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Berber Root Stock with Initial Dentals: Lexicostatistical Lesson

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This article issues from the series of papers, established by the author some quarter of a century ago, gradually reveals the still unknown immense Afro-Asiatic heritage in the Berber lexical root stock. The first part was published back in 1996,² which contained *ad hoc* some miscellaneous Berber etymologies, greatly inspired by the 40-item comparative wordlist composed by A.Ju. Militarev in 1991, still arranged at random at that day. This is whence the series was given its title „Some Berber Etymologies”, which has been kept for the follow-up parts of the whole series (abbreviated hencefort as SBE) also. Later, I continued the series according to the initial root consonants³ in course of my research

1. Running the paper-based unique Afro-Asiatic root catalogues of the Lexicographical Library of Afro-Asiatic Root Research (LLAARR) at Balatonederics, the author is at the same time the corresponding member of the *Associazione Internazionale di Studi sul Mediterraneo e l'Oriente* (ISMEO, Roma).
2. See my „Some Berber Etymologies I” in: *Lingua Posnaniensis* (Pozna) 38 (1996), 43-59.
3. ● Part II: Berber *b-, in *Lingua Posnaniensis* 45 (2003), 93-119; ● part III: Berber *b- in Naït-Zerrad, K.; Ibrizsimow, D.; Voßen, R. (éds.): *Nouvelles études berbères: Le verbe et autres articles: Actes du „2. Bayreuth-Frankfurter Kolloquium zur Berberologie”*, Berber Studies vol. 8, Köln, 2004., Rüdiger Köppe Verlag, pp. 191-204; ● part IV: Berber *f- in *Studia Etymologica Cracoviensia* 10 (2005), 173-201; ● part V: Berber *m- + in *Folia Orientalia* 44 (2008), 89-105; ● part VI: Berber *m-, in: *Journal of Linguistic Relationship* (Moscow) 2 (2009), 91-113; ● part VII: Berber *n- followed by *r/l/w/y, in: Mettouchi, A. (éd.): «Parcours berbères»: *Mélanges offerts à Paulette Galand-Pernet et Lionel Galand pour leur 90^e anniversaire*, Köln, 2011., Rüdiger Köppe Verlag, pp. 97-115; ● part VIII: Berber *n- + labials, in: Serra, L.; di Tolla, A. M.; Ghaki, M.; Habouss, A. (éds.): *Pluralità e dinamismo culturale nelle società berbere attuali*, *Studi Africanistici, Quaderni di Studi Berberi e Libico-Berberi* 1, Napoli, 2011.,

for the volumes of the „*Etymological Dictionary of Egyptian*” (abbreviated as EDE, Leiden, since 1999, Brill)⁴ with a much more extensive lexicographical apparatus on the cognate Afro-Asiatic daughter languages. More recently, preparing the materials for the next EDE volume (with Eg. d-, t-, a.o.) among others, my current research over the gigantic common Afro-Asiatic lexical stock, ongoing in my library at Balatonederics, has been focused on the roots with initial dental plosives (AA *d-, *t-, *t-), from which my presentation at the Paris session in September 2021 has listed new Afro-Asiatic etymologies to some two hundred Berber lexical items (items 455-652). This vast material went into three subsequent parts of my long-range series „Some Berber Etymologies” (SBE XIV: Brb. *d-, SBE XV: Brb. *d-, SBE XVI: Brb. *t-), published from 2021 in the ÉDB volumes.⁵ In work are some further parts (SBE XVII etc.)

