

Berber ; A Semitic Language? [BeSL]

Contents

1.	Introduction	1
2.	G _{PA} Verb Forms and the System of Aspect	4
3.	Non-singulative (\equiv G _{PR}) Forms	6
4.	Stative/Qualitative Verbs	10
5.	Participial Forms	10
6.	Derived Verb Forms	11
7.	Systems of Number and Gender	13
	7.1 Number (Nominal)	13
	7.2 'Construct' State	14
	7.3 Gender	14
8.	Pronominal Systems	15
	8.1 Independent Personal Pronouns	15
	8.2 Direct Object Pronouns	16
	8.3 Demonstrative Pronouns	17
9.	Lexicon	17
	9.1 Swadesh Listing	17
	9.2 Verb Forms Common to Kabyle and Tuareg	18
	9.2.1 Introduction	18
	9.2.2 Correlates of Semitic Strong Verbs	20
	9.2.3 Correlates of Semitic Weak Verbs	21
	9.2.4 Correlates of Semitic Hamzated and Geminate Roots	21
	9.2.5 Quadriradicals	22
	Bibliography	22
	Bibliographical Abbreviations	22

1. Introduction

1.1 From a Semitic perspective the initially most striking characteristic of the Berber verbal system is the similarity between the conjugations of Akkadian G_{PA} and G_{PR} patterns *iprus* vs *iparras*, and those of the very common Berber pattern *ifrus* vs *ifarres*, as cited for example by Moscati at al.¹ For as can be seen from Table 1, with the exception of the 1s form the Berber subject pronominal prefixes can readily be reconciled with those of the Semitic languages. On the other hand the suffixed morphemes of pronoun/number are more of a problem (Table 2) ; for instance, whereas phonemes *n* and *m* of the Berber 2p and 3p suffixes are to some extent reminiscent of their G_{PE}-form equivalents in the Semitic languages (bracketed *n* in the table), and final *t* of the 2fp and 3fp forms, although absent from any Semitic language, is explicable in the general context of the marking of the feminine in Berber,

¹ *An Introduction to the Comparative Grammar of the Semitic Languages [ICGSL]*, §16.30. See also the tables in E. Lipiński, *Semitic Languages, Outline of a comparative Grammar [OCG]* (2001) p388-390.

morphemes əq^2 and ġ of the 2s and 1s forms are not paralleled in the equivalent Semitic G_p forms. However, as the same morphemes also occur in Berber verbs of quality it is not impossible that analogy may have operated to map these morphemes from the latter onto the former in substitution for, or in addition to, the original Semitic morphemes. For verbs of quality refer to Section 4 below.

TABLE 1 PREFIXED PRONOUN MORPHEMES

	Be	Ak	Ug	BHb	AA	LAr	Ge	Bd
3ms	yə	i	y	yi	yi	ya	yə	i
3fs	tə	(ta)	t	ti	ti	ta	tə	ti
2ms	tə	ta	t	ti	ti	ta	tə	ti
2fs	tə	ta	t	ti	ti	ta	tə	ti
1s	-	a	'a/i	'e	'a	'a	'ə	'a
3mp	ə	i	y/t	yi	yi	ya	yə	i
3fp	ə	i	t	ti	ti	ta	tə	ti
2mp	tə	ta	t	ti	ti	ta	tə	ti
2fp	tə	ta	t	ti	ti	ta	tə	ti
1p	nə	ni	n	ni	ni	na	nə	ni

TABLE 2 SUFFIXED MORPHEMES OF NUMBER AND GENDER

	Be	Ak	Ug	BHb	AA	LAr	Ge	Bd
3ms	-	-	-	-	-	-	-	-
3fs	-	(-)	-	-	-	-	-	-
2ms	əḏ	-	-	-	-	-	-	a
2fs	əḏ	ī	?	ī	īn	ī	ī	i
1s	ġ	-	-	-	-	-	-	-
3mp	ən	ū	?	ū(n)	ū(n)	ū(n)	ū	na
3fp	ənt	ā	?	nā	ān	na	ā	na
2mp	əm	ā	?	ū(n)	ū(n)	ū(n)	ū	na
2fp	əmt	ā	?	nā	ān	na	ā	na
1p	-	-	-	-	-	-	-	-

1.2 Study *MPSVS*³ explores the conjecture that subject pronouns prefixed to the verb were an innovation in the Semitic language family. In *ACSE*⁴, this hypothesis is supported by evidence from Egyptian and, again in *MPSVS*, algorithms are proposed to suggest how Semitic prefixing verb forms and Egyptian *śdm.f* and *śdm.n.f* forms could have evolved from a common pre-Semitic original lacking subject pronouns.

1.3 This hypothesis, rejecting as it does the conjecture that prefixing verb forms descend from a

² The precise phonological structure of this morpheme varies from dialect to dialect.

