

Proto-Afrasian names of ungulates in light of the Proto-Afrasian homeland issue¹

In this paper, we present the first section of a comprehensive thesaurus of Proto-Afrasian zoonyms, compiled and reconstructed by the authors. The list contains more than a hundred names of ungulates, including bovids, pigs, equids and camels, as well as large herbivores (elephants, hippopotamuses and rhinoceroses), allowing for a wholesome (at the current level of our knowledge) picture of these species of fauna in the period preceding the split of Proto-Afrasian (ca. 11th millennium BCE, according to glottochronology) within the area presumably inhabited by speakers of Proto-Afrasian. The results of the reconstruction may be interpreted in favor of two different points of view on the localization of the Proto-Afrasian homeland, namely, the Levant vs. East Africa; the paper presents arguments both in favor of and against each of these hypotheses.

Keywords: Proto-Afrasian homeland; Afrasian (Afro-Asiatic) languages; etymology of zoonyms; reconstruction of cultural lexicon.

Until recently, debates about the primary habitat of the speakers of Proto-Afrasian (Afroasiatic, Semito-Hamitic) have been based either upon general and extra-linguistic argumentation, sometimes accompanied with scarce, incomplete and unrepresentative lexical comparisons; or upon the reconstruction of Proto-Afrasian (PAA) terms interpreted as arguments in favor of intensive gathering of wild cereals and beans (Diakonoff 1981) or in favor of proto- or incipient agriculture (Militarev 2002).

It goes without saying that the *Urheimat* issue cannot be seriously discussed without a complete and detailed reconstruction of PAA animal and plant names, as well as general environmental and cultural vocabularies. Likewise, of vital importance here are the approximate dates of branching of PAA and its descendant proto-languages, obtained by glottochronology. A trustworthy solution of the problem can be achieved only through correlation of comparative linguistic data with the findings and outcomes of such related sciences as archaeology, paleoclimatology, paleontology, and human population genetics.

The genealogical classification of the Afrasian macrofamily as worked out by Alexander Militarev, based first and foremost on lexicostatistics, is as follows (the figures below refer to the approximate BCE dates of branching of proto-languages, obtained glottochronologically by applying Sergei Starostin's recalibrated method²):

¹ Alexander Militarev is responsible for all lexical material, reconstruction of zoonyms, and discussion of the hypothetical Levant homeland of Proto-Afrasians and their identification with Natufians. Sergei Nikolaev is responsible for the extra-linguistic evaluation of PAA zoonyms, their paleozoological interpretation, and discussion of the hypothetical African homeland of Proto-Afrasian. We would also like to extend our gratitude to Anastasia Kirillova for her help in compiling the lists of references, the alphabetic index of reconstructed roots, and the list of abbreviations.

Militarev's research is supported by The Russian Science Foundation (Project № 20-18-00159); the financing organization is The Institute of Linguistics, Russian Academy of Sciences.

² As described in, e.g., Starostin 2000.

Proto-Afrasian – ca. 10,500:

1. Proto-Semitic-Egyptian-Berber-Chadic (PSEBC) – ca. 9,000.
 - 1.1. Proto-Semitic – ca. 4,500.
 - 1.1.1. Proto-South Semitic (Proto-MSA).
 - 1.1.2. Proto-North Semitic – ca. 3,700.
 - 1.1.2.1. Akkadian.
 - 1.1.2.2. Proto-Central Semitic (Ethiopian-Arabic-Levantine) – ca. 3,000.
 - 1.2. Proto-Egyptian-Berber-Chadic – ca. 7,800.
 - 1.2.1. Egyptian.
 - 1.2.2. Proto-Berber-Chadic – ca. 6,500.
 - 1.2.2.1. Proto-Berber – ca. 1,000.
 - 1.2.2.2. Proto-Chadic – ca. 5,500.
2. Proto-Cushitic-OmotiC (PCO) – ca. 8,800.
 - 2.1. Proto-Cushitic – ca. 7,500.
 - 2.1.1. Proto-North-Central Cushitic – ca. 6,800.
 - 2.1.1.2. Proto-North Cushitic (Beja).
 - 2.1.1.3. Proto-Central Cushitic (Agaw) – ca. 2,000.
 - 2.1.2. Proto-East Cushitic (incl. Yaaku-Mogogodo) – ca. 6,000.
 - 2.1.3. Proto-South Cushitic (incl. Dahalo and Ma'a) – ca. 4,800.
 - 2.2. Proto-OmotiC – ca. 6,000.
 - 2.2.1. Proto-North OmotiC (incl. Dizi and Mao) – ca. 4,200.
 - 2.2.2. Proto-South OmotiC (incl. Ongota) – ca. 4,600.

Until now, any systematic paleozoological argumentation relying on a complete set of PAA animal names has been conspicuously lacking. Today, however, over a hundred names for animals reconstructed by Militarev (who has also drawn from the most reliable comparanda and reconstructions by Olga Stolbova, Aharon Dolgopolsky, Václav Blažek and Gabor Takács, as well as, naturally, those included in SED II) represent terms that can be labeled Proto-Afrasian and refer to species which may be relevant for addressing the problem of the PAA habitat from the point of view of both biocenosis and food acquisition (hunting, fishing, and domestication of animals).

The animal section which is by far the largest (some fifty items), the most economically vital for the Epipaleolithic man of Southwest Asian and North African areas, and one of the most essential for dealing with the issue of the original homeland, consists of PAA names of ungulates (bovids, camels, equids), conventionally labeled as “largest herbivores”.

Below we present the complete list³ of reconstructed forms⁴ on various levels, together with their reflexes in individual languages.

1. Bovids and pigs

1.1a. *ʔar(a)w/y-‘k. of larger bovid’

³ Regrettably, we did not have time to include data from the forthcoming Issue VI (Labials) of the Chadic Lexical Database by Olga Stolbova.

⁴ It must be stressed that, since historical vocalism in Afrasian (and even Semitic) comparative linguistics is still a weak point, our reconstruction of specific vowels in roots and stems on all levels is in many cases tentative and sometimes rather arbitrary.

Sem. **ʔi/arw-/*ʔawr-* ‘calf, bull’: Akk. (Oakk. on) *arwû*, *armû*, etc. ‘gazelle’ [*Gazella sp.*]⁵ || Syr. *ʔarw-ān-ā* ‘vitulus, vitula’ | Gur. **ʔar-* ‘cows’: Ez., Gt. *āray*, etc.⁶

(?) Egyp. (MK) *ir.t* ‘calf’, (Dem.) *iry.t* ‘milking cow’ (if < **ʔVr-* not **ʔVl-*).

Chad. **ʔarw-* ‘k. of bovid’ [*Tragelaphus?*]: C. **ʔarw-*: Baldiu *érèw-è* ‘antelope sp.’ || E. **ʔar-*: Migama *ʔār-ó* ‘duiker’ [*Tragelaphus sp.*].

Cush. **ʔaraw-* ‘male of large ungulates’: N. **-rayVw-* (**ʔ > 0* in Beja): Beja *o-reo* ‘bull, steer’ (*o-* is a masc. article) || E. **ʔawar-* (met.) ‘bull’: SA: Saho *awr*, Afar *awur* ‘bull’ | LEC: Somali *awr* ‘he-camel’, Rendille *or* ‘he-camel, bull’, Boni *oor* ‘male elephant’ [*L. africana*], Oromo *oor-oo* ‘burden camel’, Bayso *aar*, Arbore *ʔaar*, Dasenech *ar* ‘bull’ | HEC **ʔaray-*: Burji *array*, *arʔáy* ‘bull’, *aʔre* ‘calf’ | Yaaku *erer* ‘antelope sp.’ || S. **ʔarw-*: Ma’a *áro* ‘large herbivore’ | Dahalo *ʔáároole* (with *-l* root extension?) ‘eland’ [*Taurotragus sp.*].⁷

► Cf. SED II No.16; Blažek 2003b: 236, 269; Mil. 2009; AADB 2476.

1.1b. **ʔar(a)w/y-* ‘k. of lesser bovid’

Sem. **ʔarwiy-* ‘ibex’ [*Capra ibex*]: Sab. *ʔrwy-n* pl. ‘(female) mountain goat, ibex (?)’ [*Capra ibex*] | Arab. *ʔurw-iy-at-* ‘chèvre de montagne’ [*C. ibex*] || MSA: Mhr. *ʔar-īt* ‘goat’, Jib. *ʔarū* ‘she-goat’ (Nakano 1986), Mhr. *ḥā-ráw-n*, Hrs. *ḥe-werū-n* (met.), Jib. *ʔerú-n* ‘goats’, Soq. *ʔére-hon* ‘moutons, chèvres’.⁸

Berb.-Can.: Tenerife *ara* ‘goat’.

Chad. **ʔawr-* (met.) ‘small cattle’: W. **(ʔa)war-*: Hausa *ara-ara* (*-w-* lost in a reduplicated form?) ‘type of long-legged ram, goat, sheep’, Montol, Ankwe, Gerka *ur*, Kulere *wàr* ‘he-goat’ || E. **ʔawr-*: Lele *ōr-ē* ‘goats’.

Cush. **ʔaray-* ‘k. of lesser bovid’:⁹ E. **ʔaray-*: SA **ʔVray-*: Afar *eráy-taa* ‘goat’ | LEC **ʔar-*: Somali *ari, eri* ‘pecore e capre’, Bayso *arer* ‘antelope sp.’ | HEC **ʔaray-*: Burji *aráy* ‘sheep’ | Yaaku *erer* ‘antelope sp.’ || S. **ʔary-*: Iraqw *ari* ‘goat’, pl. *ar-a*, Alagwa, Burunge *ar-a* (pl.) ‘goats’ | Qwadza *alí-to* (*-l* < **-r-*) ‘goat’.

► Cf. SED II No. 18; AADB 2447.

1.2. **ʔayl-* ‘k. of lesser bovid’

Sem. **ʔayil-* ‘ibex [*Capra ibex*]’: (?) Akk. *al-u* (*el-u*) ‘a fine breed of sheep’ (reading arguable) || Ugr. *ʔal, ʔil* ‘ram of superior quality’ | Hbr. *ʔayil* ‘ram’ | ESA: Sab. *ʔyl* ‘mountain goat, ibex’ [*C. ibex*], Min. *ʔyl* ‘bélier, bouquetin’ [*C. ibex*] | Arab. *ʔiyyal-, ʔuyyal-* ‘bouquetin, bouc de montagnes’ [*C. ibex*].¹⁰

⁵ Presumable scientific zoological meanings are quoted in square brackets.

⁶ Also Tgr. *ʔarw-ät* (with f. suff. *-ät*) ‘female elephant’ [*Loxodonta africana*] quoted in SED II No. 17 **ʔarway-* ‘wild beast; lion’. For discussion on Gz. *ʔarwe* ‘animal, wild animal, beast’ with debatable etymological connections, see SED II: 27 (No. 18); on Amh. *awra* ‘male (animal), bull’ and its probable areal connections with E. Cush. **ʔaw(a)r-* ‘bull’ with uncertain direction of borrowing, see SED II: 23 (No. 16). Cf. also Tgr. *wuhər* ‘bull’.

⁷ Omot. N.: Oyda *arr* ‘cow’ is isolated, likely from E. Cush.

⁸ Cf. Sem. **ʔarn-* (likely related with a fossilized *-n*) ‘k. of antelope or mountain goat’: (?) Akk. (MB on) *arm-u* ‘buck of gazelle or mountain goat’ (**-n- > -m-* influenced by *armû?*); Aram.: Off. *ʔrn* ‘ram (?)’, Syr. *ʔarn-ā* ‘caper montanus’ [*C. ibex*]; Arab. *ʔirān-* ‘oryx mâle’ [*Oryx sp.*] (otherwise < **ʔaraw-*); Gz. *ʔorn-ā* ‘kind of antelope’, Gur.: Gog., Muh., *arrāññ-ā* ‘ram, small male sheep’. Probably related with Proto-Berb. **a-nHir* (< **-nVʔir*, met. < **ʔVrin* < **ʔVry-Vn* also with a fossilized *-n?*): Semlal *anīr* ‘antelope’, Zenaga *e-naʔrh* ‘gazelle-Dama’ [*Nangerdama*], Ghat *inir*, Ahaggar *enir*, Tadghaq *ti-nhir-t* ‘antelope mohor’ [*N. dama*].

⁹ Omot. N.: Koyra *aar-e* ‘flock of sheep’, Male *war-i* ‘goat’ are isolated terms, likely lws. from E. Cush.

¹⁰ Tna. *ʔil-ä* ‘kind of ram (from the Western Lowlands)’ isolated in Eth. is probably a Beja lw.; Jib. *ayyól* ‘Steinbock’ [*Capra ibex*] (Bittner 1917: 29, not in JJ) is probably an Arabism. Cf. also Proto-Sem. **ʔayyal-* ‘*Cervus elaphus*’ (SED II No. 25), similar to PIE **h₁el-* ‘deer’: Akk. *ayal-u* ‘stag, deer’, Ugr. *ʔayl* ‘deer’, Phoen. *ʔyl* ‘stag’ [*Cervus*].

Berb. **ti-halay* (< **-ʔayal*, met.?) ‘sheep’: Nefusa *t-ili* | Zenaga *t-iʒi* | Ahaggar *té-helé*, Ghat *či-hali*, Ayr *t-ele*, E. Wlm. *te-hale*, etc.¹¹

Cush. **ʔayl-* ‘k. of antelope (*Litocranius*, *Tragelaphus*, *Alcelaphus*): N. **ʔall-i*: Beja *all-i*, pl. *ill-i* ‘long-haired sheep’ || E.: SA **ʔill-*: Saho *ill-e*, Afar *ill-i* ‘small cattle’ | LEC **ʔel-* (< **ʔil-* or **ʔayl-*): Somali *eel-o* ‘tipo de gazella (antilopegiraffa)’ [*Litocranius walleri*], Arbore *ʔell-ém*, Elmolo *ʔél-em* ‘ram’ || S. **ʔayl-*: Gorowa *ele-te-mo* ‘bushbuck’ [*Tragelaphus sylvaticus*] | Ma’a *ʔal-é* ‘ram’, *ʔal-ú* (met. < **ʔayl-*?) ‘sheep’ | Dahalo *ʔèl-e* ‘hartebeest’ [*Alcelaphus buselaphus*].

▲ Egyp. (NE) *iyʔ* (if < **ʔVyl-*) ‘Widder’ (presumably > Copt.: Sahidic *oeile*, Bohairic *wili* ‘bélier’) is most probably a lw. from Hbr. *ʔayil* ‘ram’.

► Cf. SED II No. 24; Mil. 2009; AADB 2466.

1.3. **ʕafVw-* ‘k. of lesser bovid’

Sem. **ʕayp(V)w-* ‘foal, kid’: Arab. *ʕafw-*, *ʕifw-*, *ʕufw-* ‘ânon’, *ʕifw-at-*, *ʕufw-at-* ‘petit d’âne femelle’ || Soq. *ʕeyfif* (part. redupl.) ‘kid’.

Chad. **HafVw-* ‘goat’: W. **HVf-Vm-*: Ankwe *fùm* ‘he-goat’, Tangale *amf-o* (met.?) ‘ram’, Tsagu *úf-è* ‘goat’ || C. **HafVw-*: Hwona *wufi-rā* ‘she-goat’, Logone *ūfu*, Kotoko *hufu*, Mesme *afou* ‘goat’.

Cush. S. **ʕafaw-* ‘goat’: Qwadza *ufw-anko* ‘goats’ | Ma’a *afá* ‘goat’.

▲ The Chad. and S. Cush. forms testify to AA **f-*; Sem. **p* (> Arab. and MSA *f*) may originate from both AA **p* and **f*.¹² Cf. Canar.: Gomera *tufa* (< *t-ufa?*) ‘oveja’.

► Cf. SED II No. 49; Mil. 2009; AADB 2472.

