Some Berber parallels of European substratum words
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Some Berber Parallels of European Substratum Words¹

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1. Introduction

In recent years, the substratum languages that underly the Indo-European languages of Europe have received new attention from a number of scholars. Several substratum words have been identified and a number of morphological characteristics of substratum words has been defined (e.g. Polomé i.a. 1989, 1990, Kuiper 1995, Vennemann i.a. 1995, Beekes 1996, Boutkan 1998, forthc., Boutkan & Kossmann 1998). The identification of the substratum language(s) has also received attention. Especially Basque and Semitic are favourite candidates (cf. Vennemann 1995, Kortlandt 1997).

In this article, we shall present a number of lexical parallels between European substrate material² and evidence from another language group, viz. the Berber languages of northern Africa. Some Berber material has been used by propagators of a circummediterranean substratum (cf. Durand 1994 for a critical discussion). Especially the comparison of Latin sappinus with Berber tasaft 'oak' has been given some attention (esp. Hubschmid 1950). We shall not give a full discussion of the proposed correlations, which are of different degrees of probability (cf. a.o. Cohen 1931, Hubschmid 1950).

The evidence presented in this article was gathered more or less by chance without involving a complete scrutiny of all available material. It is possible that a more detailed analysis of the Berber lexicon will provide more parallels.

¹We wish to thank our collegues Dr. Nico van den Boogert and Dr. Peter Schrijver for their important suggestions concerning several of the etymologies proposed here. Dr. H. J. Stroomer was so kind to put the computerized materials of his Sous-Berber dictionary (in prep.) to our disposal.

²Of course we do not wish to imply that all forms are derived from one single substrate language. Cf. also Beekes (1996: 217-8).

At this moment, it is impossible to assess the status of these lexical parallels. It may very well be that they can be ascribed to mere chance. However, we consider it useful to introduce this Berber material into the discussion.

2. Note on the Berber reconstructions

The reconstruction of Proto-Berber is in a very preliminary stadium. Therefore, proposals for a reconstruction must be equally preliminary. In evaluating our version of (Pre-)Proto-Berber, one should note the following points of departure:

(1) Berber f and γ are reconstructed as p and q (uvular voiceless stop), respectively.

(2) Touareg h (= Ghadames β) is reconstructed * β . As Proto-Berber *b is rare in many contexts, one may assume that * β goes back to **b in some earlier stadium of the language.

(3) The short vowels are reconstructed on the basis of Southern Touareg and Ghadames forms. We assume that $[\check{a}]$ goes back to short *a and e (= schwa) to short *i and *u.

(4) As the Touareg/Ghadames long vowels ℓ and σ are often, though not always, the result of secondary developments, they will be written *i and *i respectively in the reconstructions.

(5) Vowels that could not be reconstructed, or that vary according to regular ablaut patterns are written [V].

In the reconstructed forms, the Berber nominal prefixes and suffixes are not included. Where the so-called 'voyelle constante' does not go back to *[ß], it is taken as part of the root morpheme. In the actually attested forms, spirantization is not indicated.

The reconstructions are based on as many as possible reliable Berber forms. Most forms included can without problem be reconstructed for Proto-Berber.

3. The evidence

3.1 'berry' (Lat.)

European: Lat. bāca 'berry', an isolated etymon that is probably not to be connected with Welsh bagad 'bunch' (Schrijver p.c.). An alleged Lat. bacca, though attested in Modern Romance languages, cf. Italian bacca, does not exist (Juret 1918: 195).

Berber: * $bq\bar{a} < *\beta q\bar{a}$? 'blackberry, mulberry'

Premodern Sous Berber tabya ~ tafya 'mûre', Middle Atlas tabya

'mûres sauvages de ronce' Rif tabya 'sorte d'herbe' Chenoua habya 'mûre'

Discussion: Although Berber plant names are often borrowed from Latin, the absence of the first long vowel of Latin $b\bar{a}ca$ in the Berber forms makes borrowing improbable (pace Schuchardt 1919: 22-23).

3.2 'evening' (Gmc.)

European: PGmc. *ăf(t)-an(d)-, cf. ON aptann, OE āfen, OS āband, OHG āband, abunt, abant, OFris. ēvend, ODu. avont, avant, MDu. avont, avent

Cf. Beekes (1996: 231-2) on all formal problems concerning this Gmc. isolate, such as the remarkable 'ablaut' * \bar{a} ~ *a that is a current feature of (North) European substratum words in Gmc. (cf. also Boutkan forthc.).