³ *Towards a Morphology of the pre-Semitic Verbal System*. For abbreviations see under *Bibliographical Abbreviations*

⁴ *Aspect in Common Semitic and Egyptian*.

supposed common ‘Afroasiatic’ original,⁵ entails that every language displaying verb forms with Semitic-type prefixed subject pronouns must, if not Semitic, either incorporate a Semitic component or have borrowed from some Semitic language. For instance, in *BdSL*⁶ it is argued that ‘Cushitic’ language Beḍawiē is an example of the former and that Cushitic languages displaying only a small number of prefixing verb forms, such as the Agaw-language Awngi, are examples of the latter. Thus if the ‘common Afroasiatic’ hypothesis for the origin of the prefixing verb form is incorrect - as the linguistic, climatic and genetic data presented in *TAF* would suggest - than at least some of the similarities between Berber and Semitic verb forms can be most readily accounted for by proposing that Berber and the Semitic languages share a common history, at least in part ; expressed more directly, that Berber is to some degree a Semitic language.

1.4 But if this is so, how does Berber come to have its current distribution, separated geographically and linguistically from the ‘original’ Semitic-speaking areas by Egypt?⁷ On the basis of language, climate, N. African rock art showing chariots, and the evidence of Egyptian history, the likeliest ‘window of opportunity’ for ancestors of the Berbers to have migrated into N. Africa from Western Asia would appear to have been the Hyksos period and thereafter, i.e. at around 1700 BCE⁸ But on the other hand the DNA and linguistic evidence suggest that the Berbers almost certainly originate in a number of distinct ethnic groups, of which Semites would have been only one.⁹ Thus if the conjectured Semitic origin

⁵ The concept of a common Afroasiatic language is challenged in study *The Afroasiatic Fallacy (TAF)*.

⁶ *Beḍawie : A Semitic Language?*

⁷ A common opinion of course is that the ‘Afroasiatic’ languages originate in Africa, implying that the Semites moved out of Africa, rather than Berbers moving in. This conjecture is founded on the initially attractive but essentially simplistic notion that there are more Afroasiatic languages in Africa than in Asia, but is almost impossible to reconcile with the DNA evidence (see particularly *TAF* sections 4, 5 and 7.3).

⁸ On the limited evidence of personal names it seems to be agreed that the Hyksos were Amorites (or specifically Canaanites). See J. Bright, *A History of Israel* (1966) p53-58.

⁹ Among Y-chromosome haplogroups attested in N.W Africa are R-P25, which appears to reflect the migration of ice age peoples from Iberia, E-M81, which appears to originate in the DNA of groups migrating north across the Sahara during the post-ice age pluvial period, and J-M267, which is prominent among Semitic speakers ; this last of course is at least partly a consequence of post-Islamic migration into N. Africa. Among apparently non-Afroasiatic features in Berber are the number system (in part) and the prepositions : for numerals see A. Basset, *La Langue Berber [LLB]*

of the Berber language is correct it would appear that Semites were able to impose important features of their language on the whole of the region, perhaps much as a relatively small number of Arabs were later able to do after the rise of Islam.¹⁰

2. G_{PA} Verb Forms and the System of Aspect

2.1 The initially impressive match between Berber and Akkadian verb forms masks the fact that Berber not only exhibits an extensive range of ‘habituaive’ G_P verb patterns other than *ifarres* (see Section 3) but also that generic G_{PA} form *ifrus* embraces from one to three morphologically distinct forms, the details (not to say terminology) varying from dialect to dialect. For example, Kabyle G_{PA} forms can be analysed along the dimensions ‘preterite vs preterite negative vs aorist’, where stem *ħess* ‘listen’ is unchanged in all three forms but *krez* ‘work’ displays two patterns, (3ms) *yekrez* (≡ *ifrus*) serving to express the ‘preterite’ and ‘aorist’, and (*ur*) *yekriz* which is the ‘preterite negative’. Then again, in verbs such as *ali* ‘go up’ the preterite and preterite negative forms are identical (*yuli*) but the aorist is *yali*.¹¹ Preterite and aorist are argued by some to originate in distinct forms, a position to some extent supported by their differing synchronic functions,¹²

2.2 Several investigators consider the Berber verb essentially to reflect a 3-term aspect system, of which the 3ms forms of ‘regular’ Kabyle triradical root *krz* are :¹³

(1952) p28 and for prepositions see F. Sadiqi, *Grammaire du Berbère [GdB]* (1997) p102.

¹⁰ This hypothesis (like any other) must then address the question of why, after 3000 plus years, at least some Berber dialects should remain to a lesser or greater degree mutually intelligible. The likeliest answer may be that before Islam Berber was a *lingua franca* across most of N. Africa, comprising different dialects rather like Aramaic in Asia.

¹¹ This study relies to a considerable extent on the work of K. Naït-Zerrad, *Manuel de Conjugaison Kabyle [MCK]*, 1994, which in turn draws on J-M Dallet’s *Dictionnaire Kabyle-Français [DKF]* (1982).

¹² See for example D. Cohen, *La phrase nominale et l’évolution du système verbal en sémitique; études de syntaxe historique [ESVS]* (1984), p80/81.

¹³ Naït-Zerrad analyses Kabyle verb forms into 176 different types which he divides into three main groups based on their patterning of consonants and vowels.

1. Types 1 to 62 are ‘regular’, where the preterite and aorist G_{PA} forms are identical. The vowel patterns of the associated ‘habituaive’ may or may not follow those of the aorist and preterite.

