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Common Afrasian terms confirming the transition of the Proto-Afrasian Natufians from gathering to farming in the Levant between the Late Natufian and pre-Ceramic Neolithic¹

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In memory of my informal teachers — great scientists and great personalities — Solomon Maisel, Igor Diakonov and Sergei Starostin and my beloved son Misha (Mikhail Militarev 01.18.2005–11.22.2022)

Part I²

Abstract. This study is a follow-up, which has taken more than 20 years of the author's article The Prehistory of a Dispersal: Proto-Afrasian (Afroasiatic) Farming Lexicon (Militarev 2002) in which 37 common Afrasian terms were adduced, presumably related to early agriculture. This article, which was met with both vacuous and informative criticism, was my pilot project that presented promising but

Милитарёв А. Ю. Общеафразийские термины, подтверждающие переход праафразийцев-натуфийцев от собирательства к земледелию в Леванте между поздним натуфом и докерамическим неолитом. Это исследование — продолжение, занявшее более 20 лет, статьи автора «Предыстория расселения: общеафразийская земледельческая лексика» (Militarev 2002), в которой было приведено 37 общих

¹ I am grateful to E. A. Gavrilova for invaluable assistance in preparing this article.

² Part II will be published in the next issue of this journal.

insufficient evidence in favor of the author's more general hypothesis about the ancestral homeland of the Proto-Afrasians. One of the main reasons for its "unpersuasive evidence" is that at the time of writing the 2002 article, critical lexicographic and etymological sources by various authors had not yet been published. The present article contains more than a hundred reconstructed common Afrasian terms, provided with the author's estimates of both the probability of their interpretation as related to early agriculture rather than foraging, and the quality of each etymology from the point of view of its compliance with the norms of the modern state of the classical comparative-historical method, taking into account, in particular, the fair criticism of the previous study. At the same time, the author is even more confident in the position formulated by him in various publications since 1984 and in the 2002 article: The Proto-Afrasian speakers are to be identified with the creators of the Late Natufian and Post-Natufian Early Neolithic archaeological cultures of the Levant³.

Keywords: Proto-Afrasian, reconstructed terms, farming, gathering, Natufian, the Levant, Neolithic.

афразийских терминов, предположительно связанных с ранним земледелием. Эта статья, встретившая как несерьёзную, так и содержательную критику, была пилотным проектом автора, в котором были представлены перспективные, но недостаточные свидетельства в поддержку его более общей гипотезы о прародине афразийцев. Одна из основных причин неубедительности этих свидетельств заключается в том, что на момент написания статьи критически важные лексикографические и этимологические источники различных авторов ещё не были опубликованы. Настоящая работа содержит более ста реконструированных общеафразийских терминов с оценками автора (1) большей вероятности их интерпретации как относящихся к раннему земледелию, чем к собирательству, (2) качества каждой этимологии с точки зрения её соответствия нормам современного состояния классического сравнительно-исторического метода, учитывая, в частности, полезную критику предыдущего исследования. При этом автор ещё более укрепился в утверждении, сформулированном им в ряде публикаций начиная с 1984 г. и в статье 2002 г.: праафразийцы достаточно надёжно идентифицируются с создателями поздненатуфийской и постнатуфийской ранненеолитических археологических культур Леванта.

Ключевые слова: праафразийский, реконструированный термин, земледелие, собирательство, натуфийский, Левант, неолит.

More than 20 years ago, I published an article The Prehistory of a Dispersal: Proto-Afrasian (Afroasiatic) Farming Lexicon (2002), in which 37 common Afrasian terms presumably related to early agriculture were presented. That work, met with both inconsequential and informative criticism, became my pilot project, in which promising but insufficient evidence was presented in support of the author's broader hypothesis about the Proto-Afrasian homeland. One of the main reasons for the insufficiency of this evidence was that at the time of writing the article in 2001–2002, very important lexicographical and etymological studies on Afrasian languages had not yet been published.

Since then, ca. 25 years have passed, new works both the vocabularies of individual languages and containing important comparative and etymological material have appeared. The latter are represented, above all, by the publications of O. Stolbova,

³ Cf. Diamond and Bellwood 2003: 601, apparently supporting my position.

V. Blažek, G. Takács and the present author supplying lexical data that complement existing entries and create new ones in the Afrasian etymological database (AADB)⁴, including those related to the semantic field in question. In addition, over these 20-odd years, I've, hopefully, progressed professionally. All these made it possible to update, specify and increase the number of reconstructed common Afrasian terms related to foraging and /or agriculture to over a hundred.

The next task of the new study absent in the earlier article is an attempt to evaluate each reconstructed term as for the degree of probability of its attribution to foraging/pre-agricultural or agricultural terminology. For obvious reasons, the author can do this, relying only on common sense and his dilettante perceptions, leaving the material for evaluation by specialists on the subject. This assessment (scoring from 1 to 5) is reflected in the numerator of the symbol in the form of a fraction (preceded by the symbol ●), the denominator of which is an equally subjective — albeit professional — assessment (same scoring from 1 to 5) of the quality of the etymology and the resulting proto-language reconstruction based on such criteria as (a) level of representation, “representativity” of the reconstructed term in a given group/family/macrolanguage; (b) type of the compared lexemes by quality and quantity of radicals: account of high or low occurrence of each root consonant in a given language/proto-language⁵ and the number of consonants in the compared roots⁶; (c) the degree of reliability of the established consonant correspondences between all the consonants of the compared roots⁷ (d) the degree of semantic proximity/compatibility⁸; (e) genuineness vs. probability of borrowing of the compared lexemes; (f) the degree of possibility/lack of alternative etymologies.

I understand that weak etymologies compromise the publication; however, my firm principle is not to give in to the temptation of avoiding criticism by citing only robust etymologies, but to cite controversial and even weak ones, evaluating them accordingly: I've had a lot of opportunities to make sure there is always a chance of discovering new material that can improve these etymologies.

What is the point of the author's assessment of the etymologies proposed by himself, I think, is clear. What is equally important is the assessment of whether the reconstructed terms belong to gathering or agriculture — by specialists in this

⁴ Compiled between the end of the last century and the latter part of the first decade of our century by Olga Stolbova and the present author (in the first years, within the framework of the Santa Fe Institute's project “Evolution of Human Languages”) and later worked on independently by myself. At present it contains over 4,000 entries in the main Afrasian etymological base (liable to screening, selection and strong reduction in the final version) and some 15,000 entries in the subordinate bases with lexical data from all branches and, practically, AA subbranches/groups, connected with the main base.

⁵ Obviously, the matching of disyllabic / triconsonantal (vs. monosyllabic / bi- or monoconsonantal) roots and/or roots containing rarer consonants like *š or *ṭ improves the comparison quality and increases the scoring of a given etymology.

⁶ not counting gemination and the “weak” consonants such as w, y, ʔ when functioning as “triconsonantizers”.

⁷ Including a specific problem for Egyptian: ambiguity in the phonological interpretation of several hieroglyphs.

⁸ From complete identity to obvious proximity/ transition of meanings (hoe-plow) to possible approximation (field-garden, plow-sow) to approximation with an unobvious or even seemingly unprovable transition of meaning (barley-sweet potato, tiller-slave) to comparison of lexemes with a unique transition of meaning, presumably explained by special extralinguistic circumstances such as Semitic *dabb- ‘bear’ vs. Egyptian db ‘hippopothamus’.

field rather than by the author. However, leaving the last word to archaeologists, geneticists, (archaeo)botanists and anthropologists, I would like to briefly state the essence of the matter. The hypothesis, put forward by me for the first time some 40 years ago — speculative, of course, without archaeological underpinning — and initially developed in a joint article with archaeologist V. Shnirelman (Militarev, Shnirelman 1984) and my subsequent publications, assumed the ancestral home of the Proto-Afrasians in the Levant, identifying them with the creators of the Natufian archaeological culture, and referring the split of the Proto-Afrasian language to the post-Natufian period, namely, Early Pre-Pottery Neolithic A (EPPNA). Over the past 40 years, the accumulation and analysis of the vast lexical material of the languages of all the Afrasian branches made it possible to outline a picture of the Proto-Afrasian speaking community life and its environment based on the reconstructed common Afrasian vocabulary, which gave still more reason to attribute it to EPPNA. Referring to the semantic field, which is the subject of this article, the terms reconstructed in it seem to indicate a transition period from intensive gathering to, and including, early domestication of the founder cereal crops, pulses, and fig tree (perhaps also date palm) and probably flax⁹. The problem has been that my latest dating of the division of the Afrasian languages according to the method and formula of Sergei Starostin indicates the split of the Proto-Afrasian language into early dialects (northern — Proto-Semitic, Proto-Egyptian and Proto-Berber-Chadic and southern — Proto-Cushitic and Proto-Otomic¹⁰) in the 11th millennium BCE, more precisely, on the date of 10350 BCE. Although glottochronology, for all its promise, is far from being as precise as calibrated radiocarbon, I am still inclined to the greatest probability of this particular dating, and not the later ones that I obtained earlier on much more limited and less etymologically developed lexical material. Until recently, all — at least all available to me — publications on this topic dated PPNA to 11,000–10,000 years ago (Weiss, Zohary 2011). This seemed to be a contradiction, especially in the 80s of the last century, putting my scenario in doubt¹¹. This contradiction has been resolved in recent years, when, firstly, the period of domestication of plants, thanks to the latest discoveries in archaeology and archaeobotany, has shifted by 1–2 thousand years, to the period of 12,000+ years ago¹², and, secondly, it has become finally clear that it

⁹ Cf. Weiss, Zohary 2011.

¹⁰ Recently I proposed the Hadza language as a third branch of South Afrasian (Militarev 2023b).

¹¹ Our joint paper with Sergei Nikolaev on Proto-Afrasian animal terms (Militarev, Nikolaev 2020: fn. 129) contains a discussion, in which I adduced my arguments for the West Asian *Urheimat* of the Proto-Afrasians attempting to find a compromise: since the 11th millennium was regarded by modern scholarship as too early a period for the incipient farming, the following scenario could probably explain the inventory of terms referring to farming and formally qualifying for PAA status: the PSA speakers moved southward from the southern Levant to the north and, later, south Arabia (from where they migrated to East Africa supposedly by or in the 8th or 7th mill.), while PNA speakers stayed in the Levant and created the PPNA culture which set farming in motion in the 10th millennia; some of the farming practices and terms could have passed from them to PS Afriasiens who were still located in Arabia, creating the illusion of PAA farming terminology when, in fact, it is representing only the PNA stratum. Although the material presented in the current article obviously demonstrate more convincing and abundant lexical evidence of farming in the NA than in the SA, which quite logically means that agriculture was more developed in the 10th than in 11th millennia, I believe that the evidence presented is sufficient to put aside this compromise solution the more so as the currently accepted dates of the beginning of agriculture are gradually shifting to an earlier date.

¹² “The Development of Agriculture | National Geographic Society”. 2022-07-08. Archived from the original on 2023-01-30. [education.nationalgeographic.org](https://www.nationalgeographic.org/education/nationalgeographic.org). Retrieved 2023-01-30.

took place in the Fertile Crescent, beginning, with a high probability, in the southern Levant, which fully corresponds to my assumptions of forty years ago, based then on incomplete and preliminary Afrasian lexical data and on a series of Afrasian-Sumerian and Afrasian-North Caucasian isoglosses — presumably contact terms testifying to the ancestral homeland of the Afrians in Southwest Asia, where these contacts could only have taken place.

And then everything began to fall into place. An even more promising discovery was the progress of archaeological excavations in Nahal Ein Gev II and their interpretation (Grosman et al. 2016; Abadi, Grosman 2019; etc)¹³. Taking into account the great importance of the results achieved by the archaeologists, including for my hypothesis of the Proto-Afrasians' Urheimat in the southern Levant identifying them with the creators of the Natufian archaeological culture, and, in particular, for the present linguistic research, I will quote extensively from Grosman et al. 2016. From *Discussion*:

"The excavation at NEG II enables us to closely examine the cultural crossroads at the end of the Paleolithic and the beginning of the Neolithic way of life. The absolute dates verify the chronological assignment of NEG II to the Late Natufian. Furthermore, the lithic analysis indicates a Late Natufian tool kit that differed significantly from the succeeding PPNA assemblages, with a complete absence of the latter's lithic attributes. In contrast, the artistic style from NEG II seems more closely related to the early PPNA world than to the Late Natufian, although it reveals deep roots in Early Natufian tradition. Comparative analysis indicates a number of stylistic trajectories from the Early Natufian to the NEG II Late Natufian and, ultimately, the PPNA. For example, the decorative approach becomes more formalized while the media used to depict specific motifs diversifies over time (e.g., from incised stones and bones to architectural elements). Several other cultural markers from NEG II including burial customs and gazelle hunting strategies show considerable continuity in the Natufian weltanschauung. However, a number of socio-cultural changes in intra-site organization, household size and the emergence of distinct public areas are more reminiscent of the early Neolithic cultures to come. Accordingly, the excavation at NEG II reveals that steps toward a new way of life have been taken, but within clearly Natufian life-ways" (p. 25). "Thus although previous arguments conclude that the YD (Young Dryas) climatic event interrupted the cultural dynamics that promoted the shift to agriculture, archaeological evidence from NEG II show that the trend toward the establishment of farming communities maintained its course throughout the Late Natufian phase" (p. 28)"¹⁴.

¹³ One can get acquainted with a very recent very lively popular-scientific report on Nahal Ein Gev II by Matti Friedman in Smithsonian Magazine (History) publication of July/August 2023. As he writes, The village here flourished 2,000 years before the revolution got going, and the growing impression is of a place curiously ahead of its time — "a true turning point in human culture," in the words of Steven Mithen, the eminent British prehistorian and author of *After the Ice: A Global Human History*.

¹⁴ In referring to the Younger Dryas often linked to the Neolithic Revolution, with the adoption of agriculture in the Levant (Mithen 2003), it is appropriate to mention a study by Moore A. et al. (2020). The authors refer to Firestone et al. (2007), the study which "first proposed that a cosmic impact event occurred ~12,800 years ago, resulting in multi-continental airbursts, possibly caused by the debris stream from a short-period comet... This event is proposed to have created the Younger Dryas boundary layer (YDB)". According to Moore et al. (2020), "The wide range of evidence supports the hypothesis that a cosmic event occurred at Abu Hureyra Abu Hureyra (AH), Syria" and was "possibly caused by the debris stream from a short-period comet" (ibid.)

According to Table 1 (Grosman et al. 2016, *ibid.*), reported radiocarbon years (before present = 1950) fluctuate between ca. 12 300–12 500 BP, i.e. the dating obtained surprisingly coincides with the date of the PAA split according to the latest results of my long-term glottochronological calculations (the earliest showed 11th–10th millennia. BCE adduced in Militarev and Shnirelman 1984: 50) to the last — 10 350 BCE, based on an almost exhaustive set of languages and, accordingly, lexical data and the maximum acceptable quality of etymologization at the current level of comparative Afrasian studies.

Speaking of the earliest dates of plant cultivation, it is impossible not to mention “a small-scale attempt to cultivate wild cereals” showing a dating which stands so alone that might seem fantastic if it were not obtained and published by a research team of highly authoritative authors. I mean the paper *The Origin of Cultivation and Proto-Weeds, Long Before Neolithic Farming* by A. Snir, D. Nadel, O. Bar-Yosef et al. published in PLOS on July 22, 2015. Let me quote the abstract:

“Weeds are currently present in a wide range of ecosystems worldwide. Although the beginning of their evolution is largely unknown, researchers assumed that they developed in tandem with cultivation since the appearance of agricultural habitats some 12,000 years ago. These rapidly evolving plants invaded the human disturbed areas and thrived in the new habitat. Here we present unprecedented new findings of the presence of ‘proto-weeds’ and small-scale trial cultivation in Ohalo II, a 23,000-year-old hunter-gatherers’ sedentary camp on the shore of the Sea of Galilee, Israel. We examined the plant remains retrieved from the site (ca. 150,000 specimens), placing particular emphasis on the search for evidence of plant cultivation by Ohalo II people and the presence of weed species. The archaeobotanically-rich plant assemblage demonstrates extensive human gathering of over 140 plant species and food preparation by grinding wild wheat and barley. Among these, we identified 13 well-known current weeds mixed with numerous seeds of wild emmer, barley, and oat. This collection provides the earliest evidence of a human-disturbed environment — at least 11 millennia before the onset of agriculture — that provided the conditions for the development of ‘proto-weeds’, a prerequisite for weed evolution. Finally, we suggest that their presence indicates the earliest, small-scale attempt to cultivate wild cereals seen in the archaeological record”.

Before proceeding to the lexical data, I would like to say a few words about the author’s approach to the reconstruction of the proto-meaning in the common Afrasian roots. For all the hypotheticality of the semantic reconstruction of proto-language cultural terms, in particular those claiming to refer to domesticated plants, at the depth of 11–10 millennia BCE¹⁵, I will rely not so much on the usual criteria of typologically common semantic shifts as on extralinguistic factors following from the hypothesis described above about the Proto-Afrasians as Natufians and the subsequent migration of part of them to northeast and east Africa, with a later transfer to various species of domesticated millet that had spread in these areas, still later to domesticated local crops, which became staple for this or that area (tef, ensete, etc.), and recently to imported crops (mainly maize).

An equally controversial issue is the choice of values in PAA roots related to hoeing, sowing, harvesting, grain processing, land plots, etc., between their interpretation

¹⁵ It should be noted that there is no such experience in comparative-historical linguistics yet: the earliest cultural terminology has been reconstructed to a greater or lesser extent for proto-languages dating back to the 6th–5th millennia BCE: Proto-Indo-European, Proto-Semitic, Proto-Altaic, Proto-North Caucasian-Basque, etc.

as referring to foraging or farming (or both). To a much greater extent, these terms must meet the accepted criteria of semantic shifts (such as 'gather, collect' vs. 'harvest', 'beat, crush' vs. 'thresh, mill'). In cases where the author does not see clear boundary between the two interpretations, he prefers to indicate his attitude by scoring the probability of each of them — often with the number "3" in the numerator of the assessment, which gives equal, in his estimation, chances for one or the other interpretation (e. g. in cases of terms for pounding which could refer to wild grain as well or for sickles which could refer, for instance, to cutting cane for thatch).

