

Proto-Afrasian Lexicon Confirming West Asian Homeland: Pastoralism

The article presents one more step towards the equation of the culture of speakers of Proto-Afrasian, reconstructed on the basis of paleolinguistic data, with the early Neolithic Post-Natufian culture of the Levant. According to the glottochronological method of S. A. STAROSTIN, Proto-Afrasian is dated back to approximately 10 000 BC — the same period as Post-Natufian (supposed to be the cradle of agriculture and livestock breeding on the planet), as far as radiocarbon dating tells us. The article offers evidence for the presence of a layer of pastoral lexicon in Proto-Afrasian, in the form of 26 reconstructed names for large and small cattle and various other pastoral terms. The lexical data are preceded with a brief summary of the current state of affairs in Afrasian historical linguistics, as well as a description of the author's methodology of linguistic analysis and his approach to combining linguistic and archaeological data in order to solve the "homeland" issue for proto-languages.

Introduction

The objective of the present paper is to present further evidence, this time referring to pastoralism presumably practised by the Proto-Afrasian (Afroasiatic, Semito-Hamitic) speaking community, for the identification of this community with the early Levantine villagers associated with the early Neolithic Post-Natufian culture. These villagers left some of the earliest known archaeological evidence for the cultivation of domesticated crops (cereals and pulse) and the raising of domestic livestock (cf., for example, [BAR-YOSEF]; [HASS.]; [PELT.]). It is for archaeologists to evaluate the correspondences between the archaeological evidence from the Levant, as well as adjacent regions, and the reconstructed terminology referring to incipient agro-pastoralism in the Proto-Afrasian language, dated by the new version of the linguistic method of glottochronology to approximately the same period (12 000–10 500 BP) and presumably the same area.

This is part of a broader project aimed at drawing a most comprehensive picture featuring practically all aspects of life of Early Neolithic people in the Near East which can be drawn from the reconstructed Proto-Afrasian lexicon, namely, terms referring to people and society; economic life and technology; intellectual culture; and natural and physical environments.

While the archaeology of the Levant is one of the most advanced fields in the domain of world prehistory, Afrasian comparative linguistics has long been lagging behind such fields as Altaic or North Caucasian, to say nothing of Indo-European comparative studies. As to comparative Afrasian lexicology and etymology, their history and present state of knowledge can be described in short as follows. Sound correspondences and etymologies proposed in the pioneer work by M. COHEN ([COH.]) postulating the Semito-Hamitic family are, as a whole, outdated. A lot of Common Afrasian lexemes were collected by J. GREENBERG in *The Languages of Africa* ([GR.]) and other works, but his method of "mass comparison", opposed to the established comparative-historical method and aiming exclusively at genealogical classification, does not care for establishing sound correspondences or reconstructing protoforms. A number of reliable phonetic and lexical Afrasian correspondences were proposed in [I-S] and other studies by V. ILLICH-SVITYCH, who included Semito-Hamitic resp. Afrasian into his Nostratic macrofamily (the present author considers Afrasian and Nostratic two "sister" entities on the same taxonomic level) and, especially, by A. DOLGOPOLSKY ([DOLG. Cush.]), who adduced Afrasian parallels to his Cushito-Omotoc protoforms and paved the way to the elaboration of Proto-Afrasian phonological system.

The first study, however, to reconstruct the latter and establish regular sound correspondences between the primary branches and languages of Afrasian (its main bulk is still valid even today), was carried out by a team of scholars headed by I. DIAKONOFF, of which the present author was a member; it also adduced a few hundred Proto-Afrasian lexemes ([HCVA]). Although an important step for comparative Afrasian back in its day, now that over 20 years have passed, its many drawbacks are obvious to everyone including its authors; some are due to many publication sources that were inaccessible in Russia back then, others — to a lack of experience in dealing with such vast and heterogeneous material, still others — to rather loose semantic criteria. Two comparative Afrasian dictionaries both published in 1995 ([HSED] and [EHR. PA]) enriched the field with more lexical data, yet again, each of the

two had its own flaws. [HSED], while replete with new and stimulating etymologies, was compiled rather hastily and carelessly; C. EHRET's method, on the other hand, involved postulating improbably sophisticated proto-phonemes in combination with far-fetched semantic comparisons, such as his attempts to relate words with meanings like 'armpit' and 'to thatch' ("the armpit is a covered area of the body"), or 'forest' and 'thirst' (with the reconstructed meaning 'waterless place, desolation'), &c.

Important contributions to the study of Afrasian lexicon have also been made by two hard-working comparative linguists, V. BLAŽEK (in many papers) and G. TAKÁCS ([EDE I, II and III] and various other papers). Invaluable and enormous Afrasian lexical data are presented by one of the world's leading macrocomparativists, A. DOLGOPOLSKY, in his massive Nostratic Dictionary (still unpublished on paper but now available online at <http://www.dspace.cam.ac.uk/handle/1810/196512> courtesy of the McDONALD Institute for Archaeological Research at Cambridge); many Afrasian reconstructions offered there are, however, in our opinion, debatable, due to DOLGOPOLSKY's adherence to the idea of Afrasian being an integral part of Nostratic, which accounts for numerous cases of "forced" cognations. Anyway, the most comprehensive collection of Afrasian etymological data (containing some 3500 entries in the main database and some 15000 in subdatabases containing lexica of all the branches and lesser groups within Afrasian), some of it representing properly verified etymologies and some serving as "raw material" open to further research, can be found today in the general Afrasian database ([AADB]), accessible electronically at <http://starling.rinet.ru>. The database has been compiled by the present author and O. STOLBOVA within the framework of the "Evolution of Human Languages" project of the Santa Fe Institute.

As to how this relates to all the work in progress elsewhere, it is worth mentioning that practically all the researchers who tried to deal with the problem of original habitat, or "homeland", of the speakers of Proto-Afrasian, put forth arguments in favor of an African homeland. These arguments, relying on general considerations like "economy of movement", as well as scarce, chaotic and carelessly compiled lexical examples, look very weak (see, for example, [EHR. EEA] and studies by R. BLENCH, such as [ALAP] and others); an exception can be made for I. DIAKONOFF's study ([DIAK. ESA]) which is methodologically impeccable, but was outdated already at the moment of publication, as far as lexical materials that underlie its conclusions are concerned. By that time, a lot of new data contradicting these conclusions had already been accumulated — partly due to ongoing work on comparative Afrasian lexicon, initiated and headed by DIAKONOFF himself. Later, he recognized the validity of our arguments in favor of a West Asian homeland ([DIAK. Sum.]).

Since the present paper is designed for a new periodical edition, devoted to issues of historical and comparative linguistics, the author thinks it appropriate to precede the data with some theoretical and methodological considerations. Namely, three different methods are used for different aspects of the author's research on Afrasian lexicon, including the one fragment that is represented by the present paper, and on the investigation of the homeland of Proto-Afrasian speakers:

(1) The main method is, as in any other standard comparative study dealing with lexical reconstruction of a protolanguage, the classic comparative-historical method elaborated for Indo-European languages by the Neogrammarian School in the late 19th century. Within this method, several principles are strictly observed, some of them slightly innovative, some being universally accepted as something that goes without saying — yet far from always followed either in etymological dictionaries for individual Afrasian languages or in studies on Common Afrasian. These principles are as follows:

(1.1.) Selection of lexical terms to be labelled Proto-Afrasian. According to the author's genetic classification of Afrasian (first branching dated to the mid-10th mill.), this macrofamily consists of the following presumed branches and universally recognized families:

1. North Afrasian (NAA) (first branching dated to the mid 9th mill. BC):

1.1. Semitic.

1.2. African North Afrasian (ANAA):

1.2.1. Egyptian.

1.2.2. Chado-Berber:

1.2.2.1. Berber-Canarian.

1.2.2.2. Chadic.

2. South Afrasian (SAA):

2.1. Cushitic.

2.2. Omotic.

In accordance with this classification, PAA terms are those attested at least in one family belonging to the NAA branch and one family belonging to the SAA branch; PNAA terms are those attested in Semitic and at least one family belonging to the ANAA subbranch, provided the compared terms are not suspected to have been borrowed (see below for criteria for borrowings). Terms attested only in ANAA or only in SAA (both branching in late 8th mill.) are not included, as they are irrelevant for the present study.