2. Types 63 to 150 are ‘irregular’ in that their preterite and aorist forms are distinguished by various patterns of apophony. The vowel patterns of the ‘aorist-intensive’ (habituaive) match those of the aorist rather than the

Aorist	<i>yekrez</i>
Preterite	<i>yekrez</i>
Habitulative	<i>ikerrez</i>

The functions of these forms are defined by Naït-Zerrad as follows:¹⁴

1. The aorist “in general takes the sense of an injunctive and/or optative but may also express a sequence of actions or processes in narration” (p36). In addition, when preceded by particle *ad*, “it expresses a wish, a condition, an exhortation, a threat or merely the future.” (p37).
2. The preterite “expresses a process achieved, realised or completed” (p38).
3. The habitulative (Naït-Zerrad’s aorist intensive) “...represents an action or process which is in progress” (p39).

2.3 In Section 2 of *ACSE* it is argued that the various functions of G_{PA} - and G_{PE} -form prefixing verbs in the Semitic languages can without serious difficulty be analysed as originating in the aspect elements <singulative> and <non-singulative> proposed for Common Semitic in *ACSE* Section 1. The functions of the Berber ‘aorist’ and ‘habitulative’ forms can fairly readily be reconciled with <singulative> and <non-singulative> respectively, but ‘preterite’, to the extent that it is analysable as expressing an element <resultative>, appears at first sight to conflict with the proposals in *ACSE*. But <resultative> is taken to be diachronically secondary to <singulative> in Semitic (*ACSE* §1.5) and the same may also be true of Berber, such that the ‘aorist’ at some point came to be distinguished from ‘preterite’ by becoming restricted to expressing non-declarative components of element <singulative>, along with consecutive sequences. As noted above, this analysis is supported by the fact that many Berber verb types have identical aorist and preterite forms, although it must be said that verb types with aorist and preterite forms distinguished by apophony is characteristic of a further substantial set.¹⁵

preterite.

3. Types 151 to 176 are ‘verbs of quality’. Aside from their semantic distinctness, this group is characterised by preterite forms lacking prefixed subject pronouns and having only a single plural form, common to all persons. Formally these preterites are G_s forms

¹⁴ *MCK* p36-39. See also Basset, *LLB* p12ff.

¹⁵ For a sample of Kabyle forms see Section 9. Cohen (*ESVS* p80/81) proposes that ‘preterite’ and ‘aorist’ originally expressed the elements <complete> and <incomplete> respectively, which approximate to <singulative> and <non-singulative>. But from the point of view of the system of aspect explored in *ACSE* the Berber aorist is a poor

2.4 The situation in Kabyle appears to be matched in varying degrees in other Berber dialects. For example in Tamazight ‘unablauted’ verbs all three forms are identical whereas in ‘ablauted’ stems the aorist matches the preterite negative but not the preterite proper.¹⁶

2.5 Should the conjecture of a common origin for the non-declarative functions of the Berber aorist and the Semitic jussive be valid then the fact that a prefixing verb form is used to deny the past in Ugaritic, Hebrew, Akkadian and Classical Arabic could be taken to suggest that the Berber preterite negative may also share a common origin with the aorist, and that differences in vocalisation, although remaining to be explained, may be secondary rather than primary.¹⁷ Therefore as a working hypothesis the Berber preterite, aorist and preterite negative forms will be taken to originate in the Common Semitic G_{PA} form expressing aspect element <singulative>.

3. Non-singulative ($\equiv G_{PR}$) Forms

3.1 Advocates of the hypothesis that the aorist and preterite forms were originally distinct see the aorist intensive (form *ikerrez* and its equivalents) as a secondary formation and therefore perhaps not diachronically relateable to Akkadian *iparras*. On the other hand, like *iparras*, in terms of the hypothesis explored in *ACSE* Section 3, *ikerrez* is analysable as a G_{PR} form expressing <non-singulative> aspect. But Akkadian *iparras* is there argued to originate in an older form with reduplicated stem, which latter appear to be rare in Akkadian (*ACSE* §3.5), in contrast to Berber, where reduplicated stems are common. This could suggest that the history of the Berber G_{PR} form might more parallel that of the N. Ethiosemitic G_{PR} form, which in all probability originates in a prefixing form of type **yiqáber*, where the shift in stress from an earlier *yáqburu* eventually resulted in gemination of the second radical (*ACSE* §3.2).

3.2 But the range of $\equiv G_{PR}$ form types expressing <non-singulative> aspect in Berber is considerably greater than in any Semitic language, for pattern *yekrez* vs *ikerrez*, although one of the two most common, is only one of many. In essence, the majority of verbs generate their aorist intensive by preposing a

morphological fit with the G_{PE} form postulated for <non-singulative> in Semitic and Egyptian.

¹⁶ See E. T. Abdel-Massih, *A Reference Grammar of Tamazight [RGT]* (1971) p199. These statements are true for Ait Ayache and (apparently) for Ait Hassan, but to what extent they are generally applicable in Tamazight and other dialects is unclear to the author.

¹⁷ Basset (*LLB* p15) observes that ‘the imperative and the aorist always have the same theme. Deviations are rare and accidental’.

