *poor-* (pl. *puʔʔur-* "black"; Hadiyya *bork'-* (< *\*borʔ-*) "dark-colored"; Gidole *poor-* "black"; Dobase *poor-e* "burned or carbonized material". Sasse 1982:39.

- C. Proto-Altaic *\*bory-* "gray, brown": Mongolian *boro* "gray"; Evenki *boron* "gray", *boronkōn* "brown stag, hart"; Old Turkish *boz* "gray". Poppe 1960:20 and 81.

Buck 1949:3.73 bear. Illič-Svityč 1971- .I:183-84, no. 18 *\*bor'a*.

29. Proto-Nostratic *\*bur-/ \*bor-* "to whirl, to rage, to agitate":

- A. Proto-Indo-European *\*b[h]ur-/ \*b[h]r̥-* "to move rapidly, to rage, to quiver, to palpitate": Sanskrit *bhurāti* "to move rapidly, to stir, to palpitate, to quiver, to struggle (in swimming)", *bhurváni-h* "restless, excited"; Greek *φύρω* "to mix"; Latin *furō* "to rage"; Old Icelandic *byrr* "fair wind"; Old English *byre* "strong wind, storm"; Middle High German *burren* "to rush, to roar, to whirl"; Armenian *buṛn* "violence"; Old Church Slavic *burja* "storm". Pokorny 1959:132-33 *\*bher-* "to well up"; Walde 1927-32.II:157-59 *\*bher-*; Mann 1984-87:126 *\*bhūr̥n-* "wild, dashing; dash, passion", 126 *\*bhūr̥ō, -iō* (expressive variant *\*bhurr-*) "to rush, to roar, to rage"; Mayrhofer 1956-80.II:508-09 and 509-10; Walde and Hofmann 1965-72.I:570-72; Frisk 1970-73.II:1054-55.

- B. Proto-Uralic *\*purka* "snowstorm, drifting of snow": Finnish *purku*, *pyrky* "snowstorm, whirling, drifting of snow, snowdrift"; Lapp *bor'gâ* "cloud, spray of snow"; Cheremis / Mari *purge-* "to fall, to whirl (of snow or dust)", *purgōž* "snowstorm, drifting of snow"; Vogul / Mansi *paark*, *poarka* "snowstorm, drifting of snow, a place drifted over with snow"; Ostyak / Xanty *pörki* "drifting of snow". Collinder 1955:52; Rédei 1986- :406-07 *\*purkə*.

- C. Proto-Altaic *\*bur-* "to whirl, to rage; storm, snowstorm": Tuvian *borān* "snowstorm"; Mongolian *boroyan* (< *\*burugan*) "rain"; Middle Mongolian *boro'an* "snowstorm"; Khalkha *borō* "rain"; Lamut / Even *burkun* "snowstorm", *burku* "new-fallen snow"; Yakut *burχān* "snowstorm"; Osmanli *buran* "storm, snowstorm". Poppe 1960:21, 79, and 102.

Buck 1949:10.26 shake (vb. tr.); 16.43 rage, fury. Illič-Svityč 1971- .I:188-90, no. 23 *\*burA*.

30. Proto-Nostratic *\*bar-/ \*bər-* "to scrape, to cut, to carve, to whittle, to trim":

- A. Proto-Indo-European *\*b[h]ord[h]-*/*\*b[h]rd[h]-*, *\*b[h]red[h]-* "(piece) cut off": Sanskrit *bardhaka-h* "cut off"; Old English *bred* "board", *bord* "board, plank". Pokorny 1959:138 *\*bheredh-* "to cut"; Walde 1927-32.II:174 *\*bherdh-* (also *\*bhredh-* ?); Mann 1984-87:111 *\*bhr̥dhos*, *-om* "board, table", 111 *\*bhr̥dhos* "cutting, separating; cut, division"; Watkins 1985:7 *\*bherdh-* "to cut". Proto-Indo-European *\*b[h]rē-*, *\*b[h]rī-* "to cut, to clip, to scrape": Sanskrit *bhrīṇāti* "to injure, to hurt"; Welsh *briw* "wound"; Russian Church Slavic *briju*, *briti* "to shear, to clip"; Lithuanian *brėžti* "to scratch, to sketch, to design". Pokorny 1959:166-67 *\*bhrēi-*, *\*bhrī-* "to cut"; Walde 1927-32.II:194-95 *\*bhrēi-*; Mann 1984-87:103 *\*bhrī̯ō* "to wear down, to file, to erode"; Watkins 1985:9 *\*bhrēi-* (also *\*bhrī-*) "to cut, to break".
- B. Proto-Afroasiatic *\*bar-*/*\*bār-* "to cut, to carve, to scrape": Proto-Semitic *\*bar-aʔ-* "to cut, to carve" > Hebrew *bārēʔ* "to cut down, to cut out"; Punic *brʔ* "engraver"; Liḥyānite *baraʔ* "to cut, to carve". Proto-Semitic *\*bar-ay-* "to cut, to trim, to carve" > Arabic *barā* "to trim, to shape, to sharpen, to scratch off, to scrape off"; Sabaean *bry* "carved monument".
- C. Proto-Uralic *\*para-* "to scrape, to cut, to carve": Hungarian *farag-* "to carve, to cut, to whittle (wood), to hew, to trim, to chip (stone)", *forgacs* "shavings, scobs, chips, cuttings, filings"; Vogul / Mansi *pār-* "to plane"; Tavgi Samoyed / Nganasan *bara-* "to plane, to scrape, to rub"; Yenisei Samoyed / Enets (Baiha) *bora-* "to plane, to scrape, to rub, to dress (hides), to tan"; Selkup Samoyed *poorgaana-* "cut leather, hides"; Kamassian *paargə-* "to scrape, to cut, to carve". Collinder 1960:401; Rédei 1986- :357 *\*parə-*; Décsy 1990:105 *\*para*.
- D. Sumerian *bar* "to split (with a tool or weapon)".

Buck 1949:9.22 cut (vb.); 9.52 board; 9.81 carve.

## THE ALTAIC COMPONENT OF A NOSTRATIC DICTIONARY

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The following is a list of additions and corrections to the Nostratic dictionary which is being prepared by Allan Bomhard. The additions are made in a purely impressionistic way and may be rejected at any time. A proto-Altaic reconstruction is basically composed of one of these combinations: Turco-Mongol, Mongol-Tungusic, Turco-Mongol-Tungusic (rarely Turco-Tungusic). I have seen fit to designate the reconstructions by their composition. Because of developments in the field of Altaic linguistics, the extent of the influence of Mongol on the Tungusic branch has been elucidated. Therefore, what were once proto-Altaic reconstructions representing the three branches, have now been recognized as containing cognates from only two branches, the third branch having borrowed a certain linguistic form. These "reformulations" are indicated by letters in parentheses, with the page number of a reference where detailed discussion may be found.

The Korean forms in Poppe's (1960) Altaic reconstructions were never central, only peripheral. Recently, these were studied by Rosén (*Central Asiatic Journal* 1986.30:78-91), who found that about half were verifiable, the rest being ghost-words. Despite the reservations expressed in the previous issue of *Mother Tongue*, I am including Korean forms as well. In doing so, I have attempted to give the oldest attestation and to make internal reconstructions minimal. I refrain from citing "proto-Korean" forms because all necessary dialect information is still not available.

The proto-Altaic reconstructions are quoted from John Street's *On the Lexicon of Proto-Altaic: A Partial Index to Reconstructions* (1974, Madison, WI: the author). In cases where a Mongol-Tungusic isogloss (i.e., proto-Altaic) was later found to be a Mongol borrowing in Tungusic, the form was reformulated as "proto-Mongolian". This should not be confused with the Common Mongolian reconstructions in Poppe (1955a). Although there is a very fine line between proto-Mongolian, Ancient Mongolian, and Classical Mongolian, the latter two are not substitutes for the former. Classical Mongolian is a language which dates from the Ming and Qing dynasties, and is full of calques from Manchu and neologisms which are not widely represented in the dialects. There is a need to reconstruct more proto-Mongolian forms from the comparative materials in Poppe 1955a, but I have not felt at liberty to do so at this time. The Mongolian forms cited here may be understood as Classical Mongolian, also reflected in most dialects, but which **could** serve as a proto-Mongolian form. Similarly, unless Räsänen (1969) is quoted for proto-Turkic, the reconstruction is inferred from Poppe's proto-Altaic reconstruction.

The Altaicist attitude toward Nostratic tends more toward denial (e.g., A. Róna-Tas' review of Gamkrelidze and Ivanov in *Voprosy Jazykoznanija* 1990.1:26-36). I am approaching it with an open mind, but my main concern is the materials that the theory is built on, rather than the reconstructions themselves.

## ABBREVIATIONS

- B = Benzing, Johannes. 1956. *Die tungusischen Sprachen*. Wiesbaden.
- D = Doerfer, Gerhard. 1985. *Mongolo-Tungusica*. Wiesbaden. (Numbers refer to entry, not page.)
- K = Kaluzynski, Stanislaw. 1962. *Mongolische Elemente in der jakutischen Sprachen*. Warsaw.
- L = Ligeti, Louis. 1960. "Les anciens éléments mongols dans le mandchoue". *Acta Orientalia Hungarica* X:231-48.
- Pa = Poppe, Nicholas. 1966. "On Some Ancient Mongolian Loan-words in Tungus". *Central Asiatic Journal* XI:187-98.
- Pb = Poppe, Nicholas. 1972. "On Some Mongolian Loanwords in Evenki". *CAJ* XVI:95-103.
- PC = Poppe, Nicholas. 1976. "Ancient Mongolian", in *Tractata Altaica*, Walther Heissig et al., ed., pp. 463-78. Wiesbaden.
- R = Rozycki, William. 1983. *Mongol Elements in Manchu*. Ph.D. dissertation, Indiana University, Department of Uralic and Altaic Studies.
- Räs. = Räsänen, Martti. 1969. *Versuch eines etymologischen Wörterbuchs der Türksprachen*. Helsinki.
- SSTM = Tsintsius, V. I. 1975, 1977. *Sravnitel'nij slovar' man'čžuro-tunguskix jazykov*. Leningrad.
- TM. = Turco-Mongolian isogloss (no Tungusic cognate, or the Tungusic form(s) due to borrowing from Mongolian).
- Mo.-Tg. = Mongol-Tungusic isogloss (no Turkic cognate, or the Turkic form(s) due to borrowing from Mongolian).
- pA. = proto-Altaic (cognates in the three branches).
- pTg. = proto-Tungusic
- pMo. = proto-Mongolian
- MMo. = Middle Mongolian
- pTkc. = proto-Turkic
- OTkc. = Old Turkic
- mod.Ko. = Modern Korean (Yale romanization)
- MKo. = Middle Korean
- OKo. = Old Korean (reconstructed from place-names in Chinese transcription)
- PN = Proto-Nostratic (as reconstructed in Bomhard's *A Sample of the Comparative Vocabulary of the Nostratic Languages*)
- LP = "Lexical Parallels between Proto-Indo-European and Other Languages", by Allan R. Bomhard (included as a supplement to *Mother Tongue* 9)

### Other References:

- Poppe, Nicholas. 1955a. *Introduction to Mongolian Comparative Studies*. Helsinki.
- Poppe, Nicholas. 1955b. "Turkic Loan Words in Middle Mongolian". *CAJ* I:36-42.
- Lessing, Ferdinand. 1960. *Mongolian-English Dictionary*. Berkeley.



# ADDITIONS AND CORRECTIONS

3. PN *\*bur-/\*bor-* "to bore, to pierce" (LP no. 3): TM. *\*bur-* "to bore through, to pierce".
6. PN *\*bar-/\*ber-* "to bear, to carry, to bring forth" (LP no. 6): Mo. *bari-* "to hold, to seize".
7. PN *\*bar-/\*ber-* "to twist, to turn" (LP no. 7): pA. *\*bur<sup>1</sup>-* "to rotate rapidly" (K. 134).
8. PN *\*buw-/\*bow-* "to go, to come, to proceed, to spend (time)" (LP no. 8): pA. *\*buča-* "to return"; OTkc. *bar-* "to go"; Mo. *bara-* "ein Ende machen" (Räs. 62).
9. PN *\*buw-/\*bow-* "to become, to arise, to come into being, to grow" (LP no. 9): pA. *\*büi-* "to become". TM. *bol-* "to become", Tk. *bütün* "whole" are separate etyma. Note also pA. *\*pös-* "to grow".
10. PN *\*bul-/\*bol-* "to swell, to expand" (LP no. 10): Mo.-Tg. *\*pulige-* "to blow"; Ko. *pul-* "to blow".
12. PN *\*bul-/\*bol-* "to mix, to mix up, to confuse" (LP no. 11): pTk. *\*bul<sup>2</sup>-* "to mix, to mix up, to confuse" (Räs. 88). The Mongolian forms of the proto-Altaic reconstruction were determined to be Turkic borrowings in Mongolian (Poppe 1955b:39).
18. PN *\*burg<sup>y</sup>-/\*borg<sup>y</sup>-* "to protrude, to be prominent" (LP no. 18): TM. *\*burgan* "willow, shrubbery" (D. 130; R. 59, 62).
21. PN *\*bak'-/\*bek'-* "to cleave, to split, to break open" (LP no. 21): TM. *\*böke* "hump, bend" (D. 129; R. 53); Mo.-Tg. *\*pak-* "to dry up, to burst".
23. PN *\*bar-/\*ber-* "grain, cereal" (LP no. 23): pTg. *\*mere* "buckwheat" (SSTM.I:572).
24. PN *\*bay-/\*bey-* "to apportion, to divide into shares, to distribute, to allot" (LP no. 24): TM. *\*bayan* "rich" (D. 69; K. 106).
28. PN *\*bur<sup>y</sup>-/\*bor<sup>y</sup>-* "brown" (LP no. 28): TM. *\*bor<sup>2</sup>a-* "gray, brown" (D. 136; R. 56).
29. PN *\*bur-/\*bor-* "to whirl, to rage, to agitate" (LP no. 29): pA. *\*bur<sup>1</sup>-* (see 7 above).
30. PN *\*bar-/\*ber-* "to scrape, to cut, to carve, to whittle, to trim" (LP no. 30): TM. *\*pür<sup>2</sup>ü-* "to grate, to file" (R. 119-20).
31. PN *\*p<sup>h</sup>]uw-/p<sup>h</sup>]ow-* "to puff, to blow, to exhale, to puff up, to inflate" (LP no. 31):

Mo.-Tg.(-Ko.) *\*pungka-* "fart".

41. PN *\*p<sup>h</sup>]at'-/\*p<sup>h</sup>]et'-* "to hasten, to move quickly; foot" (LP no. 41): TM. (Ko.) *\*padak-* "foot, end".
42. PN *\*p<sup>h</sup>]at<sup>h</sup>]/-/\*p<sup>h</sup>]et<sup>h</sup>]/-* "to rush, to hurry, to move rapidly; to fall down" (LP no. 42): pA. *\*bati-* "to be rapid".
43. PN *\*p<sup>h</sup>]ar-//\*p<sup>h</sup>]er-* "to spread, to scatter" (LP no. 43): pMo. *\*püre-* "seed, fruit, result, offspring" (D. 593; R. 119).
45. PN *\*p<sup>h</sup>]al-//\*p<sup>h</sup>]el-* "flat, level, broad" (LP no. 45): TM. *\*pur<sup>2</sup>-* "long".
46. PN *\*p<sup>h</sup>]ur-//\*p<sup>h</sup>]or-* "young bull or calf" (LP no. 46): TM. *\*bir<sup>2</sup>agu* "yearling calf" (Pb. 103).
50. PN *\*p<sup>h</sup>]al-//\*p<sup>h</sup>]el-* "to fill" (LP no. 50): Mo.-Tg. *\*püle-* "to be enough, to be in excess".
51. PN *\*p<sup>h</sup>]al-//\*p<sup>h</sup>]el-* "settlement, settled place" (LP no. 51): TM. *\*bal<sup>2</sup>aka* "town".
52. PN *\*p<sup>h</sup>]al-//\*p<sup>h</sup>]el-* "thumb" (LP no. 52): TM. *\*per<sup>1</sup>e-key* "thumb" (D. 161; Pb. 100). The Tg. forms are borrowed from Mongolian. Poppe (1960) reconstructs *\*per<sup>1</sup>(b)e-key*, which includes an Evenki form *herbek* "thumb", which is in fact borrowed from Yakut. The origin of the Yakut word is unexplainable. But in neither Mongolian nor Turkic is there evidence for *-b-*. TkC. *erngek* "finger" is equated with MMo. *here-kei* "thumb" in the reconstruction. Décsy (1990:105) reconstructs proto-Uralic *\*pä(l)kä* "thumb". If we analyze *-kä* as a nominal suffix like Mo. *-kei*, there is still the problem of the root structure: TM. CVCV, but pU. CVC.
57. PN *\*p<sup>h</sup>]as<sup>y</sup>-//\*p<sup>h</sup>]es<sup>y</sup>-* "penis" (LP no. 57): TM. *\*püsü-* "to squirt out, to pour" (D. 220).
59. PN *\*p<sup>h</sup>]al-//\*p<sup>h</sup>]el-* "to tremble, to shake; to be frightened, fearful, afraid" (LP no. 59): TM. *\*pür<sup>1</sup>k-* "to be afraid".
61. PN *\*p<sup>h</sup>]ir-//\*p<sup>h</sup>]er-* "to turn or twist around" (LP no. 61): pMo. *\*pergi-* "to turn, to revolve" (D. 172; R. 147).
63. PN *\*dab-//\*deb-* "to stick together, to join together, to fit together" (LP no. 63): pMo. *\*tab-* "five" (Poppe 1955a:248).
67. PN *\*daw-//\*dew-* (?) "to sound, to resound, to make a noise" (LP no. 67): Mo. *daru-* "voice, sound, noise".

