

# Recent problems of Semitic-Egyptian and Semito-Cushitic and -Chadic consonant correspondences<sup>1</sup>

Gábor Takács - Institute of Linguistics, Hungarian Academy of Sciences  
gabtak@datatrans.hu

## 0. Introduction

Below I examine two aspects of the external comparison of Proto-Semitic, which represent at the same time two key areas of the Afro-Asiatic (Semitic-Hamitic) consonantal reconstruction. Unfortunately, these two fields of research have up to now mutually very little contacted. However, the success of a better integration of the Semitic reconstruction into the recent process of comparative-historical Afro-Asiatic research can greatly depend just on this desirable contact.

## 1. The two trends of Sem.-Eg. comparison

The past few decades have witnessed the regrettable confrontation of two radically opposed conceptions of Egyptian historical consonantism and hence Egypto-Semitic comparative phonology. The whole problem cannot be discussed here.

The flourishing period of Egypto-Semitic linguistic comparison lasted for some four to five decades in the first half of the 20<sup>th</sup> century, hallmarked by the pioneer works by A. Erman (1892), A. Ember (1930), and F. von Calice (1936), which represent a more or less coherent trend that may be labelled as "old school". After the 1930s, for about six decades (!), Egyptian and Egyptology ceased to play a key role in Afro-Asiatic (Semitic-Hamitic) comparative research. In these less productive decades, studying the Afro-Asiatic background of Egyptian was "kept alive" by just three Egyptologists: W. Vycichl (†1999), the most outstanding figure of this field in the 20<sup>th</sup> century,<sup>2</sup> C.T. Hodge (†1998) and W.A. Ward (†1996), who maintained the trend of the "old school".

1. It is with great pleasure that express here my true thanks to Prof. G. del Olmo Lete for his warm Catalanian hospitality as well as to the Institute of Linguistics, Hungarian Academy of Sciences for the generous financial support making my participation at the Barcelona conference possible. I gratefully acknowledge the support of the OTKA (National Scientific Research Fund, project no. D 45976) in 2003-4.

2. More on his person and achievements is available in BSÉG 23 (1999), 7-10; A. Vycichl in DE 54 (2002), 5-9; Naït-Zerrad, K. (ed.): *Articles de linguistique berbère. Méorial Werner Vycichl*, Paris, 2003, L'Harmattan, pp. 15-17; and in Takács, G. (ed.): *Egyptian and Semito-Hamitic (Afro-Asiatic) Studies in Memoriam Werner Vycichl*, Leiden, 2004, E. J. Brill, pp. ix-xi.

At the end of this long period of "hibernation", in the 1990s, the etymological analysis of the Egyptian lexicon witnessed a new but rather strange revival. This was the *renaissance* of the so-called "*neuere Komparatistik*", a trend represented by and based on one single fundamental study by O. Rössler (1971), the outstanding Semiticist (also an eminent Berberist) and a very original mind, on the radical revision of Egypto-Semitic consonant correspondences, which gained some popularity first of all in German-language Egyptological circles. For the sake of correctness, it should be stressed that the school of Rössler influenced a number of great linguists, all of them authorities in their respective fields (e.g., H. Jungraithmayr, R.M. Voigt, C. Peust, also H. Satzinger), whose positive and pragmatic attitudes create a good basis for an approach between the two trends. The "methods" applied, however, by some of the "hardliner" adherents of this theory have been severely criticized and the theory (at least as presented by them) has been doubted by a number of Egyptologists.<sup>3</sup>

Rössler's (1971) entirely new Semitic correspondences for the Old Egyptian consonants can be summed up as follows:

OEG.	ʒ	j ~ r	ʕ	f	z	d	<u>d</u>
PSem.	*d too	*g, *γ, *ʕ too	*d, * <u>d</u> , *z, * <u>d</u>	*b	*t too	*s, *t, *d too	*ʕ, *k

At the same time, *ex cathedra* sweeping off many dozens of well-founded Eg.-Sem. lexical matches in an off-hand manner, Rössler (1971, 279) categorically declined and denied the existence of several well-founded Egypto-Semitic consonant correspondences elaborated by the old school:

OEG.	ʒ	ʕ	f	r	ḥ	ḥ	z	š	d	<u>d</u>	<u>d</u>
PSem.	*ʔ	*ʕ, *γ	*p	r	ḥ <sup>4</sup>	ḥ	*z, * <u>d</u>	*š, *t, *š	*d	*s, *t, *d (*š)	*g

The confrontation of the two opposing trends around the most "neurotic" points of OEG. consonantism as well as Eg.-Sem. comparative phonology can be best illustrated in the following synopsis:

OEG. (Edel 1955 etc.)	PSem. ("traditional trend")	OEG. (Rössler)	PSem. (Rössler)
ʒ [r ~ l ~/> ??]	*r, *l, *ʔ	ʒ [r]	*r, *l, *d
j	*y, *w, *ʔ, *r, *l	j	*g, *γ, *ʕ, *r, *l, *ʔ, *y
ʕ	*ʕ, *γ	ʕ [d]	*d, * <u>d</u> , *z, * <u>d</u> (*š), *r, *l <sup>5</sup>
w	*w, *y	w	*w
b	*b	b	*b, *p
p	*p	p	*p
f	*p	f [p]	*b
m	*m	m	*m
n	*n, *l	n	*n, *l, *d
r	*r, *l	r [l]	*g, *l, *d

3. Cf. e.g. Vycichl 1985; Ward 1985; Osing 1997; 2000<sup>3</sup>; EDE I 333-393 (where so far the most detailed discussion of the whole problem can be found); Takács 2003.

4. This must have apparently been disturbing for Rössler himself, who noted: "*ohne erkennbare Ratio*".

5. W. Schenkel (1993, 142, #3.3.a) "allowed" Eg. ʕ = Sem. \*g too.

h	*h	h	*h
ḥ	*ḥ	ḥ [emph. ḥ!]	*ḥ, *q, *ʕ, rarely *ḥ
ḥ	*ḥ	γ	*γ, *ʕ
ḥ	*ḥ, *ḥ	ḥ	*ḥ, *ḥ
z	*z, *ḏ	s	*s, *ṯ
s	*s, *š, *ṯ	ś	*ś, *ṯ, *š, *s
š	*š	š	*ḥ, *ḥ, *s
q (or k?)	*k	k	*k <sup>6</sup>
k	*k	k	*k
g	*g	g	*g
t	*t, *ṯ	t	*t
ṯ [č] < k	*k	č	*k
d	*d, *ṯ	ṯ	*t, *ṯ, *ḏ (*ś), *š
ḏ [ž] < *g or a glott. affr.	*g, *š, *ṯ, *ḏ (*ś), also *ʕ (?)	č	*q, *ḥ, *ʕ
OEG. (Edel 1955 etc.)	PSem. ("traditional trend")	OEG. (Rössler)	PSem. (Rössler)

In order to illustrate the etymological methods of the *"neuere Komparatistik"*, a few typical lexical comparisons of Rössler and his followers will be examined below. Special attention is to be paid to the Rösslerian suggestion on the alleged match of Eg. ʕ = Sem. \*d, \*ḏ, \*ḏ etc.

• **Eg. jḥ** "vereinigen" (OK, Wb I 40-1) was compared by Schneider (1997, 194, #7) with Ar. *ḡadaba* "(her-, an-)ziehen". But Eg. *jḥ* fits much better with Ar. *waʕaba* I "to take the whole (of a thing)", IV "to assemble, gather, put one thing into another" (suggested by Ember 1930, #4.c.5; Clc. 1936, #116; Vrg. 1945, 132, #2.d.5).

• **Eg. jw ʕ** "to inherit" (OK, FD 12; Wb I 50, 8-10) was combined by Schneider (1997, 195, #9) with Ar. *ḡāda* "gut sein, großzügig werden", for which cf. Mehri *ḡād* "good" [Jns. 1987, 128]. In fact, the correct match of Eg. *jw ʕ* [from \*lwʕ] can be found in Agaw: Bilin *laû* "erben, Erbe sein" [Rn. 1887, 260] = *law* "to inherit" [Ehret 1987, 75, #315].

• **Eg. ḥ3** " (ein Schiff) kommandieren, leiten" (PT, Wb I 177, 1) was compared with Syr. *dbṛ* "egit, duxit" and Ar. *dbṛ* II "verwalten, gut regieren" by Rössler (1971, 286), Zeidler (1992, 206), and Kammerzell (1998, 29). Rightly rejected already by W.A. Ward (1985, 241) as "*an excellent example of words in different languages having an apparent relationship which is shown to be illusory by an examination of their origins*", since (1) as pointed out by K. Sethe, OEG. ḥ3 was a denominal verb from OEG. ḥ3 "sceptre" (i.e., who holds the sceptre he commands); (2) Syr *dbṛ* and Ar. *dbṛ* II were equally denominal from the primary sense "to say" of Sem. \*dbr (GB 153-154). As we can easily recognize, OEG. ḥ3 "sceptre" and Sem. \*dbr "to say" have nothing in common. Besides, there is a convincing match of OEG. ḥ3 and OSA (Qatabanian) ḥr "to arrange", s<sub>1</sub>-ḥr "to command, order" [Ricks 1982, 169], which should be considered.

• **Eg. ḥj** "fliegen" (LP, Wb I 179) was falsely identified by Schneider (1997, 196, #18) with Ar. *dff* "mit den Flügeln schlagen". But Ar. *dff* means correctly "battre ses cōtés avec les ailes pour voleter près du sol, aller à pas lents" [BK] and is clearly a denominal verb from Sem. \*dapp-(at)- "side", while Eg. ḥj "to fly" is a match of Sem. \*ʕwp "to fly" as is well-known from the literature of more than a century!<sup>7</sup>

6. Schenkel (1993, 141-142, #3.2.a): Eg. *q* = Sem. \*g admissible too.

7. For Eg.-Sem. see Hommel 1883, 440, fn. 30; Erman 1892, 108; Ember 1930, #8.a.2; Clc. 1936, #132; Chn. 1947, #65; Wlf. 1955, 139; Vcl. 1953, 373; 1958, 372; 1959, 39.

• **Eg. *ʕl*** "wohlbehalten, unversehrt, intakt sein" (MK, Wb I 237-8; GHWb 165): compared by Schneider (1997, 197, #23) with Sem. \*zqq "sehen, läutern". Semantics! Instead, Eg. *ʕl* [ $< *ʕĕ$ ] may derive from AA \* $\gamma$ -(y)-ĕ "1. to be unripe, fresh, 2. to prosper" [GT] (attested in Ar., Eg., Cu., WCh., reflexes discussed below).

• **Eg. *wʕ*** "(to be) pure" (OK, FD 57; Wb I 280-2), *ʕ.w* "purification, purity" (OK, FD 40; Wb I 175, 13-5): compared by Rössler (1971, 293) and Voigt (1992, 42) with Ar. *wdb* II "ajuster, accomoder, rendre propre à". Semantically untenable, while Eg. \* $\text{ʕb}$  "clean" is an evident match of Sem. \* $\text{ʕbb}$ : Akk. G *ebēbu* "to be clean, pure", D *ubbubu* "to clean, purify" [AHW 180-1] ||| CCh.: PHigi \*y[a]ḅ- "to wash" [GT]. The Eg.-Akk. parallel is well-known.<sup>8</sup>

• **Eg. *rh*** "to know" (OK, FD 151; Wb II 442-5): compared by Schneider (1997, 200, #54) with Hbr. *lʕʕ* "stammeln, irre reden", Ar. *lyw* "to chat, talk nonsense", Tigre *lʕʕ* "to speak in an animated way". This semantically fully false etymology represents in fact a confusion of two unrelated AA roots: (1) AA \* $\text{l-}\gamma$ - "to stutter" [GT]: esp. Hbr. *lʕʕ* "irre reden", *lʕg* "barbarisch reden" [GB] || Geez *lāʕāʕa* "to stammer, stutter" [Lsl. 1969, 19; 1987, 304] ||| Eg. *ʕʕʕ* [reg.  $< *l\gamma\gamma$ ] "1. to gibber, 2. speak a foreign language" (NE, DLE I 2);<sup>9</sup> (2) AA \* $\text{r-Q}$  "to see" [GT]  $>$  Eg. *rh* ||| Agaw \* $\text{ʕarq-}$  "to know" [Apl. 1989 MS, 6; 1991, 23], which originate from the AA basic sense "to see" (cf. IE \* $\text{weid-}$ ) attested in Bed. *erh-* "sehen, schauen, erblicken" [Rn. 1895, 29] = *erh, irh, reh, rih* "to see" [Rpr. 1928, 153], Ammar'ar *reh-* ~ *rh-* "to see (видеть)" [Dlg.], Bisharin *rēh-* ~ *rh-* "to see" [Almkvist] (Bed.: Dlg. 1973, 170) || ECu. \* $\text{ʕarg-}$  "to see" [Sasse 1982, 26] (Cu.: Zbr. 1989, 587). This Eg.-Cu. etymology is again commonly accepted.<sup>10</sup>

• **Eg. *hʕ*** "aufgehen, erscheinen (Sonne)" (PT, Wb III 239-241): equated by Schneider (1997, 204, #77) with OSA *ʕwd* "to return, turn back", Ar. *ʕwd* "to return, come back". Semantically absurd. Moreover, Eg. *hʕ* is a regular reflex of AA \* $\text{qa}^\text{c-}$  "to rise" [GT], cf. ECu. \* $\text{ka}^\text{c-}$  "to get up, wake up" [Sasse 1979, 11] || SCu. \* $\text{ka}^\text{c-}$  [GT]: Ma'a *-ká* "to get up, stand up, awake", *-káʕa* "to raise, waken" [Ehret 1980, 331] ||| WCh.: Angas-Sura \* $\text{kā}_2$  [loss of \* $\text{-}^\text{c}$  by compensatoric \* $\text{-}\bar{\text{V}}$ ] "to mount" [Takács 2004, 160]: e.g. Sura *kāa* "nach oben kommen, herauskommen, aufgehen (Sonne), wachsen, besteigen" [Jng. 1963, 68], Mupun *kā* "to mount, climb, go up, come up" [Frj. 1991, 24], Chip *kāa* " (be-, ein-)steigen" [Jng. 1965, 166]. Etc. etc.

The analysis of this sort of Rösslerian etymologies could be continued throughout dozens of pages, which is not possible here due to the limited space (for details cf. EDE I 333-393). The aim of this illustrative survey is rather to draw the attention of our colleagues in comparative Semitic to a number of serious controversies of the "methodology" followed by some "hardliner" adherents of the Rösslerian trend, namely Th. Schneider (1997), J.F. Quack (2002),<sup>11</sup> and F. Kammerzell<sup>12</sup> (e.g. 1995; 1998), in a rather "orthodox" way. These problems pertaining to Eg.-Sem. etymology are the following: (1) mistreating the basic sense of the Semitic comparanda, (2) semantically untenable parallels, (3) ignorance or even *ex cathedra* denial of the (often much more convincing) Eg.-Sem. etymologies of the "old

8. For Eg.-Sem. see Albright 1918, 222, fn. 1; 1923, 67; Holma 1919, 37; Ember 1930, #5.a.17; Belova 1991, 88, #16; 1993, 53, #16. For Eg.-CCh. cf. OS 1992, 200; HSED.

9. For Eg.-Sem. see Calice 1931, 36; 1936, #1; Vergote 1945, 130; Hodge 1981, 374, #34.

10. See Hommel 1894, 357; Rn. 1895, 29; Zh. 1932-33, 169; Vcl. 1934, 46, 77; 1938, 134; Chn. 1947, #415; Dlg. 1973, 170-1; OS 1992, 176.

11. On many of the absurdities of this work I have reacted in a detailed study (Takács 2003).

12. Not to mention two minor monographies by Kammerzell (both published in 1994) on the history and etymology of the Eg. numeral "four" and the divine name Mafdet, resp., which abound in astonishing etymological proposals, whereby commonly accepted and basic principles of semantical and phonological rules are ignored (for more on these problems cf. e.g., EDE II).

school."<sup>13</sup> Luckily, however, there exists also a relatively more "pragmatic" line within "*neuere Komparatistik*", represented nowadays by W. Schenkel (1993), H. Satzinger (1999), A. Loprieno (1994; 1995), and C. Peust (e.g., 1999; 2001), whose proposals have been conceived in a more careful manner.

## 2. Semitic sibilants and affricates in Afro-Asiatic

The second area of external comparison of Semitic consonantism, which will have much bearing on the future research, is the *Lautgeschichte* of the Semitic sibilants (traditionally conceived as fricatives) to be re-analyzed in the light of the new Afro-Asiatic evidence. So far, no comprehensive study has been completed on this promising research topic.