(superordinate) dental morpheme T_I to the stem, where in Kabyle $T_I = \{t, t', tt\}$, typically accompanied by apophony of the stem vowels in the case of ‘irregular’ verbs.¹⁸ Among these, Nait-Zerrad’s Type 8 (on which see further below) is as common as Type 1. Kabyle verb types whose aorist-intensive forms do not incorporate prefixed T_I are confined for the most part to those listed in Table 3 below, although only 40% of these do not also have an alternative in T_I . In each case the first total (A) in Table 3 is the number of verbs without a variant in T_I and the second total (B) is that of all forms of the particular type, with or without T_I .¹⁹ The morpheme strings are 3ms throughout, the subject pronoun being *ye* when prefixed to a consonant cluster (*yekrez*) and *i* when prefixed to a single consonant (*ikerrez*).

TABLE 3 VERB TYPES WITH $\equiv G_{PR}$ FORM LACKING MORPHEME T_I

Type	$\equiv G_{PR}$	$\equiv G_{PA}$	A	B
1	ikerrez	yekrez	432	757
2	yeggar	iger	10	19
5	yesskan	yessken	6	14
9	yetteftif	yetteftef	33	355
14	iderri	yedri	27	60
34	yejlujjul	yejlujul	17	160
122	igemm	igem	9	11
126	ibeddu	yebdu	104	115

3.3 In Ayt Ayache, Nait-Zerrad’s Type 1 comprises mainly Berber roots together with a relatively small number of Arabic loans, where phonological rules determine which of the latter can be Type 1 (*RGT* p177). In the Ayt Ayache data Type 14 verbs are included with Type 1, and Type 2 comprises some of Abedel-Massih’s roots 371-397 (*RGT* p279/280, also p178), which latter appear to be almost exclusively Berber. Type 5 and Type 122 verbs are not discussed in *RGT*, nor are reduplicates (Types 9 and 34).

3.4 With the partial exception of Types 122 and 126 the Kabyle verbs in Table 3 have identical preterite and aorist forms and are thus ‘regular’.²⁰ On the basis of their stem patterns these verb types

¹⁸ The membership of set T_I varies from dialect to dialect. For example, in Ayt Ayache (*RGT* p176) it appears to comprise only the single element *tt*. The designation T_I is used to distinguish these morphemes from the set of passive morphemes T_2 , on which see Section 6 below. The structuralist term ‘morph’ might be more appropriate here than ‘morpheme’.

¹⁹ The classification in *MCK* is based strictly on the patterning of consonants and vowels, without reference to the underlying morphology. Thus certain types include both G-forms and derived forms. For the purposes of this discussion the latter have been deleted from any total cited.

²⁰ Type 122 aorist *igem* has preterite *yegwa* ; type 126 has *yebdu* and *yebda*.

can be grouped together roughly as follows:

Type 1 can be grouped (weakly) with type 5 (strong triradical root).

Type 2 can be grouped with Type 122 (biradical root).

Type 9 can be grouped (weakly) with type 34 (reduplicated root).

Type 14 can be grouped with type 126 (III-weak).

3.5 Berber biradical stems divide between those which are ‘pure’ and those where ‘consonant pressure’ is applied so that one or other radical is in effect geminate. Pure and geminate types are listed in Tables 4 and 5 respectively, where $G_{PA(A)}$ and $G_{PA(P)}$ denote aorist and preterite forms respectively. With the exception of Types 2 and 122 (Table 3) the associated $\equiv G_{PR}$ forms all utilise prefix T_I .²¹

TABLE 4 PURE BIRADICAL STEMS

Type	$G_{PA(A)}$	$G_{PA(P)}$	$\equiv G_{PR}$	Total
2	iger	iger	yeggar	18
21	iġil	iġil	yeġil	5
30	inuj	inuj	yeġnuj(u)	44
43	iqam	iqam	yeġqam(a)	50
79	ilal	ilal	yeġlal(a)	5
83	imil	imal	yeġmil	6
122 ²²	isew	yeswa	itess	12
143	ijab	ijuba	yeġjab(a(y))	2

TABLE 5 GEMINATING BIRADICALS

Type	$G_{PA(A)}$	$G_{PA(P)}$	$\equiv G_{PR}$	Total
3	yeffer	yeffer	iteffer	71
4	iħess	iħess	yeħessis	22
22	iġill	iġill	yeġill	2
23	yeqqim	yeqqim	yeġqim(i)	5
31	yennum	yennum	yeġnumu	24
32	ibudd	ibudd	yeġbudd(u(y))	47
44	yekkaw	yekkaw	yeġkaw	32
45	iqadd	iqadd	yeġqadda	2
80	yennam	yennum	yeġnam	12
81	imass	imuss	yeġmassa	6
84	iqiss	iqass	yeġqiss(i)	11
117	ibibb	ibubb	yeġbibb(i)	2

²¹ From this and other evidence it must be suspected that Berber to some extent utilises morpheme T_I to generate $\equiv G_{PR}$ forms of greater morphological ‘substance’.