(1.2.) Ruling out borrowings.

To avoid reconstruction of “false” PAA or PNAA forms, the terms selected for inclusion should not be suspected of having been borrowed, with all controversial and debatable cases marked as such. First of all, this principle makes the inclusion of Semitic cognates highly desirable; a lack of Semitic parallels will make any form claimed to represent PAA less reliable, since cognate forms that are only attested in African Afrasian languages, even in both ANAA and SAA, may have been borrowed from a non-Afrasian African substratum. Apart from that, there can be several other situations with their specific problems requiring individual treatment. Most difficult ones involve identifying Arabisms in most spoken African Afrasian languages; Ethiopian and SAA interborrowings; Cushitic-Omotic, Berber-Chadic, and Egyptian-Semitic interborrowings. In order to distinguish between inherited and borrowed lexemes, the following criteria are proposed (cf. [SED I and II: Introduction, 1.11]):

(1.2.1.) A term may be reasonably claimed a loanword or suspected of having been borrowed only if areal contacts between the languages in question are attested historically and linguistically (e.g. between Arabic and Berber) or, in absence of historical evidence, only linguistically (e.g. between Central Cushitic and Common Ethiopian) or are at least likely to have taken place for geographic proximity (as between Egyptian and Chadic).

(1.2.1a.) Conversely, if in languages whose ethno-linguistic contacts are unknown, there occur instances of matches unlikely to be either cognates or look-alikes, this can be only accounted for by borrowing to serve as a basis for presuming and further investigating such contacts.

(1.2.2.) Instances of borrowing are often, though far from always, characterized by irregular correspondences between consonantal phonemes of the recipient and source languages.

(1.2.3.) An identical morphological pattern in two languages that is typical of one of them, but uncommon of the other, suggests borrowing.

(1.2.3a.) Conversely, difference in morphological patterns between the two terms speaks against borrowing, save for a clear secondary change in a recipient language (e. g. pluralization).

(1.2.4.) A potential indication of borrowing is attestation of the term in question in the presumed source and recipient languages only (i.e., the word is missing in other languages of the genetic unit to which the recipient language belongs).

(1.2.4a.) On the contrary, if a term is attested in other branches of the family, it is expected to have been inherited by all the daughter languages from the family proto-language. Qualifying this term as a loan-word in the presumed recipient language implies a theoretically possible but somewhat less feasible “double” process — loss and later reappearance as a borrowing.

(1.2.4b.) Attestation in other languages within the compact genetic unit to which the presumably recipient language belongs speaks against borrowing under the following conditions:

- the languages of this compact genetic unit are presumed to have diverged prior to the period(s) of contacts between the suspected recipient language and the source language;
- the languages in question have never undergone influence from the would-be source language;
- the languages in question did not undergo influence from the suspected recipient language during and/or after the period(s) of the latter’s contact with the source language.

(1.2.5.) If the term in question belongs to certain semantic groups that are more open to borrowings, this may be an argument in favour of such a borrowing (one must, however, warn against an uncritical application of this criterion, which, in previous works, has sometimes led to an unwarranted assumption of borrowing of a great part of the cultural lexicon in such languages as Arabic).

(1.2.6.) Unmotivated difference in vocalism between the two terms is an argument against borrowing. Thus, Tigre *nib* ‘tooth’ can hardly be a borrowing from Arabic, where the attested form is *nāb-*. Not only does the Arabic vocalism leave Tigre *-i-* unexplained, but the latter form perfectly corresponds to Hebrew and Aramaic forms that also have *-i-*.

(1.2.7.) Semantic difference: if a secondary semantic development cannot be proved in a recipient language, difference in meaning between the two terms is a strong argument against borrowing.

(1.3.) Reconstruction of the meaning of the protoform.

Provided that regularity of phonetic correspondences is observed for a reconstructed protoform, identifying its most feasible meaning (we omit the easier cases when the meanings of all cognates in the daughter languages, on which the reconstructed protoform relies, are uniform) is of crucial importance for convincing extralinguistic interpretations. Although it goes without saying that a certain meaning is ascribed to each protoform based on close comparison of the complete scope of meanings in individual languages, such an operation can hardly be called proper semantic reconstruction, since, unlike the relatively strict, if not infallible, procedure of phonetic reconstruction, it relies not on a solid method, still conspicuously absent in historical semantics, but rather on the etymologist's intuition and common sense. Anyway, while a dubious choice of a meaning for a protoform may be acceptable in a regular comparative study, it is certainly unpardonable in a study that claims to draw extralinguistic information from linguistic comparison. Thus, an ungrounded, forced assignment of a "cultural" notion to a protoform makes a bias towards picturing a more advanced prehistoric society than it may have been in reality. Recognizing that more "cultural" notions usually go back to more "primitive" notions (at least on a pre-proto-language level), we accept the following guideline in our semantic reconstruction:

— faced with the choice between a "primitive" and a "cultural" meaning, e.g. between that of a wild or domesticated animal or plant species, for a given protoform, the "cultural" meaning, i.e. that of a domesticated species, is proposed only if this meaning is present in the cognate forms of all or nearly all daughter languages. This principle is based on the assumption that independent shift from a "primitive" meaning (wild species) to a "cultural" meaning (domesticated species) in each Afrasian branch and individual language, while theoretically possible, is a far less probable process than the same shift as early as in Proto-Afrasian, from which the "cultural" term was duly inherited by all the daughter languages. The ambivalent cases, i. e. those when a term in question conveys a more "cultural" notion (refers to a domesticated species) in some of the daughter languages, and a more "primitive" notion (refers to wild species) in the others, cannot be used as arguments for ascribing a "cultural" meaning to the protoform.

(2) Another method used for dating the Proto-Afrasian language on the eve of its branching into daughter languages is glottochronology, proposed by the American linguist MORRIS SWADESH in the 1950s ([Sw. 1952] and [Sw. 1955]) and radically improved, updated and tested on many languages belonging to various language families by the recently deceased Russian linguist SERGEI STAROSTIN ([STAR.]) and his successors.

According to SWADESH's method, the most essential, representative, commonly used and, hence, rarely borrowed lexemes are selected for each of the diagnostic 100 wordlist items, which convey some of the most fundamental notions presumed to be present in any human language (personal pronouns, numerals 1 and 2, certain body parts, natural objects, main color terms, several most current verbs and adjectives, &c.). These lexemes are to be compared by means of the lexicostatistical procedure to determine a percentage of etymologically identical units common to any pair of related languages. The principle implies a preliminary stage of compiling a diagnostic wordlist that requests a carefully measured selection of terms. In the Afrasian case, this involves (a) thorough philological analysis of written monuments both in extinct Semitic languages, such as Akkadian, Ugaritic, Biblical Hebrew, Syriac, Classical Arabic, Sabaic and Ge'ez, and in Egyptian, and (b) equally detailed analysis of lexical sources on modern living Afrasian sources, including, where possible, work with active language speakers. For the most part, this preliminary stage has already been completed.

At the same time, unlike SWADESH, who paid little attention to precision and reliability of individual etymologies, and avoided any detailed treatment of the complicated problem of borrowing, STAROSTIN in his method requires meticulous etymological analysis, not merely aimed at accurate and well-grounded establishment of cognate terms, but also one that is supposed to disembarass the list of potential cognates from loanwords — which violate the "natural" algorithm of substitutions in the core lexicon. Tracing loanwords and cogently distinguishing them from inherited lexemes implies high standards of etymological procedure, as well as recurring to sociolinguistic and ethnocultural data. Sometimes, this operation also leads to identifying certain "obscure" lexical items, which we cannot normally trace back to the proto-language or to a reliable source of borrowing due to a lack of data, as potential borrowings from unknown sources.