The inner Semitological debate on the affricate hypothesis is well-known for Semitists. The problem has been most recently surveyed in SED 1, lxx-lxxi. But so far little convincing evidence has been adduced on the history of alleged Proto-Semitic sibilant affricates in an Afro-Asiatic perspective. A special study devoted to a systematic treatment of this question is still a desideratum. Unfortunately, A. Faber's (1984) paper ("*Semitic Sibilants in an Afro-Asiatic Context*") has indeed –as its author has acknowledged (p. 199)– "*raised more problems than it has solved*" (see below). According to my preliminary research results, for successfully mapping the history of Afro-Asiatic sibilant affricates in Semitic, the most informative and important external evidence is provided by the Southern Cushitic and West Chadic languages (whose significance Faber overlooked), where the fine distinction and often even the affricate nature of the diverse sibilant phonemes has been retained. Therefore, our primary task would be a direct comparison of Semitic lexical roots with those of the aforementioned African daughter languages containing the traces of the AA sibilant affricates, which, however, are recorded and thus available to us only in their modern form and should be first subject to a careful historical reconstruction. Therefore, only a fruitful collaboration of Semitists and specialists of Cushitic and Chadic historical phonology can give us the clue to this complex problem.

For this long comparatistic work over the prehistory of Semitic sibilants, we may formulate in the following the principal criteria of when the Sem.-Cu./Ch. lexical correspondences have an evidence value in exactly determining the nature of underlying sibilant affricate: (1) semantically clear parallels can be adduced (or, if somewhat deviant, typological parallels can be quoted for the supposed semantic shift); (2) in case of Sem. \*s < AA \*c, Akk./Ug./Hbr. vs. SCu./NBch. cognate pairs are needed; (3) in case of Sem. \*š, \*ʃ, \*ʒ (with old symbol \*d), we need Ug./Ar./MSA vs. SCu./NBch. cognate pairs; (4) in case of Sem. \*z, \*d < AA \*ʒ, \*ʒ, resp., Ar./MSA vs. SCu./WCh. cognates are needed.

As mentioned above, exactly twenty years ago, Faber still completely failed to identify the affricate correspondences of Sem. sibilants in Cushitic and Chadic, whose importance was first recognized by A.B. Dolgopolsky (1973). His ideas were applied and developed further by his fellow comparatists in Moscow –headed by I.M. Diakonoff (St. Petersburg)– during their joint work on the "*Comparative-Historical Vocabulary of Afrasian Languages*" (SISAJa I-III; HCVA 1-5, cf. also the preliminary report by A.Ju. Militarev and O.V. Stolbova 1990 on the historical reconstruction of AA consonantism, and also the "*Hamito-Semitic Etymological Dictionary*" by V.É. Orel & Stolbova). These comparative lexicons contain

13. Such as e.g. Eg. *db* [ < \*čb<sup>c</sup> ] "finger" vs. Sem. \*ʔV-šba<sup>c</sup>-, or Eg. *z3b* "jackal" vs. Sem. \*diʔb-, or Eg. *dnḥ* [ < \*gnḥ ] vs. Ar. *ḡanaḥ*- (var. *ḡinḥ*-) "1. wing, 2. (upper) arm" [Lane 469] | MSA \*gVnVḥ "wing" [GT].

naturally a great deal of Sem. etymologies with sibilants, but only a modest minority thereof can be accepted as an evidence for the affricate theory as corresponding to the four criteria listed above. The numbers of Hbr./Ar. vs. SCu./WCh. isoglosses in the quoted works proving the affricate nature of the underlying Sem. sibilant are as follows (the total numbers of all etymologies with sibilants are indicated in parentheses, while in the notes the etymological entries of the acceptable items are listed):

PAA > PSem.	*c > *s	*c > *š	*z > *z	*č > *t	*č > *t	*ž > *d	*ĉ > *š
Mlt.-Stl. 1990 <sup>1</sup>	3 <sup>4</sup> (< 4)	3 <sup>8</sup> (< 5)	2 <sup>11</sup> (< 4)	0 (< 3)	2 <sup>16</sup> (< 4)	3 <sup>18</sup> (< 4)	3 <sup>22</sup> (< 4)
HCVA 5 <sup>2</sup>	2 <sup>5</sup> (< 9)	1 <sup>9</sup> (< 4)	5 <sup>12</sup> (< 12)	1 <sup>14</sup> (< 4)	0 (< 1)	3 <sup>19</sup> (< 6)	1 <sup>23</sup> (< 4)
HCVA 1-4 <sup>3</sup>	2 <sup>6</sup> (< 3)	0 (< 0)	0 (< 1)	0 (< 5)	0 (< 2)	1 <sup>20</sup> (< 1)	1 <sup>24</sup> (< 1)
HSED <sup>2</sup>	2 <sup>7</sup> (< 41)	8 <sup>10</sup> (< 50)	4 <sup>13</sup> (< 45)	6 <sup>15</sup> (< 35)	4 <sup>17</sup> (< 21)	5 <sup>21</sup> (< 32)	3 <sup>25</sup> (< 12)

Notes: <sup>1</sup> Examples from this paper are quoted here with sibilants both in initial and medial positions. <sup>2</sup> Only examples with sibilants in initial position are surveyed here (the exx. of HSED for the medial position are not surveyed here due to the relatively high number of such cases as well as to the "deviant" behaviour of sibilants in medial and final positions as compared to those in the *Anlaut*). <sup>3</sup> Examples with sibilants in medial position only. <sup>4</sup> Mlt.-Stl. 1990, #15, 16, 61. <sup>5</sup> HCVA 5, #350, 358. <sup>6</sup> HCVA 1-4, #8, 155. <sup>7</sup> HSED #383, 398. <sup>8</sup> Mlt.-Stl. 1990, #17, 19, 38. <sup>9</sup> HCVA 5, #359. <sup>10</sup> HSED #411, 413, 417, 418, 423, 427, 435, 444. <sup>11</sup> Mlt.-Stl. 1990, #62, 63. <sup>12</sup> HCVA 5, #363, 364, 367, 369, 373. <sup>13</sup> HSED #2604, 2631, 2635, 2638. <sup>14</sup> HCVA 5, #376. <sup>15</sup> HSED #464, 471, 474, 476, 478, 492. <sup>16</sup> Mlt.-Stl. 1990, #27, 28. <sup>17</sup> HSED #503, 510, 511, 513. <sup>18</sup> Mlt.-Stl. 1990, #30, 31, 55. <sup>19</sup> HCVA 5, #382, 383, 384. <sup>20</sup> HCVA 1-4, #85. <sup>21</sup> HSED #2652, 2655, 2660, 2667, 2669. <sup>22</sup> Mlt.-Stl. 1990, #4, 36, 68. <sup>23</sup> HCVA 5, #409. <sup>24</sup> HCVA 1-4, #86. <sup>25</sup> HSED #581, 586, 588.

As we can see from this synopsis, the number of acceptable etymologies with Sem.-AA sibilants with a real evidence value (as defined above) is rather low, hardly sufficient for convincing us about the validity of the underlying consonantal correspondences, let alone that these numbers can be somewhat decreased for semantical considerations. The present minor investigation aims at collecting additional Sem.-SCu. and Sem.-Ch. lexical matches confirming the hypothetic affricate origin of the aforementioned Sem. sibilants (mostly in the *Anlaut*).

Sem. \*s- (samek) < AA \*c-

As presupposed by Semitists on the basis of inner Sem. evidence, it seems indeed to have derived from an older voiceless dental affricate, being a correspondence of SCu. \*c- ||| WCh.: Hausa c-/ç- (ts-) | NBch. \*c-

• Sem. \*sʔm (?): Akk. (since Oakk.) *siāmu* → *sāmu* "rot, braun s./w. (u.a. von: Leberteile, Milzflügel, Eiter, Mond, Venus, erlöschendes Feuer)" [AHW 1038] = *sāmu* "red (i.a. of gold, carnelian, flowers, fruitparts of the body, etc.)" [CAD, S 126f.] ||| SCu. \*ceʔem- "yellow (or sim.?)" [GT]: Irq. *tseʔama* "sun" (act. \*"yellow") | Qwd. *tseʔema* "bile" (orig. \*"yellow") (Rift: Ehret 1980, 355, #7) < AA \*c-ʔ-m "a light colour" [GT].

• NWSem. \*sʔy/w "to seize, sweep away" [GT]: Ug. *sʔ* "to sweep, remove" [DUL 751] = *sʔy/w* "to dash away, sweep away" [Driver et al. quoted in KB with lit.], Hbr. *sʔy qal* "to sweep away" [KB 761] | Syr. *sʔy*: *səʔā* "anfallen, angreifen" [GB 548] = "to seize" [Brk. 1928, 487b] ||| SCu. \*caʔ- [GT]: Qwd. *tsaʔ* [-ʔ < \*cʔ- reg.] "to carry, take away", *tseʔ-em-* "to go away" [Ehr. 1980, 176, #25]. From AA \*c-ʔ "to take away" [GT].

• Sem. \*s<sup>ʕ</sup>y (?): Akk. *se ʕi* "etwa: niederdrücken, unterdrücken", (nB) *si ʕi* "Erpressung (?)" [AHW 1038] = *se ʕi* "1. to press down, 2. put down (by military force), oppress" [CAD, S 229] ||| SCu.: WRift \*cō<sup>ʕ</sup> "to press, squeeze, wring" [KM 2004, 300] = \*co<sup>ʕ</sup>- "to strain by pressing" [GT]: Irg. *tso ʕ* "to squeeze out" [Ehr.] = *tsō ʕ* "to squeeze, strain", *tsō ʕ-áy* "beer that has to be strained of dregs" [Mgw. 1989, 104], Alg. *tso ʕ* "to wring out", *tso ʕ-im-* "to strain" [Ehr.] (WRift: Ehret 1980, 176, #26). From AA \*c-ʕ "to press" [GT].

• Sem. \*skk "to close" [GT]: Akk. (M/SBab.) *sakāku* "verstopfen" [AHW 1010] = "to be clogged, stopped up (ears)" [CAD, S 68] || Hbr. *skk qal* "to shut off as a protection" [KB 754] | JAr. *skk pael* "to fence in" [Jastrow] ||| SCu. \*ceg-/\*cug- "to close, stop" [GT]: WRift \*cēg "to lock" [KM 2004, 295]: Irg. *-tsēg-* (-*É-*) "to shut" [Wtl. 1953, 97], Alg. *ceg-* "to close, shut" [Ehr.] | Ma'a *ki-sug-áno* "stopper" [Ehr. 1974 MS, 60] (SCu.: Ehr. 1980, 195, #2). From AA \*c-k/g "to close" [GT]. Irreg. SCu. \*-g vs. Sem. \*-k. Extension \*-r in NWSem. \*sgr [GT]: Ug. *sgr* "verschließen" [WUS #1890], Hbr. *sgr qal* "to shut" [KB 742-3]? Remotely related to AA \*c-k/g "to bind" [GT] (below)?

• Hbr. *skk qal* "to weave", pual "to interweave, interwine", MHbr. *skk hifil* & JAr. *peal* & *pael skk* "to weave, plait" (Sem.: KB 754) ||| SCu.: WRift \*cēg "to bind, tie, fasten" [KM 2004, 295] = \*ceg- [GT]: Irg. *tseg-* "to bind" [Ehr.] = *tsék* (sg.), *tsēgān* (pl.) "1. to tie, bind, 2. lock" [Mgw. 1989, 103], Alg. *tseg-im-* "to bind" [Ehr.] (WRift: Ehr. 1980, 195, #2) < AA \*c-k/g "to bind" [GT]. Irreg. SCu. \*-g vs. Sem. \*-k. Remotely related to the preceding root?

• MHbr. *sll qal* "to leap, swing", nifal "to raise oneself" [KB 757] = *sll piel* "sich hin- und herschwenken, sich erheben, bespringen, *salire*" [Levy 1924 III, 532] = *sll qal* "to swing, bound", nifal "to rebound" [Jastrow 1950, 995] ||| SCu. \*cal- [GT]: Qwadza *tsal-* "to fly", cf. *tsa-tsal-ako* [-l- < \*-r- reg.] "hurry (n.)" [Ehret 1980, 194, #7; 1980 MS, 7] ||| WCh.: Hausa *tsálléé* "jumping" [Abr. 1962, 875] < AA \*c-l-l "to jump" [GT].

• Sem. \*sll "to pick, seize (?)" [GT]: Akk. (O/YB) *salātu* G "etwa: ausräumen (Boghazköy: Dämonen den Leib, jB: Vogel Flügel)", D/G "1. (aB, Kornspeicher), 2. (jB) wenn ein Falke seine Flügel *auspickt* (?)" [AHW 1013] = *sullulu* "to despoil" [CAD, S 369] || OSA (Sab.) \*s<sub>3</sub>ll: *s<sub>3</sub>llw* "to plunder" [SD 138] ||| SCu. \*col- [GT]: Dhl. *tsol-āḏ-* "to pick up" [EEN 1989, 9]. From AA \*c-l "to take away" [GT].

• Akk. (jB) *samnu* "Eid" [AHW 1019] = "oath" [CAD, S 120] (unless < "eighth") ||| perhaps NBch. \*cum- (?) → \*cəm- "to swear" [Skn.]: Warji & Kariya *cəm-*, Miya *cəm-*, (?) Tsagu *čān-*, Jimbin *šəm-* (NBch.: Skn. 1977, 43). Cf. GT 2002, 169.

• Sem. \*sinsin- [assim. < \*simsim-?] "twig" [GT]: Akk. *sissinnu* "Dattelrispe(nbesen)" [AHW 1051] = "1. date spadix, 2. broom of date spadices" [CAD, S 325] || Ug. *ssn-m* (pl.) "ramo o racimo de dátiles" [DLU 409-410] = "branch of palm (or sim.)" [Watson, p.c. on 10 April 2001] = "date-palm branch" [DUL 772], Hbr. \*sansinnā "panicle of date or twigs" [KB] ||| SCu. \*cism-, dissim. < \*cicm- (?) [GT]: Irg. *tsism-i* "twig" [Ehret 1980, 174, #14] ||| WCh.: perhaps Hausa *tsíntsíyáá* "broom made from a type of thatching-grass or other material", cf. *tsíntsíyár hánnúú* "wrist end of forearm" [Abr. 1962, 886]. From AA \*cimc- ~ \*cicm- < \*cimcim- "(bushy) twig" [GT].

• Sem. \*swy "to dress" [GT]: Hbr. \*sūt "garment" [KB 749], Phn. *swy*: *swy-t* "veil, curtain, garment", *sw-t* "garment" [Harris 1936, 126] ||| SCu.: WRift \*cīt- "to wear, put clothes on" [KM 2004, 299] = \*cī- (from \*cīh-?) [GT]: Irg. *-tsīt* "to wear" [Wtl. 1953] = *tsīt* "to dress", *tsī-t-īs* "to clothe" [Mgw. 1989, 103], Alg. *cīt* & Brg. *čit* "to wear, put clothes on" [KM] || NAgaw \*s-ät- "to dress oneself" [Apl. 1991, 19] ||| Eg. \*s "piece of cloth (in general)" (GT) = "ein Tuch (?)" (Wb IV 1, 1) = "folded cloth (probably used as handkerchief)" (EG 1927, 494, S29) ||| WCh.: perhaps Tsagu *soo* ~ *sə* "to put on clothes, put" [Skn. 1977, 35] < AA \*c-(w-y) "to put on cloth" [GT].

• Sem. \*syd (?) → Akk. (aB) *sēdum* "rot (o.ä.)" [AHW 1034] ||| SCu.: WRift \*cēd-ē "blood" [KM 2004, 294] = \*cēd- < \*cayd- [GT]: Irg. *tsēre* [-r- < \*-d- reg.] "blood" [Wtl.] = *tsere* [Ehr.] = *tsērē*

[Mgw. 1989, 103], Grw. *tséře* [Wtl.], Brg. *tšáidě* [Mnh. 1906] = *tséde* [Wtl.] = *čede* [Ehr.], Alg. *tséře* [Wtl.] = *tsere* [Ehr.] (WRift: Wtl. 1958, 22, #9; Ehret 1980, 199, #2, 386). From AA \*cayd- "red" [GT]?