²² The stem *sew* utilised as a paradigm in *MCK* p185 is not typical. Most type 122 verbs geminate the second radical in their $\equiv G_{PR}$ forms, for example *igem* vs *igemm*, or occasionally the first, as *imel* vs *yimmal*. The vowel of the $G_{PA(P)}$ form is normally *a* or *i* but *MCK* does not indicate which is used in any particular case; *yeswa*, like *itess*, must be structurally untypical.

Type	G _{PA(A)}	G _{PA(P)}	≡G _{PR}	Total
121	yemmet	yemmut	yefmeṭṭat	1
124	iḡezz	iḡezza	yefteḡzaz	1

3.6 It will be seen that certain ≡G_{PR} forms in Tables 4 and 5 incorporate a final vowel. This vowel is sometimes integral to the form, as for example Kabyle *yeṣuḥu* (Type 30), but is more commonly optional, e.g. *yeṭnuj(u)*, also Type 30 (Table 4). The value of this vowel is normally, but by no means always, that of the preceding stem vowel,²³ thus:

ešudd vs *yeṣuddu* (type 32)

eḡill vs *yeṭḡilli* (type 84)

efaz vs *yeṭfaza* (type 43)

Another common phenomenon in the Kabyle verb is final *y*, either added directly to an ≡G_{PR} stem terminating in a vowel, as for example *yebri* vs *iberri/yeṭṭe Bray* (Type 14), or added to a final vowel of the type discussed above, as for example *yeṭbudd(u(y))* (Type 32).

3.7 In the Cushitic-Semitic language Beḡawiē, originally ‘reflexive’ forms incorporating a *t*-based morpheme have commonly replaced original G_{PE} forms²⁴ and it must be suspected that something similar has occurred in Berber. The ubiquity of Kabyle <non-singulative> forms with prefixed *T_i* is instanced by Type 8, pattern *iwelleh* vs *yeT_iwellih* (MCK p71), which with 753 examples is as common as Type 1, although it would appear from the Ayt Ayache data (see below) that Type 8 in fact mainly comprises Arabic loans and includes only a few Berber roots.²⁵ Also very common is Kabyle Type 9 (355 examples), which generally exhibits prefixed *T_i* and is frequently either quadriradical, for example *yennezgem* vs *yeṭnezgim* (200+ examples) or a reduplicated biradical (*yebbeḥbeḥ* vs *yeṭbeḥbiḥ* (130+ examples).

3.8 For Ayt Ayache, approximately 150 Berber roots with *T_i* are listed in *RGT*, dividing almost equally between transitive and intransitive, in contrast to G_{PR} forms of type *ikerrez*, of which 72% are

²³ In Ayt Ayache, a final vowel is characteristic of Abdel-Massih’s types B.ii.1 and B.ii.2 (*RGT* p258-60 and 278-80). Abdel-Massih is very sparing in his use of vowels in ≡G_{PR} forms, so that there is no vowel harmony and the final vowel is always *a*.

²⁴ For the Beḡawiē reflexive (*T_p*) form see *BdSL* §8.5.

²⁵ In some cases Kabyle Type 8 originates in an Arabic D-form, as for example *bḥet* (Type 1) vs *beḥḥet* (Type 8), but this seems not generally to be so, thus leaving open the question of the origin of the Type 8 <singulative> (preterite) form.

transitive. Arabic loans comprise about 55% of all Ayt Ayache roots taking T_1 (*RGT* p262-282) and these constitute the vast majority of Arabic roots of all morphological types, those without T_1 being very much the exception (§3.3 above). Most Arabic roots in Ayt Ayache are (in Nait-Zerrad's terms) either Type 8 or Type 76.²⁶

4. Stative/Qualitative Verbs

4.1 Occurring in Kabyle and Tuareg, but apparently uncommon elsewhere, is a class of verbs termed 'stative/qualitative' (Nait-Zerrad's Types 151 to 169). These verbs have common preterite and preterite negative forms which, for *mellul* 'be white', are conjugated as shown in Table 6, accompanied for comparison by the Akkadian permansive and Egyptian old perfective paradigms.²⁷ There is little difficulty in reconciling the singular forms of the Berber, Akkadian and Egyptian paradigms, but the Kabyle plural paradigm has reduced to a single form and, if comparison with the Akkadian and Egyptian paradigms is valid, Tuareg has substituted the suffixes of the regular verb in its plural forms.

TABLE 6 STATIVE /QUALITATIVE VERB PARADIGMS

	Kabyle	Tuareg	Akkadian	Egyptian
1s	mellul-eġ	mellul-eġ	qabrā-ku	s \underline{d} m-kwī
2ms	mellul-eġ	mellul-ed	qabrā-ta	s \underline{d} m-tī
2fs	mellul-eġ	mellul-ed	qabrā-ti	s \underline{d} m-tī
3ms	mellul	mellul	qabir	s \underline{d} m-(w)
3fs	mellul-et	?	qabr-at	s \underline{d} m-tī
1p	mellul-it	mellul	qabrā-nu	s \underline{d} m-wyn
2mp	mellul-it	mellul-em	qabrā-tunu	s \underline{d} m-tīwny
2fp	mellul-it	mellul-met	qabrā-tina	s \underline{d} m-tīwny
3mp	mellul-it	mellul-en	qabr-ū	s \underline{d} m-(w)
3fp	mellul-it	mellul-en	qabr-ā	s \underline{d} m-tī

5. Participial Forms

5.1 Berber participial forms may be 'preterite', 'aorist' or 'habituaive' and display patterns of apophony comparable with those of the verb generally, as for example Kabyle (Type 122) 'aorist'

²⁶ See *RGT* p177 and 267, roots 116 to 315. Of these roots 35% are of Kabyle type 1, 34% of type 8 and the remainder type 76. Type 76 forms its aorist-intensive on the pattern (3ms) *yeṭhadar* (*MCK* 139), equivalent to pattern B.i.1.b in *RGT*.