70. PN *\*dal-/del-* "to cut, to prick, to pierce, to gash, to notch, to wound" (LP no. 70): TM. *\*til<sup>1</sup>ü-* "to cut into strips".
71. PN *\*dig-/deg-* "fish" (LP no. 71): pMo. *\*džiga-* "fish". Kara (AOH.18.1965:27) reconstructs pMo. *\*dži-* "fish" + *ghasun* (suffix). In this light, we may note Mo. > Manchu *gurgu* "wild game" (cf. Class. Mo. *göřögesün* id.), which permits the analysis of a suffix *-gVsVn*.
72. PN *\*diq<sup>h</sup>]/-deq<sup>h</sup>]/-* "earth, ground, soil, clay" (LP no. 72): TM. *\*to:par<sup>1</sup>* "dust, earth". Intervocally, Mo. *-g-* alternates with Tk. *-b-*, *-p-*. The reconstruction is based on an assumption about the primacy of *-p-* over *-g-*.
79. PN *\*day-/dey-* "to take, to bring, to convey" (LP no. 79): Mo.-Tg. *\*te-* "to be located on", *\*te-be-* "to load, to transport".
81. PN *\*t<sup>h</sup>]ap<sup>h</sup>]/-t<sup>h</sup>]ep<sup>h</sup>]/-* "to burn, to be hot" (LP no. 81): Ko. *tep-* "to be warm, hot".
82. PN *\*t<sup>h</sup>]ir-/t<sup>h</sup>]er-* "to be or become full, to be satisfied" (LP no. 82): pTk. *\*to:l-* "to fill" (Räs. 486).
84. PN *\*t<sup>h</sup>]ar<sup>y</sup>]/-t<sup>h</sup>]er<sup>y</sup>]-* "to rub, to wear down" (LP no. 84): TM. *\*dar<sup>1</sup>u-* "to press, to be close behind, to squeeze" (Pa 195).
86. PN *\*t<sup>h</sup>]ir-/t<sup>h</sup>]er-* "to tremble, to shake" (LP no. 86): TM. *\*ter<sup>1</sup>-* "to run, to flee".
89. PN *\*t<sup>h</sup>]ak'-/t<sup>h</sup>]ek'-* "to touch, to push, to strike" (LP no. 89): Tk. *tek-* "to touch, to arrive", Ko. *tah-* id.
90. PN *\*t<sup>h</sup>]am-/t<sup>h</sup>]em-* "to cover over, to hide" (LP no. 90): TM. *\*tü:ne* "dark, obscure, night".
91. PN *\*t<sup>h</sup>]i/t<sup>h</sup>]e* "you" (LP no. 91): Ko. *tangsin* "you" (honorific) < ? *tang-si* (honor.) *-n*.
92. PN *\*t<sup>h</sup>]a-/t<sup>h</sup>]e-* "this", *\*t<sup>h</sup>]u-/t<sup>h</sup>]o-* "that" (LP no. 92): pA. *\*te* (demonstrative paradigm).
93. PN *\*t<sup>h</sup>]aw-/t<sup>h</sup>]ew-* "to swell" (LP no. 93): Mo.-Tg. *\*daba-* "to climb over, to excel".
94. PN *\*t<sup>h</sup>]ik'-/t<sup>h</sup>]ek'-* "to be or become established, firm, solid" (LP no. 94): TM. *\*tigi:r<sup>1</sup>ak* "thick, massive"; Ko. *twukkop-* "thick" < *\*twukko-* + *pwu* (intrans.).
96. PN *\*t<sup>h</sup>]um-/t<sup>h</sup>]om-* "to fill, to fulfill" (LP no. 96): Ko. *tam-* "to pour".

98. PN *\*t<sup>h</sup>]al-/t<sup>h</sup>]el-* "head, top, end" (LP no. 98): Mo. *teri-gün* "head", *tol-ṭai* id.
106. PN *\*t'arḥ-/t'erḥ-* "to do, to make, to prepare, to work" (LP no. 106): TM. *\*tarī-* "to till land, to sow".
107. PN *\*t'al-/t'el-* "to stretch out, to extend" (LP no. 107): Mo. *dele-* "to stretch, to extend" (D. 131).
112. PN *\*t'ul-/t'ol-* "to reach, to attain, to strive for, to come to; aim, aspiration, goal, end, result" (LP no. 112): pMo. *\*tul-* "to lean on or against, to touch, to reach, to support, to rely on" (Lessing 840; D. 533; Pb. 97).
118. PN *\*d<sup>y</sup>ab-/d<sup>y</sup>eb-* "to harm, to injure" (LP no. 118): pA. *\*dže* "sharp" > Mo. *džebe* "arrowhead".
124. PN *\*d<sup>y</sup>i-/d<sup>y</sup>e-* demonstrative stem (LP no. 124): Middle Ko. *tye* "that" > mod. Ko. *ce* id.
126. PN *\*t<sup>y</sup>]awr-* "bull, steer" (LP no. 126): TM. *\*džipar<sup>1</sup>* "musk" < ? *\*d<sup>y</sup>ipar<sup>1</sup>*.
132. PN *\*t<sup>y</sup>'an-/t<sup>y</sup>'en-* "to think" (LP no. 131): Mo. *tani-* "to recognize, to know".
133. PN *\*t<sup>y</sup>'ar-/t<sup>y</sup>'er-* "to cut, to split" (LP no. 132): Ko. *calu-* "to cleave".
137. PN *\*s<sup>y</sup>ar-/s<sup>y</sup>er-* "to move quickly, to proceed" (LP no. 287): OTkc. *süz-* "durchsieben, reinigen" (Räs. 438).
139. PN *\*nas<sup>y</sup>-/nes<sup>y</sup>-* "to breathe, to blow" (LP no. 289): Mo. *nis-* "to fly".
140. PN *\*s<sup>y</sup>am-/s<sup>y</sup>em-* "to be hot, sunny" (LP no. 290): dubious pTg. *\*sigun* "sun" (SSTM II:78).
141. PN *\*s<sup>y</sup>in<sup>y</sup>-/s<sup>y</sup>en<sup>y</sup>-* "to change, to deteriorate, to grow old" (LP no. 291): dubious pTg. *\*sakta* "old (person)" (B. 991).
142. PN *\*s<sup>y</sup>aw-/s<sup>y</sup>ew-* "dry, arid, withered" (LP no. 292): TM. *\*sir<sup>2</sup>u* "earth, ground" (D. 154; Pb 100).
143. PN *\*s<sup>y</sup>aw-/s<sup>y</sup>ew-* "to give birth, to be born" (LP no. 293): TM. *\*saya* "newly, recently" (D. 373; R. 261); Ko. *sai* "new".
150. PN *\*t<sup>s</sup>]uk<sup>h</sup>]/t<sup>s</sup>]ok<sup>h</sup>]-* "to bend, to turn, to wind, to twist; to close, to shut, to cover" (LP no. 141): TM. *\*taki-* "to be bent", *\*taki-m* "knee".

160. PN *\*san-/sen-* "to perceive, to sense" (LP no. 279): pA. *\*sa-* "to think, to consider" > Mo. *sana* "thought, intention", Tk. *sana-* "to count"; pTg. *\*sia:n* "ear" (B. 991; SSTM I:70).
162. PN *\*sin-/sen-* (?) "sinew, tendon" (LP no. 281): pA. *\*sir-* "sinew, tendon".
163. PN *\*saw-/sew-* "to drink, to swallow" (LP no. 282): TM. *\*saga-* "to milk" (Pa. 191); Mo. *sogto-* "drunk", *sün* "milk", *üsün* "water", Tk. *sub* "water, river", *süt* "milk".
168. PN *\*t<sup>h</sup>jim-/t<sup>h</sup>jem-* "to enclose, to wrap, to contain" (LP no. 151): TM. *\*kap-* "to grasp, to seize" (D. 635; Pa. 193); Ko. *kam-* "to close".
170. PN *\*t<sup>h</sup>ji'r-/t<sup>h</sup>je'r-* "hair" (LP no. 153): TM. *\*kil<sup>1</sup>* "(horse) hair" (Pa. 194).
173. PN *\*t<sup>h</sup>jar-/t<sup>h</sup>jer-* "to burn, to roast" (LP no. 156): pMo. *\*sira-* "to roast" (R. 254); (note Yenisein *tuke* "ax" > Mo. *süke* id.).
177. PN *\*t<sup>h</sup>jil-/t<sup>h</sup>jel-* "to see" (LP no. 159): TM. *\*sigi-* "to peep through, to peer".
179. PN *\*t<sup>h</sup>jañ-/t<sup>h</sup>jeñ-* "(young) sheep or goat" (LP no. 161): TM. *\*kuča* "ram".
180. PN *\*t<sup>1</sup>im-/t<sup>1</sup>em-* "to join, bind, or unite together" (LP no. 162): TM. *\*kam-* "to unite, to collect".
181. PN *\*t<sup>1</sup>ars-/t<sup>1</sup>ers-* (?) "to bite, to gnaw" (LP no. 163): pTk. *\*tiš-* "tooth" < ? *\*ti:l<sup>2</sup>* (Räs. 481).
183. PN *\*t<sup>1</sup>uk<sup>h</sup>]/-t<sup>1</sup>ok<sup>h</sup>]/-* "to push, to shove, to thrust in" (LP no. 166): TM. *\*tiki-* "to jam in, to overeat".
187. PN *\*gar-/ger-* "to take, to take hold of; to take away, to carry off, to remove" (LP no. 170): Nota Bene, pTg. *\*na:la* "hand" (B. 968).
188. PN *\*gir-/ger-* "to scratch, to scrape" (LP no. 171): TM. *\*kar<sup>2</sup>-* "to dig, to scratch, to scrape"; Ko. *kal-k-/kul-k-* "to scratch, to scrape" / "to etch" < *kalh* "knife" / *kul* "letter".
192. PN *\*gawl-/gewl-, \*gwal-/gwel-* "to twist, to turn, to bend" (LP no. 175): pTg. *\*kulin* "snake" (B.).
193. PN *\*gil-/gel-* "to shine, to glisten" (LP no. 176): pMo. *\*ge-* "to be bright" (D. 649; Pb. 101); pTg. *\*ngäri-* "to flash".
198. PN *\*k<sup>h</sup>ja-/k<sup>h</sup>je-* demonstrative pronoun stem (LP no. 181): Ko. *ku* "this".

199. PN *\*k<sup>h</sup>]ap<sup>h</sup>]/-\***k<sup>h</sup>]ep<sup>h</sup>]*- "to take, to seize, hand" (LP no. 182): TM. *\*kap-* "to grasp, to seize" (D. 635; Pa. 193).
200. PN *\*k<sup>h</sup>]as-/\***k<sup>h</sup>]es-* "to cut" (LP no. 183): Ko. *\*kas-* "to cut" (< *\*kas-k-*), North Ko. *kas-ai* "scissors".
201. PN *\*k<sup>h</sup>]al-/\***k<sup>h</sup>]el-* "to make a noise, to sound" (LP no. 184): TM *\*kele* "tongue, language". Not Old Ko. *hyel* "tongue" (< proto-Japanese-Korean *\*sita*).
202. PN *\*k<sup>h</sup>]al-/\***k<sup>h</sup>]el-* "to point out, to make clear, to make known, to disclose, to explain" (LP no. 197): Ko. *\*karu-* (< *\*karakhi-*) "to show, to teach" (< *\*kara-k* "finger" + *-hi-* [causitive]).
204. PN *\*k<sup>h</sup>]al-/\***k<sup>h</sup>]el-* "to guard, to hold (back), to watch" (LP no. 186): Mo. *qalqa* "shield".
208. PN *\*k<sup>h</sup>]ay-* "alone" (LP no. 190): Mo. *τατca* "only", Khalkha *gantsar* "alone"; Ko. *honca* "alone".
209. PN *\*k<sup>h</sup>]ab-/\***k<sup>h</sup>]eb-* "hoof, hoofed animal" (LP no. 191): proto-Japanese-Korean *\*kübi* "hoof, heel" > Ko. *kepcil* "hide".
214. PN *\*k<sup>h</sup>]ul-/\***k<sup>h</sup>]ol-* "to hear" (LP no. 198): TM. *\*kul<sup>1</sup>k* "ear"; pTg. *\*kuiki* "deaf" (SSTM II:425); Ko. *kwui* "ear".
218. PN *\*k<sup>h</sup>]ar-/\***k<sup>h</sup>]er-* "edge, side, bank" (LP no. 202): TM. *\*k<sup>h</sup>idi* "border, edge"; Ko. *ka* "shore, bank, edge".
220. PN *\*k<sup>h</sup>]al<sup>y</sup>-/\***k<sup>h</sup>]el<sup>y</sup>-* "to rob, to steal, to hide" (LP no. 204): Mo. *qula-* "to steal, to rob".
222. PN *\*k<sup>h</sup>]ar-* "hard, strong, firm" (LP no. 207): TM. *\*kata-* "to become hard, dry" (D. 9; R. 183).
225. PN *\*k<sup>h</sup>]ay-(\*k<sup>h</sup>]ey-)* (?) "to scoop out; spoon, ladle" (LP no. 196): TM. *\*kal<sup>2</sup>* "spoon, ladle".
232. PN *\*k'aw-/\***k'ew-* "to make a round hole in" (LP no. 215): TM. *\*kebi-* "to ruminate, to chew the cud".
234. PN *\*k'alw-/\***k'elw-* "female in-law" (LP no. 217): Old and Middle Tk. *kälin* "daughter-in-law" (Räs. 250); pTg. *\*keli* "brother-in-law" (SSTM I:446).
236. PN *\*k'ur<sup>y</sup>-/\***k'or<sup>y</sup>-* "to gather (together)" (LP no. 219): Mo. *qura-* "to gather, collect".

237. PN *\*k'ul<sup>y</sup>-/\*k'ol<sup>y</sup>-* "to be cold" (LP no. 220): The formula is dubious: Middle Tk. *kösi* "abhalten (die Sonne), Even *helta* "frost" (< pNTg. *\*he:ltan* "hoar frost" (SSTM II:320), but pNTg. *\*h* usually is a reflex of pTg. *\*p*).
240. PN *\*k'ur-/\*k'or-* "crane" (LP no. 223): pTg. *\*ga:re* "eagle, owl" (SSTM I:142), pTg. *\*ga:τ* "swan" (SSTM II:135).
253. PN *\*k<sup>y</sup>[<sup>h</sup>]ay-/\*k<sup>y</sup>[<sup>h</sup>]ay-* "to move, to move on, to move along, to go, to go away" (LP no. 233): Ko. *ka-* "to go".
256. PN *\*k'y<sup>al</sup>-* "bald; head" (LP no. 236): Ottoman Tk. *käl* "bald", Turkmen *kel* id. (< Persian *kal* id.).
258. PN *\*g<sup>an</sup>-/\*g<sup>en</sup>-* "to harm, to injure" (LP no. 238): TM. *\*ki:n* "pain, anger, difficult", *\*ki:n-u-* "to hate" (R. 183).
261. PN *\*k<sup>[h]</sup>ul-/\*k<sup>[h]</sup>ol-* "far off, far away, distant" (LP no. 241): Mo.-Tg. *\*kola* "far off, distant".
262. PN *\*k<sup>[h]</sup>ul-/\*k<sup>[h]</sup>ol-* "to bend, to curve, to turn, to revolve, to move around" (LP no. 242): TM. *\*ker<sup>2</sup>ü-* "to roam, to wander, to travel".
264. PN *\*k<sup>[h]</sup>alp'-/\*k<sup>[h]</sup>elp'-* "dog" (LP no. 244): TM. *\*göl<sup>2</sup>-ege* "young dog, whelp", pMo. *göre-* "wild animal".
266. PN *\*k<sup>[h]</sup>ary-/\*k<sup>[h]</sup>ery-, \*k<sup>[h]</sup>ray-/\*k<sup>[h]</sup>rey-* "to procure" (LP no. 246): pMo. *\*kud-* "to trade".
267. PN *\*k<sup>[h]</sup>ar-/\*k<sup>[h]</sup>er-* "to scratch, to scrape; to dig" (LP no. 247): TM. *\*kar<sup>2</sup>-* "to dig, to scratch, to scrape"; Ko. *kal-k-/kul-k-* "to scratch, to scrape" / "to etch" < *kalh* "knife" / *kul* "letter".
269. PN *\*k<sup>[h]</sup>i-/\*k<sup>[h]</sup>e-* relative pronoun stem, *k<sup>[h]</sup>a-/\*k<sup>[h]</sup>e-* interrogative pronoun stem (LP no. 249): pMo. *\*ke* "who, what, where".
273. PN *\*k<sup>[h]</sup>al-* "fish" (LP no. 253): pTg. *\*xolsa* "fish" (B. 994).
277. PN *\*k'<sup>arb</sup>-/\*k'<sup>erb</sup>-* "the inside, the middle, interior, inward part" (LP no. 258): TM. *\*kar<sup>2</sup>* "fat on the belly" (D. 295; R. 177).
278. PN *\*k'<sup>ar</sup>-/\*k'<sup>er</sup>-* "to rest, to stay, to remain, to wait" (LP no. 259): pTkc. *\*ka:l* "to remain" (Räs. 224); Mo. *küri-* "to wait, to expect".
279. PN *\*k'<sup>alb</sup>-/\*k'<sup>elb</sup>-* "the inside, middle, center, interior" (LP no. 261): pMo. *\*kepeti*

- "belly, stomach, abdomen" (D. 261; Pc. 464; L. 245; R. 146).
282. PN *\*k'at'/\*k'et'*- "to cut" (LP no. 263): pMo. *\*kitu* "knife" (Pc. 465); Mo. *qad-qu*- "to pierce, to stab".
285. PN *\*k'ud'/\*k'od*- "to build" (LP no. 266): pMo. *\*ko:ta* "enclosure" (R. 135).
287. PN *\*Gul'/\*Gol*- "bend, corner, edge, valley, ravine, gully" (LP no. 268): Mo. *τoul* "valley, riverbed"; Ma. *golo* "valley, district"; but not mod. Ko. *kol* "valley" (< OKo. *\*kopol*).
295. PN *\*q'ur'/\*q'or*- "edge, point, tip, peak" (LP no. 255): TM. *\*kir<sup>1</sup>a* "mountain side, edge" (Pb. 103); MTkc. *kir* "mountain" (Räs. 265); pTg. *\*xörä* "mountain" (B. 969).
297. PN *\*ag'/\*eg*- "young of an animal" (LP no. 294): Ko. *-aci* "young of an animal".
299. PN *\*al'/\*el*- "to be high, exalted; to rise high; to ascend; on, upon, on top of, over, above, beyond" (LP no. 296): pA. *\*el<sup>1</sup>*- "to hang".
300. PN *\*aw'/\*ew*- "to sleep" (LP no. 298): pA. *\*um'/\*un*- "to sleep, to forget". Although Poppe (1960) combined the Tk. and Mo. etyma, there is reason not to accept this. Tk. *unut*- "to forget", Mo. *unta-/umta*- "to forget". The readers should draw their own conclusions.
307. PN *\*hang'/\*heng*- "to press, to squeeze together, to make narrow or constricted, to strangle; narrow, constricted; throat" (LP no. 304): TM. *\*aman* "mouth, opening"; pTg. *\*amgna* "mouth" (B. 968; SSTM I:38); OKo. *\*aku* "mouth, opening" > mod. Ko. *akuli* id. (vulgar).
310. PN *\*haw'/\*hew*- "to sprinkle, to spray, to rain" (LP no. 307): pTg. *\*aga* "rain" (SSTM I:11).
319. PN *\*hapl<sup>h</sup>/\*hepl<sup>h</sup>*- "to gather, to collect; to accumulate wealth, to be rich; to be abundant" (LP no. 316): Ko. *hapchi*- "to collect, to unite, to gather".
324. PN *\*hak'/\*hek*- "field" (LP no. 320): Tk. (Uzbek) *ek*- "to sow, to plant".
333. PN *\*hal'/\*hel*- "to wear down, to wear out, to weaken; to be worn out, worn down, weakened" (LP no. 330): Ko. *alh*- "to be ill".
343. PN *\*ar'/\*er*- "earth" (LP no. 340): pTk. *\*yer*- "earth, ground".
346. PN *\*ma'/\*me*- "to increase (in number), to be many, to be abundant" (LP no. 344): Ko. *manh*- "to be much, many".