• Sem. \*sw? (or \*sh??) > Akk. (a/jB) *sâ ʔu* "vor Schmerz schreien" [AHW 1033] = "to hiccup (?), wheeze (?)" (of a sick person) [CAD, S 202] || SCu. \*cē?- [GT]: WRift \*cē?- "to crow" [KM 2004, 294] = "to cry" [GT]: Irq. *tse ʔ* "to shout" [Ehr.] = *tséʔ* "to shout" [Mgw. 1989, 103] = *tséʔ-âmo*, pl. *tséʔo* "a noise" [Wtl. 1953, 97] = *tséʔ* "to cry, shout" [KM], Grw. *tséʔ* "to cry, shout" [KM], Alg. *tséʔ* & Brg. *čéʔ* "to crow" [KM] | Maʔa -sè "to call" [Ehr. 1974 MS, 58] (SCu.: Ehret 1980, 195, #3). From AA \*c-ʔ "to shout" [GT]. Cf. also Hbr. \*sʔsʔ "to shout to attract small cattle" [KB 738] || Ar. *sa ʔsa ʔa* "to gather beasts with a call *sa ʔ*" [KB]?

Sem. \*z- < AA \*[3]-

Corresponds regularly to SCu. \*[3]- || WCh.: Angas-Sura \*z- | NBch. \*z- || CCh.: Lamang dz-. To the best of my knowledge, only two acceptable Sem.-AA etymology have been proposed so far (by O.V. Stolbova 1996, 45), whereby the really attested (not just reconstructed) reflexes of Sem. \*z- are affricates:

• Ar. *zahha* "to thrust, throw, drive, push, eject (semen, urine)" [Alb.] = "1. pousser, 2. jeter dans un précipice, 3. sauter, 4. lâcher un liquide (urine, etc.), 5. cohabiter avec une femme", cf. *zahzaha* "cohabiter avec une femme" [DRS 718] || WCh.: AS \*zʷak ~/< \*zuk → \*zək "to push" [GT]: perhaps Angas *žək* [ž- < \*zʷ-?] (K) "to shake f.i. a pole, tree" [Jng. 1962 MS, 45], Mpn. *zək* "to move a bit, toss (e.g. about a baby)" [Frj. 1991, 70], Gmy. *zwak* "to push with the hands" [Srl. 1937, 286] | Karekare *nzùkʷa* "to push" [Krf.] | Miya a *zùkù-tisəy* "to push" [Krf.] | Geji *žèkkà* "to push" [Krf.] | Ngizim *žəg-žàžəru* "to repeatedly jostle or touch" [Schuh 1981, 82] (WCh.: Krf. 1981, #357; Stl. 1987, 189, #399; 1995, 151) || CCh.: perhaps Mafa *dzadzək-* "obliger (qqn. à se rendre à un endroit), forcer" [Brt.-Bléis 1990, 125] (Stl.: orig. "to push") | Lame *dzik* "pousser qqch. de lourd, traîner, déplacer" [Scn. 1982, 408] || Eg. *zħj* "schlagen" (PT, Wb III 466-7) < AA \*z-q "to hit, push" [GT].

Lit. for Ar.-Eg.: Alb. 1927, #71; Vrg. 1945, 140, #15.a.14. For WCh.-Mafa-Ar.: Stl. 1996, 45; Takács 2002, 172.

NB1: The Geji & Ngizim ž- reflex may be secondary palatalization from \*z-, hardly directly < \*z-.

NB2: A var. root with \*-g occurs in Ar. zǧw: *zaǧā* "pousser doucement", (Maghreb) *zəǧǧ* "pousser", Hispanian Ar. *zaǧǧ* "donner un coup de poign" [DRS 682, 684].

NB3: WCh.: Warji *nzaḳʷ-* "to poke" [Skn./Stl.] || CCh.: Mafa *dzukw-* "enfoncez, piquer dans" [Brt.-Bléis 1990, 126] may belong rather to Ar. *zqq* < AA \*z-ḳ<sup>(w)</sup> "to thrust into" [GT] (discussed below), which, however, may be a remote PAA var. of AA \*z-q "to push" [GT].

• Sem. \*zmm ~ \*znn "to think" [GT]: Hbr. *zmm* qal "to ponder, plan" [KB 273], MHbr. *zmm* "sinnen, nachdenken" [Levy] | MAram. *zəmam* "denken, sinnen" [Levy 1924 I 541] || Ar. *znn* I & IV & VIII "penser telle ou telle chose, se faire une opinion de qqn. ", IV "2. supçonner qqn. de qqch." [BK I 1014-5] = "to contrive" [KB] || WCh.: Bole *zum-* " (sich) erinnern" [Lks. 1971, 139], cf. Galambu *žàm-áalà* "to remember" [Schuh 1978, 151] || CCh. \*zam- "to think" [GT]: Bura *dzama* "denken", *dzama ri* "Denken, Meinen" [Hfm. in RK 1973, 87], cf. Bura *dzàni* [same var. \*-n as in Ar.?] "to know" [Hfm. in RK 1973, 111] | Mandara *dzəma* "to remember" [Krf.], Glavda *dzam* "to think, remember, reckon, hold, believe" [RB 1968, 34] = *dzam-γàrà*, *zdam-gà* "to remember" [Krf.], Gava *dzəmə-nàrà* [Krf.], Nakatsa *dzàma* "to remember" [Krf.] | perhaps Mofu-Gudur *žim-* [< \*zim-?] "to think about sg." [?/Stl.] (CCh.: Krf. 1981, #390). For Sem.-Ch. see Stl. 1996, 45.

NB: The attempts to explain the Hbr. root either to Sem. \*zmzm "to murmur" (KB l.c.) or Sem. \*ḏmm "se conduire mal" (Jastrow l.c., DRS 335, etc.) result from a *Volksetymologie* and secondary contamination of two diverse etymons in OHbr. *zmm*, resp.



For the further search of affricate correspondences of Sem. \*z-, several Central Chadic languages seem to keep abundant unexploited reserves. Now, the voiced dental affricate correspondences of Sem. \*z- can be pointed out etymologically in two further (hitherto unknown) lexical matches, namely in SCu. (where only Dhl. has ʒ-, in the rest we have z- reflexes) and CCh. (Lamang dz-):

- Ar. *zaʿaqa* I "piquer qqn. (scorpion)" [BK I 991], also Ar. *hazaqa* "(trans)percer (se dit d'une lance)" [BK I 568] ||| CCh.: Margi *dzəgà* "to puncture" [Hfm. in RK 1973, 110] | Gude *dzəku* "stuck in an opening" [Hsk. 1983, 180] || WCh.: NBch. \*zak<sup>w</sup>-/\*zuk<sup>w</sup>- "to stab, pierce" [GT]: Warji *nzaḵw-*, Mburku *zuk-um-*, Tsagu *zug-um-* (NBch.: Skn. 1977, 41). Cp. also Ar. *zaqqa* "pousser, faire entrer par la force", (Sudan) *zaqq* "glisser au milieu, introduire parmi" [DRS 786] || CCh.: Mafa *zukw-* [dz-] "enforcer, piquer dans" [Brt.-Bléis 1990, 126] < AA \*z-ḵ<sup>(w)</sup> "1. to thrust into, 2. pierce" [GT]. Cf. Stl. 1996, 44 (Warji-Gude-Mafa-Ar.); Takács 2002, 172 (NBch.-Ar.).

- Ar. (Eastern dialects.) *nzaḥam* "être pressé, gêné", (Spain) *zahán* "presser l'un contre l'autre", *zihám* "presse (de foule), hâte", (Marocco) *zḥam* "faire des efforts pour expulser (excréments, foetus)" [DRS 716] ||| WCh.: Angas-Sura \*z<sup>w</sup>aḡ ~/> \*zuḡ "to thresh" [GT]: Mupun *zúḡ* ~ *pə-zúḡ* "threshing place" [Frj. 1991, 51, 70], Goemai *zwang* "to ram down (e.g. the soil), stamp down, press down (e.g. salt in a bag)" [Srl. 1937, 287] | Wangday *tsuḡ* "to pound (in mortar)" [IL in JI 1994 II, 268] || CCh.: Mafa *dzam-* "écraser gros, concasser" [Brt.-Bléis 1990, 126] ||| Eg. *zḥm* (probably not *šḥm*) "zerstossen, zerstampfen" (MK, Wb IV 215) ||| SBrb.: ETawlemmet *zāmm-āt* "donner un coup de pilon" [PAM 1998, 375]. From AA \*z-ḥ-m "to pound by pressing in a mortar" [GT].

- Ar. *zaw<sup>2</sup> zāʿa* "frapper qqn., affliger d'un malheur (se dit du temps, du sort)", *zaw<sup>2</sup>* "malheur, calamité causée par la mort de qqn." [BK I 1024] ||| SCu. \*zāʿ- [< \*zaw<sup>2</sup>-?] "to be extinguished" [Ehret]: Irq. *tsa<sup>2</sup>-es-* (caus.) "to extinguish" | Dhl. *dzā<sup>2</sup>-* "to die", *dzā<sup>2</sup>-e* "death", *dze<sup>2</sup>-eḏ-* "to kill" (SCu.: Ehret 1980, 197, #1-2) ||| CCh.: Lamang dz- "töteten" [Lks. 1964, 106] = \*dza: *dzàdzá* "having beaten, killed", *dzò* "beating", *dzó* "keep beating", *dzá-tá* "killing" [Wolff 1982, 186] < AA \*z-(w)-<sup>2</sup> "1. to beat, 2. kill"<sup>14</sup> [GT].

In the Afro-Asiatic macrofamily, almost everywhere else we have usually a plain voiced dental sibilant reflex of Sem. \*z-. Although in the majority of the AA daughter languages (cf. esp. Eg., all Brb. groups, most of the Cu. and Om. groups), AA \*ž- or \*[ʒ-] have merged in a common z- reflex, a few groups have retained the distinction of both AA proto-phonemes like Semitic (Aramaic, Arabic, MSA), Sothian Cushitic, and most of the Chadic daughter languages. Moreover, one can find numerous lexical parallels with one-to-one correspondence of Sem. \*z- = SCu. & Ch. \*z- > \*z- vs. Sem. \*d = SCu. & Ch. \*ž- proving the genetic nature of this distinction. This is why we can safely reconstruct at least two voiced sibilant affricates for PAA: \*z- (hardly \*z- in the light of the above listed Dhl. and CCh. matches) and \*ž- (discussed below), whose distinction in Ar. vs. SCu. and Ch. is an inherited peculiarity. This is why the additional lexical matches of this kind are also valuable:

- Ar. *ǧizǧiz-at-* "1. flocon de laine, poignée de laine enlevée sur la bête, pompon de laine de couleur suspendue à la litière en guise d'ornament" [BK I 287] ||| WCh.: NBch. \*gəz- "hair" [GT] = \*(n)gəž [Skn.]: Warji *gəž-ai*, Pa'a *ḡgeza*, Siri *gəzi*, Jimbin *gəza*, Miya *a-gəžu*, Mburku *ngəži*, Kariya *gəži*, Tsagu *gəšiye* [irreg. -š-] (NBch.: Skn. 1977, 25) ||| ECu.: Dullay \*gāz- "hair" [GT]: Gollango *kás-o*, Tsamay *gāz-o*, Gawwada *gēs-o* (Dullay: AMS 1980, 246) < AA \*giž-/gaž- "hair" [GT]. For this AA etymology v. Takács 2002, 172.

14. For the semantic shift cf. e.g. IE \*g<sup>hw</sup>en- "schlagen" > Hittite *kuenzi* "tötet", OIndic *hán-ti* "(er)schlägt, tötet", Greek *thémō* "töte" etc. (IEW 491-3).

• Ar. *rabuza* "être charnu, et avoir des chairs fermes et compactes", also *rabīs-* "épais, charnu, aux chairs fermes (mouton, brebis)" [BK I 804] ||| WCh.: NBch. \**rəvəz-* (< \**ruvuz-*?) "fat (verb and adj.)" [GT] = \**r-u-z/ž-* [Skn.]: Warji & Kariya & Jimbin *rəvəz-*, Miya *rəvaž-*, Siri *rūšuwa* [< \**ruvus-*?], Pa'a *rinsa* [\**rimsa* < \**rivsa*?], Mburku *rəv#zīsə* (n.) (NBch.: Skn. 1977, 21) < AA \**r-b-3* "fat" [GT]. For Ar.-NBch. see Takács 2002, 172.

• Ar. *za'aba* "changer", cf. *zu'āb-* "instabilité, vicissitudes (du temps)" [BK I 965-6, cf. DRS 665] ||| WCh.: PGoemai \**zāp* or \**zayap* (?) [GT]: Gmy. *zaap* "to alter, change" [Srl. 1937, 283]. NB: Any connection to CCh.: perhaps Glavda *dzəva* "to place on the other side; other" [RB 1968, 35]?

• Ar. *z'f* I *za'afa* "presser, exciter à plus vite", IV *ʔaz'afa* "achever un blessé, 2. alourdir quelqu'un au point de l'empêcher de se mouvoir (ventre)" [DRS 668] ||| WCh.: AS \**z'op* ~ \**z'op* "to push into" [GT]: Mpn. *ziōp* "1. to push, dip, twist, 2. have sexual intercourse, satisfy urges" [Frj. 1991, 69], Gmy. *zwop* "to dip something partly or fully into water" [Srl. 1937, 287].

• Ar. *za'āqa* "2. effrayer, faire peur en poussant un cri, 3. pousser, stimuler à la marche (une bête de somme), 4. soulever et mettre en mouvement (la poussière, se dit du vent)" [BK I 991] ||| WCh.: NBch. \**zuḳ<sup>w</sup>* - → \**zəḳ<sup>w</sup>* - "to awaken" [GT] = \**zə/uKw-* [Skn.]: Warji *zəḳw-*, Pa'a *zu*, Siri *zəhu*, Diri *žuhu*, Jimbin *zəgə-*, Miya *zəka-*, Kariya *zəkw-*, Tsagu *žug#* (NBch.: Skn. 1977, 11) < AA \**3-(<sup>c</sup>)-ḳ* "to frighten" [GT]. For Ar.-NBch. see Takács 2002, 173.

• Sem. \**z<sup>o</sup>m*: Ar. *za'ima* "désirer ardemment qqc." [BK I 992] || ES: Gurage *žamä* "convoiter, désirer ardemment" [DRS 771] ||| WCh.: PGoemai. \**zəm* (from \**zum*?) "to like" [GT]: Gmy. *zum* "to wish, love" [Ftp. 1911, 218, 221] = *zoem* [*zəm*] "to love, like, agree, believe" [Srl. 1937, 285] = *zem* "to like, want, agree", *zem puur* "desire" (lit. 'like very') [Hlw. 2000 MS, 42] | Gwandara *žumá* [*žu-* < \**zu-* reg.] "to prefer" [Mts. 1972, 57]. From AA \**3-<sup>o</sup>-m* "to like" [GT].

• Sem. \**z<sup>o</sup>m*: OSA (Sab.) *z'īm* "declaration" [SD 170], Ar. *za'ām-at-* "dignité, pouvoir", *za'īm-* "garant, chef, prince" [DRS 770] | MSA: Jbl. *z'īm: əzte'īm* "to take a decision as the most important person in the family, be the head of the family", *z'īm*, pl. *za'iyēh* "the most important person in, head of the family" [Jns. 1981, 314], Mhr. *zə'īm* "head of the family" [Jns. 1987, 463] ||| AS \**zuḳ* [GT]: Angas *zung-zung* "authority" [Flk. 1915, 313] = *zəḳ-zəḳ* (K) "authority" [Jng. 1962 MS, 45].

• SWSem. \**zgr* [DRS]: Ar. (Yemen) *zagra* "manche de charrue" [DRS 786] ||| SCu. \**zoger* [GT]: Ma'a *i-zogera* "hand" [Ehr. 1974 MS, 74]. From AA \**3-g-r* "lower arm (?)" [GT].

• Sem. \**zγw* ~ \**zγy* [DRS]: Ug. *zγw* "brüllen, bellen" [WUS #887] || Ar. *zayā* "weinen, schreien" [WUS] = "crier (enfant)" [DRS 774] ||| SCu. \**zo[<sup>c</sup>]* [GT]: Ma'a *-zò* "to cry, low, bleat, crow, etc." [Ehr. 1974 MS, 74] < AA \**3-γ* "to shout" [GT].

• Ar. (Libya) *zahme* "froid intense" [DRS 693] ||| WCh.: AS \**zuḳum* "cold" [GT 2004, 426] < AA \**3-H-m* "cold" [GT].

• Ar. *zakama* "jeter dehors, vomir, émettre (sperme ou mucus nasal)", hence *zakm-at-* & *zukām-* "coryza, rhume" [DRS 730] ||| WCh.: NBch. \**zukum-* "sweat" [GT]: Warji *zukum-na*, Kariya *zukum*, Diri *zəkuma* (NBch.: Skn. 1977, 43). From AA \**3-k-m* "to secrete (body fluid)" [GT]? For Ar.-NBch. see Takács 2002, 173.