²⁷ Berber data from *MCK* p23/4. It is unclear whether these forms can have 'present' meaning, i.e. 'I am white', etc. Recall that the 1s and 2s forms of the regular verb appear to have adopted pronominal suffixes of the stative form. The 'aorist' of these verbs is typologically G_{PA} (3ms *imlul*). Paradigms in *MCK* p214-233. For the Egyptian paradigm see Gardiner, *EG* §309.

participle *ye-sw-en*, ‘preterite’ *ye-sw-an* and ‘habituative’ *i-tess-en* (*MCK* p185). Prefixes *ye-* and *i-* are identical to those of 3ms forms of the verb, and may perhaps have been introduced into the participle by analogy. Depending on dialect, the participles are to some extent declinable for gender and number.²⁸ In dialects with plural forms, morpheme *-(v)n* is added to the initial *-(v)n*, as for example ‘Central Moroccan’ *kerz-n-in* (*MCK* p22) ; this morpheme is of course reminiscent, for example, of Hebrew and Arabic masculine plurals in *-īm* and *-ūn / -īn*.

5.2 A Berber participle is typically used where the subject of a main clause is relativised or interrogated, as for example *argaz i-dda-n* ‘the man who has left’ (*GdB* p88). Thus the initial suffixed *-(v)n* is reminiscent of the *n*-based morpheme affixed to Assyrian (‘subjunctive’) forms in relative constructions, although this parallel is more likely to be coincidence than attributable to any diachronic relationship. Indeed, note the general absence of compatibility between the Berber and Semitic participial forms.

6. Derived Verb Forms

6.1 Berber deriving morphemes are prefixed to their stem,²⁹ so that in this respect also, Berber is more closely related to Common Semitic and Egyptian than to mainstream Cushitic, Omotic and Chadic, where deriving morphemes are suffixed to their stem. Both morphologically and functionally Berber deriving morphemes are those common in both Sigmatic and non-Sigmatic languages (*TAF* §6.1), namely *S*, *M* and *T₂*, where generally, in Kabyle:³⁰

$S = \{s, sse, ssu\}$

$M = \{m, my(e), myu\}$

$T_2 = \{t_w(a/i), t(e/u), t\}$ ³¹

6.2 In Kabyle the S-form deriving morpheme is not infrequently *š* or *šš* rather than *s*, and

²⁸ See for example Basset *LLB* p22 and *MCK* p21-23. The Kabyle forms in *MCK* generally parallel those of Ayt Hasan (*GdB* p88). These forms receive only passing mention in *RGT*.

²⁹ D-forms also occur in Berber (Kabyle Type 8) but are they original or are they the consequence of innovation from Arabic?

³⁰ The notation *T₂* is employed to distinguish the deriving morpheme from *T₁*, the marker of non-singularity, even though they are phonologically and probably diachronically identical.

³¹ For details see *MCK* p48 (*S*), p51 (*M*) and p54 (*T₂*). Compare *RGT* p179-81 and *GdB* §2.3 (p94ff).

occasionally also *jj* or *zz*. S-forms typically differentiate <singulative> and <non-singulative> by apophony, as for example (3ms) *yesdukel* (S_{PA}) vs *yesdukul* (S_{PB}). However quite frequently suffix (v)y is introduced, either in addition to or instead of apophony, where $v = \{a, i, u\}$; for example *yesdull* vs *yesdulluy*. Final y substitutes for apophony particularly where the associated S_{PA} form ends in a vowel, as for example *yesfafa* vs *yesfafay*.³²

6.3 The foregoing summary is also good for T₂-forms, except that suffix (v)y seems usually to substitute for apophony, rather than being in addition to it. In some instances the deriving morpheme is simply *t*, preposed directly to the stem, as for example *yetbeḥḥer* (T_{PA}) vs *yetbeḥḥir* (T_{PB}), compared with say *yeṭṭuderreq* vs *yeṭṭuderraq*.