1.4a. **ʕi(n)ʒ-* and **ʔi(n)ʒ-* ‘k. of smaller bovid’

Sem. **ʕa/inz-* and **ʔVʒ-* ‘she-goat’: Akk. (OB on) *enz-u* (*ezz-u*, *inz-u*, *azz-atu*) ‘she-goat, goat (gen. term)’ || Ugr., Phoen. *ʕz* | Hbr. *ʕēz* | Aram.: Off. *ʕnz*, *ʕz* ‘goat’, Bibl. *ʕizz-in* (pl.) ‘id.’, Syr. *ʕezz-* ‘capra’, etc. | Sab. *ʕnz* ‘goats’ (coll.) | Arab. *ʕanz(-at)-* ‘chèvre’ || MSA **ʔōz*: Mhr. *wōz*, Jib. *ʔoz* ‘she-goat’, Soq. *ʔoz* ‘chèvre, mouton’.

(?) Chad. W. **Haz-an-*: Bokkos *ʔazan* ‘ram’.

Cush. **ʕiʒ-* and **ʔiʒ-* ‘k. of lesser bovid (*Aepyceros melampus*, etc.)’: E. **ʕiʒ-* and **ʔiʒ-*: SA **ʕid* and **ʔid-*: Saho *ʕid-oo* (acc. to Conti Rossini 1913), *ayd-ó* (acc. to Reinisch 1890), Afar *ayd-á* ‘sheep’ | LEC **ʔiʒ-*: Somali *id-o*, Rendille *íy(-e)* ‘flock of sheep’, Arbore *ʔizz-e* ‘gazelle’, Elmolo *ʔéd-i* ‘goat’ || (?) S. **ʔand-*: Asa *ʔand-o* ‘impala; female impala’ [*Aepyceros melampus*].¹³

▲ Cf. Sum. *ùz* ‘goat, she-goat’ (EDS #2887) and *é.ze* ‘sheep’ (EDS #723).

► Cf. SED II No. 35; AADB 2471.

1.4b. **ma-ʕi(n)ʒ-* ‘k. of bovid’

Sem. **maʕiz-* or **miʕaz-* ‘goat’: Aram.: Jud. *mēʕazz-ē*, *mēʕazz-ayā*, *məʕizz-ē*, *məʕizz-ayyā* ‘goats’¹⁴ | ESA: Minean *mʕz-y* (du.) ‘chèvre’ | Arab. *miʕāz-*, *maʕīz-* ‘chèvre ou bouc’.

(?) Egyp. (Coffin texts) *myz-t* ‘horned animal (?)’¹⁵.

elaphus], Hbr. *ʔayyāl* ‘fallow deer’ [*Damadama*]; Aram.: Off. *ʔyl* ‘deer, stag’, etc.; Arab. *ʔiyyal-*, *ʔuyyal-* ‘cerf’ [*C. elaphus*].

¹¹ Cf. Ahaggar *élahei* ‘mouton à laine’: met.?

¹² Cf. what is perhaps a variant root with **p-*: Sem. ESA: Min. *fyʕ* ‘chevreau’, Arab. *faʕfaʕ-* id. (the meaning of both terms is questionable); Egyp. (20 Dyn.) *ʕpwy* (met.) ‘name of a holy ram’ [*Ammotragus levia*]; Cush. E.: Dullay: Gawwata *peeʕ-atte*, Gobeze *piʕa-če* ‘she-goat’ (< **p/biʕ-*).

¹³ Acc. to Ehret 1980: 333, **ʕ* > Asa *ʔ*, **ʒ* (?) > **dy* > Asa *nd*; acc. to Takács 2011, **ʕ* > Asa *ʔ*, but **ʒ* > Asa *ʒ*.

¹⁴ Oddly translated in some Aram. dictionaries as ‘from goats, goats-hair, horn, etc.’.

¹⁵ Note lack of *-ʕ-* vs. the Sem. forms.

Chad. **maHa(n)z-* ‘k. of bovid (*Tragelaphus, Kobus*); male-goat’: W.**maHaz-*: Hausa *màaz-o* ‘harnessed antelope’ [*Tragelaphus scriptus*], Mburku *maaz-u* ‘antelope sp.’, Bade *máz-àrán* (compound?) ‘Ziegenbock’ || C.**ma/u(n)z-*: Fali-Bwagira *munza-ḥwun* ‘male goat’, Logone *máz-ā* ‘Antilopa hamariya’ [*Kobus kob*],¹⁶ Matakam *múz-àk* ‘he-goat’ || E.: Barein *múz-o* ‘ox’.

(?) Cush.: S.: Dahalo *máṣad-e* ‘female topi’ [*Damaliscus lunatus*].¹⁷

Omot. N. **miHi(n)z-* ‘cow, bull’: Wolaita *mízz-a*, Gofa *miz-a*, *minǰ-o*, Zala *mízz-ā* ‘cow’, *míz-a* ‘livestock, cattle’, Dorze *miiz*, Koyra *miz-a* ‘ox’, Chara *miy-ā*, Yemsa *miy-ā*, *miǰ-à* ‘cow’, Kafa *minǰ-o* ‘cattle’, Bworo *mii(n)z-à* ‘cow, cattle’, Dizi (Sheko) *mīnǰ-o* or *mīnz-a*.¹⁸

▲ Looks like a unique case of derivation with the prefix *m-* from **ʕi(n)z-* ‘k. of smaller bovid’ (1.4a.) as early as the PAA level. With all the problems in each of the proposed roots and/or their relationship, a rather rare combination of the radicals **ʕ* and **z* makes chance coincidence unlikely.

► SED II No. 148; EDE III 156–7; 796; AADB 2695.

1.5. **ba/iʔ-* ~ **baʔbaʔ-* ‘k. of lesser bovid (*Tragelaphus silvaticus?*)’

Sem. **bib(b)-* (redupl.) ‘*Ovis orientalis, Tragelaphus sp.*’: Akk. (SB) *bibb-u* ‘wild sheep’ [*Ovis orientalis*] || Tgr. *bub-a* ‘koodoo (antelope)’ [*Tragelaphus sp.*].

Chad. W. **bawʔ-* and **baʔb(aʔ)-* (redupl.) ‘bushbuck (*Tragelaphus sylvaticus*)’: Sura *pàab* ‘gazelle’, Angas *bwop* ‘he-goat’, Bolewa *ḥoḥ-oki*, Karekare *bàw-í*, Dera *bów-ò*, Tangale *bob-o*, Bele *bòḥ-ò*, Kirfi *bòʔʔ-ò*, Gera *bobb-i*, Galambu *bùb-à* ‘duiker’ [*Tragelaphus sylvaticus*].

Cush. S. **baʔ-* and **baʔbaʔ-* (redupl.): Iraqw *buubuu-ti* (**-a-* > *-u-* influenced by *b?*) ‘gazelle sp. (large and gentle)’ | Qwadza *baʔ-uko* ‘bush duiker’ [*T. sylvaticus*] | Dahalo *ḥáḥaʔ-ááni* ‘bushbuck’ [*T. sylvaticus*].

► SED II No. 54; cf. HSED #278.

1.6. **balay/w-* ‘k. of lesser bovid’

Sem. **w/yābil-* (met.) ‘ram’: Phoen. *ybl*, Hbr. *yōbēl* | Aram.: Dem. *ʔybl*, Jud. *yūbālā-* ‘ram’ | Arab. *wābil-at-* ‘petits chameaux ou agneaux; petits d’un troupeau composé de chameaux ou de moutons’.¹⁹

Egyp. (OK, MK) *ibʔw* (very likely < **VbVl-* or **yVbVl-*, met.) ‘Mähnschaf (*Ovis tragelaphus*)’ [*Ammotragus lervia*].

Berb. N. **ballVy* ‘sheep, ram’: Gurara, Tuat, Tidikelt *belli* (pl.)²⁰

Chad. *(*m-*)*bil-* and **balaw/y-* ‘small cattle’: W. **m-bil-*: Geji *mbil-a* ‘sheep’ || C. **bVlaw-*: Matakam *báláw* ‘race de mouton sp.’ || E.**balVy*: Lele *bulóbuló* (redupl.) ‘he-goat’, Kabalai *bâl*, Migama *bòlly-ò*, Sokoro *bal* ‘goat’.

¹⁶ Cf. also Gudur *mangazaw* (< **manʕaz-*?) ‘reedbuck’ [*Redunca sp.*], Gisiga *mazawal* ‘male goat’.

¹⁷ *d* is considered to continue only **d*, but a few other cases of Dahalo *d* < **z*/**ǰ* including the present reflex in the triconsonantal root do not seem haphazard; an alternative comparison can be *mōʕo* (*mōdʕo*) ‘sp. large antelope’ commented in EDE III 158: “cannot belong here, being a late loan-word from SNil. (as suggested by EEN)”, which in the light of the AA parallels can be, on the contrary, a lw. from Dahalo.

¹⁸ Acc. to EDE III 157, «There seems to be a great confusion in the handling of the reflexes of NOM, **miz-* “Rind” ...and NOM. **minǰ* “cattle” ... usually mentioned together in Omotic etymologies...» The alternative approach suggested (ibid.): «NOM. **minǰ* “cattle” (palatalized from **ming-*?) is fairly close to ES: Amh. *mānga*, Gaf. *mānga* ‘flock, herd’» is hardly possible as the Omot. languages in question do not show palatalization of the velars (**g* and **k*) while the alleged source Eth. terms show *g-*, not *ǰ-*.

¹⁹ Cf. also Akk. *būlu* ‘herd of cattle, sheep or horses; wild animals (gen.)’ (unless from Sem. **bawl-* ‘mind, spirit, living creatures’).

²⁰ Infantile words: acc. to EDE II 24, “therefore cannot be considered” which is a debatable statement.

Cush. **(ʔa-m-)bVI-* ‘k. of bovid’ (*Tragelaphus sylvaticus*, etc.): E. **(ʔam-)bul-*: LEC **bulal-* (redupl.): Oromo *bulál-ē* ‘Lamm’ | HEC **ʔam-bul-*: Hadiya *ambul-a* ‘ram’, Kambatta *ambul-a* ‘ram, goat’ || S. **(ʔa)m-bal-*: Ma’a *mbāl-a* ‘Buschbock’ [*Tragelaphus sylvaticus*].

▲ Chad. **m-* and Cush **ʔa-m-* are fossilized nominal prefixes or “root-extensions” (see Militarev 2005).²¹

► Cf. HSED No. 2570; SED II No. 245; Mil. 2009; AADB 2484; EDE II 23–24.

1.7. **baray-* ~ **bayar-* ‘k. of lesser bovid’

Sem. **bayr-* ‘bull, ox’:²² Akk. (OB on) *būr-u* (*pūr-u*) ‘young calf’, (MB on) *bīr-u* ‘bull (for breeding); young cattle (up to three years)’ || Mand. *bir-a* ‘domestic cattle’, *bar-a* ‘lamb’ | Arab. (Yem.) *bār-ah* ‘cow’ | Tgr. *bar-a* ‘ox’ | Amh. *bare* (< **baray*) | Har. *bār-a* ‘ox, bull’ | Gur. **bawr-* ‘ox (for farming)’: Cha., Eža, Muh., Msq., Gog., Sod. *bor-a*, Gye. *bawr-a*, End. *bawr-ä*, Enn. *bawər-a* ‘ox (for farming)’.

Egypt. (OK) *bʔ* ‘heiliger Bock (*Ovis longipes palaeo aegyptiacus*)’ [*Ammotragus lervia*] | Copt.: Fayumic *barit*, Boheiric *barhit* ‘bouc’ (*-h-* is not clear).²³

Berb. S. **-baray* [*Addax* sp.]: Ahaggar *ē-berey* ‘faon d’antilope adax’ [*Addax nasomaculatus*], Ayr. E. Wlm. *e-bārāy* ‘faon d’oryx/adax’ [*Oryx* sp./ *Addax* sp.], W. Wlm. (Kel-Ataram) *bərwāy-a* ‘ram’.²⁴

Chad. **baray/w-* and **babar-* (redupl.) ‘k. of bovid (*Hippotragus*, *Cephalophus*, etc.): W. **baray/w-* and **(ba)bar-*: Hausa *bārēw-áá*, pl. *bàrèy-íí* ‘gazelle’, Gera *bar-a* ‘buffalo’ [*Syncerus caffer*], Pa’a *bàbár* ‘roan antelope’ [*Hippotragus equinus*], Siri *babar-i* ‘gazella dama’ [*Nangerdama*], Tsagu *bur-āmən* ‘gazelle’, Polchi *mbār-àn* ‘antelope’, Zul *bar-námi*²⁵ ‘roan antelope’ [*H. equinus*], ‘buffalo’ [*S. caffer*] || C. **bVʔ/wr-*: Masa *boʔor-a* ‘k. of gazelle’, Banana *bbōr*²⁶ ‘cephalophe de Grime’ [*Cephalophus* sp.] || E. **ma-bur-*: Lele *mbur* ‘cobe onctueux (Cobe Defassa)’ [*Defassa waterbuck*], Kwang *mābār-ā* ‘duiker’ [*Tragelaphus* sp.].

Cush. **bayr-* (met.) ‘k. of bovid (*Oreotragus*, *Oryx* etc.)’:²⁷ LEC **bayr-*: Somali *bayr* ‘Antilope oder *Oreotragus saltator*, Klippspringer’ [*Oreotragus oreotragus*] (Reinisch 1902), *bārār* (pl.) ‘lambs’ || S. **baʔ/wr-*: Burunge *baʔur-u* ‘oryx’ [*Oryx* sp.].²⁸

²¹ There are also two phonetically tricky terms: Berb. E.: Ghadames *ta-bali*, Audjila *te-ḥel* ‘sheep’ which can originate either from **baHl-* or from **Hawl-* and Chad. C.: Boka *ḥwəl-ə* ‘goat’ where the voiced implosive is expected to originate from the combination **b(V)H-*; while no other AA zoonym conforms to such parameters, these forms may be reserved as Berb.-Chad. **bVHL-*. Cf. similar terms in non-Afras. African languages: C. Sud.: PMoru-Madi **bilɔ* ‘sheep’, Bagirmi *bal* ‘ram’; Ful *mbala*, *mbāl-u*, *bāli* ‘sheep’; W. Atlantic: Serer *mbal*, Mende, Kpele *bala* id.; Masai *em-balelo* ‘lamb’. Cf. also Chad. W.: **baHil-(Vm-)* ‘horn’: Montol *bulu*, Bolewa *ḥoolum*, Galambu *ḥālī*, Maha *belem*, etc.; C. **ti-m-bil-*: Bura *ti-mbil*, Chibak *tə-mbālá* ‘horn’ and Omot. S. **bal-*: Dime *bal-tu*, Galila *baal-i* ‘horn’.

²² Cf. also Proto-Sem. **baʕir-* ‘household animal; beast of burden’ probably derived from **bayr-* with a secondary *-ʕ-*: Ammonite *bʕr* ‘ox (beast of burden)’, Hbr. *bəʕir* ‘livestock, cattle’; Syr. *bəʕir-* ‘brutum, jumentum’; ESA: Sab. *bʕr* ‘cattle, head of cattle; camel’, Min. *bʕr* ‘chameau, tête de gros bétail’; Arab. *baʕir-* ‘chameau; toute bête de charge’; Gz. *bəʕar*, *bəʕ(ə)rā*, *bəʕ(ə)rāy*, *bəʕ(ə)rāwi* ‘ox, bull, horned cattle’, etc. and Muh. *bāre* ‘calves’.

²³ *-r-* in Fauymic points to **-r-* rather than **-l-*, though, acc. to EDE II, 23, it is “most probably, < **bl*”.

²⁴ Cf. also Ghadames *ābbur* ‘agneau’ (Motylinski 1904: 99), not in Lanfry 1973.

²⁵ *nami* ‘meat’.

²⁶ It is not clear if *bb* can convey *ḥ*.

²⁷ Also in N.: Beja *beʔrāy* ‘bull, cow’; C. **bir-* ‘ox, bull’: Bilin, Khamir, Kemant *bir-ā*, etc., E.: Afar *baʕer-ā* and Saho *beʕer* which must all be lws. from N. Eth. **bəʕray* ‘bull, ox’ (it is not so evident with Afar *abur* ‘bull, ox’), HEC **bāHōr-* ‘young bull’ (Sidamo *boor-to*, Hadiya *baara*, Kambatta *boora*) as well as N. Omot. Wolayta, Zala, Gofu, Kullo, Dache, Zaysse, Chara *bōra* ‘ox’, Gamu *bōra* ‘not castrated bull’, Kafa *bariy-ō* ‘calf’, Mocha *bariyo* ‘steer’, Bworo *berō*, Dizi (Sheko) *bariyo* ‘bull’ are more likely lws. from Amh. *bare* ‘ox, bull’.