And, finally, there is a problem of correlation between roots with the same composition of consonants, belonging to a common semantic field, which is the object of this study, but related to its different thematic subfields, such as cultured edible plants vs. different stages of the agricultural cycle vs. land plots, etc. Should these roots be treated as homonyms? Or combined into one "super root" as its derived "rootlets" describing different parts of the same phenomenon/process? How wide the range of meanings can be in the derivatives of the same Proto-Semitic root, to say nothing of common Afrasian roots, is clearly shown by the following well-known examples:

- 1) Akk. *erēšu* 'to sow, cultivate' vs. **hrt* 'to till land, plow' in the other Semitic (incl. Arab. *ḥart*- 'ploughshare').
- 2) Sem. **zVr*/?-: Akk. *zēru* 'seed (of cereals and of other plants); acreage, arable land'; Hbr. *zr* 'to sow', *zāra* 'seed'; Arab. *zur*- 'semence; céréales sur pied, champ cultivé'; Hob. *zeér* 'sprout, shoot', Mhr. *zūra* '(plants) to grow', *ha-zrē/yəhāzra* 'to cultivate', *zərēt* 'plantation, cultivated area', Jib. *zéra* '(plants) to grow', *ezóra* 'to plant many seeds', *zéra* 'farmer', Soq. *zérseh* 'beans, peas'.

This is a separate problem, the approach to which is beyond the scope of this article but the questions are: besides the established derivational patterns can we find patterns in vocalism (very conditionally reconstructed in this article), in the morphosemantic role of fossilized affixes¹⁶, in the distribution of "weak" consonants, in the latter's role in triconsonantization, in metathesis, after all? All these are practically unexplored possibilities of Afrasian and even more accessible Semitic root morphology and phonomorphology, and it is not even clear whether they are traceable at all.

Or is it more appropriate to separate such roots with cross references to each other? Obviously, the answer should depend on each specific case and there is no general solution, but there is no clear criterion for such decisions either. At the same time, the discovery of some kind of system of such inter-root connections would help to better understand the "linguistic mentality" of the ancient Afrasians.

The Data¹⁷:

CULTIVATED VS. GATHERED PLANTS

Cereals and pulses (32 entries)

***kabb-** 'wheat' • AA 5/5, NA 5/5, SA 5/5 // NA **ka/ibb-* 'ear, seed of wheat': Sem. **kVb(b)*-: Akk. (OAkk. on) *kibtu* 'wheat' (CAD *k* 340); Arab. (Yemen) *kubya(t)*

¹⁶ The only case in the reconstructed NA roots of a probable suffixal derivation is ***bar-ay-** 'flour, groats, gruel' that looks like a relative adjective (with the meaning 'processed grain?') from *(*ʔa-*)**bar(r)**- 'wheat'.

¹⁷ Etymological articles are distributed by thematic sections, and within each section by overall rating: from roots with the highest to roots with the lowest rating.

'grains mûr mais encore tendre'; Tgr. *käbbä* 'Getreidebrei' (LH: 411) / Eg. (Gr.) *täbb* (with *ṣ* probably rendering *-a-*) 'ear (of cereals)' / Berb. **kabb-*, **kəbbəkəb-* 'ear of corn; fruit kernel': Hgr. *a-kəbbu* 'noyau (de fruit)' (Foucauld 1951–1952: 728), Ayr, E. Wlm. *e-käbb* id. (Alojaly 1980: 87), *te-kəbbəkəb-t* (redupl.) 'épi de certaines plantes (blé etc.)' (Ibid. 88); Qbl. *a-kubab* 'épi de sorgho' (MCB: 475) / Chad. W. **kabb-*: Hs. *kubəwā* 'okra', *kaḥu* 'Fura made of guinea-corn' (Bargery 1934: 625, 515), Gwandara, Galamba, Pero *kəppu*, Bol. *kapp* (*-pp* < **-bb*?) 'to plant, sow', Tangale *kaape* 'to sow' (Jungraithmayr 1991: 93) // SA **kabb-* 'wheat/barley > maize': Cush. E. **kabb-* 'wheat': LEC: Das. *kabbo* 'unleavened bread' (HEC: 31), Konso *kappa*, Gid. *kapp(-o)* 'wheat' (Sasse 1979: 57) (*-pp* < **-bb* — see ibid.: 55; acc. to Sasse 1982: 57, from **gazb-*, which is unlikely), Dullay: Dob. *kapo-ča* 'Gerste' (AMS: 244) (< **kab-Vt-*) / Omot. **kVbb-* 'maize, corn': N.: Basketo *kəbbi* 'maize' (and many similar forms in Bender 2003); S.: Ari, Dime *kəbb* 'maize, corn' [] AADB 2432; Militarev 2002 #9. Cf. Sum. *kib* 'wheat' (PSD), *gib*, *kibx* id. (EDS) ■ wheat: Akk.+Ayr, E.Wlm.+Konso, Gid. — barley: Dob. — sorghum: Qbl.+Hs. → maize: Omot.N., S. ♦ Arab (Yemen), Tgr.+Eg. (Gr.)+Hgr.+Das.

***(?a-)bar(r)-1 'wheat'**¹⁸ • AA 5/5, NA 5/5, SA 5/5 // NA **(?a-)bar-* 'wheat > millet': Sem. **bar-* 'wheat' 5/5: Akk. (Mari) *burru*, *baru*, *barru* (a cereal); Ebla *bū-ur-tum-* (a cereal) (SED online); Hbr. *bār* 'grain, cereal' (HALOT: 153); Sab. *brr* 'cereal, wheat' (SD: 31); Arab. *burr-* 'froment' (BK 1: 103); Amh. *bər* 'stalk (of barley, wheat); straw' (Kane 1990); Hob. *bār* 'wheat' (Nakano 2013), Mhr. *barr* (JM: 51), Jib. *bohr* 'a cereal' (JJ: 27), Soq. *bor* 'froment' (Leslau 1938: 98) / Eg. (PT-MK) *bṣ.t* (< **bVr-t*) 'eine Körnerfrucht' (EG I: 416, 418), Copt. (S) *ḡebra*, (B) *bray* 'grain de céréales et d'autres plantes' (Vycichl 1983: 39) 5/4 / Berb. **a-bur-* 'grain, sorgho' 5/5: Qbl. *a-bruy* 'grain' (Dallet 1982: 51), Hgr. *a-bōra* 'sorgho à gros grain' (Foucauld 1951–1952: 84), E. Wlm. *a-bōra* 'sorgho' (Nicolas 1957: 22); Zng. *būru* 'pain' (Nicolas 1953: 180) / 5/5: Chad.: W.: Hs. *i-buro* 'a cereal' (Bargery 1934: 472) (< **?i-bur-*), Kupto *bárnā* 'guinea corn sp.' (Stolbova 2020 #264), Pero *ḡwərṡṡ* 'millet' (Kraft) (< **?a-bur-an?*), N. Bauchi **vaar-* 'seed' (Skinner 1977) (< **?a-bar-*)¹⁹; C.: Bura *bari* 'pink species of a guinea corn' (Ann), Bach. *byāra* 'ground nut' (Kraft) (< **bVyar-*), Log. *babra* 'maize, corn', *báaberaa* 'ägyptischer Mais, millet', Azum *boborā* 'unripe grain' (Stolbova 2020 #264); E.: Tumak *ḡar* 'Pennisetum millet' (Caprile 1975) (< **?a-bar-*) // SA **(?a-)bar-* 'grain (generic)': Cush. **bar-* 'grain (generic), wheat, barley, oats (> maize)' 5/5: E. **bVr-* 'wheat/oats/barley': LEC: Som. *birre* 'spear of grain (with husk)' (Dolgopolsky 2008 #1763), *bur* 'Weizen', Boni (*ki*) *abór* 'seed' (Heine 1978), Orm. *omborii* 'oats' (Gragg 1982: 305) (< **?a-mbVr-*), Konso *poórta* 'barley' (KM: 69), Dullay **por-t-* < **bor-t-* 'Gerste' (AMS: 218): Galila *porto*, Harso *por-čo*, Gawwata *poor-čo*, Tsamai *bora-o* 'seed' (Blažek 2005); S. **bayr-* 'millet, grain': W. Rift: Iraqw *buri* 'a lot of maize in one pit', Burunge *baru* 'grain (generic)' (Ehret 1980: 338), *baruung* 'millet, corn' (KM: 69), **bayroo-*: Iraqw *bayro*, Gorowa *beeráy* 'ear of maize' (ibid.: 73), (cf. also *buuraru* 'beers' (Ibid.: 77)), Ma'a *baru-n* 'Negerhirse' (Meinhoff 1906), Dah. *ḡuru* 'maize' (Ehret et al. 1989: 34) (< **?V-bur-*) / Omot. N.: Mocha *bāro*, Anf. *baro* 'maize' (Leslau 1959: 22)²⁰; S.: Ong. *bora* 'seed' (likely < Tsamai) [] AADB 2424; Cf. Militarev 2002 #3; Stolbova 2020 #264. Probably rel. to **(?a-)bar-2*

¹⁸ Cf. PIE **bhar-*; **bharəs-* 'a k. of cereals (millet, barley, spelt)'.

¹⁹ Cf. (CED: 30): **-b-* quite often > *-v-* in WCh 4. Initial *v-* indicates an originally intervocalic position, e. g. *vun-* < **?abun-*.

²⁰ Attestation in two closely related languages only is suspicious for borrowing, but a possible source is not clear.

'cultivated field' and **(ʔa-)bar-3* 'cultivating, hoeing' ♦ Akk., Hbr., Jib.+Eg.+Qbl.+Hs., Azum+Bur. ■ wheat: Sem.+Som. — oats: Orm. — barley: Cush.E. — millet, sorghum: Berb.+Chad.+Burunge+Ma'a ■ → maize: W.Rift, Dah.+Omot.N.

***šVr- 'ear of barley (with grain, spikes and leaf)'**²¹ • AA 5/5, NA 5/5, SA 5/5 // NA **šay/waʕ-* 'ear of barley': Sem. **š iwaʕ(aʕ)-* 'barley, ear of corn; k. of beans'²² 5/5: Akk. (Oakk. on) *šeʔu* 'barley, grain; pine nut' (CAD š1: 345; AHw: 1222)²³, (Nuzi, MA, SB) *šuʔu* 'pulse, chickpea' (CAD s3: 416), (SB, NA) 'eine Getreideart' (AHw: 1294); Hbr. pB. *šəʕūʕīl* 'a species of beans' (Ja.: 1610); Aram. Jud. *šəʕīlā* id. (Ja.: 1611); Arab. *šaʕāʕ-*, *šīʕāʕ-*, *šuʕāʕ-* 'barbe de l'épi', *šəʕ* IV 'se remplir de grains (se dit des épis, des céréales)' (BK 1: 1234); Eth.²⁴: Tna. *saʕsaʕe* 'sorta di orzo che si semina nella stagione asciutta' (Bassano 1918: 201), *saʕaʕ* 'avena, sorta di biada' (Ibid.: 202); Tgr. *sāʕaʕ* 'oats' (LH: 194), *səʕsəʕa* (redupl.) 'épeautre' (LH: 194), Gur. **šāwa* 'roasted barley used for the preparation of beer' (acc. to LGur.: 588, < **šāmʷä*) / Eg. (Med.) *šə.t* 'Teil der Gerste' (EG IV: 420), (BD, Med.) *šə.t.t* 'Art Brot' (Ibid.: 418) / Berb. **-siH-* 'grain': Zng. *issi* 'grain' (Basset 1909), Adgh. *ta-ši-t* 'petite graine analogue à la graine du drinn' (MCB: 264) / Chad. (a) C. **ʔa-ʔaʕ(-in)-* 'k. of corn': Mbara *ʔāʔāy* 'Sorghastrum trichopus' (Tourneux et al. 1986), Gude *ʔəlaʔin* 'okra' (Kraft) (-ʔ- probably renders **-ʕ-* in an intervocalic position (no reflex suggested in CED: 47f); (b) W.: Guus *ʔaa* 'sow (hungry rice), Zaar *ʔaa* 'sow, scatter' (Stolbova 2007 #378); (c) C. **ʔay/waʕ-* (acc. to Stolbova 2007 #385, < **ʔV-hʷ/kʷV*) 'corn-leaf': Podoko *ʔiʔa* 'feuille de mil, corn-leaf', Chuvok *ʔāhā* 'feuille de mil', Ouldem *ʔūwā-k*, Cuvok *ʔāhā* id. // SA: Cush. **šawaʕ-* 'ear of (barley) corn': N.: Beja *šūš* 'Panicum Turgidum' (Reinisch 1895: 218; redupl.); C.: Kem., Qwara *sewī* 'Aehre' (Reinisch 1885: 119)²⁵; E. **suʔ-*: SA: Saho *suwā* 'grain that ripens' (LGz.: 539), LEC: Das. *soʔa* 'barley', HEC **suH-*: Sid. *šoʔē* 'ear of corn', Had. *soʔo*, Kabenna, Brj. *soʔa*, Tembaro *soha* 'barley'; S.: Iraqw *šooʕi* 'leaf of maize cob', Maʔa *ša* 'to sow, broadcast (seed)' (Ehret 1980: 209) [] AADB 2401; Cf. Militarev 2002 #12. Cf. Sum. *še* 'barley' (PSD); cf. Proto-E. Cauc. **šwV(N)HV* 'barley' (Militarev, Starostin 1984) ■ Akk., Tna., Gur.+Eg.+Cush.E. — oats: Tgr., Tna. — millet, sorghum: Chad.C. ■ → (leaf of) maize: Iraqw ■ beans: Akk., Hbr.+Gude ♦ Akk., Arab.+Berb.+Qwara, Saho, Sid.

***čayr- 'barley'**²⁶ • AA 5/5, NA 5/5, SA 5/5 // NA **ča(ʕi)r-* 'barley': Sem. **šaʕir-* 'barley'²⁷: Hbr. *šəʕōrā* 'the hairy, grainy kernel-fruit, barley' (HALOT: 1346); Aram.:

²¹ Cf. a curious parallel: PECauc. **šwV(N)HV* 'barley' (Militarev, Starostin 1984 #3a.2).

²² Probably, a metathesis — Sem. **čayš-* 'bread, corn food' (on Sem. **š_x* < Afras. **š* see Militarev, Kogan 2000): Hbr. pB. *ʕsā* 'started dough, quantity of flour used for one person's meal' (Ja.: 1072), *ʕāsāsīt* 'pounded wheat or peas' (ibid.: 1098), Aram. Jud. id. (the Hbr. pB. and Jud. forms are obvious borrowings from each other, but the direction of borrowing is hard to determine); Sab. *ʕys2* 'cornland?' (SD: 24), 'food, provision, produce' (Biella 1982: 363–368); Egyp. Arab. *čayš-* 'pain' (BK 2: 420), (N. Yem. dial.) *čawš*, *čayš* 'Brot' (Behnstedt 1992: 878–884); Tgr. *čəš* 'bread (of the Europeans)' (LH: 481), *čayyāša* 'to nourish' (Ibid.), Har. *ēs* 'oat' (Leslau 1963: 33). [] Cf. Militarev 2002 #2. Cf. Sum. *áš* 'bread; a flour' (PSD).

²³ In both dictionaries considered a loan of Sum. *še*, which is implausible in view of the comparative data.

²⁴ Could be compared to Gz. *šūʕ* 'linen, flax' (LGz.: 523), unless this term refers to a plant and not to a tissue.

²⁵ The last two examples are hardly Ethiopianisms, in which all similar forms have the suffix *-t-*, which would have had to be borrowed along with the root: Gz. *šawit*, etc. (LGz.: 539).

²⁶ Cf. what seems an homonymic rather than related root: AA **čar-* 'grass, leaf': Sem. **šVr-* 'vegetation, grass, straw': Arab. *šur-* coll. 'plantes, arbres (tout ce qui constitue, pour ainsi dire, le poile du sol); safran', *šaʕār-* 'arbres touffus et entrelacés qui servent d'ombrage l'été

Jud. *səṣartā* 'barley' (Ja.: 1010), Syr. *səṣārtā* 'hordeum' (Brock.: 489), Mnd. *sara* 'barley' (DM: 315); Sab. *səṣr* (SD); Arab. *šaṣīr*- 'orge' (BK 1: 1239); Tgr. *šəṣīr* 'barley' (LH: 226) (< Arab.), Amh. *sororr-o* 'white ṭef' (Kane 1990: 486), Har. *sərri* 'thick bread made of wheat' (Leslau 1963); Mhr. *šəṣr* (JM: 391), Jib. *šīṣir* (JJ: 259) 'barley', Soq. *šāṣir* 'orge' (Leslau 1938: 420) (all MSA likely < Arab.)²⁸/Eg. (MK) *š.r.t* 'Gerste' (EG IV: 524) / Chad. **čawir*- 'k. of cereal' (with a later shift of meaning) 4/4: W. **ča/ir*:- Pa'a *šārdóya*, pl. *šārāa-ni* 'cassava' (Skinner 1979), Tangale *sīr* 'yam' (Jungraithmayr 1991) (s- continues several Afrasian sibilants, incl. *č); C.: Hona *wuṣəhara* 'millet' (Kraft) (loss of lateral articulation), Mofu *šawar-a* '*Eragrostis diplachnoides* (Graminees)' (Barreteau 1988) // SA: Cush. *(*ʔa*-)š/sar- 'k. of cereal (most likely, barley)': N.: Beja *ešerr-i* 'Mais' (Reinisch 1895: 205) (*serām* 'Weizen' (Ibid.: 33) is hardly related); C.: Khmr. *sūru* 'barley' (Ehret 1979: 167); E.: HEC: Qbn. *aššar-úta*, Kmb. *ašārú-ta*, Tmb. *ašar-u* 'barley' (Leslau 1959: 18)²⁹, Had. *sara-ta* 'sorghum' (HEC: 139), Dullay: Harso *soro* 'Weizen' (AMS: 279); S.: Iraqw *šayiiri* 'barley' (MQK) [] AADB 2427; Cf. Militarev 2002 #5; cf. ND 2219 ■ barley: Sem.+Eg.+Khmr.+HEC+Iraqw — millet: Hona+Had. — ṭef (teff): Amh. ■→ cassava: Pa'a; ■→ yam: Tangale ■→ maize: Beja.