6.4 M-forms expressing <non-singulative> aspect typically display the structure *T₁.M.Ḥ.en*, where *Ḥ* denotes the stem, as for example *yeṭṭemṣenšalen* vs *yemṣenšal* (M_{PA}).³³ Morpheme *-en* is of course reminiscent of morpheme *-un* proposed as the marker of the G_{PE} form in Common Semitic,³⁴ but quite apart from the fact that Semitic <singulative> and <non-singulative> derived forms are generally distinguished by apophony, Berber *-en* precedes the suffixed subject-pronominal elements, as for example *teṭṭembeḥḥat-en-em* (2mp) vs *yembeḥḥat* (3s), where the latter is the equivalent M_{PA} form. There would of course be no difficulty in proposing a hypothesis to account for such forms, particularly as the equivalent 3ms <non-singulative> form (*yeṭṭembeḥḥaten*) is rather more reminiscent of the structure proposed for Common Semitic G_{PE}-forms. A number of M-forms have *n* rather than *m* as their deriving phoneme and their <non-singulative> forms further differ from the majority in that they generally (but not always) lack morpheme *en*, as for example *yenhezz* (M_{PA}) vs *yeṭṭenhazz* (M_{PB}).

6.5 As noted above, morpheme *T₁* is phonetically identical to *T₂* and, at least in Ayt Ayache, <non-singulative> G-forms incorporating morpheme *T* are distinguished from the (passive) T-form only by the presence in the latter of phoneme *u*, thus stem *ttslil* (≡G_{PR}) vs *ttuslil* (≡G_{PR} passive), ‘rinse’ vs ‘be rinsed’; the same is true of Ayt Hasan, where the passive morpheme is *tia*.³⁵ This could be taken to suggest that the two forms have a common origin, as is almost certainly the case in Semito-Cushitic Beḍawië, where the

³² S-form of Kabyle Type 52 (*MCK* p115).

³³ Type 50 in *MCK*.

³⁴ See §4.2 of *ACSE*.

³⁵ *RGT* p181; *GdB* §2.2.4, p91.

reflexive and passive <non-singulative> forms are identical.³⁶ An alternative explanation is offered by Lipiński, who compares the Berber morpheme with Egyptian passive morpheme *tw*, even though the latter is suffixed to its stem rather than prefixed.³⁷

6.6 Thus, despite the many detail differences between the Berber and Semitic derived verb forms, the correspondences at the more geneal level are quite encouraging.

7. Systems of Number and Gender

7.1 Number (Nominal)

7.1.1 Masculine plurals are formed either by changing the vowel pattern of the singular or by changing the vowel pattern and suffixing an *n*-based morpheme (compare the plural form of the participle in §5.1). Of the first type Sadiqi cites the masculine forms *asrdun* (s) vs *isrdan* (p) ‘mule’ (*GdB* p109) and of the second type *adar* (s) vs *idarn* (p) ‘foot’ and *awal* (s) vs *awaliwn* (p) ‘word’ (p110),³⁸ where in the first two examples initial *i-* is a further marker of plurality. Lipiński (*OCG* §31.28) also cites broken plurals marked by final *-a*, for example *zlaf* vs *zlufa* ‘rush’. Feminine broken plurals are on the pattern *t-asrdun-t* (s) vs *t-isrdan* (p) ‘female mules’ and feminine sound plurals have *t-amkkar-t* (s) vs *t-imkkar-in* ‘(p) female thief’, where final *-t* in the singular is replaced by *-in*.³⁹

7.1.2 Lipiński (*OCG* §31.10) argues that the Semitic masculine sound plural was originally (nominative) *ūm* (or *ūn*), where the consonant is taken to represent mimation/nunation, reducing in Akkadian and Egyptian to *-ū*. Berber masculine plural morpheme *-(v)n* can readily be related to Semitic *-(V)n* or *-(V)m* - but compare the Akkadian (nominative) sound plural *ānu* (*OCG* §31.12), which could also suggest a possible origin for the Berber form. The feminine sound plural may be a consequence of

³⁶ See *BdSL*, §8.5.

³⁷ *OCG* §41.20, p404. Lipiński goes on to compare Beḡawiē 1s T_{PA} form *atōmān* which is formed on biconsonantal stem *men* ‘shave’, but fails to note that this *ō* is a common feature of Beḡawiē biconsonantals incorporating a deriving morpheme, occurring also in the equivalent S_{PA} and N_{PA} forms ; see Tables 8.2 and 8.5 in *BdSL*. Admittedly, the origin of these forms remains unexplained, but as *ō* is absent from the equivalent triconsonantal forms it must be a feature that has developed in consequence of the biconsonantal nature of the relevant stems. A better explanation for Egyptian *šdm.tw.f* is that it reflects non-Sigmatic suffixed deriving morpheme *-t* (see *TAF* §6.1.1)

³⁸ Compare *RGT* p94, which terms these ‘broken’ and ‘sound’ plurals respectively, although in Semitic terms the latter are simultaneously broken and sound.

³⁹ *GdB* p109/110, *RGT* p96.

extending the masculine sound plural morpheme to feminine forms and abandoning original feminine plural morpheme *-āt*.

7.1.3 The list of nouns in *RGT* (p96ff) suggests that singular nouns with initial *a-* predominate and cases where *a-* is followed by a consonant cluster may well reflect metathesis of the original initial vowel; for example *aḳddam* ‘labourer’, a Berber form of Arabic *ḳaddām*. If this is a general diachronic principle in Berber it may then be that the initial *i-* of the plural forms is also a secondary development, so that sound plurals were perhaps originally marked only by final *-(v)n*.