348. PN \**'an*<sup>y</sup>-/\**'an*<sup>y</sup>- "to draw near to, to approach, to come (close to)" (LP no. 346): pTg. \**aniya* "year" (B. 968).
350. PN \**'awr*-/\**'ewr*-, \**'war*-/\**'wer*- "man, male, male animal" (LP no. 348): TM. \**ere* "man, male".
354. PN \**'ul*-/\**'ol*- demonstrative pronoun stem (LP. no. 352): pMo. \**eli* "this thing" (Poppe 1955a:228).
355. PN \**'an*<sup>y</sup>-/\**'an*<sup>y</sup>- "to lift, to raise, to rise, to go upward, to ascend; upper part; on top of, over, above, upon, on" (LP no. 353): Ko. *ana*- "to embrace, to hold, to lift".
363. PN \**'am*(*m*)-/\**'em*(*m*)- "mother" (LP no. 361): MKo. *emi* "mother".
364. PN \**'ab*- "father" (LP no. 362): MKo. *eypi* "father", *appa* "daddy".
367. PN \**'ay*-/\**'ey*- "to come, to go" (LP no. 364): pMo. \**yapu*- "to go, to walk, to do" > Manchu (Pa. 196; Pc. 464; R. 289).
368. PN \**'i*-/\**'e* proximate demonstrative particle (LP no. 366): Ko. *i* "this".
372. PN \**'at*<sup>[h]</sup>*r*-/\**'et*<sup>[h]</sup>*r*- "at once, early, quickly" (LP no. 370): Ko. *iru*- "to be early".
383. PN \**ham*-/\**hem*- "black" (LP no. 381): Ko. *khamkham* "darkness", *kem*- "black".
387. PN \**'ay*-, \**'ya*- interrogative and relative pronoun stem (LP no. 385): pTg. \**ai* "what" (B. 974).
392. PN \**wa*-/\**we* sentence particle: "and, also, but; like, as" (LP no. 390): Ko. (*k*)*wa* "and, also" (suffix).
393. PN \**wad*-/\**wed*- "to cut, to strike, to slay" (LP no. 391): pTg. \**wa*- "to kill" (B. 974).
414. PN \**mat*<sup>[h]</sup>*j*-/\**met*<sup>[h]</sup>*j*- "middle; in the middle of, with, among" (LP no. 412): Ko. *mith* "under".
418. PN \**maw*-/\**mew*- "water, liquid, fluid" (LP no. 416): pTg. \**mö*: "water" (B. 972); Mo. *mören* "river" may be connected, but there is no internal evidence for a pre-Mongolian \**mö*-.
419. PN \**mar*-/\**mer*- "young man, young animal" (LP no. 417): Class. Mo. *mal* "cattle"; Ko. *mal* "horse", *mali* (counter for fish, birds, animals).
420. PN \**ma*(<sup>'</sup>)/\**me*(<sup>'</sup>) negative/prohibitive particle (LP no. 418): pTkc. \**ma*

- (prohibitive); Ko. *ma-* id.
424. PN *\*mat'/\*met'*- "to stretch, to expand, to lengthen, to draw out, to measure out" (LP no. 422): Mo. *mede-* "to know" > Tungusic languages (D. 48; L. 235; Pa. 191; Pc. 468; R. 206).
427. PN *\*mar-/\*mer-* "any body of water: lake, sea" (LP no. 425): Mo. *mören* "river"; Ko. *mwul* "water".
430. PN *\*mun-/\*mon-* "to protrude; to stand out; to jut out; to be first, foremost, in front of; (n.) highest or farthest point, topmost or most protuberant part" (LP no. 428): Class. Mo. *emüne* "in front, before", Ko. *men-* "first" > *men-co* id.
445. PN *\*mal-/\*mel-* "hill, mountain" (LP no. 443): OKo. *\*molo* "mountain" > mod. Ko. *moi* id.
455. PN *\*na-/\*ne-* 1st person personal pronoun stem (LP no. 453): Ko. *na* "I".
462. PN *\*naw-/\*new-* "to sound, to call, to praise" (LP no. 459): Mo. *nere* "name"; Middle Ko. *niru-* "to name, to call".
- Add pTg. *\*ximansa* "snow" (B. 991); PIE *\*ghei-men-* "winter" (Bomhard 1984:112).

**COMMENTS ON BOMHARD'S "LEXICAL PARALLELS BETWEEN  
PROTO-INDO-EUROPEAN AND OTHER LANGUAGES"  
(Supplement to Mother Tongue 9)**

A. Murtonen

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Response to Shevoroshkin

It appears pointless to continue discussion with Professor Shevoroshkin, as most of the literature he refers to is not available to me, and also for the rest, we seem to have differences of principles which cannot be discussed adequately here; as to Illič-Svityč's terminology, if "CC" too allows additional element to follow, what is the difference between it and "CC-"?

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Comments on Bomhard's Paper

Notes on narrative:

- p. 12. On my materials, voice did not acquire distinctive value in the prehistoric parental of Hebrew until the late pre-Semitic to early common Semitic period, fricatives mostly later still; see, for the time being, my *Hebrew in its West Semitic Setting, Part I*, Section BbCDE, pp. 9-55 (just published by E. J. Brill, Leiden); accordingly, they were probably allophonic (at best) in earlier times; glottalization too appears to be mostly secondary, and only one semivowel phoneme (with 2 consonantal and 2 vocalic allophones) need be posited; no schwa phoneme either. Inflection and syntax took place probably on semantic basis.
- p. 13. Root structure patterning appears to me too schematic; there are some mono-consonantal roots still in Semitic, and derivation of many triconsonantal ones from biconsonantal ones by means of an added consonant (other than I /'/, /w/y/, /n/, /t/, III /'/) too arbitrary; why should a reconstructed prehistoric language have more regular word formation than historical ones? I also believe that the "mediae and tertiae infirmae" had vocalic realization of the "weak" radical more often than a consonantal one.
- p. 21. Cf. the comment on p. 12 above.

Notes on examples (the PN reconstructions follow what is given in Bomhard's *A Sample of the Comparative Vocabulary of the Nostratic Languages*, but the numbering follows "Lexical Parallels between Proto-Indo-European and Other Languages"):

2. PN *\*bur-/bor-* "cypress, pine, fir": Appears to be a wandering word; Eth. (G&z too) /burat/ comes from LXX Βραθυ; Guillaume believes Arab. /šrbīn/ related too.
5. PN *\*bar-/ber-* "to swell, to puff, to expand": Hbr. /br'/ belongs together with /br'/ "create", orig. "put (chaos, disarray) in good order", then also "make healthy/fat", cf. the Oriental plump beauty ideal.
6. PN *\*bar-/ber-* "to bear, to carry, to bring forth": Cf. above on 5; Aram. and Modern S. Arab. /r/ secondary, to differentiate the root from no. 25 (of which it is an original allomorph); /n/ still preserved in some Aram. forms.
10. PN *\*bul-/bol-* "to swell, to expand": In Sem., the basic meaning involves moisture, but no expansion; Cush. hardly related.
12. PN *\*bul'-/bol'-* "to ripen, to blossom, to bloom, to sprout, to mature": Belongs together with 10.
14. PN *\*bal<sup>y</sup>-/bel<sup>y</sup>-* "to shine, to be bright": May be originally a variant of no. 15 (/r/ frequently interchanges with /l/).
15. PN *\*bar-/ber-* "to shine, to be bright": Cf. 14 above; Sem. /brr/ primarily "purify", Akk. "glisten" uncertain.
17. PN *\*bad-/bed-* "to split, to cleave, to separate, to divide": /bdq/ (variant /btq/) primarily "breach", hardly related.
19. PN *\*bah-/beh-* "to shine": /bhq/ wandering word, cf. Akk. /epq/, G&z /bok/, /&äbāq/, etc.; /bhg/ hardly Proto-Sem.
20. PN *\*bah-/beh-* "to say, to speak": No evidence for Sem.-Ham. /bh/ without /-l/; Arab. related to a different root.
21. PN *\*bak'-/bek'-* "to cleave, to split, to break open": Here, /bq&/ and /bqr/ may indeed be derivatives from /bq(q)/ by way of dissimilation.
23. PN *\*bar-/ber-* "grain, cereal": *Kulturwort* from no. 15 ("purified" = "winnowed").
24. PN *\*bay-/bey-* "to apportion, to divide into shares, to distribute, to allot": Consonantal /y/ secondary; /by&/ semantically remote from /byn/.
25. PN *\*ban<sup>y</sup>-/ben<sup>y</sup>-* "to join together, to fit together, to fasten, to twist together, to form or produce in any way": W. W. Müller connects Cush. \*/min/ "house" too (with secondary nasalization).

26. PN *\*bay-/bey-* "bee, honey": Looks like wandering word.
28. PN *\*bur<sup>y</sup>-/bor<sup>y</sup>-* "brown": Ditto (attestation very limited; adjectives generally of late origin).
30. PN *\*bar-/ber-* "to scrape, to cut, to carve, to whittle, to trim": Hbr. /br'/ from /br'/ "create" = "put in order" (from the human point of view) = "clear for cultivation"; Punic meaning guesswork; /bry/ distinct, Lihy. variant of it.
31. PN *\*p<sup>h</sup>]uw-/p<sup>h</sup>]ow-* "to puff, to blow, to exhale, to puff up, to inflate": Onomatopoeic, attested with /-ḥ/ only (I would posit /pūḥ/ for prototype) and confined to WSem., unless Cush. /fīug/, /-χ/ related; secondary root /npḥ/.
32. PN *\*p<sup>h</sup>]il<sup>y</sup>-/p<sup>h</sup>]el<sup>y</sup>-* "to split, to cleave": Here, /plg/ and /plq/ may be originally root variants, and so /pl ḥ/, /pl&/, and /plš/, as there is an interchange between pharyngeals and sibilants; but neither are related to /pl(l)/, whose basic meaning appears to be "to fall", cf. Hbr. tD-stem (from "prostrate o.s.") and the secondary roots /npl/, /špl/; /plm/ is an Eth. only innovation; /pl ṭ/ has /ml ṭ/ and (Akk.) /bl ṭ/ for variants, hence hardly related.
33. PN *\*p<sup>h</sup>]al-/p<sup>h</sup>]el-* "stone": *Kulturwort*, with original /-ḥ/.
34. PN *\*p<sup>h</sup>]ar-/p<sup>h</sup>]er-* "to separate, to divide": /pr ṭ/ may be original root variant of /prd/, but /prq/ is not combinable phonetically, and as it is semantically largely distinct and there is no evidence for biradical /pr/ semantically close nor for a root augment /-q/, what semantic resemblance there is may be due to secondary development.
35. PN *\*p<sup>h</sup>]at<sup>h</sup>]/-p<sup>h</sup>]et<sup>h</sup>]-* "to open; to be open, wide, spacious": /-ḥ/ original; the basic meaning of /pty/ seems to be youthfulness.
37. PN *\*p<sup>h</sup>]a'-/p<sup>h</sup>]e'-* "to swell, to fatten": Here, /-m/ may indeed be secondary, maybe connected with the pronominal /ma/.
38. PN *\*p<sup>h</sup>]ar-/p<sup>h</sup>]er-* "to precede, to surpass, to outstrip, to overtake": /-&/ original; Arab. derivable from no. 34, cf. the secondary stems.
41. PN *\*p<sup>h</sup>]at'-/p<sup>h</sup>]et'-* "to hasten, to move quickly; foot": Eth. /-n/ may indeed be secondary (collective-adjectival).
42. PN *\*p<sup>h</sup>]at<sup>h</sup>]/-p<sup>h</sup>]et<sup>h</sup>]-* "to rush, to hurry, to move rapidly, to fall down": Found in Hbr., Aram., Soq. too; but Eg., Chad. connections seem doubtful semantically, as also those with the other phyla.
43. PN *\*p<sup>h</sup>]ar-/p<sup>h</sup>]er-* "to spread, to scatter": /-š/ secondarily differentiated; Arab.

/-d/ I cannot verify at present; perhaps /fr\$/ was intended?

44. PN *\*p<sup>h</sup>]ar-/\*p<sup>h</sup>]er-* "to move swiftly, to hasten, to be in a hurry, to be greatly agitated; to fly, to flee": For /pr<sup>h</sup>/, the meaning "to fly" is secondary, "to sprout, to blossom up, to grow up" more original; /prd/ derivable from no. 34; /-š/ may be Akk. innovation (pronominal in origin).
  45. PN *\*p<sup>h</sup>]al-/\*p<sup>h</sup>]el-* "flat, level, broad": Phoen. unverifiable to me at present; in Arab., /-l-/ appears secondary, Akk. both phonetically and semantically hazardous, Berb., Chad. phonetically possible, if Hbr. secondary, but semantically remote.
  46. PN *\*p<sup>h</sup>]ur-/\*p<sup>h</sup>]or-* "young calf or bull": Probably wandering word, from no. 34 (cloven hooves).
  47. PN *\*p<sup>h</sup>]as<sup>y</sup>-/\*p<sup>h</sup>]es<sup>y</sup>-* "to split, to cleave, to break, to shatter": /-ḥ/ may indeed be secondary, perhaps originated from emotional emphasis.
  48. PN *\*p<sup>h</sup>]aḥ-/\*p<sup>h</sup>]eḥ-* "to eat": Attestation scanty and phonetically ambiguous.
  49. PN *\*p<sup>h</sup>]ul-/\*p<sup>h</sup>]ol-* "to fall, to fall down": Cf. no. 32 above.
  59. PN *\*p<sup>h</sup>]al-/\*p<sup>h</sup>]el-* "to tremble, to shake; to be frightened, fearful, afraid": Primary meaning of the Sem. root appears to be "to split", then "to cleave, to plough, to till (the ground), to work (upon), to serve, to worship, to fear (in cultic sense)"; hardly related to the other phyla. (In TNM only.)
- (Add PN *\*p<sup>h</sup>]at<sup>s</sup>-/\*p<sup>h</sup>]et<sup>s</sup>-* "to part, to separate from, to break open or apart" [not in LP]: (TNM) /-ḥ/ and also /-&/ (as its variant) may be secondary expansion, although its origin is not clear, and so /-m/ (pronominal again); but /pcl/ has /bcl/ as a variant and may therefore be of different origin.)
63. PN *\*dab-/\*deb-* "to stick together, to join together, to fit together": /dbq/ seems to be secondary, SSem. (+ Amor. ?) /ṭ-/ more original.
  66. PN *\*day-/\*dey-* "to look at, to consider, to examine": /-n/ original; non-Sem. (except Eg. ?) entries not related.
  67. PN *\*daw-/\*dew-* (?) "to sound, to resound, to make a noise": Eth. verb evidently denominative.
  68. PN *\*dur-/\*dor-* "spot, blemish, dirt": Arab. innovation.
  69. PN *\*dam-/\*dem-* "to become dark": Probably wandering word; /dmn/ in Cush. ?Chad. too; Sem. variants /zn(n)/, /znm/, /znb/, /zlm/, /zrm/, and /zrb/; Berb.

/anʒaɾ/; ?Eg. /znm/.

75. PN *\*dar-/der-* "to bend, to twist, to turn": /-g/ original; Sem. /drk/ ?Chad. /dlrk/ may be related.
79. PN *\*day-/dey-* "to convey, to take, to bring": Feeble attestation.
82. PN *\*t<sup>h</sup>]ir-/t<sup>h</sup>]er-* "to be or become full, to be satisfied": Ditto; /t-/ could be secondary root augment.
83. PN *\*t<sup>h</sup>]ir-p<sup>h</sup>]er-p<sup>h</sup>]er-* "to have all needs fulfilled, to have enough, to be satisfied": /-p/ original; /t-/ secondary root augment.
85. PN *\*t<sup>h</sup>]ar<sup>y</sup>-/t<sup>h</sup>]er<sup>y</sup>-* "weak, frail, delicate": Adjectival roots generally late; also weakly attested.
88. PN *\*t<sup>h</sup>]ar-/t<sup>h</sup>]er-* "to be dry, arid": Ditto.
91. PN *\*t<sup>h</sup>]i-/t<sup>h</sup>]e* "you": Probably originated as a variant of *\*/ka/*.
93. PN *\*t<sup>h</sup>]aw-/t<sup>h</sup>]ew-* "to swell": Weakly attested.
103. PN *\*t<sup>y</sup>ay-/t<sup>y</sup>ey-* "to shine, to gleam, to be bright, to glitter, to glow": /-b/ original; frontal (semi)vowel secondary.
106. PN *\*t<sup>y</sup>ar<sup>h</sup>-/t<sup>y</sup>er<sup>h</sup>-* "to do, to make, to prepare, to work": Found in SSem. too.
118. PN *\*d<sup>y</sup>ab-/d<sup>y</sup>eb-* "to harm, to injure": /-ḥ/ original; /ṭḥ/ and possibly /ḥdb/ (Eg.; with transposition) cognate.
121. PN *\*d<sup>y</sup>ar-/d<sup>y</sup>er-* "to hold firmly": /-&/ probably original; Eg. unrelated, verb denominative.
123. PN *\*d<sup>y</sup>aw-/d<sup>y</sup>ew-* "to run, to flow, to gush forth": /-b/ original; variants /zḥb/ SArab., /z(ʿ)b/ Eg.; Akk. /zū/, Arab. /dwy/ unrelated.
125. PN *\*t<sup>y</sup>]<sup>h</sup>um-/t<sup>y</sup>]om-* "to strike, to hit, to stun, to stupefy": Connections semantically weak; Hbr. /yšm/ = Arab. /wṭm/ looks better to me.
126. PN *\*t<sup>y</sup>]awr-* "bull, steer": Wandering word.
127. PN *\*t<sup>y</sup>]ar-/t<sup>y</sup>]er-* "to cross over, to pass through, to overcome": Weak semantically; scanty attestation.

128. PN *\*t''yar-/\*t''yer-* "to be or become stuck, joined, or bound together; to be or become firmly or strongly attached; to be firm, solid, strong, steadfast": Arab. semantically distinct from Akk., SArab.; Eth. root adjectival, hence late; Gafat distinct, the root is /šwr/.
131. PN *\*t''yan-/\*t''yen-* "to think": Attestation limited to SSem. and meaning abstract, hence hardly ancient.
132. PN *\*t''yar-/\*t''yer-* "to cut, to split": WSem., Berb., /šwr/ also appears related.
133. PN *\*t''yur-/\*t''yor-* "to run, to flow": The noun is a *Kulturwort*; also Arab. and SArab. /ḍrw/; relevance of the verb doubtful.
134. PN *\*d<sup>z</sup>am-/\*d<sup>z</sup>em-* "to blow, to play (a wind instrument)": The root could derive from /zmr/. /ḍ-/ "to (be) brave; to guard, to protect, to wonder, to proclaim, to extol", as an expression of admiration; hence, /-r/ may be original.
135. PN *\*d<sup>z</sup>aw-/\*d<sup>z</sup>ew-* "to pass, to pass on, to pass away, to remove": Hbr. entry prepositional: /-l/ original.
137. PN *\*d<sup>z</sup>a'-/\*d<sup>z</sup>e'-* "to waste away; to become exhausted, faded, withered, weak, weary, drowsy": Attestation patchy.
138. PN *\*d<sup>z</sup>ar-/\*d<sup>z</sup>er-* "to gush forth, to burst forth, to spurt": Related to no. 69 above.
141. PN *\*t<sup>s</sup>[<sup>h</sup>]uk[<sup>h</sup>]-/\*t<sup>s</sup>[<sup>h</sup>]ok[<sup>h</sup>]-* "to bend, to turn, to wind, to twist; to close, to shut, to cover": /skr/ cognate with /sgr/; /sk(k)/ seems to refer primarily to a protective structure of wickerwork or comparable; Eg. hardly relevant; Cush. looks like wandering word.
143. PN *\*t<sup>s</sup>il-/\*t<sup>s</sup>el-* "to stretch out, to extend, to exceed; be wealthy, to prosper, to do well": Arab., Eg., Cush. entries phonetically hazardous and semantically deviant; cf. Arab. /šlh/ "to be sound, honest, just", (caus.) "to set right" instead.
144. PN *\*t<sup>s</sup>ar-/\*t<sup>s</sup>er-* "to be visible, clear, evident": Arab. entries both phonetically and semantically distinct from the Eth. ones which do not agree with the IE meanings either.
145. PN *\*ḥat<sup>s</sup>-/\*ḥet<sup>s</sup>-* "to seize, to grasp, to take hold of, to pick, to pluck": /-d/ original; cognate with WSem. /&šd/.
146. PN *\*t<sup>s</sup>ab-/\*t<sup>s</sup>eb-* "to press, squeeze, stick, tie, bind, or join firmly together": /-r/ original; Eg. related to /ṭb&/, var. /ṭm&/, as a *Kulturwort*; Cush. deviates phonetically and structurally and also semantically.
147. PN *\*t<sup>s</sup>ar-/\*t<sup>s</sup>er-* "to cut, to cut through, to cut into": Again, Cush. deviates on all



counts.