***bayl-** 'edible pod plants; k. of grain (barley?)' • AA 5/5, SA 5/5 // NA **ʔa-bil(bil)*- 'beans, seed, grain': Sem. **bayl-am*- 'k. of pod, bean': Arab. *baylam*- 'gousse de coton' (DRS: 62) (with fossilized -m suffix), *ʔablām*- 'espèce de fève' (BK 1: 164) (< **ʔa-bVI*-, with -m a fossilized suffix? Cf. m- prefixed in two Chad. words); Amh. *balaw* 'sorte de poivre' (DRS: 66) / Eg. (OK) *bṣṣṣ.t*, *bṣṣ.t* (< **blbl*, **bl*) 'seed, semen', 'eine Körnerfrucht (in den Opferlisten, hinter den Getreidearten und vor den Obstsorten)' (EDE II: 69; the meaning debatable), (Dem.) *blbylṣ.t* 'grain', Copt. *bilbile* 'grain (poivre, raisin)' (Vycichl 1983: 27) / Berb. *-*bVIbul*- 'k. of corn food': Ntifa *a-bābul* 'gross boulette faite avec un mélange de pain, de beurre et de farine d'une plante', Tamazight (unspecified) *a-blbul* 'couscous (semoule de maïs ou d'orge)' (NZ 1: 54) / Chad. *(*ma*)*ʔabil*- 'beans': W.: Sura *mbwaalaa* (Jungraithmayr 1963), Geji *ḥāali*, Mangas *ḥāl*, Buli *ḥaal*, Zul *ḥaali* (Cosper 1994: 181); C.: Mandara, Gava *ḥula* 'corn, grain', Zime-Batna *mbiilā* 'haricot' // SA: Cush. **bayl*- 'seed, grain (millet, barley), flour' 5/5: N.: Beja *bilay* 'seed' (Hudson 1996), *bil-tu* 'millet' (Ehret 1980: 321); C.:

et d'abri l'hiver; végétation' (BK I: 1238), Gz. *šāṣr* 'herb, herbage, grass, vegetation, straw, meadow, grassland, pasture' (LGz: 525), Tgr. *saṣarsaṣar-o* 'green' (LH: 194), Amh. *sar* 'grass (either green or dried)' (Kane 1990: 482), Gur.: **saṣar* 'grass' (LGur.: 530), Cha *sārimāsər* 'green' ('like grass' LGur.); Mhr. *šēr* 'straw' (JM: 370) // Chad. (a) **šVr*- '(green) leaf': W.: Hausa *šār* 'emphasizes greenness', Krkr. *šar-am* 'leaves of guinea corn (fresh/dry)', Diri *šār-ka* 'leaf, leaf of cornplant', Bade *šər-ta* 'green'; C.: W. Margi *šal-i*, *šar-i*, Ngwahi *šar-a* 'leaf', Malgwa *šārə-ke* 'green', etc. (CED #876, 876a); (b) **šVr*- 'straw': C.: Bana *širə* 'kind of straw for mats', Mafa *šarac* (< *šara-t*) 'a single straw; part of a mil-stalk left after harvesting', E.: E. Dng. *čóró* 'la paille utilisée pour la confection des palisades' // Cush. N.: Beja *ašr-atta* 'eine lange Grasart' (Reinisch 1895: 33).

²⁷ -ṣ- not attested in other AA branches (note, however, Hona *wuṣəhàrà* where -h- may render ṣ) is explained by Dolgopolsky as the result of contamination, after folk etymology 'barley' — 'hairy', with Sem. **šaṣr*- 'hair', which is quite plausible.

²⁸ There is a series of Eth. and Cush. terms for wheat, probably related to the present root and obviously borrowed either from Eth. into Cush. or vice versa: Gz. *šərnāy*, *sərnāy*, Tna. *sərnay*, Tgr. *šərnay*, *šərnay*, Amh. *sənd-e* (Old Amh. *sərnay*), Arg. *sərray*, Gaf. *sənd-ä* (all in LGz.: 534). Cush.: N.: Beja *šinrāy* (Reinisch 1895: 217); C.: Bil. *šinrāy* (Reinisch 1886: 904); E.: SA: Saho *sinrā* (Ibid.: 904), Afar *sirrāy* id. (ibid.); LEC: Som. *saren* (Abraham 1962: 218). Cf. Ural. **š/šora* 'grain' (Dolgopolsky 2008 #2219).

²⁹ Omot. N.: Mocha *ašāro* '(roasted) barley' (Leslau 1959: 18) is likely from HEC.

Kailiña bāliya ‘barley’ (Appleyard 2006: 28)³⁰; E.: SA: Afar *bulul* ‘flour’, LEC: Orm. *bila* ‘awn’ (Ehret 1980: 321), Konso *pulla* (*p* regularly < **b*) ‘flour made from dried ensete’, Das. *bulle*, HEC: Sid. *bullé*, Had. *bullo*, Brj. *bullā* ‘flour’ (HEC: 65); S. **balay*:- Iraqw *balaang*^w ‘sorghum’ (MQK: 151), Gorowa *bala’angw* ‘millet, sorghum’, Alg. *baluu* ‘millet, corn’, Qwadza *balay-iko* ‘grain (generic)’ (Ehret 1980: 338) [] AADB 1063; cf. EDE II: 270–272 ■ edible pod plants: Arab., Amh.+Copt.+Chad.W., C. (Zime-Batna) ■ barley: Kailin~a ■ millet: Beja, Cush.S. ■ seed: Eg.+Beja ■ flour, corn food: Berb.+Cush.E. ♦ Mandara, Gava+Qwadza.

****ša(m)bar-*** ‘grain of corn or chickpea’ • AA 5/5, NA 5/5, SA 5/4 // NA **šabar-* ‘k. of grain or legume’: Sem. **šxabar-* ‘grain’: Akk. (MB, SB) *šibru* (a type of flour) (CAD š2: 382); Hbr. *šābār* ‘grain’, Sam. *šabru*, *šabrimma* id. (HALOT: 1405f)³¹; Arab. *šubram-* (with fossilized *-m* suffix) ‘espèce de plante dont la graine ressemble aux lentilles’ (BK 1: 1184); (?) Tna. *šəmbəra*, Amh., Arg., Har. *šumbura*, Gur. **šəmbura* ‘chickpea’ (acc. to LGur.: 579, from Cush.) / Berb. **s/šabar* ‘mat made of *a-fəzu*’ (semantically problematic, phonetical correspondences immaculate): Hgr. *é-səbər* ‘natte d’afezu’ (Foucauld 1951–1952), Ayr. E. Wlm. *e-sābār* id. (Alojaly 1980: 169) / Chad. **ʔVbVr-* ‘k. of corn (millet)’ (CED #910; comp. with Hbr.): W. : Hs. *zābraā* ‘millet’; C. Mandara *žébère* ‘ocra’, Malgwa *žəbərə* id., Chuvok (met.) *žərèv* ‘mil sauvage’, Sukun *šyabər* ‘maize’ // SA: Cush. **šimbar-* ‘chickpea’: C.: Bil. *sabbar-ā* ‘Hülsenfrucht’ (Reinisch 1887: 294), Aungi *šəmbər-i* ‘chickpea’ (LGur.: 579); E.: Saho, Afar *sabbar-ē* ‘eine bestimmte Hülsenfrucht’ (Reinisch 1886: 895), LEC: Orm., Das. *šumbur-ā* ‘chickpea’ (LGur.: 579), HEC: Sid., Had., Brj. *šimbur-a* (*-i* speaks against direct borrowing of Orm. *šumbur-ā*) Kmb. *šumbur-a* ‘chickpea’ (HEC: 39), Dullay: Galila *sumburo* ‘Erbse’ [] AADB 2436; Militarev 2002 #13 ■ k. of legume: Arab.+Mandara+Cush.C., E. — millet: Hs., Malgwa, Chuvok ■→ maize: Sukun • Akk., Hbr., Sam.

****hVnt-*** ‘wheat’³² • AA 5/5, NA 5/3, SA 5/5 // NA **hVnt-* ‘wheat; millet; beans’: Sem. **hi/unṭ-* ‘wheat’ 5/5: Akk. (OA, OB on) *uṭṭatu* ‘edible grain (wheat or barley); kernel; grain (a unit of measure)’ (CAD: 349)³³; Ugr. *hṭt*; Hbr. *hittā*; Syr. *heṭṭetā*, Arab. *hintat-* ‘wheat’; Gz. *heṭṭat*, *heṭṭat* ‘grain, seed’ (LGz.: 268; Mhr. *heṭṭāt*, Jib. *hiṭ* ‘food; beans; any cereal’ (JJ:119), Hob. *heṭṭó-ot* ‘grain’ (Nakano 2013: 209), Soq. *hint-əh* ‘froment’ (Leslau 1938: 182) / (?) Chad. W. **hunṭ-*³⁴: Hs. *gundu* ‘k. of short-headed bulrush-millet’ (Bargery 1934: 408), Gera *handimi* ‘beans’ (Kraft), Galambu *āndi* ‘beans’ (Stolbova 1987: 60), Geji *wundi*, Seya *wundu*, Dwot *wəndi* ‘seed’ (Kraft) // SA **ha/u(n)ṭ-* ‘barley/millet > maize/sugar cane/ensete’: Cush. **haṭ(-in-)* ‘barley/millet > maize/sugar cane’ 5/5: E.: LEC: Som. *haḍuḍ* ‘corn, millet, sorghum’ (Abraham 1962: 102), *haḍud* ‘corn, sorghum’ (Dolgopolsky 1973: 222, after Reinisch), HEC: Sid. *hayte* ‘barley’ (HEC: 24), Had. *haat-*, Brj. *haat-oo* ‘roasted grain’ (Sasse 1982: 88) (cf. Brj. *haṭ-*, Kmb. *haṭiid-* ‘to cut crops, reap’ < **haṭ-* (HEC: 46); may originate

³⁰ “may be cognate with Dullay *porto*” (ibid.) — nonsense.

³¹ The interpretation of *šābār* as ‘roughly broken grain’ allegedly from a synonymic verb *šbr* ‘to shatter, smash’ (HALOT: 1402) is a typical scholarly folk etymology (I coined up a term for such cases: “mythetymology”).

³² Cf. PIE **etn-* ‘grain’ (TB).

³³ Also *hunṭu* ‘grain as roasting-ear stage’ (Powell 1988).

³⁴ Reconstruction debatable. As for the dental, cf. “In the weak intervocalic position Chad. **-ṭ-* cannot be reconstructed” (CED: 31). As for Hs. *ḍ*, it is explained in (HSED #1372), as “...emphatic *-ḍ-* influenced by the anlaut laryngeal”, but *ḡ* can hardly be referred to as ‘laryngeal’. It is not yet clear if *ḍ* in Chadic is of “a secondary nature” (CED: fn. 12) or, as in certain cases, continues AA **ṭ*.

from **haṭ-*); S. **ḥaciniya* (<**ḥaṭin-*; AA **t* > W. Rift *-c (Takács 2011: 115); described as ejective affricate [ts'] in MQK: 1; the same as *ç* in our notation): Iraqw *ḥacini* 'stalk of millet or maize', Gorowa *ḥaciini*, Alg. *ḥacini*, Burunge *ḥačiniya* 'stalk of sugar cane' (KM) / Omot. N. **Hunṭ-* 'ensete' (staple food of the Omot. area) 4/5: Wol. *uttā, unčā*, Gamo *ṛucci*, Basketo *uuc*, Zaisse *unča, ṛuuc, uça*, Kf. *ūtō, huuto*, Dizi (Sheko) *ūdū* (-d- <*t) [] AADB 2431; Militarev 2002 #8 ♦ Akk., Gz., MSA+Had., Brj. ■ wheat: Sem. — barley: Sid. — millet: Hs.+Som.+Iraqw ■ beans: Mhr., Jib.+Gera, Galambu ■→ sugar cane: W.Rift ■→ ensete: Omot.N.

ṛillaw-* 'ripe grain (barley or wheat?); sowing; harvesting grain' • AA 5/4, NA 5/5, SA 5/5 // NA **ṛilaw/y-* 'k. of grain': Sem. **ṛil(u)l-* 'ripe grain' 4/5: Akk. (SB) *lillānu* (*lilliannu*) 'grain at its highest growth' (CAD I: 188) (<laylay-an-*, redupl., with -an suffixed? or < Sum. *lillan* 'ripe grain' (PSD)?), *il-tu* 'Häcksel' (AHw), (Ur III, OB) *elūlu* (*elūnu*), a festival in, and eponymic of, the month Elul (CAD e: 136); Hbr. *ṛālūl*, the name of a month Elul, Aug.-Sept.³⁵ (>Aram. >Arab., Gz.) (HALOT 54: < Akk.); Jib. *ṛéli* 'a k. of tall grass' (JJ: 3) / (?) Eg. (Med.) *iny.t* (< if -n- is < *l) 'date seed' / Berb. **ṛill-* 'k. of millet, sorghum' 5/5: Ghdm. *ileli*, Nfs *ill-an*, Zng. *ill-en*, Hgr. *inele* id., etc. (MCB: 268; Aman Iman 2012: 148) / Chad. **ṛilaw-* 'grain; seed, to sow' 4/3: (a) 'corn, grain': W.: Bol. *yala*, Dera *yila* 'corn, grain' (Skinner 1996: 246); E.: Mubi *wèyál* (met.) 'seed' (CLR), Mkk. *ṛulo* 'grain' (Skinner 1996: 117), (b) **IVH-* 'to plant, sow': W.: Kulere *le*, Sha *lyé*, D-B *lehi*; E.: Bdy., Dng. *luw* (Skinner 1996: 246), Mig. *lúwáw* 'to sow' (Jungraithmayr, Adams 1992: 104; Stolbova 2005 #144) // SA **ṛi/alaw-* 'k. of grain (millet/wheat), seed': Cush. **ṛilaw-* '(ripe) grain; millet/sorghum/wheat; seed' 5/5: N.: Beja *alo(y)* 'to seed' (Blažek 2021; Roper 1928) (cf. *óli* 'geröstetes Getreide' (Reinisch 1895: 14), *olli* 'Brei' (Ibid.: 15)); E.: Saho, Afar *ilāū* 'Korn, Getreide, spec. Durra' (Reinisch 1886: 808), LEC: Orm. *alaa* 'gambo di dura dolce' (Sasse 1979: 25, apud Thiene, with a question mark), HEC: Brj. *álo* 'millet' (Sasse 1982: 25), Dullay: Harso *wolalla* 'Sorghum' (AMS: 235); S.: Iraqw *ilaa-ngw* 'grass or harvested wheat bundled for transport', *ṛil-imo* 'grain' (MQK: 178) / Omot. **ṛalw-* ~ **wa(y)l-* 'sow/seed, millet > maize' 5/5: N.: Koyra *allo* 'millet' (Sasse 1982: 25, apud Hayward)³⁶, *ṛayl-* 'sow', Ganjule *wile* 'seed', Mao (Bambeši) *alaale* 'sow' (Bender 2003: 278 with a question mark); S.: Ari, Hamar *uula* 'maize, corn' (Bender 1994: 154) [] AADB 2433. Note Berb.-Chad. and SA (incl. Iraqw) likeness with a special phonetic and semantic ('millet') affinity between P.-Berb. and P.-E. Cush. Cf. Militarev 2002 #10. Cf. Sum. *alal* 'cultivation; field; district, land' (PSD) ♦ Akk., Jib.(?)+Chad.W., E.+Iraqw+Omot.S. ■ seed/sow/plant: Eg.(?)+Chad.W., E.+Beja+P.Omot. ■ wheat: Iraqw — millet, sorghum: Berb.+Cush.E.+Koyra ■→ maize: Omot.S.

dag(in)-* ~ **dí(n)g^w*- 'k. of legume or grain'³⁷ • AA 5/4, NA 5/5, SA 5/4 // NA **dangaw-* ~ **dagw(in)-* 'k. of grain or beans': Sem. **dagan-* 'grain, wheat, haricot' 4/5: Ugr. *dgn* 'grain, wheat' (DUL); Hbr. *dāgān*, Ph.; Eg.-Aram., Jewish Pal. *dgn* 'corn, grain' (HALOT: 214); Soq. *dengo* (met.; < **ding^w-?*) 'haricots' (Leslau 1938: 130) / Eg. (OK) *dḡw* (< **dḡw*) 'kind of grain' (Faulkner 1962: 314; cf. EG V: 502) / Berb. **dagi(n)-* 'k. of legume' 4/4: Zng. *ti-dīgi-d* 'caroube, haricot' (Nicolas 1953: 265) (<ti-dīgi-t*), *a-dgagi* id. (NZ: 303); E. Wlm. *ta-dagin-it* 'Bauhinia rufescens (gousses noires)' (Nicolas 1957: 37) (shrub in the family Fabaceae), Ayr *te-dāngāw-t* 'grenier de céréales' (Alojaly 1980: 24) / Chad. **da/ingw-* 'edible pods (ocra; bean)'

³⁵ The month of harvesting ripe cereals and grasses.

³⁶ The full resemblance with the Brj. form is suspicious of borrowing, but its direction is unclear.

³⁷ The obvious if partial similarity of this and two more AA roots probably allows for a common ancestor root **(ṛa-)da(n)g^w-(al/ir)-* 'k. of legume or corn'.

4/5: W.: Hs. *dangwa-mi* 'a gruel made with the mealy pulp found inside locust-bean pods' (Bargery 1934: 219), Tangale *kānd-ā* (< **gand-*, met. < **dang-*) 'ocra'; C.: Gis. *ʔadiyan* 'bean' (CLR II), Higi-Kamale *ḥdyāgwe* (met.) 'ocra' // SA **dī(n)gaw-*: Cush. C.: Bil. *baldangu-ā*³⁸ 'Bohne, Faba' (Reinisch 1887: 78); E.: SA: Saho *bardangu-ā*, *baldang-ā*³⁹ 'eine bestimmte Bohnengattung' (Reinisch 1890: 86); S.: Iraqw *dīngi* 'grains going bad because of moisture esp. before harvesting' (MQK) / Omot. N.: Dizi (Maji) *dugu* 'seed' (Bender 2003: 216) [] AADB 2428; Cf. Militarev 2002 #6.1, 6.2. Rel. to *(*ʔa-*)*dang(w)al-* 'corn; beans' and **ʔa-da(n)g(w)ir-* 'k. of beans' ♦ Ph., Hbr., Aram.+Eg.+Ayr+Iraqw ■ beans: Soq.+Berb.+Hs., Gis.+Bilin, Saho (?) ■→ ocra: Tangale, Higi-Kamale.

**šam(ʃ)- 'barley'*⁴⁰ • AA 5/5, NA 5/3, SA 5/3 // NA **šamʃ-* 'barley': Sem.: Akk. (OAkk. on) *šamaššammū* (*šamšamū*, redupl.), the principal oleiferous plant, probably flax, and its seed (CAD š1: 301); (cf. lex. *šumamtu* 'parched grain' ibid. š3: 265); (?) Arab. (Moroccan) *ssometa* 'roasted barley coarsely ground' (Wölfel 1965: 501, apud Dozy); Gur. **šāmʷā* 'roasted barley for the preparation of beer' (LGur.: 578: probably from Cushitic) / Eg. (OK) *šmʃy* 'Gerste' (EG IV: 476) / Canar. **a-s/zam-ot-an* 'barley': (Gran Canaria) *azamotan* 'barley', *azamotan* '...pan común y es al presente cebada...', (Lanzarote) *azamotan* 'orge péttrie' (Wölfel 1965: 501) / Chad. C.: Zime-Darya *zūm* 'germinated millet' (used for preparing beer) (Stolbova 2007 #550) // SA: Cush. **šawm-* '(roasted) barley': C.: Qwara *səmo* 'barley'⁴¹ (Appleyard 2006, after Reinisch), Aungi *šumi-ni*; E.: LEC: Orm. *šūmo*, HEC: Kmb. *šāmu-ta*, Had. *šūmoʔo* 'roasted barley' (LGur.: 578) [] AADB 642 ■ barley: Gur.+Eg.+Canar.+Cush.C., E. — millet: Zime-Darya ♦ Akk.

