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## Layers of the oldest Egyptian lexicon III

### Abstract

The papers of this series examine various domains of the Egyptian core lexicon in order to gather evidence for ascertaining to what degree the basic vocabulary is rather of clearly Semitic vs. African cognacy. The second part of my series focuses on the Ancient Egyptian anatomical terminology from the head to the upper torso not yet examined in the first issue.

### Keywords

Semito-Hamitic (Afro-Asiatic), comparative-historical linguistics/phonology, etymology, lexical isoglosses, Egyptian linguogenesis.

### Introduction

The first paper of this series<sup>1</sup> was generated by the controversies of P. Lacau's (1970) old observation on a binary opposition of the Ancient Egyptian anatomical terminology, the much-quoted and thus exemplified basic terms of which I re-examined from the head to the upper torso in the context of many new results issuing from current progress in Afro-Asiatic (Semito-Hamitic) comparative linguistics in order to see to what degree this segment of the lexicon is shared by lexemes of clearly Semitic cognacy vs. those evidently relating to African parallels. The etymological examination of the Ancient Egyptian anatomical terminology presented therein has corroborated a surprising distribution: one member of the synonymous pairs is usually a Semitic word,

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whereas the other one(s) have non-Semitic cognate(s) solely attested in some of the African branches of our language macrofamily. A relatively deeper presence of the extra-Semitic vocabulary in Egyptian has become apparent. As the introductory part only contained the classical instances, the famous pairs like “eye”, “ear”, “hand”, extended onto some further items where the binary opposition is also to be observed like the basic terms “head”, “hair”, it was already then obvious that the rest of the anatomical terminology and other domains of the core vocabulary are also to be examined.

The second part of the series “Layers of the oldest Egyptian lexicon” was devoted to an etymological research in the field of body parts on the head and the neck area, i.e., the same area as what was targeted in the first part. The difference was only that – leaving the well-known Semitic vs. African pairs for the basic terms behind – there, we studied rather the origins of either the specific anatomical terms or those for body parts not yet set in this context the aim being the same: to clarify whether the binary opposition of Semitic vs. African cognates worked there too, or, if not, whether the Semitic or African component is overwhelming in this domain of the Egyptian core lexicon.

This third part shares the same aims and principles projected to its target area of the upper torso.

### “Shoulder, Arm, Hand”

In the first part of this series (Takács 2015, 111–113), I only examined the binary opposition of the terms for the very “hand”. Now, in addition to this, may I extend this survey onto further, closely related semantical domains.

**Eg. <sup>◦</sup>** “Arm, Hand” (OK, Wb I 156–7) may be cognate with Bed. ay, pl. áya “(Vorder)Arm, Hand” [Rn. 1895, 37] =  $\varepsilon yi \sim \check{a} yi$  “hand, forearm” [Rpr. 1928, 158]<sup>2</sup> ||| WCh.: Tala aa “arm” [Smz.], Buli a “hand” [Gowers] = a·ʔ “hand” [IL] (Sbauchi: JI 1994 II, 178). Any other etymology proposed is excluded: **(1)** Several authors of the “*neuere Komparatistik*”<sup>3</sup> figured an original \*j<sup>◦</sup> compared with Sem. \*yad- “hand”. Rejected already by J. Osing (1997, 226). Two different roots have been confused: Sem. \*yad- “hand”, cognate with Eg.

<sup>2</sup> Note that Bed. ay can hardly go back to \*yad (to the best of my knowledge, only Bed. y < \*z has been attested, anyway). This old derivation, evidently stimulated by the preconception of equating it with Sem. \*yad- “hand”, was rejected already by A. Zaborski (1989, 582) and V. Blažek (1993 MS, 8, #5.5). Cf. also Takács 1997, 261, #7.3.

<sup>3</sup> See Rössler 1971, 285, #6; Knauf 1982, 35; Zeidler 1992, 206; Schenkel 1993, 139; Kammerzell 1998, 29.

\*d “hand” (preserved by the hieroglyph depicting the hand)<sup>4</sup> vs. Eg.  $\text{ʕ}$  [act. \* $\text{ʕy}$ ?], vocalized by Osing (l.c.) as \* $\text{ʕéw}$  vs. \* $\text{ʕéw̃}$ , hardly compatible with the etymon \* $\text{ja}^{\text{ʕ}}$  (or sim.) < \* $\text{yad-}$  suggested by the Rösslerists.

(2) G. Möller (1921, 196) and W. Vycichl (1933, 180; 1934, 69, 84; 1951, 68) assumed Eg.  $\text{ʕ}$  < \* $\text{ʕ3}$  equated with Common Brb. \* $\text{a-yil}$  “arm”. Although the correspondence of Eg.  $\text{ʕ}$  vs. Brb. \* $\text{γ}$  (which usually reflects AA \* $\text{k}$  and \* $\text{h}$ ) has been most recently demonstrated by myself<sup>5</sup>, the 2<sup>nd</sup> radical -3 is not attested in Egyptian.

**Eg.  $\text{ʕnd}$**  (determinative of wing)<sup>6</sup> “Teil des Flügels” (Wb I 207, 6; GHWb 148; ÄWb I 279b) = “Teil (Spitz) des Flügels oder Flügel” (ÜKAPT) = “(tip of wing) (AEPT), which is attested solely twice in the Pyramid Texts, namely in PT 1377b:  $\text{dj NN tp ʕnd dn̄h=k}$  “setze den N. auf der Spitze deines Flügels” (ÜKAPT V 305) = “put me on the top of your wing” (AEPT 215), and in PT 1429b, in the expression  $\text{d3j sw dhwtj m tp dn̄h=k}$  “setz ihn über, Thot, auf der Spitze deines Flügels” (ÜKAPT V, 353) = “ferry me over, o Thot, on the tip of your wing” (AEPT 221). Among those rendering these texts, this puzzling word was paid at least some attention only by K. Sethe (ÜKAPT V 312, cf. also 354), who rightly stated that whereas in PT 1377b it “wie ein Teil des Flügels erscheint”, so in PT 1429b it seems “alsob  $\text{ʕnd}$  allein ‘Flügel’ und erst  $\text{tp-ʕnd}$  ‘Flügelspitze’ bedeutete”. The word apparently does not occur later. Its reflex in Coptic supposed by W. Vycichl<sup>7</sup> is most probably unrelated for

<sup>4</sup> Generally accepted equation, see Hommel 1883, 440, fn. 30; Sethe 1912; Ember 1918, 30; ESS §26.a.17; Vergote 1945, 131, §2.a.3; Cohen 1947, #493; Vycichl 1958, 373; 1959, 39; 1985, 174, #4; Hodge 1976, 12, #47; Majzel'-Militarev 1983, 219; Hodge 1990, 647, #23A etc.

<sup>5</sup> Takács, G.: Semitic ghayin in an Afro-Asiatic perspective. Handout for the 4<sup>th</sup> Meeting of the International Association of Comparative Semitics (Zaragoza, 9<sup>th</sup>–11<sup>th</sup> June 2010).

<sup>6</sup> In some publications (e.g., ÄWb l.c.), this hieroglyph is reproduced rather a finger horizontally (D51).

<sup>7</sup> In his Coptic etymological dictionary (DELIC 9), W. Vycichl derived Cpt. (S)  $\alpha\lambda\sigma$ , (B)  $\alpha\lambda\sigma\chi$  “1. thigh, 2. (pl.) knees, 3. (pl.) arms, shoulders” (CD 7a) = “1. Schenkel, 2. (im Plural) Knie, Arme, Schultern” (KHW 5) from Eg.  $\text{ʕnd}$ , i.e., \* $\text{ʕld}$ , which is rather problematic given the fact that (S)  $\sigma$  reflects an older Egyptian palatalized velar, not an affricate (Vergote 1973 Ib 20, §21 and 22, §23; Peust 1999, 121, §3.9.4.1; Allen 2013, 52). Therefore, more realistic seems W. E. Crum’s (l.c. infra) proposal to relate the Coptic word to (B)  $\alpha\lambda\sigma\kappa$  “corner, angle” and (SALB)  $\omega\lambda\kappa$  “to be(come) bent”, which reflect Eg.  $\text{ʕrq}$  “krümmen” (OK-, Wb I 211). E. Dévaud’s (Muséon 36, 14) comparison of the Coptic forms to Hbr.  $\text{yāreḵ}$  “cuisse, hanche” etc. can be safely excluded (pace Vycichl l.c. supra) because of the phonological difficulties (Cpt.  $\emptyset$  ≠ Hbr.  $\text{y-}$  and Eg. \* $\text{-l-}$  ≠ Sem. \* $\text{-r-}$ ). Following F. Hintze, W. Westendorf (KHW 5) connected the Coptic word to SBrb.: Ahaggar  $\text{ḫ-leḡ}$  “foot”, which is only possible if the underlying Afro-Asiatic root had \* $\text{-k\#}$  in the *Auslaut*. J. Černý (CED 5) saw the etymon of (S)  $\alpha\lambda\sigma$ , (B)  $\alpha\lambda\sigma\chi$  and Dem. 3lg attested in  $\text{ʕ.wj n 3lg}$  “cover of the thigh (made of silver)” (CED pace BiOr 13, 222) = “Futteral von 3lg (Gegenstand aus getriebenem Silber)” (DG 8) in Eg.  $\text{ʕrq}$  “Gelenk der Füße (?)” (LP, Wb I 211, 18) = “joint of leg (?)” (CED), which seems indeed correct and satisfactory both phonologically and semantically.

phonological reasons. This is typically the case when only external evidence may bring us closer to the solution, which has so far been examined perhaps solely by G. Takács (1997, 238, #39; 2004, 51, #331). He suggested a cognacy with HECu. \*ang-a “hand, arm” [Hudson 1989, 75, 404; Sasse 1982, 26]<sup>8</sup> || WCh.: SBauchi \*āŋ “hand, arm” [GT]<sup>9</sup> || CCh.: Gisiga (Dogba dialect) haŋ “ganzer Arm, Hand” [Lukas 1970, 123] = hán (sic: -n) “hand” [Rossing]<sup>10</sup> (Ch.: JI 1994 II, 178–179). The underlying AA \*<sup>ɸ</sup>ang- “hand, arm” [GT] may perhaps eventually be related to AA \*<sup>ɸ</sup>ng “to hold” [GT]<sup>11</sup> as well as – very remotely (in the Afro-Asiatic proto-language), of course – to PCu. \*gan<sup>ɸ</sup>- “palm of hand” [Ehret 1987, 118, #498] via metathesis (as suggested in Dolgopól’skij 1972, 205 and Sasse 1982, 26), which, in turn, has long been supposed to be cognate with Eg. *ḏnh* “wing” (below). In the light of PT 377b and the possible relationship to AA \*<sup>ɸ</sup>ang-, we may venture, in agreement with K. Sethe, that Eg. *ḏnh* denoted some part of the wing or was a synonym to *ḏnh* for the whole wing, but by far not “tip” in general.

**Eg. m3w.tj** (dual) “die Arme”, m3w.tj-ḥr “Horusarm (als Name des Geräts im Armgestalt zum Räuchern)” (GR, Wb II 28, 7–8) = “Schultern” (von Bergmann apud Piehl) = “les deux mains” (Piehl 1897, 129–131, §3) = “two arms (in general)” (PL 402). Cf. also m3wj “la patte d’un oiseau (les longues pattes de l’ibis)” (Ceugney 1880, 6 after Brugsch) = “bras” (Lefèbvre 1952, 59:

<sup>8</sup> The etymological position of the Highland East Cushitic forms has been debated. H. C. Fleming (l.c.) connected them with phonologically unacceptable parallels reflecting \*<sup>ɸ</sup>HrK. On the other hand, H.-J. Sasse (l.c.) and A. Zaborski (1989, 582) saw in them metathesis of ECu. \*gan<sup>ɸ</sup>- “hand”.

<sup>9</sup> Cf. Guruntum aa(ng) “hand” [Gowers], Geji ang “hand” [Gowers] = \*āŋ “hand” [IL in JI] = aŋ “arm” [Krf.], Megang aŋ “arm” [Smz.], Gyaanzi áŋ “arm” [Smz. 1978, 20, #1]. The etymology of these forms is, however, not yet evident as in the same group forms like aa, am, and wam are also attested and their interrelation is obscure. H. Jungrathmayr (in JI 1994 I 86–87A) derived all these forms of South Bauchi from his PCh. \*<sup>ɸ</sup>kmn “hand”, the reconstruction of which appears for me equally problematic, possibly a result of a modern “contamination” of diverse distinct Chadic roots.

<sup>10</sup> The background of the Gisiga word is also unclear. First of all, the shift of Gisiga h- < AA \*<sup>ɸ</sup>- is not yet attested. On the contrary, I have so far only observed Gisiga h- < AA \*h- (cf. Takács 2013, 158–159, fn. 11) and \*s- (cf. JI 1994 I xxvii). But it is also difficult to agree, because of the irregular *Auslaut*, with M.O. Rossing (1978, 266, #343), who traced the Gisiga word back to his PMafa-Mada (PMatakam) \*ahal “hand”.

<sup>11</sup> Cf. Ar. *ʿanaġa* I “1. retenir, arrêter (sa monture), en tirant la bride à soi avec force; ramener sa monture dans la direction que l’on vent”, IV “2. raffermir, rendre plus solide, 3. éprouver des douleurs dans les vertèbres”, *ʿināġ-* “1. corde dont un but est attaché au bas du seau ou aux deux anses et l’autre au bois, 2. douleur dans les vertèbres”, *ʿanġ-at-* (pl.) “morceaux de bois verticaux qui forment comme des poteaux à l’entrée d’une litière portée à dos de chameau” [BK II 381] || Geez *ʿanaga* „to tie, bind”, *ʿang* “ear-, nosering, chain for the neck” [Lsl. 1987, 64] || ECu.: Yaaku (Mogogodo) *inġ-ān* “to take hold of” [Flm.] = *-inġ-am-* “to hold (tr.)” [Heine 1975, 127]. The Yaaku verb was first connected with HECu. \*ang-a (above) by H.C. Fleming (1969, 25).

Edfu I 16:10) considered by Piehl (1897, 130) as a dialectal form (!) of m3w.tj, whose etymology has been debated:

(1) Traditionally (Ceugney 1880, 6; Wb 1.c.; PL 402) considered to be an m-prefix nomen instr. derivation from Eg. 3wj [\*rwy] “to stretch out, reach” (cf. Wb I 3–4), whose origin is debated.

(2) K. Piehl (1897, 130): originally denoted \**“celle ... qui donne”*, derived from Eg. m3<sup>ʕ</sup> “donner”. False, since the -<sup>ʕ</sup> cannot shift into -w.

(3) P. Wilson (PL 402) did not exclude a connection with Eg. m3wḏ “die Arme” (NE, Wb II 28, 16), which she defined as “referring to sg. straight or strong”. Besides, m3wḏ derives rather from m3wḏ “Art Stock” (NE, Wb II 28, 14) = “perche, palanche” (AL 77.1610) = “carrying-pole” (NE, DLE I 207) = “Stab, Tragestange, Stange (an e. Kasten)” (GHWb 319). Plausible provided we assume OK m3wḏ > NK m3wd > GR m3wt (secondarily conceived as fem. m3w.t).

**Eg. m3wḏ** “die Arme”<sup>12</sup> (NE, Wb II 28, 16; Brunner 1944, 34, text 6:5; Janssen 1961, 44) is a rare metaphoric expression deriving from Eg. m3wḏ “carrying-pole” (cf. EDE III 76–79).

**Eg. mh** “Arm (gern neben ʕ)” (PT-, Wb II 120, 1) = “forearm including hand” (FD 113; Walker 1996, 269) = “coudée, l’avant-bras depuis la pointe extérieure du coude jusqu’à l’extrémité du doigt du milieu” (Lacau 1970, 107, §279) > (B) **MOI2I** “arm” (CD 133b s.v. **KOI2I**; CED 98) = “Ellenbogen” (KHW 89) vs. Eg. mh “Elle (auch der Ellenstab)” (PT, Wb II 120, 2) = “1. Elle, 2. Elle als Maß, 3. ein Flächenmaß” (GHWb 353; ÄWb I 552) = “cubit” (FD 113) > Dem. mh “Elle” (DG 173:1) > Cpt. (SAL) **Ma2e**, (BF) **Ma2I**, (M) **Me2e**, (F) **Me2I** (m) “ell, cubit” (CD 210b; CED 99) = “Elle, Unterarm” (KHW 110) = “avant-bras, coudée” (DELIC 129) appear to have sprung from the same root,<sup>13</sup> which may perhaps be akin, as pointed out in EDE III 474, to Ethio-Sem.: Harari mihi “vicinity, near, beside”, ān mihiye-be “at my side” [Lsl.] | Gurage \*√my “rib” [GT]<sup>14</sup> || MSA: Soqotri mi<sup>ʕ</sup>eh [irreg. -<sup>ʕ</sup>-] “côté (side)” [Lsl. 1938, 248] (Sem.: Leslau 1963, 105; 1979 III 441) || WCh.: Ngamo mà “arm”, màa “wing” [Alio 1988 MS] || CCh.: Bata meḡ “bras” [Mouchet 1950, 31] | Sao (Sso) mwa “Arm” [Duisburg 1914, 41]. Semantically, here too, the closest cognates appear in Chadic. Other suggestions are unconvincing.<sup>15</sup>

<sup>12</sup> P. Kaplony (LÄ I 635, n. 6) denied the sense “Arme” (to be replaced, in his view, with “Totenstiftung”).

<sup>13</sup> The Coptic evidence speaks in both cases for a quadriconsonantal word, namely \*mhj.w or \*mh<sup>ʕ</sup>.w (!) (KHW 89, 110 & fn. 3) = \*m<sup>h</sup>ʕC<sub>3</sub>~C<sub>4</sub> (Vcl.) = perhaps \*mh3.w (GHWb; ÄWb).

<sup>14</sup> Cf. Chaha meyä ~ mǎ, Masqan māyā, Muher māyā ~ mǎ, Ennemor māyā, Ezha miyā ~ me, Endegeny, Gyeto miyā “1. rib, side of the body, 2. side, direction”, and cf. also Wolane miyamo “area, side of the ribs” (Gurage data: Leslau 1979 III 441).