149. PN *\*t<sup>l</sup>h<sup>h</sup>jir-/\*t<sup>l</sup>h<sup>h</sup>jer-* "highest point, highest rank; to be highly esteemed, to be eminent": Cf. Arab. /srw/ "to be manly, magnanimous" (Guillaume); /\$rf/ may be connected with /\$rp/ "to burn; (to bring) burnt-offering; to worship", cf. Mhr., Jibbāli.
150. PN *\*t<sup>l</sup>h<sup>h</sup>ay-/\*t<sup>l</sup>h<sup>h</sup>ey-* "to advance, to proceed, to go on, to move forward, to continue (in time), to grow old": /-b/ original; /\$yx/ SSem. innovation.
151. PN *\*t<sup>l</sup>h<sup>h</sup>jim-/\*t<sup>l</sup>h<sup>h</sup>jem-* "to enclose, to wrap, to contain": /\$ml/ may be contraction from /\$ym/ "to put, to set" + (prep.) /l-/ "to, on".
152. PN *\*t<sup>l</sup>h<sup>h</sup>junk<sup>h</sup>-/\*t<sup>l</sup>h<sup>h</sup>onk<sup>h</sup>-* "to hook up, to hang; hanging, dangling; peg, hook": Looks like *Kulturwort* borrowing (cf. Sanskrit) with denominative verb.
155. PN *\*t<sup>l</sup>h<sup>h</sup>ar-/\*t<sup>l</sup>h<sup>h</sup>jer-* "to cause harm, to injure; injury, harm, evil": The Hbr. entry rather belongs together with Amor. /\$ry/ "to contend with", Arab. /sry/ tD-stem "to show bravery".
156. PN *\*t<sup>l</sup>h<sup>h</sup>ar-/\*t<sup>l</sup>h<sup>h</sup>jer-* "to burn, to roast": Cf. 149 above; /\$rp/ "to burn, to smelt, to refine" may be cognate.
- (Add PN *\*t<sup>l</sup>h<sup>h</sup>art'-/\*t<sup>l</sup>h<sup>h</sup>jert'-* "to cut into, to make incisions" [not in LP]: Also Aram., Akk., Soq., ?Eg. partly perhaps borrowings.)
160. PN *\*t<sup>l</sup>h<sup>h</sup>ut'-/\*t<sup>l</sup>h<sup>h</sup>ot'-* "to cut": Perhaps related to Hbr., ESA /\$tr/, Aram. /str/, Arab. /\$tr/ "to break, to slit, to demolish, to destroy", cf. Soq. /\$ tr/ "to slit"; Arab. /-b/ perhaps prepositional innovation; origin of /-q/ obscure.
161. PN *\*t<sup>l</sup>h<sup>h</sup>aḥ-/\*t<sup>l</sup>h<sup>h</sup>jeḥ-* "(young) sheep or goat": Sem. /\$/ basically monoradical, although stem vowel occasionally creates a glide (Hbr. /y/, ?Ug. /h/, /'/, Akk. /'/, (M/NAss.) /b/, Ebl., Arab. /'/, Mhr., ?Eg. /w/; somewhat onomatopoeic (or "descriptive"), partly spread as a *Kulturwort*.
162. PN *\*t<sup>l</sup>im-/\*t<sup>l</sup>em-* "to join, bind, or unite together": /\$md/ refers originally to harnessing of beasts of draught, /\$m(m)/ to tying up or obstructing small holes, etc., hence hardly connected.
164. PN *\*t<sup>l</sup>al-/\*t<sup>l</sup>el-* "to be bent, curved, round": /-&/ apparently original throughout.
167. PN *\*gub-/\*gob-* "highest point, summit, top": /gbū/ too may ultimately be connected with mountains (as natural boundaries; Irvine); /-ḥ/, /-&/ may be emphasized variants of /-h/ originated as a glide (?).

169. PN *\*gad-/\*ged-* "to force, drive, or press together; to join; to unite; to gather (together); to collect": The primary meaning of the Hbr., Akk. (etc.) root appears to be "to cut (off), to set apart", hence unrelated to the Eth. entries which agree better with the IE ones.
170. PN *\*gar-/\*ger-* "to take, to take hold of, to take away, to carry off, to remove": Meaning of the Hbr. entry uncertain.
171. PN *\*gir-/\*ger-* "to scratch, to scrape": /grd/ perhaps dissimilated from /gr(r)/ "to scratch, to drag, to chew (etc.)".
172. PN *\*gur-/\*gor-* "to crush, to grate, to grind": Onomatopoeic and partly spread as *Kulturwörter*; for "threshing-floor", prototype is certainly /gurn/ rather than *\*garn/*, cf. Aram.-Syr., G&z, and also Arab. /ğurn/ "stonebasin, -mortar, pestle"; /ğarīn/ (not *\*garn/*) is a secondary formation.
175. PN *\*gawl-/\*gewl-*. *\*gwal-/\*gwel-* "to twist, to turn, to bend": Sem., Cush., Berb., Eg. /gl(l)/ is related.
176. PN *\*gil-/\*gel-* "to shine, to glisten": /-h/ originated secondarily as a glide; Eg.-Cpt. /-p/ phonetically exceptional, but maybe not impossible (cf. /-b/ in no. 161 above).
178. PN *\*gul-/\*gol-* "to cut, to clip off, to shear, to shave": Basic root appears indeed to be biconsonantal; /-b/ may again be prepositional, /-m/ pronominal and others phonetic in origin.
180. PN *\*gud-/\*god-* "to throw, to toss, to shake": /-p/ probably original; root found also in Hbr., Aram., ESA, mostly in the metaphorical sense, "to revile, to blaspheme", in Arab. also in the concrete sense, "to cut off" (with /ğdf/ as a variant).
182. PN *\*k[ʰ]ap[ʰ]-(/\*k[ʰ]ep[ʰ]-)* "to take, to seize; hand": Primary verbal sense seems to be "to bend" (Hbr., Aram., Akk., cf. Arab., Te.), but the noun may be more original, both verbs denominative.
183. PN *\*k[ʰ]as-/\*k[ʰ]es-* "to cut": Parallel to 178 above.
184. PN *\*k[ʰ]al-/\*k[ʰ]el-* "to make a noise, to sound": Onomatopoeic: /-h/ could be original.
185. PN *\*k[ʰ]ar-/\*k[ʰ]er-* "to cut": Perhaps originated as root variant of no. 247 (/t/ feminine affirmative).
187. PN *\*k[ʰ]al-/\*k[ʰ]el-* "to strike, to wound, to injure": /-m/ could be original.

188. PN *\*k<sup>h</sup>]aw-/\*k<sup>h</sup>]ew-* "to swell, to expand, to inflate, to grow, to increase": Hardly relevant; Arab. /-w(w)-/ secondary consonantalization of original stem vowel; on Hbr., cf. Arab. /kmz/ "to round something in the hand", /kumzat/ "a round heap of dates; sand-mound"; exact meaning conjectural.
189. PN *\*k<sup>h</sup>]un<sup>y</sup>-/\*k<sup>h</sup>]on<sup>y</sup>-* "bee, honey": May be a wandering word; Hbr., Aram., SArab. /kn(m)/ "louse, vermin" perhaps related.
191. PN *\*k<sup>h</sup>]ab-/\*k<sup>h</sup>]eb-* "hoof, hoofed animal": *\*/kab\$/* hardly related to the other entries, semantic distinction too being clear and consistent.
192. PN *\*k<sup>h</sup>]am-/\*k<sup>h</sup>]em-* "to seize, to grasp, to grip, to clutch": Arab. /kmš/ perhaps related to Hbr., Aram. /qmš/ = Arab. /qmz/, /kmz/ = ?Eg. /qǧm/ "to (take a) handful".
193. PN *\*k<sup>h</sup>]aŋ-(/\*k<sup>h</sup>]eŋ-)* (?) "to sing, to sound": Onomatopoeic.
205. PN *\*k<sup>h</sup>]ad-/\*k<sup>h</sup>]ed-* "to twist, to wind, to wrap, to bend": Perhaps connected with WSem. /ktn/ "flax, linen, kind of raiment", which has become a *Kulturwort* found also in Eg., Gr., ?Lat.
206. PN *\*k<sup>h</sup>]an-/\*k<sup>h</sup>]en-* "to set straight, to make right": /-w-/ hypothetical/secondary consonantalization of the stem vowel, as usually in hollow roots.
209. PN *\*k'an-/\*k'en-* "to get, to acquire, to possess, to create": For Eg., the semantic link is rather weak.
210. PN *\*k'ar-/\*k'er-* "to call out, to summon, to cry (out), to shout, to sound": Onomatopoeic.
211. PN *\*k'iy-/\*k'ey-* "to break, to split, to crack, to burst open": /y/ hypothetical consonantalization of the stem vowel; the root being attested in Arab. and ESA only, hardly even Proto-Sem. in origin.
212. PN *\*k'um-/\*k'om-* "to seize, to grasp; to press together": cf. 192 above (further variants, on Hbr. cf. Aram. too).
213. PN *\*k'am-/\*k'em-* "to weep, to moan, to lament, to groan": Onomatopoeic in origin.
214. PN *\*k'am-/\*k'em-* "to chew, to bite, to eat; to cut to pieces, to crush": The noun primary, *Kulturwort*, verbs denominative (Eg., Som. perhaps unrelated).
215. PN *\*k'aw-/\*k'ew-* "to make a round hole in": Cf. 206 above; Cush. hardly related.
216. PN *\*k'ar-/\*k'er-* "to cut": /qr š/ and /qr ḥ/ old, but unrelated, the latter maybe

transpositional variant of /hlq/; /qardom/ *Kulturwort*, others late innovations; relevance of Cush. entries doubtful.

221. PN \**k'ab*-/ \**k'eb*- "to seize, to take hold of; to seize with the teeth, to bite": /qbḏ/ (= Aram. /qb&/) maybe a further variant of 192 above.
224. PN \**k'ak*'- "to cackle, to chatter": Onomatopoeic.
225. PN \**k'ak*'- "partridge": Ditto.
- (Add PN \**k'al*-/ \**k'el*- "to lift, to raise up, to make high, to elevate; lifted up, elevated, high; highest point, top" [not in LP]: Related to 218 [PN \**k'il*-/ \**k'el*- "to decrease, to diminish; to be or become little, small, few"] ("light" = "easy to lift").)
227. PN \**wig*<sup>y</sup>-/ \**weg*<sup>y</sup>- "to carry, to convey": /wzr/ late Hbr.; hardly relevant.
228. PN \**ḥag*<sup>y</sup>-/ \**ḥeg*<sup>y</sup>- "to be pressed or weighted down; to be oppressed; to be disheartened, vexed, distressed, afflicted, troubled": /-n/ original, cf. Eg.
229. PN \**g<sup>y</sup>ir*-/ \**g<sup>y</sup>er*- "to enclose, to gird": /'zr/ root variant of /'sr/; /zarzir/ conjectural etymology, maybe onomatopoeic.
230. PN \**g<sup>y</sup>ab*-/ \**g<sup>y</sup>eb*- "to bestow upon, to give": /-d/ probably original; Eg. hardly connected.
231. PN \**k<sup>y</sup>[<sup>h</sup>]il*<sup>y</sup>-/ \**k<sup>y</sup>[<sup>h</sup>]el*<sup>y</sup>- "to rise, to ascend, to raise up": /sl(l)/ "to pile up" rather than "to lift"; the noun *Kulturwort*, affiliation disputed, but in my opinion probable; relevance of Eg. doubtful.
232. PN \**k<sup>y</sup>[<sup>h</sup>]al*-/ \**k<sup>y</sup>[<sup>h</sup>]el*- "to twist, to twine, to wind around, to plait": The noun *Kulturwort* of Sumerian origin; /slp/ Hbr. and Aram. only, evidently late.
233. PN \**k<sup>y</sup>[<sup>h</sup>]ay*-/ \**k<sup>y</sup>[<sup>h</sup>]ey*- "to move, to move on, to move along, to go, to go away": /-r/ original, /-y-/ secondary glide; /swr/ "to turn aside" perhaps related.
234. PN \**k<sup>y</sup>'ib*-/ \**k<sup>y</sup>'eb*- "point, prong; to point out, to stick out": /-&/ definitely original, cf. Eg., Bil.; other Cush. entries doubtful, as I do not believe in the existence of /q<sup>y</sup>/, and shift from /s/ to /q/ or vice versa hard to assume -- but perhaps not quite impossible; Berber phonetically too hard anyway.
235. PN \**bawk*<sup>y</sup>-/ \**bewk*<sup>y</sup>- "to flee": Phonetically hazardous and scantily attested.
236. PN \**k<sup>y</sup>'al*- "bald, head": Eg.-Cpt. related to Sem., Cush., Berb. /gl(l)/.

237. PN *\*k<sup>y</sup>un-/\*k<sup>y</sup>on-* "to bend or fold together, to crack, to split, to divide": Relevance of Hbr. entries doubtful, but perhaps highly specialized; non-Sem. entries semantically too remote and phonetically hazardous anyway.
240. PN *\*k<sup>w</sup>[<sup>h</sup>]ul-/\*k<sup>w</sup>[<sup>h</sup>]ol-* "to end, to come to an end; to bring to an end, to complete, to finish": Present also in Om. (Fleming), Berb., ?Chad.; for Eg. /čnw/ "totality" (Vycichl after Sethe) seems more plausible.
243. PN *\*k<sup>w</sup>[<sup>h</sup>]ay-/\*k<sup>w</sup>[<sup>h</sup>]ey-* "to repay in kind, to return an equal measure": /-l/ original; cf. 206, 211 above.
245. PN *\*k<sup>w</sup>[<sup>h</sup>]ay-/\*k<sup>w</sup>[<sup>h</sup>]ey-* "to form, to fit, to fashion": Cf. 235 above.
248. PN *\*k<sup>w</sup>[<sup>h</sup>]ur-/\*k<sup>w</sup>[<sup>h</sup>]or-* "body, belly": Also in Som.: /kirši/ "intestines".
249. PN *\*k<sup>w</sup>[<sup>h</sup>]i-/\*k<sup>w</sup>[<sup>h</sup>]e-* relative pronoun stem, *\*k<sup>w</sup>[<sup>h</sup>]a-/\*k<sup>w</sup>[<sup>h</sup>]e-* interrogative pronoun stem: The interrogative element is /-m(a)/ "what?"; /k-/ is the preposition "like, as".
250. PN *\*k<sup>w</sup>[<sup>h</sup>]ay-* "when, as, though, also" (derivative of the preceding): Hbr. /kī/ originally deictic; connection with other entries largely conjectural.
251. PN *\*k<sup>w</sup>[<sup>h</sup>]ar-/\*k<sup>w</sup>[<sup>h</sup>]er-* "vessel, pot": *Kulturwort*.
252. PN *\*k<sup>w</sup>[<sup>h</sup>]ur-/\*k<sup>w</sup>[<sup>h</sup>]or-* "to cut": Scantly attested.
254. PN *\*k<sup>w</sup>ul-/\*k<sup>w</sup>ol-* "to call (out), to cry (out), to shout": Onomatopoeic; also root variant /qhl/.
255. PN *\*q<sup>w</sup>ur-/\*q<sup>w</sup>or-* "edge, point, tip, peak" (reconstructed as *\*k<sup>w</sup>ir-/\*k<sup>w</sup>er-* in LP): /-n/ original, primary meaning "horn"; Eg., Cush. entries phonetically and semantically equivocal.
256. PN *\*k<sup>w</sup>iy-/\*k<sup>w</sup>ey-* "to fester; to be putrid, foul, purulent": Found in Tuareg too: /eqqew/, /uqqu/.
257. PN *\*k<sup>w</sup>at'-/\*k<sup>w</sup>et'-* "to burn, to smoulder, to smoke": /-r/ original; Eth. entries LWW.
258. PN *\*k<sup>w</sup>arb-/\*k<sup>w</sup>erb-* "the inside, the middle, interior, inward part": Also in Arab.: /qalb/ "heart", Mhr., Te., Cush.
259. PN *\*k<sup>w</sup>ar-/\*k<sup>w</sup>er-* "to rest, to stay, to remain, to wait": Also in Tuareg, Chad., ?Cush.

260. PN \*q'ur-/q'or- "to make a sound; sound, noise" (reconstructed as \*k'ar-/k'er- in LP): Scantly attested.
261. PN \*k'alb-/k'elb- "the inside, middle, center, interior": Root variant of no. 258.
262. PN \*k'ur-/k'or- "to be heavy, weighty, solid, bulky": Perhaps in Eg. too (Erman-Grapow, Vycichl); Cush. entry seems hazardous.
263. PN \*k'at'-/k'et'- "to cut": /qṭ&/ is cognate with /qṣ&/, and Arab. /qṣb/ occurs alongside /qṭb/; /qṭp/ means primarily "to pick, to pluck off", not "to cut"; /-m/, /-l/ are late innovations.
- (Add PN \*k'ur-/k'or- "to be harsh, severe, biting, bitterly cold" [not in LP]: /qrs/ (in Tuareg too) appears alongside /qrḥ/ in WSem.; origins obscure.)
271. PN \*q'uw-/q'ow- "forehead, brow": Scantly attested, phonetically hazardous and semantically rather vague.
272. PN \*q'ul-/q'ol- "to throw, to hurl": /-&/ original; also in Eg.-Cpt. as a LW with semantic shift.
273. PN \*q'ul-/q'ol- "to strike, to hurt, to wound, to slay, to kill": Infixation of /t/ in a transitive verb unparalleled.
274. PN \*q'ur-/q'or- "to swallow; neck, throat": Could be onomatopoeic in origin.
276. PN \*sam-/sem- "to resemble, to be like": /sml/ probably *Kulturwort*; Eth. /msl/ belongs together with Hbr., Phoen., Akk. /mšl/ = Aram., Soq., /mtl/ = Arab., ESA, Mhr. /mtl/.
277. PN \*sag-/seg- "to get, to obtain": /-l/ original; Akk. (? Amor.) var. /skl/; NWSem. noun may be loanword from Akk., and so Eg.
278. PN \*sal-/sel- "to spring, to leap, to jump": Hbr. /sld/ perhaps dissimilated from /sl(l)/ "to pile up; to bounce; to exalt, to praise".
280. PN \*sap<sup>h</sup>[-/sep<sup>h</sup>]- (?) "seven": *Kulturwort*, like all numerals, of Sem. origin, borrowed into Eg., ?Berb. through unusual channels, hence unusual phonetic correspondence.
282. PN \*saw-/sew- "to drink, to swallow": Arab. deviates phonetically and semantically.
283. PN \*sar-/ser- "to split, to rip apart, to tear asunder": Look like *Kulturwörter*.