**ʔa-da(n)g(w)ir-* 'k. of beans' • AA 5/5, NA 5/2, SA 5/4 // NA **dagir-* 'k. of beans; millet': Sem. **dagir-* 'k. of beans' 3/5: Syr. *daḡr-ā*; Arab. *diḡr-*, *daḡr-*, *duḡr-* 'haricot'; Mod. Eth. **ʔadagʷara* 'bean'⁴²: Tna. *ʔadagʷəra* 'bean', Tgr. *ʔadungʷəra* 'sorte de haricot; bean', Amh. *adāngʷarre* 'small green bean having a tough integument and long, fringed pods (Phaseolus vulgaris)', Zway *adangura*, Muher *adāngʷarre* 'bean'; Hob. *dijər* 'bean', (Nakano 2013), Mhr. *dēḡir*, pl. *dugur*, Jib. *dəgərāt*, Soq. *digir* 'fèves'⁴³ (DRS: 222) / Chad. E.: Sok. *dagir* 'millet' (HSED: No. 621) 1/5 // SA: Cush. *(*ʔa-*)*da(n)gʷir-* 'k. of beans; millet': C.: Bil., Khmr. *adogur*, Damot, Aungi *adangwari* 'bean' (LGur.: 17); E.: Saho *adagur* 'bean' (Reinisch 1887: 15), LEC: Som. *digir* 'fagioli' (Dizionario Somalo-Italiano 1985: 186) (hardly an Arabism in view of Som. *g* vs. Arab. *ḡ*), Orm. *adungur-i* 'Bohne' (Reinisch 1887: 15) (cf. also *otongor-a* 'beans')

³⁸ Likely a composed word *bal* + *dangʷ-*, the second component referring to the present root. For the first component cf. **bal-* 'bean, grain'.

³⁹ A composed word *bar/l* + *dangu/dang-* obviously related with Bil. *baldangu-ā*, one of the two alw. from the other.

⁴⁰ It is to note that, except the Eg. word, nearly all the other AA terms imply *processed* barley (millet in Chad.) in which connection one wonders if **šVm(ʃ)- 'barley'* could have been derived from **šVʃ-* 'ear (of barley)' (above) with *-m-* former suffix metathetically incorporated into the root in some cases and retained as a suffix in Sam. and Arab. Cf. in both AA roots, **š* and **ʃ* — combination in the same root of one low- and the other medium frequency consonants.

⁴¹ Appleyard explains the Qwara form by metathesis from **səkm-* (see Bil. *səkma*, Khmr. *sekum*, Awiya *sumki* in **čik-am-* 'k. of cereals for sowing') "together with further loss of *k*" which is unimaginable. Mutual C. Cush. — E. Cush. borrowing seems possible.

⁴² Lack of the term in Gz., the **ʔa-* prefix, and a specific meaning in Amh., the only Mod. Eth. language that could have been source for such a broad array of Cush. languages, outweigh in favor of borrowing from Cush.

⁴³ Borrowing in MSA from Arab. is possible.

Gragg 1982: 307), HEC: Sid. *dangur-sa* (-sa < *-ta) 'k. of millet' (HEC: 99) [] AADB 2429; Cf. HSED, No. 621; Militarev 2002 #6.3. Rel., with *-r root extension to *dag(in)- ~ *di(n)g^w- 'k. of legume or grain' ■ k. of beans: Syr., Arab., Mod.Eth, MSA(?) + Cush.: C., E. ■ millet: Sok. + Sid.

***ka(wa)?- 'cereal or bean (seeds; planting and processing)'** • AA 5/4, NA 5/5, SA 5/2 // NA *ka(wa)?- 'seed, corn, bean': Sem. *kaʔ(ak)- ~ *ʔak(ak) 'k. of cereal or bean; ground grain or crumbled drug/bread': Akk. (Oakk. on) *kakkû* (redupl.) 'lentil or small bean' (CAD k: 58), (Oakk, OAss., SB, NA) *kukku* 'a type of bread or cake of characteristic shape' (ibid.: 498), (OB, SB) *kātu*, *kaʔātu*, *gayyātu* 'Graupen' (AHw: 466) (pearl barley); Aram. *ʔakkākā* 'ground or pounded drug' (LGz.: 15); Gz. *ʔakak* 'crumbled bread' (ibid.), Amh. *kākka* 'moudre grossièrement, broyer les grains' (DRS: 1215) / Eg. (old) *k* 'Korn, Getreide' (EG V: 118), (PT) *tʔ* 'Kornchen' (Ibid.: 341) (if < *kV?) / Chad. *kaw/y- 'k. of beans; millet; seed, planting': W.: Hs. *wākē* (met.) 'beans', Sura *kwāa* 'ocra'; C.: Lame-Peve *ikwa* 'seed', Mesme *kaya* 'millet' (Kraft); W. *kVV 'to (trans)plant, set into the ground' (Stolbova 2011 #3) // SA: Cush. E. *kVʔ-t-: LEC: Konso *hóttāa*, Dirayta *hóttāa*, Mashile *hóttā* (all < *ko-t- < *kaw-t) 'seed', Yaaku -keʔ 'to plant' [] AADB 1855 ♦ grain: Eg. ■ seed, sowing, planted plant: Chad.W., Lame-Peve + Cush.E. ■ beans: Akk. + Hs., Sura ■ k. of barley: Akk. — millet: Mesme ■ bread of pounded grain: Akk., Gz., Amh.

***rip-⁴⁴ 'k. of cereals'** • AA 5/4, NA 5/4, SA 5/3 // NA *rayp- 'k. of corn (wheat > guinea corn)': Sem. *rīp- 'abundance of) grain': Hbr. *rīp-ōt* 'corn, grain' (HALOT; meaning debatable); Arab. *rīf*- 'pays cultivé et fertile' (BK 1: 963) / Canar. (Fuerteventura, Lanzarote) **rīf*- 'wheat, grain': *triffa* 'blé, grains', *trifa* 'el grano', 'trigo, grano' (Wölfel 1965: 503) / Chad. *rVp- 'millet': W. *rayp- '(guinea corn) chaff; millet': W.: Mupun *rip* 'chaff', Angas *riip* 'husks, chaff'; Ngz. *rafiwa* 'guinea corn chaff' (cf. Stolbova 2005 #733); C. Higi-Nkafa *ṛupe* 'millet' (Kraft) // SA: Cush. C.: Kem., Quara, Aungi *ərfa* 'maize' (Appleyard 2006) / Omot. N.: Gimirra *erp(u)* 'ensete' (Bender 2003: 167) [] AADB 1079 ■ wheat: Canar. — millet: Chad.W., C. ■ → maize: Cush.C. ■ → ensete: Gimirra.

***mang- 'k. of beans or grain'** • AA 5/4, NA 4/5, SA 5/4 // NA *mang- 'lentils; k. of grain > millet': Sem. *mang- 'lentil': Akk. (SB) *mangu*, an alkaline plant (CAD m1: 211), 'legume, bean, lentil (?)' (Cohen 2011: 123); Arab. *maʔʔ*- 'lentils' (BK 2); Tgr. *mogya* 'a sort of corn' (LGz.: 332)⁴⁵ / Chad. *ma(n)g- 'k. of millet': W.: Angas *māngun* 'millet'; C.: Gis. *magaya*, Mesme *magəyə* id. (less likely < *ma-gay); E.: Tobanga *mōgāy* 'k. of millet' (Caprile 1978), Kera *tə-məŋ* id. (Ebert 1976) // SA: Cush. *ma(n)g- 'millet': E.: Saho *mogog* 'ricino' (castor bean), HEC: Brj. *manʔo* 'millet' (-k instead of the expected *-g); S.: W. Rift *mang(w)*- 'millet': Iraqw, Gorowa *mangwarē* 'red sorghum', Alg. *miingwaʔāara* 'green millet', Bur. *maangwara* 'millet' (KM: 208), (?) Ma'a *magalé* 'maize' [] AADB 1076; Cf. EDE III: 675. Cf. Sum. *imṇaṇa* 'emmer' (PSD) ■ k. of legume: Akk., Arab. + Saho — millet: Chad.W., C., E. + W. Rift ♦ Tgr.

***ḥik-am- 'k. of grain (barley?) for sowing, planting'** • AA 5/3, NA 5/2, SA 5/1 // NA *ḥik-am- 'sowing millet': Sem.: Soq. *ḥkim-oh* 'grain, grain de millet' (Leslau 1938: 429)⁴⁶ / Chad. C. *ḥik- 'to plant, sow': Bura *ḥika* 'to plant', Margi *ḥka* 'to sow, plant',

⁴⁴ There is also Eg. (Gr.) *rfrf* 'k. of corn' (EG II: 416) pointing to *f- but it is late and can hardly be decisive in the choice of this term's first radical.

⁴⁵ Cf. Tna. *magwəya* 'coach grass', Amh., Gur. *muʔʔa* 'wild panic grass' (LGz.: 332; LGur. III: 396).

⁴⁶ Leslau in LGz.: 491 identifies the Soq. term with Gz. *sa/əgam*, Tgr., Tna. *səgām* 'barley' commenting it "probably from Cushitic" (Agaw); both comparisons are strange as 1) neither Gz. *s* corresponds to Soq. *ḥ*-, nor Eth. -g- corresponds to Soq. -k and 2) the Eth. terms cannot be cognate

FK *šəkə* 'sow', Cuvok *mé-šəkēy* 'plant vegetables' (Stolbova 2007 #178) // SA: Cush. C.: **səkm-* 'barley' (Appleyard 2006: 28); Bil. *səkma*, Khmr. *sekum*, Awiya *sumkī* (met.) ■ barley: Cush.C. — millet: Soq.⁴⁷

**ma3/žah-* 'ear of corn' • AA 5/2, NA 5/4, SA 5/1 // NA **ma3/žah-* 'ear of corn': Sem.: Arab. *mazh-* 'épi' (BK 2: 1099) / Eg. (BD) *hmz* 'ear of corn' (EDE III: 533, met. of **mzh*) / Chad. **maž-* 'guinea corn; millet': W.: Bade *mùuž-in* 'guinea corn'; E.: Somrai *maža* 'Negerhirse' (<-ž- or *-ž- ?) // SA: Omot. N.: Kefoid **maž-* 'cereals, grain' [] AADB 3688; EDE III: 532f.

kun(a)č-* 'young corn of emmer' • AA 5/2, NA 5/4, SA 5/1 // NA **kunč-* 'young corn of emmer': Sem. **kun(n)āt-* 'emmer, triticum dicoccum' 4/5: Akk. (from Oakk., OB on) *kunāšu* 'spelt, emmer wheat' (CAD *k*: 536); Aram.: Pal. *kwn̄t*, Syr., Jud. *kūnnatā* (DRS: 1246)⁴⁸ / Chad. **kunč-* (-č in accordance with CED: 34) 'young corn' 5/5: W.: Ngamo *kunšō*, Bol. *kunšo*, Krkr. *kunčau* (Stolbova 2011 #241b, erroneously derived <kVn-* '(the youngest) son'); C.: Log. *kánsē* (Lukas 1936) // SA: Omot. N. (met.): Mao (Hozo) *aŋkiši*, *ankiša*, (Sezo) *aŋkiši* 'ensete' (Bender 2003: 275; **k* > Mao *k/k* ibid.: 291) [] AADB 3728 ■ emmer: Akk., Aram. ♦ Chad. ■ → ensete: Mao.

biṭ(-n)-* 'emmer' • AA 4/5, NA 5/5, SA 4/4 // NA **biṭ-* 'emmer': Sem. (a) **buṭn/m-* 'terebinth, *Pistacia terebinthus*' 4/5⁴⁹ (LGz.: 114; SED online **buṭm-at-*): Akk. *buṭnu* (in CAD *b*: 359: *buṭuttu*, *buṭūtu*, *buṭuntu*, *buṭumtu*); Hbr. *baṭn-īm*; Aram.: Syr. *būtmā*; Arab *buṭm-*, etc. (b) Akk. (NB) *buṭuttu* (a cereal), (Mari, MB, SB) *buṭuttu* (a cereal preparation used in making bread) (CAD *b*: 360), 'husked emmer' (Veldhuis 2004) / Eg. (PT) *bd.t* (*d* regularly corresponds to AA **t*) 'Art Weizen: Emmer, Spelt' (EG I: 486-7) / Chad. W.: Hs. *bīlīf* (possibly <biṭ-* <**biṭ-*: v. CED: 31) 'grainless bulrush millet' (Abraham 1965), D-B *vaat* (<**abat*, v. CED: 30) 'Getreidesorte' (Junggraithmayr 1970: 222), Bol. *buḍu* 'flour' (Ehret 1979); C.: Hitk. *mbuḍu*⁵⁰ 'Pennisetum typhoideum, mil' (Egguchi 1971: 219) // SA **biṭ-* 'seed': Cush. E.: LEC: Arb. *bāḍo* 'seed prepared for sowing' (likely < Omot.), (?) Dullay: Gawwata *poḍaḥo* 'seed' (< Ong. *baḍaḥo*?) / Omot. **biṭ-* 'seed' 5/5: N.: Karo *ṗeta* (Bender 2003: 216), Oyda *budic* (<**bud-it-*; -*d* can continue *-*d* <**t*), Zergulla *bičetta* 'seed' (Blažek 2008 #74.2) (<**biṭ-et-*), Kf. *būdō* 'auf einer heißen Eisenplatte geröstetes Korn' (Reinisch 1888: 270), Bw. *buuḍḍā* 'Mehl' (Lamberti 1993: 281); S.: Ari *ṗeta*, *ḅeta*, Banna, Galila, Hamar *beta* (likely < **bVṭ-*: acc. to Bender 2003: 229, **t* can yield *t* in Aroid) 'seed', (?) Ong. *baḍaḥo*, *bodoḥo* 'seed' (Fleming 2006) (-*h*/*ḅ*- is not etymological) [] AADB 3987; Cf. EDE II 356f: (Eg., Arb., Kf., Hitk.) ■ emmer: Akk.+Eg.+Hs., Hitk. ■ → millet: Chad. ■ seed: Cush.E.(?)+Omot.N., S. ■ → terebinth: Sem. ♦ D-B+Kf.

with the Soq. one and at the same time be loans from C. Cush. However, certain similarity plus the same meaning as in the latter makes you wonder if it can be an Agaw borrowing that changed by analogy (contamination) with Gz. *sagam* 'arrow' with the comment "the arrow having a tip like the barley" (ibid.), but implying a reverse influence.

⁴⁷ In spite of scanty lexical evidence, the full coincidence of triconsonantal roots can hardly be accidental.

⁴⁸ In spite of identical vocalic structure, Akk. loan in Aram. is hard to imagine: it would have rendered -š not -t in the latter.

⁴⁹ Though stigmatized as "perfectly false" by Takács (EDE II: 356), there is nothing inappropriate in comparing the term for pistachios, the fruit the size of a pea, with the terms for emmer grains or corn to say nothing of Akk. *buṭuttu* (a cereal) and 'husked emmer'. As for pistachio itself, comparative population genomic analyses revealed that pistachio was domesticated about 8000 years ago (Zeng et al. 2019).

⁵⁰ The possibility of Chad. *ḍ* (rendering in Stolbova's recent publications by *d*) reflecting AA **t* confirmed by several examples is still debatable.

**ziw*- ~ **zi3*- ‘emmer’ • AA 4/5, NA 5/5, SA 3/1 // NA **ziw*- ~ **zi3*- ‘emmer’: Sem. **ziw*(z)-‘emmer’: Akk. (OB, Mari) *zīzu* ‘emmer’ (Black et al. 2000; AHw: 1534; considered a loan from Sum. *zīz*); Hbr. *ziw*⁵¹ ‘month of blossom’ (HALOT: < Akk.)⁵² / Eg. (PT) *zw.t* ‘Weizen’ (EG III: 426) / Berb.-Canar. **wizz*- (met.) ‘(plantation of) barley or wheat’: Nfs *ēzza* ‘semer’ (MCB: 275), lzd., Ait Atta *t-uzzu-t*, pl. *t-uzzu-tin* ‘planting; plantation, grove, orchard’, Qbl. (Irjen) *t-uzu-t* ‘plantation’, etc. (Aman Iman 2012: 124); Canar. (Fuerteventura) *t-ezzes-es* (with a Spanish pl. ending) ‘cebada o trigo’ (Wölfel 1965) / Chad. **zVw/y*- ‘guinea corn, sorghum’: W.: Wrj *zuu-na*, Miya, Kar *zu*, Mburku *žuu*, Tsagu *zu-n* ‘guinea corn, sorghum’, Bol. *zāyya* ‘coarse tuwo’, Ngm *zūwē* ‘gruel’ (cf. also C.: Ould *zāzay* ‘grains flowing from a torn sack’) (CED #797) // SA: Cush. E.: HEC: Kmb. *oze* ‘grain, cereal’ (HEC: 72) [] AADB 766; Cf. EDE I: 181, III: 533. Cf. Sum. *ziz* ‘emmer wheat’ (PSD), *zīz* ‘emmer, emmer flour’ (EDS) ■ emmer: Akk.+Eg.+Canar.(?) — sorghum: Chad.W. ♦ Gur. ♦ Kmb.

**zawiċ*- ~ **ċawi*?- ‘k. of grain (barley or wheat?)’ • AA 4/5, NA 5/5, SA 3/1 // NA **zaw/yċ*- ~ **ċa/iw*- ‘k. of cereal > sorghum, guinea corn > rice/maize’: Sem. **zaw/yš*:- Akk. (Emar) *tu-waššu* (a bread) (CAD t: 499)⁵³; Hrs. *zāš* ‘rice’⁵⁴ (Johnstone 1977: 13), Mhr. *zāš* id. (JM: 38), ‘fremdländischer Mais, Mais körner’ (Jahn 1902), *zāyš* ‘cereal’ (JM: 501), *zēš* ‘maize, sorghum’⁵⁵ (Nakano 1986 #152), *zēš* ‘to sprout’ (ibid. #802), Hob. *zāyš* ‘grain (of sorghum)’, *zūš* ‘to sprout’ (Nakano 2013) / Eg. (MK) *šww* ‘an edible vegetable’ (Faulkner 1962: 263) / Chad. (a) **ċVw*-⁵⁶ ‘guinea corn; cereals’ (CED #832) 5/5: W.: Angas *šwee* ‘guinea corn’, (Foulkes 1915), Sura *šwáa* ‘Mais, Guineakorn’, Montol, Gerka, Goe. *sua*, Siri *šawi*, etc.; C.: Bura *m-šī*^, etc.; E.: Kera *kāa-sāw* ‘Hirse, mil’, Mig. *ċīwwá* ‘gros mil (sorgho) sp.’, (b) **ċVy/w*- ‘to harvest corn (with a sickle)’ (CED #827b)⁵⁷ // SA: Cush. **zayċ*- ~ **ċay*?- (?): C.: Kem. *ašī* ‘moissonner, couper le blé?’ (Conti Rossini 1912: 171); S.: Alg., Burunge *ċee?-etaa* ‘dish of maize and beans’ (KM: 281) [] AADB 1231. Cf. Sum.⁵⁸ *aš* ‘bread; a flour’, *eš* ‘a flour’, *eša* ‘a fine flour’ (PSD), *áš* ‘emmer wheat’ (EDS). Cf. PECauc. **čwV?* ‘grain, hay’ (Militarev, Starostin 1984) ■ k. of cereals→ sorghum/millet→ maize: MSA +Chad.