<sup>15</sup> (1) L. Reinisch (1873, 246-7): ~ Teda tī, tīhi “Ellbogen”, tumma, tuṅga “Hand” (!). Absurd. (2) P. Lacau (1970, 107, #281) considered Eg. mh to be an m-prefix form related to Akk. aḫu “arm,

**Eg. msḥt** “der Arm” (GR, Wb II 149, 5) = “cuisse, angle” (Beauregard 1892, 182) = “foreleg” (AEO I 4\*) is a late use of msḥtj.w<sup>16</sup> “Art Haken mit dem der Mund des Toten geöffnet wird” (OK, Wb II 149, 2) = “herminette, forme usuelle du manche sans lame, à double courbure et crochet terminal” (Jéquier 1921, 325) = “a large metal adze used in wood-working (depicted as such on the reliefs in the causeway of the Unis pyramid)” (Ward 1961, 37) = “adze (used in ,Opening the Mouth’)” (FD 118) = “Dechsel und Meißel, ein sehr altertümliche Bezeichnung, die in klassischer Zeit nur noch als Sternbild (Großer Bär) erscheint und als Schenkel des Seth mythologisiert wurde” (Helck 1967, 33) = “herminette” (Lacau 1972, 54, §20.3) = “Dechsel” (Drenkhahn 1976, 119) = “ein Haken, Dächsel”, dm msḥtjw (V.) “den Dächsel scharfen” (GHwB 364).<sup>17</sup> H. Grapow (1914, 30) had already surmised a prefix m- in it, but left the root unidentified. W.A. Ward (1961, 37, #20) rendered Eg. msḥtjw as the *nomen instr.* of an unattested \*sḥt he equated with Ug. mšḥt “Schlachtbeil” [WUS] = “a weapon (of Baal to attempt to slay the messengers sent Yam in the Baal and Anath epic), a large weapon possibly of metal for crushing (not stabbing)” [Ward] = “a kind of axe or cleaver” [DUL 590-1], cf. also Ebl. /mašḥatum/ [DUL], which are also *nomina instr.*, cf. Sem. \*šḥt ~ \*šḥt “to slaughter” [TG].

**Eg. rmn** “1. Oberarm, Schulter, 2. Seite, Hälfte” (PT-, Wb II 418), whence we have a denominal IVae inf. verb √rmnj “to support, carry on the shoulder” (PT-, Müller) = “tragen” (Wb II 419)<sup>18</sup> and whose Coptic reflex is also highly debated,<sup>19</sup> has been so far not yet unambiguously identified in its Afro-Asiatic kinship.

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side”, which W.A. Ward (1972, 22, §279–282) rightly declined as Eg. ḥ does not regularly correspond to Akk. ḥ (but cf. Kogan 1995). In addition, the function of m- in this case has not been explained. (3) Instead, he (Ward l.c.) derived Eg. mḥ “forearm” from mḥ “to seize, hold”. A semantic connection between “fist” and “to grasp, seize” is understandable, but this is not the case here.

<sup>16</sup> P. Lacau (1972, 54, §20.3) regarded -w as the suffix of “*noms d’outils, d’armes et de sceptres*”.

<sup>17</sup> For Ursus Maior interpreted either as an adze or as a foreleg of an ox cf. also Wainwright, JEA 18, 1932, 11 & 163; Roth 1993, 70–71.

<sup>18</sup> Naturally, J. Osing (NBÄ 185) derived the noun deverbally, although already K. Sethe (1912, 103) had pointed to a denominal origin “*des von rmn abgeleiteten Verbums rmnw ‘tragen’*”, which was corroborated by P. Lacau (1970, 104, §273): lit. “épauler, porter à l’épaule”.

<sup>19</sup> H. Brugsch (1881 Wb Suppl. 727), followed by K. Sethe (1912, 103), P. Lacau (1970, 104–5, §273 and §275), and J. Černý (CED 6), suggested that PT √rmnw was continued by Cpt. (B) **AMONI** “to be strong, possess” (CD 8a) = “ergreifen, verpflichten” (KHW 6), with (a nowhere attested) original sense “to hold”, where K. Sethe (l.c.) assumed the “*Wegfall bzw. Übergang des r in i*” just like P. Lacau (1970, 105, fn. 6): “*Le r initial est passé à j et c’est ce j qui a changé en ā le a, voyelle prothétique, devant deux consonnes en contact direct*”. This derivation was rightly queried by W.M. Müller (1909, 186: “*it does not agree with early rmn*”), W. Spiegelberg (1921, 5), the authors of Wb (l.c.), and W. Westendorf (KHW 486, fn. 2: “*entspricht nicht der Struktur der IV. inf. Verben*”). Indeed, there are worries both semantically (“to carry on shoulder” vs. “to grasp”) and phonologically (syllable-initial r- is not supposed to shift in j-). W. M. Müller (1909, 186), who knew of no certain example of initial ṛ- (i.e., where r- was palatalized into j-), risked stating that “*I only doubt an ṛ*

(1) A. Erman (1892, 113, also 127, fn. 3) equated it with Hbr.  $\sqrt{?}mn$  qal “auf dem Arm tragen”, nifal “fest sein” and Ar.  $\sqrt{?}mn$  “vertrauen”, which H. Brugsch (l.c.) attached (correctly) rather to Eg. mn “bleiben”, which was opposed by Erman arguing that “*bei dieser Gleichung bleibt das ? unerklärt und zudem pass die Bedeutung von rmn m.E. besser zu ?mn als die von mn*”.

(2) W.F. Albright (1927, 223) connected it with Ar.  $\sqrt{?}amrān-$  (pl.) “nerfs du bras” [BK II 1096] = “Sehnen des Armes” [GÄSW] = “tendons of the arm” [Alb.] and  $\sqrt{?}mrn$  I “être en peu dur (se dit d’un corps habituellement tendre au toucher)” [BK II 1096] = “to tighten, make flexible” [Alb.] = “zäh, widerstandsfähig, biegsam” [GÄSW], which was received by F. von Calice (GÄSW 169–170, #688) with doubts (“*Sehr fraglich*”), albeit so far this appears to be the most attractive alternative.

(3) G.R. Castellino (1984, 13), in turn, assumed in Eg. rmn an instance of the “*poss. infiltrazioni di indoeuropeo in egiziano*”, cf. OIndic  $\sqrt{?}rma-$  (m) “Bug, Arm, Vorderschenkel”, Avestan  $\sqrt{?}arəma-$  “Arm”, Armenian  $\sqrt{?}armuku$  “Ellenbogen”, Latin  $\sqrt{?}armus$  “der oberste Teil des Oberarms, Schulterblatt, Vorderbug der Tiere” etc. (IE data: LEW I 69). Here, one might object that anatomic terminology was hardly borrowed, let alone that Eg. -n was part of a triradical root not reflected on the Indo-European side.

**Eg. ḥp** (hand det.) (“vielleicht ein Wort für Hand (?)” (NK hapax: London stela 286, Wb III 69, 17) = “\*Hand” (GHWb 524) might in principle, if not merely an error or a false reading (e.g., for ḥpd < ḥpt), be identical with Sem.: Ar. ḥāff-at- “1. côté (d’une chose)”, ḥifāf- “2. côté, 3. bord, marge”, ḥufūf- “3. bord, extrémité” [BK I 455–456] || SCu.: WRift \*ḥāmpu (GT: epenthetic nasal?) “wing” [KM 2004, 148],<sup>20</sup> which – using solely the Iraqw reflex (ḥāmpa) – Ch. Ehret (1980, 299) explained from a nowhere attested WRift \*\*ḥapa “arm” (assuming a meaning shift “wing” < \* “arm” “*caused by confusion with the similarly pronounced and semantically overlapping*”) he combined with Dahalo ḥap- “to snatch quickly” [EEN 1989, 26] to reconstruct a hazardous SCu. \*ḥap- “to clasp, hold with the hands” [Ehret]. At the very same time (and page), Ehret (l.c.) set up a distinct SCu. \*ḥab- “upper arm” based on Burunge ḥabu “wing” – although the Burunge word is nothing but an “*irregular voicing and*

*here*” because of MEg. mnj3 “shoulder” (Illahun), which “*suggests some hidden orthographic trick*” guessed -j3 for r- defective treatment of the r- in rmn.wj written also as mn.wj (RT 4, 25, l. 7). Instead, W. Westendorf (l.c.) and W. Vycichl (DELG 9) affiliated the Coptic verb with Eg. mn (?) “1. (GR) in Empfang nehmen, 2. (gewöhnlich seit Pyr. in Ritualformeln) nimm in Empfang!” (PT, Wb II 60, 1–4) = “prendre” (AL 79.1188 with KRI exx.). I (EDE III 221) was disposed to see in the Coptic inf. a form reflecting in fact the NK j.mn imperative with the prothetic j- (XVIII–XIX., cf. Wb II 60). Then, W. Westendorf (KHW 6) changed his mind and assumed in (B)  $\sqrt{?}amoni$  merely a “*besondere Verwendung*” of (B)  $\sqrt{?}amoni$  “eig. anpflocken: 1. weiden (Vieh), 2. landen” (KHW 486).

<sup>20</sup> Attested in Iraqw ḥāmpa, Gorowa ḥāmpú, Alagwa ḥāmpu, Burunge ḥabu.

*denasalisation*” of WRift \*ḥāmpu (as suggested in Kießling & Mous 2004, 148) – and Dahalo ḥáḥe “armpit”, ḥappēri “armpit hair” (quoted in 1980 as ḥappēri “hair of armpit”) [EEN 1989, 26] = ḥábe “armpit” [Tosco 1991, 136]. The latter *comparandum* of Ch. Ehret (1980, 299), however, appears to share much more in common with WCh.: Angas-Sura \*ha<sub>3</sub>γa<sub>3</sub>p “armpit” [GT 2004, 152]<sup>21</sup> as a separate Afro-Asiatic root. On the other hand, WRift \*ḥāmpu “wing” was combined by R. Kießling & M. Mous (2004, 148) with ECu. \*ḥubn- “limb (originally muscle?)” [Sasse 1979, 15, 58], which, in turn, A.B. Dolgopolsky (1988, 631, #24) convincingly equated with Sem. \*ḥupn- “pugno” [Frz. 1964, 48] = “handful” [Djk. 1970, 467] = \*ḥa/upn- “hollow of the hand, handful” [SED I 113–114, #125]. This would imply a metathesis in WRift \*ḥāmpu < \*\*ḥapn-, albeit L. Kogan (SED l.c.) found in the Gurage forms (displaying an unexpected \*-mf- instead of \*\*-fn- and thus strangely resembling the West Rift etymon) the traces of a PSem. variety \*ḥunp- “with a secondary or primary \*-n-, in the last case lost in other Sem(itic languages).” As Kogan (SED l.c.) confirmed, Soqotri ḥāfen “giron” [Leslau 1938, 184; SSL 1991, 1459] is “probably related” with a semantic shift “hollow of the hand” → “hollow of the lap”, which, once again, strangely resembles the original sense of Eg. ḥpt (below), with which our hapax is presumably ultimately related (but perhaps not identical).

**Eg. ḥpt** “1. Arm(e), 2. ein Arm voll von etwas” (MK, Wb III 71, 14–15) = “1. embrace, 2. armful” (FD 168) = “brassée” (Lacau 1970, 101),<sup>22</sup> whence (and, in my view, not *vice versa*) we have the denominative verb ḥpt “1. umarmen, umfassen, 2. etwas fassen, in den Arm nehmen” (MK-, Wb III 71–72), has been so far rendered etymologically three diverse ways, of which the 3<sup>rd</sup> one seems correct:

(1) C.T. Hodge (1990, 371) apparently assumed the verbal meaning as primary and affiliated it with Ar. ḥaffa “to surround”, which, however, does not explain the third radical of the Egyptian root.

(2) A.B. Dolgopolsky (1994 MS, 13), in turn, seems to have considered the nominal root as original and equated it with Sem. \*ḥúp[Ṽ]n- “hollow of hand, (?) hand” [Dlg.] and ECu. \*ḥubn- “limb (originally muscle?)” [Sasse 1979, 15, 58] > SLECu. \*ḥubn-V ~ \*ḥubun-C [Black 1974, 107], which is semantically tempting, although here too, the third radicals are different and one may not ignore the semantical gap between “arm” vs. “hollow of hand”. Besides, other

<sup>21</sup> Attested in Mushere akap [< \*ayap] “armpit” [Dkl. 1997 MS, #10], Goemay hâap [ḥoap, -o- < \*a<sub>3</sub>-] “armpit” [Srl. 1937, 72] = hoop “armpit” [Hlw. 2000 MS, 13].

<sup>22</sup> J. Černý (1955, 34–35, #7) has pointed out its special form of this word: ḥpt (group-writing) “a measure of thread” (not in the Wb), act. \*ḥpât, lit. “Umarmung” (Osing NBÄ 42) > (S) 2ΠΟ/ΩΤ, (B) 240/ΩΤ, (F) 24αΤ “fathom” (CD 696b; CED 290) = “ein Längenmaß von 6 Fuß: Faden, Klafter” (KHW 383).



authors offered other Egyptian etymologies for the Semitic the root.<sup>23</sup> All in all, a direct equation is to be excluded. Still, the uncertain Eg. hapax ḥp (above) makes us ponder whether their common root was ultimately biconsonantal: AA \*√ḥp “hollow of hand or arm (?)” [GT].

(3) O. Stolbova (HSED #1238 jointly with V. Orel and 1996, 77) too accepted the primacy of the nominal root she identified with her WCh. \*ḥapVt- “arm, wing” based solely on Bade gápt-ón “Feder (Vogel)” [Lukas 1968, 222] and Ngizim gápt-â “shoulder, wing, branch of tree” [Schuh 1981, 69], which represent the only convincing match of our Egyptian noun – if Stolbova’s sporadic evidence for Ngizim g- < AA \*ḥ-<sup>24</sup> can be corroborated by further instances and provided this word can certainly be separated from Hausa kààfádà “shoulder” [Abr. 1962, 446], which, in turn, is supposed to be akin to Eg. ḥpš (below). It is, however, difficult to agree with Stolbova in deriving CCh. \*pVt- “wing” and ECh \*pat- “arm” too from an AA \*ḥapat- “arm, wing” with total loss of the first syllable. Instead, one might assume here rather a *lack* of the Common Afro-Asiatic marker ḥ- of the anatomical terms (cf. Takács 1997).

**Eg. ḥz.t** “Teil der Arme” (BD, Wb III 160, 1) may perhaps be akin to CSem.: Macro-Canaanite \*ḥad(V)y- “breast” [SED I 104, #112] | Ar. ḥadw-, ḥidw-, ḥudw-, ḥidā?- “vis-à-vis, en face de” (Kogan: < lit. \* “breast to breast”?) [BK I 399].

**Eg. ḥsr ~ ḥsr<sup>ϕ</sup>** “Arm” (GR, Wb III 168, 10) has been so far provided with three concurring, almost equally attractive etymologies:

(1) L. Reinisch (1890, 27) affiliated it with LECu.: Afar hāsúl, pl. -á “Arm, Armlänge, Elle” [Rn. 1886, 859] = hāsúl, pl. hāsāl “braccio, braccio (misura)” [Colizza 1887, 121] = hāsúl [Rn. 1890] = hosúl, pl. hosāl “arm” [Grb. 1955, 201].

(2) W. Leslau (1962, 67) segmented it as prefix ḥ- + \*√sr<sup>ϕ</sup>, which he equated with Sem. \*dirā<sup>ϕ</sup>- “arm”. However, he ignored that the dentals were incompatible with <sup>ϕ</sup> in the Egyptian roots, where the expected reflex of Sem. \*√dr<sup>ϕ</sup> would be an Eg. \*zrḥ (cf. EDE I 326). This why the late var. ḥsr<sup>ϕ</sup> looks a priori strange (either borrowing or an error).

(3) O. Stolbova and V. Orel (1992, 186; HSED #1246) affiliated it with WCh. \*sar- “hand, arm” they traced back to their PAA \*ḥasar-. But what if the Chadic reflex had never contained \*ḥ- as apparently Stolbova seems to have earlier

<sup>23</sup> A. Ember (1911, 89) combined it with with Eg. ḥf<sup>ϕ</sup> “fist”, which is certainly false (only the C<sub>2</sub> agrees). C.T. Hodge (1976, 12, #49) equated it with Eg. ḥfn “great quantity”, but this is semantically all too far-fetched (the Egyptian numeral has long been convincingly identified with Ar. √ḥfl).

<sup>24</sup> Here might belong Ngizim gamsú < WCh. \*ḥamç- “смеяться” (Stolbova 1987, 226, #752) and Ngizim gányi ~ Eg. ḥnn “penis” (Stolbova 1996, 77).

thought also herself?<sup>25</sup> This would imply a prefix ḥ- in Egyptian (cf. Takács 1997, 251, #3.6).

**Eg. ḥtt.t ~ ḥtt ~ ḥt.t ~ ḥt** “aisselle” (MK, NK, Dévaud 1921, 161–163 with older lit.; Lacau 1970, 106) = “shoulder” (Med., Breasted 1930, 417) = “1. Achsel, auch als Achselhöhle unter dem Arm, 2. Schulter, als Körperteil des Rindes: Schulterstück”, cf. šn n ḥtt.t “Achselhaar” (Wb III 204, 15–17; Grapow 1954, 50, §iv.3; GHWb 572; ÄWb II 1816) = “armpit (not shoulder)” (Caminos 1956, 15, fn. 1; FD 181; Ward 1972, 22, #276; DCT 367), act. \*ḥtt̄.t (Dévaud 1921, 162) = \*ḥattát < \*ḥat̄tát (Fecht 1960, 197, fn. 553) = \*ḥtyōwēt or \*ḥttōwēt (Lacau 1970, 106, §277) = \*ḥtt̄.āt > \*ḥt̄tā? (NBÄ 122, 596, n. 540)<sup>26</sup> reflected by Cpt. (S) ⲭⲟ, ⲭⲱ, pl. ⲭⲱⲟϣ, (B) ⲗⲟⲟ (m) “Achsel, Achselhöhle, Schulter” (KHW 18, 412) = “arm-pit” (CED 309).<sup>27</sup> Most of the authors *a priori* agree that Eg. ḥtt.t would be deverbal noun deriving from Eg. ḥtt (hapax only attested in PT 2171b) “jem. hochheben (zum Himmel), tragen unter dem Arm” (Wb III 204, 14; GHWb 572) = “to shoulder, carry on the shoulder” (Breasted 1930, 417) = “to carry (something) under one’s arm” (Caminos 1956, 15, fn. 1, declined by J. Osing in NBÄ 596, n. 540) = “prendre sous ses aisselles” (Lacau 1970, 106, §276). The verbal root was conceived – pace Wb l.c. etc. – by W. Schenkel (l.c.) as Ilae gem.: √ḥtt, while P. Lacau (l.c.) figured it as IIIae inf. (√ḥtj) assuming that “*ce verbe serait un dénominatif d’un mot \*ḥt perdu. Plus tard nous avons le substantif ... ḥtt.*” One is disposed to side with the assumption of P. Lacau as the external evidence seems to confirm the Afro-Asiatic background of the noun, but not that of Eg. ḥtt, which indeed seems to be an (*ad hoc*?) denominative verb. Since ṯ originated solely from a palatalized \*k, we may safely project a PEg. \*ḥkk.t. This is why the etymology of A.B. Dolgopolsky (1998, 83, #107), who equated this Eg. term with Sem.: Modern South Arabian

<sup>25</sup> Elsewhere, O. Stolbova (1977, 65) equated WCh. \*sar- with Sem. \*dirā<sup>c</sup>-, which is phonologically unconvincing: Sem. \*d̄ is usually reflected by WCh. \*š̄ as a rule (cf. Takács 2001, 85–89 and 105–106; 2011, 159–163 and 184–185). Later, Stolbova (1994 MS, 2) combined the Semitic stem rather with CCh.: Mafa-Mada \*z̄ara “feather, wing” [GT].