► Cf. AADB 2498, 2487; HSED Nos. 183, 217, 341; ND 225a; EDE II: 24–25, 53 notes, 54–55; Blažek 2003b: 231, 238; SED II No. 53; Mil. 2009; CED #22.

1.8. *čawi?- ‘k. of bovid’

Sem. *šawa?- ‘sheep’: Akk. (OB on) šuʔu (šû) ‘sheep’, (OB) šuātu ‘ewe’²⁹ || Ugr. š ‘ram, sheep’ | Phoen š ‘sheep, one of a flock’, Hbr. šā ‘small livestock beast’³⁰ | Sab. s₂h ‘sheep’ | Arab. šā?- ‘brebis’, šāt- ‘brebis, mouton, espèce ovine; buffle (mâle)’.

(?) Eryp. (MK) šw ‘ass’ (with a meaning shift?).³¹

Chad. *ša-³² ‘cow; meat’ (with a meaning shift): W. *ša: Hausa šá-nú, šá-nàye (pl.) ‘ox’ | Jimi, Polchi šáa | Dwot, Buli, Zul, Ngizim šáa, etc. ‘cow’ || C. *ša ‘cow’: Bura, Margi, Gisiga ša, etc. || E. *sVwi: Kera si ‘cow’, Dormo, Nanchere, Kabalai sī ‘ox’, Ndam swi ‘zebu cow’, etc.³³

Omot. N. *ša?- ~ *ʔayš- (met.) ‘goat’: Bworo eyšš-a, Mao (Hozo) šaa, (Ganza) saʔ-a, Dizi es-ku.³⁴

► Cf. SED II No. 217; Mil. 2009; CED #831; AADB 229; HSED No. 517.

1.9a. *čaiw- ‘k. of lesser bovid’

Sem. *čaiw-: Ugr. ʔ-at (ʔ-ut) ‘sheep’ | Aram.: Anc. šʔ-t, sʔw-n, Sam. šʔ-h ‘sheep, ewe’, Mand. ta-ta ‘lamb, ewe, sheep’ | Arab. ʔaʔw-at- ‘brebis maigre ou vielle’ || Mehri ʔiw-īt, Hrs. ʔī-t, Jib. ʔī-t ‘sheep’, Soq. téʔ-e ‘mouton, chèvre’.

Chad. *čVw- and *wVč- (met.) ‘small cattle’:³⁵ W.: Kirfi wüč-i ‘sheep’ || E. *čVw-: Kwang čuw ‘he-goat’.³⁶

(?) Cush. E.: LEC: *čawV?- (met.) ‘meat’: Somali soʔ, Oromo fo-oni, Baiso soʔ-o, Konso sow-a, etc.³⁷

Omot. *ʔač- ~ *ča(ʔ)-: N. *ʔač- (met.) ‘meat, flesh’: Koyra ʔačč-o, Zaysse ʔač-ó, Ganjule ʔač-o, Kachama ʔač-ɔ (the emphatic č is not justified – perhaps a record slip), Chara ačč-aa, Gimirra ʔač || S. *ča(ʔ)-: Ongota ča-ta ‘meat’.

► Cf. SED II No. 236; Mil. 2009; AADB 2652.

1.9b. *čawir- ‘male large bovid or herbivore’

Sem. *čawr- ‘Alcelaphus buselaphus; bull, ox’: Akk. šūr-u ‘bull (poet.)’ || Ugr. tr ‘bull’ | Hbr. šōr ‘one single beast, bovid’ | Aram.: Sam’al šwr-h ‘cow’, Bibl. tōr ‘ox, bull’, Syr. tawr-ā ‘bull’, Mand. taur-a ‘bull, ox’ | Sab. ʔwr, ʔr ‘bull’, Qat. ʔwr ‘steer, bull’, Min. ʔwr ‘bull’ | Arab. ʔawr- ‘taureau’ and ‘antelope bubalis’ [Alcelaphus buselaphus] (cf. Blažek 2003a: 8) | Gz. sor, šor ‘ox, bull’, səwār ‘fat ox’ | Tgr. sor ‘ox’ || Mhr. ʔawr | Hrs. ʔawer ‘bull’.

²⁸ Cf. also Cush. E.: HEC *hVbVr-: Qabenna habur-ču ‘goat’, Burji ibār-i ‘nanny goat’.

²⁹ Otherwise < *čaiw-.

³⁰ Jud. šētā ‘ewe’, šē ‘lamb’ and Sam. šh ‘sheep’ are most likely Hebraisms.

³¹ Cf. also šʔy ‘pig, sow’, if ʔ is not < r or l.

³² Perhaps *ša?- in view of such forms as šáa.

³³ In some of the languages, certain presumably related terms for ‘cow’ (not quoted here) show a voiced reflex (*b*), which Stolbova (CED #831) treats as originating “most probably... from *nḅ* <PCh *nʔ (note *n-* as a pref. of sg.)” (see in more detail in *ša?- ‘k. of bovid, herd’). Though in CED and other recent works by Stolbova, in accordance with most common usage in present-day Chadic studies, *t* and *b* are used instead of *š* (< AA *č) and *z* (< AA *š) accordingly, we continue here to follow the customary latter Afrasian notation. Cf. also the derivative *š(y)Vw- ‘meat’ (ibid.)

³⁴ Omotic reflexes of AA sibilants/sibilant affricates are not quite clear yet.

³⁵ Cf. W. *čič-: Kariya čiči, Gera čača ‘goat’, Warji ʔičiʔčá-ná, Kariya čiči ‘he-goat’. Acc. to Stolbova’s observation, only Kariya čiči belongs here, while the other forms are < *ʔak^wi.

³⁶ Canarian (all islands) chivato, chiva ‘kid’ seems more likely < Spanish chibo.

³⁷ *s* can continue AA *s- and *č, while Oromo *f-* in *foon-i*, if it belongs here, points to *č.

Egyp. (OK) *sʷ* ‘taurillion’ (if < *čVr-) or (OK) šsʷw (if < *čVrw-) ‘antelope bubalis’ [*Alcelaphus buselaphus*].³⁸

Chad. *čiwār- (met.) ‘ox; elephant’: W.: (?) Dera *wór-é* ‘ox’³⁹ || C. *čiwār-: Bura *čiwār*, Chibak *isiwař*, Kilba *cuwar*, Nzangi *čūwar-e*, Kobochi *čūār-é* ‘elephant’ [*Loxodonta africana*].⁴⁰

Cush. *čawir- ‘bull; hippopotamus, waterbuck’: N. *sawsawr- (redupl.): Beja *sosar-i* ‘cattle’ || E.: LEC: Boni *šēr* ‘hippopotamus’ [*Hippopotamus amphibius*] || S. *čawr-: (?) Alagwa *cawr-u* ‘waterbuck’ [*Kobus ellipsiprymnus*]⁴¹ | Ma’a *čur-ú* ‘bull’.

Omot. N. *šawr-: Kachama *šor-o* ‘rhinoceros’ [*Dicerasbicornis*].

▲ This root is likely to have originated from #1.9a. *čaʔiw- ‘k. of lesser bovid’ with suffixed *-r⁴² and loss of ʔ accompanied by an expected deletion of *-ʔ- to size up to a triconsonantal root. The present reconstruction tilts the argument of Sem. *tawr- vs. IE *tauros towards the latter’s being borrowed from Sem.

► Cf. SED II No. 241; AADB 2525; Blažek 1994: 200 and Blažek 2003a.

1.10. *(ʔa-)dury- ‘k. of bovid’

Sem. *(ʔa-)dury-: Akk. *dudrū* ‘sorte de mouton’ (redupl.) || Arab. *diry-ān-at-* ‘espèce de taureau pourvu d’une bosse’ | Tgr. (pl.) *ʔaddari-t* ‘dwarf-antelope’ [*Neotragini sp.*].

(?) Egyp. (OK) *idr* ‘Herde (von Vieh und Geflügel)’.

Berb. S. *-dVray- ‘oryx’ [*Oryx sp.*]: Ahaggar, Ayr, E.Wlm. *e-dəri*, pl. *i-dāra-n*.

Chad. *(ʔan-)dVry- ‘*Damaliscus sp.* etc.; small cattle’: W.*(ʔan-)dur-: Hausa *dari* ‘hartebeest’ [*Damaliscus lunatus*], Guruntum *dor-o*, *dōr-o* ‘goat’, Bokkos *ʔan-dūr*, Sha *n-dur* ‘ram’, etc. || C.*ʔu-dVr-: Musgu *u-deri* || E. *dar-: Dangla *dar-o* ‘gazelle sp.’

Cush. (ʔa-)dury- ‘*Tragelaphus sp.*, etc.’: E.: SA *wadar- (met.): Afar *wadār* ‘Ziegen, Kleinvieh’ | LEC *ʔa-dVry-: Somali *a-deri-o* ‘male kudu antelope’ [*Tragelaphus sp.*] || S. *(da)dury-: Burunge *dor-o* ‘zebra’ [*Hippotigrus sp.*] | Dahalo *dáđiiri* ‘Lesser Kudu’ [*Tragelaphus imberbis*].

Omot. *dury- ‘sheep’: N. *dur-: Koyra, Zaise *dor-ō*, Basketo, Doko *dori*, Oida *dur-o id.*, Gimira (She) *dor* ‘ram’ || S. *dayr- (met.): Ari *der-tí* ‘sheep’, Dime *der* ‘goat’.

▲ Cf. Sum. *dār*, *dāra* ‘ibex’ [*Capra ibex*] (EDS #439).

► AADB 2482. Cf. Takács 2011: 73.

1.11. *fa(?)n- ‘k. of large bovid’

Sem. *(w/ya-)pan- ‘young bull’: Ugr. *yp-t* ‘cow’ | Arab. *yafan-* ‘jeune taureau âgé de quatre ans’, *fan-āt-* ‘vache’ | Gz. *ta-yfan* ‘young bullock’, Tgr. *tā-fin* ‘giovenco, bue non ancora domato’, Amh. *wäyfän* (-äy- a diminutive infix?) ‘young bullock, calf of 2–3 years’, Gur. *wafan ‘young bull, steer’: Muher, Masqan, Goggot *wäfen*, Soddo, Wolane *m-ofän*, etc.

³⁸ Less likely Pyr. *šsr* ‘Schlachtrind’, which may be derived from *šsr* ‘Art des Schlachtens’.

³⁹*s, *č > Dera *w*, acc. to Stolbova 2009: 28; not in CED.

⁴⁰ Cf. C. *či/uw- ‘elephant’ (unless < Chad. *čVwar- with deleted *-r*): Bata *čūé*, Bana *čiwə̀*, Higi-Nkafa *čūwe*, Mwulien *čúwà*, etc. C. Chad. (Bura-Margi group) terms like *čVwVr- ‘elephant’ [*Loxodonta africana*] are usually considered by Chadacists to be < *čVwVn-; in Stolbova 2011 #433, the suggested reconstruction *ʒ/čVwVn- is compared with HEC *ʒanaVY-; more likely these are two different roots since, acc. to CED: 28–29, reflexes of *č and *ʒ do not overlap, while forms like Bana *čiwə̀* are either to be treated as a separate entry (see 1.10a) or point to a deleted *-r rather than *-n in word-final position; acc. to CED 35, the former is generally less stable than the latter. At the same time, in CED: 44, *-n > -r is postulated for C. Chad. groups 2, 3, 5 and 7, but not for group 4 including Nzangi-Kobochi in which, therefore, -r < *-r is regular which makes the whole idea of *čVwVr- < *čVwVn- less likely. Cf. also C.: Khamir *siriya* ‘Antilopensorte’ < *čir-?

⁴¹ But Burunge *cawadu* and Asa *šodo id.* probably point to *cawad- rather than *čawar-.

⁴² See the hypothesis on *-r presumably conveying the meaning of a “larger dimension/quantity” in Militarev 2005: 49–52.

Chad. C. **fun-* ‘buffalo’ [*Syncerus caffer*]: Ga’anda *u-fan-a*, Higi-Dakwa *fun-u*, Higi-Kamale *n-fun*, Fali-Kirya *n-fu*, Banana *à-fún-tá*, etc.

Cush. S. **faʔan/m-* ‘k. of large herbivore’: Qwadza *faʔamo*⁴³ ‘buffalo’ [*S. caffer*], Asa *faʔan-ok* ‘elephant’ [*Loxodonta africana*].⁴⁴

▲ Cf. Bantu **-fun* ‘buffalo’ [*S. caffer*].

► SED II No. 250; AADB 2495.

1.12. **(ʔa-)fir-* ‘k. of bovid’

Sem. **parir-* (redupl.) and **paʔur-* (met.) ‘lamb; young of bovid’: Akk. *parr-u* || Hatra *pr-t?* ‘ewe or sheep’, Syr. *parr-ā*, Mand. *par-a* ‘lamb’ | Arab. *furār-*, *farūr-* ‘petit de brebis ou de chèvre’, *farīr-* ‘petit debuffle, de brebis, de chèvre’, *furfur-* (redupl.) ‘petit de brebis, agneau ou petit de chèvre, chevreau ou petit d’antilope’, (coll.) ‘agneaux ou chevreaux’, *fūr-* (pl.) ‘chamois’ [*Capra ibex*] || Hbt. *faʔoor* ‘male calf (from birth to 5 years)’.

Chad. **(ʔa-)fir-* ‘k. of larger bovid’ [*Tragelaphus*, *Hippotragus*, *Syncerus*]: W. **fir-*: Angas *fir* ‘roan antelope’ [*Hippotragus equinus*] || C. **(ʔa-)fir-ay-*: Hwona *ʔuf^oar-ā* ‘duiker’ [*Tragelaphus sp.*], Bura *fir*, Kilba *fur*, Margi *fur* ‘buffalo’ [*Syncerus caffer*], Mbara *fārāy* ‘cattle; dot (bride wealth)’.

Cush. E. **ʔa-fi/ur-* ‘small cattle’: Yaaku *apur* ‘sheep’ || S. **ʔa-fi/ur-* ‘he-goat’: Asa *ʔefer-et*, *ʔofor-ok*, Qwadza *aful-atu* (-l- < *r).

► Cf. HSED No. 1950; SED II No. 181; Mil. 2009; AADB 2494.

1.13a. **guday-* ‘k. of larger bovid’

Sem. **gaday-* ‘kid’: Ugr. *gdý* ‘kid’⁴⁵ | Phoen. *gd?* ‘goat’, Hbr. *gādī* ‘kid (of goat or sheep)’ | Aram.: Anc. *gdh* ‘goat’, Syr. *gady-ā*, Mand. *gadi-a* | Arab. *ʔady-* ‘kid’, *ʔadāy-at-* ‘gazelle; petit de gazelle’ [*Gazella gazella*].

(?) Berb. N. **gVnd-uz* ‘bull, calf’:⁴⁶ Rif *a-yenduz* ‘taureau’, Snus *a-yenduz*, Shenwa, Qabyle *a-genduz*, Sened *a-gendus*, etc. ‘calf’.

Chad. **ga/uday-*: W. **ga/ud-* ‘k. of larger bovid’: Hausa *gàd-áa* ‘antelope, duiker sp.’ [*Tragelaphus sp.*], Kariya *gud-am*, Miya *gud-ən-zāku*, Pa’a *gud-an-cəka*⁴⁷ ‘Western kob’ [*Kobus sp.*], Ngizim *gád-ùwà* ‘duiker’ [*Tragelaphus sp.*] || C. **gVday-*: Zime-Batna *gódày* ‘buck’.

Cush. **gad-* and **gund-* ‘k. of larger bovid’: E. **gad-am-*: LEC **gad-am-*: Oromo *gad-am-sa* ‘greater kudu’ [*Tragelaphus strepsiceros*],⁴⁸ Dirayta *gad-an-sa*, *gad-am-sa* ‘antelope’ | HEC **gud-*: Sidamo *god-a* ‘deer, gazelle’ || S. **gwand-*: Iraqw *gwand-a*, Alagwa *gwand-o* ‘ram’, Burunge *gond-i* ‘old ram’.