⁵¹ “Old Canaanite name of the second month, month when wheat ripens” (Diakonoff 1981: 46).

⁵² Cf. Gur.: Muher, Masqan *zāzāññā* ‘k. of grass’ (LGur.: 719).

⁵³ Bread in Mesopotamia was made of barley or wheat.

⁵⁴ With a late meaning shift, of course.

⁵⁵ ...in many areas of Africa, much of the traditional African agricultural complex — centered on such crops as millet — has been displaced by maize (The Natural History of Maize | Encyclopedia.com).

⁵⁶ In recent publications, Stolbova renders *ċ* as *t*-, but I will stick to the notation adopted in modern AA studies.

⁵⁷ Stolbova relates this root with **ċV* ‘to cut (off, through), to slaughter’.

⁵⁸ The numerous parallels from Sumerian quoted in the present article, at least a considerable part of them, cannot be accidental. The author interprets them as borrowings from Afrasian, or rather from its non-extant branch, which served as a substrate for Sumerian (Militarev 1995), confirming his hypothesis about the ancestral homeland of the Afrasians in Western Asia. As I. Diakonoff put it, “we are talking about the borrowing not from Semitic languages, ...but from the language or languages that had already separated from the Common Afrasian, but still inhabited the West Asian territory” (Diakonoff 1996). Accepting in principle this hypothesis first formulated in Militarev (1984), Blažek and Boisson (1992) adduce numerous parallels from different Old World languages, the result of the spread of agricultural skills and related terms which the authors considering “some... of them... likely to be of Sumerian origin, although Sumerian itself may have borrowed some of them from Afrasian...” (p. 16), adding “Militarev’s studies have been particularly useful for the Afrasian evidence”.

***g(ʷ)i/ar- ~ *garga/ir- ‘edible pod plants, legume; k. of grain, seed’** • AA 4/5, NA 5/4, SA 4/2 // NA: Sem. *gargir- ‘k. of legume; grain’ 4/4: Hbr. *gērā* ‘carob seed’ (HALOT: 200), pB. *gargēr* ‘berry, grain’ (Ja.: 265); Jud. Aram. *gargēr-ā* id. (ibid.), Arab. *ḡarḡar-*, *ḡirḡir-* ‘fève’ (BK 1: 275); Gur. *gangir- ‘bread made of barley’ (cf. LGur.: 284) / Berb. *g(ʷ)ar(ir) ‘pod’ 4/3: Ayr, E. Wlm. *a-ggar* ‘fruit de taggart, tan’ (Alojaly 1980: 57), Hgr. *a-ḡḡar* ‘gousse rempli de graines pas comestible (servent à tanner les peaux)’ (Foucauld 1951–1952: 478), Qbl. (A. Mang.) *ta-ḡḡirt* ‘papillonacée à petites gousses comestibles’ (Dallet 1982: 271) / Chad. *gʷar-/ *gyVr- ‘millet; bean, ocre’ 5/5: W.: Hs. *guro* ‘okra’, *gērō* ‘bulrush millet’ (Abraham 1965: 315, 346), Sura *ḡr* ‘overgrown millet’, Angas *ḡor* ‘seed sp.’, *girm* ‘beans’ (Kraft), Dera *gerō* ‘millet’ (Kraft; < Hs.), Sayanchi *gyoro* ‘millet’ (Kraft); C. *n-/a-gi/ur- ‘bean’: Dghw. *ḡgrē* (CLR: 11), Mandara *giire* (ibid.), Glv. *àḡarà* (Rp), Gdf. *ḡḡrē* (CLR: 11), Gava *ḡḡrie* (Kraft); E.: Somray, Jegu *giri* ‘bean’ (HSED #933) // SA: Cush. E.: LEC: Orm. *garii* ‘seed’ (Gragg 1982: 169); Dullay: Tsamay *gore* id. [] AADB 2438; Militarev 2002 #7. Probably rel. to *gawr- ‘arable land, tilling’, *(ʔV-)gʷar- ‘harvesting’. Cf. Sum. *gargar* ‘a bread or pastry’ (PSD) ■ k. of legume: Sem.: Hbr., Aram., Arab.+Berb.+Chad.W., C., E. ♦ pB.Hbr., Aram.Jud.+Ayr, E.Wlm.

***kways- ‘k. of cereal or leguminous plant’** • AA 4/4, NA 5/3, SA 3/3 // NA *ki/asw- ‘k. of legume or millet’: Sem. *kiš- ‘k. of legume’⁵⁹: Akk. (OA, OB on) *kišš-anu* ‘a leguminous plant’ (CAD k: 456); Amh. *kwəšay* ‘lin’ (DRS: 1290) (?) / Chad. *kasw- ‘k. of guinea corn’: W.: Hs. *kásàawà* ‘type of guinea-corn’, *kas* (Kraft), Angas, Sura *kàs* ‘guinea corn’, Mupun *kàs*, Mushere *kas* ‘millet’; C.: Musgu *kúsukusu* ‘k. of groats’; E.: Lele *kāsā* ‘céréales et autres plantes vivrières’ (Stolbova 2011 #122) // SA *ka/is-: Cush. S.: Iraqw *kasiis* ‘potatoes, sweet potatoes’ (meaning shift) (MQK: 60) / Omot. N.: Yemsa *kusa* ‘varieta di orzo’ (Lamberti 1993: 315), ‘tef’ Mao (Hozo) *keci*, (Sezo) *kési* id. (Bender 2003: 280) [] AADB 4260. Probably rel. to *kwas- ‘cultivation of land (hoeing, planting, harvesting)’ ■ leguminous plant: Akk. — guinea corn: Chad. ■→ potatoes: Iraqw ■→ teff: Yemsa, Mao.

***hawr- ‘k. of grain, granary’** • AA 4/4, NA 3/3, SA 5/2 // NA: Sem.: Akk. (SB) *arû* ‘granary, storehouse’ (CAD a2: 313); Arab. *hur-an-* ‘grenier, magasin aux grains’ (BK 2: 1416), *hurhūr-* ‘pepins tombés par terre’ (ibid.) / Berb. *Hawr-an ‘flour, meal’: Siwa *ar-en*, Ghdm. *aber-n*, Awjila (*a*)*bru-n*, Izayan *ar-n*, Shawiya *ar-en*, Qbl. *awr-en* (MCB; cf. Kossmann 1999: 92); Canar.: Ten. *a-hor-en* ‘farine d’orge rôti’ (Wölfel 1965: 516) // Cush. C.: Beja *harro* ‘durra’ (Ehret 1979: 168); C. *ar ‘durra’ (ibid.), *ʔār- ‘grain, cereal’: Bil. *ʔār*, Khamta, Kemant *ar*, Aungi *ári* (Appleyard 2006: 77; comp. with Beja *harro* ‘millet’; also Reinisch 1887: 44). Rel. to *hawir- ‘k. of farmland (hard to cultivate)?’ ■ granary: Akk.+Arab. ■ (barley) flour: Berb.+Canar. ■ millet, durra: Beja+Agaw.

⁵⁹ Note similarly looking Ugr. *ksm*, *kšm* and Hbr. *kussām-āt* ‘spelt’ (< AA *kucam-) which can be a variant root or derived from PSem. *ksm ‘to trim’ as suggested in Kogan 2015: 296, accompanying this suggestion with the following reasoning (fn. 843): “This semantic derivation is paralleled by Latin *spelta* (> French *épeautre*, English *spelt*), borrowed from a non-attested early Germanic source eventually going back to PIE *spel- ‘to cut, to split’... One wonders, furthermore, whether Sumerian *ziz* ‘spelt’ could be borrowed from Akk. *zīzu* with the same meaning, which, in its turn, can be regularly derived from *zāzu* ‘to divide, to separate’”. This is rather what I call a ‘scholarly folk etymology’ or ‘mythetymology’ — a trap that those comparativists typically fall into who on principle ignore lexical comparison of a deeper level, in our case Afrasian: many of the Semitic terms provided by Kogan’s stigmata ‘no etymology’ or ‘origin is uncertain’, are reliably etymologized from other Afrasian languages — exactly as in this case (see *ziw- ~ *zi3- ‘k. of cereal, emmer’).

***(ʔa-)dang(w)al- ‘corn; beans’** • AA 3/4, NA 2/4, SA 5/3 // NA **dangʷal-* ‘corn or bean; k. of consumable plants’: Sem. Eth. *(ʔa-)dangʷal- ‘k. of corn or beans’⁶⁰: Gz. *dəlgʷəm-ā* (met. and the fossilized -m- suffix) ‘porridge’ (LGz.: 131), Tna. *dəggāl-a* ‘a sort of corn growing wild, Eleusine aegyptiaca’ (LH: 385), Tgr. *ʔädəngāl* ‘bean(s)’, *ʔädəggāl-a*, *dəggāl-a* (poet.) (LH: 384), Amh. *dəlgʷām* (met.; < Gz. or vice versa?) ‘a variety of sorghum’ (LGz.: 131), Har. *dāngull-e* ‘pea’ (Leslau 1963: 57) (< Orm.?) / Chad. **da(n)gʷal-* ‘k. of consumable plants’⁶¹: W.: Hs. *dagale* ‘a drink made from pods of locust bean’ (Abraham 1965: 168), Krkr. *dəgwəl-i* ‘gruel’ (Kraft); C.: Mada *édīngəl* ‘tige de mil (dont on a coupé l’épi)’ (Barreteau, Brunet 2000: 93); E.: Mig. *dəgàlāaw-é* (met.) ‘noix de palmeir doum’ (Jungraithmayr, Adams 1992: 76), Bdy. *dògólògól* (redupl.) ‘raisin sauvage de goût acide’ (Jungraithmayr, Alio 1989) // SA: Cush. *(ʔa-)dangʷal- ‘k. of bean’: C.: Bil. *adāngʷal* ‘bean’ (LGur.: 17), ‘Bohne’ (Reinisch 1887: 15), *adagal-ā* ‘eine essbare Pflanzensorte’ (ibid.); E.: LEC: Orm. *daangull-e* ‘bean’ (LGur.: 17) [] AADB 2430; Cf. Militarev 2002 #6.4. Rel. with -l root extension to **dag(in)-* ~ **dī(n)gʷ-* ‘k. of legume or grain’ ■ k. of beans: Tgr., Har. (?) + Hs. + Bil. + Orm. ■ millet: Amh. + Mada ■ Eleusine aegyptiaca: Tna. ■ → k. of nut: Mig. ■ → wild raisin: Bdy.

***biʔ-1 ‘grain ripe enough to be processed’** • AA 3/3, NA 4/3, SA 3/2 // NA **ʔab-* ~ **biʔ-* ‘k. of (ripe) corn’: Sem. **ʔabib-* ‘ear of ripe corn; flour product’: Ph. *ʔbb* ‘ear of corn’ (Tombback 1978: 28), Hbr. *ʔāb-b* ‘ears (of corn) already ripe, but still soft’ (HALOT: 4)⁶²; Aram. Jud. *ʔabbēb* ‘to make ripen’ (Ibid.: 2); Hob. *ʔabyā-at* ‘dough’ / Eg. (Med.) *by.t* ‘Brotfladen’ (EG I: 433) (cf. *īwb.t* ‘Art Brot’ (Ibid.: 51))⁶³ / Chad. C: Gulfei, Afade *bio*, Kuseri *bio* ‘millet’ (HSED #271) // SA 3/5: Cush. N.: Beja *bʔi* ‘Mehl’ (Reinisch 1895: 38); E.: LEC: Orm. *boobee* (redupl.) ‘k. of sorghum’ (Gragg 1982), HEC: Brj. *bóoya* ‘a type of flour’ (Sasse 1982: 40). [] Likely rel. to **biʔ-2* ‘to harvest, reap’ ♦ Ph., Hbr. ■ millet, sorghum: Chad.C.+Orm. ■ flour product: Hob.+Eg.+Beja+Brj.

***pary- ‘fruit, corn, seed’**⁶⁴ • AA 3/3, NA 3/5, SA 2/2 // SA **pary-* ‘fruit, grain’: Sem. ⁶⁵ (a) **pVry-* ‘fruit’ 5/5: Ugr. *pr* ‘fruit’ (DUL: 678); Ph. *pr*, Hbr. *pārī* ‘fruit’ (HALOT: 967, 963); Syr. *pe(ʔ)rā* ‘fructus’ (Brock.: 555); Gz., Tgr., Amh. *ʔərə*, Tna. *ʔərə*, Har. *ʔəri* ‘fruit’; Jib. *frēt* ‘unripe fruit’ (JJ: 59), (b) **pry* ‘bear fruit, be ripe’: Hbr. *pry* ‘to bear fruit’ (HALOT: 963); Syr. *pri* ‘fertilis fuit’ (Brock.: 596), Mnd. *pra*; Gz. *faraya* (LGz.: 167), Tgr. *fāra*, Tna. *färäyā*, Amh. *afārra* ‘to bear fruit’; Jib. *efré* ‘to become ripe, to ripen’ (JJ: 62) / Eg. (OK) *pr.t* ‘fruit, crop, seed’, ‘Saatkorn’ (EG I: 530) / Berb.-Canar.

⁶⁰ Lack of cognates with *-l- in the base in other Sem. guarantees borrowing from Cushitic, while at the same time confirming the same direction of borrowing in the case of **ʔa-da(n)gʷ(ʷ)ir-*. Some connection between all the examples that may be conditionally combined into **(ʔa-)da(n)gʷ(-al/ir)-* is obvious, but the nature of this connection is unclear. That the whole combination goes back to PAA level is evident from the examples other than Arab., Eth. (the only languages that can be suspected to be sources of borrowing in this or that Cush. language) and Cush.

⁶¹ Cf. also **dankʷgali* ‘sweet potato’, probably related to this root: W.: Hausa *dānkālī*, Ngamo *dənkəli*, Ngz. *dənkəli*, Bade *dāngālīn*, C.: Pidlimbi *dənkəli*, Bura *dəngāli*, Margi *dānkali* (and *dənkəri*), Gudu *dānkāli*, Bnn. *dankalina* (Kraft).

⁶² Compared with Arab. *ʔabb-* ‘grass for cattle’, Safaitic ‘meadow’ (ibid.).

⁶³ Egyptian bread was made almost exclusively from emmer wheat (Bunson 2012).

⁶⁴ For some of the Sem. and part of Cush. forms it is hard to decide whether to relate them to this Afras. root or to **fur-* ‘flower, leaf, grass’. Cf. EDE II: 459 and Stolbova 2019 #385 **fu/ir-* ‘flower’. Cf. PIE **pūr-* ‘wheat, spelt’ (TB), **pūro* ‘corn, grain’, Alt. **pcuri* ‘seed, fruit’ (Dolgopolsky 2008 #1761).

⁶⁵ Cf. SED online.

**far* (*far*)- 'ear of corn, grain': Hgr. *ta-feffar-at* 'épi de céréale', E. Wlm. *ti-feffurā-tin* 'épi' (redupl.), Rif *afarfur* 'couscous de sorgho' (Dolgopolsky 2008 #1761); Canar.: Ten. *afaro* 'grano', *ofaro* 'grain' (Wölfel 1965: 502) / Chad. W.: Hs. *fārfārā* (redupl.) 'early type of guinea corn' (Abraham 1965: 253) // SA: Cush. (likely, < Eth.) N.: Beja *far* 'flower, blossom, bloom, seed' (note, however, -a- vs. -ə < *-i- in Eth.); C.: Bil. *fir*, Khmr., Qwara, etc. *fira* 'fruit', Kem. *fir* 'corn' (note a different meaning absent in Eth.); E.: Saho *fire* 'flowers, fruit', LEC: Orm. *firi* 'fruit' [] AADB 1095; Cf. EDE II: 459 ■ fruit: Sem.+Eg.+(?)Cush.C.+Saho, Orm. ■ sorghum, guinea corn: Rif+Hs. ♦ grain, crop: Eg.+Tuareg, Canar.+Kemant.

**mawiç*- 'straw, grass, barley' • AA 3/3, NA 3/3, SA 1/1 // NA **mawiç*- 'straw, grass, barley': Sem.: Akk. (SB) *umšatu* (a grass or reed)⁶⁶ (CAD u: 136); Arab. *mawš*- 'straw' / Berb. **ti-mzi-n* 'barley'⁶⁷: Siwa *tu-mze-n*, Qbl., Ntifa, Mzab, Wargla *ti-mzi-n*, Nfs. *tə-mzi-n*, etc. (Wölfel 1965: 500; Aman Iman 2012); Canar. (Lanzarote, Fuerteventura, Gran Canaria) *ta-moz-en*, *ta-moc-en*, *ta-moss-en* (Wölfel 1965: 500)⁶⁸ / Chad. C. **masa* < **maç-a*⁶⁹ 'grass, straw': Glv. *māsā*, Gdf. *masa*, Gav. *məsā*, Nak *masa* (all Kraft) // SA: Omot. N.: Kf. *moço* 'Grass', Anf. *mə:çə* id., Bw. *moço-koŷi* 'Grün' (Lamberti 1993: 349) [] AADB 1100 ■ grass, straw: Akk., Arab.+Chad.C.+Omot.N. ■→ barley: Berb.-Canar.

*(*ʔa*-)*zam-ar*- '(harvesting) corn or beans'⁷⁰ • AA --, NA 5/4, SA -- // NA: Sem.: Tna. *ʔazmāra* 'beginning of the rainy season, harvest', Amh. *azmāra* 'agricultural activities (seeding, harvesting)', Gur. **azmara* 'harvest' (LGur.: 121) / Berb. **-zamar*- 'ear of corn': Hgr. *ta-hammar-t*, Ghat *ta-žəmar-t* 'épi' (Prasse 1969: 58) / Chad. (a) **zVm*- 'guinea corn': W.: Bol *nzeemo* 'unripe guinea corn heads'; C.: Bach. *zumwe* 'guinea corn, sorghum', Gis. *zəmay* 'yellow millet' (Stolbova 2009 #495), (b) **zVm*- 'beans': W.: Wrj *zāmānā*, Siri *zāmī*, Paa *žəma*, Kar, Mbu *zām*, Jmb *žamay*, Bogh. *šāam*, Wang *sām*, Zaar *zam*, Guus *zāam* (Ibid. #498) [] AADB 3553 ■ guinea corn: Bol., Bach., Gis. — beans: Chad.W. ♦ Hgr., Ghat.