<sup>26</sup> W. Vycichl (DELIC 323) firmly objected J. Osing’s (NBÄ l.c.) reconstruction of this word: “*Il n’y a pas le moindre doute que les deux ... ṯ étaient séparés par une voyelle. OSING dérive la forme copte de ... de reconstruction inadmissible qui n’explique pas la disparition du ... ḥ. Il prétend que la dittographie ... exprime en égyptien une gémination, opinion reconnue depuis longtemps comme erronée. Il compte dans ce cas avec une terminaison du féminin -at accentuée, pour un mot de genre masculin.*”

<sup>27</sup> In P. Lacau’s (1970, 106, §277) opinion, “*le 2 initial devant voyelle atone tombe régulièrement en bohairique*” (as it has been confirmed also for Sahidic by C. Peust 1999, 158, §3.14.7 and fn. 200 with further literature), but one can hardly agree with him in that “*en shaidique nous devons attendre \*z̄aᲟⲟ ou \*z̄aᲟⲱ*” as Eg. ṯ did become ⲭ or ⲧ (but not ⲟ). For the loss of ḥ- in Coptic, cf., e.g., (B) ⲗⲱⲱ, (S) ⲗⲗⲟ “magician, wizard” < Eg. ḥk3.w (CED 277). Further exx. apud Peust l.c.

\*yatq-at “back of the knee” [GT]<sup>28</sup>, can by no means be accepted.<sup>29</sup> Instead, G. Takács (2004, 63, #358) ventured comparing PEg. \*ħkk.t with WCh.: Kulere haw [< \*kaw] “Achselhöhle” [Jng. 1970, 352]<sup>30</sup> | Pero yyágèw [< \*yakaw?] “armpit” [Frj. 1985, 55]<sup>31</sup> || CCh.: Muktele hàhàw [< \*ħakaw?] “armpit” [Rsg. 1978, 202, #24].<sup>32</sup> In the light of this Chadic etymology, it cannot be excluded that Ch. \*(ħa)[k]aw (or similar) “armpit” [GT] has an Egyptian cognate. At least, this seems to be by far the most hopeful Afro-Asiatic etymology of MEg. ħtt.t at the present. But we should wait until further Chadic parallels become available to be able to judge whether the underlying Chadic root was in fact \*√ħkw (neatly fitting Eg. \*ħtyǝwēt projected by P. Lacau 1970, 106, §277) or represents perhaps a quite distinct Afro-Asiatic root, something like \*√ħw “hollow” [GT].<sup>33</sup>

**Eg. ħpš** “1. (PT-) (Vorder)schenkel, 2. (early MK-) der Arm, Kraft, eigtl. körperlich der Arm; schon sehr früh (seit D. 12) im Sinne von Kraft gebraucht” (Wb III 268–269) = “1. foreleg, thigh, 2. (strong) arm” (FD 189): after a couple of untenable etymological proposals,<sup>34</sup> the correct Cushito-Chadic parallels of

<sup>28</sup> Attested as Jibbali yatqét “back of the knee” [Jns. 1981, 90] = “popliteal space” [Dİg.], Mehri yətqáyť “hollow at the back of the knee” [Jns. 1987, 144].

<sup>29</sup> These roots are phonologically “incomparable” (none of the underlying root consonants corresponds: Eg. h- ≠ Sem. \*γ-, Eg. t ≠ Sem. \*t, Eg. t ≠ Sem. \*k). Besides, MSA \*yatq-at [assim. < \*\*yatq-at?] might be eventually related to ECu.: Konso quđittá “armpit” [Lamberti 1987, 536, #28.a].

<sup>30</sup> The first root consonant and its syllable was lost in Ron. Or was it a \*ħ- mobile, perhaps identical with the common Afro-Asiatic marker of the semantical category of anatomical terms (studied by G. Takács 1997)? Interesting is the unusual lack of the first syllable also in the supposed Coptic Sahidic reflexes of MEg. ħtt.t, ⲭⲟ and ⲭⲟ. The shift of Ron \*h- < Ch./AA \*k- is just as regular as Ron \*k- < AA \*k- as shown by G. Takács (2000, 96–97).

<sup>31</sup> AA \*ħ-, as a rule, was lost as such in the Bole-Tangale group or shifted to h- (Stolbova 1987, 61, table 1.7), but its syllabic trace was preserved by Pero yya-. The medial \*-k- in Pero might have been subject to a regular voicing in intervocalic position (-VgV- < \*-VkV-).

<sup>32</sup> The Muktele parallel has been added for this paper. Since the M.O. Rossing’s (1978) Mafa-Mada reconstruction as well as the most recent Central Chadic phonology by R. Gravina (2014) provide little about the history of Muktele h-, it would be difficult to say anything. If, however, we look at the Pero parallel, it appears likely that we have here an etymon \*ħa-kaw.

<sup>33</sup> Attested in Semitic \*ħwy “empty” and \*ħawħ- “hollow” [GT] || WRift \*\*ħoħ- > sg. \*ħoħōḡw “hollow form”, pl. \*ħoħēri “hollow forms” [Kießling & Mous 2004, 323] || ECu.: Dullay \*ħoħ- “hole” [GT pace AMS 1980, 192] || WCh.: Angas-Sura \*kuk ~ \*kok “(i.a.) be empty” [GT 2004, 207]. For a detailed discussion of this AA root cf. Takács 2010, 140.

<sup>34</sup> On the one hand, Ju.N. Zavadovskij (1974, 108; 1975, 48) equated it with Sem.: Ar. √ħbs “saisir, prendre avec la main” and √ħbš “soulever, ramasser à la main”, Brb. \*(ħ)a-fus “hand”, and, in his paper from 1975, even with Ar. √ħms (sic, h-) “5”. The latter absurd idea was two decades later extended by E. Lipiński (1997, 287, §35.10) to a comparison of Eg. ħpš with Sem. \*ħamš- “5” || Brb. \*səmmus “5” || Bed. asa \*‘5” (only attested in: asa-gwir “6”, act. \*‘5 + 1”, asa-rama “7”, act. \*‘5 + 2”) explained by him via \*assa < \*ħassa < \*ħamsa. All this was, on the top of it, was concluded by his absurd remark: “In the quinary system ... in Libyco-Berber, ... afus ‘hand’, related directly (!)

the Egyptian noun have only recently been discovered by O. Stolbova<sup>35</sup> and G. Takács (EDE I 162), cf. ECU. \*kafš-/\*kefš- “1. shoulder → 2. chest” [Sasse 1982, 112] = \*kesf- “chest” [Sasse 1979, 54] = \*ke(s)p- “armpit, chest, shoulder” [Lamberti 1987, 536, fn. 4]<sup>36</sup> || WCh.: (?) Hausa kàáfàdà “shoulder”<sup>37</sup> [Abr. 1962, 446], Buli gàpušà “shoulder” [Kraft] || CCh. \*paš(h)-,<sup>38</sup> probably a metathesis of \*\*ḥapš- “shoulder” [GT]: Bura-Margi \*pačVvk- “shoulder” [GT]<sup>39</sup> | Mandara ašépešépe (metathesis) “épaule” [Mch.] | Gude pašikən “shoulder” [Kraft] | PMafa-Mada (PMatakam) \*-paš “shoulder” [Rossing] = \*hapaš → \*pa(š)paš [GT]<sup>40</sup> | Musgu kəspə “épaule” [Mch.] (CCh. data: Mouchet 1950, 33; Kraft 1981, #52; Stolbova 1991 MS, 5; 1996, 19). The isogloss of CCh.: Gisiga kərpeš “Achselhöhle” [Lukas 1970, 125], Balda kərpəš “Arm” [Str. 1922-3, 116] | Musgu kərpəθ [\*-š] “Schulter” [Müller 1886, 398] = kərpəx “Schulter”

to Eg. ḥpš, may be used instead of səmmus”. On the other hand, V. Orel and O. Stolbova (1992, 185; HSED #1390): ~ WCh.: Montol pəyas “Wade” [Jng. 1965, 171] = “calf of leg” [OS] < \*pVHač/s, but as demonstrated by G. Takács (2004, 302), the *Anlaut* pəy- of Montol pəyas regularly derives from \*p<sup>w</sup>-, and so it is cognate with Goemay paas “calf of the leg” [Srl. 1937, 171] < Angas-Sura \*p<sup>w</sup>ā<sub>2</sub>s ~ \*pā<sub>2</sub>s “calf of leg”, for which cf. also Angas-Sura \*ḥā<sub>2</sub>s “shinbone” [GT] || ECh.: Mubi-Toram \*būsaw- “lower leg” [GT]: Jegu busawo “calf of leg” [Jng. 1961, 111], Kofa búusó (m), pl. búusàw “Unterschenkel” [Jng. 1977 MS, 4].

<sup>35</sup> Stolbova 1995, 60, 62; 1996, 19; Orel 1995, 145. The Eg.-Buli match was also discussed in OS 1992, 186; HSED #2034. O. V. Stolbova (l.c.) included in this comparison also ECh.: Mubi fòsò (f), pl. fòósás “Arm, Hand” [Lukas 1937, 182] = \*fòsò “hand” [Doornbos-Bender] = fòósó (m), pl. fòósús ~ fòósàs “main” [Jng. 1990 MS, 15], which, however, represents a fully distinct Afro-Asiatic root.

<sup>36</sup> Cf. LECU.: Somali šaf “chest” [Abr. 1964, 229], Konso ḥašš-ittá “shoulder” [Lmb.] (borrowed from Dullay?) vs. kess-a “chest” [Sasse] | HECU.: Burji káčč-ō “shoulder” [Sasse: from \*kafš-] | Harso hešš-é and Gollango haš-itto “Schulter”, Gawwada ḥaš-ito “Schulterblatt” (Dullay data: AMS 1980, 267) | Yaaku keh-p-en “shoulder” [Sasse: old \*kəsp-] = kəhp-en [Lmb.] etc. (ECU.: data: Sasse 1982, 112). For most of these forms, M. Lamberti (1987, 536, #25a) presented a different etymological analysis. Ch. Ehret (1987, #173), in turn, equated ECU. \*kafš- with Bed. sikba “pastern joint” and Sagaw: Awngi cəgfí “palm of hand”, which V. Blažek (1994 MS Bed., 31) rightly considered as uncertain.

<sup>37</sup> The Hausa word with its deviant -d < AA \*-č (instead of the expected -l < AA \*-š) in the *Auslaut* represents a reflex of AA \*√ḥpč, a root variety to AA \*√ḥpš, which underlies the rest of the Chadic parallels.

<sup>38</sup> The reconstruction of the Proto-Chadic stem has been disputed: J. Mouchet (1950, 33) has CCh. \*√kps “épaule” based solely on the comparison of the Mandara and Muzuk exx., whereas O. Stolbova (1991 MS, 5; 1995, 60) suggested CCh. \*HapačV “shoulder”, which appears to be more realistic. Later, she (Stolbova 1996, 19) set up PCh. \*Ha-paš- > CCh. \*pa-paš- “shoulder”. The latter, however does not fit all the Central Chadic parallels.

<sup>39</sup> Cf. Bura pačaha ~ pačahu (-thl-) [BED 1953, 170] = pačahn (-thl-, -n') [Hfm. 1955 in RK 1973, 95] = pašahà (sic, -š-) [Stl.], Margi paškù [Stl.], Kilba pášikù [Stl.], Ngwahyi pašikà [Stl.] (Bura-Margi data: Stolbova after Kraft 1981).

<sup>40</sup> Attested in Mofu-Gudur pepéš “omoplate, épaule” [Brt. 1988, 219] = (misquoted as Matakam) pəpəš [Stl.], Mafa (Matakam) peše-peše [Brt.-Bléis 1990, 310], Mada àhpás [Rsg.] = ahpás [Brt.-Brunet 2000, 130], Hurzo péšpəš [Rsg.], Vame péšpəš [Rsg.], Muyang hàpás [Rsg.], Muktele zá-bàšà [Rsg.], Daba basa “épaule” [Mch. 1966, 110], Uldeme mā-pápəš [Colombel 1997, 201] (Mafa-Mada group data: Rossing 1978, 325, #637).

[Lukas 1941, 62], Musgu-Puss kerpeš “épaule” [Trn. 1991, 98] reflects \*kerpeš (or sim.) [GT], which may eventually represent the same triconsonantal root extended with a parasitic -r-.

Another ultimately related isogloss (an old root variety inherited from the Afro-Asiatic parental language) reflects AA \*√bgz “shoulder” [GT], cf. SCu.: Qwadza beʔes-iko (suffix -iko) “shoulders” (the suppletive pl. to belendayo) [Ehret 1980 MS, 1; 1980, 142, #74]<sup>41</sup> ||| CCh.: PMandara \*bagaza “shoulder” [GT]<sup>42</sup> | Lamang-Hide (Hitkala) bažaga [metathesis < \*bagažaʔ] “épaule” [Eguchi 1971, 197] = g<sup>h</sup>abaza-k [metathesis < \*bag<sup>h</sup>ažaʔ] “shoulder” [Wolff] (CCh.: Wolff 1983, 224). The etymological position of NBrb.: Tamazight ta-bužž-ut “biceps (muscles)”, a-bužž “bras, avant-bras” [Taïfi 1991, 16]<sup>43</sup> ||| CCh.: PBata/Bachama \*bas- “arm” [GT]<sup>44</sup> | Gawar ma-bassá “Arm” [Str.] | Gisiga her basáng “Arm” [Str.] || ECh.: Somray bússomo “Schulter” [Lukas 1937, 77]<sup>45</sup> is not yet clear, but the velar element (AA \*ḥ-) was apparently absent in all of them, which seems to rule out a cognacy.

All in all, no reflexes of Eg. ḥpš in Semitic, Berber, and Omotic are known for the time being. In South Berber, perhaps a possible cognate appears in Ahaggar ā-kāsuf “bâton (de moyenne ou faible grosseur et d’environ 1<sup>m</sup>,50<sup>c</sup> à 2<sup>m</sup> de long)” [Fcd. 1951-2, 915], ETawllemmet a-ḳasuf “1. bâton court et gros, 2. cravache fouet, 3. p. ext. coup de bâton, fouet” [PAM 2003, 418] with a semantic shift suspiciously similar to that preserved by Eg. ḥpš “das sogenante ’Sichelschwert’ als Waffe” (MK-, Wb III 270, 1). All in all, as an anatomical term, Eg. ḥpš, seems to only have Cushitic and Chadic cognates. The Egyptian word has thence only South Afro-Asiatic cognacy.

**Eg. \*sqr**, an old word for “elbow (?)”, not attested in Egyptian texts, only reconstructed from the hieroglyph depicts apparently a bent arm with the phonetic value sqr. As stated by A. H. Gardiner (1927, 524, Aa7), in the inscriptions of Dynasty VI, “it looks like an arm”. The existence of OEg. \*sqr seems to be supported also by AA \*√[ç]kl “elbow” [GT] based on ECu. \*d<sub>1</sub>ikl- “elbow”

<sup>41</sup> Qwadza -ʔ- is regular < both SCu. \*-/ʔ/ vs. \*-ḥ/g- as demonstrated by Ch. Ehret (1980). Thus, it may, at least in theory, possibly originate also in a hypothetical SCu. \*bVḥ/gVs/ʔ- (?) [GT].

<sup>42</sup> Attested in Dghwede bagaza [Wolff] = Zeghwana bægəza (-dz-) [Kraft], Gvoko bægaza [Wolff], Kdupe bagaza [Wolff], Paduko bažangara [Wolff].

<sup>43</sup> K. Naït-Zerrad (DRB 43) quoted no further Berber parallel making the impression of an isolated root, but listed other instances of Tamazight √bž with their supposed Berber proto-roots, which leave the origin of the second radical uncertain and equivocal, which is thus impossible to decide *eo ipso*, i.e., without external data, cf. Tamazight ta-bža “1. étui à collyre, 2. flûte (en roseau)” ~/< Brb. \*√bg vs. NBrb. √mž, Tamazight a-bžžaž “verge d’homme très-longue” < Brb. \*√bzd.

<sup>44</sup> Cf. Bata-Garwa baasé, Bata-Demsa baašé, Kobochi boasa, Nzangi baassá (Bata data: Str. 1922–1923, 116).

<sup>45</sup> Do we have here perhaps \*bus- + the common AA (Sem., Brb., Cu.) suffix \*-um of anatomical terms?

[Sasse 1979, 26, 30; 1982, 176, 105]<sup>46</sup> ||| CCh.: Mofu méckùlék [-ts-] (prefix me-?) “elbow” [Rsg. 1978, 244, #232]. The Mofu-East Cushitic comparison is due to N. Skinner (1992, 348). Eg. \*sq̄ issues regularly from an incompatible PEG. \*√d̄q̄l due to the obligatory loss of glottalization in the proximity of a velar, i.e., the combination of an AA glottalized affricate \*ç/\*č/\*ĉ + \*k/\*g/\*k/\*q becomes, as a rule, PEG. \*sk/\*sg/\*sq/\*sh̄ (cf. EDE I 327–329).