Omot. N. **gayd-* (met.): Zaisse *gaaid-é* ‘cattle’, *gaid-é-endo* ‘buffalo’ [*Syncerus caffer*].

► SED II No. 76; AADB 2490.

1.13b. **ga/ud-* ‘wild pig’

Chad. **gad-*: W.: Hausa *gàd-u* ‘warthog’ [*Phacochoerus africanus*].⁴⁹

Omot. N. **gud-in-*: Sheko *gudin-e*, Wolaita *gudun-ta*, Gamu *gudun-ci*, Dače *gudun-ç*, Gofa *gudun-ça*, Kafa *gudin-o*, Mao *kand* (k- < *g-; met.) ‘pig’.

⁴³ -m < *-n assimilated to f-?

⁴⁴ E. Cush.: Dullay: Harso *wayfan-akko*, Gollango *woyfanna* ‘bull’ are likely loans from Amh.

⁴⁵ Akk. (NB) *gadû* ‘male kid’ likely < W. Sem.

⁴⁶ It is not clear whether this unusual form could be a metathesis of the compound form **ged-n-uz*, -n- being *nota genitivi*; for *uz* see **ʔi(n)ʔ-* and **ʔi(n)ʔ-* ‘k. of smaller bovid’ 1.4a. (not attested in Berber).

⁴⁷ The two latter forms seem to represent word combinations of *gud* + *nota genitivi -n-* (see fn. 45).

⁴⁸ HEC: Burji *gadám-a* ‘greater kudu’ [*Tragelaphus strepsiceros*] may be a lw. from Oromo.

⁴⁹ Cf. Bolewa *gedd-o*, Mangas *gindir*, Boghom *kindi?*, Kiir *ʔindər* ‘fat’; Ngizim *gád-bàyák* ‘be fat’.

▲ Cf. Kanuri *godu*, Tubu *gadu*, Bantu **-gudu* ‘pig’, **gidi* ‘warthog’ [*Ph. africanus*].

► Cf. AADB 3758.

1.14a. **gawr-* ‘k. of bovid’

Sem. **(?a-)gurr-*: Akk. (MA) *gurr-atu*, *agurr-atu* ‘ewe’.⁵⁰

Egyp. (MK) *ḏr* ‘calf’ (if < **gVr*).

Berb. **-gur-* ‘small cattle’:⁵¹ Ghadames *a-žur* ‘bouc’ (Naït-Zerrad 2002: 859), Zenaga *a-grərħ* ‘béliér’.

Chad. (a) **(?a-)garw/y-* ‘kind of bovid (*Redunca*, *Oryx*, *Ourebia*, etc.); animal, game’: W. **(?a-)gary-*: Hausa *āgārē* ‘a big, male red-fronted gazelle’ [*Eudorcas rufifrons*], Tsagu *gāre* ‘reedbuck’ [*Redunca sp.*], Mburku *gāri* ‘oryx’ [*Oryx sp.*], Ngizim *a-gare* ‘gazelle’ || C. *(?a-n-)gary-*: Logone *gari-a*, Makeri *ingərii* ‘antelope’, Buduma *ηgəri* ‘gazelle’ || E. **gVrw-* and **gVwVr-* (met.): Tumak *gəru*, Kwang *gowor-to* ‘antelope’, Ndam *gərù* ‘ourebi’ [*Ourebia ourebi*]; (b) **garaw-* ‘herd of cattle’: W. **gar(V)w-*: Hausa *gār-kei* ‘a herd, flock’, Bolewa *gaarùw-à* ‘pack ox’, Karekare *gaarùw-à* ‘bull’, Tangale *káarw-a* ‘cattle’ || C. **garaw/y-*: Bana *gàrəw-à* ‘troupeau de bœufs’, Gude *góra-nə* ‘herd of cattle’, *mà-gára* ‘shepherd, watchman’, Musgu *gari*, *gári* ‘Stier, Laststier’, Mandara *gári* ‘bull’, Hursa *goragor-a* (redupl.), Uzam *gwar-a*, Matakam *η-gwur* ‘ram’ || E. **garaw-*: Bidiya *gaaruw-o* ‘animal’, Migama *gáaraw* ‘bête, bétail’; (c) C. **g^war-* and **g^warg^war-* (redupl.) ‘ram’: Ouldem *g^wàr-à*, Mbuko *g^wàrg^wár-á*, Merey *g^waràg^wàr-a*, Muyang *g^wòròg^wòr-à*, Mada *gurg^war-a* || E. **gagar-* (redupl.) ‘small cattle’: Sokoro *gaáger-o* ‘Schaf’, Mawa *gagar* ‘mouton’, Mubi *wegr-i* (met.) ‘chèvre’.

Cush. **garaw-* and **gwira?* (met.) ‘k. of larger bovid (*Taurotragus*, *Alcelaphus*, etc.): N. **garuw-*: Beja *garuw-a* ‘male antelope; eland’ [*Taurotragus sp.*] || C. **gar-* ‘calf’: Bilin, Qwara, Kemant *gär*, Aungi *gara* || E.: HEC **gur(r)-*: Sidamo *gur-um?-iččo* ‘gazelle’, *garr-ančo* ‘Agazen antelope’ [*T. buxtoni*] || S. **g^wara?*: Iraqw *gwarà?-ai* ‘Hartebeest’ [*Alcelaphus caama*], Burunge *gera?-i* ‘Grant’s gazelle’ [*Nanger granti*].

Omot. N. **gaHar-*: Wolayta, Dawro *gaar-aa* ‘antelope dekula’ [*Tragelaphus decula*].⁵²

► AADB 2485, 3386, 4152; cf. CED #234, 235, 238; cf. SED II No. 85.

1.14b. **gur-* ‘wild pig’

Chad. E. **gawr-* or **gur-*: Jegu *gor-on* ‘Wildschwein’, Bidiya *gör-inya* ‘warthog’, *gerwa* (met.) ‘Wildschwein’, W. Dangla *bó-gór*⁵³ ‘pig doe’ (Skinner 1994).

Cush. C. **gVr-m-* ‘pig’: Aungi *gərm-i*, Kunfäl *gerim-i* (Appleyard 2006: 110).

Omot. N. **gur-it-* ‘pig’: Anfillo *gur-ico*, Bworo *gur-iccà*.

► AADB 2683.

1.15. **yawz-* ‘k. of smaller bovid’

Sem. **yuzāl-* ‘gazelle’ [*Gazella gazella*]: Akk. *huzāl-u*, *uzāl-u* ‘young gazelle’ || Aram.: Jud. *ʔwzl*, Syr. *ʔūzayl-ā* ‘antelope; hinnuleus’⁵⁴ | Arab. *yazāl-* ‘petit de gazelle; gazelle (mâle)’.⁵⁵

⁵⁰ Cf. Sab *grħ* ‘domesticated animals’ (Biella 1982: 76; not in Beeston et al. 1982), Tna. *gahret* (-h- is non-etymological) ‘doe antelope’. Cf. Gz. *garħa* ‘tame, break a horse, mule’. Tgr. *gärwa* ‘kudu (antelope)’ [*Tragelaphus sp.*] is likely a lw. from Beja.

⁵¹ Cf. also Ahaggar *ă-gūr*, E. Wlm. *ă-gur* ‘animal castré’, Adghaq *a-žorh* ‘castrat (caprin)’ (Naït-Zerrad 2002: 878).

⁵² Lws. from Sidamo?

⁵³ Acc. to CED #234, *b-* is a prefix in E. Chad.

⁵⁴ Cf. *ʔwzl?* ‘porcus’.

⁵⁵ Cf. Gz. *kažal*, Tna. *kažal* ‘kind of antelope’ (< Arab., acc. to Leslau 1987: 457) and Chad. C.: Bura *kažal* ‘antelope sp.’, Fali-Bwagira *kažaran* ‘gazelle’. A variant root?

Berb. **zulay* (met. < **yuzal*) ‘buck’: Nefusa *zalay* ‘béliér’, Sokna *zalay* ‘grand chevereau’, Siwa *zalaq*, Ghat *a-žulay*, Ahaggar *a-hûlay*, Ayr *ə-zolay* ‘bouc’, etc.

Chad. (no single form reconstructable): W.: Hausa *ganžar*⁵⁶ || C.: Gudur *maŋ-gazaw* ‘Redunca (reedbuck)’ [*Redunca sp.*]⁵⁷

Cush. C. **ʔa-gaz-in-* ‘agazen antelope’ [*Tragelaphus buxtoni*]: Qemant *agāzēn*, Aungi *agāziēn-ī*.

▲ Most likely, the root **ɣawɜ-* was joined with the suffix *-al-* (later fossilized) at the NAA level, forming Sem. **ɣuzāl-*, while the P.Berb. form underwent metathesis.

► Cf. AADB 2634; SED II No. 92.

1.16. **hawr-* ‘k. of larger bovid’

Sem. **haw(a)r-* ‘bull, cow’: ESA: Sab. *hwr-y*, Hdr. *hwr*, Min. *hwr* (probably) ‘cow’ | Arab. *hawar-* ‘taureau’ (see SED II No. 106).⁵⁸

Berb. **-Hayr-* ‘calf’: Shilh *irey* (met.) ‘veau’, Ayr, E. Wlm. *e-hər-i*, pl. *i-hār-an* ‘jeune bœuf de 2 à 3 ans’.

(?) Chad. **har -*: E. **har-*: Somrai *hār-a* ‘elephant’ [*Loxodonta africana*].⁵⁹

Cush. E. **hawr-*: LEC **hawr-*: Oromo *hor-ii* ‘cattle’, Konso *hor-eeta* ‘wealth, livestock’⁶⁰ | HEC **hur-*: Burji *húr-i* ‘buffalo’ [*Syncerus caffer*].⁶¹

► AADB 4120, 380; cf. Stolbova 2019 #224.

1.17. **k^wayr-* ‘young (small) bovid’

Sem. **ka/irr-* ‘small cattle’: Akk. (Oakk) *kirr-u* (or *girr-u*) ‘a breed of sheep’ || Ugr. *kr* ‘ram’ | Hbr. *kar* ‘(young) ram’ | Aram.: Off. *kr* ‘sheep’ (not quite reliable).⁶²

Berb. **karw* and **-krar* (redupl.) ‘young small cattle’: Nefusa *a-krar* ‘billy-goat’, Semlal *i-kru* ‘chevreau’, *án-kkūr*, pl. *in-ukr-ān* ‘bouc’, Rif *i-karr-i*, Qabyle *i-kərr-i* ‘ram’, Ghat *a-kərw-āt* ‘lamb’, Ahaggar *ê-krer*, pl. *a-krār-en* ‘béliér’, *a-kerw-ât*, pl. *i-kerw-âten* ‘agneau’, etc.

Chad. **kwar-* ‘lesser bovid (*Redunca*, etc.); small cattle’: W. **kwalir-*: Kofyar *koor* ‘castrated goat’, Angas *kwēr*, Dira *kur-e* ‘reedbuck’ [*Redunca sp.*],⁶³ Gera *kwar-à-* ‘goat’,⁶⁴ Jimbin *kwar-iyā*, Mburku *kwaar-i* ‘meat, animal’, Zaar *kar-ò* ‘sheep’, Wangday *kér-ò* ‘ram’, Kulere *kiry-êt* ‘wild animal; meat’ || C. **kwarkwar-* (redupl.): Ouldem *kwàkwàr* ‘taureau’ || E. **ku/ar-*: Kera *kúrkí* ‘taureau’, Tobanga (N. Gabri) *kar-aŋ* ‘goat’.

Cush. E. **kawr-* ‘goat’: LEC: Arbore *kaar-íy* ‘heifer goat’, *kor-at* ‘male goat’ | Dullay **kawr-*: Dobase *kor-en-te* ‘female goat’ | Yaaku *kúrum-a* ‘young goat; lamb’.

► Cf. HSED No.1432; SED II No. 118; Mil. 2009; Stolbova 2011 #286; AADB 2491.

⁵⁶ Diri, Jimbin *ganžar* can be lws. from Hausa; cf. also Kanuri *nganžar* which may be the source of the Hausa term or, on the contrary, borrowed from it.

⁵⁷ Musgu *salak/g* ‘gazelle’ is a lw. from Berb.?

⁵⁸ Cf. also Gz. *harāwəyā* ‘pig, wild boar’, Tgr. *harāwya* ‘boar’, Har. *hariyya*, Amh. *əṛəyā* ‘wild pig’, Selti *iräyā* ‘pig’, Gur. **həräyā* ‘porcupine’. Cush. N. **haraw-*: Beja *harawya*; E.: SA **ha(w)r-*: Afar *horay*, Saho *hara* ‘wild boar’ seem to be lws. from Eth. or *vice versa*.

⁵⁹ In CED #361, united with C.: Chibak *hla* ‘Stier’, Kilba *hā-hál-dī* ‘bull’, Musgu *halúu*, *hollú*, Mbara *hùlúù* ‘buffalo’, where *-l-* may continue both **r* and **l*.

⁶⁰ Cf. Dirayta *hor* ‘multiply (of domestic animals)’.

⁶¹ Omot. N.: Malo *hāri*, Oyda (*h*)*arr* ‘cattle’ are from Oromo.

⁶² Cf. **k^warm-*, probably related, with the suffix *-m-*: Amh. *kurm-a* ‘bull (not castrated)’, Har. *korm-a* ‘male (animal), brave’, Muh. *k^wärm-a* ‘the young male of a sheep bigger than *ḥābb^wät*, male (animal), bull’; cf. also Arab. *kawr-* ‘troupeau nombreux (de chameaux, de bœufs)’, ‘herd (of camels or gazelles, containing 150-200 animals)’.

⁶³ Also *kīr* ‘fattened ram’.

⁶⁴ Cf. Tangale *kārwa* ‘cattle’ and *kuri* ‘herd (of cattle)’, *kərne* ‘to protect, guard, keep, shelter, watch’, Dera *kárán* ‘herding’ < **kVr-* ‘to guard, to protect, to shelter’ in Stolbova 2011 #259.

1.18. *lawi?- ‘k. of large bovid’⁶⁵

Sem. *lawi?- and *lawli?-(redupl.) ‘k. of large bovid (*Bos*, *Syncerus*, *Connochaetes*, etc.): Akk. (OB on) *litt-u* (*līt-u*) ‘cow’, *lalû* (*lali?-u*, *lala?-u*) ‘kid’, *lulī-mu* ‘red deer, stag’ [*Cervus elaphus*] || Ebl. *lí-a-núm*, *lí-a-nu-um* ‘cow’ | Ugr. *ll?-u* ‘lamb, kid’ | Hbr. *lē?-ā* ‘wild cow’ [*Bos taurus primigenius*] (only as a pers. name) | Arab. *lā?an* ‘taureau sauvage, buffle’ [*Syncerus caffer*], *lu?lu?-* ‘antelope’ | Tgr. *lul-it*, pl. *läwäll-it* ‘(cow) with long, crooked horns’, Amh. *lil(lə)wil* ‘gnu’ [*Connochaetes sp.*] || Mhr. *lahay-tən* ‘cows’, Hbt. *leé*, pl. *lháytə*, Jib. *le?*, pl. *lhó-ti*, Soq. *?e-lh-eh* ‘cow’, *lúl-oh* ‘brébis’.⁶⁶

Egyp. (Pyr.) *iw?* ‘bull’ (if < *IVwV?-).

Berb. *w/yalaH- (met.): Izayan *ta-wala* ‘troupeau de bœufs, sangliers’, Ahaggar *élah-ei* ‘mouton à laine’.⁶⁷

Chad. *laway- ‘k. of larger bovid (*Tragelaphus*, etc.): W.: Dera *la-à* ‘cow’ || C.: Gude *la* ‘cow’ (Jungraithmayr & Ibriszimow 1994), Kapsiki, Higi-Nkafa *le*, Higi-Baza *lɔl-ε* (redupl.) ‘gazelle’, Higi-Ghye *le*, Bachama *lýey* ‘duiker’ [*Tragelaphus sp.*] (Stolbova 2005 #57), Masa *lúway* ‘troupeau, le betail’ (CED #549).