**diç/šar*- 'k. of cereal (oat?)' • AA --, NA 5/3, SA -- // NA: Sem. **diš/šar*- 'oat' 5/5: Akk. (YB) *dišarr-u* 'Hafer' (AHw), (lex.) a wild-growing cereal (CAD d: 160); Jud.-Pal. *dišr-ā*, Syr. *dešr-ā*, *dūšr-a*; Arab. *daws/šar*- (DRS) / Eg. (OK, Med.) *dšr* 'Art Korn' (EG IV: 491) (hardly < *dšr* 'red') [] AADB 1856.

**duhan*- 'k. of cereal' • AA --, NA 5/3, SA -- // NA: Sem. **duhn*- 'millet, sorghum' 5/5: Akk. *duhnu*; Hbr. *dōhan*; Aram.: Syr. *duhnā*; Arab. *duhn*- (SED online) / Chad. **dayu/in*-⁷¹ 'k. of corn, sorghum' 3/5: W.: Angas *tang* 'corn' (HSED #620) (< **dang*-, met < **dayn*); C.: Matakam *dawn* 'corn' (Kr: N 220) (< **dayun*?); E.: Bdy. *digin-o* 'sorgho' (Jungraithmayr, Alio 1989) [] AADB 1075 ■ sorghum: Sem.+Bdy. ♦ Angas, Matakam.

⁶⁶ Compared with Chad. **hVmVs*- (< **hVmVts*-) 'grass for roofs, thatch' (Stolbova 2019 #206); the Akk. term is much more likely related to Arab. *mawš*- having no pharyngeal in the root and thus cannot be related with Chad. **hVmVç*- (while the latter, in its turn, cannot be related with Eg. *hms* 'die Kornähre' (ibid.) as AA **ç* corresponds to Eg. *ḏ* (*ḏ*), not *s*).

⁶⁷ Cf. PWCauc. *(*ma*)*c*'ə 'millet' (Militarev, Starostin 1984 #4.6).

⁶⁸ Various records reflect the various recorder's efforts to convey *z*.

⁶⁹ Acc. to CED: 35, *-ç- in C. Chad. > *s* in intervocalic position.

⁷⁰ Cf. met. **mVr3*- '(harvesting by) a sickle/knife' AADB 3553 // NA: Sem.: Arab. *mrz* 'cueillir, enlever' (BK 1: 1089) / Eg. (PT) *mz* 'Messer' (EG II: 31; cf. EDE I: 176f) / Berb. **-mariz* 'faucille à dents': Hgr. *a-mrəh*, E. Wlm. *a-mrəz*, *a-mariz* (Prasse 1969: 81) [] Cf. EDE III: 98-99.

⁷¹ On the correspondence of Chad. **y* to Sem. **h* and the reflexes of **-y* in Chad. languages see CED: 40f; comparison of the Chad. terms quoted (except Matakam) with Sem. **dagan*- (below) is also possible.

***hay- ‘kind of cereal’** • AA --, NA 5/3, SA -- // Eg. (OK) *ihy* ‘Getreide’ (EG I: 118) / Chad. **h(a)y-*/**h/uh(a)y-* ‘kind of corn (guinea corn)’: W.: Ngamo *hài* ‘guinea corn, grain’ (general name for millet and sorghum), Fier, Bks. *hay* ‘Guineakorn’; C.: Margi *ùhyi* ‘guinea corn’, Chibak *wuhi*, FK *hà* ‘guinea corn, sorghum’, Malgwa *hiye* ‘corn, sorgho’, etc. [] AADB 1105; Stolbova 2019 #97.

***rid/ṭ- ‘wheat; beans’** • AA --, NA 5/3, SA -- // NA **rid/ṭ-* ‘wheat; beans’: Berb. **i-rVd/ḍ-an* (pl.) ‘wheat’⁷² (<**i-riṭ-en*) 5/5: Izd. *ird*, pl. *irden*, Ntifa, Seghrouchen, Nfs, Mzab, Qbl., Tuareg *irden*, Shawiya, Warsenis, Chenoua, Menacer *irden*, Siwa, Ghdm. *iarden*, Hgr. *êred* (coll.), Targui dialect, Djanet, Tassili n’Ajjir *ert* (sic!) (Aman Iman 2012: 149); Canar.: Ten. *irichen* ‘wheat’, *irichen*, *trichen* (<**t-riṭ-en*)⁷³ (another recorded variant, *triguen* ‘wheat’ is obviously < Spanish ‘trigo’) (Wölfel 1965: 499) / Chad. (a) **rid/ḍ(w)*⁷⁴ ‘beans’: W.: Diri *ariṣu*, Ngz. *riiduwà*, *árduwà* ‘beans’; C.: Lame *redé*, Bnn. *liḍna*, Peve *ried* id., Zime-Batna *rēdē* ‘haricot’, Zime-Darya *réḍ* id. (Stolbova 2005 #770); (b) **rVd-* ‘to glean, pick up’: W.: Tangale *rwadē* ‘pick up and eat grain’, Paa *riḍàà* ‘glean (e. g. groundnuts)’ (cf. Stolbova 2005 #751); (c) **rVHVd-* ‘to grind corn’: W.: Hs. *re’edaa* ‘grind to flour’, Gwn **rd* ‘grind’, Paa *tə-rḍà*⁷⁵ id.; E.: Kwang *e’r ḍē* ‘grind’ (CED #657)⁷⁶, also ibid #766 ‘granary’ and #751 **rVd-* ‘glean, pick up’; #748 **rVd-* ‘to grind corn’; (d) E. **ṽr(V)d-* ‘granary’: W. Dng. *ùrdè* ‘grenier à mil’, Bdy. *ṽúrḍe*, Toram *ṽúrde* ‘grenier’ (Ibid. 2005 #766) [] AADB 4086.

Flax (4 entries)

***fit(V)t- ~ *fawt- ‘flax > cotton’⁷⁷ > tissue, cloth** • AA 3/4, NA 4/4, SA 3/3 // NA: Sem.: Akk. (OB, Mari, MB, NB) *patinnu* (*patīnu*, *patannu*) ‘an article of clothing, perhaps a sash or head dress’ (CAD p: 276), (NA) *pitūtu* ‘eine Kopfbinde’ (AHw), ‘head band, diadem’ (CAD p: 448) / Eg. (MK) *ftt* ‘lint’ (Foulkner 1962: 99), (Med.)

⁷² Acc. to Aman Iman 2012: 149, “the name *irden* is generic, with a vast range, from Siwa to the Canaries; there is no evidence that allows us to determine the etymology; the foreign name which is closest is Latin *hordeum* but this refers to barley (not wheat)”. The Chadic parallels seem to point to a more tenable AA origin of the Berb.-Canar. term than borrowing of Latin ‘hordeum’, ‘trigo’, and the like.

⁷³ Berb. *d/ṭ(t)* — which continue AA *ṭ — does not palatalize in Berb. The seemingly odd correspondence of Ten. *ch* [č] to Berb. **d/ṭ* in this case can be explained: in Ten. *ṭ gets palatalized into č (not always, conditions unclear), cf. (1) Ten. *achmayex*, *achmayec*, *atmayc* ‘la madre’ (Wölfel 1965: 365, 407), to analyze as *at/č-may-(e)ka* <**at-may-ek* ‘(the) mother-our’; (2) Ten. *chamato* ‘mujer’, ‘a woman’ (Wölfel 1965: 406) to analyze as *ča-mat-* <**ta-mat-* (rel. to Berb.: Sokna *ta-mētt-ūt*, Ghdm. *ta-meṭ*, Ghat, Hgr. *ta-məṭ*, Izd *ta-məṭṭ-ut*, Qbl. *ta-məṭṭ-ut*, etc. (< AA **mat-* ‘woman, vagina’). (Militarev 2020a). Therefore, the common Berb.-Can. (or borrowed in Ten. from Berb. — see Militarev 2020b #5.1) form **i-rVd/ḍ-an* (pl.) ‘wheat’ > Ten. **iriṭ-en* > *ir(i)t-en* > *irč-en*.

⁷⁴ As *d* is not reconstructed by Stolbova as a separate phoneme (or as a reflex of AA *ṭ as in Berb. which seems likely to me judging by several cases), but interpreted as the combination of *ṽ* and *d* (“Note CCh **d-* <**ṽd*” CED: 43), the reconstructed form should be **ṽrVd-* (cf., however, *d* attested not only in C., but in W. and E. Chad. as well). Cf. also: “Note that Chadic root can not follow AA**rt* (as proposed in EDE I: 245). Numerous Semitic — Chadic parallels show the regular correspondence: Semitic **-t-* → Chadic **-t-*” (in CED #659).

⁷⁵ *d* used in more recent works by Stolbova is the same as *ḍ* in her earlier works.

⁷⁶ The Sem. parallels adduced — Hbr. *rdḏ* ‘stampfen’ (KB: 874) and Arab. *rhd* ‘frotter, fractionner’ (BK I: 936) — are unconvincing semantically even between themselves.

⁷⁷ A typical meaning shift by function/usage: *Linum usitatissimum* was domesticated in the Fertile Crescent in the Neolithic (if not earlier), while cotton was imported to the Near East relatively recently.

ftt 'ein Pflanzliche Faserstoff' (EG I: 581; rope determ.) / Berb. **-fiwat* 'darn, darned cloth/clothes': Ghdm. *s-fiwet* 'rapiécer un vêtement', Senhadja *ti-fiwt* 'reprise, raccomodage', Qbl. (A. Mang.) *ta-fawt, ta-fawett* 'pièce (de raccomodage)', Timimun *t-fawt* 'chiffon, étoffe' (NZ: 678) // SA: Cush. E.: LEC: Orm. *uffata* (met.) 'clothes' (Gragg 1982), Konso *fuutt-ota* 'cotton' (Sasse 1982: 71), HEC **fuutt-* id. (HEC: 44): Sid. *fuutta*, Dar. *fuutta*, Had. *fuutto* (see in **fawt-*), Brj. *fuutto*, Kmb. *fuutta* / S.: W. Rift **puti-* 'thread': Alg. *puti*, Burunge *puti-ing* (KM: 227) / Omot. **f/putt-* 'cotton' 4/5: Wol. *fuutt-uwa*, Gamo (Gemu) *p/fuutto*, Gofa *fuutto*, Basketo *futtá*, Male *puuta*, Koyra (Badditu, Amuru) *puto*, Dime *futtu-*, Ari *futa* (Bnd Om: < HEC?) [] AADB 3539 ■ lint: Eg. ■→ cotton: Cush.E.+Omot. ■→ cloth, clothes, thread: Akk.+Berb.+Orm. +W.Rift.

**fawt-* '(lint/flax >) cotton > k. of cloth'⁷⁸ • AA 3/3, NA 3/3, SA 5/1 // NA **fawt-* 'k. of (flax > cotton) cloth': Sem. **pawt-* 'k. of cloth': Arab. *fūt-at-*, pl. *fuwat-* 'étoffe rayée importée de l'Inde; serviette, essuie-main' (BK 2: 646), Har. *fōta* 'shawl'; Mhr. *fāwt-ət* 'colored wastecloth' (JM), Jib. *fūt-ut* 'colored wastecloth' (JJ), Soq. *fāta* 'voile, tablier' (Leslau 1938) / Eg. (OK) *ifd* 'Art Leinen; viergewebe' (EG I: 71)⁷⁹ / Chad. W.: Sura *fwat*, Ang *fwet, fatat*, D-B *fāta?* 'cloth'; C.: Musgu *fit* 'cotton' (acc. to CED: 31, the reflex of Afras. **-t* in intervocalic position in Chadic cannot be reconstructed) // SA: Cush. E.: LEC: S. Orm. *fūt-a* 'cotton', HEC: Had. *fuutt-o* id. (Sasse 1982: 71) [] AADB 2085 ■ (lint, flax) → cotton: Eg.+Musgu+E.Cush. ■→ cloth, clothes: Arab., Har., MSA+Chad.W.

**kʷayt-/d-* 'flax, linen (> cotton > garment)⁸⁰ • AA 3/4, NA 3/3, SA 3/4 // NA **kʷat-an-* 'flax': Sem. **kʷat-an-* 'flax (> cotton, silk)' 5/5: Akk. (syn. list) *katnu* (a garment) (probably a garment worn thin < *katnu* 'small, thin, etc.') (CAD q: 175), (syn. list) *kitītu* (a garment), variant to *kitītu* (CAD q: 281), (OA, Mari) *kutānu* (or *kutānu*) (a wool fabric) (CAD k: 607, CAD q: 1585); Ugr. *kṯ* 'flax, flax seed'⁸¹ (DUL: 719); Aram.: Syr. *kētaw* 'linum' (Brock: 658) (comp. with an Armenian term); Arab. *kuṭn-* 'coton; vêtement en étoffe de coton' (BK 2: 774); Gz. *kʷəṭ(ə)n* 'silk, silk garment, cotton' (LGz 454: from Arab. *kuṭn-* 'cotton' of Indian or Egyptian origin; cf., however, 'silk worm, spider web' in Tayy: ibid.) (cf. also *kʷəṭəṭ-me* 'cotton plant' (Ibid.: 299)), Tgr. *kʷəṭ(ə)n* 'silk, silk garment, cotton', Amh. *kʷəṭən* 'silk, silk thread' (Kane 1990: 840), Chaha

⁷⁸ Must be somehow related to the previous root **fit(V)t-* ~ **fawt-* 'flax > cotton > tissue, cloth', but how? At first glance, a clear case of a series of borrowings or Wanderwörter (which, it would seem, is confirmed by the alternation **t* ~ **ṭ* with a clear resemblance of the two roots) so usually commented: the Arab. *fūtat-* is a loan < Olnd. *puṭa-* 'a cloth worn to cover privities', *paṭa* 'woven cloth, blanket, garment, veil, etc.' and, obviously, source of other modern Sem. terms and, consequently, Berber, Chadic, Cushitic and Omotic ones, seeming — and partly being — a kind of phantom root variant. However, this *partly* makes it so complicated and is a reason for separating the two AA roots: Akk. *patinnu* or *pitūtu* vs. Eg. (MK) *ftt* 'lint' and especially (OK) *ifd* (-d < **ṭ*) cannot be Arabic and hardly Old Indian loans; Chad. D-B *fāta?* 'cloth' and Musgu *fit* 'cotton' (all in **fawt-* 'k. of cloth') do not look like Arabisms either.

⁷⁹ Suspected by some authors to originate from *ifd* '4' which is more likely a folk etymology.

⁸⁰ Note what can be a variant root reconstructed only for Semitic, namely, **ku/it(-an)-* 'flax' (> 'linen, k. of cloth'): Akk. (from Oakk.) *kitū* 'flax; linen' (CAD k: 473); Hbr. *kuṭn-āt*; Aram.: Jud. *kittān*, Syr. *kettān-*; Arab. *kattān-*; Gz. *kētān* (borrowing into Arab. < Aram. and into Gz. < Aram. or Arab. is possible). I could find only one external parallel: Hs. *katami* 'a cotton farm', which may be an Arabism as well. Cf. also an interesting variant root: Hs. *gwānd* 'a variety of cotton' (Bargery 1934), Chad. *gʷVd(m)* 'k. of wrapper': W.: Hs. *gwādò* 'hand woven blanket'; C.: Gude *gwādà* 'white home-spun cotton cloth', Mada *gwādà* 'a cotton wrapper' (Stolbova 2011 #503) vs. Sum. *gada* 'flax, linen fabric, linen cloth' (EDS, PSD).

⁸¹ With the following comment by Kogan: "totally uncertain, connection with Akk. *kitū* 'flax' (CAD k: 473), let alone a borrowing from it, is highly unlikely (contra Watson 2007: 70)".

mə-kʷāt, etc. 'thread of fiber' (LGur: 416); Soq. *kīṭni* 'soie' (Leslau 1938: 373) / Chad. W.: Hs. *kaḍa* 'spin, tease (cotton), raw cotton' (Bargery 1934), Bol. *kāaḍu* 'kneading cotton with stone to remove seeds from cotton' (otherwise, acc. to Stolbova 2011 #69, <*kVd-(h)- 'to knead, shake up, whisk') // SA: Cush. E.: LEC: Orm. *ḱēṭṭa* 'dress made of leather and worn below the waist' (LGur: 518), HEC: Kmb. *ḱēṭṭata*, Had. *ḱetta* 'dress (of woman, of leather)' (HEC: 53) (< Orm.?) / S.: W. Rift **kayd-*: Burunge *kaydu* 'cloth', Alg. *kayro* id. (Ehret 1980: 252), Iraqw *in-kwar* 'clothes (leather) aprons, sheet wrapped around the body' (MQK: 56) (acc. to Takács 2011: 115, AA *-d- > Ir -r-, Bur. -d-) [] AADB 4035 ■ flax: Ugr., Syr. ■→ k. of fabric (wool, silk), leather garment (?): Akk., Amh., Chaha, Soq.+Cush.E., S.: W. Rift ■→ cotton (?): Arab.+Hs., Bol.

***payč-1 'flax'** • AA --, NA 4/4, SA -- // NA: Sem. **pīt-t* 'flax': Ugr. *pīt-t* 'linen; linen fabric' (DUL: 688); Ph. *pš-t*, Hbr. *piš-tā* 'flax in the field' (pl. 'stalks of flax'), *pššāt* st. cstr. 'flax, linen' (HALOT: 983) / (?) Eg. (MK) *psš* (<*pč?) 'Matte' (EDE II: 513f) / Berb. **ti-fa/is-t* 'flax' (less likely < Phoenician): Qbl. *tiffest* 'Linum usitatissimum' (Dallet 1982: 233), Nfs. *tiffast*, Rif *tifest*, etc. / Chad. W.: Bade *əfč-ān* 'mat' (EDE II: 514), D-B *pis* (<*pič-?) 'shroud' (Jungraithmayr 1970) ■ flax: Ph., Hbr.+Berb. → linen: Ugr. → (?) mat: Eg.+Bade, shroud: D-B. [] AADB 431.