**Eg. q<sup>h</sup>** “1. Oberarm, Schulter, 2. (selten auch vom) Arm (allgemein)” (MK-, Wb V 19, 6–13) = “(upper) arm, shoulder, elbow” (FD 276; DCT 649) = “bras” (Lacau 1970, 108), whose ultimate etymology is debatable,<sup>47</sup> is, with its typical -<sup>h</sup>, certainly the result of a dissimilative reduplication of one single pharyngeal (i.e., <sup>h</sup> < either \*<sup>h</sup> < \*\*<sup>h</sup> or \*<sup>h</sup> < \*\*<sup>h</sup>, cf. EDE I 329–332). In addition, perhaps we must also take into account a possible shift of an incompatible PEG. \*k<sup>h</sup> → OEg. q<sup>h</sup>. Accordingly, one has to count with at least three promising alternative (almost equipotential) etymological possibilities:

(1) A. Ember (ESS 1930, §5.c) has already surmised Eg. q- < \*k- to be due to medial -<sup>h</sup>- (possibly rightly) and a also change of -<sup>h</sup> to -<sup>h</sup> due to q- or \*k- in our word (i.e., pre-PEG. \*\*k<sup>h</sup> > \*k<sup>h</sup> > OEg. q<sup>h</sup>), which he regarded as cognate with Ar. kā<sup>h</sup>- ~ kū<sup>h</sup>- “1. condyle, surtout os de la main qui touche au pouce ou au doigt articulaire, 2. os de la cheville du pied” [BK II 944] = kū<sup>h</sup>- “the extremity of the radius or bone of the fore-arm, next the thumb or the protuberance formed thereby” [Lane 3004] = “Handgelenk, genauer: Kopf des Unterarmknochens” [GÄSW 210, #867] = “vorspringendes Ende d. Unterarmknochens an d. Handwurzel, Knöchel d. Handgelenks (projecting end of the bone of the forearm at the wrist, wrist-joint)” [WKAS I 438a] = kū<sup>h</sup>- “wrist, elbow” [Ember]. Following C. Brockelmann (l.c. infra), L. Kogan (SED I 125–6, #140) affiliated the Arabic noun with Syr. kō<sup>h</sup>ā “articulus” [Brk. 1928, 323] || Ethio-Sem. \*k<sup>h</sup>ätt- “foot, hoof” [Kogan] > e.g. Amhara kotte “foot, hoof (of a horse)” [Kane 1990, 1426], Gurage-Soddo kotte “hoof” [Lsl. 1979 I 1075] etc., which he derived via \*\*k<sup>h</sup>a<sup>h</sup>-at < \*\*ku<sup>h</sup>-at- from his Sem. \*ku/a<sup>h</sup>-at- “joint, ankle, foot”. Ember’s etymology was declined by F. von Calice (GÄSW 210, #867) arguing that Eg. q<sup>h</sup> “shoulder” derives (as suggested later in NBÄ 228 too) internally from Eg. q<sup>h</sup> “Ecke, Winkel, Seite” (OK-, Wb V 19–20). But these ideas are eventually not necessarily excluding one another. It is highly noteworthy to observe the parallelism between Eg. q<sup>h</sup> “1. (PT) vom Stier, der sein Horn zur Seite wendet um dem Toten den Weg frei zu geben, 2. (CT/BD-) die Hand, den Arm beugen” (Wb V 18–19) = “to bend (arm, hand)”

<sup>46</sup> H.-J. Sasse’s ECU. \*d̄l- derives AA \*ç- as pointed out by A.B. Dolgopolsky (1983). For the East Cushitic data cf. Black 1974, 51; Lamberti 1987, 536; Leslau 1988, 200; Hudson 1989, 56.

<sup>47</sup> P. Lacau (1970, 110, §289) gave up searching for cognates: “*je ne vois aucun mot sémitique correspondant*”.

(FD 276–277; DCT 649) and Ar. kawīʿa I “e-n verkrümmten, verkrüppelten Knöchel d. Handgelenks haben, e-n hervorstehenden Knöchel d. Handgelenks haben”, II “j-m d. Knöchel d. Handgelenks verkrümmen, verkrüppeln”, kawaʿ- “Verkrümmung, Verkrüppelung d. Knöchels d. Handgelenks, Hervorstehen d. Knöchels d. Handgelenks” [WKAS I 437b–438b], which is evidently the denominative verb of Ar. kūʿ-. Ultimately, can the underlying AA \*√kʿ “elbow, wrist” [GT] be related to the medially irregular isogloss of Sem.: Hbr. √yqʿ qal “1. to turn away in disgust, 2. dislocate (a thigh)” and √nqʿ qal “1. to free oneself (from lovesickness), 2. turn away in disgust” [KB 431, 722] || SCu. \*kiʿ- “to turn aside, veer off course” [Ehret]: Iraqw, Burunge, Alagwa kiʿ- “to return, turn back” | Dahalo kiʿ- “to make a furrow for diverting water around house” (SCu.: Ehret 1980, 244, #27) < AA \*√Kʿ “to turn away” [GT]?

(2) V. Orel and O. Stolbova (HSED #1622), in turn, equated it SCu.: WRift \*kʷāḥa “shoulder blade”, pl. kʷaḥu [KM] = \*kʷaḥ- “shoulder” [OS]: Iraqw and Gorowa kʷāḥa “shoulder blade” [KM] = kwaḥa “1. shoulder blade, 2. stick for scraping dung” [Ehret], Alagwa kʷāḥa “shoulder (blade)”, pl. kwaḥu “shoulders” [KM] = kwaḥu “shoulder” [Ehret], Burunge kʷāḥa “shoulder (blade)”, pl. kwaḥu “shoulders” [KM] = kwaḥa “shoulder”, kwaḥi “wrist” [Ehret] (WRift data: Ehret 1980, 269, #17 with a different SCu. etymology; KM 2004, 186). This may only be true if we assume an equally plausible chain of changes in Eg. qʿḥ < \*kʿḥ < \*\*kḥḥ.

(3) A. Ju. Militarev (in Starostin et al. 1995 MS, 15), in turn, affiliated it with Bed. hārka ~ hērka “der Arm Oberarm, Schulter, Achsel” [Rn. 1895, 126] = herka “upper arm, shoulder” [Roper 1928, 198] || ECu. \*ḥark/ḳ- “arm, hand” [GT]<sup>48</sup> > i.a. Dullay \*ḥark/q-o “Arm, Hand” [TG]<sup>49</sup> || SCu.: Maʿa (Mbugu) mu-hālēya ~ mu-hālēka “Arm” [Meinhof] = mharēga ~ mharēya < \*haraka- “arm” [Ehret] (Maʿa-LECu.: Meinhof 1906, 314; Ehret 1980, 335; 1987, #524). This comparison is, in principle, also plausible if one assumes here an interchange of -ʿ < \*-r- (sporadically attested in older Egyptian),<sup>50</sup> i.e., Eg. qʿḥ < PEg. \*qrḥ ~ \*√hrḳ [GT] via metathesis.

**Eg. gb3** > (XVIII.) **g3b** ~ **gb** “Arm” (MK-, Wb V 163, 4–12), act. \*gābā3 (Vergote 1973 Ib, 38, §30 and 44, §36 and 144, §84; NBÄ 157) > Cpt. (S) **СВОI**, is – as demonstrated by V. Blažek (1994 MS Bed., 4–5), followed by A. Militarev (SED I 85, #90) – identical with PCu. \*gʷArAb- “1. спина, 2. плечо” [Dlg.]

<sup>48</sup> ECu. data: Dlg. 1973, 159; Lmb. 1987, 536, #27.a. M. Lamberti (l.c.) erroneously set up an ECu. \*ḥarg-, although the Dullay reflexes clearly indicate ECu. \*ḥ- and \*ḳ- (for the underlying sound laws see Sasse 1979, 56). In addition, the Eth.-Sem. loans borrowed from ECu. corroborate the same: Harari ḥarāq, Gurage-Ennemor harāq “arm above elbow”, cf. Leslau 1963, 86.

<sup>49</sup> Cf. Harso, Dobase, Gawwada ḥark-ó, pl. ḥarq-e, Gollango ḥarq-ó (Dullay: AMS 1980, 230, 247).

<sup>50</sup> Observed by K. Sethe (1899–1902 I §148), W. Czermak (1931–4, 117f., 135f.), J. Vergote (1948, 65f.), W. Westendorf (1962, §31.7), C. Peust (1999, 105–6, §3.6.4.4).

> Bed. \*-garb- isolated<sup>51</sup> from angarboi (adv.) “sideways, on one side, shoulder to shoulder” [Roper 1928, 151] || NAgaw \*garb-a “back (of body)” [Apl.]<sup>52</sup> || LECu. \*garab- “upper arm” [GT] > Konsoid: Gidole (Dirayta) karap-<sup>a</sup> “upper part of the back” [Lmb.] | PSam \*gáràb “Schulterblatt” [Heine 1978, 82]: e.g., Somali gárbó “der Oberkörper, die beiden Schultern” [Rn. 1902, 178] = gárab, pl. gárbó “shoulder-blade” [Abr. 1964, 87] = (dials.) garab [Apl.] | Baiso garab “upper arm” [Lmb. after Hyw.] (Cu.: Dlg. 1973, 73; Lmb. 1987, 536, #25.b; Blz. l.c.; Apl. 2006, 26-27) < AA \*gVrVb- “back, shoulder with arm” [Mlt. in SED]. The same semantic dispersion is apparent in Eg. g3b.t “nape (?) of neck” (AECT III 202, spell 228, n. 25) vs. g3b.t “Arm” (XIX., Wb V 154). No Semitic cognates.<sup>53</sup>

The traditional comparison<sup>54</sup> esp. of Eg. gb3 “Seite, Wand eines Raumes” (Westcar only, Wb V 163, 13) with Bed. gāb ~ geb “1. Seite, 2. bei, neben” [Rn. 1895, 87] = geb “by, with, near” [Roper 1928, 183] || Agaw \*gā/ab- “side” [Apl. 1991, 23] || ECu. \*gVb- “hand” [Dlg.] = \*gab- “side” [Apl.] is thence certainly out of the question, at least in a direct way. In other words, in principle, one may figure – provided the 2<sup>nd</sup> radical of PAA \*√grb was a root extension – an ultimate biconsonantal connection.

**Eg. gnḥ** “Flügel” (GR, Wb V 176, 12) = “wing(s)” (Ptol. Edfu, PL 1103) was affiliated already by F. Hommel (1883, 440, fn. 3) and then by W. Vycichl (1958, 383; 1990, 49) with Ar. ḡanāḥ- “1. bras, 2. aisselle, 3. aile, 4. nageoire, etc.” [BK I 338a], i.e., the Semitic root Eg. ḏnḥ “wing” (below) has long been convincingly equated with.<sup>55</sup> But the problem is that the Ptol. term was rendered by P. Wilson (l.c.) on Egyptian grounds connecting it with Eg. gnḥ “(von hölzernen Tragstangen, die mit Gold) beschlagen sind” (Westcar, Wb V 176, 9; ÄWb II 2598b) = “to mount (poles in gold)” (FD 290) = “to overlay (in

<sup>51</sup> By V. Blažek (1994 MS Bed., 4–5), who surmised in its *Anlaut* a prefix \*an-/\*am- of reciprocity + -oy of dual meaning in the *Auslaut*.

<sup>52</sup> Attested in Bilin girbā “Rücken-, Lendenstück vom Fleisch, Lendenbraten” [Rn. 1887, 159] = gərba “back” [Apl.], Hamir žirbā “der Rücken” [Rn. 1884, 368] = žirba [Apl.], Qwara gibrā “Rücken” [Rn. 1885, 62] = gibra ~ gəbra [Apl.], Kemant ḡibrā “partie inférieure du dos” [CR 1912, 195] (Agaw: Rn. l.c.; Apl. 1977, 56). Borrowed in Ethio-Semitic, cf. Amhara gərba, Tigre gurbāt “back”, whence, in turn, Bilin gūrbāt “Rücken, Rückteil” [Rn. 1887, 160] = g<sup>w</sup>irbāt [Dlg.] was re-borrowed (cf. Apl. l.c.).

<sup>53</sup> Akk. gup/bāru “Nacken(mähne)” [AHW 298], combined by V. Blažek (l.c.) with the Egypto-Cushitic isogloss, was in fact a Sumerian loan. The Agaw term was borrowed into Ethio-Semitic, cf. Amhara gərba, Tigre gurbāt “back”, whence, in turn, Bilin gūrbāt “Rücken, Rückteil” [Rn. 1887, 160] = g<sup>w</sup>irbāt [Dlg.] was re-borrowed (cf. Apl. l.c.). A. Militarev (SED I 84, #90) was disposed to connect this Afro-Asiatic root with Sem. \*gVrVb- “body, stomach”, which is semantically risky.

<sup>54</sup> GÄSW 41, #97; Dolgopolsky 1972, 199, 206; 1973, 234; 1983, 133; OS 1992, 171; HSED #859.

<sup>55</sup> W. Schenkel’s (1993, 142) absurd suggestion on deriving Ptol. Eg. gnḥ from \*gnḥ has to be rejected. Of course, even when we assume a cognacy with Ar. √gnḥ, only \*gnḥ may underlie here with a regular palatalization of \*-ḥ > -ḥ (cf. EDE I 171–173) as evidenced by the Semitic cognates.



gold)” (PL), “where the idea of ,to overlay’ was seen as a protective measure which could also be done by wings, hence **gnh** ,wing’ is that which overlays and protects.” This association of wings and covering was attested already in the early New Kingdom, cf. **gnh** in 3pd.w **gnh** p.t “als Bez. der Vögel am Himmel” (XVIII., Wb V 176, 11), lit. probably \*“(birds) covering the sky”.

**Eg. \*grh** is possibly a lost word for “forearm” or “elbow” reconstructible from the fact that the words deriving from Eg.  $\sqrt{grh}$  “1. fertig machen, 4. aufhören” (Wb V 182–183) have a determinative representing the “forearm with palm of hand downwards”, which A. H. Gardiner (EG 1927, 447, D41) explained, not too convincingly, as the determinative of “cessation of movement” only because the same sign appears in Eg. nj “ab-, zurückweisen” (MK-, Wb II 204), although one finds little in common. A much more reasonable explanation is to assume here a lost word originating from AA \***gulh**- ~ \***guh**l- “1. knob on limb, 2. (hence extended to) forearm” [GT]<sup>56</sup> being akin to Brb. \* $\sqrt{gly}$  [regular < \*\* $\sqrt{glh}$ ] “nouer” [DRB] > (GT: or vice versa: denominal root?) i.a. WBrb.: Zenaga tā-ugəll-ət, pl. tā-ugžēi-n (rare) “nœud” [Ncl. 1953, 306] = ta-ugell-et ~ te-gull-et [DRB] || SBrb.: Ahaggar tā-ğalay-t “1. nœud (fait à une corde, une lanière, une étoffe), 2. p. ext. nodosité (renflement irrégulier se trouvant sur un tronc, une branche, une tige de végétal, ou sur un membre d’une personne)”, ta-ğli-t “phalange (des mains et des pieds des personnes et des animaux)” [Fcd. 1951–2, 432], ETawllemmet té-ğäläy-t “nodosité (renflement de graisse sur le cou d’une p. ou d’un an.), 2. p. ext. jabot (d’oiseau)”, ta-gelläy-t “nœud” [PAM 2003, 218] (Brb. data: DRB 788–789) || NBrb.: Bed. gúlhe “Unterarm” [Almkvist 1885, 27] = gúlhe “Vorderarm bis zum Ellenbogen”, gúlhān “Vorderarm, Ellenbogen, Elle” [Rn. 1895, 95] = gilhān ~ galhān “edge, side” [Roper 1928, 185] || NAgaw: Bilin güllaw, güllaû “Knöchel, Fußknöchel” [Rn. 1887, 150] = gəllaw “knuckle” [Ehret]<sup>57</sup> || SCu.: PRift \***guh**ul- [GT]: Iraqw gūhlai “club” [Whiteley 1953] = guhlay “knobbed club” [Ehret] = guhuláy “club, stick with a knob” [MQK 2002, 41]<sup>58</sup> | Qwadza guhul-uko “ankle” [Ehret].<sup>59</sup>

The same root is possibly occurring in the Cushito-Chadic isogloss attested in Bed. o’g’wonnehil “die natürliche Elle” [Munzinger] = ôkwanhîl “Elle” [Seetzen] = g<sup>w</sup>inhāl ~ winhal, pl. g<sup>w</sup>inhil “Ellenbogen, Arm” [Almkvist 1885, 27, 68] = g<sup>w</sup>enhāl, pl. g<sup>w</sup>inhal ~ g<sup>w</sup>inhil, Nebenform: winhāl ~ we/inhāl ~ g<sup>w</sup>anhîl ~ gūlhîn

<sup>56</sup> The \*h in these forms may eventually be identical with the common Afro-Asiatic affix (pre- or infix or suffix) \*h occurring in body parts’ names (see Takács 1997).

<sup>57</sup> L. Reinisch (l.c.) equated the Bilin word with Bed. kélîb and Hedareb (Barka) tû-klüb [Almkvist] = kelîb (mit dem Artikel tû-klîb, -klüb) “Knöchel” [Rn. 1895, 140].

<sup>58</sup> The etymology of the quoted Iraqw word is highly dubious. Did it originally designate a knobly club resembling the shape of the body part in question?

<sup>59</sup> The South Cushitic words were first affiliated by Ch. Ehret (1980, 365). For the common Cushitic comparison (Beja, Agaw, Qwadza) cf. Ehret 1987, 124, #534.

“Vorderarm bis zum Ellenbogen, Elle(nbogen)” [Rn. 1895, 98-99, 239] ||| WCh.: Angas-Sura \*k<sup>w</sup>aŋ-g<sup>w</sup>aɣal > \*-goyol ~ \*-g<sup>w</sup>āl “elbow” [GT]<sup>60</sup> | Bole-Tangale \*gungul- (?) “elbow” [GT].<sup>61</sup> Already H. Almkvist (1885, 26) surmised the etymological connection between Bed. gwinhāl and gūlhe (above). L. Reinisch (1895, 98), in turn, supposed that we have here “*sichtlich ein compos(itum). aus*” a hypothetic \*\*g<sup>w</sup>enh > \*gūnh ~ \*gūlh + suffix \*-āl. The first component has been affiliated by him with Bed. gánʔa “Hand(fläche), Fußfläche/-sohle”. The problem is that the root underlying the latter was √gn<sup>ɕ</sup>, which hardly explains the medial -h-. For me, more convincing seems an older pre-PBed. etymon \*g<sup>w</sup>an-(g<sup>w</sup>)aħal, whose both components might be identified with those of Angas-Sura \*k<sup>w</sup>aŋ- vs. \*-g<sup>w</sup>aɣal, resp. In this case too, in addition, we may semantically indeed hardly speak of a cognacy between the first part of this compound term and PCu. \*gan<sup>ɕ</sup>- “palm of hand” [Ehret 1987, 118, #498].

**Eg. dnh** “Flügel” (OK-, Wb V 577–578) ||| Sem. \*√gnh > Ar. ġanāḥ- “1. bras (chez l’homme), 2. aisselle, 3. aile (chez les oiseaux, les insectes, etc.), 4. nageoire (des poissons), 5. aile (d’une armée)”, cf. ġinḥ- and ġunḥ- “2. (place qui se trouve à) côté (du chemin)” [BK I 337b–338a] || Jibbali (Shahri) gīnaḥ “wing” [Lsl. 1945, 238] = génaḥ [Jns. 1981, 77], Mehri (denom.) agōnəḥ “to fly” [Jns. 1987, 122] ||| PCu. \*gAnA<sup>ɕ</sup>- “hand” [Dlg.] = \*gan<sup>ɕ</sup>- “palm of hand” [Ehret] > Bed. gánʔa “Hand, Hand-, Fußfläche, -sole, der Arm” [Rn. 1895, 98] = ganʔa (f) “flat of the hand from wrist to finger-tips” [Roper 1928, 186] = “palm, sole” [Ehret] || ECu. \*gan<sup>ɕ</sup>- “(palm of) hand” [Sasse 1979, 17, 36, 54; 1982, 77] = “hand, arm” [Blz.] (Cu.: Dlg. 1972, 205; 1973, 316; Ehret 1987, 118, #498; Lmb. 1987, 536) ||| WCh. \*ḥV-gVnV “рука, плечо” [Stl. 1987, 218] = \*ḥa-ganV “arm, shoulder” [Blz. 1989, 213 pace Stl. 1986, 91] || ECh.: Tumak gēḥ “main (hand)” [Caprile 1975, 61]. There has been published quite an abundant literature on the equation of these Semito-Egyptian,<sup>62</sup> Cushito-Egyptian/Semitic,<sup>63</sup> and Chado-Egyptian/Semitic<sup>64</sup> parallels.