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- UNIOR (l'Università degli Studi di Napoli "L'Orientale"), pp. 79-90; ● part IX: Berber *n- with dental stops, in: Allati, A. (éd.): *Auréoles berbères: Mélanges Offerts à Michael Peyron*, Köln, 2016., Rüdiger Köppe Verlag, pp. 295-305; ● part X: Berber *n- with sibilants, in *Lingua Posnaniensis* (Poznań) 55/1 (2013), 99-110; ● part XI: Berber *n- with dental stops (with some unfortunate redundances overlapping with some entries of part IX due to my involuntary fault), in: *Folia Orientalia* (Kraków) 52 (2015), 307-317; ● part XII: Berber *n- followed by velars.= Tolla, A. M. di (ed.): *La lingua nella vita e la vita della lingua: Itinerari e percorsi degli studi berberi: Miscellanea per il Centenario di studi berberi a « L'Orientale » di Napoli. Scritti in onore di Francesco Beguinot. Quaderni di Studi Berberi e Libico-berberi* (Studi Africanistici) 4. Volume IV. Napoli, 2015., UNIOR, Università degli Studi di Napoli "L'Orientale", pp. 367-386; ● part XIII: Berber roots with initial *n- + C₂ as either pha/laryngeals or sonants (*-m-, *-n-, *-r-, *-l-, *-w-, *-y-), in *Lingua Posnaniensis* (Poznań) 64/1 (2022), 175-208; ● part XIV: Berber roots with initial *d- in *Études et Documents Berbères* 45-46 (2021), 341-395; ● part XV: Berber roots with initial *T- in *Études et Documents Berbères* 47 (2022), 165-207; ● part XVI: Berber roots with initial *t- in *Études et Documents Berbères* 49-50 (2023), 187-219.
4. Which was carried out partially during my research fellowship at Frankfurt (Institut für Afrikanische Sprachwissenschaften) in 1999-2000 and 2002, which was facilitated by the grant of the Alexander von Humboldt Foundation (Bonn). I express my thanks to the Humboldt Foundation as well as to my professor in Frankfurt, Herrmann Jungraithmayr, the prominent Chadicist, for his invaluable help and support. This part has been completed in the frames of my research project „Micro-reconstructions in the Southern Afro-Asiatic (Semitic-Hamitic) lexical root stock” supported by the grant „Advanced Research in Residence” (ARR) of the University of Łódź and personally encouraged by Prof. Krzysztof Witczak (head of the Dept. of Classical Philology), which I gratefully acknowledge in this place.
 5. ● Part XIV: new etymologies of Berber roots with initial *d-, in *Études et Documents Berbères* (Paris) 45-46 (2021), 249-302, in a special volume with „*les actes du Colloque 2020 de l'Histoire du berbère, session de décembre 2020*”; ● part XV: new etymologies of Berber roots with initial *d-, in *Études et Documents Berbères* 47 (2022), 165-207; ● part XVI: new etymologies of Berber roots with initial *t-, in *Études et Documents Berbères* (Paris) 49-50 (2023), 347-379.

containing *addenda* to the lexical items with initial labials. When all the above-enumerated parts are revised and completed, a few volumes of the new Berber etymological materials with initial labials, dentals, nasals are scheduled to be published.

AIM OF THIS REPORT

Although the lexical materials of SBE XIV-XVI by far do not cover the entire Berber vocabulary with initial dental radicals, the quantity of the new itself still has facilitated some lexicostatistical examinations. This is what has mattered my contribution for the Tunis session in May 2022. The curious outcome appears worth being shared in a separate paper, even if the trends deduced thereby should be more than once re-checked and verified again and again: (1) firstly, the same investigation should be performed over the already equally published Berber etymological corpus with root-initial labials (SBE II-IV) for a special study once the most recent *addenda* will also be available (to be published beginning with SBE XVII, in preparation); (2) secondly, the etymological entries to the Berber roots with initial nasals being similarly already available (SBE V-XIII), a lexicostatistical analysis over the distribution of the corresponding Afro-Asiatic cognate sets with initial nasals can soon also be performed; (3) my current research on the lexical stock with root-initial velars is hoped to yield later a third piece of our Berber lexicostatistical pilot studies.

BERBER INITIAL DENTALS: THE SHARE OF THE SUBBRANCHES IN THE EXCLUSIVE ISOGLOSSES

Out of almost 200, only 20 roots with initial dentals, as examined in SBE XIV-XVI, are safely reconstructible as Common Berber (attested in all the 4 or 3 subbranches). The relevant Guanche material (if any) has not been scanned for this study. The internal distribution of cognates in the subbranches is significant. East Berber has merely 13, whereas the by far most abundant North Berber subbranch with so numerous daughter lgs. and dialects has even so only yielded 76 cases, while the westernmost extremity = Zenaga with some 15 cases is no surprise, but the 103 (!) instances, where Twareg is the only Berber element in an Afro-Asiatic cognate set, is astonishing, since Twareg has by far not as numerous daughter languages/dialects as North Berber. Although for the case of Berber *t-, the Twareg data (of quick accessibility thanks to the gigantic life work by K.-G. Prasse) are undeniably overrepresented here on the account of other Berber branches (due to the lack of a DRB fascicle for

*t-), but the abundance of isolated Twareg roots with *d- and *ḏ- too (where Berber cognates can easily be checked in the DRB) is equally transparent throughout this study also, so, in either way and at any rate, we are disposed to suppose an outstanding degree of lexical archaism in Twareg within Berber.

Isolated Twareg roots having solely external AA etymologies are attested in an outstanding number in in this study too.⁶ These can only be regarded as typical lexical archaisms of a peripheric AA subbranch. In the westernmost extremity, in turn, the number of external matches is minimal: so far only 5 Zenaga roots isolated in Berber with initial dentals and an AA etymology.⁷ This is probably only partly due to a neglect of Zenaga materials⁸ in AA comparisons, although thoroughly checking TC 2008 for Berber *t- (not yet collected in the DRB) has once more convinced me about the substantial lexical „desiccation” or erosion of Zenaga in a great contrast to the lexically flourishing archaic Twareg „oases”. Scarce lexical archaism in Zenaga may well also be due to certain historical factors that I would not venture addressing right now. Suffice it to put a basic dilemma by drawing the apparent contrast between an all too mobile Zenaga wandering westwards vs. the isolated and presumably long millennia autochthonous (???) Twareg *diasporae*.