Fruit trees (fig-tree, date-palm, olive) and vine (11 entries)

***tiʔ(i)n- 'fig-tree'** • AA 5/5, NA 5/5, SA 5/3 // NA **tiʔVn-* 'fig; date': Sem. **tiʔin-* 'fig-tree' 5/5: Akk. (Oakk. on) *tittu* (*tiʔittu*) 'fig, fig-tree' (CAD t: 435), *tittu*, *tiʔittu*, pl. *tīnātu* 'Feige(n)baum', (syn. list) *tīʔu* 'fig' (CAD: 439); Ebla *ti-i-tum* 'fig, fig tree' (Kogan 2012: 254); Hbr. *təʔēnā* 'fig, ficus Carica' (HALOT: 1675); Aram.: Jud. *tēnētā* id. (ibid.), Syr. *teʔttā*, pl. *tēʔnē* id. (ibid.), Mnd. *tina* 'fig-tree' (DM: 486); Arab. *tīn-* (coll.) 'figue' / Berb. **tiHVyn* 'date'⁸² 5/5: Ayr *tayni*, *təyni*, *tini*, *tinəy* (Prasse 1969: 91), Hgr. *təyne* (ibid.), Taneslemt *tehəyne* (ibid.), Semlal *tiyni* (ibid.), Zng. *təynih* 'datte' (Nicolas 1953: 142), etc. (Aman Iman 2012: 154); Canar. (Gran Canaria) *tehaunenən* 'dried figs', *tehaunemen* 'figues sèches' (Wölfel 1965: 504) (< *tehaun* + *emen*)⁸³ / Chad. **tiʔun-/tiʔan-* 'fig tree; tamarind'⁸⁴: W.: Angas *teung* 'tree, fig tree', Sura *tiŋ* 'tree' (Kraft), Goe. *ti'ni* 'palm' (CED #749), Diri *taʔam* 'tamarind' (Skinner 1977: 46); C.: Ga'anda *tēmna*, Gabin *tēmne*, Boka *təm-də* 'tamarind' (Kraft) // SA: Cush. S.: Dah. *te:nde:te* (<*tiʔin-t-it-) 'date-palm' (Ehret et al. 1989: 9) (marked as a loan) / Omot. N.: Yms. *teʔā* 'sicomoro' (Cerulli 1938: 85) [] AADB 2437; Militarev 2002 #14. Cf. Akk. *tīʔu* and Yms. *teʔā* (chance coincidence of the forms without -n- or the relict AA form **tiʔ-?* 'fig, fig tree'. Cf. Sum. *tin* 'wine' (PSD), 'intoxicating drink, wine, beer, date beer' (EDS) ■ fig(-tree): Sem.+Angas+Canar.+Yms. — date(-palm): Berb.+Dah. ■→ tamarind: Diri, Chad.C. ♦ Sura, Goe.

⁸² Takács (EDE II: 201) combines these terms with Ghadames *a-bīna*, pl. *bīnā-wən* 'la datte, fruit du palmier dattier, la datte mûre' (see in ***bVn-** 'tree with eatable fruit (olive tree, date palm, fig-tree)' above); though when dealing with roots containing **b* it is often hard to decide whether to match them with **b-* or **H-* roots in other AA languages, in this case **t-* absent in the Ghadames noun, in nearly all other Berber is not a prefix but a root consonant in the Anlaut thus corresponding to **t-* as the first radical in all other AA forms.

⁸³ As for Berber parallels to the second part of the Canarian composed word, cf. Tuareg: Ayr, E. Tawillemet *mānna* 'sécheresse' (Alojaly 1980: 130), Ahaggar *menna* 'sécheresse prolonguée' (Foucauld 1951–1952: 1206).

⁸⁴ Cf. CED #749: **tV(yV)n-* 'mahogany' compared with Sem. 'fig-tree' and Berb. 'date palm'. Mahogany cannot be a primary Chadic name as it is indigenous of and imported to Africa not long ago from the Americas; in this case, there is an explicit shift of the name.

***ḥuray-** ‘k. of palm tree (date-palm, *Borassus palm*)’ • AA 4/5, NA 4/4, SA 4/1 // NA ***ḥuray-** ‘(leaf of) a palm-tree’: Sem.: Akk. (OB on) *aru* (*eru*, *ḥaru*) ‘frond, leaf, branch, shoot of the date-palm’ (CAD a2: 311; *ḥ*: 117)⁸⁵; / Eg. (Med.) *ḥz.w* (if < **ḥVr-*) ‘leaf’ / Chad. **h/huray-* ‘k. of palm tree’ (in Stolbova 2019 #226 **hVr-* ‘kind of palm’): C.: Musgu *ḥorái* ‘*Borassus*, *Deleb palm*’, Munjuk *hura* ‘palmier rônier’ (*Borassus*); E.: Toram *hòore* ‘jujube’⁸⁶, W. Dng. *éèrà* ‘kernel of a palm-fruit’ // SA: Cush. S.: Iraqw *ḥuray-* ‘*Borassus palm*’ (Ehret 1980: 260) [] AADB 2163. Cf. Sum. *hara*, *ḥa-ra*, *ḥa-ru* ‘palm shoot’ (PSD) ■ (part of) date palm: Akk.+Eg.(?) ■⇒ *Borassus palm*: Musgu, Munjuk+Iraqw ■⇒ jujube: Toram.

***bilas-** ~ ***basil-** ~ ***sibul-**⁸⁷ ‘fig > date/fruit (tree)’ • AA 3/5, NA 4/4, SA 3/1 // NA ***bilas-** ‘fig tree; date; fruit(tree)’: Sem. ***balas-** ‘fig-tree’ 5/5: Hbr. *bōlēš* (*šīkm-m*) ‘(picker of) sycamore figs’ (HALOT: 134); Arab. *balas-* ‘figuier blanc particulier a l’Yémen (*figus morifolia*)’ (BK 1: 159); Gz., Tna., Tgr., Amh., Sod. *bālās* ‘fig-tree’ (LGur: 142: “perhaps taken from Arabic”) / Eg. (PT) *nbs* (if < **lbs*, but see Copt.) ‘Art häufiger Baum und seine Frucht, ab Zizyphus?’ (EG II: 245)⁸⁸, (late, Gr.) ‘als Garten- und Fruchtbaum, auch als heiliger Baum’ (ibid.), Copt. (Old) *noubs* ‘jujubier d’Égypte (*Zizyphus spina Christi* Willd.)’ (Vycichl 1983: 140) / Berb. ***basil-** ~ ***bilas-** 4/4: Ghdm. *a-beššīl*, pl. *beššīl-en* ‘datte formée, encore très petite’ (Lanfry 1973: 14); Ayr, E. Wlm. *a-blas*, pl. *i-blas-ān* ‘chair de fruit’ (Alojaly 1980: 7), Hgr. *ā-beles* ‘lieu cultivé, cultivable’ (Foucauld 1951–1952: 69) // SA: Cush. E.: SA Afar, Saho *sebūl* ‘Maulbeerbaum’ (Reinisch 1886: 895), *sebūl*, *subūl* ‘Maulbeerfeigenbaum’ (ibid.: 899) [] AADB 3547 ■ fig(-tree): Hbr., Arab., Eth.(?) — date: Ghdm. ■→ k. of fruit (tree): Eg.(?)+Tuareg+Afär, Saho.

***?abir-** ‘fig-tree’⁸⁹ • AA 4/4, NA 5/5, SA 3/3 // NA ***?abVr-** ~ ***ba?ar-** ‘fig-tree > date-palm’⁹⁰: Sem. ***?abir-** ‘fig-tree’⁹¹ 4/5: Arab. *?ibr-at-* ‘figuier sycomore’ (BK 1: 3)⁹²,

⁸⁵ Cf. (SB) *ḥarū* considered an Aram. loan (AHw: 329; DRS: 922); which is not so simple in view of lack of -t- suffix in the Akk. form vs. Aram. *ḥrw* ‘branch of date palm’ (Hoftijzer, Jongeling 1995: 404), Jud. *ḥarūtā* ‘palm twig’ (Jastrow 1903: 500).

⁸⁶ Unnāb, also known as Chinese date, is the fruit of *Zizyphus jujuba* Mill. (Rhamnaceae), a plant reportedly domesticated in South Asia since 9000 BC (Villanueva 2017).

⁸⁷ This series of metatheses (add Eg. (NE) *snb* (likely < *slb*) ‘Fruchtbaum (bes. Art)’ (EG IV: 160) may be accidental, but may be not, accounted for by a taboo on this very species (cf. ‘heiliger Baum’ below).

⁸⁸ Strangely quoted in HALOT: 134, as ‘sycamore fig’ borrowed from Sem. in Eg. without adducing the Sem. source form. The term attested in Pyr. texts < Sem. **balas-* with metathesis and meaning change? Very unlikely.

⁸⁹ ...evidence for the first cultivation of figs has been found in the Lower Jordan Valley in an early Neolithic village known as Gilgal-1... This evidence dates back to approximately 10,000 BCE. (Kislev et al. 2006).

⁹⁰ Acc. to modern sources, date-palm was domesticated ~7,000 y ago in the Near or Middle East (Flowers J. M. et al. 2019. Cross-species hybridization and the origin of North African date palms. *Proceedings of the National Academy of Sciences*). In a number of cases, the names of the fig-tree were transferred to the date-palm, probably because of the important role of both trees and their fruit in the economy. Cf. the same combination of meanings in **ti/(i)n-* ‘fig-tree > date-palm’.

⁹¹ Cf. Akk. (Oakk. on) *nukarribu* ‘gardener (primarily engaged in date-palm cultivation)’ (CAD a2: 323). Since the meaning of *nuk* is not clear, can *nukarribu* be a composed word, the second element being *arribu* ‘a date-palm’?

⁹² Cf. also *barn-iy-* ‘a sort of dates, best of dates’ (Lane 1867: 196).

ʔbr 'féconder un palmier ou la fleur d'un arbre fruitier' (DRS: 5); Amh. *abʷar* 'tree like the *warka*'⁹³ (Kane 1990: 1194) (*warka* means 'sycamore') / Berb. *ʔabrVr⁹⁴ 4/5: Siwa *ss-urr* 'féconder un palmier', Awjila *š-eb̄rer* (caus.) id., Ghdm. *eb̄rer* 'être fécondé (palmier)', *aber̄ir* 'fleur de palmier mâle' (Lanfry 1973: 20), Hgr. *eh̄ar̄er*, pl. *ih̄ar̄âr* id. (compared in Prasse 1969: 68), Qbl. *aberr-an* 'variété de figuer' (Dallet 1982: 48), (?) Shenwa *ha-br'a* 'ripe' / Chad. *ʔabar- 'fig-tree' 4/5: W.: Hs. *baure*⁹⁵ 'fig-tree, fig-fruit' (Abraham 1965: 91); E.: Mig. *bâârâ* (< *baʔar-, met.) 'figuier (rouge)' (Jungrathmayr, Adams 1992: 68) // SA: Cush. *ʔabVr- ~ *baʔar- 'sycamore, date-palm': N.: Beja *b̄ir* 'Dumpalm' (Reinisch 1895: 50), 'date-palm' (Roper 1928)⁹⁶; E.: LEC *baʔar- ~ *ʔabar-: Som. *bâar* 'tree top', Rnd. *bâar* 'Hyphaene coracea Gaertn., Palmae' (Heine 1979: 183)⁹⁷, Orm. *habru*, *abru* 'sycamore' (or < Amh.?) [] AADB 2426; Militarev 2002 #4; Blažek 2021: 40 ■ fig-tree: Sem.+Qbl.+ Hs., Mig.+Orm.(?) → date (palm): Berb.+Beja ■→ Beja+Rend., Som.

****garga/ir-* ~ **wagar-* 'k. of fruit-tree (olive, fig, date-palm)'** • AA 4/4, NA 4/4, SA 5/2 // NA: Sem. **garga/ir-*: Hbr. *gargēr* (redupl.) 'ripe olive' (HALOT: 201), Arb. *ʔarʔār*- 'olives très mûres' (DRS: 181, not in BK) (Tgr. *wāgre*, Har., Sel., Wol., Zw. *wāgār* 'olive tree' acc. to LGur. 647, from Cush.) / Berb. Qbl. *a-grur* 'figuier' (NZ: 849); Hgr. *égîr* 'premières dattes mûres, toutes fraîches' (Foucauld 1951–1952: 471) // SA: Cush. C.: Bil. *waḡarā* 'der Olivenbaum, Olea Chrysophylla' (Reinisch 1887: 353); E.: Som. *weger* 'Olea Chrysophylla' (Abraham 1962: 852), *wagar*, Oromo *wagare* 'olive tree' (LGur.: 647) [] AADB 4292.

****milw-* 'fig-tree > (date or dum) palm'** • AA 3/3, NA 3/3, SA 3/3 // NA **milw-* 'k. of palm': Eg. (BD) *m̄:m̄*: (if < **m̄lm̄*) 'Dumpalme' (EG II: 29,7) / Berb.: Mzab *mlaw* 'datte molle', Hgr. *ě-mellé* 'nom d'une espèce de dattiers' / Chad. E.: Lele *mili* 'deleb palm' // SA **milw-* 'k. of tree with eatable fruit or berry': Cush. N.: Beja *mile* 'large ripe berries of *hiib*' (Blažek 2021: 53)⁹⁸ / Omot. N.: Kf. *mellō* 'sicomoro', Mao *mulu* 'palma' [] AADB 4292; EDE III: 82f) ■ date(palm): Mzab, Hgr. -fig-tree: Kf. ʔ k. of palm: Eg.+Lele+Mao ♦ Beja.

****karm-* 'vineyard (on a hill?)'**⁹⁹ • AA --, NA 5/4, SA -- // NA: **karm-* 'vineyard': Sem. **karm-* 'vineyard'¹⁰⁰: Ugr. *krm*, (DUL: 455); Hbr. *kārām* (HALOT: 498); Syr.

⁹³ Considered by Leslau in LGur.: 9 a loan of Orm. *habru*, *abru*, *harbū* 'sycamore', which is less likely in view of the clearly cognate Arab. term; more likely, an old Amh. (still retaining the initial ʔ-) loanword in Orm. which better explains variation in the latter and rendering Amh. ʔ- by either *h-* or *0-* more typical of borrowing. Cf. Wln. *abro* 'k. of tree' (ibid.) considered a lw. from Orm. and compared, with hesitations, to Amh. *abʷar*.

⁹⁴ On the AA correspondences of Berb. **b̄* (Tuareg *h* vs. Ghdm./Audjila *b̄*) see Takács 2011: 83–103.

⁹⁵ In Stolbova's recent publications rendered by *b̄*.

⁹⁶ A type of palm tree with edible oval fruit.

⁹⁷ The genus includes the doum palm.

⁹⁸ *hiib* is *Salvadora Persica*.

⁹⁹ "In the Pleistocene, harsh climate drove the separation of wild grape ecotypes caused by continuous habitat fragmentation. Then, domestication occurred concurrently about 11,000 years ago in Western Asia and the Caucasus to yield table and wine grapevines". (Dual domestications and origin of traits in grapevine evolution. *Science*. 2 Mar. 2023. Vol. 379, issue 6635, 892–901). Cf. also McGovern P. E., Hartung U. et al. 1997. The beginnings of winemaking and viniculture in the ancient Near East and Egypt. *Expedition* 39, 3–21.

¹⁰⁰ Cf. Akk. *karmu* 'Ödland(Hügel)' (AHw: 449) relevant if glossed correctly supporting the hypothetical connection with MSA **karm-* 'mountain'; the meaning 'to pile up, to store' given in CAD k: 201 unless refers to grapes adds nothing to the etymology under discussion. If, however, MSA

karmā (Brock.: 347); Arb. *karm-*; Gz. *ka/ərm* (LGz.: 293) (considered an Arabism); (?) Hrs. *kermaym*; Mhr. *kərmáy* 'mountain' (JM: 214)¹⁰¹ / Eg. (MK) *k:m.w* 'vineyard, orchard' (Faulkner 1962: 284)¹⁰², (Dem.) *k:m* 'Weinernte' (EG V: 106) [] AADB 1069; Militarev 2012 item 'mountain'.

***kawir- ~ *wakir- 'fig-tree' > (part of) date palm** • AA --, NA 3/5, SA -- // NA: Sem. **(wa)kur-* 'heart of the date palm': Akk. (OB) *uḫūru* 'heart or shoot of the date palm' (CAD q: 205), 'Herzblätter der Dattelpalm; Palmkohl' (AHw: 1427); Aram.: Syr. *ḫūrā* 'medulla palmae' (Brock.: 656) (acc. to AHw: 1427, < Akk.), Jud. *ḫōr* 'the white heart or terminal bud of a palm used as food' (Ja.: 1340) / Berb. **(wa)kar-* 'k. of date or fig': Hgr. *uḫkir* 'datte deséchée avant matûrite' (Foucauld 1951–1952, IV: 1752) (less likely < *iḫar* 'ê. sec' (Ibid.: 1751)), Izayan, Zemmur *a-karru* 'figue vert', Shilh *ta-korai-t* 'figue' (Wölfel 1965: 516) / Chad. W. Hs. *ḳāwārī* 'the large type of fig-tree (*Ficus kawuri*)' (Abraham 1965: 508) [] AADB 3551 ■ (part of) date palm: Akk., Aram. (?) + Hgr. — fig(-tree): Berb.N.+Hs.

***sak(-in)- 'fig(-tree)' > date(-palm)** • AA --, NA 4/4, SA -- // NA: Sem. Akk. (lex.) *šakinnu* 'date palm sapling' (CAD š1: 167) (cf. OB *šākinūtu* 'seasonal contracting for date harvesting' (ibid.: < *šakānu* 'to place, set'), but 'ein Dattelpalmen setzling?' (AHw)) / Berb.: Zng. *səkkanni* 'variété de dates' (Nicolas 1953: 390; not in Taine)¹⁰³ / Chad.: C.: Daba *sikīd* (< **siki-d*) 'la figue' (cf. Stolbova 2009 #195: **svk-* 'kind of (palm) tree' (or names of different trees)) [] AADB 3540 ■ date(palm): Akk.+Zng. — fig: Daba.

***bayn- 'tree with eatable fruit (olive tree, date palm, fig-tree)** • AA --, NA 3/3, SA -- // NA **bin-* 'date(palm); various (fruit-)trees': Sem. **bayn-*: Akk. (Oakk. on) *bīnu* 'tamarisk' (CAD b1: 240)¹⁰⁴; Aram.: Jud., Syr. *bīnā* id. (DRS: 62) (an Akk. loanword?); Arab. *bān-* 'arbre qui donne la noix muscade; saule d'Egypte' (ibid.); Gur. (Muh. Sod.) *buna* 'olive tree' (LGur.: 144) / Eg. (OK) *bn̄y* 'Dattel', (18 Dyn) 'Dattelpalme' (EG I: 461f)¹⁰⁵ / Berb. Ghdm. *a-bīna*, pl. *bīnā-wən* 'la datte, fruit du palmier dattier, la datte mûre' (Lanfry 1973: 14) / Chad. C.: Njanye *mbwəŋŋe* 'tamarind' (Kraft) (< **m-bwVn-*?) [] AADB 3548; Cf. EDE II: 200–202. Rel. to **ban(n)-* 'field, farm, garden'? Cf. Sum. *bana* 'part of the date-palm' (PSD) ■ date(palm): Eg.+Ghdm. ■→ k. of fruit tree: Sem.+Njanye.

karm-* 'mountain' is related, implying the suggested NA meaning 'vineyard (on a hill)**', it may be further derived, with *-m* suffixed < AA **kur-* 'mountain, rock, highland' (AADB 2194). A possible alternative etymology is from **kawir-* '**field, farm, garden**', also with fossilized *-m* suffixed.