<sup>60</sup> Attested in Gerka gan-gwal (so, gan-) [act. \*gaŋ-gwal] “elbow” [Ftp. 1911, 216], Kofyar kong-gógól “elbow” [Netting 1967 MS, 20], Montol gwad-gwal (sic: -d, misprint for \*gwan-?) “elbow” [Ftp. 1911, 216] (Angas-Sura data: Stl. 1987, 219, #692; Takács 2004, 135). The first component is identical with Angas-Sura \*k<sup>w</sup>am > \*k<sup>w</sup>aŋ “elbow” [GT].

<sup>61</sup> Cf. Kwami kùngilì, Kupto gùnkùllì, Kushi gùḅùl, Piya gùlì, Widala gùgùl (Bole-Tangale data: Jng. & Leger 1993, 167).

<sup>62</sup> Erman 1892, 123; Müller 1907, 305, fn. 2; Holma 1911, x; Ember 1911, 91; 1918, 31; 1919, 32; Hommel 1915, 16, fn. 3; Farina 1924, 323; 1926, 17; ESS §11.a.61; Vycichl 1985, 173; 1990, 114.

<sup>63</sup> Ember 1926, 305, fn. 10; GÄSW 43, #109; Vergote 1945, §24.a.16; Cohen 1947, #214; Dlg. 1972, 205; 1973, 316; 1983, 131; Zaborski 1989, 582; Blz. 1989 MS Om., 14, #40; HSED #954.

<sup>64</sup> Stl. 1987, 218; OS 1988, 74; 1992, 185; Blz. 1989, 213; 1989 MS Om., 14, #40; HSED #954.

## “Breast, Chest”

**Eg. ph** “Euter” (GR with a possible PT attestation,<sup>65</sup> Wb I 533, 9), which occurs also extended with diverse prefixes,<sup>66</sup> was derived by W. Westendorf (1966, 143) and R. O. Faulkner (AEPT 1969, 235, fn. 4) from Eg. ph.wj “hinder parts” through the intermediate sense \*“(Unter)leibs(region), Beckenraum”, which is plausible. But, as G. Takács (1999, 81; 1999, 367; EDE II 491–2) has demonstrated, might be alternatively cognate to Ethio-Sem. (no Sem. etymology, borrowed from Cu.): Amharic fāyā “to suck the breast, drink milk by suckling”, Gafat fawatā (1945) vs. əfʷatā (1956) “milk”, Gurage: Muher fʷat, Soddo āfat, Gogot āfʷat “milk” (ES: Leslau 1945, 154; 1956, 172; 1979 III 247) ||| Brb. \*iff < \*\*ifh < \*\*fih (?) “breast, teat” [GT pace DRB 508–9, √f, #5] > e.g. NBrb.: Shilh & Tamazight if, pl. iff-an “sein, mamelle” [Cid Kaoui 1907, 217] ||| LECu.: perhaps Afar ifu<sup>67</sup> “nipple” [PH 1985, 134] || SCu.: Ma’a ma-fwáha [fʷ- irregular < \*pʷ-] “fresh milk” [Ehret 1980, 151] ||| Ch. \*√py “1. breast, 2. milk” [GT] = \*pʰ(Δ)jaw “milk” [IS]: WCh.: NBauchi \*-pi “milk, breast” [Skn.] = \*pī [GT]<sup>68</sup> || CCh.: Musgu fīau “milk” [Krause in Müller 1886, 395] = fiáu “milk” [Rohlf in Lukas 1941, 54] = fyaw ~ fyáw “milk, breast” [Mouchet 1950, 26/38], Pus fīyaw “sein, lait” [Trn. 1991, 88] | PMasa \*paʷ “breast” [GT]<sup>69</sup> || ECh.: Sokoro paió “milk” [Lks. 1937, 37] (Ch.: IS 1966, 22, #2.14; JI 1994 II, 46–47). If the Egyptian term is cognate, we may derive these parallels from PAA \*√ph “1. breast, 2. milk” [GT]. Extra-Afro-Asiatic areal parallels appear in PCKhoisan \*pī “breast”, \*pī “milk”, \*pī “to suck” [Baucom 1972, 19, 24, 27] and Ubangi: PMundu-Ndogo \*pī “to milk” [Saxon 1982, 77].

<sup>65</sup> Occurs perhaps already in PT 1548a (with an udder determinative), although both its reading and rendering are debated: ph “Bez. der Eingeweide als Abfall beim Schlachten (?)” (Wb I 533, 8) = ph “hinterer Teil oder Bauchhöhle” (Westendorf 1966, 143) = mph “udder” (AEPT 235, fn. 4) = mph “Euter” (ÄWb I 526b). In my view, the reading mph with m- as a radical is rather unlikely the co-occurrence of m and p in the same root being excluded by the consonant incompatibility laws (cf. EDE I 323 with further literature). K. Sethe (ÜKAPT V 500), in turn, saw in ph the sg. of ph.wj “das Hinterteil”.

<sup>66</sup> From the same root: (1) mnph.t “1. Brust (NE), 2. Euter der Kuh (GR)” (Wb II 79, 14–15) = “Euter der Kuh” (NE, GHWb 339), (2) nph.wj “Euter der Kuh” (GR, Wb II 249, 15–17) = nph.w “\*Beckenraum” (NE, GHWb 407).

<sup>67</sup> According to H.-J. Sasse (1979, 56), PECu. \*h was reflected in Saho and Afar both as h and zero. He (Sasse 1979, 37) was speculating about a possible explanation of a common pharyngeal loss in these languages.

<sup>68</sup> Attested in Warji pí-na [Skn.] = piyá-ná [IL], Kariya, Miya ápi [Skn.], Pa’a ápi [MSkn.] = api [IL], Suri ípi [IL, Skn.], Diri yápu [Skn.] = ya:pʰú [IL], Mburku pii-hú [Skn.], Tsagu ipən [Skn.] = éépá-n [IL], Jimbin ifi (irreg. -f-) [Skn.] (NBauchi: Skinner 1977, 14; Stolbova 1987, 248, #2; JI 1994 II 46).

<sup>69</sup> Cf. Masa pò “sein” [Ctc. 1983, 126] = pó-dà [Jng.], Lame pá “sein, mamelle” [Scn. 1976, 75; 1982, 267], Zime-Dari pāʷ “sein, mamelle” [Cooper 1984, 20], Zime-Batna páʷ “breast” [Jng.] = pá [Scn.].

An ancient root variety with a voiced *Anlaut* can also be pointed out, cf. AA \* $\sqrt{bh}$  “1. breast, 2. milk” [GT] is attested in NBrb.: e.g., Shilh-Tazerwalt ti-bbi-t, pl. ti-bbā-t-in “Zitze” [Stumme 1899, 234] = “sein, mamelle” [DRB] | CA Algerian a-bebbuh “sein (femelle), mamelle (animal)” [DRB] || EBrb.: Ghadames bah ~ end-bah “sein” [Lanfry 1973, 7, #40] (Brb. data: DRB I 41, 144)<sup>70</sup> || WCh.: Dera biyá “milk” [Nwm. 1974, 122] || CCh.: Hitkala (Lamang) úbá “milk, breast” [Lks. 1964, 109] = wu<sup>ɔ</sup>wa wu<sup>ɔ</sup>ba “breast” [Meek] | PMandara \*ūba [metathesis < \*\*buw-?] “breast” [GT]<sup>71</sup> || ECh. \*buw- (?) “milk” [GT]<sup>72</sup>.

**Eg. mnph.t** “1. (late NK) Brust, 2. (GR) Euter der Kuh” (Wb II 79, 14–15) = “Euter, Unterleib” (Westendorf 1966, 143) is an inner Egyptian innovation: as pointed out by P. Montet (1911, 224, §3), H. Grapow (1914, 24), G. Fecht (1960, 181, fn. 507), W. Westendorf (1962, 27, §43.6.dd; 1966, 143), and H. Smith (1979, 162), it consists of the prefix m- attached to Eg. nph.(w) “Teil des menschlichen Unterleibes (in der Gegend der Genitalien): ob Leistengegend?” (Med., Wb II 249) = “Hüften, Lenden” (Stern) = “pis” (Montet) = “les aînes, inguina” (Loret 1896, 176–9, §1) = “vermutlich: Kreuzbeingegend” (Ebbell 1937, 305–7) = “vorn unten am Leibe zu lokalisieren: Leistengegend, Euter der Kuh” (Grapow 1954, 83–84) = “iliac region” (FD 130) = “Beckenraum, Leistengegend, Unterleibsregion, Euter” (Westendorf 1966, 143) = “Beckenraum” (GHWb 407) = “rear parts, udder” (Smith l.c.) = “inguinal lymph nodes, region, groin” (Walker 1996, 251–6) = “groin” (PL 512).<sup>73</sup>

**Eg. mnd** “Brust” (OK, Wb II 92–93) = “breast” (FD 110) = “breast, nipple” (Walker 1996, 269) > Dem. mnt “breasts” (CED 86, not in DG) > Cpt. (B) **MNOT**, dual **MNOṯ**, **EMNOṯ** “breast” (CD 176) = “Brust(warze)” (Sethe & Gardiner 1910, 43; Till 1955, 330, §34; KHW 96): its etymology is still disputed (let

<sup>70</sup> Apparently not borrowed from Arabic. Note that -h is unusual in inherited Berber roots. K. Naït-Zerrad (p.c. on 7 March 2001) considers the unusual -h in Ghadames as an extension (suffix), not part of the root, typical for expressive words or *Kinderwörter* in Berber. Naït-Zerrad suggests a comparison to NBrb.: Shilh ta-bubb-at & ti-bbi-t | Tamazight ta-bubb-ut “sein” (cf. DRB I 7, #15).

<sup>71</sup> Attested in Mandara úbá [Mch.] = wube [Meek], Glavda úbà [Rapp], Guduf úbà [IL], Dghwede w̄bà [Frick] = úbà [IL], Ngweshe úʔà [IL] (Mandara group: JI 1994 II 47).

<sup>72</sup> Cf. WDangla búwà, pl. búwí “lait” [Fédry 1971, 98], EDangla búwà (coll.) “le lait, le latex” [Dbr.-Mnt. 1973, 56], Bidiya búwa (coll.) “lait” [AJ 1989, 61], Migama bô (pl.) “1. lait, 2. sève” [Jng.-Adams 1992, 70] | Mubi bè (coll.) “lait” [Jng. 1990 MS, 4], Birgit búwà (pl.) “lait” [Jng. 2004, 351], Jegu bú “Milch” [Jng. 1961, 111], Kofa bú? (pl.) “milk” [Jng. 1977 MS, 6, #92], Ubi paawò “lait” [Alio 2004, 274, #264].

<sup>73</sup> Akin to Ar. ʔinfah(h)-at ~ ʔinfih-at ~ m/binfah-at “the rennet or rennet-bag, of a kid or lamb” [Lane 2821] = ʔinfah-at ~ ʔinfihh-at “ventricule d'un agneau ou d'un chevreau” [BK II 1306]. For further parallels cf. Takács 2004, 59, #349.4.

alone the quite numerous proposals that are evidently out of question)<sup>74</sup> there being two attractive alternatives:

(1) Most of the authors<sup>75</sup> equate it with Ar. malaġa (impf. ya-mluġ-u) I “saisir avec le bout des lèvres le sein de sa mère (se dit d’un enfant qui se met à têter)”, maliġa I “1. id., 2. sucer et ensuite mâcher une datte sauvage, 3. perdre son lait, ne plus en avoir (se dit d’une chamelle)”, IV “allaier (enfant)”, VIII “sucer (le lait), tirer tout le lait à force de sucer” [BK II 1143] = malaġa “to suck (at) the breast of his mother (child)” [Möller; Ember] = “lutschen” [Clc.] = “se mettre à têter” [Chn.], which is akin to PBHbr. & JArām. √mlg “eig. melken, dem Tiere die Milch entziehen” [Levy 1924 III 123], which has further cognates in ES: Amharic mällägä “to suck(le) (baby)”, mäläggägä “to suck dry, suckle vigorously”, cf. also moläggägä “to lick the hands clean with one’s tongue” [Kane 1990, 161-2] = √mlg D “to suck strongly” [MM] (Sem.: MM 1983, 247) ||| LECu.: Afar muluke ~ mulke [irreg. -k-] “to be satisfied with milk”, caus. muluk-use [PH 1985, 171], perhaps Oromo-Orma mίrġa [-rg- < \*-lg-?] “to yield milk, produce milk in abundance” [Stroomer 1987, 368; 1995, 209; 2001, 56]. A remote areal (?) parallel may appear in IE \*melġ- “Milch geben” as suggested by H. Möller (1911, 163–4). The Arabo-Egyptian comparison was rightly queried by I.M. Diakonoff and L.E. Kogan (1996, 34–35, #1815) as “*not so evident*” with regard to the anomalous Coptic (B) -N-, although they did not exclude “*some assimilation processes*”.

(2) Already H. Grapow (1914, 4) and P. Lacau (1970, 71, §178) has ingeniously surmised (without any extra-Eg. evidence) that Eg. mnd̄ may be a nomen loci

<sup>74</sup> These are: (3) L. Homburger (1930, 286): ~ Ful (Peul) endu “sein”. (4) E. Zyhlarz (1936, 444 & fn. 1) identified it with Brb. (sic) mnīd-ak “vor Dir” < \*emnīd-a-ka “in Bezug auf Deine Vorderseite” < \*mnīd “nach vorne schauen” (sic), which he ultimately connected with Eg. mnd̄ “breast” (q.v.) and even Nub.: Kunuzi missi, Mahassi mañi “oeil” (sic). (5) W.M. Müller (1907, 303) and F. Hommel (1915, 16, fn. 3) proposed an etymological connection with Eg. mn<sup>c</sup> “to suckle” (above). But Eg. mn<sup>c</sup> represents a distinct AA root. (6) D. Meeks (1977, 81), pace E. Zyhlarz (l.c., fn. 1), assumed a relationship with Eg. mnd̄.t “Teil des Gesichtes am Auge” (BD, Wb, below) = “vordere Augenpartie” (Zhl.) = “globe oculaire” (Meeks) < Eg. \*mnd̄ “to be round”. Baseless. (7) V. Blažek (1982, 246, #16) compared it with PCu. \*mVn- “entrails” [Dlg. 1973, 182]. Rejected by G. Takács (1999, 48). (8) A.R. Bomhard (1984, 274, #287) derived from a certain AA \*m̄a/ant̄<sup>y</sup>- “breast” (sic, otherwise unattested) ~ IE \*m̄a/ant̄<sup>y</sup>- “breast, to suckle” (cf. IEW 729; WP II 232). Similarly, F. Kammerzell (1999, 250, table 15), in an astonishing manner, affiliated Eg. mnd- (sic, -d-) “säugen” (sic!) with IE \*me/ond- “säugen”. (9) G. Takács (1999, 49): the similarity of Eg. mnd̄ [< \*mnḡ?] to PWNigritic \*mung- “to suck” [Smz. 1981, 19, #183] may be accidental.

<sup>75</sup> Ember 1911, 90; 1919, 32; ESS §10.a.17, §11.b.6, §24.a.5; Albright 1918, 90, 92, #4; Brockelmann 1932, 803; GÄSW #201; Vergote 1945, 135, §9.b.10; Cohen 1947, #483; Dolgopolskij 1968, 102; 1970, 620, #11; 1998, 28, §19; Ward 1972, 20, #178; IS 1976, #291; Militarev & Starostin 1994 MS, 2; Orel 1995, 108, #120; 1995, 151, §6; HSED #1815; Ehret 1997 MS, 204, #1800; Vernus 2000, 187.

or instrumenti (prefix m-) of an unattested Eg. \*wṇḏ “to suckle (allaiter)”.<sup>76</sup> As pointed out by G. Takács (1997, 232, #22; 1998, 143, #6; 1999, 48; 2004, 60, #350), whose suggestion has been supported by D. Appleyard (1999, 308–9, §19), the hypothetic Eg. \*wṇḏ (< \*wṇg) is hypothetically derivable from AA \*nug (according to Belova’ law) and finds its perfect match in Cu. \*ṅṅ<sup>w</sup>-/\*nAg<sup>w</sup>- “сосок груди” [Dlg.] = \*nag<sup>w</sup>-/\*nūg- “to suck” [Lmb. 1986, 42; HL 1988, 133–4] = \*nug<sup>w</sup>- ~ \*nūg- “to suck the breast” [GT],<sup>77</sup> which is eventually etymologically related (either extended with prefix \*ʔa- or via met. < \*nag<sup>w</sup>-?) with PCu. \*ʔa/ung<sup>w</sup>- “breast” [Ehret 1987, 109, #463] = \*ʔang<sup>w</sup>- “breast” [Bnd.

<sup>76</sup> It’s true, P. Lacau (l.c.) figured an unlikely connection even with Eg. wṇḏ.w “*mot qui voudrait dire «le nourrisson» (?)*”. Indirectly, already W.M. Müller (1907, 303–304, fn. 3) had referred to the eventual connection of “Hamitic” (sic) (i.e., presumably Somali) “nūg, nwg” (sic) with Eg. mṇḏ, although it is true that he erroneously supposed both Eg. mṇḏ and mṇḏ<sup>c</sup> (!) to derive from an unattested \*√n<sup>c</sup>.