Cush. *lawi?- ‘cattle’: C. *luway-: Bilin *luwí*, Khamir *luwá*, Awngi *luwā* || E. *la?- and *la?la?- (redupl.): SA *la(?)-: Saho, Afar *lā* ‘cow, cattle’ | LEC *lo?(lo?)- ‘cows (coll.)’: Somali *lo?* ‘cows (coll.)’, Rendille (pl.) *loóly-o*, Oromo *loo-ni* ‘cows (coll.)’, *lal-eesa* ‘she-goat’, Konso *low-aa* ‘cows’, Dasenech *lal-o*, pl. *lal-i* ‘cow’, etc. | HEC *lal-: Sidamo *lal-o* ‘cows, cattle’, *laat-to* (f.) ‘young sheep, lamb’ | Dullay *lo?-, pl. *le?- ‘cow’: Harso, Dipina, Gollango *lól-o*, Tsamai *lō?-ō-*, pl. *lē?-ē*, etc. || S. *li?-: Iraqw *le?-i*, Gorowa *lee?-i* ‘goat’ | Qwadza *le?-amuko* ‘bull’.

► AADB 301, 2477. Cf. HSED Nos. 1632, 1647, 2595; SED II Nos. 142, 143; Mil. 2009; EDE I 86.

1.19. *mayn- ‘k. of large bovid’

Egyp. (MK) *mnmn.t* (redupl.) ‘herd, cattle’.

Chad. W. *mawan-: Boghom *mwòŋ* ‘ram, sheep’ || C.: Uldeme *maan-ša* ‘cow, bull’, Musgu *mwuŋ* ‘buffalo’.

Cush. *mayn-: C.: Qemant *miyän* ‘young cow’; E.: SA: Saho *móynoy* ‘bull’.

Omot. N. *mēn- ‘buffalo’: Wolaita *mien-ta*, Male *méni*, Kachama *mēn-o*, Ganjule *mēn-o*, Gimirra *men*, Dizi (Sheko) *mēn*, Mao (Bambeshi) *mènè* (cf. Kafa *mēnō* ‘meat’).

► EDE III 293–4: cf. E. Nilotic: Ongamo (pl.) *o-mónyí* ‘bull’, Maasai (pl.) *il-mónjí* ‘oxen’; AADB 4261.

1.20a. *mar(ay)- ‘k. of large bovid’

Sem. (a) *marVy- ‘bull’: Akk. (SB) *mīr-u* ‘young bull’, (OB) *mīr-tu* ‘cow’ || Hbr. *mārī(?)* ‘fatted steer’⁶⁸ | Arab. *māriyy-at-* ‘antelope blanche’.⁶⁹

Egyp. (Pyr.) *m?* ‘oryx-antelope’ [*Oryx sp.*] (if < *mVr).⁷⁰

Chad. *maluray- ‘*Kobus sp.*’: W. *maray: Hausa *mààrír-ì* ‘white oryx’ [*Oryx leucoryx*],⁷¹ *máàrày-áá* ‘Western kob (medium antelope)’ [*Kobus kob*], Saya *mááriy-á* ‘antelope’, Warji *mārai*, Ngizim *máàrày-á* ‘kob’ [*Kobus sp.*] || C. *mur-: Masa *murí* ‘antelope sp., prob. kob-défassa’ [*K. ellipsiprymnus*] || E.: Toram *múr-o* ‘gazelle’.

⁶⁵ Cf. Chad. *IVw(h)- ‘wild animal(s), meat’ (CED #549), likely related.

⁶⁶ Note non-etymological -h- in MSA.

⁶⁷ Cf. also *alu* ‘bull’, quoted in EDE I 86 as “Tamasheq”, dialect name and source not specified.

⁶⁸ Usually regarded as derived from the verbal root *mr? ‘to be fat’, which is less likely in view of the Akk. parallel.

⁶⁹ Unless ‘white, milk-colored’ is Arab. *miry-at-* ‘lait qui sort en filet abonant du pis de la femelle’ (BK II 1097-8).

⁷⁰ Cf. also (late) *mr.t* (if < *mVr-, not *mVl-) ‘cow’; cf. also (MK) *mr*, *mry* ‘Kampftier’ with the sign for bull/cow’.

⁷¹ Less likely < Arab. *māriyy-at-* ‘antelope blanche’ in view of other Chad. data; however, the similarity is somewhat striking.

Cush. E. **mar-*: LEC **mar-*: Rendille *máar* ‘male calf’, *maár* ‘female calf’, Arbore *máar* ‘calves’ (coll.) | HEC **mar-*: Hadiya *moor-a* ‘older calf’ | Dullay **mar-* ‘heifer’: Harso, Dihina *maar-akkó*, Tsamai *mār-e* || S. **ma(w)r-*: Ma’a *mor-o* ‘ox, steer’⁷² | Dahalo *morr-o* ‘duiker’ [*Tragelaphus sp.*].

Omot. N. **mar-*: Gamu *mar-a*, Dorze *mar*, Male *marr-o* ‘calf’ (probably lws. from E. Cush.)
 ► SED II No. 153; AADB 2331, 2460; EDE III 26, 393–4; HSED 1728; Mil. 2009.

1.20b. *(*ʔa-*)*mayr-* ‘k. of small bovid’

Sem. **ʔa/i-mmar-* ‘lamb, sheep’: Akk. (OA, OB on) *immer-u* ‘sheep; sheep and goats; ram’, (OB on) *immer-tu* ‘ewe, sheep (as a generic term)’ | Ugr. *ʔimr* (and *ʔamr*) ‘ram’ | Phoen. *ʔmr*, Hbr. *ʔimmēr* | Aram.: Anc., Off. *ʔmr* ‘lamb, sheep’, Bibl. *ʔimmēr* ‘lamb’, Sam. *ʔmr*, Syr. *ʔemr-ā* ‘lamb’, Mand. *ʔa/umbr-a* ‘sheep, lamb’ | Arab. *ʔalimmar-* ‘lamb’.

Chad. W. *(*ʔa-*)*mar-* ‘ram, goat’: Tangale *mar-a* ‘(castrated) goat’, Dirì *mar-ì* ‘goat’, Bokkos *maray*, Sha à*mar-á*, Fyer *ʔamar-a* ‘ram’.⁷³

Cush. E.: SA **mar-*: Saho, Afar *mar-ū* ‘ram’.

Omot. **mar(ay)-*: N.: Wolayta *mār-ā* ‘calf, lamb, kid’, Gamu *mar-a*, Dorze *mar*, Male *marr-o* ‘calf’, *màrày-i* ‘ram’, *marmar-o* (redupl.) ‘lamb’,⁷⁴ Koyra *mar-a* ‘ram’, Bworo *merēr-à-* ‘sheep’, etc.⁷⁵

► SED II No. 5; AADB 2591; EDE III 42, 394; HSED 1729; Mil. 2009.

1.21. **naʔiw-* ‘k. of bovid’

(?) Egyp. (NK) *wnwy* ‘Kalb (als Bezeichnung des Osiris)’.

Chad **naHaw-*: (a) W. **na* ‘cow’: Tangale *ta-ŋa* | Boghom, Tala, Jimi *naa* || C. **naw*: Lame *náo* | Mesme *nau*, etc. ‘cow’ | Mandara *náw-è* ‘goat’.⁷⁶

Cush. **naʔiw-*: N.: Beja *naaʔ* ‘sheep’ || C. **naw-* ‘calf’: Khamta, Khamir *niw* | Kailiña *nāw* | Aungì *nēw*, Kunfal *nāw-i*⁷⁷ || LEC **nVw-*: Boni *núì* ‘greater kudu’ [*Tragelaphus strepsiceros*].

► AADB 2025, 2530; HSED, 42; Blažek 2003b: 234; Stolbova 2005 #364, 364a; Mil. 2009; CED #585 (comp. with Hbr. and Arab.).

1.22. **saraw/y-* ‘k. of bovid’

Egyp. (OK) *sʔ* (if < **sVr-*) ‘Herde’.

Berb. S. **saraw/y-* ‘troop, herd’: Ahaggar *ǎ-sāra*, pl. *i-sārâ-tān* ‘troupe d’animaux sauvages’, Taitoq *a-sera* ‘troupeau de moutons, de chèvres, d’ânes’, Tadghaq *ta-sāraw-t* ‘small herd of cows (up to about 30)’, *ta-sāray-t* ‘large herd (esp. of camels or cattle)’.

Chad. W. **sa(r)sar-* (redupl.): Hausa *sassar-o* ‘male red-fronted gazelle’ [*Eudorcas rufifrons*].

Cush. E. **sar(a)w/y-* and **sawr-*: SA **saraw-*: Saho *saraaw-ii* ‘einzwējähriker zur Arbeit noch nicht abgerichteter Stier’ | LEC **sary-* ‘Oryx, Madoqua’: Somali *sary-an* ‘adult male oryx’ [*Oryx sp.*] | Dullay **sawr-* ‘antelope dikdik’ [*Madoqua sp.*]: Gollango *sawr-ó*, *sayr-ó*, Tsamai *sawr-o*.⁷⁸

► AADB 299. Cf. Blažek 2003a: 9.

⁷² Acc. to Ehret 1980, < NS, but in light of other Cush. and AA parallels this seems less likely.

⁷³ And, perhaps, Tala *màar*, Buli *maro*, Polchi *mar* ‘goat’ unless < **maq-*. Cf. also W.: Dwot *maariiri* ‘rhinoceros’; C. **maray* ‘bull’: Mofu-Gudur *maray* ‘taureau engraisé à l’étable’, Matakam *mari* ‘bull’, Mafa *maray* ‘fête rituelle de taureau; taureau de case sacrifié lors la fête’.

⁷⁴ Diminutive reduplication?

⁷⁵ Ongota *mar-te* ‘she-calf’ < Tsamai.

⁷⁶ Cf. also Sem. **naw/yʔ-* ‘meat’: Akk. (YB) *unû* ‘k. of meat’; Hbr. *nāʔ* ‘raw (flesh)’; Arab. *nyʔ* ‘être cru, n’être pas cuit (viande)’; Chad. **nay(n)* ‘meat’: W. **nay(n)*: Mupun *nān* ‘flesh’, Galambu *nyàa* ‘meat’; C. **nay(n)*: Munjuk *nèŋ*, Musgu *nē*, *neŋ*, *niŋ* ‘meat’.

⁷⁷ Tgr. *nəway* ‘cow, possession/fortune’ is most likely from Agaw.

⁷⁸ Omot. S.: Ongota *saire* ‘antelope dikdik’ [*Madoqua sp.*] is from Tsamai.

1.23. *šaʔ- and *šaʔ- ‘k. of large bovid’

Berb.: Ahaggar *êsu* (< **Hišw*, met.) ‘bull’.⁷⁹

Chad. **žaH-* ‘large cattle, cow’: W. **žaHa:* Siri *žáà-ti*, Dott *žáá*, Buli, Dott *žáa* ‘cow’, etc. || C. **ža:* Tera *ža*, Gude *žà*, Buwal *žà*, Sukun *žə*.⁸⁰

Cush. **šaʔ-* or **šaʔ-*: N. **šaʔ-*: Beja *šaʔ* ‘cow’ || E. **saʔ-*: SA **saʔ-*: Saho *sáʔ-a* ‘cattle’, Afar *sáʔ* ‘small stock (animal)’ | LEC **saʔ-* ‘cow’: Somali *saʔ*, Jidda *sii*, Boni *sáʔ-a*, Rendille *saʔ*, Oromo *sáʔ-a*, Konso *sa-a*, Bayso *se*, Arbore, Dasenech *seʔ* | HEC **saʔ-*: Sidamo *saʔ-aa*, Darasa *sa-aya*, Kambatta *saʔ-a*, Hadiya *saa-yya*, Burji *saa* | S. **šaʔ-Vy-* ‘cow’: Iraqw, Alagwa, Burunge *še-e*⁸¹ | Asa *še-ok* | Qwadza *šae-ko*.

► Cf. HSED #517; AADB 381; CED #831; Mil. 2009.

1.24. *waʔil- ‘k. of lesser bovid’

Sem. **waʔil-* ‘mountain goat (*Capra ibex*, *Arabitragus jayakari*): Ugr. *yʃl* ‘mountain goat’ | Hbr. *yāʔēl* ‘ibex, mountain goat’ | Aram.: Syr. *yāʔl-ā* ‘ibex (?)’, Jud. *yāʔāl-ā*, *yāʔēl-ā* ‘mountain goat, wild goat’ [*Capra ibex*] | ESA: Sab., Qat. *wʃl* ‘mountain goat, ibex’ [*Arabitragus jayakari*], Hdr. *?-wʃl* (pl.) id. | Arab. *waʔl-*, *waʔil-*, *wuʔil-* ‘argali, bouc de montagnes’ [*Ovis ammon*]; bouc domestique’ | Gz. *wəʔəl-ā*, *waʔāl-ā*, *wāʔəl-ā* ‘kind of antelope, mountain goat’ [*C. ibex*], Tgr. *wəʔəl-a* ‘elk/élan’ (DRS 578) [*Cervus elaphus*], Amh. *waliy-a* ‘Walia ibex’ [*C. ibex*] || Mhr. *wēl*, pl. *wəʔōl*, *wəyʔōl*, Hrs. *wāl*, Jib. *ebʔóž* ‘Hemitragus Jaykari, mountain goat’ [*A. jayakari*], Hbt. *wəʔaal*, pl. *wəʔyoól* ‘wild goat, oryx’.

Berb. **wulli* ‘small cattle’: Qabyle *ulli* ‘sheep’, Ghadames *welli*, Ayr, E. Wlm. *wəlli*, Ahaggar, Tadghaq *ulli* ‘goat’.

Chad. **wayl-* ‘k. of lesser bovid’: W. **wal-*: Jimi *wal-aróo* ‘antelope’, Geji *wull-ì* ‘gazelle’ || E. **wil-*: Lele *òl*, Kabalai *yil-ə* ‘antelope’.

Cush. E. **wiʔl-* ~ **ʔawl-* (met.) ‘k. of lesser bovid’: LEC **ʔawl-*: Somali *ʔawl-kii*, Rendille *ʔol* (*ʔ < *ʔ*) ‘gazelle’ || HEC **wiʔl-*: Sidamo *wil-ii’l-icco*, pl. *wil-ii’le* ‘young (of sheep, goat)’.

► SED II No. 244; AADB 2470.

1.25. *wad- ‘k. of lesser bovid’⁸²

Sem. **wad-*: Arab. *wad-ān-* ‘mouflon’ [*Ovis orientalis*].

Berb. **a-wdad* (part. redupl.) ‘Barbary sheep (*Ammotragus lervia*): Nefusa *a-wdād*, Semlal, Izdeg, Ghadames, Ghat *udad*, Ahaggar *ūdād*.

Chad. **wad-* ~ **daw-* (met.) ‘k. of lesser bovid’: W. **wad-*: Hausa *ud-a* ‘k. of sheep’ || C. **daw/y-*: Mofu *dáw* ‘goat’, Zime-Batna *dèy* ‘duiker’ [*Tragelaphus sp.*].

Cush. E. **ʔid-* ‘sheep’: SA **ʔayd-* ‘sheep’: Saho *ayd-ó* ‘sheep (coll.)’, Afar *id-a* ‘ewe’ | LEC **ʔidad-* (redupl.): Bayso *idādo* ‘sheep’.⁸³

⁷⁹ Perhaps also P. Berb. **isa-n* (pl.) ‘meat’ which may alternatively originate from AA **sVʔ-* ‘meat’.

⁸⁰ In CED #831 (where *ž* is rendered as *ʃ*), the above forms are united with the forms in *š-* (rendered by *ʃ*) with the following comment: “The word for ‘cow’ shows irregular voiced reflex (*ʃ*) in a number of Ch Biu-Mandara languages. Most probably, *ʃ-* originates from *nʃ* < PCh **nʔ-* (note *n-* as a pref. of sing.);” this ingenious explanation “reconciling” the reflexes of two different AA laterals (Chad. *š/ʃ* < AA **č* and Chad. *ž/ʃ* < AA **š*) is opposed by an alternative solution proposed herein.

⁸¹ ? is < *ʔ, not < *ʔ in W. Rift languages.