DISTRIBUTION OF EXCLUSIVE ISOGLOSSES OF THE BERBER ROOT-INITIAL DENTAL STOCK WITH INDIVIDUAL AFRO-ASIATIC (SUB)BRANCHES IN RELATIVE TERMS

Exclusive Berbero-Semitic isoglosses are pretty numerous (16).⁹ Isolated Twareg vs. Semitic parallels are also considerable (at least, a dozen).¹⁰ The enormously high degree of Arabic attestation in the not borrowed Berber isoglosses is perhaps no surprise. Remarkable is at the same time the minimal level of 1 single isolated Zenaga vs. Arabic match (no. 458) as well as that of one single isolated Shilh-Zenaga vs. Ar.-ES parallel (no. 481). The surprisingly high degree of lexical closeness of Berber

6. At least 31 cases, cf., e.g., entry no. 456, 460, 462, 470, 472, 476, 479, 482, 489, 490, 501, 518, 519 (also in Eg.-WCh.), 555, 574, 577, 583, 596, 599, 610, 615 (also in Zenaga?), 617, 619, 622, 626, 634, 637, 642, 643, 650, 652.

7. Nos. 458, 469, 474, 550, 573.

8. Basically available through F. Nicolas (1953) and the superb new dictionary by C. Taïne-Cheikh (2008).

9. Cf. the 507, 512, 524, 529, 558, 585, 586, 597, 601, 602, 603 var., 604 (with ECu.), 605 (Twareg only), 609, 614 (Twareg-Ar. only), 630 (Twareg only).

10. Cf. nos. 538, 542 (with Goemay), 507, 562, 563, 576 (with Hausa?), 608 (only ES), 625 (with Angas?), 637 (+ Hausa), 639, 640 (+ CCh.), 641 (+ Angas), 642 (+ Dullay).

especially to Ethio-Semitic is apparent throughout the whole examined Berber etymological material with initial dentals. We have 4 sets of Berbero-Afro-Asiatic parallels where the Semitic side is only represented by Ethio-Semitic,¹¹ whereas the number of isolated Twareg roots having only an Ethio-Semitic match in Semitic is even higher (min. 7) in this corpus.¹² I collected at least half of a dozen further isoglosses between Berber in general vs. Ethio-Semitic only.¹³

The relatively high number of specially Berbero-Egypto-Semitic lexical parallels (more than 20) fits well into the isomorph-based *communis opinio* on these three branches as forming a more tightly related northern core of Afro-Asiatic (Takács 2015).¹⁴ Exclusive Berbero-Egyptian isoglosses are, in turn, not particularly impressive (especially regarding the much more numerous Berber-Semitic matches), just some half a dozen of cases.¹⁵ Remarkable are 4 further special Berbero-Egypto-Chadic isoglosses.¹⁶ The westernmost periphery is poorly present with 1 single Zenaga + Twareg vs. Eg. isogloss (no. 477).

Berber and Cushitic are standing spectacularly afar from one another, which neatly complies with the theory on Cushitic as the 2nd/3rd earliest branch to split off from the PAA core in the testimony of glottochronology and the isomorphs (Takács 2015). Thus, the minimal quantity of NBrb.-Bedja isoglosses,¹⁷ 1 single exclusive Twareg-Bedja match (no. 646) as well as only 3 Brb.-LECu. parallels (nos. 541, 607, 635: Twareg only) is not surprising. At the same time, remarkable are the Berber etymologies where Cushitic is only represented by peripheral Southern Cushitic (southernmost group in whole AA),¹⁸ which may well be due to the relatively higher degree of lexical archaisms in this peripheral Cushitic subbranch.

Omotic unexpectedly slightly superseded the overall score of Cushitic in relation with Berber root stock with initial dentals, although both the

11. Cf. nos. 534, 536, 557, 598.

12. Cf., e.g. 459, 461, 480, 491, 513 (with Eg.), 577, 608, 618 (+ Eg.).

13. Cf. nos. 473, 526 (+ Oromo), 535, 539, 570, 632.

14. Cf. nos. 505 bis (with AS), 527, 528, 572, 578 (with WCh.: Ngizim), 581 (with HECu. < ES? + AS), 584 (with AS), 589 (with WCh.), 590, 595, 596 (Twareg.-Eg. + CCh.), 600, 603 (with Ch.), 616 (Twareg only), 618 (Twareg only), 620 (Twareg only + Hausa), 627, 628 (Twareg only), 631 (Twareg only), 633, 636 (Twareg only + LECu.), 645 (NBrb., Zenaga, Twareg), 648 (Twareg only).