286. PN \**s*<sup>ʔ</sup>*ul*-/\**s*<sup>ʔ</sup>*ol*- "to be safe, well, sound" (reconstructed as \**s*<sup>ʔ</sup>*al*-/\**s*<sup>ʔ</sup>*el*- in LP): WSem. /šlw/ may also be related.
287. PN \**s*<sup>ʔ</sup>*ar*-/\**s*<sup>ʔ</sup>*er*- "to move quickly, to proceed": Semantic connections vague; /šr&/ (in Hbr. and Aram. too) seems to refer primarily to conspicuous parts of the body.
288. PN \**s*<sup>ʔ</sup>*il*<sup>ʔ</sup>-/\**s*<sup>ʔ</sup>*el*<sup>ʔ</sup>- "to take (away), to seize, to pull (off)" (reconstructed as \**s*<sup>ʔ</sup>*al*-/\**s*<sup>ʔ</sup>*el*- in LP): SSem. /slb/ may be extension of the bicons. root (prep. /-b/ ?), Eg. its apocopated reduplication.
289. PN \**nas*<sup>ʔ</sup>-/\**nes*<sup>ʔ</sup>- "to breathe, to blow": Originally tricons.; /npš/, /nšb/ also related.
290. PN \**s*<sup>ʔ</sup>*am*-/\**s*<sup>ʔ</sup>*em*- "to be hot, sunny": Eg.-Cpt. entries belong to root /ḥm(m)/.
291. PN \**s*<sup>ʔ</sup>*in*<sup>ʔ</sup>-/\**s*<sup>ʔ</sup>*en*<sup>ʔ</sup>- "to change, to deteriorate, to grow old" (reconstructed as \**s*<sup>ʔ</sup>*an*-/\**s*<sup>ʔ</sup>*en*- in LP): Also Aram. /t-/ SSem. /ṭ-/; the word for "year" has become *Kulturwort*.
294. PN \**ag*<sup>ʔ</sup>-/\**eg*<sup>ʔ</sup>- "young of an animal": /&gl/ primarily "to be round"; of a calf = "hornless".
295. PN \**at*<sup>ʔ</sup>[-]/\**et*<sup>ʔ</sup>[-] "to move, to proceed, to advance (in years)": /-q/ original.
298. PN \**aw*-/\**ew*- "to sleep": Scantly attested.
299. PN \**uw*-/\**ow*- "flock or herd of small animals; sheep and goats" (reconstructed as \**aw*-/\**ew*- in LP): Ditto; also presupposes animal husbandry.
300. PN \**ut*<sup>ʔ</sup>-/\**ot*<sup>ʔ</sup>- "to smell": /n/ and /r/ interchange phonetically, in central Gur. regularly and elsewhere sporadically; variants /&šn/, /tn/ occur alongside /& ṭn/ (*Kulturwort* loans).
302. PN \**urb*-/\**orb*- "to be or become dark" (reconstructed as \**arb*-/\**erb*- in LP): Basic meaning "to enter (sun into its night-quarters)"; whether this agrees with IE, I don't know.
303. PN \**ig*<sup>ʔ</sup>-/\**eg*<sup>ʔ</sup>- "to go out or away from, to separate or part from": /-b/ original; Arab. variant /&ḍb/ "to neglect", cf. ESA too.
304. PN \**ḥang*-/\**ḥeng*- "to press or squeeze together, to make narrow or constricted, to strangle; narrow, constricted; throat": Eg. /ḥngg/ may belong to the root /ḥnk/, an offshoot of /ḥk(k)/, and means primarily "palate".
305. PN \**ḥal*<sup>ʔ</sup>-/\**ḥel*<sup>ʔ</sup>- "to grow, to be strong": /-m/ original; the root is cognate with /&lm/

"to be sexually mature".

306. PN \**ḥas*-/\**ḥes*- "to burn, to be hot": Could be onomatopoeic in origin.
308. PN \**ḥar*-/\**ḥer*- "to prepare, to make ready": Scantly attested.
310. PN \**ḥam*-/\**ḥem*- "to be sharp, sour, acid": Some *Kulturwort* borrowing possible; /ḥm'/ could be an off-shoot of this root.
312. PN \**ḥar*-/\**ḥer*- "to be superior, to be higher in status or rank, to be above or over": The basic meaning is "free(-born)".
313. PN \**ḥag*-/\**ḥeg*- "to cover, to hide, to conceal, to obscure": Relevance of the Hbr. entry uncertain.
316. PN \**ḥap*ʰ-/\**ḥep*ʰ- "to gather, to collect; to accumulate wealth, to be rich; to be abundant": The primary meaning of /ḥp\$/ is searching for and picking up gleanings, not gathering wealth in abundance; hence, /ḥfl/ hardly related, and /-\$/ probably original.
317. PN \**ḥaw*-/\**ḥew*- "to shine": The primary meaning of /ḥwr/ appears to be intense appearance or look of the eyes involving both white and black colouring; both occur still in Arab., white only in Hbr., Aram., black only in Mhr., Soq.
318. PN \**ḥaw*-/\**ḥew*- "to weave, to braid, to plait": /-w-/ hypothetical / secondary consonantalization of the stem vowel, as usually in hollow roots.
319. PN \**ḥan*-/\**ḥen*- "to bend, to curve, to twist": The primary meaning of /ḥnV/ is "to encamp", then also "to settle, to dwell"; for /ḥnq/, /-š/, /-k/ to be related, they must be of rather late origin.
320. PN \**ḥak*'-/\**ḥek*'- "field": Presupposes sedentary life and agriculture.
321. PN \**ḥak*'-/\**ḥek*'- "to direct, to guide, to command": Primary meaning "to hew (in stone), to engrave".
324. PN \**ḥar*-/\**ḥer*- "to scratch, to scrape, to plow": /ḥrš/ again presupposes agriculture.
325. PN \**ḥak*'-/\**ḥek*'- "to cut into": Cf. no. 321 above.
330. PN \**ḥal*-/\**ḥel*- "to wear down, to wear out, to weaken; to be worn out, worn down, weakened": Basic meaning of /ḥlV/ is "to be sweet, agreeable"; hardly connectable with that of /ḥlq/; hence /-q/ probably original.
333. PN \**ḥink*ʰ-/\**ḥenk*ʰ- "to reach, to come to, to arrive at, to gain; to offer, to present":



Primary meaning of /h<sub>nk</sub>/ appears to be "to rub (a child's) palate with chewed food", apparently as a kind of initiation ceremony.

335. PN \*h<sub>i</sub>w-/\*h<sub>e</sub>w- "to lack, to stand in need, to be in want" (reconstructed as \*h<sub>a</sub>w-/\*h<sub>e</sub>w- in LP): /-w-/ hypothetical / secondary consonantalization of the stem vowel, as usually in hollow roots.
336. PN \*h<sub>a</sub>l-/\*h<sub>e</sub>l- "to separate, to divide, to set apart; to be separated (from), to be alone": /h<sub>l</sub>V/ refers primarily to being alone, /h<sub>l</sub>q/ to dividing and allotment, /h<sub>l</sub>&/ to removal; hardly convincingly of common origin.
338. PN \*'ak<sup>h</sup>]/(k<sup>h</sup>)]-/\*'ek<sup>h</sup>]/(k<sup>h</sup>)]- "female relative": in Uralic too; Finnish /akka/ "old woman; (dialectal and slang) wife; (mythological) proper name of the wife of the supreme god, Ukko".
340. PN \*'ar-/\*'er- "earth": /-ʃ/ original; found also in Som.: /arli/, and in Chad., but without any indication of /'-/, which suggests that it is secondary.
341. PN \*'ak<sup>h</sup>]/-/\*'ek<sup>h</sup>]- "to eat": /-l/ evidently original.
343. PN \*'as-/\*'es- "to gather, to collect": /'sp/ possibly related to /ysp/ (originally /(w)sp/; if so, /-p/ original and /' secondary again.
344. PN \*ma'-/\*me'- "to increase (in number), to be many, to be abundant": No indication of secondary origin of /-d/ in \*/mu'd/.
358. PN \*'ad<sup>y</sup>-/\*'ed<sup>y</sup>- "to be pointed, to be sharp": /-n/ evidently original; connection between ear and sharpness unconvincing.
359. PN \*'ar-/\*'er- used as the base for the designation of various animals: Wandering words; /-y/, /-w/, /-b/ allomorphs; /'arx/ distinct.
360. PN \*'ap<sup>h</sup>]/-/\*'ep<sup>h</sup>]- "to burn, to be hot, to cook, to boil, to bake": Primary meaning "to bake"; in Eg., /'ft/ "pastry" (LW?) preferable.
362. PN \*'ab- "father, forefather": Eg. /'b/ "father" unknown to me; only /'bt/ "family" known; forms with initial /b-/ in Cush., Berb., Chad. perhaps more original (/'-/ resulting from dissimilation).
363. PN \*'ab-/\*'eb- "to be strong, mighty": /-r/ original, primary meaning probably "young bull".
371. PN \*'al-/\*'el- element of negation: Hbr. /'al/ prohibitive "don't" (/lo'/ negative "not").

372. PN \**'il-/ \*'el-* "to shine, to radiate, to flash, to glitter, to glisten": Scanty attestation and no indication of /-q/ being secondary.
374. PN \**har-/ \*her-* "to release, to set free; to become free": No indication of /-b/ being secondary; NWSem., Arab., ESA /brḥ/ "flee" perhaps transpositional variant of this (with pharyngealized fricative).
375. PN \**hap[ʰ]/ \*hep[ʰ]-* "to turn, to turn away, to turn back": Again, no indication of /-k/ being secondary; details of entries rather inexact -- in Akk., both /-b-/ and /-p-/ attested, in Soq., /-b-/ only; in Arab., /'fk/.
376. PN \**hal-/ \*hel-* "to shine, to be bright": Primary reference appears to be to the new moon; also in Phoen., Ug., Aram., Amor., Eth., Tuareg.
377. PN \**haw-/ \*hew-* "to long for, to desire": May be originally root variant of /'wy/ "to wish, to desire".
380. PN \**hag-/ \*heg-* "to burn, to be on fire, to be aflame, to be ablaze": Akk., Hbr. entries probably belong to a different root; Hbr. translation appears tendentious -- "meditation" would be quite adequate.
382. PN \**hay* exclamation of surprise, astonishment, grief, or misfortune: Spontaneous utterance; in Uralic too: Finnish /ai(yy)/, etc.
388. PN \**wa-/ \*we-* 1st person personal pronoun stem: Scanty attestation and easily changeable phonetic structure.
389. PN \**'aw-*, \**'wa/ \*'we* "or": Originally imperative of /'wy/ "choose!" (cf. Lat.).
391. PN \**wad-/ \*wed-* "to cut, to strike, to slay": Scanty attestation.
392. PN \**way* exclamation: "woe": Spontaneous utterance.
394. PN \**wa'-/ \*we'-* "to call, to cry out, to sound": Onomatopoeic.
395. PN \**wir-/ \*wer-* "to stretch, to extend, to increase": In /wrf/, /w-/ probably secondary augment or the whole root of late origin; cf. Can. /rp'ym/ "shadows" (= "the deceased in the nether world").
399. PN \**wal<sup>y</sup>-/ \*wel<sup>y</sup>-* "to turn, to roll, to revolve": /w-/ could be secondary, cf. the prepositions /l-/ , /'l(y)/ "to, towards".
401. PN \**wal-/ \*wel-* "to cry out, to call, to shout": Onomatopoeic.

405. PN *\*wir-/wer-* "to say, to speak, to tell, to point out, to make known": Could be connected with /wrV/ "to throw", if originally response to oracular consultation; then /w-/ probably secondary.
407. PN *\*wal<sup>y</sup>-/wel<sup>y</sup>-* "to shine, to be bright": Again, /w-/ secondary or the whole root late.
408. PN *\*maḥ-/meḥ-* "to increase, to swell, to exceed, to surpass, to be great": Possibly valid; G&z /-s/ could be dissimilated repetition of /ḥ/; but the root could also be ultimately transpositional variant of the numeral for 5 (the irregular *χ* due to the *Kulturwort* spread of this).
409. PN *\*mag-/meg-* "to be of great influence, power, and importance; to be eminent, exalted, highly esteemed, glorious, illustrious": Found in Aram. and Syr. too; the primary meaning seems to be related to vegetation, which is hardly the case in PIE; on the other hand, in Finnish there is a verb /mahtaa/ (used only with negative connotation, "(not) to be able", or interrogatively, "(what) can (one) do!?" ) with noun /mahti/ "might, strength"; but it could be an early loan (from Gothic?).
410. PN *\*mig-/meg-* "to give": The Semitic attestation seem all to derive from the Akkadian noun, itself a loan word (ultimately) from Sanskrit.
411. PN *\*mi'-/me'-* "to reap, to harvest": *Kulturwort*, presupposing at least fairly systematic agriculture, hence evidently loan word in Eg., if indeed connected.
412. PN *\*mat<sup>h</sup>]/-met<sup>h</sup>]-* "middle; in the middle of, with, among": Seems possible, although attestation scanty.
413. PN *\*mul-/mol-* "to rub, to crush, to grind": /ml(l)/ seems valid, but /ml&/, /-s/, /-ṣ/, /-d/ have too limited attestation to be proto-Semitic in origin, and /-ṭ/ seems to have spread as a *Kulturwort*.
415. PN *\*man-/men-* "to stay, to remain": Appears basically valid, and /'mn/, /ymn/ based on it too; but the Cushitic attestations may come from /bn(V)/ "to build", with secondary nasalization of the labial (W. W. Müller).
416. PN *\*maw-/mew-* "water, liquid, fluid": Found in Cush., Berb., Chad. too, with /m/ as the only firm radical; the Hebrew form too is semantically collective "water" rather than pluralistic.
417. PN *\*mar-/mer-* "young man, young animal": Probably two originally distinct roots, cf. also Ug. /mr'/ "to command", Akk. /amēl/ "free/noble man", Tuareg /əmaləy/ "intact male", although ultimately perhaps from the same origin (/r/ and /l/ interchangeable).
418. PN *\*ma(')/me(')* negative/prohibitive particle: Arab. /mā/ "not" is rhetorical usage

of /mā/ "what?!"; the Harari form may be borrowed from it.

420. PN *\*mir-/mer-* "to stab, to pierce, to cause pain; to suffer pain, to be weakened, to be afflicted": Possibly in Tuareg too: /malad/ (or LW?); I'm not sure of the relevance of the Eg. forms either.
422. PN *\*mat'/\*met'-* "to stretch, to expand, to lengthen, to draw out, to measure out": The Hebrew entry comes from the root /nṭV/ "to stretch, to extend, to bend", in which /n-/ may be a secondary augment; the South Semitic roots could be secondary derivatives from the same basic one.
424. PN *\*mal-/mel-* "good, pleasant": Probably related to the *Kulturwort* /milḥ/ "salt"; the shift in meaning is not great.
427. PN *\*mur-/mor-* "mulberry, blackberry": Probably a wandering word.
428. PN *\*mun-/mon-* "to protrude; to stand out; to jut out; to be first, foremost, in front of; (n.) highest or farthest point, topmost or most protuberant part": Scanty attestation.
429. PN *\*munt''y/\*mont''y-* "to suckle; breast, udder": Scanty attestation; some onomatopoeic influence may also be present.
430. PN *\*mal-/mel-* "honey": Attested in parts of Cushitic only, even there Southern forms phonologically and semantically deviant; the East final /-b/ is not easily conceivable as secondary either.
432. PN *\*mat'/\*met'-* "to be or become wet, moist": Possible; /-r/ could be dissimilated repetition of /t/; but if /rṭb/ "to be moist" be related (with metathesis and denasalization), hardly probable.
433. PN *\*mar-/mer-* "to smear, to anoint, to rub (with grease, fat, ointment)": Hardly original; in Eg., the verbal root /wrḥ/ beside it; some *Kulturwort* influence accounting for variation in the 3rd radical may also be present.
434. PN *\*mi/\*me-* 1st sg. personal pronoun stem: "I, me"; PN *\*ma/\*me-* inclusive 1st pl. personal pronoun stem: "we, us": The labial nasal, found only as a variant in Chad. beside the oral one ubiquitous in the whole phylum, may have originated as a dissimilatory variant of it.
440. PN *\*mur-/mor-* "to make a noise, to murmur": Onomatopoeic.
441. PN *\*mak'/\*mek'-* "to handle, to work with the hands": Scanty attestation; semantically rather weak too, and the sibilant not easily understandable as secondary.

445. PN *\*nat'/\*net'*- "to wet, to moisten": /n-/ secondary augment, /-p/ original.
447. PN *\*nir/\*ner*- "to be strong, manly" (reconstructed as *\*nar/\*ner*- in LP): Scanty attestation.
448. PN *\*nat'/\*net'*- "to tie, to bind": Scanty attestation.
449. PN *\*nap<sup>h</sup>/\*nep<sup>h</sup>*- "to breathe, to blow": /npš/ originally triradical, /nšp/, /nšm/, and /nšb/ related; in /np<sup>x</sup>/, /n-/ secondary, cf. /pwx/; onomatopoeic influence present.
450. PN *\*naw/\*new*- "time": Again, scantily attested and semantic connection rather abstract; on the other hand, in Finnish there is /nyt/ (dialectally also /ny/) "now".
452. PN *\*naḥ/\*neḥ*- "to fear": Again, limited attestation.
454. PN *\*nab/\*neb*- "to burst forth, to gush forth": Again, /n-/ secondary, cf. Hbr., Aram., Akk., Arab. /b&/.
455. PN *\*nag/\*neg*- "to strike, to split, to pierce": Ditto; cf. Hbr., Aram., Arab., ESA /gw&/.
457. PN *\*na'/\*ne'*- "to come, to go, to arrive, to journey, to travel, to sail": Hbr., ?Ug., Aram., Arab. /nw&/ may also be related.
- (Add PN *\*na/\*ne*-, *\*ni/\*ne*-, *\*nu/\*no*- demonstrative stem [not in LP]: Probably related to no. 453, PN *\*na/\*ne*- 1st person personal pronoun stem.)
459. PN *\*naw/\*new*- "to sound, to call, to praise": In the Hbr. entry, /-hū/ is suffix "him"; the root is /nwV/, variant of /n'V/ "to be beautiful, nice, proper"; H-stem "to declare nice, to praise".
460. PN *\*n<sup>y</sup>ip<sup>h</sup>/\*n<sup>y</sup>ep<sup>h</sup>*- "offspring": Again, /n-/ probably secondary; cf. /prV/ "fruit; to be fruitful".
461. PN *\*luk'/\*lok'*- "to gather, to collect": The primary reference seems to be to gathering fruit and other foodstuff, such as gleaning after harvest, which presupposes relatively settled conditions; Ug., Akk. variants of the 3rd radical are also best understandable in loan words; the South Sem. /m/-/n/-/f/ may also be variants of original /-m/.
462. PN *\*law/\*lew*- "to be or become dirty, tarnished, stained, soiled, filthy": Probably semantic variant of "to soak, to mix", related to Sem., Berb., ?Eg. "to knead (dough)", etc.
463. PN *\*law/\*lew*- "to shine": /-ḥ/ original.