Berber: * βad 'night'

Ahaggar Touareg éhoḍ, Iwellemmeden Touareg éhăḍ, Ghadames ê β ăḍ, Kabyle iḍ, Sous iḍ, Middle Atlas iḍ, Mzab iḍ, Ouargla iḍ, Figuig id

Discussion: The absence of a nasal element in the Berber forms makes the comparison less attractive. Note however its absence in some Gmc. forms, too.

3.3 'goat' (Gmc., Italic)

European: PGmc. *gait-, cf. Goth. gaits, ON geit, OE gāt, OS gēt, OHG geiz, MDu. gheit, gheet; Lat. haedus, Sabinian faedus 'hegoat'

The word is a well-known Gmc.-Italic isogloss (Krahe 1954: 76). The Gmc. word may originally have been a root noun (De Tollenaere 1982/3).

The relation between this etymon and Lat. catulus 'young of an animal' remains unclear. We find possibly cognate Umbrian KATEL 'catulus', but also semantically fitting M-Irish cadla, MHG hatele 'goat', also ON hadna 'young goat'.

³As to the formal complications concerning the relationship between catulus and $*g^haid$ -, note the ununderstood variation of apparent $*g^h$ and *k in European substrate material, e.g. in *ghabh- in Lat. habere 'have', OIr. gaibid 'take, seize', Lith. $gab\acute{e}nti$ 'transport' $\sim *kap$ - in Lat. $capi\delta$ 'seize', Gr. $k\acute{a}pt\delta$ 'seize eagerly', PGmc. *hab- (Goth. haban, etc.) 'have'; also Lat. caper 'buck', Gr. $k\acute{a}pros$ 'wild boar', OIr. caera 'sheep', ON hafr 'buck' < *kap-ro- \sim OIr. gabor, Gaul. Gabro- 'buck' $< *g^hab^h$ - (Schrijver p.c.). Furthermore, a variation $*ai \sim *a$ is also frequent in European substrate words, cf. Schrijver (1997: 304ff.). Thus, we could connect *kad- and $*g^haid$ -.

Berber: * āqāḍ '(she-)goat'; *qayd 'billy goat'

Ahaggar Touareg *iγeyd* 'chevreau', Iwellemmeden Touareg *έγăyd* 'chevreau', Ghadames *tê^caţ* (< *tê'adt) 'chevre' a^cîd (< *aγîd) 'chevreau', Kabyle taγaţ 'chèvre' iγid 'chevreau', Sous taγaţţ 'chèvre' iγid, iγžd (< * iγeyd) 'chevreau', Middle Atlas taγaţţ 'chèvre' iγid 'chevrau', Rif tγaţ 'chèvre' iγeyd 'chevreau', Ouargla iγeyd 'bouc, chevreau', Mzab iγid, iγeyd 'chevrau', Figuig tγaţţ 'chèvre' iγid 'chèvre'

The Berber words for 'goat' and 'billy-goat' cannot be linked formally.⁴

Discussion: The European and Berber words show remarkable similarities, both formally and semantically.

3.4 'bent' (Gmc. [, Celt.], perhaps also Greek)

European: WGmc. *krumb in OÈ crumb, OS krumb, OFris. krumb, OHG chrumb, MHG krum(p), MLG krum(me), MDu. crom(me), cromb, crumb 'crooked, curved' [; OIr. cromb, cromm, Welsh crum, Cornish crom 'bent', OBret. crum 'hunchbacked', MBret. kro(u) mm 'bent']; maybe to be connected with Gr. grūpós 'bent', (Hesych) grumpánein · grupoùsthai (Pokorny 1959: 387).

The Celtic forms may be early loans from Gmc. (Vendryes 1959-, C-244-5).

Berber: **ku/irVnb*- etc. 'to be bent'

Ahaggar Touareg kerembi 'être courbé' Iwellemmeden Touareg kerenbew 'être courbé' Rif krumbeš (from *krumbeš or *klumbeš) 'être enchevetré' (Cadi 1987: 142)

The quantity of the second vowel is uncertain. The quality of the vowel may go back to *u. The Berber form shows various expressive extensions.