<sup>77</sup> Attested in Bed. oʔ-nug, pl. eʔ-nug “die Mutterbrust” [Munzinger apud Almkvist] = o-nūk (sic, -k) “Zitzen, Weiberbrust” [Seetzen apud Almkvist] = nūg, pl. nūg “(weibliche) Brust, mamelle” [Almkvist 1885, 52] = ū-nug “Brustwarze” [Rn. 1884, 335] = nūg ~ nūg<sup>w</sup>e, pl. nug “Zitze, die weibliche Brust” [Rn. 1895, 181] = nug<sup>w</sup>, pl. nūg<sup>w</sup>a “teat, nipple of breast or udder” [Roper 1928, 223] = niḡ “female breast” [Thelwall 1970, 1, §11] = nūwkw “breast, udder” [Hds. 1996 MS, 101], Ammar’ar (ʔō)niḡ<sup>w</sup>, pl. (ʔē)ng<sup>w</sup>a “сосок груди (nipple, teat)” [Dlg.], Halenga nóg<sup>w</sup>e, pl. nóg<sup>w</sup>ā “Brustwarze” [Rn. 1887, 35] || ECu. \*nūg- “to suck (saugen)” [Sasse 1979, 24; 1981, 155] = “to suckle” [Apl.]: LECu. \*nū<sub>2</sub>g- [Black]: PSam \*nūg “to suck from breast”, \*nūg-i “to suckle” [Heine 1976, 221; 1977, 291; 1978, 70; 1982, 130–1]: Somali nūg “saugen, spez. die Mutterbrust” [Rn. 1902, 311] = nūg-ayya “to suck” [Abr. 1964, 190] = “to suck” [Black], PBonī \*nūg- “to suck”, nūg-šīy- “to suckle” [Heine 1982, 148] > Bonī nūg [Heine], Rendille a-nuga “ich sauge” [Schlee 1978, 143, #830] = nūga “to suck” [PG 1999, 235], Arbore indiy-nug-e “to suck” [Black] = nuge [Flm.] = nūg- “to suck”, nūg-is- “to suckle” [Hayward 1984, 388], Elmolo inūūka “saugen” [Heine 1973, 281] = i-nūk-a “to suck” [Black] = nūk “to suck”, nūk-is “to suckle” [Heine 1980, 208], POromoid \*lūg- [Black; GT]: Oromo lūgū “to suck” [Btm. 2000, 183], Oromo-Wellega lūg- “to squirt milk from cow’s udder into mouth” [Black], Oromo-Borana of Isiolo lūga “to milk outside the settlement (done illegally by herdsmen)” [Strm. 1987, 360; 1995, 205], PKonsoid \*lūg- “to suck” [Black] > Konso, Gidole, Dirayta lūk- “to suck” [Lmb.] (LECu.: Black 1974, 140, 182, 222) | HECu.: Hadiya nug- “saugen” [Lmb.] | Yaaku -nūk- [-k- < \*g-] (tr.) “to suck” [Heine 1975, 135]. Whether Afar nak- “to drink milk” [Black] = nake “to drink milk” [PH 1985, 174] is ultimately related with LECu. \*nūg- “suck” is dubious. The reflexes of Cu. \*nūg- have been often falsely equated with Sem. \*√ynk “to suck” as well as with Eg. snq (caus. with prefix s- < unattested \*√jnq) “to suck(le)” (cf., e.g., Rn. 1887, 35; Müller 1903, 79; 1907, 303–304, fn. 3; Behnk 1928, 138; Djk. 1965, 43; 1967, 188; Dlg. 1973, 175–176; Djk. et al. 1986, 65; Zbr. 1989, 579; Skn. 1996, 209 with further unrelated comparanda), which is unconvincing, since the correspondence of Eg. -q ~ Sem. \*-k vs. PCu. \*g is irregular. Cf. also PKuliak \*naḡ<sup>w</sup> “saugen” [Sasse 1981, 155; Flm. 1983, 434]? Similarly false is the direct equation of ECu. \*nūg- “to suck” vs. SCu. \*nūḡ- “to sip, savor” [Ehr.] > Dahalo nūk- “to suck beer through straw” (let alone Hamir noḡṇaḡ “so. who speaks through his nose”) apud Ehret 1987, 93, #395. O.V. Stolbova (CLD 2005, 60, #2.2) combined LECu. \*nūg- ~ \*lūg- “to suck” with Ch. \*lig- “to lap, lick”, which, however, certainly represents a distinct AA root: \*√lk ~ \*√lḡ “to lick” [GT].

1994, 1162, #11]<sup>78</sup> ||| CCh.: PKotoko \*eng<sup>w</sup>- “Weiberbrüste” [GT].<sup>79</sup> From AA \*√ng<sup>w</sup> ~ \*√nwg “to suck the breast” [GT]<sup>80</sup>

**Eg. ḥnt3** “ein Teil der Brust am Brustbein” (Med., Wb III 122, 8) = “Brustbein: Sternum” (GHWb 543) has the closest cognate in ECu. \*ḥa/undūr- “navel” [Sasse 1979, 24; 1982, 91], which, with its C<sub>4</sub> \*-r, seems a special Egypto-Cushitic quadriliteral isogloss, since this root has been attested<sup>81</sup> either only as

<sup>78</sup> Cf. Agaw \*ʔəngw- “breast” [Apl.; Ehr.]: NAgaw: Bilin unḡú, pl. unḡú-í ~ rarely unḡú-í “Brustwarze, Zitze” [Rn. 1886, 812; 1887, 35] = ʔing<sup>wi</sup>, pl. ʔing<sup>wik</sup> [Palmer/Dlg.] = ʔəng<sup>wi</sup> [Sasse; LT 1997, 502] = ʔəng<sup>wi</sup>/í ~ ʔing<sup>wi</sup> [Apl.] = ʔāng<sup>wi</sup> [SLLÉ apud Wdk. 1994, 10, #28], Hamir oq, pl. oq<sup>w</sup>-tān “Brustwarze” [Rn. 1884, 335] = əq<sup>w</sup> [Apl.], Hamta eròq<sup>w</sup> (sic, -r-) [CR; Dlg.: act. \*eʔoq<sup>w</sup>?], Hamtanga ik<sup>w</sup> “breast” [Apl.], Qwara enḡú “Brustwarzen, Busen” [Rn. 1885, 26 after Levébvre] = ʔeng<sup>wā</sup> [Rn. 1886, 35] = eng<sup>wā</sup> [CR], Qemant anḡú, pl. anḡwāt “sein, mammelle” [CR 1912, 166] = ɪngu /əng<sup>wə</sup>/ [Bnd.] = /əng<sup>w</sup>/ [Sasse] = əngu [Bnd./Dlg.] = ang<sup>w</sup> [Flm.] = əng<sup>w</sup>(ə) ~ ing<sup>wi</sup> [Apl.] = /ing<sup>wi</sup>/ [Sasse 1972 MS, §11] = ang<sup>w</sup>o-t (pl.) [Dlg.] | SAgaw \*ʔang<sup>w</sup>- [Apl.]: Awngi (Awiya) ang<sup>wi</sup> [CR 1912, 166] = ang<sup>w</sup> “breast” [Bnd. 1971, 238, #91; Hetzron 1978, 137] = ang<sup>w</sup>(i) [Apl.], Damot anḡú [CR], Kunfāl ang<sup>w</sup>-k<sup>h</sup> “breast” [Birru-Adal 1971, 101, #11] (Agaw: Sasse 1973, 121, §11& 126, §11; Apl. 1984, 46; 1989, 6; 1991 MS, 3; 1991, 21; 1996, 188) || LECu. \*ʔang- “breast” [Ehr.]: Saho angḡú, pl. angḡūg “Brustwarze, weibliche Brust” [Rn. 1890, 38] = ang<sup>w</sup>, pl. angug “female breast” [Welters] = ang<sup>w</sup>, pl. angug “breast” [Vergari 2003, 45], Afar angḡú ~ āngḡú, pl. āngḡūg “Brustwarze” [Rn. 1886, 812] = āng<sup>w</sup> “breast” [Bnd.] = ang<sup>w</sup>, pl. angūga “1. breast, 2. breast milk (lait maternel)” [PH 1985, 43], Somali-Jiddu ʔenek “breast” [Ehret, Nuuh Ali 1984, 244] = ʔeneg [Ehret 1987 l.c.] = ennek-kə “female breast, udder” [Lmb.] (isolated among the Som. dialects.), perhaps Baiso enneg- “to swallow” [Lmb.]. For the common Cushitic comparison see Rn. 1887, 35; Dlg. 1973, 175; Flm. 1983, 434; Djk. etc. 1986 MS, 65; Lmb. 1988, 61; Apl. 1996, 188; 1989 MS, 6-7; Zbr. 1989, 579; Sasse 1991, 272, #1.6; Blz. 1997, 177.

<sup>79</sup> Cf. Sao emḡpie (sic) [-mḡp- < \*ngw-?] “seins” [GD], Makeri énkwe “female breast” [Barth], Gulfei emḡwe “seins” [GD], Kuseri embwi [-mbw- < \*ngw-] “seins” [GD] (Kotoko data: Sölken 1967, 260). V. Blažek (1994 MS Bed., 29) was the first to combine the Cushitic root (above) with the Kotoko parallels.

<sup>80</sup> One wonders whether this root is remotely related to AA \*√lg<sup>w</sup> [GT] > Ethio-Sem. \*√lg<sup>o</sup> “to suck the breast” [GT]: Geez læga<sup>o</sup> “the milk secreted a few days before and after childbed”, Tigrinya læga<sup>o</sup> ~ læga<sup>o</sup> “colostrum”, Muher lega<sup>o</sup> “to suck (teats)”, Gurage: Muher lagā, Chaha, Ezha nagā, Ennemor, Endegeny, Gyeto nāgā “to suck too much (child, animal), Amharic lagā “to suck, milk the cow directly into one’s mouth (considered to be of bad manners)” (ES: Leslau 1979 III, 375; 1987, 307) ||| SBrb.: ETawlemmet and Ayr ə-lgəw “1. nourrir autrement qu’avec la lait de sa mère, 2. élever (animal), 3. être nourri” [PAM 2003, 459] ||| SAgaw: Awngi lang-ij “to plane, drink from udder” [Hetzron 1969, 101] || Bed. ligag “to sip milk for another (it is taboo for a man to drink what he has milked himself until another person has first sipped)” [Roper 1928, 211] ||| CCh.: perhaps Mofu-Gudur -ləgw- “2. manger le premier” [Brt. 1988, 155]. A.B. Dolgopolsky (1987, 201, #46) compared POromoid \*lūg- with Sem.: Soqotri √šgg: pf. 3<sup>rd</sup> sg. masc. wi-n-šegig “to flow, couler” [Leslau 1938, 425] and SCu. \*šik- “to sop up, slop, slurp” [Ehret 1980, 212]. Improbable both phonologically and semantically (there is significant difference between SCu. \*-k ≠ POromoid \*-g, and SCu. \*-i ≠ POromoid \*-ū-). POromoid \*lūg- can be better explained from ECu. \*nūg-. For Soqotri √šgg, in turn, cf. rather Ar. (Hadramaut) saḡa<sup>o</sup>a “couler” [Lsl.].

<sup>81</sup> E.g., in the works by M. Cohen (1947, #123), A.B. Dolgopol’skij (1973, 236–237), V. Blažek (1989 MS, 23, #79) or V. Orel & O. Stolbova (HSED #1071, here with deviant reconstruction of the Anlaut as \*ʕ-).

triliteral or with a different C<sub>4</sub> elsewhere in Afro-Asiatic, cf. LECu.: Saho-Afar \*hVndub- “navel” [GT] ||| NOm.: Kefoid (Gonga) \*yund- “navel” [GT after Fleming 1987, 159].

**Eg. šn<sup>o</sup>** “Brust, Oberkörper (des Menschen), Thorax” (CT-, Wb IV 506, 14; GHWb 828) = “breast” (FD 269; DCT 626) is apparently cognate with WCh. \*ZVŋ “chest” [GT]: Angas-Sura \*-zuŋ (mostly prefixed) “chest”, hence \*pV-zuŋ<sup>82</sup> “heart” [GT]<sup>83</sup> | PRon \*žijŋ “breast, chest” [GT],<sup>84</sup> in which the final \*-ŋ is a natural merger of an earlier *Auslaut* \*\*-nH (including \*\*-n<sup>o</sup>). The only anomaly is that of Eg. š- vs. WCh. \*Z-, behind which one is disposed to surmise a voiced lateral (\*ž- or \*ẓ̌-), the existence of which in the consonant inventory of the Proto-Afro-Asiatic parental language, however, has not yet been sufficiently demonstrated. Cf. perhaps also SBrb.: ETawllemmet ta-səŋi-t, pl. ši-səŋay “liste frontale (point blanc ou tache blanche au front d’un animal)” [PAM 2003, 728, 731–732]<sup>85</sup> All other suggestions are much less convincing:

(1) P. Lacau (1970, 70, §174) imagined here a metaphoric use of Eg. šn<sup>o</sup>.w “cabine d’un bateau” (PT 1209), i.e., “*nous disons bien la «cage» thoracique*”, which he eventually derived from the supposed basic sense of Eg. √šn<sup>o</sup> “1. écarter en pliant, 2. emphêcher”! Semantically vague.

(2) V. Blažek (1989 MS Om., 19, #64) has derived it from his AA \*š/can<sup>o</sup>- on the basis of the comparison with Om. \*ši/un- “heart, belly” [Blz.] = \*šVn- “heart” [Bnd. 1994, 1156, #40] > NOm.: Dizi-Maji cōnu “heart, belly” [Bnd.], Nao šunus “belly” [Bnd.], Sheko šun “heart, liver” [Flm.] = šon (?) “belly” [Bnd.] = šon “heart” [Mkr.]<sup>86</sup> = šön “heart” [Blz.] | Mao šin “belly” [Flm.] || SOM.: Dime šīne “belly” [Flm.] (Om.: Flm. 1976, 317), although these parallels do not reflect the trace of the \*-<sup>o</sup> let alone the semantical difference.

<sup>82</sup> O.V. Stolbova (1987, 151, #68) considered the final \*-k in her arbitrary proto-AS reconstruction \*zum-k (erroneously derived from her WCh. \*mbA-mAç̣i ~ \*mbA-ç̣i ami “breast, heart”) as an indicator of the nominal class of body parts, although this \*-k is not reflected by any of the WCh. parallels.

<sup>83</sup> Attested in Mupun zùŋ (sic, false long -uu-?) “chest” [Frj. 1991, 70], Kofyar fū-zùŋ [fu < \*pu] “chest” [Netting 1967, 13], Chip zuŋ “chest” vs. bi-zùŋ “heart” [Kraft], Montol po-zum-den (sic, -m) “heart” [Ftp. 1911, 217] = po-sum-den (sic, s-l) [Stl. after Ftp.], Goemay pe-zzŋ (so, zz-) “heart” [Ftp. 1911, 217] = boe-zung [bə-] “chest, breast, bosom” [Srl. 1937, 18] = pò-zùŋ “Brust” [Jng. 1962 MS, 5] = pi-zuŋ “chest” [Krf.] = bə-zuŋ “chest” [Hlw. 2000 MS, 1] = pe-zung (so, with pe- & z-l) [Stl. < Ftp.] (Angas-Sura data: Stl. 1987, 151, #68; Takács 2004, 428).

<sup>84</sup> Cf. Bokkos ʔăžin, pl. àžyan “Brustkorb”, Daffo-Butura žijŋ, pl. žijāš “Brust(korb)”, Fyer čén, pl. čèèni “Brust(korb)” (Ron data: Jng. 1970, 84, 139, 216).

<sup>85</sup> K.-G. Prasse (PAM 2003, 634) suggested that this is an s- prefix *nomen instr.* derivation from SBrb.: ETawllemmet əŋay “2. commander, président sur, régner, dominer”.

<sup>86</sup> H.G. Mukarovsky (1987, 206) combined the Shako word with WCh.: Geruma gumbà sóomi “liver”.



(3) A.B. Dolgopolsky (1989, 94, #16) affiliated it with Sem.: Akk. šūlu “ein Totengeist (?)” [AHW 1269] < Sem. \*[š]u[<sup>l</sup>]- or \*[š]ul[<sup>l</sup>]- (baseless) and ECu. \*saz<sup>l</sup>- “heart” [Sasse], which he explained from PCu. \*[š]Vž<sup>l</sup>- (otherwise unattested), an assimilation from a hypothetical \*\*šVI<sup>l</sup>- (not supported by any of the Cushitic data).

(4) O.V. Stolbova (1994 MS, 1), in turn, saw in it a cognate of WCh.: Mupun dēṅ “1. upper part, top, 2. sky, heaven”, cf. also dēṅ (adv. “on, about (Jipaari)”) [Frj. 1991, 15], which, however, derives from Angas-Sura \*d<sup>y</sup>eṅ ~ \*d<sup>y</sup>a<sub>2</sub>ṅ (or \*ḡ<sup>y</sup><sub>2</sub>eṅ ~ \*ḡ<sup>y</sup><sub>2</sub>a<sub>2</sub>ṅ) “1. upper part, 2. up” [GT],<sup>87</sup> cognate with Eg. dhn.t “Stirn” (MK-, Wb V 478, 6–10; ÄWb II 2796) as I have shown it in this paper above.

**Eg. šnb.t** “1. Brust des Menschen, 2. (LP) Kehle” (MK-, Wb IV 512–3) has been usually<sup>88</sup> identified with the reflexes of Ethio-Sem. \*sanbu<sup>l</sup>/<sup>o</sup> “lung” [GT]<sup>89</sup> ||| Bed. šambūt (m) “lung”, cf. šambūkia “jugular vein” [Roper 1928, 238] = šanbūt “lung” [Dlğ.] || Agaw \*sämb- “lung” [Apl. 1984, 39; 1989, 6; 1991, 23] || ECu. \*šamb- “lung” [HL 1988, 138–9; Sasse 1982, 174]<sup>90</sup> > PSam \*sambób “lungs” [Heine 1977, 289; 1978, 72] | HECu. \*šomb-o “lung” [Hds. 1989, 95, 421]<sup>91</sup> ||| NOm.: Chara šomb-a “lung” [Bnd. 1974 MS, 11] | Kefoid \*šomb-o “lungs” [Hodge] > Kafa šomb-ō [Crl.] = šumb-ō [Lsl. 1938], Mocha šomb-o [Lsl. 1959, 50].<sup>92</sup> There are, however, controversial views on the ultimate origin of all these parallels, which has essential bearing as to the credibility of the suggested Egyptian etymology also. Ch.F.A. Dillmann (1865, col. 370) assumed an extinct,

<sup>87</sup> Attested in Angas yeng ~ yäng ~ yang “above” [Flk. 1915, 307] = ka ’gíyán “up”, ’géṅ ~ ’gyéṅ “high up” [Jng. 1962 MS, 13, 18] = ka-dyēṅ “up there”, cf. kwaṅ ka-dyēṅ “west” [ALC 1978, 23, 29] = ka-dyēṅ “up”, cf. ka dyēṅ nyi “up there” [Gochal 1994, 61, 107], Sura dēṅ “1. Oberseite, oben, 2. Himmel” [Jng. 1963, 63] = dēṅ ~ dēṅ naan “sky” [Krf.] (Angas-Sura data: Takács 2004, 101).

<sup>88</sup> For the Eg.-Cu. comparison see OS 1992, 171; Blažek 1994 MS Bed., 34–35.

<sup>89</sup> Cf. Geez sanbu<sup>l</sup>/<sup>o</sup> [Dillmann and Lsl. 1945, 1987] = sanbū? [Lsl. 1938] = also səmbāḥ [Lsl. 1987], Tigre sunbu (sic) [Crl.] = sāmbə<sup>o</sup> [Lsl. 1938] = sambə<sup>o</sup> [Lsl. 1945] = sän/mbu? (also „pulmonary disease”) [LH 1963, 173] = sāmbə<sup>o</sup> [Apl.] = sänbu<sup>l</sup>/<sup>o</sup> (sic) [Blz.], Tigrinya san/mbu? [Bassano] = sänbu? (sic, -?) [Crl.] = sambə<sup>o</sup> [Lsl. 1938, 1945] = sänbu<sup>o</sup> [Apl.] = samba ~ sambo [Lsl. 1987], Amhara sāmbā [Crl., Lsl. 1938] = sāmba [Lsl. 1945] = samba [Gankin, Apl.] = sänba ~ samba [Kane 1990, 472, 538].