• Sem. \**zḳḳ*: Ar. *zaqqa* "rendre les excréments (se dit d'un oiseau)", *zaqzaqa* "rendre les excréments (se dit des oiseaux)" [BK I 998-9], Ar. (Sudan) *zagg* "déféquer" [DRS] || Amh. *azzaqa* "faire amasser et emporter les immondices" [DRS] (Sem.: DRS 785-6) ||| WCh.: Angas-Sura \**zuk* "heap of rubbish" [GT]: Angas *zuk* "rubbish-heap" [ALC 1978, 70], Kofyar *zùk* "composted manure" [Ntg. 1967, 46].

• Sem. \**zmm* ~ \**z<sup>o</sup>m* [GT]: Aram. *zəmmā* & Syr. *zəmtā* "cheveux" [DRS], Mandaean *zimta* "hair, thread" [DM 1963, 167] (NWSem.: DRS 749) || Geez *zə'əme*, pl. *za'āməy* "tuft of hair (?)" [Lsl.] = "frange, touffe de cheveux (?)" [DRS], Amh. *zoma* "long wavy hair" [Lsl.] = "longue chevelure ondulée"

[DRS] (ES: Lsl. 1987, 630; DRS 770-1) ||| WCh.: Common AS \*zuṅ [ < \*zu(°)m ] "hairstyle" [GT 2004, 427-8] = "tuft of hair" [Dlg.] < AA \*z-(°)-m "hair" [GT].

NB: Geez *zəʿəme* is doubtful, Leslau's alternative rendering is: "fringe (?)", some kind of garment (?).

- NWSem. \*zmy [DRS]: Syr. *zmy*? ~ *zʿmy*? "peine, amende" & JPSyr. *zmy*: *ʿezdamī* "être puni" [DRS 747], JAram. *zmy* itpa. "bestraft werden", *zʿmyōnā*(?) "Strafe" [Levy 1924 I 540] = *zmy* af. "to fine", itpe. "to be fined" [Jastrow 1950, 402] ||| SCu. \*zama[y]- [GT]: Ma'a -*zāmā* "to punish" [Ehret 1974 MS, 74] ||| WCh.: Angas *zung zung* "punishment" [Flk. 1915, 313] = *zəḥ-zəḥ* (K) "punishment" [Jng. 1962 MS, 45] < AA \*z-m-[y] "to punish" [GT].

- Ar. *zana* ʾa "7. être resserré, étroit", *znw*: *zanā* "être resserré, étroit (d'un lieu)", *zaniyy*- "étroit" [BK I 1015, 1018, cf. DRS 760] ||| WCh.: AS \*zan "to stretch out" [GT]: Sura *zan* "ausstrecken (Beine, Arme)" [Jng. 1963, 89], Mushere *zan* "to straighten" [Jng. 1999 MS, 20] < AA \*z-n "to stretch out, straighten out" [GT].

- Sem. \*zyn "to decorate" [GT] ||| WCh.: AS \*zaṅ [GT] (-ḥ perhaps < \*-yn ~ \*-ny): Angas *zang* "an ornament", cf. *riip po zang* "a girl is adorning herself" [Flk. 1915, 312] = *zàḥ* (K) "to adorn" [Jng. 1962 MS, 45].

Sem. \*ṣ < AA \*ç

Derives from an old glottalized dental affricate, being a correspondence of SCu. \*ç ||| NBch. \*ç:

- Geez *maṣawa* (met.?) "to turn acid" [Lsl. 1987, 371] ||| WCh. \*çām- "sour" [GT]: Hausa *caámú* [ts-] "sourness" [Abr. 1962, 876] | NBch. \*çam- "sour" [GT 2002, 169]: Diri *šanṣam*, Warji *čančan*, Pa'a *çəmmumu* (ts'-), Kariya *šamšam-na*, Jimbin *kyamakyama* [secondary velarization], Mburku *çamin* (ts'-), Tsagu *çoomama* (ts'-) (NBch.: Skn. 1977, 41). Cf. GT l.c..

- Ar. *mwš* II "2. vendre (de la paille), être marchand (de paille)" [BK II 1168] ||| WCh.: NBch. \*muç- > \*məç- (\*-ʿts-) "to sell" [Skn.]: Miya *muš-*, Siri *mūçu* (-ʿts-), Mburku *muš-*, Warji *məç-*, Jmb. *məçy-* [sec. velarization] (Skn. 1977, 39) < AA \*m-w-ç "to exchange (?)" [GT].

- Ar. *fṣy*: *fāša* "s'en aller et s'engager dans l'intérieur des terres" [BK II 653], cf. OSA (Sab.) *fṣy* "to inter (enterrer)" [SD 47] ||| WCh.: NBch. \*pəç- "to descend, download" [GT]: Warji & Kariya *pəç-* [ts'-] (NBch.: Skn. 1977, 18) < AA \*p-ç (orig. \*piç?) "to descend into sg." [GT]. For Ar.-NBch. see Takács 2002, 170.

- Dathina *šahr*- ~ *saḥr*- "charbon de bois, culot (de tabac brûlé qui reste dans la pipe), nicotine" & Hadr. *šahr*- "charbon de bois" [GD 2120, 1911] (GD: falsely connected to Can. \*šḥr, for which cf. Ar. *šḥr* II "to blacken with soot" [KB 1465]! GT: contamination?) ||| SCu. \*çiriḥ- [GT]: Irq. *tsiriḥ*- "to glow" | probably Dh. *ṭilīḥe* [irreg. -l-] "embers" (SCu.: Ehret 1980, 175, #19) || probably ECu. \*ḍi/ulḥ- [if \*-lḥ- < \*-rḥ-?] "charcoal" [Sasse 1979, 22, 30, 61]. Irreg. Sem. \*-ḥ- vs. Cu. \*-ḥ.

- Ar. *škk* "3. fermer (la porte)" [BK I 1354] | Mehri *škk*: *šək* "to close (door), shut (in)" [Jns. 1987, 361], Jbl. *škk*: *šəttək* "to be closed" [Jns. 1981, 238] ||| perhaps SCu. \*çuk- "to end" [GT]: Irq. *tsukmay* "residue (left in ladle)" | Dh. *ṭuḳ-a* [assim. < \*ṭuḳ-] "end (of anything)" (SCu.: Ehret 1980, 177, #30) < AA \*ç-k "to close" [GT].

- Sem. \*šmḥ "to grow" [GT]: Hbr. *šmḥ* qal "hervorsprossen (von Gewächsen), wachsen (von Bäumen, von der heilenden Haut, von der sprossenden Nachkommenschaft)" [GB ] | Syr. *šmḥ* peal "to spring up" [KB 1033] = *afel* "sprossen lassen" [GB] || Ar. *šamaḥmaḥ*- "fort, robuste et d'un corps épais" [BK I 1369] ||| NBch. \*çəm- "to swell" [GT]: Siri *šəmu*, Mburku & Kry. *šəm*- (NBch.: Skn. 1977, 43) < AA \*ç-m "to grow" [GT]. No reflex of \*-ḥ in NBch. (perhaps root ext. in Sem.?). For Sem.-NBch. see Takács 2002, 170.

• Perhaps Ar. *ṣafīf*- "exposé au soleil pour sécher" [BK I 1344] = "(flesh-meat) broiled upon the live coals, thoroughly cooked, roasted, dried in the sun" [Lane 1694] ||| NBch. \**cu*f- → \**ca*f- "to dry up" [Skn. & GT]: Warji *cafa*, Pa'a *cifa*, Siri *cafu*, Diri *cafu*, Miya *cafa*, Mburku *cafa*-, Kariya *cafa*-, Tsagu *cafu*- (NBch.: Skn. 1977, 15). Cf. Takács 2002, 170.

NB1: The parallel is valid provided the underlying root meaning was "to put (out)" as in Ar.

NB2: Cf. alternatively Ar. *ṣayf*- "été, surtout la saison qui suit immédiatement le printemps", *ṣāf*- "chaud" [BK I 1391]?

• OSA (Sab.) *ṣrr* "to stay, stand (demeurer, rester debout)" [SD 147] | MSA \**ṣwr* "to stand" [GT]: Jbl. *ṣr* "to stand" [Jns. 1981, 243], Hrs. & Mhr. *ṣōr* "to stand, stay" [Jns. 1977, 117; 1987, 368] ||| WCh. \**ṣVrw*- "to stand" [GT]: NBch. \**ṣurw*- → \**ṣarw*- "1. to stand, 2. stop, wait" [Skn.]: Warji *ṣarw*-, Miya & Mburku & Kariya & Tsagu *ṣar*-, Pa'a *ṣara*, Siri *ṣuru*, Diri *ṣala* (NBch.: Skn. 1977, 42) | AS \**ḍār* ~ \**ḍer* (?) "1. to stand, 2. stay" [GT 2004, 85] < AA \**ṣ-r* "to stand" [GT]. For NBch.-Sem. see Takács 2002, 170.

NB: Cf. Ar. *ṣarra* "dresser les oreilles et les serrer contre la tête (cheval)" [BK I 1325] (orig. "to make stand up"?)?

• Sem. \**ṣwh* ~ \**ṣyh* "1. to shout, 2. call": cp. esp. Ug. *ṣh* "1. rufen, 2. einladen" [WUS #2313] = "2. to invite, call, 3. claim" [DUL 781] ||| NBch. \**ṣay*- ~ \**ṣiy*- "to ask" [GT]: Warji *caṣ*, Pa'a *taku*, Jimbin *tag*-, Kariya & Miya *ṣiy*-, Siri *ṣa*, Tsagu *ṣuw*- (NBch.: Skn. 1977, 11) < AA \**ṣ-ḥ* (onomatopetic root?) "1. to shout, 2. call" [GT]. For Sem.-NBch. cf. HSED #427. Cp. also Geez *ṣawwəʿa* "to call (upon, out), invite, invoke, summon etc." [Lsl. 1987, 566], alternation of Sem. \**-ḥ* ~ \**-ḥʿ*?

• Ar. *ṣy*? II *ṣayyaʿa* "1. laver très-imparfaitement, ne faire que mouiller (la tête)", V "être mal lavé (se dit de la tête)" [BK I 1388] ||| SCu. \**ṣi*- "to get wet" [GT]: Asa *ṣ-is*- (caus.) "to fill with liquid" | Ma'a *-sīwa* "to be wet", cf. *-sī* "to rain" | DhI. *ṣ-aḍ*- (caus.) "to wet, moisten" (Ehret 1980, 175, #21).

Sem. \**t̥* < AA \**č*

From an old voiceless palatal affricate. Corresponds regularly to SCu. \**č*- ||| AS \**č*- | NBch. \**č*-:

• Ar. *tuṭūl*- "verruie", *tuṭūla* & II *tataṭala* "être couvert de verrues" [BK I 215] = *tuṭūl*- "verruie, lentille / wart, freckle", *tuṭūla* & II *tataṭala* "to be covered with warts (body)" [Blachère I 1134-5] ||| WCh.: AS \**čē*<sub>2</sub>l "wound" [GT 2004, 48]: Angas *čīil* "a wound, a sore, a bruise" [Flk. 1915, 158] = *čīl* "Wunde" [Jng. 1962 MS] = *čil* "wound" [ALC 1978, 9] = *čīn-čil* "to hurt" (act. "to make wound", cf. *čīn* "to make") [Gcl. 1994, 72], Mushere *čeel ku mat-čīk* "adultery" (lit. "wounding of marriage", cf. *mat-čīk* "marriage") [Dkl. 1997 MS], Gmy. *šiel* "wound" [Srl. 1937, 214] = *šil* "ulcer", *žap-šil* "pimple" [Krf.] = *šil* "ulcer" [Hlw. 2000 MS, 34] < AA \**č-ʔ*-1 "wound" [GT].

• Ar. *taṭaʿa* "faire boire les chameux à leur soif, 3. boire à sa soif" [BK I 214, different basic meaning in Blachère I 1130] ||| SCu.: ERift \**čaʿ*- [GT]: Qwd. *čaʿ-am*- "to drink" [Ehr. 1980 MS, 11]. From AA \**č-ʔ* "to drink" [GT]? Uncertain.

• Sem. bicons. \**t̥b* [Gray 1933, 127, #43; Zbr. 1971, #269] → \**wṭb* [prefix \**w*-] "to sit (down)" vs. Ar. *tabba* "s'asseoir et s'établir solidement" [BK I 215] ||| SCu. \**čib*- (?) [GT]: Qwadza *čibi-liko* "bird's nest" [Ehr. 1980 MS, 11] || NAgaw: Hamir *sib* ~ *zib* ~ *zib* "bleiben, sich aufhalten, wohnen", *sib-ā* "Ortschaft, Land" [Rn. 1884, 405] ||| Eg. *jsb.t* [Belova: < \**sib*-] "Stuhl, Thron, Untersatz für Statuen und Stelen" (Amarna, Wb I 132, 2-8) < AA \**čib*- "to sit" [GT].

NB1: For the semantic shift in Qwadza cf. e.g. PIE \**nizd*-o-s/m "nest" < \**ni*-sed- "to sit down" [IEW 887].

NB2: The Eg. word is hardly a late loan from Akk. *uṣbu* (contra Ward 1963, 418, #2; 1989, 77).

Lit. for Eg.-Ar.-Agaw: Vycichl 1953, 43; 1958, 371; 1959, 69 & 71; Belova 1987, 278; 1989, 15; 1991, 89, #6; 1993, 35, #41, 53.

• Ar. *tamtama* II "s'abstenir de qqc." [BK I 235] = I "1. s'arrêter, faire halte / to stop at, 2. (ʿan) hésiter / to waver" [Blachère 1224] ||| WCh.: Suroid \*čam [GT]: Kofyar *čám* "to refuse a request for something" [Ntg. 1967, 5].

• Ar. *tny*: *tanā* "6. éloigner, détourner qqn. de qqc." [BK I 238] = "to turn away or back (from one's course, from the object of one's want, desire)" [Lane 356] ||| WCh. \*čEn- "to send, drive away" [GT]: Common AS \*čē<sub>2</sub>n "to drive away" [GT 2004, 49] | Common NBch. \*či/ən- "to send" [Skn.]: Warji *čan-*, Pa'a *čīni*, Mburku *čin-*, Tsagu *čīn-*, Jimbiin *šān-*, Siri *cānu* [ts-] (NBch.: Skn. 1977, 39). See Takács 2002, 174.

• Ar. *tny* II "5. blâmer, critiquer" [BK I 238] = II "diffamer, diminuer la réputation (enfamar de buena fama)" [Dozy I 164] ||| WCh.: Suroid \*čan [GT]: Kfy. *čàn* "1. an abusive song, 2. to abuse in song" [Ntg. 1967, 5].

• Sem. \*tVr- "two" [GT]: Aram. *tārēn*, fem. *tartēn* [GB 931], Mandaic *tartin* ~ *atrin* [DM], NAram. *itr(i)*, fem. *tare(i)* [Bergsträsser], NSyr. *trī* ~ *tīrti* ~ *tirwē* ~ *tarwē* [Kutscher] (NWSem.: KB 2009) || MSA: Sqt. *tro* (*tiro*) ~ (poetical) *tróho* (so, t-) [Lsl. 1938, 445] = *trɔ*, fem. *trih* [Jns.], Hrs. *terō*, fem. *terét* [Jns. 1977, 133], Jbl. *troh*, fem. *trut* [Jns. 1981, 285], Mhr. *tru* (*tru*), fem. *trūt* [Jahn] = *təro* ~ *troh*, fem. *atráy* ~ *trēl* [Jns. 1987, 418] ||| WCh.: NBch. \*čir ~ \*čar "two" [GT]: Jimbin *šír* [Skn.], Pa'a *čírù* [MSkn.] = *čírù* [IL] = *čir* [Skn.], Siri *bə-čar* (prefix *b-* of numerals) [Skn. 1977] = *bicháre* [Gowers] = *būtšáñ* [IL] = *bəčár* [Skn./JI], Miya *cir* [ts-], Mburku *cár* [ts-] [Skn.] (NBch.: Skn. 1977, 33) | Ngizim *šírín* [Schuh] = *šírín* [IL], Bade *sērīn* [IL] || CCh.: Musgoy *sray* [Mch.], Daba *sírāy* [LG], Kola *sàrày* [Schubert] || ECh. \*sīr(V) "2" [GT] (Ch.: JI 1994 II, 332-3) < AA \*čar-/\*čir- (?) "two" [GT].

Lit. for NBch.-Sem.-SCu.: Blz. 1987 MS Num., 8-9, #2.2; 1990, 36; Takács 2002, 174.