15. Cf. nos. 495, 517 (perfect Eg.-NBrb. match + weaker SAA cognates), 533, 588, 591, 611 (Twareg only), 636 bis, 644 (Twareg only).

16. Cf. nos. 509 (N/EBrb.), 522 (Ngizim???), 523 (AS), 629 (Twareg only).

17. Cf. nos. 497, 649 (+ LECu.).

18. Cf. nos. 545, 553 (with Ar.), 638, 647 (+ Akk./Sem.??).

glottochronological calculations multiply re-calibrated by A.Ju. Militarev and V. Blažek with the method of S.A. Starostin and the isomorphs clearly suggest Omotic to be the earliest branch to split off PAA (Takács 2015). The reason may well be subjective: in spite of three pioneering, albeit imperfect, attempts at reconstructing Proto-Cushitic,¹⁹ until now we lack a reliable and comprehensive comparative Cushitic lexicon, whereas we have such for Omotic thanks to M.L. Bender's (2003) splendid Omotic comparative dictionary arranged according to semantical entries, which I have turned during two research seasons (2019-2020) upside down into an alphabetical wordlist. Exclusive common Berbero-Omotic isoglosses in (not subbranch-specified on either side) are at least half of a dozen,²⁰ whereas we collected half of a dozen further Berbero-Omotic matches where we have some further cognate in a third AA branch also.²¹ Moreover, isolated Twareg vs. Omotic matches count in this segment of the common lexicon 4 further special isoglosses.²²

Although the presence of Chadic cognates is extremely high and would have even be even substantially higher (had we had the opportunity to scan not just a couple of Chadic groups' available comparative lexicons for cognates to Berber roots if such existed for all the 27 Chadic groups...), the number of exclusive Berbero-Chadic isoglosses is not that overwhelming (some 10 pieces).²³ We counted some 8 further parallels between isolated Twareg roots (not found elsewhere in Berber) vs. Chadic.²⁴ Note that we have only found but 1 single Twareg-Hausa isogloss (no. 571), which, even if loans are excluded, is by far under-represented.

19. The revolutionary comparative Cushito-Omotic dictionary by A.B. Dolgopolskij (1973), in spite of its ingenious vision of the consonantal *Lautgeschichte*, has become greatly out-dated by now, many of its lexical equations being phonologically untenable and the PCu.-Om. often baseless. Ch. Ehret's (1987) Proto-Cushitic lexicon might be a good starting point after a rearrangement of semantically unfitting parallels. The posthumously (2020) published *magnum opus* on the common Cushitic lexicon by M.L. Bender (1934-2008), the giant of Ethiopian and esp. Omotic linguistics, is unfortunately not comprehensive and, most importantly, semantically and alphabetically arranged, so tremendous work (like in the case of Bender's 2003 Om. lexicon) would be needed for turning it upside down to be usable for our scanning purposes.

20. Cf. nos. 508, 524, 525, 569, 573 (Zenaga-Aroid), 651 (Twareg only).

21. Cf. nos. 504 (with Ch.), 530 (with Ar.), 580 (with ECu.-Ar.), 587 (with Eg.), 612 (Mzg., Zenaga, Twareg + Mao + Ar.?), 624 (+ Cu.).

22. Cf. nos. 484, 511, 551 (with AS???), 594.

23. Cf. nos. 485, 486, 487, 500, 514, 515, 565, 592, 606, 613.

24. Cf., e.g., 455, 471, 475, 501 (with LECu.), 561, 575, 596, 621, 623.

DISTRIBUTIONS OF AFRO-ASIATIC COGNATES IN ABSOLUTE TERMS

Semitic produced overall scores in a significant distribution. There are but 5 common Proto-Semitic cognates to this Berber material. The numbers of Akkadian (25) vs. Canaanite (11) vs. Central Semitic = Macro-Canaanite + Aramaic + Arabic (15) cognates are unexpected. The outstanding Arabic share itself (some 85 cases, loans excluded) is over-represented because of the abundance of the accessible lexical sources. The score of peripheric Modern Southern Arabian (MSA) is insignificant (11). The overwhelming share of Ethio-Semitic (57 cognates to almost 200 Berber roots) in this material is astonishing and challenging only that of Arabic despite the negative circumstances (present peripheric geographical position, lack of a comparative work on Common Ethio-Semitic with *t-) hardly predicting such a lexical closeness of ES to Berber among the Semitic groups, whose reasons will have to be (re)searched in the history of AA migrations.