<sup>90</sup> F. Behnk (1928, 140, #40), J.H. Greenberg (1965, 91, #14), and C.T. Hodge (1990, 646, #15.B) all erroneously affiliated the East Cushitic etc. parallels with Eg. zm3 “Lunge”.

<sup>91</sup> For additional Highland East Cushitic reflexes (not listed in the Burji lexicon by Sasse 1982), cf. also Leslau 1988, 199.

<sup>92</sup> For the comparative survey of these Ethio-Semitic, Cushitic, and North Omotic parallels see, a.o., most importantly, Meinhof 1912, 236; Cerulli 1951, 497; Fleming 1969, 24; Dolgopol’skij 1973, 94; Apleyard 1977, 16/58; Leslau 1987, 505; Lamberti & Sottile 1993, 508.

otherwise unattested ES \* $\sqrt{\text{nb}}^{\text{c}}$ <sup>93</sup> or \* $\sqrt{\text{nb}}^{\text{?}}$ <sup>94</sup> (which he related to Sem.  $\sqrt{\text{nbh}}$ , still in active use) that the Geez and the other Ethio-Semitic forms may have derived by a caus. prefix \*sa-. Alternatively, he did not exclude a derivation from an equally hypothetic ES \* $\sqrt{\text{sb}}^{\text{?}}/*\sqrt{\text{sb}}^{\text{c}}$  via epenthetic nasal, which Dillmann affiliated with Hbr. *nšb qal* “wehen” [GB 526]. Similarly, W. Leslau (1938, 312; 1945, 240) too supported the idea of a caus. formation originating from a hypothetic ES \* $\sqrt{\text{nb}}^{\text{c}}$  “to blow”, which he connected with Soqotri  $\text{ʿamb}$  “poumon” [Lsl.] with metathesis. Both of these scholars eventually meant this way a Semitic origin of the Cushito-Omotoc parallels. This is well conceivable regarding both the Old Ethiopic quadrilateral root and the ES  $\text{ʿayin}$  (lost until the word entered Cushitic from some more recently eroded Ethio-Semitic source/es). This is why it is very difficult to accept others’ position maintaining a reverse way of borrowing. from HECu. A.B. Dolgopol’skij (1973, 94) set up PCu.-Om. \*s(y)Vmp- “грудь (chest)” on the basis of comparing the above listed Cu.-Om. parallels for “lung” with NWometo \*šemp- “to breathe” [GT] > Wolaita šemp- “1. to breathe, 2. rest” [Lmb.], Dawro šenf-o “heart” [CR] = “soul, breeze, breath” [Lmb.], Gamu šemp-o “life, breath, genital parts of body” [Lmb.], Dache, Zayse šemp-o “life” [Lmb.], Male šêmp-i “soul” [Flm.],<sup>95</sup> which neither semantically nor phonologically look like as cognates to the former. Dolgopol’skij regarded Kefoid “lung” as the source (!) of HECu. “lung”, whereas he derived the Ethio-Semitic words for “lung” from Cushitic. His idea was followed by M. Lamberti (LS 1997, 508), who assumed Common Cu.-Om. \*šanb- “1. to breathe, 2. lung” on the basis of Dolgopol’skij’s and his additional *comparanda* (above) remarking that in the meaning “lung”, “*this stem has also entered*” Ethio-Semitic. Similarly, D. Appleyard (1977, 16/58) explained Ethio-Semitic “lung” as a loan either from Agaw or from East Cushitic. H.-J. Sasse (1982, 72) also derived Amhara “lung” from East Cushitic. Later, changing his mind (as expressed in his works from 1938 and 1945, quoted above), W. Leslau (1987, 505) too saw in Ethio-Semitic “lung” borrowing from Agaw. Breaking the domination of the view on the Cushitic origin of Eth.-Sem. \*sanbu<sup>?</sup>/<sup>c</sup> “lung” [GT] in the second half of the 20<sup>th</sup> century, V. Blažek (1994 MS Bed., 34–35)

<sup>93</sup> This view is supported recently by Prof. R.M. Voigt (Berlin, FU, kind p.c. on the 21<sup>st</sup> July 2015): “*Die Verknüpfung mit der Wurzel  $\sqrt{\text{nb}}^{\text{c}}$  gefällt mir sehr. Das s wäre dann das Kausativelement*”. He conceives “*die Lunge*” as “*das, was blasen läßt/verursacht*” and supposes a connection with Ar. *nabaʿa* “entströmen”.

<sup>94</sup> For Prof. G. Hudson (East Lansing, MSU, kind p.c. on the 21<sup>st</sup> July 2015), “*the Cushitic words generally look more like corrupted borrowings from Ethioseme., often Amharic*”. He too is “*willing to imagine (the) G(ee)z(./) (form) with final ? rather than c (the c secondary) and suppose the root nb? ‘gush out, flow’ (as in ‘tear (of eye)’)* and the s- a preservation of the Sem. s- causative (Amharic prefix a-s-; the a- perhaps not prothetic as Lipinski suggests but secondarily extended from the a- causative)”.

<sup>95</sup> To the best of my knowledge, the very first scholar to combine the Cushitic words for “lung” and Male  $\sqrt{\text{šmp}}$  was H.C. Fleming (1969, 24), who thus preceded in that Dolgopol’skij 4 years.

claimed the latter to be a native Semitic word akin to Akk. (Standard Bab.) *sinib/ptu* “eine Haut auf der Lunge” [AHW 1047] = “part of sheep’s lung” [CAD s 285], whereas he regarded North Omotic “lung” as a loan borrowed from Highland East Cushitic. Following him, L. Kogan (SED I 207-209, #235), reconstructing P<sup>Sem.</sup> *\*si/anp-* “lung”, extended the underlying equation of Eth.-Sem. *\*sanbu<sup>7/9</sup>/c* “lung” [GT] and Akk. *sinip/btu* onto PBHbr. *simpōn* and JAram. *simpōnā* “Blutader der Lunge” [Krauss] = “Röhre (PBHbr.: bes. oft die Blutader), Vene (der Lunge)” [Levy 1924 III 513] = “1. Röhre, 2. Bronchie, 3. Bronchialverzweigung” [Dalman 1922, 294] = “ramified blood-vessel, artery, bronchiae” [Jastrow 1950, 982] = “bronchial tube” [Klein] > NHbr. *simpōnōn* (dimin. suffix *-ōn*) “bronchial tube (smaller ramifications)” [Klein], which, however, S. Krauss (1898–99 II 389), R. Růžička (1909, 130), and – pace J. Levy (l.c.) and G.H. Dalman (l.c.) – E. Klein (1987, 450) all rendered as a loanword borrowed from Greek σίφων “siphon pour pomper un liquide, trompe des insectes suceurs, conduite d’eau, engin à feu” [Boisacq] = “pipe, tube” [Klein] < PIE *\*t<sup>w</sup>ib<sup>h</sup>-* “röhrenartig hohl” [Boisacq 1916, 867; IEW 1102].<sup>96</sup> Nevertheless, L. Kogan and A. Militarev (SED l.c.) figured their P<sup>Sem.</sup> *\*si/anp-* “lung” as cognate (!) with the Cushito-Omotic words for “lung” and Eg. *šnb.t* in spite of the semantical and phonological differences (e.g., PBHbr. *-p-* ≠ ES *\*-b-*, while Eg. *š-* ≠ Sem. *\*s-*). Whether Semitic “lung” has anything to do with or this similarity is purely accidental, should be still investigated. All in all, the facts discussed above yield several arguments sufficient for considering ES *\*sanbu<sup>7/9</sup>/c* “lung” [GT] as inherited from Semitic (within which it stands isolated), which suggests that the Cushito-Omotic words for “lung” can only be late loans from diverse Ethio-Semitic sources as well as that Eg. *šnb.t* can by no means be related with these.

All other etymologies suggested in the *Fachliteratur* for our Egyptian word<sup>97</sup> are only worse than that discussed above. At the moment, the only plausible

<sup>96</sup> As a third etymology for PBHbr. *simpōn*, one might also compare Gurage: Muher *čəmbilla*, Wolane *čəmbillā*, Chaha *čəmbina*, Ezha *čəmbinna*, Selti *šəbbinnā*, Endegeny *šəppi'nā*, Gyet *šəmpəna*, Ennemor *šəmpən'a* etc. “vein of the leaf of the *āsāt*” [Leslau 1979 III 173], the underlying proto-form of which L. Kogan (SEC l.c.) reconstructed as PGurage *\*šəmpill/n-*, which he alternatively equated with Syr. *sabbōlā* “arteria trachealis” [Brk. 1928, 455] = *sābōlā* oder *sābōlā* [Voigt, kind p.c. on 29 July 2015], which, however, C. Brockelmann (l.c.) rendered as *\*“portator”* <  $\sqrt{\text{sbl}}$  “portare”, and if he was right doing so, the Syriac term vs. Gurage forms are hardly related. There are doubts due to their formal difference (Syr. *-ō-* vs. Gurage *-i-* in the 2nd syllable) either. But R.M. Voigt (kind p.c. on 29 July 2015) does not exclude this comparison: “*Die Gleichung überzeugt aber*”. For the Gurage word, highly noteworthy is in this context, however, SBrb.: ETawllemmet *sənbub-ān* (pl.) “tuberculose”, *sənbub-ət* “aspirer au moyen d’un tuyau (liquide)”, *ta-sənbab-ūt*, pl. *ši-sənbuba* “tuyau” [PAM 2003, 728–729]. There is no indication apud K.-G. Prasse (PAM l.c.) that it is an *s-* prefix *nomen instrumenti* form.

<sup>97</sup> W.F. Albright (1918, 250, #106) – with right doubts – Sem. *\*bašar-* “peau, chair” [DRS] supported by A. Ember (1926, 301, fn. 10) with instances for Eg. *n* vs. Sem. *\*r*. This etymology was adopted also in GÄSW 207, #856 (with due criticism); Cohen 1947, #395; DRS 88. F. von Calice

candidate for being its cognate is represented by the isolated CCh.: Gude acembá (-ts-) “Brust” [Str.] || ECh.: WDangla tyàmbiìnà [regular < \*čamb-] (pl.) “poumons” [Fdr. 1971, 221],<sup>98</sup> which seem to stand close to the equally sporadic biconsonantal root (*sine* -b) carried by CCh.: Bata-Garwa man-šumé (GT: compound?) vs. Bata ma:sùmčě (-ā-, -tsch-) “Brust” [Str.], Bata-Demsa šumšé “Brust” [Str.] | Gidar ssiimiá “Brust” [Str.] (CCh.: Str. 1910, 452; 1922–23, 115 quoted also in JI 1994 II 46–47).<sup>99</sup> Was the -b an additional C<sub>3</sub> in Gude perhaps like in Egyptian? Even more interesting is that the Central Chadic biconsonantal root finds its hopeful cognates in SCu. \*-saʔam- “breast” [GT]<sup>100</sup>, which, besides, H.C. Fleming (1969, 24) erroneously combined just with the Cushitic word for “lung” and Male √šmp (above). With regard to the South Cushitic attestation, the underlying Afro-Asiatic root can only be reconstructed with \*s-, which, however, does not correspond regularly to the Eg. š- (cf. Takács 1999, 397–401 or 2000, 81–85, §12 and §14). Henceforth, at the moment, one can only conclude that Eg. šnb.t was only akin to the Gude-WDangla isogloss \*čVmb- (or \*c-?), whereas SAA \*√sm “breast” [GT] is presumably not related at all.

**Eg. q3b.t** “die Brust (als Ganzes, nie im Dual)” (MK, Wb V 11, 2–8) = “nipple, breast” (Ember l.c. infra) = “sternum, toute la poitrine” (Lacau 1970, 76), act.

(GÄSW l.c.) correctly stressed his semantical reservations: “Das äg. Wort scheint tatsächlich urspr. ‘Brust’, und nicht, wie vielfach früher übersetzt wurde, ‘Haut’ zu bedeuten.” Th. Schneider (1997, 207, #100), in turn, identified Eg. šnb.t “breast” with Sem. \*alab- “milk” [Lsl. 1987, 229]. Elegant, but certainly incorrect. First, Eg. š- does not regularly correspond to Sem. \*ḥ- except for a few instances of Eg. ḥ > secondary (mostly purely orthographic) š, which, however, evidently, not the case here. Secondly, we have to account for that the Semitic word is connected (perhaps via metathesis) with Eg. jbh “Zahn, besonders des Menschen, auch der Tiere, sogar Stoßzahn des Elefanten” (OK, Wb I 64, 2–4) and/or Eg. b3ḥ [< \*blḥ?] “das Weisse (des Auges)” (NK, GHwB 241), cf. also b3ḥ “hell glänzen (von der Milch)” (GR, Wb I 423, 2).

<sup>98</sup> Its coincidence with ES \*sanbuʔ/ʕ “lung” [GT] < \*√nbʔ/ʕ may be due to pure chance.

<sup>99</sup> There is a variety with voiced sibilant in the *Anlaut*, cf. LECu.: (?) PSomali \*ḥazam- [GT: \*ḥa- prefix of body parts] “Brust” [Lmb. 1986, 198, 270, 273, 447] (GT: reconstruction uncertain as all reflexes are supposed to have undergone a metathesis \*ḥamaz- > \*ḥabaz-) ||| CCh.: PBata \*-zum- “chest” [GT] > Gude ʔəʒima [Krf. 1981 III 36, #50], Mwulyen n̄zúm-tíǵi “chest” [Krf. 1981 III 56, #50], Bachama n̄dúm-tò „chest” [Krf. 1981 III 66, #50].

<sup>100</sup> Cf. WRift \*ʔisaʔamu (sg.), pl. \*ʔisaʔami “nipple, teat” [KM] > Iraqw ʔisēmo (sg.), pl. ʔisēmaʔ “nipple, teat” [KM] = isēma (pl.: “breasts”) [Flm.], Gorowa ʔisāmó (sg.), pl. ʔisāmaʔ “nipple, teat” [KM], and Alagwa ʔisaʔamu (sg.), pl. ʔisaʔamēri “breast, nipple” [KM] | Maʔa ma-sému “breasts” [Flm.]. Interestingly, Ch. Ehret (1980, 183, #40) assumed a SCu. \*sūm- “nipple, teat” on the basis of fully different comparanda, viz. Iraqw suma “shoulder” (GT: semantically vague) and Maʔa ki-sú [-Ø < \*-m# possible] “udder”, which are certainly unrelated, whereas at the same time, on the same page, Ehret (1980, 183, #41) forced a possible cognate, Dahalo sūma “1. forehead, 2. in front” [Ehret] = suma “face, forehead” [EEN 1989, 25] under SCu. \*sumba “peak, top (esp. of head)”.

\*q<sup>3</sup>ēb.ṯ (Vergote, BIFAO 58, 1959, 17) = \*qí3b.ēt (Lacau 1970, 76, §193) = \*qa3īb.at > \*aq/ḳība (Vergote 1973 Ib 29, §28 and 148, §85) = \*q<sup>3</sup>īb.ṯ (NBÄ 232) > Cpt. (S) **ЕКIБЕ**, **КIБЕ**, (A) **К(Е)IБЕ**, (B) **КIϢI**, (F) **ЕКIБI** (f) “weibl. Brust, Brustwarze” (KHW 33) has no unambiguous etymology. Only different (not always equipotential) alternatives can be considered:

(1) An inner Egyptian deverbal *Wurzeletymologie* has been proposed by a few egyptologists. Thus, J. Vergote (1973 Ib 148, §85) explained it from Eg. \*q3b (always written qb) “1. verdoppeln, 2. zumeist allgemein: vermehren” (XVIII. Math., Wb V 8-9) as the “doubled” body part. Impressive, albeit there are a few further body parts in pair that could also have been named this way. Why just this term for “breast”? This etymology does not clarify it. J. Osing (NBÄ 232, 796–7, n. 1013), in turn, derived it as a “*pass. Ableitung*” from Eg. q3b “zusammenfalten (von einem Polster, das zwischen die Schulterblätter gelegt werden soll)” (Med., Wb V 8, 6) = “zusammenfalten, wickeln (Stoff)” (CT, ÄWb II 2506-7) with the Grundbedeutung “das Gefaltete”, which, frankly, I find hard to follow. W. Westendorf (KHW 33 with hint on Vergote in BIFAO 61, 1962, 73) took Cpt. (S) **ЕКIБЕ** directly (!) from Cpt. (S) **ΚΩΒ** “falten” (in fact, < Eg. q3b “wickeln, falten”), although such a derivation can only be projected to older Egyptian.

(2) Most widespread<sup>101</sup> is its equation with Ar. ku<sup>ϕ</sup>b- “Brustwarze” [Vrg.], which poses a serious phonological question that W. F. Albright (1918, 220) and A. Ember (1926, 303, #11) thought to be able to answer by assuming a partial dissimilation in \*q<sup>3</sup>b < \*√q<sup>ϕ</sup>b < \*\*√k<sup>ϕ</sup>b, but they missed to detail which ruled governed these processes. Where is the rule for the shift of -3- < \*-ϕ- in the proximity of q attested? Why should we accept the *ad hoc* change of \*k- > q- under the influence of b or ϕ? A. Ember (1917, 88, fn. 3; ESS 23, §20.b.2) quoted K. Sethe and E. Littmann, who labelled this Egypto-Arabic match as “*sicher richtig*” having found a parallelism between ES \*√k<sup>ϕ</sup>b > Tigrinya ka<sup>ϕ</sup>bō “doppeltes me<sup>ϕ</sup>rō”, ka<sup>ϕ</sup>bī “doppeltes entalām” (cf. ZA 18, 369) and Eg. q3b “verdoppeln”, which, in principle, could corroborate Vergote’s suggestion (described above, #1) if one were able to justify the correspondence of Sem. \*k<sup>ϕ</sup> vs. Eg. q3, which Sethe and Littmann rendered “*mit Wechsel der Emphase*”. But what kind of emphasis shifted from \*-ϕ- onto \*k-, and where are the parallel instance thereof? Undisturbed by these unexplained controversies, and *ex cathedra* having discarded the equation with both Sem. \*√ḳrb and \*√ḳlb (#4 and #5, resp., below), W.A. Ward (1972, 20–21, ad §§193–195) eventually accepted this solution: “*Ember’s equation with Ar. ku<sup>ϕ</sup>b may be right after all*”. A. Ember (1926, 303, fn. 10) extended his Egypto-Arabic comparison

<sup>101</sup> See Ember 1917, 88, #140; 1918, 31; 1926, 303, #11; Albright 1918, 90; 1918, 220; Behnk 1927, 81, #4; ESS 23, §20.b.2; Vergote 1945, 128, §1.b.4.

onto WCh.: Hausa gaba “breast” [Mischlich 1906, 143] = gábá ~ gábáá “1. in front of the body, 2. (euphemism) genital organs (male/fem.), 3. fathom”, gábá (adv.) “in front” [Abr. 1962, 277–278], which is, once again, impressive, but phonologically problematic: as a rule, Hausa g- < PCh. \*g-, \*h-, \*h̄-, \*c̄- (Stolbova 1996, 59, §i.5, table 5, 68, §i.6, table 6, and 74, §i.7, table 7, resp.). More promising seems the idea of V. Orel and O. Stolbova (1992, 185) who affiliated Eg. q3b.t with their ECh. \*k[u]b- “breast” [OS] presumably based on Kabalai kùbà “breast” [Cpr.] | Sokoro kùpé “breast” [Saxon] (ECh. data: JI 1994 II 47). There are further cognates in WCh.: Bade kùv-àn “Brust” [Lukas 1968, 222], Ngizim kùvá “chest” [Schuh 1981, 271]. These Chadic parallels (whose proto-form would be premature to reconstruct) may well be akin to Ar. kuʿb-, although one is disturbed seeing no reflex of Ar. -ʿ- in Chadic \*kuP-, i.e., \*\*kuv- or \*\*kub- [GT] (as metathesis of glottalization, i.e., e.g., as \*kuḃ-). But there can be no talk of its cognacy with Eg. q3b.t due to the lacking reflex of -C<sub>2</sub>-.