(3) The third method is that of cross-checking linguistic and archaeological data. As applied to Afrasian linguistics, it has been elaborated by the author in his previous publications, and is based on the following main criteria of identifying "homelands", or original habitats, of reconstructed proto-language communities characterized by a specific archaeological culture (or several cultures):

— one *sine qua non* condition of plausible identification is that dates estimated by both linguistic and archaeological methods should basically coincide;

— the other *sine qua non* condition is that the general outlines of the material culture (as well as elements of intellectual culture and social organization) and natural environment of the presumed homeland, one reconstructed on the basis of the evidence of the proto-language lexicon, the other through archaeological data, should be compatible;

— one strong argument for a particular homeland consists in revealing traces of linguistic contacts between the proto-language in question and its early daughter dialects, on one hand, and other reconstructable proto-languages or ancient languages, likely spoken in the area of the presumed homeland and/or along the migration routes of daughter dialects during the corresponding periods, on the other;

— another strong argument is being able to show that the proposed routes of the daughter dialects' movement towards their historically attested habitats correspond to the directions of cultural expansion or artefact spreads that have been established archaeologically, and/or to the directions of population migrations that have been established genetically.

This study has been carried out within the general framework of projects in comparative Semitic and Afrasian linguistics, supported by the Russian Foundation for Sciences (Project 03-06-80435a), the Russian Foundation for the Humanities (Project 06-04-00397a), The Santa Fe Institute (The "Evolution of Human Languages" Project), and the Ariel Group (The "Tower of Babel" Project). My gratitude goes to these institutions, as well as to my colleagues and collaborators in different projects — Prof. O. STOLBOVA and Drs. L. KOGAN and G. STAROSTIN for consultations and discussions.

The Data

The following 26 entries is an incomplete selection of data that demonstrate, in our opinion, the most reliable or promising Proto-Afrasian terms related to cattle-breeding. A lot of common Afrasian terms referring both to domesticated and wild species in daughter languages, or attested in African Afrasian branches only, are not included on purpose in accordance with the principles and considerations presented above. Undoubtedly, more terms can be adduced and the quoted ones can be complimented and strengthened by more data. I will be grateful to my colleagues for any additions, corrections and criticisms.

1. Livestock

1.1. Small cattle

1.1.1. *mar- 'lamb; ram'

Sem. **ʔimmar-* 'lamb': Akk. ('sheep; sheep and goats; ram'); Ugr.; Phoen., Hbr., Aram.; Arab. Chad. W. **mar-*: Tangale *mara* 'castrated goat', Diri *marì* 'goat', Bokkos *maray*, Tala *màar*, Buli *maro*, Polchi *mar* 'goat'.

Cush. E.: Saho, Afar *márū* 'ram'.

Omot. N.: Wolayta *mára* 'lamb', Male *màràyi* 'ram', *mármáro* 'lamb', Koyra *mará* 'ram', Bworo *meréà* 'sheep' (Blench OLT 72).

[] Cf. [HSED: №1729]; [SED II: №5]; [AADB].

1.1.2. *kar(w/y)- 'ram, goat; lamb, kid'

Sem. **ka/ir(r)-* 'ram, goat': Akk. *kirru* (or *girru*) 'a breed of sheep (?)'; Ugr. *kr* 'ram'; Hbr. *kar* '(young) ram', Aram. *kr* 'sheep'.

(?) Egyp. (NK) *kr-ty* 'horns' (dual).

Berb. **kVrr* 'ram, goat', **kVrw* 'lamb, kid'.

Chad. W. **kwar-/karw-* ~ **kir-*: Kofyar *koor* 'castrated goat', Angas *kīr* 'fattening ram', Dera *kwàrà* 'goat', Zaar *karò* 'sheep', Wangday *kérò* 'ram', &c.; E.: Tobanga (N. Gabri) *karəŋ* 'goat'.

Cush. E.: Arbore *kaaríy* 'heifer goat', *korat* 'male goat', Dobase *koren-te* 'female goat', Yaaku *kurum-* 'goat, young; lamb'.

[] Cf. [HSED: №1432]; [SED II: №118]; [AADB].

1.1.3. *ʕaʔ/wʔp- ~ *pʔ/aʕ- 'kid; goat; ram'

Sem.: Arab. *faʕfaʕ-*; ESA (Min.) *fyʕ*, Soq. *ʕéyʕif* 'kid'.

Egyp. (20th Dyn.) *ʔpwy* 'name of a holy ram'.

Chad. C.: Hwona *wuŋ-rā* ‘she-goat’, Logone (Kotoko) *húfu* ‘goat’.

Cush. E.: Dobase *piŋa-čē* ‘female goat’.

[] See [SED II: №49]; [AADB].

1.1.4. *ʔayl- ~ *ʔal(l)Vy- ‘ram, sheep’

Sem. *ʔayl- ‘ram’: Akk. (?); Ugr.; Hbr., Aram.; ESA; Tña. (perhaps < Saho-Afar).

Berb. *ti-Hilay- ‘sheep’: Ahaggar *té-helé*, Ghat *či-hali*, Taneslemt *t-ilāy*, &c.

Cush. N.: Beja *alli*, pl. *illi* ‘long-haired sheep’; E.: Saho *ille*, Afar *illi* ‘small cattle’, Arbore *ʔellém*, Elmolo *ʔélem* ‘ram’ (both with *-m* suffixed); S.: Maʔa *iʔalé* ‘ram’, *iʔalú* ‘sheep’.

[] Cf. [HSED: №67]; [BLA. Beja: 233–234]; [SED II: №24]; [AADB].

1.1.5. *(ya-)bVlaʷy- ‘ram, goat’

Sem. *yābil- (perhaps < *wābil-) ‘ram’: Phoen., Hbr., Aram.; Arab. (?).

Egypt. (OK, MK) *ibʷ* ‘ovis tragelaphus’.

Berb. *b/bal(l)i ‘sheep, ram’: Ghadames *ta-bali*, Audjila *te-bel*, Gurara, Tuat, Tidikelt *belli* (pl.).

Chad. W.: Geji *mbila* ‘sheep’ (cf. *baHil-Vm- ‘horn’: Montol *bulu*, Bolewa *bòlúm*, Galambu *bàlí*, Maha *belem*); C.: Boka *bwələ* ‘goat’, Matakam *báláw* ‘race de mouton sp.’ (cf. Chibak *tə-mbəl* ‘horn’); E.: Lele *bùlòbùlò* ‘he-goat’, Kabalai *bâl*, Migama *bòlíyo*, Sokoro *bàl* ‘goat’.

Cush. E.: Oromo *bulāl-ē* ‘lamb’, Hadiya *ambula* ‘ram’, Kambatta *ambula* ‘goat, ram’.

(?) Omot. S.: Dime *bal-tu*, Galila *baali* ‘horn’.

[] Cf. [HSED: №2570]; [SED II: №245]; [AADB].

1.1.6. *čaʔw- ~ *ʔačVw- ‘small cattle; meat’

Sem. *taʔ(w)-at- ‘ewe’: Ugr.; Aram.; Arab.; MSA.

(?) Berb.: Canarian (all islands) *chivato*, *chiva* ‘kid’ (rather < Spanish *chibo*).

Chad. W.: Kariya *čiči* ‘goat’, Gera *čača* ‘she-goat’ (redupl.); E.: Kwang *čúwī* ‘he-goat’.

Cush. E.: Somali *soʔ*, Oromo *fooni*, Baiso *soʔo*, Konso *sowa*, &c. ‘meat’ (Oromo *f-* points to *č).

Omot. N. *ʔačVw- ‘meat, flesh’: Koyra *ʔaččo*, Wolayta *ʔašuwa*, Ganjule *ʔačo*, Chara *ačča*, Gimirra *ʔač*, Yamma *aša*, Dizi *ʔač-ku*.

[] See [SED II: №236]; [AADB].

1.1.7. *(ʔa-)w/yVn- ‘sheep, goat’

Sem.: Gur.: Cha. *onā*, Ezha *onnā* ‘young male goat or sheep’ (though isolated in Sem., no tenable source of borrowing observed).