⁸² Cf. also miscellaneous terms that are somewhat similar and probably eventually related: Sem.: Akk. (lex.) *dūdu* (< **dawd-*, partial reduplication?), (OA, SB) *aletūdu* ‘wild sheep (male)’; Off. Aram. (*hapax* in Frah) *ʔndwt* (**ʔV-n-daw-t?*) id. (cf. SED II No. 44) and Cush. **ʔad(d)Vy-* (?): E. **ʔaddi* ‘large cattle’: SA.: Afar *addi* ‘young heifer’, HEC: Hadiya *addi-cco*, Sidamo *adde*, Burji *addi* ‘heifer’; S. **deʔ-* (met.?): S.: Qwadza *deʔ-* ‘to herd’, Ma’a *dé* ‘cow, cattle’. Cf. Blažek 2003b: 244 (Beja *ḍa* ‘newly born calf’ and the E. and S. Cush. forms are probably not related, since Beja *ḍ* does not continue **d*).

⁸³ Difference in the first radicals and stem patterns makes cognation with the present root questionable.

▲ Cf. Sum. *udu* ‘sheep’ (EDS #2678).

► AADB 2531.

1.26. **(ʔa-)w/yan-* ‘k. of lesser bovid’

Chad. *(ʔa-)yan-* ‘goat’: W. **yan-*: Siri *yàan-i* || E. **ʔayn-* ‘goat’: Birgit *ʔàyn-éy*, Migama *ĩ:n-á*, Jegu *ʔàyn-éy (té-én-ó, pl. ʔéén* ‘he-goat’).⁸⁴

Cush. **(ʔa-)w/yan-*: N.: **ʔan-*: Beja *an-o* ‘sheep’ || LEC **wan-*: Somali *wan*, pl. *wanan* ‘ram’, Rendille *onó* ‘sheep’ | HEC **ʔayn-*: Burji *ayáan-e* ‘gazelle’.⁸⁵

Omot. S. **yVn-* ‘sheep’: Dime *iin*, (?) Ongota *hoona (h-* probably renders ?).

► AADB 2530.

1.27. **war-* ‘k. of larger bovid’

Egyp. (MK) *wr.t* ‘göttliche Kuh’, *wr* ‘Steer’, in dem Ortsnamen.

Berb. **wVrw-* (< **ʔarw*): Semlal *ta-uru-t* ‘troupeau (de bœufs)’, Azilal *ta-wru-tt* ‘troupeau’.

Chad. W. **war-*: Hausa *wariyy-a* ‘a k. of antelope’,⁸⁶ Dera *wor-e*, Kariya *wúr-ù*, Warji *ruwe* (met.) ‘cow’.

Cush. E.: HEC **war-*: Sidamo *war-aamo* ‘older calf’.

► HSED 2527; AADB 2497.

2. Camels and equids

2.1. **dawk-* ‘k. of equid’

Sem. **kawd-an-* (met.) ‘mule’: Akk. (Oakk. on) *kūdanu (kūdannu)* || Ebl. *gú-da-núm <kūdanum>* | Ugr. *kdn-t* | Aram.: Off. *kwdn*, Palm. *kwdn*, Syr. *kūdan-yā, kūdān-ā* | Arab. *kawdan-, kawdan-iyy-*.⁸⁷

Chad.: W. **daw(a)k-* ‘horse’: Hausa *dók-ì*, Karekare *dókú*, Miya *duwak-a*, Burma *dok*, Ngizim *dùk-à*, etc. || C. **(n-)dok*: Tera *doh* ‘stallion’, Pižimdi-Hina *n-dok* ‘pony’ || E. **dawk-*: Dangla *dewk-i* ‘antilope-cheval’ [*Hippotragus equinus*].

Cush. S. **dak-et-*: Iraqw *dak-eti*, Alagwa *dek-eti* ‘zebra’ [*Hippotigris sp.*].⁸⁸

► SED II No. 124; AADB 2639; cf. HSED 667.

2.2. **gayl-* ‘camel’

Sem. (a) **ʔa-gayl-* and **gilgal-* (redupl.) ‘k. of equid’: Akk. (Oakk. on) *agāl-u, agall-u* ‘an equid’ (CAD a1 141), ‘Reitesel’ (AHw: 15) || Ebl. *ag-lum* = ANSE.NITA.KUR (a donkey) | Tgr. *gālgāl* ‘foal (mule, horse)’, Tna *gālgāl* ‘puledro di cavallo o mulo non ancora domato’ (Basano 1918: 815), Amh. *gālgāl* ‘the young of domestic animals (goat, sheep, horse, donkey)’; (b) **gimal-* (met. < **gayl-am-*)⁸⁹ ‘camel’: Hbr. *gāmāl* | Aram.: Off., Palm., Nab. *gml*, Syr. *gaml-ā* | Sab. *gml* | Arab. *ʔaml-, ʔamal-* | Gz. *gamal* || Jib. *gūl* (pl. *gmíhl*), Soq. *gimāl*.

⁸⁴ Cf. Can. **Han(y)-*: Tenerife *ana, haña, jana* ‘sheep’.

⁸⁵ Cf. also Afar *anaŕ-to* ‘lamb (female)’ (non-etymological -ŕ). Sem. Gur.: Cha. *onā*, Eža *onnā* ‘young male goat or sheep’ must be from Cush.

⁸⁶ Cf. also *warari* ‘a vicious bull’ (Skinner 1996: 283).

⁸⁷ Likely related is Tgr. *mākada*, name of the small Abyssinian horse.

⁸⁸ Cf. irregular variant forms (variant roots?): C.: Bilin, Khamir *dəh^wara*, pl. *daḳ^wal*, Aungi *dəy^wari*, etc. ‘donkey’; E.: LEC: Oromo *donḳoro* ‘stupid, fool’, (Bararetta dial.) *dongorra* ‘donkey’; S.: Iraqw, Gorowa, Alagwa, Burunge *daḳwai* ‘donkey’, Qwadza *dagwagwai-ko* (Dolgopolskiy 1973: 275), *daḳ^wak^way-iko* (Ehret 1980: 345). Cf. also Chad. C. **zVng^w-* ‘donkey’ (Stolbova 2009 #530).

⁸⁹ Cf. a similar process in **ḥimār-* < **ḥayr-ām-* (2.4).

Berb. **gilgal-* (redupl.): Ahaggar *ā-gelgâl-i* ‘chameau de charge commun et lourd’.⁹⁰

Cush. E. **gayl-* ‘camel’: SA **gāl-*: Saho, Afar *gāl-ā* || LEC **gayl-*: Somali *geel-a* (coll.), Boni *g’áál*, Rendille *gaal*, Oromo, Baiso *gaal-a*, Arbore *gaal*, Elmolo *gal-te*.⁹¹

► AADB 2508; cf. SED II No. 79.

2.3. **hi/ul(l)-* ‘k. of equid’

Sem. **hil(l)-ay-* ‘colt, foal’: Akk. (OB) *ilulay-u* ‘ein Kamel?’ || Tgr. *ḥel-e* ‘camel (poet.)’, Tna. *ḥawl-a* ‘donkey’s colt or foal of about two years’ || Hrs. *me-ḥeley-ōt* ‘she-camel with fully-grown young’.

Berb. S. **hulil* (redupl.) ‘wild ass, foal’: Ghat *a-hulil* ‘âne sauvage’ [*Equus asinus*], Ahaggar *ā-hâhul* ‘jeune chameau non castré’, Ayr, E. Wlm. *ə-hulel*, pl. *i-hule-tân* ‘poulain, ânon’.

Cush. E. **ʔi-ḥVII-* (redupl.) ‘k. of equid’: LEC *(*ʔi-*)*ḥaw/yl-*: Rendille *é-ḥel*, Arbore *holl* | Dullay *(*H*)*all-*: Gollango *ooll-ó* ‘Pferd’ || S. **ḥVIIV?*- (met.?): Dahalo *ḥelleʔ-a* ‘zebra’ [*Hippotigris sp.*].⁹²

► AADB 2462.

2.4. **ḥa/ir-* ‘wild ass’

Sem. (a) **ḥayur-* ‘ass, camel’: Arab. *ḥuwār-*, *ḥiwār-* ‘petit de chameau récemment né, ou jusqu’à l’époque du sevrage’⁹³ || MSA **ḥayr-*, pl. *ḥayor*:⁹⁴ Mhr. *ḥayr* ‘male donkey’, *ḥīr-it* ‘female donkey’, Hrs. *ḥayr* ‘donkey’, *ḥayr-ēt* ‘she-donkey’, Hbt *ḥáyr*, pl. *ḥyeér* (m.), *ḥiiri-it*, pl. *ḥiyór-tə* (f.) ‘donkey, ass’, Jib. (Kathīri dial.) *a-ḥyér* ‘male donkey’; (b) **ḥimār-* ‘wild ass, onager, donkey’ (met. < **ḥayr-ām-*):⁹⁵ Akk. (Oakk. on) *imēr-u* ‘donkey, male donkey’ || Ugr. *ḥmr*; Hbr. *ḥāmōr* ‘he-ass’ | Aram.: Off. *ḥmr* ‘donkey, ass’, f. ‘she-ass’, Palm. *ḥmr* ‘donkey, ass’, Syr. *ḥmār-ā* ‘asinus’, *ḥmār-tā* ‘asina’, Mand. *hamar-a* ‘pack-animal, ass, donkey’ | Sab., Min. *ḥmr* ‘ass; wild ass, onager’ [*Equus asinus*, E. *hemionus*], ‘domesticated ass’ | Arab. *ḥimār-* ‘âne; âne sauvage, onagre’ [E. *asinus*, E. *hemionus*], *ḥimārat-* ‘ânesse’⁹⁶ | Gur. **əmar* ‘donkey’: Cha. Gog. *əmar*, Sod. *əmar*, Wol. *umar*, etc.⁹⁷

Cush.: N. **har-*: Beja *har-e* ‘camel’ (Blažek 2003b:13)⁹⁸ || E. **ḥa(y)r-* ‘wild ass, donkey’: SA **ḥayr-*: Saho *ḥer-a* ‘female donkey’ | LEC **harr-*: Oromo *harr-ee*, Konso *harr-eta*, Dirayta *harr-et* ‘donkey’, Dullay **ḥar(r)-*: Gawwada, Dobase, Golango *ḥarre*, Harso *ḥar-iččé* ‘ass’ [*Equus asinus*].⁹⁹

► SED II Nos. 98, 106; AADB 2463, 4120.

2.5. **k^war-* ‘wild ass or camel’¹⁰⁰

⁹⁰ Cf. Zenaga *a-žiž* (< **a-gil*) ‘âne’.

⁹¹ HEC **gāl-*: Sidamo, Darasa *gaala*, Burji *gaali*; Dullay **kāl-* (< **gāl-*): Gawwada *kaal-ḥó* (< **kāl-k-*), Harso, Dihina, Gollango *kaalá* probably from Oromo. Omot.: Dache, Zaysse *gaale*, Yemsa *gaala*, Kafa *gallo*, Dizi (Sheko) *gaale* ‘camel’ perhaps also from Oromo, probably via HEC.

⁹² Omot. N.: Zaisse *ollō*, *wollō*, Ganjule *ollo* ‘horse’ are probably lws. from Dullay.

⁹³ Tgr. *ḥəwar* ‘young (of camel or donkey)’ is likely an Arabic loan. Berb.: Ahaggar *awra*, pl. *iwerân* ‘chameau dans sa 1ère année’, Ayr, E. Wlm. *awāra*, pl. *iwāran* ‘chamelon de quelque mois’ are probably Arabisms.

⁹⁴ Erroneously related to Sem. **ḥayr-* ‘donkey’ in SED II No. 50, analyzed as forms with the definite article *ḥ-*. However, this article occurs only in “words with an initial radical ?...and certain...monosyllables with an initial w or y radical” (Johnstone 1987: 163-4). There seems to be no cases of the *ḥ-* article replacing initial etymological *ḥ-* in either Mhr. or Jib.

⁹⁵ Cf. a similar process in **gimal-* (< **gayl-am-* (2.2)).

⁹⁶ Cf. also *aḥmūr-*, *yaḥmūr* ‘onagre’ [*Equus hemionus*].

⁹⁷ Cf. Mhr. *ḥəmūr* ‘to tame, break (a horse)’, Hrs. *ḥemōr* ‘to tame, break (a riding beast)’, Jib. *ḥōr* ‘to tame, break, domesticate (an animal)’.

⁹⁸ Cf. *harri* ‘mount (anything that can be ridden)’.

⁹⁹ Wolamo *hariya*, Gofa *haare*, Gamo, Dorze, Cancha, Kullo *hare*, Malo, Dache, Zayse *hare*, Kachama *haarre*, Ari *harra* ‘donkey’ – likely lws. from Oromo.

¹⁰⁰ Cf. NAA **kawr-* ‘load, carry a load’: Sem.: (a) Arab. *kwr* ‘porter qqch. sur son dos’, II ‘empaqueteur (des bagages)’ (BK II942), (b) ‘pack saddle, bat’: Hbr. *kar* ‘bât (de chameau)’, Arab. *kūr-* ‘selle de chameau’, Tna, Tgr. *kor*,

Sem. **k^wVrr-* and **k^wVrk^wVr-* (redupl.) ‘she-camel’: Hbr. *kirkär-ät* ‘she-camel’ (redupl.) | Arab. *kurr-* ‘ânon, poulain’ (DRS: 1283)¹⁰¹ | Amh. *k^wark^war*, Wolane *kurkur* ‘interjection one uses when calling a donkey’ (redupl.) || Hobyot *kóokar* (redupl.) ‘female camel (from 2 to 3 years)’.¹⁰²

Berb. S. **kirkar* (redupl.): Ayr, E. Wlm. *i-karkar* (pl.) ‘camels’.

Chad. **kwar-*: W. **kwar-* ‘wild ass, donkey’: Chip *kor-o*, Bolewa *kor-o*, Ngizim *kwár-á*, etc. || C. **kwar-* ‘ass’: Tera *kór-ó*, Hwona, Margi, Gude *kwar-a*, Banana *kwár-a*¹⁰³ || E. **kur-* ‘ass’: Ndam *kùr-ō*, Kwang *kúr-ā*, etc.

Cush. **kular-*: N. **kar-*: Beja *kár-ee-see* ‘Kamellaus’ (*see* ‘louse’) || E.: LEC **(?Vn-)kur-*: Somali *kór-on* ‘castrated camel; barren she-camel’, Rendille *in-kuraarr-ú* ‘donkey colt, young donkey’.

Omot. N. **kur-* ‘donkey’: Chara *kur-ā*, Kafa, Mocha, Anfillo *kur-ō*, Gimirra, Dizi (Sheko) *kur*.

► AADB 2468.

2.6. **pírā?* ‘k. of equid’¹⁰⁴

Sem. **para?* ‘onager, wild ass’ [*Equus asinus*, *E. hemionus*]: Akk. (OB on) *parû* ‘Onager, Maultier’ || Hbr. *pärä(?)* | Sab. *fr?* | Arab. *fara?*–.

(?) Egyp. (18 Dyn.) *rnp* (met. < **pr-n?*) ‘young horse’.

Chad. W. **pírr-* ‘k. of equid’: Gerka *pírr-i* ‘mare’ || C. **pur-*: Bura *pur-u* ‘white horse’.¹⁰⁵

Cush. **filar-* ‘k. of equid’: N **fírr-*: Beja *fírr-at* ‘she-camel just foaled’ || E. **far-*: SA **farar-* (redupl.): Saho, Afar *farar* ‘horse’ | LEC **faraw*: Somali, Arbore *faraw* ‘zebra’ [*Hippotigris sp.*].¹⁰⁶

▲ Seems like a genuine Proto-Afrasian term for a kind of equid.

► SED II No. 176; AADB 2503.