Discussion: Because the European forms show two features which typically cause variation in North European substratum material, viz. optional prenasalisation (Kuiper 1995: 68ff.) and initial kr, we suspect that the similarity with the Berber forms is coincidental.

3.5 'burrough' (Gr. [, Lat.], perhaps Gmc.)

European: Gr. púrgos 'fortification' [, → Latin burgus], perhaps PGmc. *burgs, cf. Goth. baurgs 'city, tower', ON borg 'city, castle, height, wall, fortified place', OE burg, burh, OS burg, OHG

⁴The Berber word has also been connected to Greek *aiks*, *aigos* 'Aegis' (Camps & Chaker 1996).

The Journal of Indo-European Studies

bur(u)g, MHG bure, MLG borch, MDu. bor(e)ch, burch, boorch, borcht 'fortified place, castle, city', ODu. burg 'civitas'

The Greek form may represent a European substrate term (different Furnée 1972: 64-6, 178, who compares Urartu burgana 'palace').

Usually the Gmc. forms are considered as a contamination of a Gmc. word related to *berg- 'mountain' (i.e. a zero-grade *burg- $< *b^h r g^h$ -, cf. also Griepentrog 1995: 91-116, with abundant reff., especially p. 112) and a Latin loan burgus. However, *burgs may equally represent a zero-grade to the PIE root (note also that the word is a root stem), or, on the other hand, be a substratum word in Gmc. without further complications, cognate with Gr. púrgos, phúrkos.

Berber: * farāg 'enclosure'

Ahaggar Touareg *ăfarag*' 'clôture', Iwellemmeden Touareg *afărag* 'clôture, jardin', Kabyle *afrag* 'clôture' Middle Atlas *afrag* 'haie, clôture', Rif *afray* (<**afrag*) 'clôture', Ouargla *afrag* 'haie'

Most Berber languages have an additional verb *efreg* meaning 'to enclose (by an *afrag*)'.

Discussion: The situation in Europe is complicated by the coexistence of a PIE etymon 'mountain', i.e. $*b^h r g^{h}$ - (Pokorny 1959: 140-1, see above) and a possible alternative comparison with the Gr. isolate *phrássō* 'to encircle' (see however Frisk 1960-1972, s.v.).

3.6 'crutch' (Gmc.)

European: WGmc. *krukjō, cf. OE cryce, OS krukka, OHG krucka, MDu. crucke, crocke, cricke 'crutch', beside *krak-, cf. ON kraki 'stick with a hook', *krōk-, cf. ON krōkr 'hook', krækill 'crook, crozier', perhaps also with *æ and root-final *-g: OHG krāgo < *kræg- 'hook'.

The form of the root as well as the non-IE 'ablaut' * $u \sim *a \sim *\bar{o} (\sim \hat{a})$ (in a substantival root) point to a non-IE heritage in Gmc. (pace De Vries 1992, s.v. kruk and the mechanical root-etymology in Pokorny 1959: 385).

Berber: * qaru/iy 'stick'

Ghadames $ta\gamma \tilde{a}rit$ 'bâton', Kabyle $i\gamma ri$ 'bâton' (archaic), Middle Atlas $ta\gamma riyt$ 'bâton', Rif $ta\gamma\gamma \tilde{a}st$ ($<*ta\gamma(\gamma)reyt$) 'canne', Figuig $a\gamma rey$ 'bâton'.

Discussion: Variation of k and y is irregular in Berber, but not uncommon, especially root-finally. The assumption of the variation in this etymon is $ad\ hoc$.

3.7 'head' (Gmc., Lat.)

European: PGmc. *haubid-, *haubud-; *hafud- < *ka(u) pVt-, *haful- < *kapul-, cf. Goth. haubiþ, ON haufuþ, OE hēafod, OS hōbid, OHG haubit, MHG houb(e)t, houpt, MLG hövet, ODu. hōvid, MDu. hovet, hooft, hoift, hoot, hood, hoit, ON hofuþ, OE hafud 'head', OE hafola; Lat. caput 'head'

On this etymon and its apparent substrate origin cf. Beekes (1996: 218-220). In view of OE hafola, one can consider that the dental and competing lateral elements represent extensions to a root *ka(u) p, cf. also Boutkan (1998: 111-2).