Berb.-Can.: Tenerife *ana*, *haña*, *jana* ‘sheep’.

(?) Egypt. (NK) *wny* ‘calf (as a representation of Osiris)’.

Chad. W.: Siri *yàní* ‘she-goat’ (cf. also *nVyVw- ‘horn’: Geji *nowo*, Boghom *nyaw*, Tule *nyewò*, &c.); E.: Migama *íná*, Jegu *té-éné* (pl. *ʔéén*), Birgit *ʔàynéy* ‘she-goat’.

Cush. N.: Beja *ano* ~ *naaʔ* ‘sheep’; E.: Afar *anaŋ-to* ‘lamb (female)’ (*-ŋ* in Auslaut is unexpected as it is not confirmed by Som.), Somali *wan*, pl. *wanan* ‘ram’, Rendille *onó* ‘sheep’.

Omot. S.: Dime *iin*, (?) Ongota *hoona* ‘sheep’.

[] Cf. [BLA. Beja: 234–235].

1.2. Large cattle

1.2.1. *lawiʔ- ‘large cattle’

Sem. *lVʔ- (m.), *lVʔ-at- (f.) ‘head of large cattle’: Akk. *littu* (*lītu*); Ebl. *lí-a-núm* ‘cow’; Arab. *lāʔa* ‘wild bull, buffalo’; Mhr. *ləháytən* ‘cows’, Jib. *léʔ*, Soq. *ʔélheh* ‘cow’.

Egypt. (Pyr.) *iwʷ* ‘bull’ (if < *lVwVʔ-).

(?) Berb. Tuareg *əlu* ‘bull’ (quoted in [EDE I: 86] as “Tamasheq”, dialect name and source not specified).

Chad. W.: Dera *lāà* ‘cow’, Pero *ló* ‘animal, meat’ (cf. also *laʔu ‘meat’); C.: Gude *la* ‘cow’.

Cush. C. *luway ‘cow’ (Bilin *luwí*, &c.); E.: Saho, Afar *lā* ‘cow, cattle’, LEC *loʔ(loʔ)- ‘cows’ (Somali *loʔ*, Konso *low-aa*, &c.), HEC *lal- ‘cows, cattle’ (Sidamo *lalo*, &c.), Dullay *loʔ-, pl. *leʔ- ‘cow’ (Tsamay *lōʔō*, pl. *lēʔē*, &c.), S.: Qwadza *leʔa-mu-ko* ‘bull’.

[] Cf. [HSED: №1632]; [SED II: №142]; [AADB]. Cf. Austric *lVw ‘ox, cattle’ ([GIDB]). Cf. metathetic *waʔVl- ‘calf, bull’: Cush. E.: Somali *weeyl*, Hadiya *woʔl-a* ‘calves’; Berb.: Izayan *ta-wala* ‘troupeau de boeufs, sangliers’ [LOUB.: 583]. Cf. [EDE I: 86]; [HSED: №2595].

1.2.2. *ʕ/ʔi-)gʷal- ‘calf; bull, cow’

Sem. *ʕigl- ‘calf’: Ebl. (?); Ugr.; Phoen., Hbr., Aram.; Arab.; Gez. (ʕ/ʔəgʷəl, Tgr. ʔəgal)

Egyp. ʕny, cow depicted (very likely < *ʕVgʷl-).

Chad. W.: Sayanchi *gāl*, Geji *gal* ‘cow’; C.: Bura *gyel* ‘bull’.

Cush. S.: Dahalo *ngólome* ‘male buffalo’ (< *nV-gʷVl-Vm-?).

Omot. N.: Wolayta *gallua*, Zayse *galó* ‘calf’.

[] Cf. metathetic *ʕVlag- ~ *IVgʕ/ʔ- ‘calf, bull; (young of small cattle?)’: Sem.: Arab. *ʕulʕūm*- ‘old bull’; Tgr. *läga* ‘male calf’, Tna *lägaʕ* ‘cow close to calving’; Chad. C. *IVgʕ/ʔ- ‘bull’: Hidkala *älghə*, Bachama *lugüley*, &c.; Cush. N.: Beja *legha* ‘calf’; (?) S. *lagiʔ- ‘goat’: Alagwa *lagay*, Burunge *legeʔi*. Cf. [HSED: №1100]; [SED II: №28]; [AADB].

1.2.3. *bVr- ‘(young) bull’

Sem.: Akk. *būru* (*pūru*) ‘young calf’, *bīru* ‘bull (for breeding); young cattle (up to three years)’; Mand. *bira* ‘domestic cattle’; Arab. (Yem. dial.) *bārah* ‘cow’; Tgr. *bara* ‘ox’, Amh. *bare*, Har. *bāra* ‘ox, bull’, Gur. **bawr*- ‘ox (for farming)’. Cf. **bVʕVr*- ‘household animal; beast of burden’ ([SED II: №53]), perhaps derived with a secondary -ʕ-.

(?) Egyp. *bʕwy* ‘arena, battlefield for bull-fight’ (presumably a *nisba* < **bVr*- ‘bull’, cf. [EDE II: 53–54]).

Chad. W.: Gera *bara* ‘buffalo’; E.: Mokilko *búru* ‘bull’.

Cush. N.: Beja *beʔráy* ‘bull, cow’ (< Eth.?); C. **bir*- ‘ox, bull’ (Bilin *birā*, &c. < Eth.?); E.: Afar *abur* ‘bull, ox’, HEC **bōr*- ‘young bull’ (Sidamo *boor-to*, &c. < Eth.?)

Omot. N. **bariy*- ‘bull’: Wolayta *bóora* ‘ox’, Gamo *bóora* ‘bull’, Zala *bōrā* ‘ox’ (acc. to Blench OLT 68, all three < Gur.), Chara *bíira* (acc. to Blench *ibid.*, < Agaw), Kafa *bariyō* ‘calf’, Mocha *bariyo* ‘steer’, Bworo *berō*, Sheko *bariyo* ‘bull’.

[] Cf. [HSED: №183]; [BLA. Beja: 238]; [SED II: №53 notes.]; [EDE II: 54–55]; [AADB]. Cf. Nostr. **bVrV*: Alt. **bīōru* ‘calf, lamb’, Drav. **paḍḍ-/baḍ*- ‘heifer’ ([GIDB]).

1.2.4. *ʔi/qrw- ‘calf; bull’

Sem. *ʔi/qrw-ān- ~ *ʔawr- ‘calf, bull’: Syr. *ʔarwān*- ‘calf’; Arab. *ʔirān*- ‘male oryx’ (*šātu ʔirānin* ‘bull’); Amh. *awra* ‘male (animal), dominant or alpha male; bull’; Gur. *ʔaraʔ/y- ‘cows’.

Egyp. (MK) *ir-t* ‘calf’, (Dem.) *iry-t* ‘milking cow’.

Berb. **HirVy* ‘calf’: Ayr *ehəri*, Shilh *irey*, &c.

Chad. W.: Dera *wóré*, *ara* ‘meat’, Sha *ʔarwà* ‘ox’.

Cush. N.: Beja *oreo* ‘bull, steer’, *rēw* ‘cow’; E.: Saho, Afar *awr* ‘bull’, LEC: Somali *awr* ‘he-camel’, Rendille *or* ‘he-camel, bull’, Oromo *oor-oo* ‘burden camel’, Arbore *ʔaar*, Dasenech *ar* ‘bull’, &c., HEC: Burji *arráy*, *arʔáy* ‘bull’, *ʔre* ‘calf’; Yaaku *reheʔ* ‘calf’.

(?) Omot. N.: Malo *hāri* ‘cattle’, Oyda (*h*)*arr* ‘cow’.

[] Cf. [BLA. Beja: 236, 269]; [SED II: №16]; [AADB].

1.2.5. *maray- ‘calf, (young) bull, steer’

Sem.: Akk. *mīru* ‘young bull’, *mīrtu* ‘cow’ (Hbr. *mārī*(?) ‘fatted steer’ is not necessarily related being probably derived from the verbal root *mr*? ‘to be fat’).