3. Largest herbivores¹⁰⁷

3.1. **da(n)g^w(Vr)-* ‘elephant’ [*L. africana*]

Chad. E. **dugur-*: Gabri *dūgūr-ù*, Sokoro *dogol* (*-l* < **-r?*).¹⁰⁸

Amh. *kor-āča*, Arg. *kor-āčča* ‘selle’ (DRS 1202), Amh. *kārkār* ‘louage des bêtes de somme’ (DRS 1276); Chad. (a) **kVr-*, *kVrkVr-* ‘load, carry a load’ (CED #446): W.: Bolewa, Karekare *karài* ‘load’, Ngizim *kákárâ* ‘load’, *kàkàrú* ‘carry a load’, Bade *karày* ‘goods’, Duwai *kàrkàrà* ‘load carried on the head’, C.: Bura *kari* ‘goods, possessions’, Fali-Kiryá *k^wàr* ‘to unload’, E.: Tumak *gàr* ‘carry; a load’ (*g-* < **k-* is regular), (b) W.: Hausa *ta-karkari* ‘pack ox’.

¹⁰¹ Cf. *kawr-* ‘troupeau nombreux (de chameaux, de bœufs)’.

¹⁰² Note a striking similarity both in form (reduplication) and meaning (she-camel) in Hbr. and Hbt. Cf. also Amh. *kārkār* ‘louage des bêtes de somme’.

¹⁰³ Cf. Nzangi *kəra*, Bata-Zumo *kara* ‘horse’.

¹⁰⁴ There are several (five, to be exact) somewhat similar triconsonantal roots in which it is not easy to distinguish between chance similarity and borrowing from suppletive stems such as Somali *faras* and pl. *fárdó*, Bilin *fardā* and pl. *fáriž*, *bādrā* and pl. *bázir*, Khamir *bázrā* and pl. *baris*. Two of them are well represented in Sem. (**pird-* and **paraš-*), nearly all in E. Cush and all in C. Cush while a few Chad. and Omot. parallels are most likely loanwords; notably, they seem to have no parallels in Beja, S. Cush., Egyp. and Berb. Surprisingly, all of them mean ‘horse’, which apparently excludes their PAA status. This entangled situation is worth a separate piece of research, which the authors are planning to publish soon.

¹⁰⁵ Hardly named after its color, since there seems to be no corresponding color name in the available Bura lexicon.

¹⁰⁶ Omot. N. **far-* ‘horse’: Wolayta, Zala, Dawro, Gofa, Gamu, Chara *far-a* < SA?

¹⁰⁷ Some examples from individual languages are quoted after Blažek 1994; however, distribution of the forms among different entries, based on regular consonantal correspondences, is in most cases quite different from this highly valuable collection of data.

¹⁰⁸ Also *dúger* or *dúkur* ‘rhinoceros’. Cf. Dangla *dugulo*, Migama *dijillu* ‘trunk’ and W. Saharan: Daza *dugugul* ‘trunk of elephant’.

Cush. S. **dang*^w-. Iraqw *dangw*-.

Omot. **dang*-*Vr*-: N.: Zaise *dongor*, Kafa *dangiy-ō* || S.: Ari *dangór*, Hamar *donger*.

► AADB 2519. Cf. Blažek 1994: 199.

3.2. **duhr*- ‘elephant’

Egypt. (late) *dnhr* (met. < **dhr-n*?) ‘elephant’ [*Loxodonta africana*].

Chad. W. **dor-in*- ‘hippopotamus’ [*Hippopotamus amphibius*]: Hausa *dòrìn-a*, Mupun *dòrin-a*, Miya *dòrin-á*, Tsagu *dòrán-à* (the last three words can be lws. from Hausa).

Omot. **duHur*- ‘elephant’ [*L. africana*]: N.: Dizi (Nao, Maji) *dōr*, (Sheko) *door* || S.: Dime *duur-o*.

► AADB 2524; cf. Blažek 1994: 199.

3.3. **fil*- ‘a proboscidean mammal’

Sem. **pīl*- and **pVlpVl*- (redupl.): Akk. (OB) *pīl-u* || pB. Hbr. *pīl* | Aram.: Syr. *pīl-ā*, Mnd. *pīl(-a)* | Arab. *fil*- ‘elephant’ [*Loxodonta africana*] | Gz. *falfal* ‘water buffalo; elephant’ [*Syncerus caffer*; *L. africana*].

Chad. **pīl*-: C. **pīl*-: Bura *pīl-ngir*¹⁰⁹ ‘aardvark’ [*Orycteropus afer*].¹¹⁰

Cush. S. **fil*-: Iraqw *fil-a*, Alagwa *fil-i*, Burunge *fil-u* ‘aardvark’ [*O. afer*] | Qwadza *fil-imbayo* ‘honey-badger’ [*Mellivora capensis*].

► Cf. SED II No. 173; AADB 2528. Cf. Blažek 1994: 196.

3.4. **gumar*-~ **garyam*- ‘hippopotamus’

Chad.: C. **garyam*-¹¹¹ ‘hippopotamus’ [*Hippopotamus amphibius*]: Musgu *géryam*, Vulum, Mbara *gàriyàm*, Masa *gáryam*, Banana *garyam-ba* || E. **girim*-: Tumak *girim*, Birgit *girim-tí*.

Cush. **gumar*-¹¹² ‘hippopotamus’ [*H. amphibius*].¹¹³ C. **gumar-ī*: Khamir *gumār-i*, Khamta *gumār*, Qwara *gumār-ē*, *gumār-ī*, Kemant *gumār-ī*, Aungi *gumār-í* || E. **gumar*-: Saho *gūmār-ē*, Afar *gūmār-ī* | HEC: Qabenna *gomarr-a*, Tembaro *gumorr-a*.¹¹⁴

▲ Cf. NS **ngwí:r* ‘large horned or tusk herbivore’ (Ehr. #514) and **ngwí:rént* ‘hippopotamus’ (ibid. #515).

► AADB 2526; cf. Blažek 1994: 202–3.

3.5. **lab*?- ‘k. of largest herbivore’

Egypt. *īrb?* (< **?V-lbV?*?)¹¹⁵ ‘rhinoceros (?)’ [*Diceros bicornis*].

Chad. W. **lab*-: Tangale *lab-ata* || E.: Mokilko *?ēlb-í* (met.?) ‘elephant’ [*Loxodonta africana*].¹¹⁶

¹⁰⁹ Blench, 2009 :141 (draft printout); *ngir* ideof. describes large number of people or birds sitting in one place.

¹¹⁰ Cf. also W. **pīl*: Gwandara *pīl* ‘spear grass’ [*Heteropogon contortus*], Angas *pīl* ‘elephant grass’ [*Pennisetum purpureum*]. It is an important element of forage for elephants in Africa, hence its name “elephant grass”.

¹¹¹ The metathesis is probably due to folk etymology, cf. Chad. C. **gar*- ‘bull’: Musgu *gari* ‘(big) bull’, Muskum *gèrré*, Vulum *gàri* ‘bull’ and PAA **yVm*- ‘water’. Cf. Blažek 1994: 204.

¹¹² Blažek also refers to Militarev’s Ms. from 1987, in which Berb. **a-gumār* ‘horse’ is compared to this Cush. term, referring to a well-known connection between horse and hippopotamus. However, the expected semantic development is reference to a hippo as “(river) horse” metaphorically; the reverse meaning shift is hard to imagine, which makes the Chad-Cush. comparison, already problematic because of metathesis, even less probable.

¹¹³ Borrowed in Eth. as **g^wamāri* ‘hippopotamus’ (note also Gz. *gamar*, Amh. *gumarr-e* ‘large monkey’). Blažek (1994: 202) quotes Gordon’s interpretation of Ugr. *gmr* as ‘a kind of animal capable of fighting ferociously’ (Gordon, 1965: 380), calling it “a promising Semitic cognate”. In Olmo Lete and Sanmartín 2003, however, *gmr* is glossed as ‘champion, fighter’ with Sem. cognates.

¹¹⁴ Cf. Omot. N.: Kullo *gomār-a* ‘hippopotamus’, isolated, likely a lw. from HEC.

¹¹⁵ Otherwise < **?V-rbV?*- comparable to E. Cush. **?arb*- ‘elephant’.

¹¹⁶ Cf. Mokilko *lòllib-ò* ‘trunk’.

Cush. HEC **laʔab-*(met.?): Hadiya, Kambatta *loob-a* ‘hippopotamus’ [*Hippopotamus amphibius*].
 ► AADB 2513. Cf. HSED #1662; Blažek 1994: 203.

3.6. **pir-* ‘k. of largest herbivore’

Sem.: Akk. (OB on) *pīr-u*, *pēr-u* ‘elephant’ [*Loxodonta africana*].¹¹⁷

Chad. **pir-*: W.: Hausa *fyár-mà* ‘a young female elephant’ || C.: Margi *pir*, Sukur *n-ver-i* (< **n-per-i*) ‘elephant’.¹¹⁸

Cush. E. **pury-*: Yaaku *puriaʔ*, pl. *puri-ain* ‘rhinoceros’ [*Diceros bicornis*].

► AADB 4259.

3.7. **warš-* ‘rhinoceros’¹¹⁹

Sem.: Eth. **hawriš-* ‘rhinoceros’ [*Diceros bicornis*]:¹²⁰ Gz. *hariš*,¹²¹ Tna., Tgr. *hariš*, Amh. *haris*, *awraris*.¹²²

Chad. C. **warž-*: Mbara *wí(r)ž-ĩ*, (?) Gidar *walš-ya* (-l < **-r* and **ž* > *š* influenced by l?) ‘bull’.

Cush. E. **worš-* ‘rhinoceros’ [*Diceros bicornis*]: LEC **worš-*: Oromo *worse-sa*,¹²³ Konso *orš-ayta* (also ‘hippo’ [*Hippopotamus amphibius*] acc. to Black), Gidole *orš-ayt*, Dirayta *orš-ayt* (also ‘gnu’ [*Connochaetes sp.*]) | HEC **worš-aʔ-*: Hadiya *oršaʔ-aḏo*, Burji *wórš-a* | Dullay **wVrs-Vʕ-*: Gollango, Harso *oršaʔ-aḏo* | Yaaku *órseʔ*.

▲ The resemblance of all these forms can hardly be accidental, though the origin of Eth. **h-* is far from clear. It could have been explained by **h-* > *Ø-* in some of the non-Semitic languages quoted, but **h* is expected to be preserved as *h* or *h* in Hadiya, Gollango and Yaaku. It could be suggested that the Eth. term may go back to the compound form **hayāw* ‘alive, living’¹²⁴ + **wariš-* paralleling *ʔarwehoras* ‘animal / beast + rhinoceros’ > *ʔawrāhars* > *ʔawrāris* (above). Cf. especially Proto-North Caucasian **wHārχwə* ‘pig, piglet’.

► AADB 2529; cf. Blažek 2003b: 270, Blažek 1994: 201.

3.8. **žag^w-* ‘k. of largest herbivore’¹²⁵

Egyp. (MK) *zʔg.t* (met. < **ʔzg* or *ʔ* renders *-a-*?) ‘ein Fabeltier’.

Chad. W. **(n-)žungw-*(met. < **žag^w-n-*): Diri, Pa’a *žungw-a*, Siri *žinw-a* ‘hippopotamus’ [*Hippopotamus amphibius*], Dwot *n-dzugh-u* ‘elephant’ [*Loxodonta africana*].

Cush. E. **zag-am-*: Yaaku *sogóm-èi* ‘elephant’ [*L. africana*].¹²⁶

Omot. N. **ʔa-zag-ay* ‘hippopotamus’ [*H. amphibius*]: Kačama *azāgē*, Koyra *azzāgē*, *azzagi*, Ganjule *azagé*.

¹¹⁷ Usually regarded as a by-form of *pīl-u* (see in 3.3) due to its sound Sem. etymology, indisputable in light of Gz. *falfal* (cf. discussion in SED II: 228).

¹¹⁸ Cf. W.: Kofyar *feer*, Warji *farai*, *párai*, Karya *pár*, Miya *à-pár* ‘horn’; C.: Daba *fālām* (-l can be < **-r*), Buwal *fár-ám*, etc. ‘horn’.

¹¹⁹ The reconstruction of **-š* (not **-č*) is based on the Mbara form alone.

¹²⁰ There is also Syr. *hars-ūm-ā* ‘proboscis; labia bovis’ which matches the Eth. noun phonetically, but semantically seems not close enough to be related.

¹²¹ Also *haris*, *horas*, *ʔarwehoras*, *ʔawrāhars*, *ʔawrāris*.

¹²² Arab. *hariš-* is a lw. < Gz.; E. Cush.: Saho *hariš* < Mod. Eth.

¹²³ < **worse-ta*; cf. Bayso *wōrsēsa*, borrowed from Oromo.

¹²⁴ < Sem. **hyw/y* ‘to live’ (> Hbr. *hayyā* ‘animals, beasts’, Syr. *hayyūt-*, Hbt. *haywuún* ‘animal’).

¹²⁵ Cf. the similar SAA root **žakan-* ‘elephant’ [*L. africana*]: Cush. E.: Saho, Afar *dakaan-o* (< **dakan-* or **žakān-*), LEC: Somali *dagon* (< **dakVn-* or **žakVn-*), Dahalo *dokom-i*, *ḏokom-i* (< **dVkVm-* or, perhaps, **žVkVm-*; the Dahalo reflex of AA **ž* is not clear — see Takács 2011: 119); Omot. N. **zak(kV)-nV*: Kačama, Koyra *zākk-ā*, Gofa *zakk-i*, Ganjule *zakk-a*, Yemsa *zahn-ō* (the Omot. terms may otherwise have been borrowed from Bantu **nzok* ‘elephant’).

¹²⁶ *s* in Yaaku may reflect **z* < **ž* / *ʃ*.

► AADB 2521. Cf. HSED 2658; Blažek 1994: 204.

3.9. **žunaʔ*- ‘elephant’

Chad. **žunaʔ*- ‘elephant’ [*Loxodonta africana*]: W. **žawon*-: Ngizim *žàun-àk* || C. **žuwān*-: Tera *žùwàn*, Sukur *žuwān* || E.: **žunaʔ*: Nanchere *ženaʔ*, Gabri *žén-u*, Kabalai, Dormo *žun-o*.

Cush. **žunaʔ*- ‘elephant’ [*L. africana*]: C. **žaHun*- (met.): Bilin, Qwara, etc. *žān-ā*, Khamir *zohón*, Aungi *ziyon-i* || E.: HEC **žanaʔ*-: Darasa *dānaʔ-è*, Kambatta *zan-ó*, etc. || S.: Dahalo *dannab-a*¹²⁷ ‘female elephant’.

► AADB 2522. Cf. HSED #2658; Blažek 1994: 199.

Discussion

Given the above genealogical classification of Afrasian, only those roots whose reflexes are attested in both SEBC and CO branches can be labeled PAA; attestation in Semitic makes this status incontestable. In case of faunistic terms, though, this principle cannot be strictly followed, since the retention of PAA animal names depended on availability of the *denotata* in the area where the respective language speakers had migrated.

There are two opposing views on the ancestral home of the Afrasians. Alexander Militarev’s Levantine hypothesis is supported by Blažek (2013), and a similar view is held by the archaeologist Peter Bellwood (2013). The idea of an African homeland, originally put forward by Igor Diakonoff (1981; later, however, he would lean more towards the Levantine hypothesis, cf. Diakonoff 1998) is promoted in various works by Christopher Ehret (e.g., Ehret 2011) and Roger Blench (e.g., Blench 2006) and, to a certain degree, shared by George Starostin (Starostin 2017).

The hypothesis according to which Proto-Afrasians may be associated with the highly developed Natufian and Post-Natufian Epipaleolithic culture of hunters and gatherers (12,500–9,500 BCE) is based on several main arguments. First, some of the multiple reconstructed terms¹²⁸ point to incipient agriculture rather than foraging.¹²⁹ For such an early period, both are typical of West Asia, the South Levant in particular, rather than of East or North Africa. Second, the whole picture of PAA culture reconstructed from the PAA lexicon (referring to social and economic differentiation, some terms relating to trade, weaponry, building and dwelling, etc.) features a society highly developed for that period which, again, implies the Levant rather than East or North Africa. Third, there are at least several dozens of hypothetical cultural isoglosses between the non-Semitic Afrasian daughter proto-languages (Berber, Chadic, Cushitic) and, on one hand, Sumerian (Militarev 1995) and, on the other, North Caucasian (Militarev & Starostin 2007), speaking in favor of ethnic and cultural contacts between

¹²⁷ If analyzed as *danna-ba*, this would be another case of Dahalo *d* (usually < **d*) as a reflex of **ž/ʒ*, besides *máḡade* ‘in **maḡi(n)ʒ*- ‘k. of ungulate’ (1.5b.)