Berber: * qap 'head, top'

Ahaggar Touareg éyef 'tête', Iwellemmeden Touareg éyăf 'tête, sommet', Ghadames éyăf 'tête, extrémité, sommet', Kabyle ixef 'tête, sommet', Sous ixf 'dessus', Middle Atlas ixf 'tête', Rif ixf 'bout', Ouargla ixf, iyef 'tête', Mzab iyef, ixf 'tête, bout', Figuig ixef 'tête'

Discussion: The European and Berber words show remarkable similarities, both formally and semantically.

3.8 'lead' (Lat., perhaps Gr., perhaps Celtic $[\rightarrow WGmc.?]$)

European: Latin plumb- $(< *plund^h(w)-?)$ 'lead', Mycenean moliwd-os, Greek a.o. m'olubd-os, m'olib-os 'lead', perhaps OIr. l'uaide, perhaps PWGmc. *lauda-, cf. OE $l\bar{e}ad$, MHG $l\bar{o}t$, MLG $l\bar{o}t$, $l\~ode$, OFris. $l\bar{a}d$, MDu. loot 'lead'

It is unclear whether all European forms belong together. Beekes (p.c.) reconstructs the Greek form as *moliwd- which cannot be linked to the Latin form. It has been assumed that the Gmc. term was borrowed from Celtic (orig. Much, apud Kluge-Seebold 1989, s.v. Lot), which may have contained initial *p- According to an old idea (e.g. Kluge-Seebold 1989, loc.cit.) the Celtic form must actually be reconstructed as *ploudiā, which could be coupled to PIE *ploud- 'fließen', which is little attractive. Moreover, Schrader (1907: 95) compares the European complex to Basque berun 'lead' and explicitly assumes a Western European substratum origin.

It is not clear whether there is a relationship with European words for 'pewter (a grey alloy of tin with lead)', cf. Italian *peltro*, Spanish *peltre*, Ofrench *peautre*, *espeautre*, etc. (Schrader 1907: 96).

Berber: * $\beta ald\bar{u}n \sim *\beta \bar{a}ld\bar{u}n \sim *b\bar{u}ld\bar{u}n \sim *\beta ald\bar{u}m$ 'lead'

Ahaggar Touareg ăhâllun 'plomb, étain', Iwellemmeden

Touareg aldom 'étain', Ghat Touareg ahellum 'plomb', Kabyle aldun 'plomb', Sous Berber aldun 'plomb', Middle Atlas aldun 'plomb', Mzab buldun 'plomb', Ouargla buldun 'plomb', Mauretanian Zenaga âldûn 'plomb'

Discussion: In view of the wild variation in the Berber forms, the etymon may be considered a foreign word in Berber. It may very well represent a Wanderwort.

3.9 'crab, lobster' (Gmc.)

European: PGmc. *krabit-, cf. OS krebit, OHG krebiz, MLG krevet, krēft. MDu. crēvet (→ French crevette 'shrimp'), creeft, crēft 'lobster', *krabb-, cf. ON krabbi, OE crabba, MLG krabbe, MDu. crabbe 'crab'

A connection with many similar Greek (= probably Mediterranean substratum; cf. also Cohen 1931) words, cf. kārabos ~ grapsaīos (\rightarrow Lat. cārabus) 'sea-lobster' (Furnée 1972: 109, 154, 169, 178, 282 and passim) is quite generally denied (e.g. explicitly Franck & Van Wijk & Van Haeringen 1976, s.v. I krab, Vercoullie 1925, s.v. krab). On the obvious North European substratum origin of this Gmc. etymon, cf. Kuiper (1995: 70), however. As to the dental derivation in 'lobster', cf. Boutkan (1998: 126, forthc.).

Berber: * $qi/ur\beta \sim *qi/ur\beta i$ (?) 'shield'

Ahaggar Touareg ayer 'bouclier', Taneslemt Touareg ayerh (Prasse 1969:581), Iwellemmeden Touareg ayer 'bouclier', Medieval SW Moroccan Berber ayn 'bouclier'

Iwellemmeden Touareg knows a verb $\gamma \bar{a}r - \bar{a}t$ 'se cacher derrière'. It is not clear whether this verb is derived from the noun 'shield' or the other way round.

Discussion: Although a semantic relationship between 'lobster' and 'shield' is quite straightforward, it is not compelling.