Egyp. (MK) *mr(y)* ‘fighting bull’.

Chad. C.: Matakam *maray* ‘bull (for sacrifice)’, Mofu-Gudur *maray* ‘bull fattened in a stable’.

Cush. E.: LEC: Rendille *máar* ‘male calf’, *maár* ‘fem. calf’, Arbore *máar* ‘calves’ (coll.), HEC: Hadiya *moora* ‘older calf’, Dullay: Harso, Dihina *maar-akkó*, Tsamay *maare* ‘heifer’; S.: Maʔa *-moro* ‘steer’.

Omot. N.: Wolayta *mārā*, Dorze *mar*, Male *marro* ‘calf’, Yamma *omoru* ‘bull’; S.: Ongota *marte* ‘calf (she)’.

[] Cf. Chad. W.: Hausa *mārīrī* ‘white oryx’, E.: Toram *múro* ‘gazelle’. Cf. [HSED: №1728]; [SED II: №206]; [EDE III: 390–392]; [AADB]. Perhaps related to *(ʔV-)mar- ‘lamb; ram’ on the Pre-Proto-Afrasian level. Cf. Drav. **mūr*- ‘buffalo; cow’ ([GIDB]).

1.3. Common or mixed terms for small and large cattle**1.3.1. *(ʔa-)fVr- ‘small and large cattle’**

Sem. **parr*- (1) ‘lamb’ (Akk. *parru*; Syr. *parr*-, Mnd. *par*-; Arab. *furār*-, *farūr*-), (2) ‘cattle’ (Ugr. *pr*; Hbr. *par* ‘bull, steer’, *pārā* ‘cow’, Aram. (Sam.) *pr* ‘bull’, *prh* ‘cow’; Tgr. *fərrət* ‘pasturing herd’,

māfrār ‘herd (of cows)’, Amh. *afwarä* ‘to become a yearling ox’; (?) MSA: Mhr. *fōr* (pl. *fāhārīn*) ‘young bull’, Jib. *fǝǝr* ‘young bull, male calf’, Soq. *fāfhar* ‘young bull’ (with a secondary -f-).

Chad. C. **faray-* ‘buffalo; cattle’: Mbara *fàrày* ‘cattle; dot (bride wealth)’; there are also Bura *fir*, Kilba *fur*, Margi *fūr* ‘buffalo’, but they are considered < **fun-*, about which I have some doubts.

Cush. E.: Yaaku *apur* ‘sheep’; S.: Asa *ʔeferet*, *ʔoforok*, Qwadza *afulatu* ‘he-goat’.

□ Cf. [HSED: №1950]; [SED II: №181]; [AADB].

1.3.2. **čayw/ɣ-* ‘(meat of) small or large cattle’

Sem. **šaw-* ‘head of small cattle’: Akk.; Ugr.; Phoen, Hbr.; Arab.; ESA (Sab.).

Egyp. (MK) *šy* ‘pig’ (cf. also *šw* ‘ass’).

Chad. W. **ča-* ‘cow’: Siri *záà-tí*, Jimi, Polchi *šaa*, Dwot, Buli, Zul, Ngizim *šaa* (cf. also **čaw-* ‘meat’); C. **ša-* ‘cow’: Tera *ža*, Bura, Margi, Gisiga *ša*, &c. (cf. also **šuw-* ‘meat’)

Cush. S. **šaʔe-* ‘cow’: Iraqw, Alagwa, Burunge *šee*, Asa *še-ok*, Qwadza *šae-ko*.

Omot. N. **ʔayš-* ~ **šaʔ-* ‘goat’: Bworo *eyššá*, Mao (Hozo) *šaa*, (Ganza) *saʔa*, Dizi *es-ku*.

□ Cf. [HSED: №517]; [SED II: №217]; [AADB].

1.3.3. **p/ɸVl-* ‘(young of) hoofed domestic animals’

Sem. **pVlW/ɣ-* ‘foal, small of domestic animals’: Arab. *filw-*, *faluww-*, *fuluww-* ‘a yearling foal or ass already weaned’; Tgr. *fəlit* ‘calf’, *fəluɣ* ‘calf weaned’; Soq. *fólhi* ‘a yearling calf’ (in Tgr. and Soq. borrowing from Arabic is possible).

(?) Chad. W.: Guruntum *fwull* ‘cow’ (isolated term).

Cush. N.: Beja *filay* ‘she-camel just foaled’ (borrowing from Arabic or Tigre not to be ruled out); C. **fiyal-* ‘goat’ (Aungi *fəyāli*, &c.); E.: HEC **fillaʔ-* ‘goat’ (Kambatta *felle-čču*, pl. *felleʔu*, &c.).

Omot. N.: Kafa *fell* ‘goat’ (Blench OLT 71) < HEC?

□ Cf. [BLA. Beja: 246]; [SED II: №174]; [AADB].

1.3.4. **dVbal-* ‘pig/boar, ram, goat, calf’

Sem.: Arb. *dawbal-* ‘wild boar, suckling pig’, Gez. *dābelā* ‘billy goat, bull, male of any animal’, Tgr. *dābela* ‘ram’, Tña. *dibāla*, Amh. *dabela*, *dābāl* ‘billy goat’ ([LGz.: 120–121]; in view of a tenable Arab. parallel, less likely < Cush. as LESLAU asserts, while E. Cush.: Saho, Afar *dabeéla* ‘billy goat’ are rather borrowed from Eth.).

Cush. N.: Beja *debala* ‘yearling cow’; E.: Baiso *dabaalo* ‘heifer’ (cf. in [BLA. Beja: 243]).

□ Cf. [BLA. Beja: 269]; [AADB].

2. Pasturing, foraging and tending livestock

2.1. **g(ʷ)Vč-* ‘to tend, drive livestock’ ~ **gičac-* ‘pasture’

Sem. **gʷVšVɣ/ɣ-* ‘to tend cattle’: (?) Arb. *ǧšʔ* ‘produce vegetation (soil); emigrate (tribe)’; *ǧtašša* ‘be covered with dense grass (soil)’ (to be interpreted as ‘to migrate with the animals to grassy pastures?’); Gez. *gʷāsaya* ‘to tend cattle’ ([LGz.: 205]; < Tña.?), Tña. *gʷasäyā* id., (?) Endegeñ, Gyeto *gʷišašā* ‘field, plain, meadow, open space’ (according to [LGur.: 299], < Hadiya); Soq. *geš* ‘to pasture, drive cattle’, *gésiš* ‘pasture’.

Cush. C.: Kemant *gəšəš* ‘pasture’; E.: Hadiya *gišaša*, Burji *giiš-* ‘to graze’. Cf. E.: Somali *goš-* ‘to ply between two places’.

Omot. N.: Kafa *gaš-* ‘drive one’s cows to pasture’.

□ [AADB].

2.2. **rVɸVɣ/ʷ-* ‘to pasture, tend livestock; chase; accompany, follow’

Sem. **rVɸVɣ-* ‘to pasture, herd (trans.); be herdsman, friend, companion’: Akk. *reʔu* ‘to pasture, guard livestock, herd, graze (trans.)’, *rūʔu* ‘friend, companion’; Ugr. *rɸy* ‘herdsman’, *rɸ* ‘friend, companion’; Hbr. *rɸy* ‘to pasture, guard livestock, herd, graze; join, associate with’, *rōfā* ‘herdsman’, *rēʔ* ‘friend, companion’; Syr. *rəfā* ‘to pasture, herd’; ESA (Sab.) *rɸy* id.; Arab. *rɸy* id., *rāf-* ‘herdsman’; Gez. *rəɸya* ‘herdsman’, *raɸawa* ‘to yoke, join’, Tigre *rāfa* ‘to pasture, herd’, *rāwfa* ‘have intercourse’; Mhr. *rō* ‘to pasture, herd’, *rēfi* ‘herder’, Jib. *rafe* ‘to pasture, herd’, *rēfi* ‘friend, companion’, Soq. *refe* ‘to pasture, herd’.