(3) M. Cohen (1947, #230 bis), followed by V.M. Illič-Svityč (1966, 28), connected Eg. q3b.t with WCh.: Hausa kwíḃi “côté du corps” [Cohen], which is hardly plausible from the standpoint of comparative phonology as the Hausa word can derive either < \*kʷiʔb- (then, one is to work with an irregular k- vs. Eg. q-) or < \*kʷḃb- (then, in turn, we have no trace of the -C<sub>2</sub>- = Eg. -3-).

(4) W. Leslau (1949, 314, ad #230 bis) related Eg. q3b.t “breast” (!) better with his PSem. \*qirb- “interior” (sic: \*-i-) “rather than” with Sem. qeḃā (sic) “stomach”. The idea was rightly declined by W.A. Ward (1972 l.c.) for semantical considerations.

(5) P. Lacau (1970, 77, §195) connected it with Ar. qalb- “4. coeur (viscère), 5. coeur: esprit, âme, intérieur, pensée intime, 6. coeur, partie qui occupe le centre, 7. centre de l’armée, 8. moelle de tout arbre (et surtout de palmier), 9. noyau milieu, 10. la partie la plus pure, la plus essentielle, le coeur, la moelle, l’essence” [BK II 796], albeit with right doubts: “*Ces cascades de dérivations ne comportent aucune évidence. ... Il faudrait retrouver les mêmes dérivations sémantiques entre mots analogues dans des domaines différents.*” In the view of W.A. Ward (1972 l.c.), “it is not likely” and instead, he derived the Arabic term from Sem. \*√kḃl “to turn upside down, reverse” *ex cathedra*, which is, however, semantically not at all evident. I am disposed to leave Lacau’s attractive idea among the most likely cognate candidates.

(6) C.T. Hodge (1976, 14, #107) affiliated strangely both (!) this and Eg. q3b “interior” with Sem. \*√krb “to draw near” without any attempt at justifying the semantical motivation. To be refuted.

(7) The coincidence of PEg. \*qārḃ.āt (GT) with ECu.: Gawwada kerp-e “Brust” [AMS 1980, 236] seems very tempting at the first glance, but Dullay k- only derives from ECu. \*k- and \*g-, but not \*ḃ- (Sasse 1979, 56). In addition, the Cushitic background of the isolated Dullay word is obscure.

(8) If we figure Eg. q3b.t (from \*q1b.t?) “breast” with the basic sense \*“front part”, we will find certain reflexes of Sem. \*√kbl “gegenüberstehen, entgegengehen, entgegennehmen, aufnehmen, empfangen” [GB] = “to face, anticipate, confront” [GT]<sup>102</sup> highly noteworthy. The semantic dispersion is well attested.<sup>103</sup>

## Summary

Below, I present a synopsis of how the semantically closest cognates (marked +) of the Egyptian anatomical terms vs. the parallels stemming ultimately presumably from the same Afro-Asiatic root, but only indirectly (indir.) comparable, with some shift of meaning or some phonological/morphological difference (marked as (+) in brackets) vs. the uncertain (unc.) ones are distributed among the diverse branches of the Afro-Asiatic macrofamily and beyond.

The South Afro-Asiatic dominance becomes apparent in the domain of cognates of the Egyptian terminology for “shoulder, arm, hand”, where the presence of Cushitic cognates is by far overwhelming (7 + 1 indir., 2 unc.) and also Chadic is dominant, albeit with some more uncertainties (4 + 4 unc., 2 indir.), while the Semitic score is significantly lower (4 + 2 unc., 1 indir.). Not too surprisingly, Berber (1 + 1 indir., 1 unc.) from the northern vs. Omotic (zero!) from the southern block have hardly any match here.

<sup>102</sup> Cf., i.a., Akk. qablu “Kampf, Schlacht”, qitbulu Gt “kämpfen”, muqtablu “Kämpfer” [AHW 675, 888, 924] || Ug. qbl “battle (?)” [DUL 692], Hbr. qbl piel 1. nehmen, empfangen, 2. annehmen, 3. aufnehmen”, hifil “einander gegenüberstehen”, \*qəbol “1. Bez. Einer Belagerungsmaschine, Mauerbrecher, Widder, 2. vor” [GB 698] = qbl piel “to accept, receive”, hifil “to confront aggressively”, \*qəbol/\*qobel, st. constr. qābāl(l)- “in front of” [KB 1061-2] | Ar. qabala I “1. recevoir, accepter etc.”, qabl- “le temps d’auparavant, temps antérieur”, qabla ‘an “avant que”, qub(u)- “1. partie antérieure, le devant, 2. parties naturelles (de l’homme ou de la femme)”, qibl-at- “1. côté qui nous fait face, point vers lequel nos regards se dirigent, 5. le devant, le côté le plus étroit de l’instrument de musique appelé ...”, mustaqbil- “1. partie antérieure, côté qui nous fait face, 2. qui va au-devant de ...” [BK II 665–667, 669–670] = qubul- “the front or fore part, the former or first part, the anterior pudenda (vulva or vagina)” [Lane 2984].

<sup>103</sup> Cf. AA \*√mḡr “to encounter” [GT] > Sem.: Akk. maḡāru “gegenübertreten, angehen, empfangen”: G “1. entgegentreten, 2. sich wenden an, jmd. angehen, 3. empfangen, annehmen, 4. auf sich nehmen”, maḡru “1. Vorderseite, 2. (in praepos. Ausdrücken) vor, in Gegenwart von”, maḡrū “vorderer, erster, früherer” [AHW 577, 585], Hbr. māḡār “morgender Tag” [GB 416] | OSA: Sabaean √mḡr “to face, run, extend towards (boundary)” [SD 84] = “to stand facing sg.” [Lsl. 1969, 19] || NBrb.: Shilh √mkr ~ √mḡr: makar ~ magr “to meet” [Aplg. 1958, 61] = mnaggar “se rencontrer” [Jst. 1914, 144] | Qabyle √mḡr: mmagʿer “1. rencontrer, 2. se rencontrer avec, 3. aller à la rencontre de” [Dlt. 1982, 490] = mmager “rencontrer, aller à la rencontre de” [Chaker 1987, 163], Zwawa mager “rencontrer” [Bif. 1910, 219] || SBrb.: Ahaggar megyur-et “recevoir l’hospitalité (de la nourriture)” [Fcd. 1951–2, 1171].

Eg.	inner Eg.	Sem.	Brb.	Cu.	Om.	Ch.
ʕ				+		+
ʕnd				+		+
m3w.tj	+					
m3wḏ	+					
mḥ		+				+
msḥt		+				
rmn		+?				
ḥp		(+)		+		
ḥpt						+?
ḥsr ~ ḥsrʕ				+?		+?
ḥz.t		+				
ḥtt.t, ḥtt etc.						+?
ḥpš				+		+
*sqr				+		+?
qʕḥ		+?		+?		
gb3 ~ g3b.(t)				+		
gnḥ	+					
*grḥ			+	+		(+)
ḏnḥ		+		(+)		(+)
Eg.	inner Eg.	Sem.	Brb.	Cu.	Om.	Ch.

The Egyptian terms for “breast” have also their direct cognates mostly in Chadic (3). Their Cushitic (2 + 2 unc./1 indir.) and Berber (1 + 1 unc.) matches are a bit less, whereas Semitic is again underrepresented (with just one single unc. direct match + 3 indir.). Here too, Omotic is very poorly present (just 1 indir.).

Eg.	inner Eg.	Sem.	Brb.	Cu.	Om.	Ch.	extra-AA
pḥ		(+)	+	+		+	+
mnph.t	+	(+)					
mnd	+?	(+)?		+?/(+)?			
ḥnt3				+	(+)		
šnʕ			+?			+	
šnb.t						+	
q3b.t		+?		+?			



## Conclusion

In the first issue of the “Layers ...” series, I have demonstrated the binary (and sometimes trinary) system of the two opposite/suppletive layers of Egyptian anatomical terminology (with Semitic cognacy vs. “African” origin as well as inner Egyptian innovation, respectively) in certain segments of the ancient Egyptian anatomical terminology (“head”, “hair”, “ear”, “eye”, “hand”, etc.).

As we have seen throughout the second (Takács 2016, forthcoming) and this third paper and from the synopses above and below, in the majority of the Egyptian anatomical terms for the upper torso, it is difficult to see any of such a binary distribution, suppletive dichotomy of the anatomical terms having either Semitic or “African” etymologies.

In the table below, I list the total scores of the certain = + vs. indirect = (+) vs. uncertain = +? matches in the individual Afro-Asiatic branches according to semantic fields examined in both the second and this third paper.

item	Sem.	Brb.	Cu.	Om.	Ch.
“hair”	3 +, 2 (+), 1 +?	4 +, 0 (+), 1 +?	6 +, 1 (+), 1 +?	4 +, 0 (+), 0 +?	5 +, 0 (+), 2 +?
“crown of head”	2 +, 0 (+), 1 +?	1 +, 2 (+), 0 +?	2 +, 0 (+), 0 +?	0 +, 0 (+), 0 +?	2 +, 0 (+), 0 +?
“skull”	1 +, 0 (+), 0 +?	0	0	1 (+)	1 (+)
“face, forehead”	1 +, 2 (+), 0 +?	0	2 +, 0 (+), 1 +?	0	3 +, 0 (+), 0 +?
“eyebrow”	1 +, 1 (+), 0 +?	1 +, 1 (+), 0 +?	1 +, 1 (+), 0 +?	0	1 +, 0 (+), 0 +?
“mouth”	0 +, 2 (+), 0 +?	0 +, 1 (+), 0 +?	0 +, 2 (+), 0 +?	0 +, 1 (+), 0 +?	0 +, 2 (+), 0 +?
“jaw”	0 +, 1 (+), 2 +?	1 +, 0 (+), 0 +?	2 +, 0 (+), 2 +?	1 +, 1 (+), 0 +?	2 +, 0 (+), 0 +?
“neck, throat”	1 +, 5 (+), 1 +?	1 +, 1 (+), 1 +?	5 +, 0 (+), 2 +?	5 +, 0 (+), 3 +?	5 +, 0 (+), 3 +?
“lung”	0 +, 2 (+), 0 +?	0	1 +, 1 (+), 0 +?	0	2 +, 1 (+), 0 +?
“arm etc.”	4 +, 1 (+), 2 +?	1 +, 1 (+), 1 +?	7 +, 1 (+), 2 +?	0	4 +, 2 (+), 4 +?
“breast”	0 +, 3 (+), 1 +?	1 +, 0 (+), 1 +?	2 +, 1 (+), 2 +?	0 +, 1 (+), 0 +?	5 +, 1 (+), 4 +?

Instead of a Semitic vs. “African” dichotomy, in most of the cases (beginning from the “face” and lower down the torso), we can observe a surprisingly overwhelming extra-Semitic affiliation, where the relative distribution of the Cushitic and Chadic matches is outstanding, whereas the Berber and Omotic element is – strangely – usually either lacking or poorly underrepresented and, sometimes, the only etymological solution for an Egyptian anatomical term is displayed by the extra-Afro-Asiatic parallels. The rare domain where the Semitic and Berber elements attain a relatively higher score of direct cognacy in comparison with the rest of the Egyptian anatomical terms is solely that of the head. Still, the number of indirect Semitic matches is strikingly higher than those in the African branches (Berber, Cushitic and Chadic), which may perhaps

signify an innovative trait of the Semitic lexicon as compared with the common Egypto-Cushito-Chadic stock. As for “hair” and “neck, throat” and only, the Omotic scores are surprisingly as high as the dominant Cushitic and Chadic scores. Elsewhere, in many other items, the almost total lack of direct Omotic cognates was somewhat expectable. As outlined in my most recent study on Afro-Asiatic disintegration (Takács 2016), Omotic shares the least amount of isomorphs as well as lexical isoglosses with the rest of the Afro-Asiatic branches, whence it is presumable to be the most distant one from all other branches and the earliest one to separate from the proto-language. The synopsis below lists the total sums of matches in the diverse branches to Egyptian anatomical terms examined in this paper (including the items for “hair” and “lung” published in the first part).

etymology	Sem.	Brb.	Cu.	Om.	Ch.
direct	13	10	28	11	30
indirect	19	6	7	3	6
uncertain	8	4	10	3	13
total	Σ40	Σ20	Σ45	Σ17	Σ49

These results indicate the absolute dominance of Cushitic and Chadic direct cognates, which both phonologically and semantically stand closest to Egyptian anatomical terms, whose noteworthy rich system of synonymous terms might *a priori* makes an impression as if Egyptian anatomical root inventory were composed of diverse proto-dialectal layers. Naturally, one might ponder where these layers issued from, since the synonyms mostly do not reflect a diachronic or branch-oriented distribution. I need to carry on my research into further domains of Egyptian anatomical terminology, the tentative results of which seem to fundamentally corroborate this picture.

### Abbreviations of languages

(A): Akhmimic, AA: Afro-Asiatic, Akk.: Akkadian, Ar.: Arabic, Aram.: Aramaic, (B): Bohairic, BD: Book of the Dead, Bed.: Bed’awye, Brb.: Berber, Ch.: Chadic, CCh.: Central Chadic, CT: coffin texts, Cu.: Cushitic, ECh.: East Chadic, ECu.: East Cushitic, E: East(ern), Eg.: Egyptian, EWLmt.: East Tawlemmet, (F): Fayyumic, GR: Greek (Ptolemaic) and Roman Period, GW: syllabic or group-writing, Hbr.: Hebrew, HECu.: Highland East Cushitic, IMP: Intermediate Period, JAram.: Jewish Aramaic, (L): Lycopolitan (or Subakhmimic), LECu.: Lowland East Cushitic, Lit.: literary texts, LP: Late Period, M: Middle, Mag.: magical texts, MK: Middle Kingdom, N: North, NBch.: North Bauchi, NBrb.: North Berber, NK: New Kingdom, NOm.: North Omotic, OEg.: Old Egyptian, OK: Old Kingdom, Om.: Omotic, OT: Old Testament, PB: post-Biblical, PCh.: Proto-Chadic, PCu.: Proto-Cushitic, PT: pyramid texts, S: South(ern), (S): Sahidic, SBrb.: South Berber, Sem.: Semitic, W: West(ern), WBrb.: West Berber, WCh.: West Chadic, WSem.: West Semitic.

**Abbreviations of authors**

Abr.: Abraham, AJ: Alio & Jungraithmayr, Alb.: Albright, Ajh.: Ajhenval'd, Alj.: Alojaly, AMS: Amborn, Minker, Sasse, Apl.: Appleyard, Aplg.: Applegate, BA: Birru-Adal, Bgn.: Beguinot, BK: Biberstein & Kazimirsky, Blf.: Boulifa, Blz.: Blažek, Bnd.: Bender, Brg.: Bargery, Brk.: Brockelmann, Brq.: Burquest, Brt.: Barreateau, Btm.: Bitima, Clm.: Colombel, Cpr.: Caprile, CR: Conti Rossini, Crl.: Cerulli, Ctc.: Cañucoli, Djk.: D'jakonov, Dkl.: Diyakal, Dlg.: Dolgopol'skij, Dlh.: Delheure, Dlt.: Dallet, Dst.: Destaing, EEN: Ehret, Egc.: Eguchi, Elderkin, Nurse, Fed.: Foucauld, Fdr.: Fédry, Flk.: Foulkes, Flm.: Fleming, Frj.: Frajzyngier, Frz.: Fronzaroli, Ftp.: Fitzpatrick, GB: Gesenius & Buhl, Gcl.: Gochal, Grb.: Greenberg, GT: Takács, Hds.: Hudson, Hfm.: Hoffmann, HL: Haberland & Lamberti, Hlw.: Hellwig, Hmb.: Honurger, Hyw.: Hayward, IS: Illič-Svityč, JA: Jungraithmayr & Adams, JI: Jungraithmayr & Ibrizimow, Jng.: Jungraithmayr, Jns.: Johnstone, Jst.: Justinard, KB: Koehler & Baumgartner, KM: Kieβling & Mous, Kmr.: Kammerzell, Krf.: Kraft, Ksm.: Kossmann, Lbg.: Loubignac, LH: Littmann & Höfner, Lks.: Lukas, Lmb.: Lamberti, Lnf.: Lanfry, LS: Lamberti & Sottile, Lsl.: Leslau, Lst.: Laoust, LT: Lamberti & Tonelli, Mch.: Mouchet, Mkr.: Mukarovsky, MM: Majzel' & Militarev, Mlt.: Militarev, Mnh.: Meinhof, MQK: Mous, Qorro, Kieβling, MSkn.: M. Skinner, Msq.: Masqueray, Mts.: Matsushita, Ncl.: Nicolas, Nhl.: Nehlil, Ntg.: Netting, Nwm.: Newman, Old.: Ol'derogge, OS: Orel & Stolbova, PAM: Prasse, Alojaly, Mohamed, PG: Pillinger & Galboran, PH: Parker & Hayward, Prd.: Paradisi, RK: Reutt & Kogan, Rn.: Reinisch, Rns.: Renisio, Rpr.: Roper, Rsl.: Rössler, Scn.: Sachnne, Skn.: N. Skinner, Smz.: Shimizu, Snk.: Schenkel, Spg.: Spiegelberg, Srl.: Sirlinger, SSL: Simeone-Senelle & Lonnet, Stl.: Stolbova, Str.: Strümpell, Strm.: Stroemer, Sts.: Starostin, TC: Taïne-Cheikh, Tf.: Taifi, Trn.: Tourneux, Vcl.: Vycichl, Vrg.: Vergote, Wdk.: Wedekind, Wlf.: Wölfel, WP: Walde & Pokorny, Wst.: Westendorf, Wtl.: Whiteley, Zbr.: Zaborski, Zhl.: Zyhlarz, Zvd.: Zavadovskij.

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