3.10 'rock' (Gmc., Celt., Gr. [, French])

European: PGmc. *falis-, OS felis, filis, OHG felis(a), MHG vels(e) 'Fels', cf. also ON fell, fjall 'Berg, Fels' < *felz-; OIr. aill; Maced. pélla 'Klippe', but also Gr. phelleús 'stoney land' < * b^h ell-[; French falaise (\leftarrow Gaul.-Rom. *falisia \leftarrow Gmc.)]

Several formal complications point to a non-IE origin (pace Pokorny 1959: 807), viz. the vaccilation of root-final $*l \sim ll$, of Gr. root-initial $*p \sim *b^h$ and of the root-vowels $*a \sim *e$ (R.S.P. Beekes p.c.). Furnée (1972: 161-2) denies a connection

of Maced. *pélla*, etc. with the Gmc. *Fels*-etymon, but also compares such Romance forms as Central-Lad. *pelf 'harter Fels'* < **péllawo-'Fels'*, cf. also Dauzat (1946: 75ff.), who assumes a pre-IE toponym **pala'* cime rocheuse' (p. 78). The form is frequent in the Pyrenees-region.

Berber: * pallā 'height'

Ahaggar Touareg afella 'haut (surface supérieure, dessus)', Iwellemmeden Touareg afălla 'haut, partie supérieure', Kabyle -fella 'au-dessus, en haut', Sous aflla 'dessus', Middle Atlas afella 'le haut, le dessus', Ouargla f, fell- 'sur' (preposition)

Discussion: The European and Berber words show remarkable formal similarity and hardly present problems from a semantical point of view.

3.11 'salmon' (Lat., Gr.? [, Gmc.])

European: Latin salmon- 'salmon', Gr. sélakhos 'Knorpelfisch(e)'? [, OS, OHG salmo, MDu. salme]

The Gmc. words are generally considered as loans from Latin (partly, i.e. in part of WGmc., replacing *lahs-, cf. still German Lachs). The Lat. word is considered as a non-IE word, showing such by-forms as salpa 'saupe, poisson de mer' and salar 'kind of trout', whose formations are evidently non-IE. See further Ernout-Meillet and Walde-Hofmann, s.vv. salmo.

Berber: * sūlmay, * slVm 'fish'

Ahaggar Touareg asûlmey, Kabyle aslem, Sous aslm, Middle Atlas aslem, Rif ağem (< *aslem), Figuig aslem 'poisson' Cf. perhaps Ghadames olisma 'poisson de sable'.

The vocalisation in Touareg (and with metathesis in Ghadames?) can only with difficulty be related to the other Berber forms.

Discussion: The European word denotes a specific species of fish, whereas the Berber word is the generic term. The formal coincidence is remarkable, however.

3.12 'shoulder' (Gmc.)

European: WGmc. *skuldrō, cf. OE sculdor, OHG skultarra, skultirra, OFris. skuldere, MDu. scouder(e).

The so-called 's-mobile' was productive in Gmc. with both IE and non-IE lexical material (cf. recently the unpublished MA-thesis of M. Driessen, Leiden). If we disconnect this prefixal element, we can assume a form *kld(r)- as our point of departure. There are only very abstract root-etymologies (to

*(s) kel- 'cut' or its homonym *(s) kel- 'be bent') serving as explanations of the etymon as a PIE heritage, cf. De Vries (1992) and Franck & Van Wijk & Van Haeringen (1976), s.w. schouder, Kluge & Seebold (1989), s.v. Schulter.

Berber: * qrūd 'shoulder, scapula'

Iwellemmeden Touareg tiyerdén 'partie du corps située endessous du cou et entre les deux omoplates', Ghadames tayuret 'épaule', Kabyle tayut 'omoplate, épaule', Sous tayutt 'omoplate', Middle Atlas tayutt 'omoplate, épaule', Rif tayut 'épaule', Ouargla tayudt 'épaule', Mzab tayudt 'épaule', Figuig tayutt 'épaule'. Cf. also Ahaggar Touareg tiyôrad force'

In Berber, one finds a strange variation between d in the singular and d in plural forms, as in Figuig $ta\gamma rutt$ ($< ta-\gamma rud-t$) 'épaule', pl. $ti\gamma erdin$

Discussion: The comparison of this West-Germanic form with Berber requires a confusion between r and l.