Egyptian has yielded 64 cognates in total, which is no surprise regarding the tight unity of Berber, Egyptian, and Semitic in the NAA block (Takács 2015). This score is increased by 8 further instances, where no hieroglyphic attestation is known, but the Egyptian root has been preserved by Demotic only (4) or Coptic only (4), resp.

Cushitic parallels are not significant in any of its subbranches except for LECu. (due to Somali): common Proto-Cushitic 2, Bedja 13, Agaw 9, common East Cushitic 12, Lowland East Cushitic 25, Highland East Cushitic 7, Dullay 6, Yaaku 2, common South Cushitic 7, West Rift 9, East Rift 3, Ma'a 1, Dahalo 5.

Omotic groups are in the same situation (with slight emphases on Omoto, Kefoid and Aroid): Proto-Omotic 4, Omoto 14, Chara 6, Gimirra 3, Yemsa (Janjero) 3, Kefoid 12, Mao 6, Dizoid 4, Aroid 10.

Chadic, the least compared and reconstructed AA branch, has turned out here to be an arena of the greatest controversies. Its overall score of 129 cognates is another surprise in this study, let alone that, very probably, even this score is so by far below the reality, because out of the 27 Chadic groups, only very few have been equipped with comparative dictionaries.²⁵ There are but 6 Proto-Chadic cognates to Berber. The

25. Those Chadic groups where reconstructed proto-forms are available are, of course, by far over-represented, namely some 8 groups, such as Angas-Sura (Takács 2004), Bole-Tangale (Schuh 1984), Northern Bauchi (Skinner 1977) in West Chadic, Mafa-Mada

special studies by O. Röessler (1979) and by J. Bynon (1984) on the inherited common Berbero-Chadic lexicon are etymologically not restricted to these two branches, but restricted to certain Chadic groups only, so cannot yield a true picture at all. In any case, one will only comprehend the dimensions of the Chadic share after scanning through the (not yet available) immense comparative lexicons all the rest of the numerous Chadic groups with enormous lexical diversity. At an rate, the intimate lexical relations of Berber/Twareg with Ethio-Semitic and Chadic, also those of Chadic with Omotic begin to depict some outlines of Holocene green Saharan prehistory of AA.

EN LIEU OF A CONCLUSION

A study like this focusing just on a small slice of Berber lexicon can hardly yield definitive conclusions, which was not planned anyway. But elaborating the AA etymologies for some two hundred Berber roots has not only resulted in a new step towards the initial dental fascicle of a long desired etymological dictionary of Berber, but it has also brought me closer to some far-reaching theses that will have to be dealt with separately:

- 1) a great deal of root varieties in Berber and also other branches are no recent innovation, but inherited from CAA.
- 2) The enormous and exclusive lexical archaisms of Twareg are getting more and more apparent.
- 3) The poor share of Zenaga in the inherited AA lexical treasure, in turn, is hardly due to its neglect in comparative works, but to a serious lexical erosion conditioned by historical reasons.
- 4) The lexical closeness of Semitic and especially of Arabic (loans not even counted) to Berber is more evident.
- 5) The surprisingly high number of exclusive isoglosses of Berber and Ethio-Semitic is something new to me.
- 6) That Egyptian was only a loosely tied member of the NAA block along with the tighter Berbero-Semitic unity, has been once more corroborated by this study also.
- 7) Both Cushitic and Omotic (as the first two branches to split off PAA according to isomorphs and glottochronology) are lexically far too remote from Berber.
- 8) But the enormous share of Chadic in Berber etymologies is astonishing, whose reasons are presumably diverse, e.g., certainly an areal factor in

(or Matakam) (Rossing 1978), Musgu, Masa in Central Chadic, Dangla-Migama and Mubi-Toram in East Chadic (all these latter ones currently under work at the LLAARR by G. Takács).

the late Holocene Saharan history of Berber and Chadic, a hopeful future research domain.

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Appendix I: list of attestation of the isoglosses in the individual AA branches for Berber roots with initial dentals

Brb. entry no.	Eg.	Sem.	Cu.	Om.	Ch.
455 Twareg only			HECu.		BT, ECh.
456 Twareg only		Ar., ES	Awngi	NOm.	W/CCh.
457 Shilh, Ayr		CSem.-ES			AS, BT
458 Zenaga		Ar.			
459 Twareg only		ES			
459.1 Twareg only		ES			AS
460 Twareg only			Bed.		Hausa
461 Twareg only	+	ES			AS
462 Twareg only				Dizoid	Ngizim
462.1 -			Dahalo		Hausa, ECh.
463 Common Brb.		Ar.	SCu.		WCh.???
463.1 -		Akk., CSem., MSA, ES	LEC <u>u</u> .		WCh., DM
463.2 -	+			Kefoid, Aroid	Common Ch.
463.3 -		Ar.-ES	Agaw, SCu.		WCh.
463.3.1 -		Ar.-ES			
463.3.2 -		Ar.-ES			
463.3.3 -		Ar.			