¹²⁸ Ca. 30 in Militarev 2002; the number has more than doubled with a lot of newly processed data, especially Chadic — publication of a new list is forthcoming.

¹²⁹ Since the 11th millennium is regarded by modern scholarship as too early a period for incipient farming, the following scenario could explain the inventory of terms referring to farming and formally qualifying for Proto-Afrasian status: PSA speakers moved southward from the Levant to the north and, later, south Arabia (from where they moved to East Africa supposedly by or in the 8th mill.), while PNA speakers stayed in the Levant and created the Pre-Pottery Neolithic A culture which set farming in motion in the 10th mill.; some of the farming practices and terms could have passed from them to Proto-South Afrasians who were still located in Arabia, creating the illusion of Proto-Afrasian farming terminology when, in fact, it is representing only the PNA (PSEBC) stratum.

the corresponding speaking groups which could take place in West Asia in the period between the split of PAA and migration of most of its daughter proto-languages to Africa.¹³⁰

Counter-arguments rely on the repertoire of the PAA zoonyms denoting numerous African wild bovids (including most “antelopes”), elephants, rhinoceroses, hippopotami, crocodiles and odd-toed ungulates (except for onager) and large carnivores (lion, leopard, wolf, jackal, etc.). African animals did not inhabit the Levant during the warmer Preboreal phase of Holocene, which includes the Pre-Pottery Neolithic period (ca. 9,500–8,500 BCE, see Table 1), though the names of these animals are technically reconstructed on the PAA level. Regular consonantal correspondences between the reflexes of these roots point to their PAA origin, though the primary meaning of PAA terms is hard to specify considering the length of time that has passed since the PAA split.

Climate of the Levant in the era of the Natufian culture (ca. 12,500–9,500 BCE) was unacceptable for tropical mammals. The Natufians hunted only the following ungulates: gazelles [*Gazella gazella*, *G. subgutturosa*], deer [*Cervus elaphus*, *Damadama*], ibex [*Capra ibex*], aurochs [*Bos primigenius*], wild boar [*Sus scrofa*] and onager [*Equus hemionus*].¹³¹ A corresponding set of wild animal names has been reconstructed for Proto-Semitic (see SED II) whose Urheimat was most likely situated in West Asia, including the Levant, whereas for PAA as many as ca. 50 terms for wild ungulates have been reconstructed, most of them presumably representing various species. Such a variety of ungulate species is typical of the North East African sub-equatorial fauna, which has essentially remained unchanged since the end of Pleistocene.

Many terms denoting tropical African “antelopes”¹³² and largest animals such as elephant, hippopotamus, and rhinoceros, are to be formally considered PAA as well. These PAA roots are usually well reflected in Chadic (less so in Berber and Egyptian), Cushitic, and/or Omotic, but poorly attested in Semitic, whose original habitat being West Asia, the terms for “largest herbivores” sometimes refer to mythical animals (‘monster’, ‘fabulous bull’ and the like), while those for other ungulates usually denote various species of cattle, sheep and goats, asses,¹³³ horses and camels.

Another group of PAA zoonyms relevant for the Urheimat problem is represented by predators. There are 8 reconstructed terms for canines including ‘dog’ (**kawit-*, **k^wiħan-*, **KV3/žim-*), ‘k. of wild canine’ (**ʔaway-*, **ʔaw/ys-*, **ba^wiħ-*, **kur(-ay-)*, **wanš-*), 4 undifferentiated terms ‘k. of canine or hyena’ (**ʔalusk-ay-*, **baʔVš-*, **gVd-^wahr-*), 9 terms for felines including ‘lion’ (**labiʔ-*), ‘leopard or lion’ (**baʔy-*), ‘k. of (wild) feline’ (**ʔariw-*, **baʔis-*, **da(ʔ/y)m-*, **giwar-*, **layč-*, **mary-*, **sawr-*), and one undifferentiated term ‘k. of feline, hyena or viverra’ (**ʔažur-*).¹³⁴ These considerations should rather stimulate searching for the PAA homeland in the East African area, a hypothesis already voiced by several scholars, including Igor M. Diakonoff and others.

¹³⁰ As for Sumerian-Afrasian (non-Semitic) suggested isoglosses, all of them have a PAA origin and, on chronological grounds, can only be loanwords into Sumerian from various intermediate proto-languages of different Afrasian branches. It is possible that another (extinct and unattested) branch of AA in Mesopotamia could function as a substratum under Sumerian; this assumption by Militarev (1995) was accepted as probable by Diakonov (1996).

¹³¹ See Mithen 2003; Lev et al. 2020.

¹³² “Antelopes” comprise a miscellaneous group within bovids, encompassing Old World (mostly African) ruminants that are not bovines, sheep, or goats.

¹³³ In this connection it is worth mentioning that the only species of odd-toed ungulates attested in the Levant is the onager, whereas Africa was home to several species of wild equids.

¹³⁴ The detailed elaboration of these terms is prepared for publication by the same authors as well as reconstruction of other PAA zoonyms including monkeys (4 terms – none in Semitic), other mammals (8 terms, a selection), birds (11, a selection), reptiles (9, a selection), water reptiles and amphibia (4, a selection), fish (5, a selection).

Linguistic families	Disintegration of language families (year BCE) ¹³⁵	Palaeoclimatic periods (Europe, Western Asia)	Palaeoclimatic periods: approximate dates (year BCE)	Significant archaeological cultures in Levant	Archaeological cultures: approximate dates (year BCE)
Pleistocene					
		Oldest Dryas (cold)	12,000–11,600	Kebaran (Epipaleolithic, wildcrafting and hunting)	16,000–10,500
		Bølling-Allerød interstadial (warmer/colder/warmer)	12,600–10,900	Early Natufian (Epipaleolithic, wildcrafting and hunting)	12,000–10,800
Proto-Afrasian	10,500	Younger Dryas ¹³⁶ (colder)	10,900–9,640	Late Natufian ¹³⁷ (Epipaleolithic, developed wildcrafting and hunting)	10,800–9,500

¹³⁵ Approximate glottochronological dates.

¹³⁶ See Platt et al. 2017.

¹³⁷ See Grosman 2013: 622–627.

Linguistic families	Disintegration of language families (year BCE) ¹³⁸	Palaeoclimatic periods (Europe, Western Asia)	Palaeoclimatic periods: approximate dates (year BCE)	Significant archaeological cultures in Levant	Archaeological cultures: approximate dates (year BCE)
Holocene					
Proto-Sem.-Eg.-Berb.-Chadic	9,000	Preboreal (warmer)	9,640–8,500	Pre-Pottery Neolithic A ¹³⁹ (local origin, beginning of agriculture)	9,000–8,000
Proto-Cush.-Omotic	8,800			Boreal ¹⁴¹ (cool, dry, rising temperature)	8,500–6,900
Proto-Eg.-Berb.-Chadic	7,800				
Proto-Cushitic	7,500				
Proto-North-Central Cushitic	6,800	Atlantic ¹⁴² (warm, moist, maximum temperature)	6,900–3,700	Pottery Neolithic ¹⁴³ (agriculture and cattle breeding) and several subsequent neolithic cultures (developed agriculture and cattle breeding)	7,000–5,000
Proto-Berb.-Chadic	6,500				
Proto-East Cushitic ¹⁴⁴	6,000				
Proto-Omotic	6,000				
Proto-Chadic	5,500				
Proto-South Cushitic ¹⁴⁵	4,800				
Proto-South Omotic ¹⁴⁶	4,600				
Proto-Semitic	4,600				
Proto-North Omotic ¹⁴⁷	4,200				

Table 1. Comparative dates of Proto-Afrasian and Afrasian language families, palaeoclimatic periods and synchronous archaeological cultures in Levant

¹³⁸ Approximate glottochronological dates.

¹³⁹ See Chazan 2017: 197, Kuijt & Finlayson 2009: 10966–10970.

¹⁴⁰ See Chazan 2017: 197.

¹⁴¹ See Dansgaard et al. 1989: 532–534.

¹⁴² See Rasmussen et. al 2005.

¹⁴³ See Goring-Morris & Belfer-Cohen 2013.

¹⁴⁴ Including Yaaku.

¹⁴⁵ Including Ma'a and Dahalo.

¹⁴⁶ Including Ongota.

¹⁴⁷ Including Dizi and Mao.

Solid retention of PAA roots denoting representatives of African fauna in Proto-Chadic contrasts with weaker integrity in Egyptian and Proto-Berber and largely relict reflexation in Proto-Semitic. This may be explained by the latitudinal arrangement of the proto-languages descending from PSEBC dialects. The aggregate area of the latter probably stretched from Northeast Africa up to the Levant. The Cushitic and Omotic homelands would be situated in East Africa further to the south than the PSEBC homeland.

Appendix: Alphabetic index of reconstructed roots

- **ʔar(a)w/y-* ‘k. of larger bovid’ 1.1a.
 **ʔar(a)w/y-* ‘k. of lesser bovid’ 1.1b.
 **ʔayl-* ‘k. of lesser bovid’ 1.2.
 **ʔafVw-* ‘k. of lesser bovid’ 1.3.
 **ʔi(n)ʔ-* and **ʔi(n)ʔ-* ‘k. of smaller bovid’ 1.4a.
 **ba/iʔ-* ~ **baʔbaʔ-* ‘k. of lesser bovid (*Tragelaphus silvaticus?*)’ 1.5.
 **balay/w-* ‘k. of lesser bovid’ 1.6.
 **baray-* ~ **bayar-* ‘k. of lesser bovid’ 1.7.
 **čawiʔ-* ‘k. of bovid’ 1.8.
 **čaiw-* ‘k. of lesser bovid’ 1.9a.
 **čawir-* ‘male large bovid or herbivore’ 1.9b.
 **da(n)g^w(Vr)-* ‘elephant’ 3.1.
 **dawk-* ‘k. of equid’ 2.1.
 **duhr-* ‘elephant’ 3.2.
 **(ʔa-)dury-* ‘k. of bovid’ 1.10.
 **fa(?)n-* ‘k. of large bovid’ 1.11.
 **fil-* ‘a proboscidean mammal’ 3.2.
 **(ʔa-)fir-* ‘k. of bovid’ 1.12.
 **ga/ud-* ‘wild pig’ 1.13b.
 **gawr-* ‘k. of bovid’ 1.14a.
 **gayl-* ‘camel’ 2.2.
 **guday-* ‘k. of larger bovid’ 1.13a.
 **gumar-* ~ **garyam-* ‘hippopotamus’ 3.4.
 **gur-* ‘wild pig’ 1.14b.
 **ɣawʔ-* ‘k. of smaller bovid’ 1.15.
 **ha/ir-* ‘wild ass’ 2.4.
 **hawr-* ‘k. of larger bovid’ 1.16.
 **hi/u(l)l-* ‘k. of equid’ 2.3.
 **k^wayr-* ‘young (small) bovid’ 1.17.
 **k^war-* ‘wild ass or camel’ 2.5.
 **labʔ-* ‘k. of largest herbivore’ 3.5.
 **lawiʔ-* ‘k. of large bovid’ 1.18.
 **ma-ʔi(n)ʔ-* ‘k. of bovid’ 1.4b.
 **mayn-* ‘k. of large bovid’ 1.19.
 **mar(ay)-* ‘k. of large bovid’ 1.20a
 **(ʔa-)mayr-* ‘k. of small bovid’ 1.20b.
 **naʔiw-* ‘k. of bovid’ 1.21.
 **pir-* ‘k. of largest herbivore’ 3.6.
 **piraʔ-* ‘k. of equid’ 2.6.
 **saraw/y-* ‘k. of bovid’ 1.22.
 **šaʔ-* ~ **šaʔ-* ‘k. of large bovid’ 1.23.
 **waʔil-* ‘k. of lesser bovid’ 1.24.
 **wad-* ‘k. of lesser bovid’ 1.25.
 **(ʔa-)w/yan-* ‘k. of lesser bovid’ 1.26.
 **war-* ‘k. of larger bovid’ 1.27.
 **warš-* ‘rhinoceros’ 3.7.
 **ʒag^w-* ‘k. of largest herbivore’ 3.8.
 **ʒunaʔ-* ‘elephant’ 3.9.

Abbreviations

Names of languages

AA	Afrasian = Afro-Asiatic	Copt.	Coptic	ESud	East Sudanic
Akk.	Akkadian	Cush.	Cushitic	Eth.	Ethiopic
Amh.	Amharic	Dem.	Demotic	Ez.	Eza
Arab.	Arabic	E. Wlm	East Tawllemmet	Gog.	Gogot
Aram.	Aramaic	Ebl.	Ebla	Gt.	Gyeto
Berb.	Berber	Egyp.	Egyptian	Gur.	Gurage
Bibl.	Biblical Aramaic	End.	Endegen	Gz.	Ge'ez
Ch.	Chaha	Enn.	Ennemor	Har.	Harari
Chad.	Chadic	ESA	Epigraphic South Arabian	Hbr.	Hebrew

Hbt	Hobyot	NE	New Kingdom	Sab.	Sabaic
HEC	Highland East Cushitic	NS	Nilo-Saharan	Sam.	Samaritan
Hrs.	Harsusi	OAKk	Old Akkadian	Sel.	Selti
Jib.	Jibbali	OB	Old Babylonian	Sem.	Semitic
Jud.	Judaic Aramaic	Off.	Official Aramaic	SNil	South Nilotic
LEC	Lowland East Cushitic	OK	Old Kingdom	Soq.	Soqotri
Mand.	Mandaic	PAA	Proto-Afrasian	Sum.	Sumerian
MB	Middle Babylonian	PCO	Proto-Cushitic-Omotiic	Syr.	Syriac
Mhr.	Mehri	Phoen.	Phoenician	Tgr.	Tigre
Min.	Minaean	PSEBC	Proto-Semitic-Egyptian-Berber-Chadic	Tna.	Tigrinya (Tigray)
MK	Middle Kingdom			Ugr.	Ugaritic
Ms.	Masqan	Qat.	Qatabanian	Wol.	Wol.
MSA	Modern South Arabian	S.Cush.	Southern Cushitic	YB	Young Babylonian
Muh.	Muher	SA	Saho-Afar		

Terminology

coll.	collective	k.	kind	redupl.	reduplication
dial.	dialect	lw.	loanword	m.	masculine
dissim.	dissimilation	met.	metathesis	sg.	singular
f.	feminine	pers.	personal	sp.	species
gen.	generic (term)	pl.	plural	subst.	substantive
id.	idem	pref.	prefix	suff.	suffix

Other notational symbols

- || separates branches within a language family
- | separates subbranches or groups
- denotes morphemic boundaries¹⁴⁸

Abbreviations of sources

AADB = Militarev & Stolbova 2020	DRS = Cohen et al. 1970–1993
AHw = von Soden 1965–1981	EDE = Takács 1999, 2001, 2008
BK = Biberstein-Kazimirski 1860	EDS = Parpola 2015
CAD = Brinkman et al. 1956–2010	HSED = Orel & Stolbova 1995
CED = Stolbova 2016	Mil. 2009 = Militarev 2009
	SED II = Militarev & Kogan 2005

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¹⁴⁸ In some cases, especially in Chadic lexemes, boundaries drawn between the stem and affixes and between the affixes may not be exact, since ideal morphemic analysis requires more detailed knowledge of each individual language's morphology and morphophonemics than possessed by the authors.

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А. Ю. Милитарев, С. Л. Николаев. Праафразийские названия копытных в свете проблемы афразийской прародины

В статье представлена первая порция полного тезауруса праафразийских зоонимов, подготовленного авторами: более ста названий копытных, включая полорогих, свиней, эквидов и верблюдов, а также крупных травоядных (слонов, гиппопотамов и носорогов), отражающие максимально полную (на современном уровне наших знаний) картину этих видов фауны в период накануне распада праафразийского языка (11 тыс. до н.э., по глоттохронологии) и в зоне обитания праафразийцев, две различные точки зрения на локализацию которой – Левант и Восточная Африка – также обсуждаются авторами.

Ключевые слова: афразийская прародина; афразийские (афро-азиатские) языки; этимология зоонимов; реконструкция культурной лексики.