(?) Egyp. (OK) *yʔ*; verb connected with handling calves ([EG I: 27]; [EDE III: 50]; related if < **yrɸ*).

Chad. W.: Diri *rawā(n)*, Tsagu *rāʔa* ‘to herd, graze’ (perhaps < Arab.); E.: Bidiya *ʔaraw* ‘chase’ (< *ʕaraw-, with metathesis?).

Cush. E.: Somali *raaʕ-* ‘to accompany, go together’ (in view of other LEC parallels, hardly < Sem.), Boni *rāà*, Rendille *raḥ* ‘to follow’, Oromo *ariʔa* ‘to pursue, chase’; S.: *ʕārō (met.?) ‘ruminated fodder, grass’ (Iraqw *ʕaaroo*, &c.)

☐ [AADB]. The original meaning may be ‘to pasture’ or ‘to chase, follow (wild ungulates)’.

2.3. *(na-)kīd- ‘shepherd of small cattle’

Sem.: Akk. *nākidu* ‘herdsman’; Ugr. *nkd* ‘shepherd’; Hbr. *nōkēd* ‘shepherd, sheep-breeder’, pB. ‘lamb’; Arab. *naqqād-* ‘shepherd’ ([HALOT]; not in [BK]), *naqad-* ‘kind of ram’ (BK 2 1321; cf. *naqd-* ‘silver, money’ *ibid.*).

Berb.: Ayr, E. Tawllemmet *ə-yadyad* ‘herd of goats’.

Omot. N.: Moča *qiddo* ‘shepherd’, Kafa *qidō* ‘guardian’.

☐ [AADB]. A promising root, though not quite reliable because of scarce data.

2.4. *cVḥ- ‘pasture, to pasture, to herd’

Sem.: Akk. *sahhu* (*sāhu*) ‘meadow, waterlogged land’ (-ḥ- < *-ḥ- is possible--cf. Kog.); Arab. *shḥ* ‘to be very fat (of rams)’; Tña. *sāwhi* ‘meadow, ever-green pasture’.

(?) Egyp. (OK) *shʔ-t* ‘herd of donkeys’.

Chad. W.: Wrj. *čiyə*, Siri *cagu*, Sha *čó* ‘to herd, graze’, (?) Dera *ǰíwà* ‘herd’.

Cush. C.: Kemant *sēhā* ‘prairie’.

☐ Cf. [HSED: №385]; [AADB]. Not quite reliable because of phonetic problems and semantic diversity.

2.5. *k^wal- ‘forage, fodder; pasture; mowing, collecting, gleaning’

Sem. *k^walāʔ- ‘forage’, *k^wVIVw- ‘to mow’: Akk. *ukullū* ‘cattle fodder, forage’; Arab. *klʔ* ‘abound in forage (area)’, *kalaʔ-* ‘forage (dry or fresh)’; Gez. *k^wālawa* ‘to reap, mow’ ([LGz.: 284]), *makala*, *makkola* (acc. to LESLAU, for *makk^wala*; secondary derivation with *m-* prefixed) ‘to cut with a sickle, mow’ ([*ibid.*: 339]), Tgr. *māklay* ‘halm of durra, halm of corn’, Tña. *mākälä* ‘to mow, cut’, Amh. *kalkəl* ‘pasture’; cf. Jib. *kélet* ‘bush with edible twigs’.

Berb. *kVlkVl- ‘pick up, collect’: Ahaggar *kelukelu*, Ayr *kələnkilet* (with a secondary -n-).

Chad. W.: Hausa *kālā* ‘gleaning’; E.: Lele *kél* ‘pick up, collect’.

Cush. C. (?) Khamir *kilkil* ‘pasture’ (likely a loan of Amh. *kalkəl*): E.: Oromo *kalō* ‘pasture land’, Kambatta *kalu*, Sidamo, Burji *kalo* ‘pasture’ (probably borrowed from Oromo).

☐ [AADB]. To separate from *kal(aʔ)- ‘earth, land’ (see [MIL.: №23]).

2.6. *ʔVry- ‘cattle-shed’

Sem. *ʔu/arVy- ‘stall’: Akk. *urū* ‘stall’; Hbr. *ʔurwā (HALOT: “from Akk.-Sum. *urū* > Aram > Arab.”) ‘stall’; Jud. *ʔūryā*, Syr. *ʔōryā*; Arb. *ʔariy-*, *ʔiry-* id.

Cush. E. *ʔari-t- ‘gate of animal pen’: Somali *irid-i*, Rendille *ar’it* (< *arit Hei. 74).

☐ [AADB]. Not A promising root, though not quite reliable because of scarce data.

Products of stock-raising

*sim-an- ‘fat milk; to milk, suck; butter, oil, fat’

Sem. *šamVn-* ‘fat, oil, butter’: Akk. *šamnu* ‘oil, fat’; Ugr. *šmn*; Hbr. *šämän* ‘oil, fat’, Syr. *šumn*, Mnd.šamin ‘fat’, Maʕlula *šomna* ‘butter’; Arab. *samn-* ‘fat; melted) butter’; Jib. *šēn* ‘fat’.

Egyp. (Med.) *smy* ‘fat milk, cream’.

Berb.-Can.: Ahaggar *ésim* ‘melted fat’, Ghat *isim* ‘animal fat’, Qabyle *ta-ssəm-t* id., *summ* ‘to suck’; Can. (Ferro) *achemen* ‘milk’.

Chad. W.: Somrai *šī-šām*, Sokoro *ʔā-sīmà* ‘to suck (sugar)’.

Cush. N: Beja *simuum* ‘suet, fatty covering of kidneys’; E.: LEC *sihim- with a secondary -h- (?): Somali *sihin-* ‘curds’, Rendille *sihime* ‘butter’, Dullay *šīnam-(met.): Dalpena *šiinan-ko*, pl. *šiinan-aane* ‘butter’, Gollango *šiinan-ko*, pl. *šinam-aane* ‘fat’; S.: Iraqw *ismoo* ‘nipple’, Qwadza *sum-* ‘to milk’, Maʔa *semu* ‘breast’.

☐ Cf. [HSED: №2247]; [SED I: №248]; [AADB]; [BLA. Review: 505].

***sVP/fVy- ‘churned milk, curds’**

Sem.: Hbr. *šəpōt* ‘cheese or curds (made of cow’s milk)’.

Cush. N.: Beja *šəfi* ‘drink milk’; E.: HEC **šaff-* ‘to churn’ (Kambatta *šaffo*, &c.).

□ [AADB].

Livestock as a socio-economic category***g(ʷ)iʒʒ- ‘domestic animals as possessions, property’**

Sem.: Arb. *šwz* ‘go, march, drive beasts of burden and riding animals, take them to watering place’, IV ‘give so. a certain sum of money’; Gez. *gāz*, *gāzā*, *gizān* ‘treasury, wealth, money’ (acc. to [LGz.: 210]: ‘< Greek γᾶζᾶ; also occurs in Aram.-Syr. *gazzā* going back to Median *ganza*’, which is questionable in view of Semitic and Afrasian parallels), Gafat *gəzzā* ‘cattle, money’, *gəzzā* ‘to master’, Wol., Zw. *gəzat*, Sel. *gəzāt* ‘cows, domestic animals, cattle’, Muh., Gog., Sod. *gəzz* ‘cows, domestic animals, cattle’, Sod. *gəzzoday* ‘shepherd’ (Acc. to LESLAU: ‘probably passed into Cushitic... The root could also be common to Semitic-Ethiopic and Cushitic’; the latter suggestion is more likely than the former as the meaning ‘cattle’ is not attested in Amharic, a plausible source of borrowing into HEC and N. Omot., which can hardly borrow terms meaning ‘cattle’ and ‘money’ from Gafat or Gurage dialects).

Berb.: Zenaga *a-guzzīh* ‘herd of sheep’.

Cush. E.: Kambatta *gizza* ‘cattle’, Tembaro *gəzza* ‘money, cattle’, Hadiya *godda* ‘cattle, property, wealth’.