3.13 'lentil' (Gmc., Lat. [, Balto-Slavic])

European: OHG *linsi* (\rightarrow Mod. Du. *linze*? or Du. directly from Lat?); Lat. *lens*, *lent*- (\rightarrow OE *lent*)[; Church Slavonic *lešta*; Lith. $l\tilde{e}sis \leftarrow$ Gmc.].

Details concerning the exact lines of borrowing remain unclear, but it is generally accepted that we are dealing with non-IE substratum material.

Berber: * linti

Sous tilintit ~ tiniltit 'lentille'. The word is not attested in other Berber languages, which all have a borrowing from Arabic. The Sous Berber etymon may therefore represent the original term.

Discussion: The Berber form can not be a loan from Latin, as proposed by Schuchardt (1919:24 and 75), as Latin words are generally taken over in their nominative form (cf. asnus 'young donkey' from Latin asinus). However, a later loan from Romance cannot be excluded. The idea that the Latin word was derived from Berber is already old, cf. for reff. Laoust (1920: 269).

3.14 'leather' (Gmc., Celt., Lat., Gr., Balto-Slavic)

European: PGmc. *hriflinga-, cf. ON hriflingr, OE hrifeling 'shoe'; OIr. cairem, Welsh crydd, OCorn. chereor, Bret. kere(our) 'cobbler'; Lat. carpisculum 'kind of shoe'; Gr. karbátinos 'made of leather'; OBulg. krbpa 'textura, Lappen', Lith. kùrpe 'shoe'

In spite of Pokorny's attempt to reconstruct a PIE form (1959: 581), the word is strongly suspect of being a *Wanderwort* (Frisk 1960-72, Chantraine 1968, s.vv. *karbátinos*; Furnée 1972: 146).

Berber: * *VqrVp* 'to cover something with leather'

Ahaggar Touareg epref 'tendre de peau, de cuir (un corps dur, p.ex. tambour, selle)', Iwellemmeden Touareg epref 'confectionner, tendre une peau (cuir) sur', Kabyle perpef 'tanner' (rare word), Middle Atlas pref 'couvrir avec du cuir', Figuig pref 'bander un tambour (with leather)'

A connection with Arabic *yarafa* 'to tan with the *yarf* herb' (Lane 1863-: 2249) is improbable, as the Arabic verb is without doubt derived from the plant name. Moreover the word does not occur in the modern dialects of the Maghreb.

Discussion: The association with 'leather' is not necessarily the primary one in Berber. Still, the comparison looks attractive.

3.15 'gristle' (WGmc.)

European: PWGmc. * $gri/us(t/p)(V/\emptyset l)$ -, cf. *gristl-: OE grist(e)l, OFris. gristel (MLG $gristel \leftarrow$ OFris.), *grust-: MHG gruschel, *grustVl-: OHG krustula; grustila, krustila, krustil, krustili, krustili(n), *gruspVl-: OHG kruspil, MHG kruspel, *grosl-: OHG krosla, OS gloss. krosla, MHG krosel, *grosVl-: OHG krosila, *grost-: OE grost, *grostVl-: OHG krospil, MHG krospel

This etymon is not attested outside West Germanic, where it displays an abundance of clearly non-Indo-European formations and formatives (cf. Boutkan 1998: 110-1).

Berber: Iwellemmeden Touareg *égärgäwés* 'gristle', Kabyle *igergis* 'gristle'

The Berber forms represent a well-known reduplicated stem type.

Discussion: The Berber forms could belong to a consonantal root GRS, which would match the WGmc. word.

4. Conclusion

The presented parallels are of many different types and convincing up to various degrees. One finds parallels to exclusively Gmc. words and parallels with Greek, Italic, Celtic and Balto-Slavic. The status of these comparisons is therefore unclear. One must note that none of the many formal features

of the European and Northern European substrate material (cf. Kuiper 1995: 66, 68ff.) is found in Berber. This makes a genetic relationship of these substrates with Berber very unlikely. One can therefore assume that the correspondences are either mere chance, or that both Berber and the European languages have borrowed from the same source(s).

As the internal relationship of the Berber languages is rather close, it is difficult to adduce arguments for a substratum origin of Proto-Berber words. One should note, however, that in two of the cited parallels, there is a strange variation between *d and *d ('goat' and 'shoulder'). This variation can be found in a few other Berber words (aydi pl. i(y)dan 'dog'), but is quite rare.

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