NB1: Sem. \*tVr- is usually considered a var. of Sem. \*tīn- "2" (cf. Testen 1985), which may be true on a PAA level (AA \*čVn- ~ \*čVr-?).

NB2: WRift \*cad-a "two" [KM 2004, 288]: Irg. *tsar*, Brg. *čada* (WRift. Ehret 1980, 229, #4) probably also belongs here, since it may go back to SCu. \*\*čar- [GT] (although vice versa, i.e., WRift \*cad- > SCu. \*\*čad- is also plausible).

• Sem. \*tr(t)r "to throw" [GT]: Aram. *trtr* "jeter" [Růžička apud Lsl.] = *tartēr* "herunterwerfen" [Levy 1924 IV 675] || perhaps Ar. *tartara* "répandre, disperser" [Blachère I 1160] | MSA \*trtr "to drop" [GT], esp. Sqt. *trr* "jeter" [Lsl. 1938, 446] = *tártir* "to throw" [Jns.] ||| WCh.: Common AS \*čār (pl.) "to throw (a stone)" [GT] | Hausa *čárà* "to throw a spear, shoot an arrow" [Brg. 1934, 151] = *čárà* "to throw (e.g. spear)" [Abr. 1962, 133]. From AA \*č-r (presumably \*čar-) "to throw" [GT]. Cf. HSED #474. Attested also with refl./pass. (?) prefix \*n- in Sem. \*ntr "to fall, be dropped" (Can., Ar.).

• Ar. *trw*: *tarā* "1. être nombreux (se dit des hommes, des bestiaux etc.), 2. être plus riche en troupeaux, 3. rendre nombreux", *tariya* "être riche, posséder beaucoup de troupeaux ou d'autres biens" [BK I 222] ||| WCh. \*čar- "abundant" [GT]: Hausa *čár* "emphasizes fullness of vessel", *čárčár* "fullness of a vessel or bag with grain or with any solid sold by measure, 2. (adv.) in full" [Brg. 1934, 151] = *čárčár* "brimful, in full, complete" [Abr. 1962, 133] | AS \*čar ~ \*čer "many, much" [GT]: Sura *čár* "Kopflast vermehren" [Jng. 1963, 61], Kofyar *kóe-čer* "many" [Ntg. 1967, 18].

• Sem. \*tawr- "bull" [Gray 1934, 42, §107] ||| SCu. \*čur- ~ \*čawr- "bull" [GT]: Rift \*čawad- [< older \*čawar-] "lesser *kudu*" [GT] = WRift \*cawadu (coll.) "waterbucks" [KM 2004, 293] | Ma'a *čurú* "bull" [Ehret 1980, 227, #9 with false SCu. parallels] ||| OEG. s3 [reg. < \*(s)w)r] "taurillon (?)" (V., AL 77.3325) = "junger Stier" (GHWb 654; AÄWb I 1052). From AA \*čur- or \*čaw(a)r- "bull" [GT]. See also Blz. 2003, 9, #4.3 (Sem.-SCu.).

• NWSem. \*tāyy-/\*šāyy- (?) "gift" [GT]: perhaps Ug. *ty* "tribute, gift" [Gordon 1955, 335, #2018 after Virolleaud, Syria 21, 1940, 252, cf. also Sivan, UF 14, 1982, 211] = *ty* "Votivgeschenk" (recently reinterpreted as a toponym, cf. DUL, p.c. by G. del Olmo Lete, Nov. 2004), cf. also *šy* "Geschenk" [WUS

#2857 & #2600], Hbr. *šay* "Geschenk, Tribut" [GB 822] = "gift, present" [KB 1476] ||| WCh.: NBch. \*čay- ~ \*čiy- "to give" [GT]: Warji *ča-*, Jimbin *ši ~ ša*, Miya & Mburku *c-*, Kariya *čiy-* (NBch.: Skn. 1977, 23) ||| Eg. *sw ~ swt ~ j.sw* "Ersatz, Lohn, Entgelt" (OK, Wb I 131, 2-10) ||| LECu.: PSam \*sî "to give" [Heine 1978, 73] < AA \*č-y/w "to give" [GT]. See Takács 2002, 174. The reconstruction of Sem. \*t- here is fully uncertain, cf. OArām. *šy* "gift, donation" [DNWSI 1125] and Sqt. *še* "donner" [Lsl. 1938, 428], which point to Sem. \*šyy ~ \*šyy.

Sem. \*d̥ < AA \*ž

Originally a voiced palatal affricate. A regular match of SCu. \*ž- ||| Ch. \*ž- > WCh.: AS \*ž- | NBch. \*ž- etc.

- Sem. \*d̥r "to oppose" [GT]: Akk. *zêru* (ass. *ze ʿāru*, m/jB *ze ʿēru*) "nicht mögen, ablehnen, hassen" [AHW 1522] || Ar. *da ʿira* "to avoid, oppose, hate" [Dlğ.] = *da ʿira* "1. éviter, fuir qqn. (par peur, par aversion, par mépris), abhorrer qqn., 4. être en colère, 5. désobéir, se révolter contre son supérieur" [BK I 761, cf. DRS 325] ||| WCh.: AS \*žiyir "to rebuke" [GT]: Sura *žigir* "tadeln, zurechtweisen" [Jng. 1963, 67], Mpn. *žir* "to rebuke" [Frj. 1991, 23] ||| OEg. z3 [\*zr] "abwehren (?)" (PT, CT, Wb III 412, 16). From AA \*ž-ʔ-r "to oppose, reject" [GT]. Lit. for WCh.-Sem.: Dlğ. 1982, 33, #3.

- Ar. *d ʿy*: *da ʿā* "pousser vigoureusement et faire marcher devant soi (les chameaux, etc.)" [BK I 762; DRS 325] ||| SCu. \*ž<sub>2</sub>eʔ- "to herd" [GT]: WRift \*deʔ- "to herd" [GT]: Irq. & Alg. *de ʔ-em-*, Brg. *de ʔ* | Qwd. *de ʔ* "to herd" | Ma'a *zé ʿu* "to herd", mzéme "herdsman" (SCu.: Ehret 1980, 190, #19) ||| WCh.: perhaps Hausa *žááži* "caravan-leader" [Abr. 1962, 413] (unless a modern borrowing < English). From AA \*ž-ʔ "to lead cattle" [GT].

- Ar. *da ʿağa* "1. pousser, reposer, 2. forcer une fille" [DRS 337] ||| WCh.: PAngas \*žok [GT]: Angas *džok* "to fill up by pressing down the contents, fill full" [Flk. 1915, 169] = *žok* (K) "to fill in by pressing down" [Jng. 1962 MS, 46].

- Ar. *dab ʔ-at-* "jeune fille au corps gracieux et d'une humeur enjouée" [BK 763] = "jeune fille gracieuse et enjouée" [DRS 326] ||| WCh. \*že/ab- "child" [GT]: Common AS \*žeb ~ \*žab (pl.) "children" [GT 2004, 435-6] | Bole-Tangale \*žeba "slave" [Stl.] | Bade *žab* "child" [Stl.] (WCh.: Stl. 1987, 245, #29).

- Ar. *dağğa* "arriver, ne faire que d'arriver d'un voyage", *dāğğ-* "qui arrive d'un voyage" [BK I 765] = *dağğa* "venir d'arriver de voyage" [DRS 327] ||| WCh.: AS \*žik [GT]: Goamai *žik* "to come from, return from" [Srl. 1937, 83] < AA \*ž-g "to arrive, come from" [GT].

- Sem. \*d̥hb: OSA (Sab.) *dhb* "1. alluvial valley, 2. semi-annual irrigation", *mdhb-t* "alluvial land (below dam?)" [SD 38], Ar. (Yemen) *dahab* "champ" [DRS 328] | MSA \*d̥hb: Jbl. *déhéb* "to be flooded", *dheb* "flood torrent" [Jns. 1981, 45], Mhr. *dāhēb* "to be flooded", *dāhīb* "flood water, torrent" [Jns. 1987, 80] ||| WCh.: PAngas \*žāp (from \*žayap?) "swamp" [GT]: Angas *žaap* ~ *džaap* "a swamp, marsh" [Flk. 1915, 169, 200] = *žaap* (K) "marsh, swamp" [Jng. 1962 MS, 45] = *zap* "swamp, waterlog" [ALC 1978, 70] = *žap* "mud" [Krf.] < AA \*ž-h-b [GT].

- Ar. *daḥḥa* "1. donner une tape à qqn., 2. broyer, fendre (du bois)", *dḥy*: *daḥā* "1. battre la laine, 2. cingler, faire sentir sa violence à qqn. (se dit d'un vent violent)" [BK I 765-6; DRS 330] ||| SCu. \*ž<sub>2</sub>aḥ- "to hit" [GT]: WRift \*daḥ- [GT]: Irq. *daḥ-* "to knock over, down" | DhI. *daḥ-* "to pound", *daḥ-anite* "pestle" (SCu.: Ehr. 1980, 189) ||| LECu.: PSam \*zaḥ (?) [GT]: Rendille *žāḥ* "to beat" [Heine 1976, 212] = *žaḥa* "to beat" [PG 1999, 165] ||| Eg. *zh* "über Stampfenden" (OK, Wb III 464, 1) = "stampfen, zerstoßen" (GHWb 733) ||| WCh.: Daffo-Butura *žah* ~ *žá(hí)* "stampfen (Korn)" [Jng.], Bokkos *nžū* "stampfen, (im Mörser) stoßen" [Jng.] (Ron: Jng. 1970, 143, 216) | NBch. \*žV(?) "to pound" [GT]: Pa'a *žuwa* "to pound (in mortar)" [IL] = *žuwà* [MSkn.], Diri *žuwa* "mortar" [NSkn.], Miya *iži* "mortar" [NSkn.] (NBch.: Skn.

1977, 32, 35) || CCh.: Zime-Batna *zù* ? "to pound (in mortar)" [Jng.] (Ch.: JI 1994 II, 268-269). From AA \*ž-ḥ "1. to hit (in gen.), 2. pound" [GT].

• Sem. \*dhl "to corrode" [DRS]: Ar. (Dathina) *daḥal* "to corrode, rust" [Lsl.] = *daḥil* (so, *d-*) "se rouiller" [DRS 330] || Geez *zəḥla* ~ *zaḥala* "to corrode, rust, be corrupted" [Lsl. 1987, 634]: remotely related (on biconsonantal bases) with WCh.: PAngas \*ža<sub>2</sub>laŋ [GT]: Angas *želang* "rusts, rusty" [Flk. 1915, 200] = *žaləŋ* (K) "rusk (of iron)" [Jng. 1962 MS] = *nželəŋ* "rust" [ALC 1978, 47], from a common PAA \*ž-1 "to corrode (?)" [GT]. Ext. \*-ḥ- in Sem., \*-m > \*-ŋ in AS.

• Ar. *ḍakuwa* "1. être vif (esprit), 2. être doué d'un esprit vif", *ḍakā* ? "vivacité d'esprit", *ḍky*: *ḍakā* "1. être vif, perçant (esprit)" [BK I 778, cf. DRS 332] || NBCh. \*-žuk<sup>w</sup>- [GT]: Diri *ažukwa* "life (also heart, liver)" [Skn. 1977, 25] < AA \*ž-k-w "to be vivid" [GT]. For Ar.-Diri see Takács 2002, 177.

• OSA (Sab.) *ḍky* "to send (envoyer)", *h-ḍky* "to despatch (envoyer, dépêcher)" [SD39], Ar. *ḍky*: *ḍakā* "envoyer" [DRS 332] || WCh.: NBCh. \*žik<sup>w</sup>- [GT]: Warji *nžikw-* "to send" [Skn. 1977, 39] < AA \*ž-k-y/w "to send" [GT]. For Ar.-Warji see Takács 2002, 176.

• Ar. *ḍky*: *ḍakā* II "vieillir, devenir très-vieux", *ḍakā* ? "âge avancé, vieillesse" [BK I 778] || WCh.: Angas \*žək (?) [GT]: Angas *žək* (K) "old, worn-out" [Jng. 1962 MS].

• Ar. *ḍdl* II: *taḍaldala* "branler, chanceler (se dit de tout ce qui ne tient pas ferme ou manque de vigueur)" [BK I 779, cf. DRS 333] || WCh.: Gmy. *žaal'* [-ā'] "to move, stir, shake" [Srl. 1937, 80].

• Ar. *ḍalla* "to be weak, poor, disdained" [Zbr.] = "être bas, vil, de qualité inférieure, être dans l'abaissement" [BK I 778], (Maghreb) *ḍall* "se décourager, se démoraliser" [DRS] || ES: Tigre *zällälä* "être doux, sans force" [DRS] (Sem.: Frj. 1979, 1; Tritton 1933-1935, 595; Zbr. 1971, #43; DRS 334) || WCh.: Hausa *žällàrà* "trouble, anxiety" [Abr. 1962, 415] | AS \*žēl "suffering" [GT 2004, 435]: Sura *žēel* "1. Leid, Kummer, 2. Mitleid, Sorge, 3. Verfolgung, Entbehmung" [Jng. 1963, 67], Mupun *žēel* "1. poverty, 2. pity" [Frj. 1991, 23], Mushere *žyeel* (so, -y-) "suffering" [Dkl. 1997 MS] || Eg. *zwnw* ~ *zwn* ~ *zn* [< \*zwlw ~ \*zlw ~ \*zl] "leiden" (PT, Wb III 428, 1-3), *znnj* [\*zllj] "seelisch leiden, trübe gestimmt sein" (Lit. MK, Wb III 461, 1), *znnj* "Unglück" (LP, GR, Wb III 461, 2) < AA \*ž-1 "miserable" [GT].

• Sem. \*ḍmm: Ug. *t-ḍmm* "se conduire mal", *t-ḍmm-t* "inconduite" [DRS] = *t-dmm* (*d-*) "lascivious, degrading treatment", *t-dmm-t* "lasciviousness" [DUL 860; DLU II 463], Hbr. *zammā(h)* "infamy, shameful behaviour" [KB 272] || Ar. *ḍammama* II "1. blâmer, relever les défauts, les vices de qqn., commettre une action blâmable ou digne de mépris", *ḍamm-* "1. blâme, 2. défaut, vice" [BK I 781] (Sem.: DRS 335) || WCh.: Goemai *žang* "wrongness" [Srl. 1937, 81].

• Ar. *ḍara* ?a "multiplier, accroître une chose (en nombre)" [BK I 767] || SCu. \*ž<sub>2</sub>ir- (var. \*ž<sub>2</sub>ar-) "big" [GT]: WRift \*dir- [GT]: Alg. *dir-aw-* "to become large", *dadir* "big, large", Brg. *dir-om-* "to grow", *didir* "big, large" | ERift \*ž<sub>2</sub>ir- [GT]: Asa *žira* "big, large", Qwd. *dire* "big, large" | DhI. *ḍar-* "to increase, enlarge, add to" (SCu.: Ehr. 1980, 188, #6) || NBrb.: Uriaghel *u-zzur*, Iboqqoyen & Ait Ammart *u-žžur* "être gros, corpulent" [Rns. 1932, 320] || WCh.: Hausa *žar* "very" [Abr. 1962, 418] | Mpn. *žár* ~ *žáar* (aux.) "in excess, very much" [Frj. 1991, 22]. From AA \*ž-r "(to be) big" [GT].

• Ar. *ḍarama* "faire sortir tout à coup, lancer au dehors d'un seul coup (se dit d'une femme qui accouche)" [BK I 771] = "expulser l'enfant d'un seul coup (femme qui accouche)" [DRS 341] || WCh.: Common AS \*žirem ~ \*žerem "placenta, afterbirth" [GT 2004, 439] < AA \*ž-r-m "to push out afterbirth (?)" [GT].

• Ar. *ḍw* ? *ḍā* ?a "perdre, dissiper, dilapider (son avoir)" [BK I 789, cf. DRS 330] || WCh.: perhaps Suroid \*žē [GT]: Mpn. *žēe* "to lack (the argument that is lacking is subject)" [Frj. 1991, 22] | NBCh. \*žu "1. to leave, 2. allow, let" [GT]: Miya *zū*, Pa'a *ažū* (NBCh.: Skn. 1977, 10) < AA \*ž-w-<sup>ʿ</sup> "to leave, lose" [GT].

• Ar. *ḍwf*: *ḍāfa* "marcher lentement, les pieds écartés et tournés en dehors" [BK I 789] = "marcher d'un pas saccadé" [DRS 330] = "to walk with short steps, and in a straddling manner" [Lane

988] ||| WCh.: PAngas \*ʒ<sup>w</sup>ōp [GT]: Angas *žoop* "to trot (of a horse)" [Flk. 1915, 203] = *žwōp* "galoppieren (Pferd)" [Jng. 1962 MS, 15] < AA \*ʒ-w-p "to trot" [GT].