Omot. N.: Kafa *giʒʒō* ‘livestock, money, welfare, possessions’, Chara *gizā*, *giʒʒā* id., She *giz* ‘welfare, possessions’, Mao (Sezo) *gizzi*, (Hozo) *gitza* ‘cattle’.

□ [AADB]. Perhaps related to Eth. **giz(z)-* ‘cattle, money’ is Eth. **gz?* ‘to master, possess’: Gez. *ʔəgziz?* ‘master’, Tgr. *gəzʔa* ‘to possess, dominate’, Tña. *gəzʔa* ‘to possess, buy’, Amh. *gəzza* ‘to possess, buy, govern’ ([LGz. 210]), Gur. **gāza* ‘to own, possess, govern, &c.’ ([LGur. 304]).

***mal- ‘livestock (as a source of milk or meat, or as a capital); tend livestock’:**

Sem.: Arab. *mwl* ‘be rich, esp. in livestock’, *māl-* ‘herd of camels; richness’; ESA (Sab.) *mly* ‘to get, win, obtain as booty’, *mly* ‘loot, booty, prize of war’; Tgr. *mal* ‘money, fortune, property’, Tña. *mal* ‘herd (of livestock); goods, property, wealth’; Mhr. *mōl* ‘livestock, capital’, *mālēt* ‘she-camel’, Jib. *mol* ‘livestock, capital’, Soq. *māl* ‘richness’. The N. Eth. and MSA forms meaning ‘livestock, capital’ are most probably Arabisms while Mhr. *mālēt* ‘she-camel’ is not necessarily so. Cf. also Hrs. *melēt* ‘bride-price’ and Muh. *muli* (however, Chaha, Eža, Endegeñ, Gyeto *muri*) ‘boy to whom a girl is given by her parents without being asked for by his parents’.

(?) Egypt. (ME) *mmmn-t* ‘herd’ (if < **mVlmVl-*); *mny* (MK or NK) ‘herdsman’ (if < **mVly*; cf., however, Coptic Fayumic *mani* id., with *-n-* instead of the expected *-l-*). Cf. *mny* ‘marry; endow with’ (in [FAUL.: 104] combined with ‘to moor’, ‘attach’, ‘save’ and ‘die’, semantic connections not quite clear).

Berb. **-malVy-* ‘camel, stallion, not castrated animal’: Ghadames *amāli* ‘stallion camel’, Ghat *a-mali* ‘stallion’, Ahaggar *āmāli*, Ayr *əmaləy*, E. Tawllemmet *əmeləy* (cf. Ahaggar *əmhəl* ‘to push ahead, drive (animals, livestock)’, Ayr *əmhəl* ‘to advance, push ahead’ < **mV?Vl?*).

Chad. W.: Jimi *màalo*, Geji *máal* ‘goat’ (acc. to [EDE III: 42], < **mar-*, see 1.1.1); C.: Masa *mòl-* ‘to assemble (a herd of animals)’; (?) E.: Mokilko *máàlà* ‘wealth, dowry, property’ (*máàlàdò*, *màldò* ‘my property, my herd’), W. Dangla *málá*, E. Dangla *màllē* ‘herds, animals, cattle; riches’ (would be undoubtedly labelled Arabisms if not for W. and C. Chad. forms that are evidently not, which leaves room for some doubts).

Cush. C.: Kemant, Qwara *mālt*, Kailiña *mil-d-* ‘to look after (cattle), tend flocks’ (Bilin *mal* ‘herd, livestock, richness’ is, acc. to [APPL.: 83], from Tgr. or Tña.); E.: LEC: Somali *màal* ‘livestock that provide milk’ (*máal*, Rendille *m’aal* ‘to milk’), (?) Oromo *mil-* ‘to guard’; HEC: Burji *malāl-* ‘to herd’, *maalát-e* ‘lending out of cattle’ (cf. also Sidamo, Darasa, Qabenna *maal-a*, Burji *máal-a* ‘meat’); (?) Dullay: Gollango *mila* ‘fresh, cool milk’.

Omot. N.: Haruro *mālināy* ‘herdsman’, Koyra *mālē* ‘cow’.

□ Cf. [LAMB. 474]: Koyra (comp. to unrelated Omot. forms); HEC; Som. (Saho-Afar ‘money’ is evidently < Arab.). Cf. [EDE III: 254, 294 and 72] (acc. to TAKÁCS, Berb. Tuareg forms meaning ‘stallion, camel’ ‘‘look rather like **m-* prefix participial derivations from Berb. **l-y* ‘to mount’ = **ā-hlū/īy*, which looks rather far-fetched for several reasons, one being lack of *h-* in these forms, another, strange semantic development).

Abbreviations of languages and language periods

Akkadian; **Amharic**; **Arabic**; **Aramaic**; **Berber**; **Central**; **Canarian**; **Chadic**; **Cushitic**; **Demotic**; **Dynasty**; **East**; **Egyptian**; **ESA** — Epigraphic South Arabian; **Ethiopian**; **Gafat**; **Gez.** — Ge'ez; **Gurage**; **Harari**; **HEC** — Highland East Cushitic; **Hbr.** — Hebrew; **Hrs.** — Harsusi; **Jibbali**; **Judaic** Aramaic; **LEC** — Lowland East Cushitic; **Medical Texts**; **Mhr.** — Mehri; **MK** — Middle Kingdom; **Mnd.** — Mandaic Aramaic; **MSA** — Modern South Arabian; **North**; **NK** — New Kingdom; **OK** — Old Kingdom; **Omotic**; **Phoenician**; **Pyramid Texts**; **South**; **Sabaic**; **Selti**; **Semitic**; **Soddo**; **Soqotri**; **Syrian Aramaic**; **Tña.** — Tigriñña (= Tigray); **Tgr.** — Tigre; **Ugr.** — Ugaritic; **West**; **Wolane**.