464 Qabyle				Kefoid	
465 Shilh				SEOmeto	AS, MT
466 Mzg.				Chara	
467 Common Brb.		Ar.			
468 NBrb.				NWOmeto	Nbauchi
469 Zenaga				Kefoid	
470 Twareg		CSem., ?ES			
471 Twareg only			PCu.		Hausa
472 Twareg only		Can., ES	Bed., LECu.	SEOmeto, Mao	CCh.
472.1 -		Ar.-ES			
472.2 -		ES: Geez			CCh.
473 Wargla		ES			
474 Zenaga	+	Ar.			BN
475 Twareg only					AS
476 Twareg only	+		Bed.		AS
477 Zenaga-Twareg	+				
478 NBrb.	+	Ar.	NAgaw		
479 Twareg only	+?	NWSem.-ES			
479.1 -	LEg.				Hausa
480 Twareg only		ES			AS
481 Shilh-Zenaga		ES			
481.1 -		Ar.	LECu.	NWOmeto	
481.2 -	+	Ar.-ES			
482 Twareg only	+	Akk.			
483 Qabyle-Twareg					BN
483.1 Qabyle		Ar.		Aroid	BT
484 Twareg only		MSA-ES		NOm.	
485 Common Brb.			Bed.		AS

485.1 -		Akk.- MSA-ES	LEC <u>u</u> .		
485.2 -			Agaw		Masa
486 Common Brb.					AS
487 Zenet-Qabyle					Tera
487.1 -		CSem.			CCh., MT
488 Shilh	+	Ar.			
488.1 -			LEC <u>u</u> .		AS, DM
489 Twareg only	LEg.	ES			AS
490 Twareg only		MSA			AS
491 Twareg only	+	ES			AS
492 Zenet		Ar.-MSA	EC <u>u</u> .		
493 Shilh, Ntifa	+	CSem.			AS
494 NBrb.	+	Ar.			AS
494.1 -		ES	LEC <u>u</u> .		
495 Common Brb.	+				
496 Shilh-Twareg			Agaw- LEC <u>u</u> .?		
497 NBrb.			Bed.		
498 EBrb.-Twareg		Ar.			
499 Mzg.		Ar.			
500 Common Brb.					AS
501 Twareg only			LEC <u>u</u> .		AS, NBAuchi
502 Shilh			ERift		AS
503 Shilh	+		LEC <u>u</u> .		AS
504 Shilh-EBrb.				NWOMETO	AS
504.1 -			NWRift	Mao	
505 Common Brb.		Akk.	LEC <u>u</u> ., WRift		AS, KK
505 bis Qabyle	caus.?	Ar.			AS
506 Wargla-Righ		Ar.	Rift		PCh.

507 Twareg only		Akk.-Ar.			
508 Common Brb.				Om.	
509 E-NBrb.	+?				BT-SBauchi, Musgu, ECh.
510 Zenet-Mzg.-Zng.			WRift		
510.1 -	+	Ar.			
510.2 -		Akk.-Can.			Hausa
511 Qbl.				Mao	
512 Mzg.		Ar.-MSA			
513 Twareg only	Dem.?	ES			
514 Common Brb.					BN?
515 NBrb.					AS
516 NBrb.		Ar.			WCh.
517 Mzg.	+		LEC <u>u</u> .	Ometo	PCh.
518 Twareg only	Coptic	Ar.	Dahalo		WCh.
519 Twareg only	+				AS, Hitkala
520 Common Brb.	+	ES	HEC <u>u</u> .		Ron
521 E-NBrb.	NEg.?	Can., Ar., ES	HEC <u>u</u> .		
521.1 -		Akk.-Ug.- Hbr.			
522 NBrb.	+	ES			BN?
523 Twareg only	+				Angas
524 Common Brb.				Ometo- Chara5	
524.1 Nefusa		Aram.-MSA			
525 Qabye				SEOmeto- Aroid8	
526 NBrb.			LEC <u>u</u> .		
527 Common Brb.	+	Akk.- CSem.-ES			
528 NBrb.	+				