• Ar. (Palest.) *t-dāyal* "tourner autour" [DRS 331] ||| WCh.: PGmy. \*ʒ<sup>v</sup>el [GT]: Gmy. *žìel* "to surround, encircle" [Srl. 1937, 83] = *žel* "to surround, go round several times" [Hlw. 2000 MS, 14] < AA \*ʒ-y-l "to go around" [GT].

Sem. \*ʧ < AA \*č

It was an old glottal palatal affricate, which has been best retained in SCu. \*č- ||| NBch. \*č-. This AA phoneme was not frequent, so the number of supporting etymologies is limited:

• Sem. \*ʧmy: Ar. *zamy*: *zamā*- "brun, couleur brune", *ʔazmā*- "1. brun, 3. noir livide (se dit des lèvres, des gencives gonflées de sang)" [BK II 142] ||| perhaps WCh. \*čama [Stl. 1987, 193, #447]: NBch. \*čam(az)- (or \*č<sup>v</sup>-?) "darkness, night" [GT] = \*č-m-z [Skn.]: Warji *čyamaza-na*, Ma'a *čamaza*, Brk. *čamaže*, Kariya *čamazə*, Diri *šam*, Tsagu *šin* (NBch.: Skn. 1977, 17) | perhaps Tangale *šum* "night" [Jng. 1991, 148] < AA \*č-m "dark" [GT]? See Takács 2002, 175.

• Sem. \*ʧufr-/\*ʧifr- "fingernail, claw" [GT] (Sem.: GB 687; Lsl. 1945, 247; Rabin 1975, 87, #13) ||| SCu.: Brg. *čarafu* "claw" [Flm. 1969, 24, #12] = Brg. & Alg. *čarafu* "nail, claw" [Ehr. 1980, 329] ||| NBch. \*čərf- (?) [GT] = \*k-r-b (!) [Skn.]: Pa'a *karfən* [velarization of \*č-] "fingernail" [Skn. 1977, 21] < AA \*čVrVf-/\*čVfVr- "fingernail" [GT]. Lit. for Sem.-SCu.: Dlg. 1966, 60, #2.10; Flm. 1969, 24, #12; Blz. 1989 MS Om., 12, #34; HSED #513. Sem.-SCu.-Pa'a: Takács 2002, 175.

Sem. \*š (\*š<sub>1</sub> vs. \*š<sub>2</sub>?) < AA \*č vs. \*š

The Sem. lateral sibilant derives apparently from two old lateral varieties (sibilant vs. affricate). For the inner Sem. evidence of the two lateral sibilants see SED 1, xcvi-cv. The examples for lateral correspondences in SCu. and WCh. of Sem. \*š in general are abundant (listed by Takács in RO 54/2, 2001, 71-76 and 107-109), but so far no direct (one-to-one) correspondences of the supposed Sem. \*š<sub>1</sub> (Hbr. š, Ar. š, MSA š) vs. \*š<sub>2</sub> (Hbr. š, Ar. š, MSA š) ||| SCu. \*č vs. \*š ||| Nbauchi \*š vs. \*ž, resp., can be pointed out. Therefore, we leave this problem undiscussed for further etymological research.

Sem. \*š (former \*ḍ) < AA \*č

Stands firm as a reflex of the old AA glottal lateral affricate, being a correspondence of SCu. \*č<sub>2</sub> < \*č ||| WCh.: NBch. \*č, in which both the affricate and lateral features of the underlying PAA phoneme were best preserved:

• Sem. \*ʔarš- (\*ʔarḍ-) "terra" [Frz. 1965, 144, #3.01] ||| NBch. \*rič- "earth, ground" [GT]: Pa'a *riča*, Siri *rəču*, Mburku *riči*, Tsagu *hīče* [GT: irreg. h- < \*r-, perhaps via \*yič-] (NBch.: Skn. 1977, 19) < AA \*rVč- "earth" [GT]. Lit. for Sem.-NBch.: Dlg. 1982, 33; 1987, 210; 1989, 102; Mlt. 1984, 17; Stl. 1987, 236; 1991 MS, 8; 1995, 62; OS 1988, 82; Mlt.-Stl. 1990, 70; Takács 2002, 178.

• Sem. \*ʕšš: Ar. *ʕdḍ*- "fort, robuste" [BK I 276], perhaps cognate with SCu. \*ʕač<sub>2</sub>- [\*-tl-] "fat (adj.)" [GT] = WRift \*ʕač "to be mature, fully grown", hence \*ʕačar "fat, thick-set, fully-grown, chubby" [KM 62]: Irq. *ʕāc-ar* "fett", Brg. *ʕāc-ari* "fett", Alg. *ʕāca* "mature" | Ma'a *eš-amúye* [-hl-] "fett" (SCu.:



Ehret 1980, 275) ||| Eg. *ʕd* [reg. < \*ʕĉ] "Fett" (OK, Wb I 239). From AA \*ʕaĉ- "1. fat, 2. fully-grown"<sup>15</sup> [GT].

• Sem. \*γšš: Ar. *yaḏḏa* I "être plein de vigueur, de sève, de jeunesse (se dit d'un homme, d'une plante)", II "être dans le bien-être, prospérer", *yaḏḏ-* "1. frais, tendre, nouveau, 2. plein de vigueur et de santé (homme)" [BK II 473-4] ||| Bed. *yaḏaʔ* [met. < \*ʕayadʔ] "feucht, nass, unreif sein" [Rn. 1895, 241] || LECu.: PSam \*ʕayḏi "unripe" [Heine 1978, 77] || SCu. \*ʕEĉ- [\*-ĉ- < \*-ĉ-] "unripe, raw" [GT after Ehret 1980, 277] = WRift \*ʕĉĉ "to be unripe" [KM 102]: Irq. *ʕĉĉ* "fresh, raw", Grw. *ʕĉĉ* "unripe", Alg. *ʕĉĉ* "to be unripe, raw" (WRift: KM l.c.) ||| WCh.: Diri *yaḏa* [met. < \*ʕayadʔ] "unripe, wet" [Skn. 1977, 47]. Lit.: Hodge 1968, 27 (Ar.-Eg.); Dlg. 1987, 209, #104 (SCu.-LECu.).

• Sem. \*hšb → OSA (Sab.) *hḏb* "showers of rain" [Biella Kendrick, not in SD], Ar. *haḏaba* "faire tomber de l'eau, pleuvoir (ciel), mouiller" [BK II 1425] ||| SCu. \*ĉ<sub>2</sub>ub- "to rain" [Ehr.]: Irq. *ĉuw-* [-w- < \*-VbV-] "to rain, drip", *ĉuway* "rain", Brg. *ĉub-* "to rain, drip", *ĉubay* "rain", Alg. *ĉubay* "rain" | Qwd. *ĉub-* "to rain" | Dhl. *luḥ-* [irregular *l-* < \*ĉ-] "to rain" (SCu.: Ehret 1980, 217, #24) < AA \*ĉ-b "to rain" [GT]. Sem. \*hšb with prefix \*h-? Cf. also Ar. *ḏabba* "être mouillé, se couvrir de moiteur" [BK 2]? See Dlg. 1987, 208, #101 (SCu.-Sem.); HCVA 5, 35, #409 (Ar.-SCu.-CCh.).

• Sem. \*mšš "to go sour" [GT]: (?) Hbr. *maššā(h)* "matzah: type of flat bread, baked quickly from barley meal and water, with unleavened dough" [KB 621] || Ar. *maḏḏ-* & *maḏaḏ-* "lait aigre" [BK II 1119] = "sour milk" [Lsl.] || Geez *maḏḏa* ~ *maḏaḏa* "to ferment, be acid, sour" [Lsl. 1987, 330-1] ||| probably NBch. \*ĉam- "bitter" [GT] = \*ĉ-m vs. \*ḏ<sup>y</sup>-m [Skn.]: Wrj. *ḏyamḏyan* [ḏ<sup>y</sup>- < \*ḏ<sup>y</sup>-], Pa'a *ĉamma*, Siri *ĉāmāmi*, Jmb. *ḏyamḏyama*, Miya *ḏemaḏem*, Mburku *ḏāmin*, Tsagu *ĉēmama* (NBch.: Skn. 1977, 13). See Takács 2002, 177-8.

• Sem. \*šb<sup>ʕ</sup>: OSA (Sab.) *ḏb<sup>ʕ</sup>* *h-ḏb<sup>ʕ</sup>* (caus.) "to send to the attack or smite (?) enemy" [SD 41] = "to attack, strike" [Dlg.], Ar. *ḏb<sup>ʕ</sup>* "to stretch forth one's upper arm towards s'one for the purpose of striking" [Lane 1766] ||| SCu. \*ĉ<sub>2</sub>ibi<sup>ʕ</sup>- "to push" [GT]: Irq. *ĉiwi<sup>ʕ</sup>* [-w- < \*-b-] "to push" [Ehr.] = *ĉiwī<sup>ʕ</sup>* "to push" [Mgw. 1989, 104] | Dhl. *ĉiḏi<sup>ʕ</sup>* "to shove, thrust away" [Ehr.] = *ĉiḏi<sup>ʕ</sup>* "to push away" [EEN 1989, 18] (SCu.: Ehret 1980, 216). ECU.-SCU.: Dlg. 1987, 208, #97; 1989, 100, #36.

• Sem. \*šábu<sup>ʕ</sup>- "hyena" [Dlg.] ||| SCu.: PRift \*ĉ<sub>2</sub>abak<sup>w</sup>- [< \*ĉ-] "sp. spotted carnivore" [Ehret 1980, 359, #1] < AA \*ĉ-b "hyena sp.?" [GT]. For Sem.-SCu. see Dlg. 1987, 208.

• Sem. \*šbb → Ar. *ḏabba* V "être très-très gras, dodu (se dit d'un enfant qui ale cou très-court, le corps gras, en sorte que les bras s'écartent du corps)" [BK II 3] ||| perhaps NBch. \*ĉub- (?) [GT]: Diri *šəḏu* [met. < \*ĉəb-] ~ *subu* "fat (v. and adj.)" [Skn. 1977, 21] < AA \*ĉ-b "fat" [GT]. Uncertain equation. See Takács 2002, 178. Alternatively, NBch. \*ĉub- < \*ĉ-H-b = Sem. \*šabḏ- "(animal) fat" [SED I 232-3, #261] < AA \*ĉ-b-ḏ "fat" [GT] (extended by the affix \*-ḏ of body parts?).

• Sem. \*špy → Ar. *ḏafā* "1. être en abondance, 2. déborder, couler à pleis bords", *ḏāfin* [\*ḏāfi<sup>ʔ</sup>-un] "abondant, qui se trouve à profusion" [BK II 32] ||| SCu. \*ĉ<sub>2</sub>af- [GT]: Irq. *ĉaf-* "to abound" [Ehr. 1980, 328, #81]. From AA \*ḏ-f "to abound" [GT].

• Perhaps Sem. \*šw<sup>ʔ</sup> > Ar. *ḏw<sup>ʔ</sup>* *ḏā<sup>ʔ</sup>a* II "3. se détourner, s'écarter de qqch." [BK 44] = "to turn away, decline (from an affair)" [Lane 1809] ||| WCh.: NBch. \*ĉey- "to wring" [Skn.]: Warji *ĉey-* ('*tl-*), Pa'a *ĉei* ('*tl-*), Siri *ĉeya* ('*tl-*), Miya *ĉiy-* (*tl-*) (NBch.: Skn. 1977, 48) < AA \*ĉ-w/y "drehen" (?) [GT]. Uncertain equation based on isolated glosses.

15. For the semantic shift in Ar. cf. e.g. Cpt. (SAA<sub>2</sub>F) *təḳ* "fest, stark, kräftig sein", qual. (SAA<sub>2</sub>F) *təḳ* "auch: gesund, fett" (KHW 226-227) < LEg. *ḏh* "fett, gemästet" (GR, Wb V 325, 15), or Eg. *ḏd3* [reg. < \*gdl] "fett" (MK, Wb V 631, 3-9), hence LEg. *ḏd3* "reif sein, reifen lassen" (GR, Wb V 631-2) = "1. to swell, grow fat, 2. ripen" (PL 1252) ? Cpt. (S) *šate* (3x also -*aa-*) "to advance in age, be(come) ripe", *štai* "ripen (grain)" (CD 791-2; CED 321; NBĀ 427) ||| Sem. \*gdl "to grow strong" [GT].

• Sem. \*šwg > Geez *dwg*: *ḏoga*, *ḏawwaga* "to be malignant, perverse, vicious etc.", Tna. *(tä)šawwägä* "to have an angry look, be sullen, gloomy" etc. (ES: Lsl. 1987, 153) ||| SCu. \*č<sub>2</sub>āk<sup>w</sup>- "bad, ugly, evil" [Ehret 1980, 214-5] = WRift \*čakw "bad, wicked" [KM 2004, 275] < AA \*č-w-K "bad" [GT]. For Geez-SCu. cf. Dlg. 1987, 207, #92.

\* \* \*

#### *Abbreviations of languages and related terms*

AA: Afro-Asiatic (Afrasian, Semito-Hamitic), Akk.: Akkadian, Alg.: Alagwa, Amh.: Amhara, AP: African areal parallel, Ar.: Arabic, Aram.: Aramaic, AS: Angas-Sura, BAram.: Biblical Aramaic, Bch.: Bauchi, Bed.: Bed'awye (Beja), BM: Bura-Margi, BN: Bade-Ngizim, Brb.: Berber, Brg.: Burunge, BT: Bole-Tangale, C: Central, Ch.: Chadic, Cpt.: Coptic, CT: Coffin Texts, Cu.: Cushitic, Dem.: Demotic, Dhl.: Dahalo, Dly.: Dullay, E: East, Ebl.: Eblaite, Eg.: Egyptian, ES: Ethio-Semitic, ESA: Epigraphic South Arabian, Eth.: Ethiopian, Eth.-Sem.: Ethio-Semitic, Gk.: Greek, Gmy.: Goemai, GR: Ptolemaic and Roman period, Grg.: Gurage, Grw.: Gorowa, H: Highland (in Cushitic), Hbr.: Hebrew, Hrs.: Harsusi (in MSA), IE: Indo-European, Irq.: Iraqw, JAram.: Jewish or Judeo-Aramaic, Jbl.: Jibbali, JPA(ram.): Jewish Palestinian Aramaic, Kfy.: Kofyar, L: Late or Low(land), Lit.: literary texts, lit.: literature, LP: Late Period, M: Middle, Mag.: magical texts, MA: Middle Assyrian, Math.: mathematical papyri, MB/mB: Middle Babylonian, Med.: medical texts, Mhr.: Mehri, MK: Middle Kingdom, Mpn.: Mupun, MSA: Modern South Arabian, Msr.: Mushere, N: New, N: North, NA(ss.): Neo-Assyrian, NB(ab.): Neo-Babylonian, NBch.: North Bauchi, NE (or NEg.): New Egyptian, Nil.: Nilotic, NK: New Kingdom, NS: Nilo-Saharan, O: Old, OA: Old Assyrian, Oakk.: Old Akkadian, OB: Old Babylonia, OK: Old Kingdom, Om.: Omotic, OSA: Old South Arabian, OT: Old Testament, P: Proto-, PB: Post-Biblical, PClass.: Post-Classical, PT: Pyramid Texts, Qwd.: Qwadza, S: South, (S): Sahidic, SA: Saho & Afar, Sab.: Sabaeen, SB(ab.): Standard Babylonian, SBch.: South Bauchi, Sem.: Semitic, Sgt.: Soqotri, Syr.: Syriac, TA(ram.): Aramaic of Talmud, Tna.: Tigrinya, Ug.: Ugaritic, W: West, Wlm.: Tawllemed.