Bibliographic References and Abbreviations

- AADB — *Afrasian Database*, sites: <http://ehl.santafe.edu> and <http://starling.rinet.ru>.
- APPL. — D. A. APPLEYARD. *Comparative Dictionary of the Agaw Languages // Kuschitische Sprachstudien ~ Cushitic Language Studies*, Band 24. Köln. 2006.
- BAR-YOSSEF — O. BAR-YOSSEF. *The Natufian Culture and the Early Neolithic: Social and Economic Trends in South-Western Asia // Examining the Farming/Language Dispersal Hypothesis / eds. P. BELLWOOD & C. RENFREW. McDonald Institute Monographs, Cambridge. 2002; pp. 113–126.*
- BK — A. DE BIBERSTEIN-KAZIMIRSKI. *Dictionnaire arabe-français*. Paris. 1860.
- BLA. Beja — V. BLAŽEK. *Fauna in Beja Lexicon: A Fragment of a Comparative-Etymological Dictionary of Beja // Studia Semitica: FS for A. MILITAREV (= Orientalia: Труды Института восточных культур, III [Papers of the Oriental Institute, III])*. Moscow. 2003; pp. 230–294.
- BLA. Review — V. BLAŽEK. *Semitic Etymological Dictionary I. Archiv orientální*, Vol. 69. 2001; pp. 495–510.
- BLENCH ALAP — R. BLENCH. *Archaeology, Language and the African Past*. Lanham. 2006.
- BLENCH OLT — R. BLENCH. *Omotic Livestock Terminology and Its Implication for the History of Afroasiatic. Semito-Hamitic Festschrift for A. B. DOLGOPOLSKY and H. JUNGRAITHMAYR / Ed. G. TAKÁCS. 2008; pp. 63–78.*
- COH. — M. COHEN. *Essai comparatif sur le vocabulaire et la phonétique du chamito-sémitique*. Paris. 1947.
- DIAK. ESA — I. DIAKONOFF. *Earliest Semites in Asia. Agriculture and Animal Husbandry According to Linguistic Data (VIIIth–IVth Millennia B.C.) // Altorientalische Forschungen*, 8. 1981; pp. 23–74.
- DIAK. Sum. — И. М. ДЪЯКОНОВ. *Шумеры и афразийцы глазами историка // Вестник древней истории*, № 4. 1996; стр. 81–86 [I. M. DIAKONOFF. *Sumerians and Afrasians through the Eyes of a Historian // Journal of Ancient History*, № 4. 1996]; pp. 81–86.
- DOLG. Cush. — А. Б. ДОЛГОПОЛЬСКИЙ. *Сравнительно-историческая фонетика кушитских языков*. М., 1973 [A. B. DOLGOPOLSKY. *Comparative-Historical Phonetics of Cushitic*. Moscow. 1973].
- EDE I — G. TAKÁCS. *Etymological Dictionary of Egyptian, Volume One: A Phonological Introduction*. Leiden-Boston (Ma) & Cologne. 1999
- EDE II — G. TAKÁCS. *Etymological Dictionary of Egyptian, Volume Two*. Leiden-Boston (MA) & Cologne. 2001.
- EDE III — G. TAKÁCS. *Etymological Dictionary of Egyptian, Volume Three*. Leiden-Boston. 2008.
- EHR. EEA — Ch. EHRET. *Ethiopians and East Africans. The Problems of Contacts*. Nairobi. 1974.
- EHR. LFE — Ch. EHRET. *Language Family Expansions: Broadening our Understanding of Cause from an African Perspective // Examining the Farming/Language Dispersal Hypothesis / eds. P. BELLWOOD & C. RENFREW. McDonald Institute Monographs, Cambridge. 2002; pp. 163–176.*
- EHR. PA — Ch. EHRET. *Reconstructing Proto-Afroasiatic (Proto-Afrasian). Vowels, Tone, Consonants, and Vocabulary*. Berkeley, Los Angeles. 1995.
- EG — *Wörterbuch der ägyptischen Sprache / Im Auftrage der deutschen Akademien hrsg. von Adolf ERMAN & Hermann GRAPOW. Erster Band: 1961 [1971]; Zweiter Band: 1955 [1971]; Dritter Band: 1954 [1971]; Vierter Band: 1957 [1971]; Fünfter Band: 1954 [1971]; Sechster Band (Deutsch-Aegyptisches Wörterverzeichnis. In alphabetischer und sachlicher Ordnung. Nebst Verzeichnissen der koptischen, semitischen und griechischen Wörter): 1950 [1957]; Siebenter Band (Rückläufiges Wörterverzeichnis / bearb. von W. F. REINEKE): 1963 [1971]. Berlin: Akademie Verlag.*
- FAUL. — R. O. FAULKNER. *A Concise Dictionary of Middle Egyptian*. Oxford. 1962.
- GIDB — *Global Database*, sites: <http://ehl.santafe.edu> and <http://starling.rinet.ru>.
- GR. — J. GREENBERG. *The Languages of Africa*. The Hague. 1963.

- HALOT — L. KOEHLER and W. BAUMGARTNER. *The Hebrew and Aramaic Lexicon of the Old Testament* I–III. Leiden, New York & Köln. IV–V. Leiden, Boston & Köln. 1994–1996, 1999–2000.
- HASS. — F. HASSAN. Archaeology and Linguistic Diversity in North Africa // *Examining the Farming/Language Dispersal Hypothesis* / Eds. P. BELLWOOD & C. RENFREW. McDonald Institute Monographs, Cambridge. 2002; pp. 127–133.
- HCVA — DIAKONOFF et al. 1994–1997 — Historical-Comparative Vocabulary of Afrasian // *St. Petersburg Journal of African Studies*, 2 (1994): pp. 5–28; 3 (1994): pp. 5–26; 4 (1995): pp. 7–38; 5 (1995): pp. 4–32; 6 (1997): pp. 12–35.
- HEI. — B. HEINE. The Sam Languages: A history of Rendille, Boni and Somali // *Afroasiatic Linguistics*, 6/2. 1978. 23–116.
- HSED — V. OREL and O. STOLBOVA. *Hamito-Semitic Etymological Dictionary. Materials for a Reconstruction*. Leiden–New York–Köln. 1995.
- I-S — В. М. ИЛЛИЧ-СВИТЫЧ. *Опыт сравнения ностратических языков (семитохамитский, картвельский, индоевропейский, уральский, дравидийский, алтайский): Введение. Сравнительный словарь*. М.: «Наука» [*An Attempt at Comparative Dictionary of the Nostratic Languages (Semitic-Hamitic, Kartvelian, Indo-European, Uralic, Dravidian, Altaic)*]. Moscow: “Nauka” publishers]. V. 1 (b–k): 1971; V. 2 (l–j): 1976; V. 3 (p–q): 1984.
- KOG. — Л. Е. КОГАН. О нерегулярных рефлексах семитских ларингалов в аккадском языке [On Irregular Reflexes of Proto-Semitic Laryngeals in Akkadian] // *Вестник древней истории* [*Journal of Ancient History*] 2. 1995; pp. 156–162.
- LAMB. — M. LAMBERTI and R. SOTTILE. *The Wolaytta Language*. Köln. 1997.
- LGur. — W. LESLAU. *Etymological Dictionary of Gurage (Ethiopic)*. Vol. III. Wiesbaden. 1979.
- LGz. — W. LESLAU. *Comparative Dictionary of Ge'ez (Classical Ethiopic)*. Wiesbaden. 1987.
- MIL. — A. MILITAREV. The Prehistory of a Dispersal: The Proto-Afrasian (Afroasiatic) Farming Lexicon // *Examining the Farming/Language Dispersal Hypothesis* / eds. P. BELLWOOD & C. RENFREW. McDonald Institute Monographs, Cambridge. 2002; pp. 135–150.
- PELT. — E. PELTENBURG & al. Agro-Pastoralist Colonization of Cyprus in the 10th Millennium BP: Initial Assessments // *Antiquity*, 74, 2000; pp. 844–853.
- SED — Alexander MILITAREV & Leonid KOGAN. *Semitic Etymological Dictionary (= Alter Orient und Altes Testament: Veröffentlichungen zur Kultur und Geschichte des Alten Orients und des Alten Testaments)*. Vol. I (*Anatomy of Man and Animals*): 2000 (= AOAT 278/1). Vol. II (*Animal Names*): 2005 (= AOAT 278/2). Münster: Ugarit-Verlag.
- STAR. — S. STAROSTIN. Comparative-Historical Linguistics and Lexicostatistics // *Time Depth in Historical Linguistics*, Vol. 1 / eds. C. RENFREW, A. McMAHON & L. TRASK. Papers in the Prehistory of Languages, Cambridge. 2000; pp. 223–265.
- SW. 1952 — M. SWADESH. Lexico-Statistical Dating of Prehistoric Ethnic Contacts: With Special Reference to North American Indians and Eskimos // *Proceedings of the American Philological Society*, 96; pp. 452–463.
- SW. 1955 — M. SWADESH. 1955. Toward Greater Accuracy in Lexicostatistical Dating // *International Journal of American Linguistics*, 21; pp. 121–137.

Р е з ю м е

Статья — очередной шаг в направлении отождествления автором картины жизни носителей праафразийского (ПАА), или прасемито-хамитского, языка, реконструируемой по общафразийской лексике, с ранне-неолитической постнатуфийской археологической культурой Восточного Средиземноморья. ПАА язык накануне распада датируется автором по глоттохронологическому методу С. А. Старостина 10 тыс. до н. э. — тем же временем, что и постнатуф (предполагаемая родина земледелия и скотоводства на планете) по радиоуглеродным датировкам. Статья посвящена доказательствам наличия в ПАА языке скотоводческой лексики. Приводятся 26 реконструированных названий мелкого и крупного рогатого скота и хозяйственных терминов. Лексическим данным предшествует краткое описание ситуации в современном сравнительно-историческом афразийском языкознании и изложение авторских принципов и приемов этимологического анализа и реконструкции праязыковой лексики, а также разработанных им методов сопоставления лингвистических и археологических данных для установления прародины языковых семей.