528.1 -					WCh.???
529 NBrb.		Akk.			
530 Shilh-Qabyle-Twareg		Ar.		Gimirra3	
531 Shawya	+	Akk.18-Hbr.-Ar.	Bed.8, NAgaw, LECu.	Kefoid9	
532 Common Brb.	+	Ar.	Bed., LECu., SCu.	Yemsa3, Kefoid	Hausa, NBauchi, Tumak
533 NBrb.	+				
534 Twareg only		ES	LECcu.	Yemsa, Dime	AS
534.1 -		Aram.-Ar.		SEOmeto	AS
535 Qabyle		ES			
536 Gdm.		ES	ECu., ERift	Ometo	AS, BM
537 NBrb.			LECcu.		
538 Twareg only		Akk., CSem., ES			
539 Gdm.		ES			
540 NBrb.	verb?	Ar.			Ch. verb?
541 Twareg only			LECcu.		BN
542 Twareg only		PSem.			AS
543 Shilh		Ar.	Yaaku	Chara, Dizoid	AS
544 Common Brb.		CSem., ES	HECu.	Kefoid-Aroid	
545 Shilh-Mzg.-Gdm.			WRift		
546 EBrb.			ECu.		AS
547 Siwa	+	Ar.-ES	Ma'a		BN, MT
548 Figuig	+		SCu.	Chara	AS
549 NBrb.		Hbr.			AS

550 Zenaga		Ar.-ES	NAgaw??? + LECu.	Aroid	DM
551 Twareg only				Kefoid	AS
552 Common Brb.		Ar.	LECu., Dahalo		AS
552.1 -	+	Ar.	LECu.		
553 Mzg.		Ar.?	WRift		
554 Common Brb.	+	Ar.	LECu.		AS, Mokilko
555 Twareg only	+	Ar.			Hausa, AS
555.1 -		Ar.			PCh.
555.2		CSem.			
556 Snus, Qbl.	+	Ar.			
557 Figuig	+???	ES???	HECu.???		
558 Mzg.		Hbr.-Ar.			
559 Common Brb.		PSem.			AS
560 Qbl.-Twareg		PSem.			PCh.
561 Twareg only					AS
562 Twareg only		Akk.			
563 Twareg only		Akk.			
564 Common Brb.		ES???	WRift???		Hausa-AS???
565 Common Brb.					MT, DM
566 Qabyle, Wargla, Twareg		Aram.-Ar.	Dullay	Chara	AS
567 Common Brb.		Ar.		Mao	AS
568 Common Brb.		MSA			
568.1 -		ES	NAgaw, LECu.		
568.2 -		Ar.		Chara	AS
569 Common Brb.		ES?		NWometo	
570 Common Brb.		ES			
571 Twareg only					Hausa
572 Gdm.	Dem.	Ar.			

573 Zenaga				Aroid	
574 Twareg only	+			Kefoid	
574.1 -		MSA		Kefoid, Mao	AS
575 Twareg only					CCh.
575.1 Beni Snus					
576 Twareg only		Ar.			Hausa
576.1 Twareg only					Kotoko
577 Twareg only		ES?	Bed., Dullay	SEOmt.	Dghwede, Kabalay
578 NBrb.-Twareg	+	Akk.-Ar.	Bed.		SBch., BN, CCh.
579 Wargla-Qbl.		Aram.-Ar.			AS
580 Twareg only		Ar.	ECu.	Kefoid, Omt., Aroid	SBch.
580.1-2 E-NBrb.	+	ES			Tera
580.3 Rif			Dhl.		Bch., Tumak
581 Twareg only	+	Aram.-ES	HECu., Dullay		AS
581.3 -	Dem.	ES			
582 Shawya		Ar.	Dullay	Dizoid, Aroid	
582.1 -		Ar.			Hausa
582.2 -	GR?	OSA-Ar.			AS
583 Twareg only		Hbr.	ECu.		AS, Ron, Kotoko
584 Twareg only	+	Hbr.-Ar.-ES			AS
585 E-N-WBrb.		Ar.			
586 Shilh-Qbl.		Ar.			
587 Twareg only	+			NOM.	
588 Common Brb.	+				
589 NBrb.-Zng.	+	Akk.-Ar.			AS, Ron

590 Qbl., Shawya	+?	Ar.			
591 Rif	+				
592 Common Brb.					AS
592.1 -	+?	Ar.			
592.2 -		Aram.- Ar.-ES			
592.3 -		Ar., ES?			
592.4 Twareg only		Ar.-MSA			
592.5 Twareg only		Akk.- CSem.-ES			
593 NBrb.	+	Ar.-ES	ECu.		NBauchi
594 Twareg only				Aroid	
594.1 Twareg only		Ar.			
595 Twareg + Qbl.	+?	Ar.			
596 Twareg only					MM
597 Common Brb.		Ar.			
598 Qbl.		ES	HECu., Yaaku	Kefoid	
599 Twareg only			HECu.		
599.1 -		Akk.			AS
600 NBrb.	+	Ar.			
601 NBrb.		Ar.			
602 Mzg.		Ar.-ES			
602.1 -		Ar.		Gimirra	AS
603 Mzg.	+	Ar.			AS, DM
603.1 Gdm.-Twareg		Ar.			
604 E-N-WBrb.		Ar.	ECu.		
605 Twareg only		Ar.-MSA			
606 Wargla-Twareg					Hausa, NBauchi, Masa