#### *Abbreviations of author names*

Abr.: Abraham, Alb.: Albright, AMS: Amborn & Minker & Sasse, Apl.: Appleyard, BK: Bieberstein Kazimirsky, Blv.: Belova, Blz.: Blažek, Bnd.: Bender, Brg.: Bargery, Brk.: Brockelmann, Brq.: Burquest, Brt.: Barreteau, Chn.: Cohen, Clc.: Calice, Dkl.: Diyakal, Dlg.: Dolgopolsky, DM: Drower & Macuch, EEN. Ehret & Elderkin & Nurse, Ehr.: Ehret, Flk.: Foulkes, Frj.: Frajzyngier, Ftp.: Fitzpatrick, GB: Gesenius & Buhl, Gcl.: Gochal, GT: Takács, Hfm.: Hoffmann, Hlw.: Hellwig, Hsk.: Hoskison, IL: Institute of Linguistics, IS: Illič-Svityč, JFQ: Quack, JI: Jungraithmayr & Ibriszimow, Jng.: Jungraithmayr, Jns.: Johnstone, KB: Koehler & Baumgartner, KM: Kießling & Mous, Krf.: Kraft, LG: Lienhard & Giger, Lks.: Lukas, Lpr.: Loprieno, Lsl.: Leslau, Mch.: Mouchet, Mgw.: Maghway, Mlt.: Militarev, Mnh.: Meinhof, MSkn.: M. Skinner, Mts.: Matsushita, Ntg.: Netting, Nwm.: Newman, NZ: Naït-Zerrad, OS: Orel & Stolbova, PAM: Prasse & Alojaly & Mohamed, Prs.: Prasse, RB: Rapp & Benzing, RK: Reutt & Kogan, Rn.: Reinisch, Rpr.: Roper, Rsl.: Rössler, Scn.: Sachnine, Skn.: N. Skinner, Snd.: Schneider, Snk.: Schenkel, Srl.: Sirlinger, Ss.: Sasse, Stl.: Stolbova, Stz.: Satzinger, Vcl.: Vycichl, Vrg.: Vergote, Wlf.: Wölfel, Wtl.: Whiteley, Zbr.: Zaborski, Zhł.: Zyhlarz.

*Quoted literature*

- Abraham, R. C.: *Dictionary of the Hausa Language*.<sup>2</sup> London, 1962, University of London Press.
- AHW = Soden, W. von: *Akkadisches Handwörterbuch*. I-III. Wiesbaden, 1965-1981, Otto Harrassowitz.
- AL I-III = Meeks, D.: *Année lexicographique. Égypte ancienne*. Tome 1-3 (1977-1979). 2<sup>ème</sup> édition. Paris, 1998, Cybele.
- Albright, W. F.: "Notes on Egypto-Semitic Etymology. II". *American Journal of Semitic Languages and Literatures* 34/4 (1918), 215-255.
- Albright, W. F.: "The Principles of Egyptian Phonological Development". *Recueil de Travaux Relatifs à la Philologie et à l'Archéologie Égyptiennes et Assyriennes* 40 (1923), 64-70.
- Albright, W. F.: "Notes on Egypto-Semitic Etymology. III". *Journal of the American Oriental Society* 47 (1927), 198-237.
- ALC 1978 = *Angas Language Committee (in Cooperation with Nigeria Bible Translation Trust): Shàk nkarnj kè shàktok mwa nɔ̀n Ngas. Ngas–Hausa–English Dictionary with Appendix Showing Some Features of Ngas Grammar*. Jos, Nigeria, 1978, Nigeria Bible Translation Trust.
- AMS = Amborn, H. & Minker, G. & Sasse, H.-J.: *Das Dullay. Materialien zu einer ostkuschitischen Sprachgruppe*. Berlin, 1980, Reimer Verlag.
- Appleyard, D.: "Agaw and Omotic Links. The Evidence of the Lexicon. MS". Paper presented at the 2<sup>nd</sup> *International Symposium on Cushitic and Omotic Languages*, Torino, November 1989. Proceedings forthcoming.
- Appleyard, D.: *Agaw Vocabulary Comparative Notes*. MS. London, 1989. 24 p.
- Appleyard, D.: "The Vowel Systems of Agaw: Reconstruction and Historical Inferences". *Proceedings of the Fifth International Hamito-Semitic Congress*. Band II. Wien, 1991, Afro-Pub. Pp. 13-28.
- ÄWb I = Hannig, R.: "Ägyptisches Wörterbuch I. Altes Reich und Erste Zwischenzeit". *Hannig-Lexica* 4. Mainz am Rhein, 2003, Verlag Philipp von Zabern.
- Bargery, G. P.: *A Hausa-English Dictionary and English-Hausa Vocabulary Compiled for the Government of Nigeria*. London, 1934., Oxford University Press, Humphrey Milford.
- Barreteau, D. & Bléis, Y.: *Lexique mafa. Langue de la famille tchadique parlée au Cameroun*. Paris, 1990, ORSTOM, Librairie Orientaliste Paul Geuthner.
- Belova, A. G.: "Struktura kornja v drevneegipetskom i semitskih jazykah". *Problemy języków Azji i Afryki*. Warszawa, 1987, Wydawnictwo Polskiej Akademii Nauk. Pp. 275-282.
- Belova, A. G.: "Refleksy semitskih sibiljantov v drevneegipetskom". *Meroé* 4 (1989), 9-21.
- Belova, A. G.: "Struktura semitskogo kornja i semitskaja morfoložičeskaja sistema". *Voprosy Jazykoznanija* 1 (1991), 79-90.
- Belova, A. G.: "Sur la reconstruction du vocalisme afroasiatique: quelques correspondances égypto-sémitiques". In: Mukarovskij, H. G. (ed.): *Proceedings of the Fifth International Hamito-Semitic Congress*. Band II. Wien, 1991, Afro-Pub. Pp. 85-93.
- Belova, A. G.: "K voprosu o rekonstrukcii semitskogo kornevogo vokalizma". *Voprosy Jazykoznanija* 6 (1993), 28-56.
- Biberstein Kazimirski, A. de: *Dictionnaire arabe-français*. Paris, 1860, Maisonneuve & Co. Editeurs. (Reprinted in Beyrouth, no date, Librairie du Liban.)
- Blachère, R. & Chouémi, M. & Denizeau, C. & Pellat, Ch.: *Dictionnaire arabe-français-anglais (Langue classique et moderne)*. Tome I-III. Paris, 1967-1976., Maisonneuve et Larose.
- Blažek, V.: "Afrasian Numerals". MS. Paper prepared for the 5<sup>th</sup> *International Hamito-Semitic Congress*, Vienna, 1987.

- Blažek, V.: "Semitic \*ǵáwar- 'Bull' and Its Relatives". In: Bender, M. L. (chief ed.) & Appleyard, D. & Takács, G. (ed.): *Selected Comparative-Historical Afroasiatic Linguistic Studies in Memory of Igor M. Diakonoff*. Lincom Studies in Afroasiatic Linguistics 14. München & Newcastle, 2003, Lincom Europa. Pp. 7-12.
- Brockelmann, C.: *Lexicon Syriacum. 2. vermehrte und erweiterte Ausgabe*. Halle, 1928., Verlag Max Niemeyer.
- BSÉG = *Bulletin de la Société d'Égyptologie*, Genève.
- CAD = *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*. Vol. 1-21. Glückstadt & Chicago, Since 1956, J. J. Augustin, The Oriental Institute of the University of Chicago.
- Calice, F. von: "Über semitisch-ägyptische Sprachvergleihung". *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 85 (1931), 25-37.
- Calice, F. von: *Grundlagen der ägyptisch-semitischen Wortvergleihung*. Wien, 1936, Selbstverlag des Orientalischen Institutes der Universität Wien.
- Cohen, M.: *Essai comparatif sur le vocabulaire et la phonétique du chamito-sémitique*. Paris, 1947, Librairie Ancienne Honore Champion.
- DE = *Discussions in Egyptology* (Oxford).
- Diyakal, Ph.: *Mushere-English Dictionary. Collection of words carried out by Mr. Ph. I. D. started on September 10<sup>th</sup>, 1997 under the supervision of Herrmann Jungrathmayr (Univ. of Frankfurt)*. MS. 390 p.
- DLE = Lesko, L. H.: *A Dictionary of Late Egyptian*. Volume I, II, III, IV. Berkeley, 1982, 1984, 1987, 1989. B.C. Scribe Publications.
- DLU I = Olmo Lete, G. del & Sanmartín, J.: *Diccionario de la lengua ugarítica*. Vol. I. '(a/i/u)-l. Barcelona, 1996, Editorial AUSA.
- DLU II = Olmo Lete, G. del & Sanmartín, J.: *Diccionario de la lengua ugarítica*. Vol. II. m-z. Barcelona, 2000, Editorial AUSA.
- DNWSI = Hoftijzer, J. & Jongeling, K.: *Dictionary of North-West Semitic Inscriptions*. Part 1-2. Leiden, 1995, E. J. Brill.
- Dolgopol'skij, A. B.: *Sravnitel'no-istoričeskaja fonetika kušitskih jazykov*. Moskva, 1973, Nauka.
- Dolgopolsky, A. B.: "Chadic-Semitic-Cushitic: Epenthetic -γ- in Sura in the Light of Hamito-Semitic Comparative Linguistics". Jungrathmayr, H. (ed.): *The Chad Languages in the Hamitosemitic-Nigrific Boder Area. Papers of the Marburg Symposion (1979, Berlin)*. Berlin, 1982, Dietrich Reimer Verlag. Pp. 32-46.
- Dozy, R.: *Suppléments aux dictionnaires arabes*. Tome I-II. Leiden, Paris, 1881, E. J. Brill, Maisonneuve.
- Drower, E.S. & Macuch, R.: *A Mandaic Dictionary*. Oxford, 1963, Clarendon Press.
- DRS = Cohen, D.: *Dictionnaire des racines sémitiques ou attestées dans les langues sémitiques*. Fascicules 1-2. Paris & La Haye, 1970-1976, Mouton. Fascicule 3-. Leuven, 1993-, Peeters. With continuous pagination.
- DUL = Olmo Lete, G. & Sanmartín, J.: *A Dictionary of the Ugaritic Language in the Alphabetic Tradition. Part One [ʾa/i/u]-k]. Part Two [l-z]*. Leiden, 2003, E.J. Brill.
- EDE I = Takács, G.: *Etymological Dictionary of Egyptian. Volume One: A Phonological Introduction*. Leiden, 1999, E. J. Brill.
- EDE II = Takács, G.: *Etymological Dictionary of Egyptian. Volume Two: b-, p-, f-*. Leiden, 2001, E. J. Brill.
- Edel, E.: *Altägyptische Grammatik*. Roma, 1955, Pontificium Institutum Biblicum.
- EG 1927 = Gardiner, A. H.: *Egyptian Grammar*.<sup>1</sup> Oxford, 1927, Clarendon Press.

- Ehret, Ch.: *Ethiopians and East Africans. The Problem of Contacts*. Nairobi, 1974, East African Publishing House.
- Ehret, Ch.: *The Historical Reconstruction of Southern Cushitic Phonology and Vocabulary*. Berlin, 1980, Dietrich Reimer Verlag.
- Ehret, Ch.: *Kw'adza Vocabulary*. MS. Los Angeles, California, 1980. IV + 17 p.
- Ehret, Ch.: "Proto-Cushitic Reconstruction". *Sprache und Geschichte in Afrika* 8 (1987).
- Ehret, Ch. & Elderkin, E. D. & Nurse, D.: "Dahalo Lexis and Its Sources". *Afrikanistische Arbeitspapiere* 18 (1989), 5-49.
- Ember, A.: *Egypto-Semitic Studies*. Leipzig, 1930. The Alexander Cohut Memorial Foundation.
- Erman, A.: "Das Verhältniss des Ägyptischen zu den semitischen Sprachen". *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 46 (1892), 93-129.
- Faber, A.: "Semitic Sibilants in an Afro-Asiatic Context". *Journal of Semitic Studies* 29/2 (1984), 189-224.
- FD = Faulkner, R. O.: *A Concise Dictionary of Middle Egyptian*. Oxford, 1962, Clarendon Press.
- Fitzpatrick, J. F. J.: "Some Notes on the Kwolla District and Its Tribes". *Journal of the Royal African Society* 10 (1910-11), 16-52, 213-22.
- Foulkes, H. D.: *Angass Manual. Grammar, Vocabulary*. London, 1915, Kegan Paul, Trench, Trübner and Co.
- Frajzyngier, Z.: *A Pero-English and English-Pero Vocabulary*. Berlin, 1985, Dietrich Reimer Verlag.
- Frajzyngier, Z.: *A Dictionary of Mupun*. Berlin, 1991, Dietrich Reimer Verlag.
- GB = Gesenius, W. (bearbeitet von Buhl, F.): *Hebräisches und aramäisches Handwörterbuch über das Alte Testament. Unveränderter Neudruck der 1915 erschienenen 17. Auflage*. Berlin, Göttingen, Heidelberg, 1962, Springer-Verlag.
- GD = Landberg, *Le Comte de: Glossaire daïnois*. Vol. I-III. Leiden, 1920, 1923, 1942, E.J. Brill.
- GHWb = Hannig, R.: *Grosses Handwörterbuch Ägyptisch-Deutsch (2800-950 v. Chr.)*. Mainz, 1995, Verlag Philipp von Zabern.
- Gochal, G.: *A Look at Shik Ngas*. Jos, 1994, Jos University Press.
- Gordon, C. H.: *Ugaritic Manual*. Roma, 1955, Pontificium Institutum Biblicum.
- Gray, L. H.: "Notes étymologiques sur les 'verbes faibles' en hébreu biblique". *Archiv Orientalní* 5 (1933), 124-130.
- Gray, L. H.: *Introduction to Semitic Comparative Linguistics*. New York, 1934, AMS Press.
- Harris, Z. S.: *A Grammar of the Phoenician Language*. New Haven, Connecticut, 1936, American Oriental Society.
- HCVA 1-5 = Diakonoff, I. M.; Belova, A. G.; Militarev, A. Ju.; Porhomovskij, V. Ja.; (in part 1 also) Stolbova, O. V.: "Historical Comparative Vocabulary of Afrasian. Part 1". *St. Petersburg Journal of African Studies* 2 (1993), 5-28; 3 (1994), 5-26; 4 (1994), 7-38; 5 (1995), 4-32; 6 (1997), 12-35.
- Heine, B.: "The Sam Languages. A History of Rendille, Boni and Somali". *Afroasiatic Linguistics* 6/2 (1978), 23-115.
- Hellwig, B.: *Goemai – English – Hausa Dictionary*. MS. Draft. Printed out on 20 August 2000, 42 p.
- Hodge, C. T.: "Lislakh Labials". *Anthropological Linguistics* 23/8 (1981), 368-382.
- Holma, H.: "Zur semitisch-hamitischen Sprachwissenschaft". *Zeitschrift für Assyriologie* 32 (1919), 34-47.
- Hommel, F.: *Die semitischen Völkern und Sprachen*. Leipzig, 1883, Otto Schulze.
- Hommel, F.: "Über den Grad der Verwandtschaft des Altägyptischen mit dem Semitischen". *Beiträge zur Assyriologie* 2 (1894), 342-358.