464. PN *\*lak<sup>h</sup>]/-/\*lek<sup>h</sup>]/* "leg, foot": related to Sem. /rgl/, variant /'gr/, ?Tuareg /elëγ/ "leg, foot", etc., ?Chad. /rgr/ "to go", cf. also /(h/w)lk/ "to walk, to go"; Finnish /jalka/ "leg, foot", /kulkea/ "to move, to go".
465. PN *\*law-//\*lew-* "to bend, to twist, to turn": /lwz/ means basically "to encompass" rather than "to twist, to turn", and /-z/ can hardly be secondary; and so /-ṭ/ in /lwṭ/, which also has root variant /lhṭ/.
466. PN *\*law-//\*lew-* "to yearn for, to feel burning desire": Again, /-&/ hardly secondary, apart from scanty attestation.
469. PN *\*rak'-/\*rek'-* "to stretch, to extend, to draw out": /-&/ could be dissimilated from /-q/ (repeated).
470. PN *\*rak<sup>h</sup>]/-/\*rek<sup>h</sup>]/* "to twist, to turn, to bind": There is no evidence of /-s/ being secondary, and semantic connection with IE is not unequivocal.
471. PN *\*'ur-//\*'or-* "to move rapidly, quickly, hastily; to set in motion": The basic Sem. root is /rx/, cf. the clearly related /wrx/, Arab. /rwḥ/ (!), etc.
473. PN *\*ra'y-//\*re'y-* "to see, to perceive": Found in Cush., Om. too (Bed. /erh/; Fleming, Dolgopolsky).
474. PN *\*riy-//\*rey-* "to prosper, to flourish, to thrive": Scanty attestation and phonetically weak.
475. PN *\*'urb-//\*'orb-* "to separate, to set apart, to put asunder; to be separated, set apart, abandoned": Basic meaning "to enter", particularly of the sun = "to set", then "to go west".
477. PN *\*raq'-/\*req'-* "to observe, to watch, to regard attentively; to supervise, to control": Scanty attestation, although /-b/ could be secondary (prepositional).

## **PRE-NOSTRATIC "PRONOUNS"**

### **Early Noun Substitutions**

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#### 1. Introduction

There are indications from many scientific disciplines that suggest a unitary origin for humankind.

Emerging fossil evidence has led many to believe that language is immeasurably more ancient than formerly assumed.

In this short essay, it is not practical to argue the merits of these positions. Readers will have formed their own conclusions based on the evidence. Suffice it to say that this essay assumes both of the above hypotheses.

Pre-Nostratic as used here designates the language from which all of the world's languages are descended — at a point in time just prior to the dispersal of evolving humanity which led to ethnic and linguistic differentiation.

#### 1. A. Pronouns

Pronouns as a syntactic category are a relatively recent embellishment to language. Many languages still utilize them very infrequently. This is simply because there is no necessity for them however convenient they be. Where the context itself does not adequately identify the participants in the two-part speech situation, proper names or other nouns can always be employed.

Many researchers have recognized this in various branches of linguistics. For PIE, Lehmann says "...at an early stage of PIE, person was not a syntactic category. When a person was to be specified, a lexical element was used, e.g. \**eg-/me-* 'I'" (Lehmann 1974: 231).

Therefore, at a very early stage of language, we should be looking for *nouns* fulfilling the roles that *pronouns* play later.

Of course, the corollary of this is that verbs were, at the beginning, not inflected for person. Every early verb form was, therefore, formally third person.

We can see this very early state of affairs in both Egyptian and Sumerian.

In Egyptian, we usually refer to the verb-form *sḏm.f* as the third person singular. Loosely, we can equate this with a form like Latin *audit*, '(he, she, it) hears'. But if we should say 'the man hears', the Latin is *homo audit* while the Egyptian would be *sḏm z(i)*. In Egyptian, the true third person singular, which is *sḏm*, is appended by *-f* to express 'he' or 'it' as a subject.

The same is true of the third person singular in Sumerian: *lú-e ì-kur-9-kur-9*, 'the man enters', where inflectional *ì-* is placed before every member of the paradigm.

In Pre-Nostratic, we should be able to identify the nouns which developed into pronouns (and pronominal endings) in the derived languages.

Now if we were, in fact, looking for Pre-Nostratic "pronouns", our investigations would have to be restricted to words with "pronominal" meanings.

But the derived languages were, in the absence of the formal category of pronouns in Pre-Nostratic, free to employ a wide range of nouns from Pre-Nostratic as pronouns (and pronominal case-endings) which, with time, were organized by them into a formal syntactic categories.

The vocabulary we can utilize for these reconstructions is, therefore, of embarrassing variety. In this short essay, we will focus on only a selected few.

## 2. Preliminary Remarks

Though Pre-Nostratic was richly developed in many ways, there are many categories of meaning familiar to us which were either expressed lexically or not expressed at all.

### 2. A. Gender

Gender was expressed only lexically in Pre-Nostratic.

"Although gender distinctions are expressed in the substantives of all Indo-European dialects, it is clear that the gender category developed late in PIE" (Lehmann 1974: 198).



"Sumerian has no gender but distinguishes the categories animate and inanimate" (Thomsen 1984: 49).

The very predominantly monosyllabic structure of Sumerian argues for it being the earliest recorded language derived from Pre-Nostratic, and possessing most probably the least evolved tradition.

### 3. The Two Participants

While we usually speak of three persons, it is perhaps well to remember that speech requires as "persons" only speaker(s) and listener(s). From the many stems that are employed by various IE languages to serve as third person bases (*se, so, to, a/ol-, an, au-, e-, y-, apo-, ib/p-, de/o-, eno-, etc.*), it is obvious that nouns with many special nuances came to be employed, which were later redefined as simple third person pronominal bases.

With the first and second persons singular, we are on slightly firmer ground. At a minimum, we should expect that among the substitutional nouns, ones designating the 'speaker' and 'listener' should be represented semantically.

We should also expect, on the evidence provided by IE, that many later pronominal words were derived from nouns used adverbially since the third person bases are all connected intimately with them: cf. "1. *e/ē, o/ō*, adnominal and adverbial particle, approximately nearby, together with..."; and "3. *e-, ei-*, feminine *t-*, paradigmatically bound pronominal stems, the, he, ..." (translation of Pokorny 1959: 280-281).

### 4. Monosyllabism

Through a careful analysis of existing biliterals and triliterals (as well as a very few true monoliterals in Egyptian and Sumerian), the original monosyllabic (C+V) elements that were the building blocks of Pre-Nostratic can be recovered.

This is not the place to present a full argument for the earliest monosyllabic nature of Pre-Nostratic. Of the many arguments for original monosyllabism, the most telling is perhaps the simplest: children demonstrably begin speaking in syllables of the form C+V.

### 5. Vocalism

Allan Bomhard, who has been doing much valuable work in Proto-Nostratic, has postulated six vowels for it: *i/e, 6/a*, and *u/o* (Bomhard Forthcoming 1: 21).

Obviously, the basic scheme is open front (*e*), mid (*a*), and back (*o*) with more closed

allophones. For Pre-Nostratic, I will indicate these sounds as *e*, *a*, and *o*, regardless of their state of closeness even though a better notation would probably be *a* (for *fat*), *ä* (for *father*), *o* (for *fog*).

## 6. Stress-Accent

I am also in agreement with Bomhard regarding his assessment of stress-accent in Proto-Indo-European (and, for me, Pre-Indo-European). He states, after a thorough review of Old Indic, Greek, Germanic, Slavic, Celtic, Italic, and Armenian Accentuation: "The developments found in the various daughter languages can be accounted for by assuming that pre-divisional Proto-Indo-European was a stress-accent language" (Bomhard 1984: 72).

## 7. Word-Order

Since OV word-order is connected by Klimov with languages in their active-type stages, and since the earliest PIE word-order has been reconstructed as OV (active-type<sup>1</sup>), and since Sumerian shows an OV word-order (ergative-type), the evidence favors reconstructing a Pre-Nostratic word-order of OV, or better TP (Topic-Predicate), that would have obtained from the neutral-through the active-type stages of the language.

To this basic scheme of Topic-Predicate, a suprasegmental consisting of rising inflection (´) to mark the topic, and falling inflection (`) to mark the predicate, was added. This is an inference from many existing Nostratic-derived languages.

Of the various families of languages derived from Proto-Nostratic, PIE has been investigated most thoroughly. It is, therefore, legitimate to project into Pre-Nostratic features discovered at the earliest stages of PIE as a working hypothesis — in the absence of contradictory evidence from other proto-families.

## 8. $E < \text{---} > A < \text{---} > O$ Opposition

A fundamental characteristic of Pre-Nostratic was the semantic opposition of *e*, *a* and *o*.

The front vowel, *e*, was interpreted on a subliminal psychological level as 'motion away from the referent' or 'position far from the referent'. The back vowel, *o*, suggested 'motion toward the referent' or 'position near the referent'. The mid vowel, *a*, was understood to convey 'motion at the referent' or 'position at the referent'. The tacit referent was the speaker.

In any derived language, we may occasionally see "time capsules" which clearly reflect this early opposition.

In PIE, for example, the third person singular of the perfect has been unequivocally reconstructed as *-e* in spite of the fact that apophony (*Ablaut*, *e/o* alternations) occurs at many morphological levels.

The first person singular of the PIE perfect is unambiguously *-a*.

The phenomenon that adverbials relate to persons is particularly clear in Armenian where the three forms of the article (*-s*, *-d*, and *-n*) and demonstratives (*sa*, 'this'; *da*, 'that (nearby)'; *na*, 'that (far away)') relate clearly to the personal pronouns (*es*, 'I'; *dow*, 'thou'; and *ink'n*, 'he, she').

There will be those readers who will strongly prefer to see a strict connection between Pre-Nostratic and any other language compared before citation. For them, the next examples, will be merely suggestive.

In Shilluk, the singular pronouns are *yá:*; *yí:*; and *yé:*, *é:* (*ò*); the plural: *wá:*, *wó:*; *wú:*; and *gé:*, *gò*. After discussion and comparison of related languages, Westermann concludes: "Thus we get these (hypothetical) primitive forms:  $\Gamma a$ ,  $\Gamma u$ ,  $\Gamma e$ ; *a*, *u*, *e* designating the persons, and  $\Gamma$  the singular<sup>2</sup> (Westermann 1970: 60).

In Maya, the facts are even more transparent (Tozzer 1977: 30), where "*lě winik-a*, this man here; *lě winik-o*, that man there; *lě winik-e*, that man at a distance" is found.

Bomhard (Forthcoming 2: 335) identifies Root 357, "Proto-Nostratic  $*?a/*?6-$ , first singular personal pronoun stem. He then lists Root 368 as " $*?i/*?e$ , proximate demonstrative particle (probably identical to the preceding adverbial particle),  $*?a/*?6$ , distant (!) demonstrative particle".

The pattern usually seen is that "proximity" is linked closely to the "first person singular".

In support of this line of reasoning, Bomhard cites "Sumerian *e*, 'hither, here'" under Root 367, "Proto-Nostratic  $*?i/*?e$  (adverbial particle) 'to, toward, near to, hither, here'", an interpretation derived, I presume, from either the questionable Sumerian demonstrative *-e*<sup>3</sup>, or the ergative or locative-terminative *-e*. Thomsen 1984 knows of no Sumerian *e*, 'hither, here'.

From the standpoint of the speaker and listener, action comes from a third person subject; therefore, it is more reasonable to assume that Sumerian ergative *-e* indicates roughly 'from'. The locative-terminative occurs only with inanimates. In a sentence like *é-e<sup>D</sup> Asar-re šu.si ba-sá*, 'Asar put the house in order', the most reasonable interpretation is that *Asar* (cf. Egyptian *Wzir*<sup>4</sup>, 'Osiris', and Lithuanian *aušrà*, 'dawn') achieving 'order' (*šu.si*), i.e. 'an ordered thing' from the 'house' (*é*).

'To', in the sense Bomhard intends it if I understand him correctly, is rendered in

Sumerian by *-šè*: e.g. *uru-šè gá-e ga-ĝen*, 'let me go to(ward) the city'.

That the pattern illustrated above applies, is suggested also by the existence of the Sumerian locative *-a*.

## 9. Animate <—> Inanimate Opposition

A basic mechanism of Pre-Nostratic, at least after it had reached Klimov's active-type stage, was the opposition of animate and inanimate, which was expressed by infixing the glottal stop (?) after the initial voiceless stop of the syllable representing an inanimate, and infixing aspiration (*h*) in the same place to indicate an animate idea.<sup>5</sup> The subliminal association between aspiration and animacy is easily understood.

Self-induced motion was associated with animacy. Therefore, monosyllabic pairs developed: e.g. *Ø+?a* indicated 'a position at rest immediate to the referent'; *Ø+ha* indicated 'motion in the immediate vicinity of the referent'.

From the consideration that final vowels were so often omitted (or combined) in Sumerian, and that PIE case-endings do not take the stress-accent, it seems likely that the Sumerian locative case should be reconstructed as *-ā* (written *-a*), and derived from Pre-Nostratic *ha* while ergative/locative-terminative *-ē* (written *-e*) was originally Pre-Nostratic *he*.

We can generalize, and say that, at least, some Pre-Nostratic "postpositions" were of the form (C+)h+V.

Under Root 367 mentioned above, Bomhard neglects to explain the circumstance that the PIE adverbials, which he derives from Proto-Nostratic *\*?i/\*?e*, bear, almost without exception, long vowels! He cites, e.g. "Sanskrit *ā*, 'hither, near to, towards'. Since he derives PIE *H<sub>1</sub>* from Proto-Nostratic *?*, and since *H<sub>1</sub>* (Lindeman 1970: 38) "...gibt keine konkrete sprachliche Evidenz für Wurzelansätze", the long vowels are unexplained.

The explanation is that Sanskrit *ā* is not derived from Pre-Nostratic *?o* but from *ho*, and that the aspiration lengthens the vowels at its disappearance<sup>6</sup>. It is a general principle of language evolution that consonants which are elided lengthen contiguous vowels (with the exception of the glottal stop). This same element is found in Hebrew *ha*, the, and the Arabic demonstrative element *ha-*

However, on the basis of other considerations, it seems likely that Pre-Nostratic (and [Proto-]Nostratic) did possess a word of the form *?a*, which indicated immediate proximity to the referent without implying motion, seen in the first person singular perfect ending (*-a*) of the PIE perfect, and the first person prefix (*?a-*) of the Semitic perfective as well as the Egyptian first person singular *-i*.

This *?a* functioned as a demonstrative and adverb meaning 'here, me, my, I (passive)'.

Equally likely is it that Pre-Nostratic had the word *he/?e*, which conveyed movement away from the referent (PIE *ē*:- Pre-Nostratic *he*) or considerable distance from the referent (PIE *e*:- Pre-Nostratic *?e*).

The hints of a second person singular in *?o* are very minimal though we are not unjustified in expecting it by analogy.

Greek *hēso*<sup>7</sup>, 'you sat', and *ephērou*, 'you carried yourself', are suggestive but probably not conclusive.

## 10. CONCLUSIONS

We should reconstruct for Pre-Nostratic *?e*, *?a*, *?o*, meaning 'over there', 'here', and 'there'. These are nouns<sup>8</sup> which have been de-tone-accented, and are being used adverbially. The PIE perfect, representing a condition on the part of the subject after completed action, utilized these passive (in Klimov's sense) endings for its singular paradigm. Later, the second person singular *-?o* was replaced by a noun, *ts<sup>h</sup>a* (PIE *-tha*), meaning 'who stands (beside)'<sup>9</sup>, properly designating an active second person singular closely associated with the speaker (see also Note 7).

To illustrate further, the passive (inclusive) first person plural perfect ending of PIE, *-me*, derived from Pre-Nostratic *me*, 'where conversation takes place'<sup>10</sup>. It therefore signified 'we, the conversational group'. The Pre-Nostratic passive first person singular (used as a pronominal object) was *-?a* (and we almost see it in the Sumerian dative verbal infix by its absence) but PIE substituted *-me* from the plural. In many other languages derived from Pre-Nostratic, it occurs only as a plural<sup>11</sup>.

An atypical use of these nouns is found in the PIE vocative case-ending in *-e* (Pre-Nostratic *?e*); e.g. PIE *wlk<sup>w</sup>e!*, 'O wolf!', is really just 'Wolf there!'.

Additionally, reconstruction of Pre-Nostratic *hè*, *hà*, and *hò*, meaning 'go (from)', 'be (t)here', and 'come (to)'<sup>12</sup> — is warranted. Having been de-tone-accented, they were used as postpositions. From the resulting Pre-Nostratic *ha*, comes Sumerian *-ā* (written *-a*), the locative.

We would probably have had a PIE locative in *-ā* to correspond but for the feminine and collective *-ā* (Arabic *-h*), which is also derived from Pre-Nostratic *ha* but in the sense of 'those who are active here, family, female(s)'.

PIE nominal case-endings and Sumerian postpositions are mostly derived from simple and compound Pre-Nostratic postpositions; e.g. PIE instrumental singular *-ē*<sup>13</sup> is the Pre-Nostratic *he* we also find in the Sumerian ergative *-e*, i.e. *\*-ē*.

## 11. NOTES

<sup>1</sup> Professor Winfred P. Lehmann has stressed "the importance of the informed use of typology", and suggested that PIE is to be considered an active language of the type exhaustively investigated by Klimov (Klimov 1977).

<sup>2</sup> The colon (:) indicates a long vowel; the *e:* with a bar (*ē*) is *a* in careful; *a:* as in father.

<sup>3</sup> which Falkenstein considers "*das 'dortdeiktische' Element -e, 'da, dort'*".

<sup>4</sup> Both Egyptian *Wzir* and Sumerian *Asar* (also *Asal*) are written by compounding signs for a throne with an eye.

<sup>5</sup> This opposition was maintained in the voiceless affricates by the contrast of glottalized affricate and spirant (*tsʔ*, *sʔ*) against aspirated affricate and spirant (*tsʰ*, *sʰ*); in the nasals and liquids, with simple nasals and liquids (*n*, *r*) against aspirated nasals and liquids (*nʰ*, *rʰ*); in the pharyngals, with voiced (*ʕ*) against unvoiced (*ħ*).

<sup>6</sup> Whether we accept the view of Ivanov, or the alternate explanation of Gamkrelidze, both mentioned in Lindeman 1970: 40-41, it seems reasonable to assume that Pre-Nostratic *h+V* became PIE *ṽ* under some circumstances (in an open syllable?). Occam's Razor would oppose reconstructions of *H<sub>1</sub>+H<sub>2</sub>* to explain a PIE initial long vowel.

In any case, if the readers (as I do) subscribe to Bomhard's reconstruction of Proto-Nostratic laryngals and pharyngals (*ʔ*, *h*; and *ʕ*, *ħ*), and his reconstruction of a basic front-mid-back vowel contrast, the Laryngeal Theory must be modified. The new scheme might take the form *H<sub>1</sub>e/a/o* = PN *ʔe/a/o* (Hittite and PIE = *Ø*); *H<sub>2</sub>e/a/o* = PN *he/a/o* (Hittite = *h*; PIE = *Ø(ē)/a(ā)/o(ō)/h* [cf. Greek *hudēd* : *audē*]; *H<sub>3</sub>e/a/o* (voiced) = PN *ʕe/a/o* (Hittite = *Ø*; PIE = *Ø/y* [cf. Hittite *ewa-* : Sanskrit *yáva-*, 'grain, barley']; *H<sub>4</sub>e/a/o* = PN *ħe/a/o* (Hittite = *h*; PIE = *Ø/h* [cf. Greek *hērsē*, 'dew']).

<sup>7</sup> If one looks at the paradigms of Greek *hēmai*, 'I sit', the *s* is retained in forms that begin with a voiceless consonant (*-sai*, *-tai*, *-sthon*, *-sthe*) though doubled *ss* is written *s*. On the other hand, before voiced consonants (*-mai*, *-ntai*), it disappears. This suggests that though Greek had voiceless *s*, a juxtaposition with a voiced consonant that would produce an assimilation to *\*z* was suppressed (related to Latin rhotacism). While the ending *-so* for the second person singular imperfect medium will produce *hē(s)so*, a theoretical *hēs(?)o* from *\*-?o* might produce it as well.