607 Shilh			LEC _u .		
608 Twareg only		ES			NBauchi?
609 Mzg.		Ar.			
610 Twareg only	+			Gimirra, Kefoid	AS
610.1 -	+				PCh.
611 Twareg only	Cpt.				
612 Twareg-Zng.-Mzg.				Mao	
612.1 -		Ar.		Mao	
612.2 -				Dizoid	AS
613 Twareg only					MT
614 Twareg only		Ar.	LEC _u .		
615 Twareg, Zng.?	+		WRift		Hausa
616 Twareg only	Cpt.	Akk.- Hbr.-Ar.			
617 Twareg only		Ar.	NAgaw		CCh.
618 Twareg only	Dem.	ES?			
619 Twareg only			WRift		AS
620 Twareg only	Eg.?	Ar.			Hausa
621 Twareg only					AS
622 Twareg only		Ar.		Aroid	
622.1 -			Bed.		AS
623 Twareg only					AS
624 Common Brb.			EC _u , Omt., Chara		
624.1 -	+	ES	LEC _u .		AS
624.2 -			WRift?		Masa?
625 Twareg only		Ar.-MSA	LEC _u .		AS
626 Twareg only		Akk.-Hbr.	Bed.		BN

627 Mzab (Ar. lw.?)	+	Akk.			
628 Twareg only	+	Akk.			
629 Twareg only	+				AS
630 Twareg only		Ar.			
631 Twareg only	+				Hausa
632 Mzg.		ES			
632.1 -	+		Dullay		AS
633 Wargla	+	Ar.			
634 Twareg only	LEg. (loan?)	Ar.-ES	SCu.		AS
635 Twareg only			LEC <u>u</u> .		
636 Twareg only	+	Ar.	LEC <u>u</u> .		
636 bis Common Brb.	+				
637 Twareg only		Akk.-Aram.			Hausa
638 Twareg only			SCu.		
639 Twareg only		Akk.-Ug.			
640 Twareg only		Akk.-Ar.			Kotoko
641 Twareg only		Ar.			AS
642 Twareg only		Ar.	Dullay		
643 Twareg only	Cpt.		Dhl.		WCh.
644 Twareg only	+				
645 NBrb., Zng., Twareg	+	Akk.	PCu.?		
646 Twareg only			Bed.		
647 Twareg only		Akk.???	ERift		
648 Twareg only	+	Akk.			
649 Qbl.			Bed., LEC <u>u</u> .		
650 Twareg only	+	Ar.	SCu.		AS, NBch., Daba, Lay, Somray

651 Twareg only				Yemsa	
652 Twareg only			LECū.		AS
Brb. entry no.	Eg.	Sem.	Cu.	Om.	Ch.

Abbreviations of languages and other terms

AA: Afro-Asiatic (Afrasian, Hamito-Semitic), Akk.: Akkadian, Ar.: Arabic, Aram.: Aramaic, AS: Angas-Sura, Bed.: Bed’awye (Beja), BN: Bade-Ngizim, Brb.: Berber (Libyo-Guanche), BT: Bole-Tangale, C: Central or Common, CAA: Common Afro-Asiatic, Can.: Canaanite, Ch.: Chadic, Cpt.: Coptic, Dem.: Demotic, DM: Dangla-Migama, E: East(ern), Eg.: Egyptian, ES or Eth.-Sem.: Ethio-Semitic, , Gdm.: Ghadames, Hbr.: Hebrew, HECū.: Highland East Cushitic, Hgr.: Ahaggar, KK: Kera-Kwang group, L: Late or Lowland, LECū.: Lowland East Cushitic, LEg.: Late Egyptian, MSA: Modern South Arabian, MT: Mubi-Toram, Mzg.: Tamazight, N: New or North(ern), NAA: Northern Afro-Asiatic (common to Semitic, Egyptian and Berber), Om.: Omotic, OSA: Old South Arabian, P: Proto-, S: South, SAA: Southern Afro-Asiatic (common to Cushitic, Omotic and Chadic), Sem.: Semitic, Ug.: Ugaritic, W: West.

ABSTRACT: The paper draws some lexicostatistical conclusions from the multitude of the new etymological entries to Berber lexical roots with initial dentals published recently on the pages of EDB in parts XIV-XVI of our long-range series „Some Berber Etymologies”. This series, when completed, may eventually result in editing its materials for an etymological dictionary of the Berber root inventory, a desired addition to the complement interrupted series of fascicles of the comparative dictionary of Berber roots (DRB). The planned volumes of Materials of a Berber Etymological Dictionary (MBED) are to encompass hundreds of new etymologies each in the context of the Afro-Asiatic cognate lexical materials.

KEYWORDS: Berber, lexical roots, reconstruction, comparative Afro-Asiatic linguistics, historical phonology, lexicostatistics.