¹⁰¹ It is tempting to continue this comparison by Hbr. *karmāl* (1) 'orchard with fruit trees and vines', (2) 'Mount Carmel' (HALOT: 499) assuming the fossilized *-l* (or dissimilation < **karmen* (ibid.)).

¹⁰² This noun may belong to a small group of the earliest "Canaanisms" in Eg. (cf. Militarev 2023a) in which case, this Sem.-Eg. etymology should be canceled.

¹⁰³ The full coincidence of triconsonantal roots in Akk. and Zng. is impressive, albeit difficult to explain. Cf. Tuar. **ā-sikiH*, pl. **ī-sukH-ān* 'tree' (Hgr. *a-šək*, pl. *ī-ška-n*, etc.) (Prasse 1969 #626), very likely related.

¹⁰⁴ Meaning shift on some common feature? Interestingly, in several contexts quoted together with date palm: "he leased the field (to plant) tamarisk and date palm" (ibid.). Cf. also *rab banē* 'date palm gardener' (Cohen 2011: 55 apud Waerzeggers 2010). Cf. also Sum. *nešba-na* 'part of the date-palm' (PSD).

¹⁰⁵ Also (MK) *bnr* 'Dattel' (EG I: 461); < *bn-r* with fossilized suffix *-r* (see Militarev 2005) or met. < **brn*? Cf. Sem.: Ugr. *bnr* 'date, date-tree (?)'; Arab. *barniy-* 'finest sort of dates' (Lane 1867: 196, of Persian origin?). See discussion in EDE II: 200, 202.

***karan-** ‘vine(yard)’¹⁰⁶ • AA --, NA 2/5, SA -- // NA: Sem.: Akk. (OA, OB) *karān-* (*kirān-*) ‘wine, grapevine, grapes’ / Eg. (MK) *kʾnw* ‘vineyard, orchard’ (Faulkner 1962: 284).

Conventions for reconstructed proto-forms:

* marks a reconstructed proto-form

— separates affixed elements from the stem

V in reconstructed forms conveys a non-specified vowel, e. g. *bVr- should be read ‘either *bar-, or *bir-, or *bur-’

H in reconstructed forms conveys a non-specified laryngeal or pharyngeal

S in reconstructed forms conveys a non-specified sibilant

/ separating two symbols means ‘or’, e. g. *di/abar- should be read ‘either *dibar- or *dabar-’

() symbol in round brackets means ‘with or without this symbol’, e. g. *ba(w)r- should be read *bawr- or *bar-

~ between reconstructed forms means ‘and’ pointing to two or more co-existing proto-forms.

Numbers after [] AADB refer to the entry number in the Afrasian etymological database

Symbol // preceeds each of the two branches of the AA macrofamily, according to the author’s classification: NA — Northern Afrasian (Semitic, Egyptian, Berber, Chadic) and SA — Southern Afrasian (Cushitic and Omotic)

Sign / divides families within each of the branches

Fractions like 2/5, 4/3, etc., point to scoring: the numerator shows the author’s scoring of probability of a term referring to agricultural vs. foraging; denominator shows the author’s scoring of the quality of etymology or plausibility of cognation (representation of languages in a given group/family/ macrofamily; rigor and unambiguousness / ambiguity of consonant correspondences (for example, Eg. graphic *r* represents two consonants corresponding to AA **r* and **l*; Arab. *s* corresponds to both AA **s* and **c*, etc.); assessment of semantic proximity, etc.

Other notational symbols

[] precedes reference to sources

• precedes a scoring

■ precedes a group of terms that are combined by common or close meaning

♦ means ‘generic, unidentified, or any’ (of grain, corn, cereal, crop)

¹⁰⁶ Unless a loan from Akk. (cf. (Militarev 2006), these two Sem.-Eg. roots (***karm-** ‘vineyard (on a hill?)’ and ***karan-** ‘vine(yard)’ create a rather enigmatic tangle. Justly adducing “the undoubtedly related Sumerian *ka-ra-an* ‘clusters of fruit’ (from Ur III onwards)” but ignoring the Egyptian parallels also undoubtedly related with the PSem. and Akk. lexemes, Kogan (Kogan 2015: 191 and fn. 549) oversimplifies this intriguing situation. Add to these two Sem.-Eg. (variant?) roots a third one: Sem. **wayn-* ‘wine’ (Ugr. *yn*, Hbr. *yayin*, Arab. *wayn-*, Sab., Qat. *wyn* ‘vineyard’, Gz. *wayn* ‘vine, wine, grapes’ — cf. Kogan 2015: 124; cf. also IE ‘wine’, incl. Hitt. *wiyāna* ‘vine’) vs. Eg. (NE) *yn.w* ‘etwas Sässes als Honig’ (EG I: 94), suspiciously similar to the Ugr. and Hbr. terms (another “Canaanism”?), and a less likely but not to be excluded, parallel between Sem. **ḥamr-* ‘wine’ (Ugr. *ḥmr*, Hbr. *ḥāmār* Syr. *ḥamrā*, Arab. *ḥamr-* (Kogan 2015: 212) and metathetic Eg. (PT, MK) *ḥnmj* ‘k. of wine’ (EG III: 32) (Eg. *h* does not correspond to Sem. **h* while for another “Canaanism” in the form of Hbr. *ḥāmār* the PT period seems too early).

→ points to a meaning shift (known or suspected by the author) in a crop/fruit tree name from original to later or from indigenous to imported

⇒ indicates a direction of the meaning shift (uncertain or unknown to the author) ▪ separates etymological entries in footnotes.

Transcription and transliteration

$\dot{p}$ — bilabial “emphatic” (glottalized) voiceless stop; b — bilabial emphatic voiced stop; $\underline{b}$ — bilabial voiced fricative; t — dental emphatic voiceless stop; $\underline{d}$ — dental emphatic voiced stop; $\underline{t}$ — voiceless interdental fricative (in Egyp., a conventional symbol most likely conveying $\check{c}$, etymologically $<*k$); $\underline{d}$ — voiced interdental fricative (in Egyp., a conventional symbol most likely conveying $\check{z}$, etymologically continuing AA $*g$ and emphatic affricates); c — alveolar voiceless affricate [ts]; $\check{z}$ — alveolar voiced affricate [dz]; $\check{c}$ — palato-alveolar voiceless affricate [tʃ]; $\check{z}$ — palato-alveolar voiced affricate [dʒ]; $\check{s}$ — hissing emphatic voiceless fricative; $\check{c}$ — emphatic voiceless affricate; $\check{z}$ — emphatic voiced interdental fricative; $\check{c}$ — palato-alveolar emphatic affricate; $\check{s}$ — lateral voiceless fricative (denoted by $\check{s}$ in Sem. reconstructed proto-forms); $\check{c}$ — lateral voiceless affricate; $\check{s}$ — lateral voiceless emphatic fricative; $\check{c}$ — lateral voiceless emphatic affricate; $\check{z}$ — lateral voiced emphatic sibilant (or perhaps affricate); $\check{z}$ — lateral voiced sibilant; $\check{g}$ — voiced velar fricative (in Berber), k or q — emphatic velar stop; $*q$ — hypothetic velar affricate [kh] (only in reconstructed Afrasian proto-forms); y — uvular voiced fricative (Arabic “ghain”); h — uvular voiceless fricative; h — presumably velar voiceless fricative (only in Egyptian); h — pharyngeal voiceless fricative; $\check{r}$ — pharyngeal stop (Arabic “ayin”); h — laryngeal voiceless fricative; $\check{r}$ — glottal stop (Hebrew “aleph”, Arabic “hamza”); y — palatal resonant; $\check{z}$ and $\check{i}$ — conventional transcription symbols conveying $\check{r}$ (etymologically $<*r$, $*r$ and $*l$) accepted in Egyptology (I use y instead of j more common in Egyptology in order to avoid confusion with j used by some authors to render [dʒ]).

Terminology

acc. — according, cf. — confere, comp. — compare, denom. — denominative, det. — determinative, etc. — et cetera, f. — feminine, fn. — footnote, ibid. — ibidem, id. — idem, i. e. — id est, incl. — including, k. — kind, lw. — loanword, m. — masculine, met. — metathesis, p. c. — personal communication, pl. — plural, redupl. — reduplication, rel. — related, sing. — singular, st. cstr. — status constructus, suff. — suffix, vs. — versus.

Abbreviation of languages and language periods

AA, Afras. — Afrasian (Afroasiatic, Semito-Hamitic); Adgh. — Adghaq; Akk. — Akkadian; Al. — Alaba; Alg. — Alagwa; Alt. — Altaic; Amh. — Amharic; Anf. — Anfillo; Arab. — Arabic; Aram. — Aramaic; Arb. — Arbore; Arg. — Argobba; Bach. — Bachama; BD — Book of the Dead; Bdy. — Bidiya; Berb. — Berber; Bibl. — Biblical; Bil. — Bilin; Bks. — Bokkos; Bnn. — Banana; Bogh. — Boghom; Bol. — Bole=Bolewa; Brj. — Burji; Bud. — Buduma; Bw. — Bworo; C. — Central; Canar. — Canarian; Cauc. — Caucasian; Chad. — Chadic; Copt. (B, F, S) — Coptic (Bohairic, Fayyumic, Sahidic); CT — Coffin Texts; Cush. — Cushitic; D-B — Daffo-Butura; Dah. — Dahalo; Dar. — Gedeo; Das. — Dasenech=Geleba; Dem. — Demotic; Dghw. — Dghwede; Dng. — Dangla; Dob. — Dobase; Drav. — Dravidian; Dyn. — Dynasty; Dzp. — Dzəpaw; E. — East; Eg./Egyp. — Egyptian; End. — Endegeñ; Eth. — Ethiopian; FK — Fali-Kiria;

Gaf. — Gafat; Gdf. — Guduf; Gz. — Geʿez; Ghdm. — Ghadames; Gid. — Gidole; Gis. — Gisiga; Glv. — Glavda; Goe. — Goemay=Ankwe; Gol. — Gollango; Gr. — Greek Period; Gur. — Gurage; Gwn. — Gwandara; Had. — Hadiya; Har. — Harari; Hbr. — Hebrew; HEC — Highland East Cushitic; Hgr. — Ahaggar; Hitk. — Hitkalanchi; Hob. — Hobyot; Hrs. — Harsusi; Hs. — Hausa; Ir. — Iraqw; Izd. — Izdeg; Izn. — Iznassen; JBA — Jewish Babylonian Aramaic; Jib. — Jibbali; Jmb. — Jimbin; Jud. — Judaic; Kem. — Kemant; Kf. — Kafa; Khmr. — Khamir; Kmb. — Kambaata; Krf. — Kirfi; Krkr. — Karekare; LEC — Lowland East Cushitic; lex. — Lexical Lists; Log. — Logone; M. — Middle; Med. — Medical texts; Mghv. — Mwaghavul (Sura); Mhr. — Mehri; Mig. — Migama; Min. — Minean; MK — Middle Kingdom; Mkk. — Mokilko; Mnd. — Mandaic; Mod. — Modern; Mpn. — Mupun=Sura; MSA — Modern South Arabian; N. — North; n. — new; NB — Neo-Babylonian; NE, Nä — New Egyptian; Nfs. — Nefusa; Ngz. — Ngizim; NK — New Kingdom; Ntf. — Ntifa; OAKk. — Old Akkadian; OB — Old Babylonian; Off. — Official; OK — Old Kingdom; Omot. — Omotic; Ong. — Ongota; Orm. — Oromo; P. — Proto; Pal. — Palestinian; pB. — post-Biblical; Ph. — Phoenician; PIE — Proto-Indo-European; PT/Pyr. — Pyramid Texts; Qat. — Qatabanian; Qbl. — Qabyle; Qbn. — Qabenna; S. — South; Sab. — Sabaic; Sam. — Samaritan; SB — Standard Babylonian; Sem. — Semitic; Sid. — Sidamo; Sod. — Soddo; Som. — Somali; Soq. — Soqotri; Sum. — Sumerian; Syr. — Syriac/ Syrian Aramaic; Ten. — Tenerife; Tgr. — Tigre; Tmb. — Tembara; Tna. — Tigrīña=Tigrai; Tng. — Tangale; Tuar. — Tuareg; Ugr. — Ugaritic; Ural. — Uralic; W. — West; Wlm. — Tawlemmet; Wol. — Wolamo=Wolaitta; Yem. — Yemeni Arabic; Yms. — Yemsa=Janjero; Zgh. — Zaghaw; Zmr. — Zemmur; Zng. — Zenaga; Zw. — Zwai.

Abbreviations of sources

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Appendixes

Appendix 1: Proto-Afrasian consonantal system

*p̤ (?)	*p	*b	*f	*m
*t̤	*t	*d		*n
*ç [ts']	*c [ts]	*ʒ [dz]	*s	
*č [tš']	*č [tš]	*ž [dž]	*š	*r
*ĉ [tl']	*ĉ [tl]		*š [sl]	*l
*k̤	*k	*g		*y
*kʷ (?)	*kʷ (?)	*gʷ (?)		*w
*k̤h (?)	*kh (?)	*gh (?)		
	*ḥ	*ʕ		
	*ḥʷ (?)	*ʕʷ (?)		
	*h	*ç		
	*h	*ʔ		

Appendix 2: List of reconstructed roots by semantic groups and rating (from highest to lowest scores)*Cereals and pulses (32 entries)*

- *kabb- 'wheat' • AA 5/5, NA 5/5, SA 5/5
- *(ʔa-)bar(r)-1 'wheat' • AA 5/5, NA 5/5, SA 5/5
- *šVç- 'ear of barley (with grain, spikes and leaf)' • AA 5/5, NA 5/5, SA 5/5

- **čayr*- 'barley' • AA 5/5, NA 5/5, SA 5/5
 **bayl*- 'edible pod plants; k. of grain (barley?)' • AA 5/5, NA 5/4, SA 5/5
 **ša(m)bar*- 'grain of corn or chickpea' • AA 5/5, NA 5/5, SA 5/4
 **hVnt*- 'wheat' • AA 5/5, NA 5/3, SA 5/5
 **ʔillaw*- 'ripe grain (barley or wheat?); sowing; harvesting grain' • AA 5/4, NA 5/5, SA 5/5
 **dag(in)*- ~ **di(n)g^w*- 'k. of legume or grain' • AA 5/4, NA 5/5, SA 5/4
 **šam(ʕ)*- 'barley' • AA 5/5, NA 5/3, SA 5/3
 **ʔa-da(n)g(ʷ)ir*- 'k. of beans' • AA 5/5, NA 5/2, SA 5/4
 **ka(wa)ʔ*- 'cereal or bean (seeds; planting and processing)' • AA 5/4, NA 5/5, SA 5/2
 **rip*- 'k. of cereals' • AA 5/4, NA 5/4, SA 5/3
 **mang*- 'k. of beans or grain' • AA 5/4, NA 4/5, SA 5/4
 **čik-am*- 'k. of grain (barley?) for sowing, planting' • AA 5/3, NA 5/2, SA 5/1
 **ma3/3aḥ*- 'ear of corn' • AA 5/2, NA 5/4, SA 5/1
 **kun(a)č*- 'young corn of emmer' • AA 5/2, NA 5/4, SA 5/1
 **biṭ(-n)*- 'emmer' • AA 4/5, NA 5/5, SA 4/4
 **ziw*- ~ **3i3*- 'emmer' • AA 4/5, NA 5/5, SA 3/1
 **ʔawič*- ~ **čawič*- 'k. of grain (barley or wheat?)' • AA 4/5, NA 5/5, SA 3/1
 **g(ʷ)i/ar*- ~ **garga/ir*- 'edible pod plants, legume; k. of grain, seed' • AA 4/5, NA 5/4, SA 4/2
 **kways*- 'k. of cereal or leguminous plant' • AA 4/4, NA 5/3, SA 3/3
 **hawr*- 'k. of grain, granary' • AA 4/4, NA 3/3, SA 5/2
 **(ʔa-)dang(ʷ)al*- 'corn; beans' • AA 3/4, NA 2/4, SA 5/3
 **biʔ*-1 'grain ripe enough to be processed' • AA 3/3, NA 4/3, SA 3/2
 **pary*- 'fruit, corn, seed' • AA 3/3, NA 3/5, SA 2/2
 **mawič*- 'straw, grass, barley' • AA 3/3, NA 3/3, SA 1/1
 **(ʔa-)3am-ar*- '(harvesting) corn or beans' • AA --, NA 5/4, SA --
 **dič/šar*- 'k. of cereal (oat?)' • AA --, NA 5/3, SA --
 **duḥan*- 'k. of cereal' • AA --, NA 5/3, SA --
 **hay*- 'kind of cereal' • AA --, NA 5/3, SA --
 **rid/ṭ*- 'wheat; beans' • AA --, NA 5/3, SA --

Flax (4 entries)

- **fit(V)t*- ~ **fawt*- 'flax > cotton > tissue, cloth' • AA 3/4, NA 4/4, SA 3/3
 **fawit*- '(lint/flax >) cotton > k. of cloth' • AA 3/3, NA 3/3, SA 5/1
 **k^wayṭ/d*- 'flax, linen (> cotton > garment)' • AA 3/4, NA 3/3, SA 3/4
 **payč*-1 'flax' • AA --, NA 4/4, SA --

Fruit trees (fig-tree, date-palm, olive) and vine (11 entries)

- **tiʔ(i)n*- 'fig-tree' • AA 5/5, NA 5/5, SA 5/3
 **ḥuray*- 'k. of palm tree (date-palm, Borassus palm)' • AA 4/5, NA 4/4, SA 4/1
 **bilas*- ~ **basil*- ~ **sibul*- 'fig > date/fruit (tree)' • AA 3/5, NA 4/4, SA 3/1
 **ʔabir*- 'fig-tree' • AA 4/4, NA 5/5, SA 3/3
 **garga/ir*- ~ **wagar*- 'k. of fruit-tree (olive, fig, date-palm)' • AA 4/4, NA 4/4, SA 5/2
 **milw*- 'fig-tree > (date or dum) palm' • AA 3/3, NA 3/3, SA 3/3
 **karm*- 'vineyard (on a hill?)' • AA --, NA 5/4, SA --
 **kawir*- ~ **wakir*- 'fig-tree > (part of) date palm' • AA --, NA 3/5, SA --
 **sak(-in)*- 'fig(-tree) > date(-palm)' • AA --, NA 4/4, SA --
 **bayn*- 'tree with eatable fruit (olive tree, date palm, fig-tree)' • AA --, NA 3/3, SA --
 **karan*- 'vine(yard)' • AA --, NA 2/5, SA --