- Hoskison, J. T.: *A Grammar and Dictionary of the Gude Language (Chadic)*. Ph.D. dissertation. 1983, The Ohio State University.
- HSED = Orel, V. É. & Stolbova, O. V.: *Hamito-Semitic Etymological Dictionary*. Leiden, 1995, E. J. Brill.
- IEW = Pokorny, J.: *Indogermanisches etymologisches Wörterbuch*. Band I. Bern-München, 1959, Francke Verlag.
- IL = *Institute of Linguistics. Bauch Area Survey Report presented by N. Campbell and J. Hoskison*. MS. Zaria, 1972.
- Jastrow, M.: *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature. Volume I: ʔ-k, Volume II: l-t*. New York, 1950, Pardes Publishing House Inc.
- Johnstone, T. M.: *Ḥarsūsi Lexicon*. London, 1977, Oxford University Press.
- Johnstone, T. M.: *Jibbāli Lexicon*. London, 1981, Oxford University Press.
- Johnstone, T. M.: *Mehri Lexicon*. London, 1987, University of London.
- Jungraithmayr, H.: *Wörterbuch der Angas-Sprache*. MS. 1962.
- Jungraithmayr, H.: "Die Sprache des Sura (Maghavul) in Nordnigerien". *Afrika und Übersee* 47 (1963), 8-89, 204-220.
- Jungraithmayr, H.: "Materialen zur Kenntnis des Chip, Montol, Gerka und Burrum (Südplateau, Nordnigerien)". *Afrika und Übersee* 48 (1965), 161-183.
- Jungraithmayr, H. & Ibrizimow, D.: *Chadic Lexical Roots. Volume I. Tentative Reconstruction, Grading, Distribution and Comments*. Berlin, 1994, Dietrich Reimer Verlag.
- Jungraithmayr, H. & Ibrizimow, D.: *Chadic Lexical Roots. Volume II. Documentation*. Berlin, 1994, Dietrich Reimer Verlag.
- Jungraithmayr, H.: *Mushere Vocabulary. Preliminary version composed on the basis of one part (the first 70 pages) of the material "Mushere Sprichwörter"*. MS. Frankfurt a/M, 1999, 20 p.
- Kammerzell, F.: *Panther, Löwe und Sprachentwicklung im Neolithikum. Bemerkungen zur Etymologie des ägyptischen Theonyms M3fd.t, zur Bildung einiger Raubtiernamen im Ägyptischen und zu einzelnen Grosskatzenbezeichnungen indoeuropäischer Sprachen*. Göttingen, 1994. Seminar für Ägyptologie und Koptologie, Göttingen.
- Kammerzell, F.: "Zur Etymologie des ägyptischen Zahlworts '4'". *Lingua Aegyptia* 4 (1994), 165-189.
- Kammerzell, F.: *Zur Umschreibung und Lautung*. = Hannig, R.: *Grosses Handwörterbuch Ägyptisch-Deutsch (2800-950 v. Chr.)*. Mainz, 1995, Verlag Philipp von Zabern. Pp. XXIII-LII.
- Kammerzell, F.: "The Sounds of a Dead Language. Reconstructing Egyptian Phonology". *Göttinger Beiträge zur Sprachwissenschaft* 1 (1998), 21-41.
- KB = Koehler, L. & Baumgartner, W.: *The Hebrew and Aramaic Lexicon of the Old Testament*. I-V. Leiden, 1994, E. J. Brill.
- Kießling, Roland & Mous, Maarten: *The Lexical Reconstruction of West-Rift Southern Cushitic*. Kuschitische Sprachstudien Band 21. Köln, 2004, Rüdiger Köppe Verlag.
- Kraft, Ch. H.: *Chadic Wordlists*. I-III. Berlin, 1981, Dietrich Reimer Verlag.
- Lane, E. W.: *An Arabic-English Lexicon*. I-VIII. London & Edinburgh, 1863-93, Williams and Norgate.
- Leslau, W.: *Lexique soqotri (sudarabique moderne), avec comparaisons et explications étymologiques*. Paris, 1938, Librairie C. Klincksieck.
- Leslau, W.: *Hebrew Cognates in Amharic*. Wiesbaden, 1969, Otto Harrassowitz.
- Leslau, W.: *Comparative Dictionary of Geʿez (Classical Ethiopic)*. Wiesbaden, 1987, Otto Harrassowitz.
- Levy, J.: *Wörterbuch über die Talmudim und Midraschim nebst Beiträgen von Heinrich Leberecht Fleischer. Zweite Auflage mit Nachträgen und Berichtigungen von Lazarus Goldschmidt*. I-IV. Berlin & Wien, 1924, Benjamin Harz Verlag.

- Loprieno, A.: "New Tendencies in Egyptological Linguistics". *Lingua Aegyptia* 4 (1994), 369-382.
- Loprieno, A.: *Ancient Egyptian. A Linguistic Introduction*. Cambridge, 1995, Cambridge University Press.
- Lukas, J.: "Das Hitkalanci, eine Sprache um Gwoza (Nordostnigerien)". *Afrika und Übersee* 48 (1964), 81-114.
- Lukas, J.: "Die Personalia und das primäre Verb im Bolanci (Nordnigerien). Mit Beiträge über das Karekare". *Afrika und Übersee* 55 (1971), 114-139.
- Maghway, J. B.: "Iraqw Vocabulary". *Afrikanistische Arbeitspapiere* 18 (1989), 91-118.
- Matsushita, Sh.: *An Outline of Gwandara Phonemics and Gwandara-English Vocabulary*. Tokyo, 1972, Tokyo Press.
- Meinhof, C.: "Linguistische Studien in Ostafrika. Fortsetzung". *Mitteilungen des Seminars für Orientalische Sprachen* 9 (1906), 278-333.
- Militarev, A. Ju. & Stolbova, O. V.: "First Approach to Comparative-Historical Phonology of Afrasian (Consonantism)". In: Mukarovsky, H. G. (ed.): *Proceedings of the Fifth International Hamito-Semitic Congress*. Band I. Wien, 1990, Afro-Pub. Pp. 45-72.
- Netting, R. M.: *Kofyar Vocabulary*. MS. 1967.
- Orel, V. É. & Stolbova, O. V.: "Cushitic, Chadic, and Egyptian: Lexical Relations". In: Shevoroshkin, V. (ed.): *Nostratic, Dene-Caucasian, Austric and Amerind*. Bochum, 1992, Brockmeyer. Pp. 167-180.
- Orel, V. É. & Stolbova, O. V.: "On Chadic-Egyptian Lexical Relations". In: Shevoroshkin, V. (ed.): *Nostratic, Dene-Caucasian, Austric and Amerind*. Bochum, 1992, Brockmeyer. Pp. 181-203.
- Osing, J.: "Zum Lautwert von 3 und ʿ". *Studien zum Altägyptischen Kultur* 24 (1997), 223-229.
- Osing, J.: "Zum Lautwert von d und ḏ". *Lingua Aegyptia* 9 (2000), 165-178.
- Prasse, K.-G. & Alojaly, Gh. & Mohamed, Gh.: *Lexique touareg-français*. Copenhagen, 1998, Museum Tusulanum Press, Université de Copenhagen.
- Quack, J. F.: "Zur Stellung des Ägyptischen innerhalb der afroasiatischen Sprachen". *Orientalistische Literaturzeitung* 97/2 (2002), 161-185.
- Rapp, E. L. & Benzing, B.: *Dictionary of the Glavdá Language*. Frankfurt am Main, 1968, Bible Society Frankfurt am Main.
- Reinisch, L.: *Die Chamirsprache in Abessinien. II. Chamir-deutsches Wörterbuch*. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Phil.-hist. Classe 106 (1884), 330-450.
- Reinisch, L.: *Wörterbuch der Bilin-Sprache*. Wien, 1887, Alfred Hoelder.
- Reinisch, L.: *Wörterbuch der Bedawye-Sprache*. Wien, 1895, Alfred Hölder Verlag.
- Reutt, T. E. & Kogan, E. Z.: "Materialy po leksike jazykov margi i bura". In: *Bespis'mennye i mladopis'mennye jazyki Afriki*. Moskva, 1973, Nauka. Pp. 83-147.
- Ricks, S. D.: *A Lexicon of Epigraphic Qatabanian*. Ph.D. dissertation. Berkeley, California, 1982, Graduate Theological University, Berkeley, California.
- Roper, E.-M.: *Tu Beḏawiḗ. An Elementary Handbook for the Use of Sudan Government Officials*. Hertford, 1928, Stephen Austin & Sons.
- Rössler, O.: "Das Ägyptische als semitische Sprache". In: Alheim, F. & Stiehl, R. (eds.): *Christentum am Roten Meer*. Band I. Berlin, New York, 1971, Walter de Gruyter. Pp. 263-325.
- Sachnne, M.: *Dictionnaire lamé-français. Lexique français-lamé*. Paris, 1982, SELAF.
- Sasse, H.-J.: "The Consonant Phonemes of Proto-East-Cushitic (PEC)". *Afroasiatic Linguistics* 7/1 (1979), 1-67.
- Sasse, H.-J.: *An Etymological Dictionary of Burji*. Hamburg, 1982, Helmut Buske Verlag.
- Satzinger, H.: "Egyptian ʿayin in Variation with d". *Lingua Aegyptia* 6 (1999), 141-151.
- Satzinger, H.: "Afroasiatischer Sprachvergleich". In: Grunert, S. & Hafemann, I. (eds.): *Textcorpus und Wörterbuch. Aspekte zur ägyptischen Lexikographie*. Leiden, 1999, E. J. Brill. Pp. 367-386.

- Schenkel, W.: "Zu den Verschluss- und Reibelauten im Ägyptischen und (Hamito)Semitischen. Ein Versuch zur Synthese der Lehrmeinungen". *Lingua Aegyptia* 3 (1993), 137-149.
- Schneider, Th.: "Beiträge zur sogenannten 'neueren Komparatistik'. Zum Gedenken an Otto Rössler (1907-1991)". *Lingua Aegyptia* 5 (1997), 189-209.
- Schuh, R. G.: "Bade/Ngizim Vowels and Syllable Structure". *Studies in African Linguistics* 9/3 (1978), 247-283.
- Schuh, R. G.: *A Dictionary of Ngizim*. Berkeley, California, 1981, University of California.
- SD = Beeston, A. F. L. & Ghul, M. A. & Müller, W. W. & Ryckmans, J.: *Sabaic Dictionary (English-French-Arabic). Dictionnaire sabéen (anglais-français-arabe)*. Louvain-la-Neuve, Beyrouth, 1982, Peeters, Librairie du Liban.
- SED I = Kogan, A. & Militarev, A.: *Semitic Etymological Dictionary. Vol. I. Anatomy of Man and Animals*. Münster, 2000, Ugarit-Verlag.
- Sirlinger, E.: *Dictionary of the Goemay Language*. Jos, Nigeria, 1937, Prefecture Apostolic of Jos.
- SISAJa I = D'jakonov, I. M.; Belova, A. G.; Četveruhin, A. S.; Militarev, A. Ju.; Porhomovskij, V. Ja.; Stolbova, O. V.: "Sravnitel'no-istoričeskij slovar' afrazijskih jazykov. Vypusk 1. p-ḫ-b-f". *Pis'mennye pamjatniki i problemy istorii kul'tury narodov Vostoka. XV godičnaja naučnaja sessija Leningradskogo Otdelenija Instituta Vostokovedenija Akademii Nauk SSSR*. Moskva, 1981, Nauka. Pp. 3-127.
- SISAJa II = D'jakonov, I. M.; Belova, A. G.; Militarev, A. Ju.; Porhomovskij, V. Ja.; Stolbova, O. V.: "Sravnitel'no-istoričeskij slovar' afrazijskih jazykov. Vypusk 2. t-ṭ-d". *Pis'mennye pamjatniki i problemy istorii kul'tury narodov Vostoka. XVI godičnaja naučnaja sessija Leningradskogo Otdelenija Instituta Vostokovedenija Akademii Nauk SSSR*. Moskva, 1982, Nauka. Pp. 3-93.
- SISAJa III = D'jakonov, I. M.; Belova, A. G.; Militarev, A. Ju.; Porhomovskij, V. Ja.; Stolbova, O. V.: "Sravnitel'no-istoričeskij slovar' afrazijskih jazykov. Vypusk 3. s-c-ṣ-š, č-č-š, š-č-š s labialami". *Pis'mennye pamjatniki i problemy istorii kul'tury narodov Vostoka. XVI godičnaja naučnaja sessija Leningradskogo Otdelenija Instituta Vostokovedenija Akademii Nauk SSSR*. Moskva, 1986, Nauka. Pp. 3-46.
- Skinner, N.: "North Bauchi Chadic Languages: Common Roots". *Afroasiatic Linguistics* 4/1 (1977), 1-49.
- Stolbova, O. V.: "Sravnitel'no-istoričeskaja fonetika i slovar' zapadnočadskih jazykov". In: Porhomovskij, V. Ja. (ed.): *Afrikanskoe istoričeskoe jazykoznanie. Problemy rekonstrukcii*. Moskva, 1987, Nauka. Pp. 30-268.
- Stolbova, O. V.: "Lateral Sibilants in Chadic (Reconstruction) and Their Correspondences in Semitic and Egyptian". In: Ibriszimow, D. & Leger, R. (eds.): *Studia Chadica et Hamitosemitica*. Köln, 1995, Rüdiger Köppe Verlag. Pp. 58-64.
- Stolbova, O. V.: *Studies in Chadic Comparative Phonology*. Moscow, 1996., "Diaphragma" Publishers.
- Takács, G.: "Outline of a North Bauchi Historical Phonology". *Afrikanistische Arbeitspapiere* 70 (2002), 187-202.
- Takács, G.: "Questions of Egyptian and Afro-Asiatic Comparison". *Rocznik Orientalistyczny* 56/1 (2003), 59-132.
- Takács, G.: *Comparative Dictionary of the Angas-Sura Languages*. Berlin, 2004., Dietrich Reimer Verlag.
- UF = *Ugarit-Forschungen* (Neukirchen-Vluyn).
- Vergote, J.: *Phonétique historique de l'égyptien*. Paris, 1945, Le Muséon.
- Voigt, R. M.: "Die Lateraleihe /ś, š, ž/ im Semitischen". *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 142 (1992), 37-52.
- Vycichl, W.: "Hausa und Ägyptisch. Ein Beitrag zur historischen Hamitistik". *Mitteilungen des Seminars für Orientalische Sprachen an der Friedrich-Wilhelms-Universität zu Berlin* 37 (1934), 36-116.



- Vycichl, W.: "Festgabe für Hermann Junker zu seinem 60. Geburtstag". *Archiv für Ägyptische Archäologie* 1/6 (1938), 131-140.
- Vycichl, W.: "Die ägyptischen Ausdrücke für 'Selbst'". *Muséon* 66 (1953), 41-44.
- Vycichl, W.: "Über eine Klasse ägyptischer Verbum *ult. j*". *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 53 (1953), 373-377.
- Vycichl, W.: "Der bestimmte Artikel in der Bedja-Sprache. Seine Beziehungen zum Ägyptischen und Berberischen". *Muséon* 66 (1953), 373-379.
- Vycichl, W.: "Grundlagen der ägyptisch-semitischen Wortvergleiche". *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 16 (1958), 367-405.
- Vycichl, W.: "Is Egyptian a Semitic Language?" *Kush* 7 (1959), 27-44.
- Vycichl, W.: "Nouveaux aspects de la langue égyptienne". *Bulletin de l'Institut Français d'Archéologie Orientale* 58 (1959), 49-72.
- Vycichl, W.: "Studien der ägyptisch-semitischen Wortvergleiche. Die Klassifikation der Etymologien. Zwölf neue Etymologien". *Zeitschrift für Ägyptische Sprache* 84 (1959), 70-74.
- Vycichl, W.: "Das Zeichen für d 'Hand' in der Hieroglyphenschrift und die semitischen Entsprechungen des zugrunde liegende Etymons". *Zeitschrift für Ägyptische Sprache* 112 (1985), 169-179.
- Ward, W. A.: "Notes on Some Semitic Loanwords and Personal Names in Late-Egyptian". *Orientalia NS* 32 (1963), 413-436.
- Ward, W. A.: "Reflections on Methodology in Egypto-Semitic Lexicography". In: Tubb, J. N. (ed.): *Palestine and the Bronze and Iron Ages. Papers in Honour of Olga Tufnell*. London, 1985, Institute of Archaeology. Pp. 232-248.
- Ward, W. A.: "Egyptian *thbs*: a Hurrian Loan-Word in the Vernacular of Deir el-Medineh". *Göttinger Miszellen* 109 (1989), 73-82.
- Wb = Erman, A. & Grapow, H.: *Wörterbuch der ägyptischen Sprache*. I-V.<sup>2</sup> Berlin, 1957-1971, Akademie-Verlag.
- Whiteley, W. H.: *Studies in Iraqw*. Kampala, 1953, East African Institute of Social Research.
- Whiteley, W. H.: *A Short Description of Item Categories in Iraqw (with Material on Gorowa, Alagwa and Burunge)*. Kampala, 1958, East African Institute of Social Research.
- Wölfel, J. D.: "Eurafrikanische Wortschichten als Kulturschichten". *Acta Salamanticensia. Filosofía y letras* 9/1 (1955).
- Wolff, E.: "'Aspect' and Aspect-Related Categories in Chadic". In: Jungrathmayr, H. (ed.): *The Chad Languages in the Hamitosemitic-Nigrític Border Area*. Berlin, 1982, Dietrich Reimer Verlag. Pp. 183-191.
- WUS = Aistleitner, J.: *Wörterbuch der ugaritischen Sprache*. Berichte über die Verhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig. Phil.-hist. Klasse 106/3 (1963).
- Zaborski, A.: "Biconsonantal Verbal Roots in Semitic". *Zeszyty Naukowe Uniwersytetu Jagiellońskiego, prace językoznawcze* 5 (1971), 51-98.
- Zaborski, A.: "Der Wortschatz der Bedscha-Sprache. Eine vergleichende Analyse". In: Schuler, E. von (ed.): *XXIII. Deutscher Orientalistentag, vom 16. bis 20. September 1985 in Würzburg. Ausgewählte Vorträge*. Stuttgart, 1989, Franz Steiner Verlag. Pp. 573-591.
- Zeidler, J.: "Altägyptisch und Hamitosemitisch. Bemerkungen zu den Vergleichenden Studien von Karel Petráček". *Lingua Aegyptia* 2 (1992), 189-222.
- Zyhlarz, E.: "Ursprung und Sprachcharakter des Altägyptischen". *Zeitschrift für Eingeborenen-Sprachen* 23 (1932-1933), 25-45, 81-110, 161-194, 241-254.