The adverb *ʔo* is probably also seen in PIE *ol-* (Pre-Nostratic *ʔonʰ*, that (nearby - cf. Slavic *\*olnī*, 'last year'). Pre-Nostratic *nʰ(a)* is a word forming animates, so *ʔonʰ* means 'that (nearby, i.e. other) person'. Jaritz' Sumerian Sign 119 (*nu*) also reads *úl*; and a meaning of this sign is 'otherwise'; *nu* is also the normal negative. Sumerian *ul* (Jaritz 786) is used in phrases like *ud ul-lí-aš*, 'to earlier days'. This form is more directly related to Latin *uls*, 'beyond' (from Pre-Nostratic *ʔow*, 'there-around', i.e. 'beyond the distance of the listener' + *nʰ(a)*; Arabic *ʔau*, 'or'). Akkadian *ullû*, 'far away' is Sumerian *ul*. Sumerian *úl* is Akkadian *ul*, 'not', i.e. 'otherwise'.

<sup>8</sup> The corresponding nominal meanings are *ʔé*, 'eye'; *ʔá*, 'forehead, face'; and *ʔó*, 'mouth', 'testicle'. The adverbials are derived from the ideas 'where I see'; 'where I face'; and 'where I speak'.

<sup>9</sup> derived from *tsʰá*, 'ass'; *tsʰà*, 'rear up, stand'.

<sup>10</sup> from *mè*, 'express verbally' (cf. also *mé*, 'tongue').

<sup>11</sup> e.g. Chinese *-men*, animate plural ending; Sumerian *-me*, 'our' and 'us'.

<sup>12</sup> These are verbal interpretations of *hé*, 'river'; *há*, 'air'; and *hó*, 'odor'.

<sup>13</sup> in its employment with animate nouns. "Animate nouns may also be so used (with the instrumental). When they are, they indicate the agent...This led to the use of the instrumental as the agent in passive constructions" (Lehmann 1974: 47-48).

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*Archaeology and Language: The Puzzle of Indo-European Origins.* By Colin Renfrew. New York, NY: Cambridge University Press, 1988. Pp. xiv, 346.

Reviewed by Roger W. Wescott, *Drew University*

As a linguist and prehistorian, I was predictably excited to learn of the issuance of a book designed to build serviceable bridges between two anthropological subdisciplines that have, regrettably, grown increasingly remote from one another. And, as an admirer of Renfrew's revolutionary volume *Before Civilization*, I anticipated rich intellectual fare.

So I find it disappointing to have to report that Renfrew's linguistics is, at best, simplistic and, at worst, ill informed. If we may reword a traditional Chinese dictum to read that one map is worth a thousand words, then the linguistic weakness of this work becomes immediately apparent. For inside the front cover is a map entitled "The Indo-European Languages in Europe and Asia." It purportedly shows not only extant Indo-European languages but areas where they were (though they are no longer) spoken as well as extant non-Indo-European languages of Europe. The modern Iranian languages of the Soviet Union (such as Ossetic and Tajik), however, are omitted. As areas of former Celtic speech, Germany, Switzerland, Austria, and Czechoslovakia are likewise omitted, as are such centers of former Greek speech and writing as Marseilles, Naples, and Alexandria. Among the non-Indo-European languages, Estonian and Hungarian are erroneously listed as linguistic isolates (like Basque or Sumerian) when they clearly belong in the same Finno-Ugrian group to which Finnish and Permian are correctly ascribed. Not only is Lappish likewise omitted from Finno-Ugrian, where it belongs, but Lappland is represented as a linguistic lacuna -- ostensibly a wholly uninhabited region! In India, the Munda languages of the interior (which are generally believed to be the only aboriginal speech-group in the sub-continent) are misrepresented as Indo-Iranian and hence as Indo-European. And the only Dravidian languages indicated are southern vernaculars like Tamil and Malayalam; central Dravidian languages like Telugu and northern Dravidian languages like Malto are similarly misrepresented as Indo-Iranian.

Inside the back cover is a second map entitled "The Principal Language Families of the Modern World." Unlike the first map, which correctly located Tocharian (a dead Indo-European language) in Sinkiang, or Chinese Turkestan, the second map incorrectly locates it on the Mongolian/Siberian border. In addition, it incorrectly represents Burma as predominantly Indo-European, when it is predominantly Sino-Tibetan. Then, however -- as though to compensate (if inappropriately) for this mistake -- it represents Malaysia as Sino-Tibetan, when it is half Malayo-Polynesian and half Mon-Khmer. If taxed with these errors, the author might well attribute them to the anonymous cartographer who prepared the maps. But ultimate responsibility, it seems to me, rests with the author, who, if dissatisfied with graphic illustrations, should insist that the publisher have them re-drawn.

Renfrew describes his approach to cultural and linguistic prehistory as "processual" rather

than "migrationist." In his first four chapters, he derides the notion of an *Urheimat*, or primal homeland, of the Indo-Europeans. Yet, in his seventh chapter, he reverts to the concept (hedging by putting the word 'homeland' in half-quotes) and locates it in eastern Anatolia about 7000 B.C. Because, presumably, of his aversion to the idea of migration as a correlate of culture-change, Renfrew disregards the plausible suggestion of the Austrian-American linguist Karl Menges that, instead of postulating an Indo-European homeland we postulate an Indo-European *Urwandergebiet* -- that is, a zone of transhumance, analogous, in ethological terms, to a range rather than to a territory.<sup>1</sup>

Renfrew correlates the spread of Indo-European languages into Europe and Asia Major, not with the movement of peoples, but with the spread of agriculture. Since agriculture reached India well before the flowering of the Harappan civilization in the Indus Valley, he prefers to regard such early urban centers as Mohenjo-Daro as having been Indo-European rather than Dravidian in speech. Here he defies not only the scholarly consensus but, more importantly, the linguistic logic of the fact that Dravidian languages are spoken both in India, to the south-east, and in Baluchistan, to the west of the Indus. This bifurcation strongly indicates that the Indo-European speech of eastern Pakistan is intrusive.

Toward the end of his first chapter, the author expresses his regret that Indo-Europeanists and other linguistic paleontologists "make little use of verbs and adjectives." Here he seems unaware of the fact that many languages have no adjectives. Among the Niger-Congo languages, for example, descriptive functions are usually performed by verbs. In Proto-Indo-European, on the other hand, these functions were apparently performed by nouns. Moreover, when material culture is being characterized, nouns are predictably more appropriate than verbs for the designation of artifacts.

Perhaps the oddest aspect of this opus is its neglect of linguistic reconstruction. I know of no other extended treatment of Indo-European prehistory that does not provide a roster of proto-forms (usually marked with asterisks to indicate that they are postulated rather than documented). The only such forms in Renfrew's book are three words in Proto-Romance, the street Latin from which French and Spanish are believed to derive. Even so brief an essay as Calvert Watkins' "Indo-European and the Indo-Europeans"<sup>2</sup> presents clusters of bases, words, and phrases grouped around such themes as climate, organization, and technology. Though meanings are harder to reconstruct than speech-sounds and lexical shapes, collectively these proto-forms present a picture of Proto-Indo-European life as one of class-stratified pastoral nomadism with intermittent plow tillage in a temperate inland habitat.

Only slightly less surprising than the absence of Proto-Indo-European terminology is Renfrew's wholly non-committal attitude to the question of the racial affinities of the prehistoric Indo-Europeans. The only racial designation that appears in this connection is the term "Nordic" (meaning tall and blond), which he cites solely to repudiate the racism of pre-War scholars. But the recognition of racial differences is no more necessarily racist than the recognition of religious differences is necessarily bigoted. All Indo-Europeanists who have written explicitly on this subject have characterized the early Indo-Europeans as *Caucasoid*, or white; and most have described them as non-Mediterranean -- that is, as *Caucasoids* who were neither brown-eyed nor black-haired.

Renfrew seems fond of negative linguistic categories, like "non-Greek" and "non-Indo-European," which he uses as though they were absolute in character. There are, however, degrees of "un-Greekness," in that some of the non-Greek languages spoken in or near the Aegean area were apparently Indo-European and, in this sense, "near-Greek," while others were more remote in their genealogical relationship. In these terms, Pelasgian and Macedonian were probably more nearly Greek than was, say, Phoenician.

Moreover, just as there are degrees of closeness and remoteness between individual languages, so also may there be such degrees between language families. In the early 1900's, the Danish linguist Holger Pedersen postulated a macro-family called Nostratic, to which Hamito-Semitic, Indo-European, Uralic, and other Old World language families belonged.<sup>3</sup> By the 1960's, this thesis had been largely substantiated by Soviet Scholars, some of whom are now émigrés in Israel and the United States.<sup>4</sup> Although conservative linguists still reject the theory, it has such major archaeological and ethnological implications that anyone with Renfrew's professed objectives, it seems to me, should at least take note of it. But he does not.

Two other controversial hypotheses that might be mentioned in this connection are those of Carleton Hodge and Louis Heller. Hodge, an Indiana University linguist and Egyptologist, proposes an Indo-European homeland in north-east Africa.<sup>5</sup> Heller, a philologist and classicist at the City University of New York, suggests that runic writing (which seems better adapted to the phonology of Proto-Indo-European than to that of later Germanic) may have been used by a small priestly elite among the Indo-Europeans during a period which we commonly, but perhaps erroneously, call prehistoric.<sup>6</sup> The early Indo-Europeans, in other words, may have been neither Eurasian nor preliterate. Both of these possibilities, while clearly out of the academic mainstream, seem to me to deserve consideration in any broad-gauged interdisciplinary overview of "The puzzle of Indo-European origins."

Terminologically, Renfrew's "processualism" appears to be derivative of Alfred North Whitehead's Process Philosophy. Substantively, however, it seems to be equivalent to the diachronic gradualism that has dominated evolutionary and historical thinking since the time of Charles Lyell and Charles Darwin. In the realm of biological thought, this gradualism is now being challenged by "punctuationists" Niles Eldredge and Stephen Jay Gould. And, within the archaeological fraternity, there have been explicit catastrophists like the French scholar Claude Schaeffer, who postulated a series of natural disasters destroying most of the urban centers of the Near East during the second and third millennia B.C.<sup>7</sup> By catastrophists, wide-spread migrations from more devastated to less devastated regions are regarded not only as plausible but as highly probable.

In his seventh chapter, the author describes the recently rediscovered language of Ebla in Syria as "related to the Semitic languages." Such a characterization is rather like describing Russian as "related to the Slavic languages" or even English as "related to the Germanic languages." If anything, it is even more misleading, since Eblaite is the only known Semitic language that clearly exhibits traits representative of both east Semitic (e.g., Akkadian) and west Semitic (e.g., Hebrew). In this sense, Eblaite is archetypically Semitic and probably the nearest documented equivalent to Proto-Semitic. If, in his search for the likeliest language of the Natufians of Palestine, Renfrew was in fact looking for an attested language that was related to

Semitic without actually being Semitic, he should have selected Ancient Egyptian or Old Libyan (alias East Numidian).

In his final chapter, Renfrew draws analogies between what is known about the prehistory of the Polynesians and the Bantu and what remains to be known about that of the Indo-Europeans. The chief difficulty with this comparison is (as he himself concedes at one point) taxonomic in nature: both Polynesian and Bantu are generally acknowledged to be subgroups of larger families -- Malayo-Polynesian in the former case and Niger-Congo in the latter -- whereas Indo-European is not.

Even the title of this book is misleading. It is not a general treatment of the relation of archaeology to language or even a general treatment of archaeology alone. A fairer title would have been *One Archaeological View of the Puzzle of Indo-European Origins*. Throughout the book, Renfrew represents his view as being in opposition to "traditional" assumptions about Indo-European origins and as constituting a radical rethinking of the subject. For the most part, however, his thinking seems to me to be cautious and pedestrian to a fault. I can only hope that his next book will be as intellectually adventurous as he had apparently intended this one to be but that, if he does stray from his customary archaeological turf, he will familiarize himself more thoroughly with the non-archaeological subject matter involved than he has in *Archaeology and Language*.

## NOTES

1. Karl Heinrich Menges, *An Outline of the Early History and Migrations of the Slavs*, Department of Slavic Languages, Columbia University, New York, 1953.
2. Calvert Watkins, "Indo-European and Indo-Europeans," pp. 1496-1502 in *The American Heritage Dictionary of the English Language*. William Morris, ed., the American Heritage Publishing Company, New York, 1969.
3. Holger Pedersen, "Türkische Lautgesetze," *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 75.560-561 (1903).
4. Mark Kaiser and Vitaly Shevoroshkin, "Nostratic," *The Annual Review of Anthropology* 17.309-329 (1988).
5. Carleton T. Hodge, "Indo-Europeans in the Near East," *Anthropological Linguistics*, v. 23, n. 6, September 1981.
6. Louis G. Heller, "Runic Writing: Germanic or Indo-European?," *Papers on Linguistics and Literature*, vol. 8, no. 4, Winter, 1971.
7. Claude Schaeffer, *Stratigraphie Comparée et Chronologie de l'Asie Occidentale: Ille et Ile Millénaires*, Oxford University Press, London, 1984.

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# Tracking Mother of 5,000 Tongues

**SUMMARY: To Zecharia Sitchin and Vitaly Shevoroshkin, all languages are related. The linguists are studying the "mother tongue," the language that invented language, reconstructing the earliest languages through vowels, nouns and linguistic theories and across continents. They are pushing the linguistic frontiers back in time.**

**W**hen God spoke to Adam and Eve in the Garden of Eden, in what language did he speak? "The mother tongue," says author and biblical scholar Zecharia Sitchin.

She and Vitaly Shevoroshkin, a professor of linguistics and Slavic languages at the University of Michigan, are both hot on the trail of the "mother tongue," the language that invented language. In linguistic circles, theirs is a quest for ultimate knowledge, and Shevoroshkin, for one, thinks he may be cracking the secret.

He is tracking vowels and nouns from continent to continent, era to era, working backward in time. Feeding vowels, nouns and linguistic theory into computers, the professor is pushing back language frontiers.

"There are about 5,000 languages, but all of them can be traced to six or seven superfamilies," says Sitchin, a language sleuth who trailed the earliest utterances of man in the Soviet Union before coming to the United States 15 years ago. "If you take basic words like 'no,' or 'tongue,' 'eye,' 'ear' or 'leg,' they reappear in reconstructions of parent languages. Automatically, feeding a computer, you get results. Languages are related. There is not a single language that is different. Reconstructed roots are amazingly similar so it is not hard to reconstruct a proto [early] form."

"Everybody agrees that people originated in Africa," says Shevoroshkin. "Then they went in waves every few millennia from Africa to the Near East, then from there to Asia, Europe and so on. The last wave eventually spread to the Americas. The last migration was about 35,000 years ago. We can assume the last language they spoke covered all other languages."

He believes the search for the mother tongue may date even further back than that. "Another possibility is that we have reconstructed this oldest language, or mother tongue, of 100,000 years ago," he says. "Bones found in a cave on Mount Carmel in Israel were 90,000 to 100,000 years old. . . . Both geneticists and archaeologists tell us that 100,000 years ago people like us were inhabiting Africa and the Near East."

**Linguist Shevoroshkin: "It is easy to show that all languages are related."**

"The first *Homo sapiens* appeared at least 100,000 years ago. According to anthropological findings and Sumerian legends, *Homo sapiens* began in Southeast Africa. Evidently, speaking began there, too," says Sitchin. "There has been a debate whether Neanderthals, who are thought to precede Cro-Magnon man, could speak. This problem was resolved a few years ago with a discovery in a cave on Mount Carmel of a hyoid bone in a Neanderthal skull, which links the tongue to the voice box. This proves that Neanderthal could talk. He had the bones and muscles."

Sitchin suggests tracing the mother tongue through Sumerian, a language spoken and written 6,000 years ago and widely believed to be the first written language.

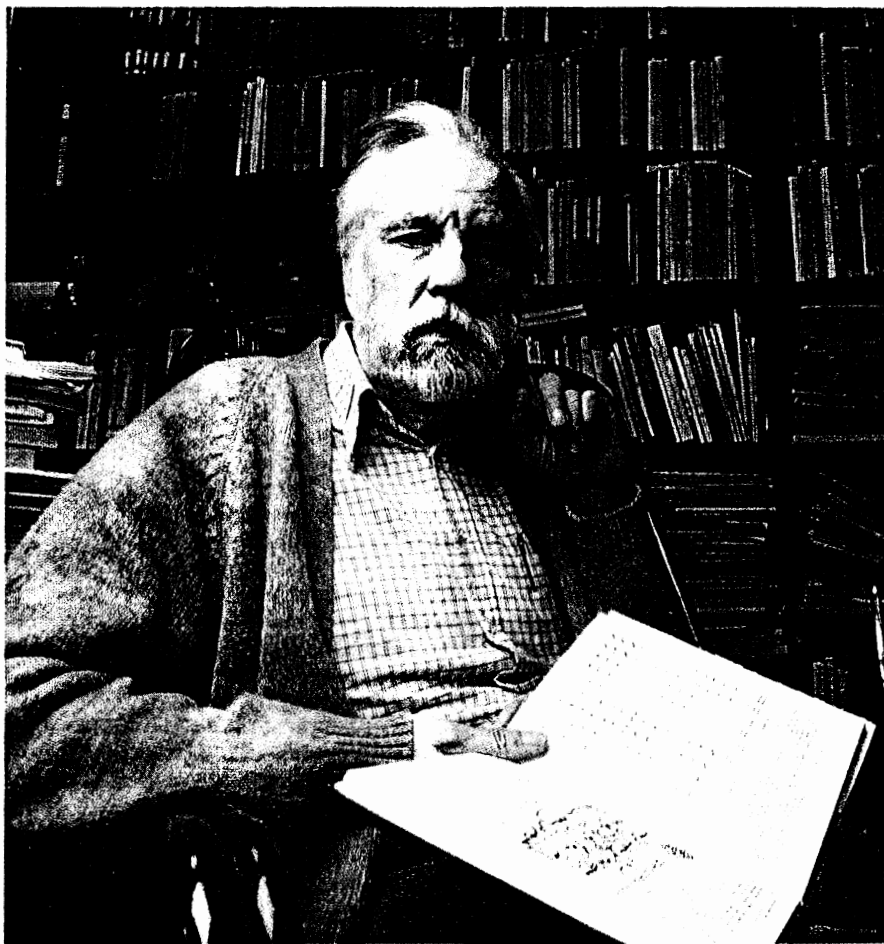
"Archaeologists have found lexicons in

Babylonian and Assyrian, which were early Semitic languages, and Sumerian, which shows us the root of verbs and words," she says.

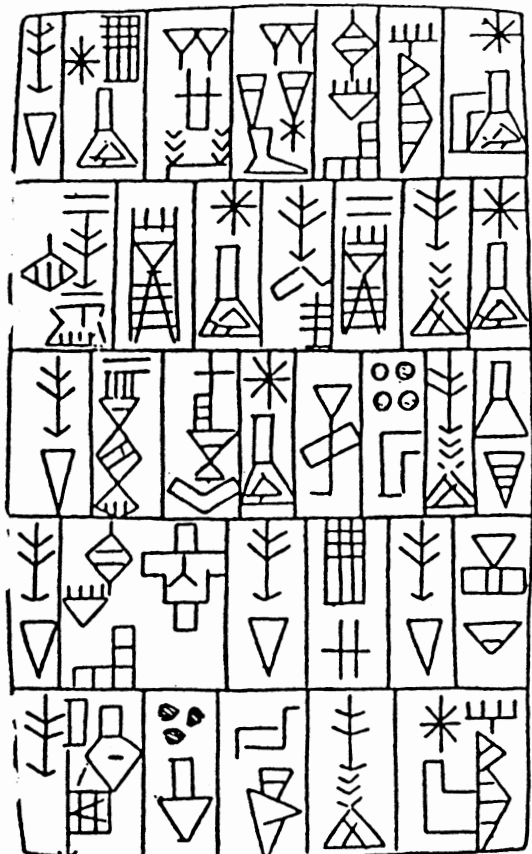
"Mesopotamian records by the Assyrian king Ashurbanipal [668-626 B.C.] state that he boasted that he could read and understand ancient tablets from before the Flood. According to the Bible, a civilization was wiped out by the Flood about 11,000 B.C."

"Sumerian is not the first language, but it is the only one available to scholars in writing," Sitchin notes. "This is a better tool than just to depend on phonetics in language to determine its origin. With Sumerian writing, it is easy to follow the development of other languages from this source."

This is the main point of her disagreement with Shevoroshkin, who is not so sure about the Sumerian connection. "Shevoroshkin said the Sumerian vocabulary was too limited to use in comparisons," says Sitchin, "but that is not the thought of



DENNIS COX FOR INSIGHT



Sumerian (above) is the first written language; Neanderthals could talk.

someone who is versed in Sumerian."

While she is focusing her search on Sumerian, Shevoroshkin is looking at other early languages.

"Remember, the first wave went to the Near East," he says. "Later, a branch representing some Eastern dialects went some 65,000 years ago to the East. Their offspring reached Australia some 40,000 years ago. The remaining languages split into two more branches, Austric and Amerind, which are about 15,000 years old.

"In the West, one branch split early," he continues. "Their offspring speak Congo-Saharan. The remaining languages are Nostratic and Sino-Caucasian. I found there are amazing similarities. More than 200 basic words are the same. They have exact vowel and consonant correspondences."

**T**he linguist says the first European languages were reconstructed 100 years ago and traced back to a language that was spoken 7,000 years ago. "Some reconstructed languages are twice as old," he adds. By 1964, researchers uncovered the main features of Nostratic, a prehistoric tongue of 14,000 years ago. This was the language of prehistoric hunters and gatherers, according to Shevoroshkin. About 750 Nostratic words have been recovered.

Shevoroshkin cites *kara* as black or

"The main problem is reconstructing intermediate languages, especially American Indian languages."



dark, a root that is found in *karakum*, which means "black sands" in Turkish dialects. *Bora*, which means brown in Nostratic, was the ancient root for the English "bear" and "beaver." Blood was *kura*, which thousands of years later became *kreu*, and eventually the modern Russian *krov*. The Nostratic word for thirsty, *luba*, became the English word "love," he adds.

"Today, everyone says you can see the evolution of language," says Shevoroshkin. "It is easy to show all languages are related. These things are mainly done with correct methods in Russia."

Other scholars offer different theories. Joseph H. Greenberg of Stanford University has concluded that there were two superfamilies of language. One he calls Dene-Caucasian, which includes Eurasian language families and the Slavic languages. The other superfamily, on which he became an expert, is Amerind.

He examined hundreds of words from many American Indian languages to seek similarities that indicated common descent. He concluded that most of the 1,000 Indian languages belonged to one family, Amerind.

His suggestion has provoked vigorous criticism from U.S. linguists. Most linguists believe that in addition to Nostratic, Dene-Caucasian and Amerind, there are

probably two more superfamilies covering languages of Southeast Asia, the South Pacific and Africa, but evidence for that has so far been weak.

Of Greenberg's work, Shevoroshkin says, "He compares similarities but doesn't reconstruct languages. American linguists, who are precise and narrow, often don't accept him. The Russian tradition is one of reconstructing languages. The three superlanguages — Nostratic, Sino-Caucasian and Austric — are reconstructed exactly."

Meanwhile, the sleuthing continues. "The main problem is reconstructing intermediate languages, especially American Indian languages," says Shevoroshkin. "But most people who work in this field are optimistic."

Could Shevoroshkin converse with a 50,000-year-old man?

"It would take a while," he says. "The problem is that what looks one way on paper might be differently pronounced. We don't know where the stress is. We would identify the words — maybe tree or sun or whatever — then get a set of correspondences.

"You have to make shifts until you get understanding," he says. "It is not simplistic, and there are many words we still don't know. But it is possible."

— Harvey Hagman



# America's Talk: The Great Divide

*Do Indian languages hold clues  
to the peopling of the New World?*

By BRUCE BOWER

**T**alk about your land of plenty. From sea to shining sea, throughout North, Central and South America, linguists have harvested more than 1,500 native Indian languages — a cornucopia that dwarfs linguistic yields anywhere else in the world.

But in the last several years, linguists have found themselves embroiled in a heated debate over whether their discipline can decipher the roots of this bounty. Many claim the tools of linguistics are not, and may never be, up to the task. But standing across a great philosophical and methodological divide is a vocal minority who contend Indian languages fall into three or fewer ancestral groups that offer unique insight into the vexing question of who originally colonized the New World, and how.

The debate keenly interests archaeologists, who are increasingly apt to reject long-standing notions that humans first entered the New World around 12,000 years ago and who instead push those estimates back as far as 50,000 years ago. Archaeologists are warming to the theory that at least some of the first settlers traveled in water craft from Siberia across the Bering Straits and then down the Pacific Coast, rather than trekking through an ice-free inland corridor often cited as the main route into North America.

Much of the linguistic battle — waged in a number of recent publications and at the "Language and Prehistory in the Americas" conference held last March in Boulder, Colo. — concerns what type of evidence to use in establishing language relationships. Most researchers study a few languages at a time in search of "sound correspondences," or different sounds consistently used in the same way. For instance, where an English word has the sound "th" as in "the," German has a "d" as in "das" — just one of many clues that the two languages are related

but have undergone systematic changes since diverging from a common ancestral tongue. Linguists who study sound correspondences between two or more languages attempt to derive a "proto-language," or general outline of how a mutual ancestral language must have sounded.

This approach splits North and South American Indian languages into about 155 families. Many, or even all, of these language groups may be distantly related, but current linguistic methods cannot dredge up the shared characteristics that would prove this, maintains linguist Lyle Campbell of Louisiana State University in Baton Rouge. Languages inevitably change over time for a variety of reasons, including borrowing or imitating of words and random deviations in geographically isolated languages. Such changes obscure historical relationships among languages after about 6,000 years, Campbell says.

"Linguistics currently doesn't have much to say about the peopling of the Americas," he contends.

Thus, Campbell and many of his colleagues express outrage at the methods and conclusions of a small band of linguists led by Joseph H. Greenberg of Stanford University. Greenberg's group looks for shared characteristics in hundreds of languages that they maintain signify distant historical relationships among the welter of tongues. Of prime interest are words with similar sounds and meanings that, according to Greenberg, change slowly and rarely get borrowed, including pronouns, numerals and terms for body parts.

This technique, called mass comparison, encompasses more common sense than hard-nosed empirical science, Greenberg acknowledges. But he argues that linguists must group languages in this fashion before making the systematic analysis of sound correspondences fa-

vored by Campbell and others. "You have to know what languages to compare to make sense of them with sound correspondences," Greenberg says.

In *Language in the Americas* (1988, Stanford University Press), Greenberg describes his mass comparison of Indian vocabularies throughout the Americas. His conclusion: The bushels of New World languages coalesce into three language families, each with a common ancestral tongue. The largest family, dubbed Amerind, consists of all native South and Central American languages and most of those in North America. Amerind consists of 11 language subgroups, he says. Na-Dene, which includes Navajo, Apache and many Pacific Northwest languages, and Eskimo-Aleut round out his proposed trio of American language families.

**G**reenberg's approach extends ideas proposed more than 75 years ago by anthropologist and linguist Edward Sapir. A renowned scholar who acknowledged that intuition played an important role in his work, Sapir identified six stocks of North American Indian languages and held out the possibility of reducing them to just three. Like Greenberg's analysis, Sapir's research evoked sharp criticism for its lack of scientific rigor.

Critics often castigate Greenberg's use of pronoun similarities to promote the unity of Amerind — by far the most

*"Elk-Foot of the Taos Tribe" was painted  
by E. Irving Couse circa 1909.*



National Museum of American Art, gift of William I. Evans

controversial of his American linguistic families. Greenberg says the letter "n" is used in the same way in first-person pronouns and "m" is uniformly used in second-person pronouns in hundreds of Indian languages extending from southern Chile to British Columbia.

But he glosses over many American Indian tongues that lack this pronoun pattern, says linguist Ives Goddard of the Smithsonian Institution in Washington, D.C. Furthermore, the n/m pronoun pattern developed relatively recently in some languages, such as Cheyenne, and cannot be traced to a distant Amerind ancestor, Goddard says.

The same consonants show up in pronouns from languages throughout the world, not just in American Indian languages, according to Campbell. Primary units of grammar such as pronouns contain only a few commonplace consonant sounds, including "n" and "m," he observes. By simply browsing through a library for a half-hour, Campbell says he turned up 10 non-American languages with "n" and "m" pronouns.

Accidental or random convergences in sound and meaning also occur for words denoting numerals and body parts, Campbell says. Mass comparison based on these words winds up lumping all sorts of languages, including Finnish and Basque,

into the Amerind family, rendering the linguistic group meaningless, he asserts.

To drive the point home, Goddard refers to Greenberg's technique as "massive superficial comparisons."

Greenberg remains undeterred. He says his critics demand overly restrictive criteria for making mass comparisons that would deny the unity of even well-established major language families, such as Indo-European. Basic linguistic similarities that apply only to Indo-European languages become glaringly obvious in examining vocabulary lists, he notes. This principle must apply elsewhere, he maintains.

**G**reenberg and two colleagues argued in the December 1986 *CURRENT ANTHROPOLOGY* that the three American linguistic families identified by mass comparison coincide with dental and genetic evidence pointing to three waves of migration from northeast Asia to the New World. The initial migration consisted of Amerind speakers who came to North America around 12,000 years ago, the researchers concluded. This was the time when many archaeologists contend the so-called Clovis big-game hunters emerged from an ice-free pathway in western Canada. The Clovis

people, long regarded as North America's first settlers, draw their name from an archaeological site in Clovis, N.M., where their elegantly fashioned stone spear points were found amidst mammoth bones.

But Greenberg now says Amerind-speakers may have trekked into North America around 20,000 years ago. He notes that linguists cannot reconstruct the timing of language movements and that the "Clovis-was-first" theory now stands in considerable archaeological doubt.

"The Clovis culture was strictly a local North American phenomenon," says archaeologist Dennis Stanford of the Smithsonian Institution. "More and more of the 'Clovis-was-first' archaeologists are throwing in the towel."

Their change of heart is spurred by the continued unearthing of diverse cultural remains, not at all like those of Clovis folk, dating to at least 10,500 years ago throughout the Americas, from the eastern United States to Mexico, Argentina to the Amazon basin. Many non-Clovis artifacts were made from bone and wood by people who primarily foraged, rather than hunted, for food. Clovis people would have had to travel throughout the hemisphere at a dizzying pace and undergo tremendous cultural changes to

## Tracking New World genes

Researchers are increasingly turning to genetic studies to test controversial claims of linguists such as Stanford's Joseph H. Greenberg. And even in the controlled confines of biochemical laboratories, divisions exist.

One study, presented in Miami at the March annual meeting of the American Association of Physical Anthropologists, revealed a surprising amount of variability in the mitochondrial DNA of 75 American Indians, most of whom belong to Pacific Northwest tribes. The analysis turned up 30 separate mitochondrial DNA lineages that extend back approximately 40,000 to 50,000 years, says study director Svante Pääbo of the University of California, Berkeley. Whereas Greenberg proposes three waves of migration to America, Pääbo says many more influxes would have been needed to fuel the observed genetic differences.

Mitochondrial DNA, inherited only from the mother, contains 37 fully mapped genes. For each subject, Pääbo and his co-workers isolated the chemical components of a specific section of mitochondrial DNA, called the d-loop, which changes rapidly through random mutations. The chemical substitutions occur fast enough to allow researchers to identify mitochondrial lineages arising within the past 100,000 years. A

controversial report in 1987 describing "mitochondrial Eve" — the proposed maternal ancestor of all modern humans, who lived in Africa around 200,000 years ago — was based on the analysis of more slowly changing segments of mitochondrial DNA.

Scientists have yet to pin down the average rate of change in the d-loop, says Rick H. Ward of the University of Utah in Salt Lake City, a participant in Pääbo's study. Thus, it remains unknown whether Pääbo's estimate of 40,000 to 50,000 years represents a minimum age for the origin of the Pacific Northwest mitochondrial lineages. Researchers continue to debate whether mitochondrial DNA change occurs constantly enough to serve as a molecular clock.

Each small group that migrated to North America undoubtedly already possessed a good deal of genetic diversity, Ward asserts. Analysis of mitochondrial DNA from modern populations in Siberia and China may clarify the amount of genetic variation carried to North America by early settlers, he says. "Linguistic and biological evolution may proceed at very different rates," Ward remarks.

However, a report published in 1988 by Luigi L. Cavalli-Sforza of Stanford University and his colleagues indicates

a close match between worldwide populations defined by the frequency of specific genes and language families, including the Amerind, Na-Dene and Eskimo-Aleut families described by Greenberg. Genes and languages evolve at roughly the same rate, Cavalli-Sforza's group contends.

Using a mathematical calculation of differences among 120 genes in 42 populations, the scientists estimate that humans first arrived in the New World around 35,000 years ago.

Cavalli-Sforza's study comes under heavy fire in the February *CURRENT ANTHROPOLOGY*. Several Smithsonian Institution researchers, including linguist Ives Goddard, assert that languages are extremely volatile and cannot possibly evolve at the same rate as genes do. Researchers may eventually agree upon rates of genetic change over time, but language evolves erratically in response to all sorts of political and social influences, Goddard and his coauthors argue. A "linguistic clock" is simply not ticking away, they conclude.

On a more optimistic note, Ward predicts that "the increasing use and refinement of molecular techniques to define genetic diversity within American Indian populations will ultimately allow us to evaluate claims based on linguistics."

— B. Bower



account for these finds.

Moreover, some South American sites date back farther than the earliest accepted Clovis dates in North America. Carbon-14 dating indicates a prehistoric camp in Monte Verde, Chile, is 13,000 years old. Some artifact-bearing sediment layers at Monte Verde may be more than 30,000 years old. Researchers recently assigned a comparable 30,000-year age to a rock shelter in northeastern Brazil, but both the Chilean and Brazilian evidence is controversial (SN: 6/28/86, p.405).

**O**ne scientific team is exploring the presumed pre-Clovis settlement of North America by combining linguistics with geography. Indian language groups range across all sorts of modern-day environments, but many of the language families correspond to geographic zones that existed during the peak of the last Ice Age, between 14,000 and 18,000 years ago, maintains archaeologist Richard A. Rogers of the Origins Research Institute in Des Moines, Iowa.

For such linguistic diversity to develop, speakers of the many languages must have lived in North America for a considerable time before the Ice Age apex, Rogers and his co-workers assert in the March *JOURNAL OF BIOGEOGRAPHY*. Since the languages with the most disparate features (requiring a longer time period to diversify) bunch along the Pacific Coast, the earliest native Americans probably settled there first, they add.

Rogers says the link between language and Ice Age geographic zones — which several scientific groups have reconstructed from the analysis of fossil pollen, ice cores and animal remains — will not resolve the debate over Greenberg's classifications. Indian language groups originally may not have been distinct from one another as Greenberg holds; instead, they may have taken shape in New World populations geographically separated by ancient glaciers, Rogers asserts. Languages in the proposed Amerind group cut across several environmental regions created during the last glacial maximum. Early inhabitants may often have borrowed and transferred words across the boundaries of those regions, Rogers notes.

He and his co-workers find that North American Indian language families accepted by most linguists fall rather neatly into geographic zones that existed during the Ice Age.

The Indian languages in the Algonquin family lie within one such zone, a strip running from modern-day Montana to the East Coast. This relatively cold region was heavily forested and inhabited by creatures such as the woodland musk-ox, stag moose and giant beaver.

The Gulf language family took root in the tropical forests that covered much of

what now constitutes the southeastern United States. The area was a breeding ground for the capybara, giant armadillo and small tropical cats.

A transition zone between the two forested environments served as home to speakers of the Siouan, Iroquoian and Caddoan language groups. Another language family, Aztec-Totonan, arose in a dry savanna that covered much of the western half of the United States and northern Mexico. Penutian languages correspond to conifer forests that blanketed the Pacific Northwest, and the Eskimo-Aleut group lies within what was then Alaska's ice-free tundra.

A few languages and small language groups, such as Na-Dene, sprang up in ice-free coastal areas and are not clearly related to any larger linguistic families, Rogers says. Until the Ice Age ended 10,000 years ago, those groups probably remained isolated from other New World settlers, he contends.

**A**rchaeologist Ruth Gruhn of the University of Alberta in Edmonton says the Ice Age evidence and ongoing excavations of pre-Clovis sites suggest that a single population — speaking a language ancestral to all three of Greenberg's language groups — crossed the Bering Straits around 50,000 years ago. These New World pioneers, representing a marine culture, traveled by water all the way down the Pacific Coast to South America before heading inland, Gruhn maintains.

A few other archaeologists have advocated the coastal-entry scenario over the past 25 years (SN: 3/12/88, p.164). A major problem, however, hampers this hypothesis. If early settlers camped along the Pacific Coast, anything they left behind was submerged when the sea level rose as continental glaciers melted. Finding a coastal site dating to between 30,000 and 60,000 years ago "would be truly incredible luck," Gruhn concedes.

"Gruhn's theory is feasible, but it's not supported by good archaeological evidence," says Stanford, the Smithsonian archaeologist. He suspects a series of migrations or "pulses of population movement" spread into the New World at least 24,000 years ago. In his scenario, the hardy travelers probably took both coastal and inland routes.

Greater linguistic diversity in the West does not necessarily indicate that the Pacific Coast was the first home of New World settlers, adds Smithsonian linguist Goddard. The profusion of West Coast tongues may reflect a historical accident, Goddard argues. Eastern languages could easily have been as abundant as those in the West, but probably dwindled due to disease and warfare soon after European settlers reached the East Coast in the 16th century, he says. Sheer geographic luck may have preserved a



Richard A. Rogers

*Map shows proposed distribution of North American Indian languages and language families during the last glacial maximum, between 14,000 and 18,000 years ago. Archaeologist Richard Rogers and his colleagues say the linguistic groups fall within different Ice Age geographic zones.*

greater number of western languages long enough for study by linguists.

Analysis of the small number of known language families in eastern North America demonstrates they are no more than 5,000 years old, and their distribution had little to do with Ice Age geography or the entrance of the earliest humans to the New World, Goddard says.

Furthermore, variations in language characteristics suggest the Eskimo-Aleut languages that now stretch across northern Canada are no older than about 3,000 years, he points out.

Linguistic diversity likely characterizes most coastal regions, not just the Pacific Coast, observes Campbell of Louisiana State. The year-round protein sources along seacoasts are usually exploited by small, relatively isolated groups in which language variations proliferate, he argues.

**G**iven the complex twists and turns taken by languages, the survival of words or sounds signifying shared, ancient language families and their geographic origins seems quite unlikely, Goddard says. "I don't think we really know what a population migration is or how it shows up in the ground and in language," he maintains. "What is known is that at some point many different, unrelated linguistic entities came into the New World."

Most American Indian language specialists agree with Goddard, taking a dim view of efforts to understand the peopling of the Americas through linguistics, and heaping particular scorn on Greenberg's work. Meanwhile, the Stanford investigator and his supporters defiantly dig in their heels. And for now, no bridges span the great divide. □