7.2 ‘Construct’ State

7.2.1 Singular masculine nouns such as *a-srdun* and *a-dar* are described as being in the ‘free’ state (*GdB* p109) and are paralleled by what are termed ‘construct’ forms *u-srdun* and *u-dar*. The latter forms (and their feminine equivalents) are used:

1. When the noun is subject and follows its verb, as for example *iffǧ u-rgaz* ‘the man left’.
2. In genitive constructions, for example *taddart u-rgaz* ‘the house of the man’.⁴⁰
3. When the noun follows a numeral or a preposition.⁴¹

7.2.2 Although at first sight the initial vowel of the masculine noun might appear to be related to the definite article in Hebrew or Arabic, in principle there is no definite article in Berber (*GdB* p142/3). It may be that this vowel is an ancient feature, for Lipiński argues (*OCG* §32.1) that the noun states reflect the fact that Berber is an ergative language, marking ‘agent case’ (*u*) and ‘patient case’ (*a < i*) in word-initial position, and as such reflecting the ‘diprotic’ case system in Semitic (*OCG* §32.2). But the obvious problem with this conjecture is that it is difficult to perceive any sense of ‘agent’ in the second and third applications of the construct state, even allowing for secondary developments in use.

7.3 Gender

7.3.1 Feminine gender in Berber is marked by prefixing and suffixing morpheme *t*, as ; *arba* ‘boy’ vs *t-arba-t* ‘girl’ (*GdB* p112). Final *-t* is probably the Sigmatic feminine marker (see *TAF* §6.3) but initial *t-* is a Berber innovation which on the face of it appears to serve no useful purpose. However, on Lipiński’s hypothesis that the noun-state prefixes reflect original ergative case markers, feminine *t-* may have been

⁴⁰ The Berber genitive construction is of the form *n-regens – n-rectum*, in conformity with the Semitic languages and Egyptian but in contrast to most Cushitic languages.

⁴¹ *RGT* p122ff; compare *GdB* p114.

copied into word-initial position to reinforce the putative case markers.

8. Pronominal Systems

8.1 Independent Personal Pronouns

8.1.1 Independent personal pronouns for three Berber dialects are set out in Table 7, along with the equivalent Babylonian, Arabic and Egyptian forms.⁴² Although some Berber forms clearly descend from common Sigmatic originals the details of their wider correspondences are complex. The Berber 1s forms can readily be related to the equivalent Babylonian and Egyptian forms, whereas the 1p forms are closer to W. Semitic, Arabic *naḥnu* being an example ; the 1fp forms appear to be a Berber innovation, and probably early, although they do not occur in all dialects (*MCK* p27). Sequence *nt* in the Berber 3s and 3p forms is clearly not Semitic, but compare the equivalent sequence in the Egyptian 3s and 3p forms - albeit that *nt* occurs in all Egyptian independent pronouns other than 1s and 1p. The Berber second person forms (excluding the Ait Ayache 2s morphemes⁴³) at first sight appear to be based on suffixed pronouns,⁴⁴ as also is the case in all Egyptian forms except 1s and 1p, although the Berber forms may originate in combined suffixed and attenuated independent pronouns. Thus as well as displaying a number of Semitic features it is possible that the Berber system has to some extent been influenced by the Egyptian system (or even vice versa), and by some N. African aboriginal language.

TABLE 7 SELECTED INDEPENDENT PERSONAL PRONOUNS

Person	Kabyle	Ait Hassan	Ait Ayache	Tuareg	Babylonian	Arabic	Egyptian
1s	nekk(i)(ni)	nkk-in	nkk-(in)	nk	anāku	‘ana	ink
2ms	kečč(i)(ni)	kiyy-in	šgg	kay	atta	‘anta	nt-k
2fs	kemm(i)(ni)	kmm-in	šmm	km	atti	‘anti	nt-č
3ms	neḥḥa(n)	ntt-a	ntt-a	nt-a	šū	huwa	nt-f
3fs	neḥḥat	ntt-at	ntt-at		šī	hiya	nt-s
1mp	nekn-i	nukkn-i	nqnn-i	nkkan-i	nīnu	naḥnu	in-n
1fp	nekken-ti			nkkan-ti			
2mp	ken-wi	kun-nimi	qnni	kaw-ni	attunu	‘antum	nt-čn
2fp	kenn-empti	kun-imti	qnninti	kama-ti	attina	‘antunna	
3mp	nu(i)t-ni	nut-ni	nit-ni	nta-ni	šunu	hum	nt-sn
3fp	nu(i)t-enti	nut-nti	nit-nti	nta-nti	šinu	hunna	

⁴² Sources : *MCK* p27 (Kabyle), *GdB* p130 (Ait Hassan), *RGT* p35 (Ait Ayache – compare the Ait Seghrouchen forms on p77), *OCG* §36.2 (all others). For other dialects see again *MCK* p27.

⁴³ The shift /k/ > /š/ appears to be a feature of some Berber dialects, at least in some environments. Compare *OCG* §18.6.

⁴⁴ But cf. *TAF* §6.2.3.

8.2 Direct Object Pronouns

8.2.1 Direct object pronouns for the dialects/languages utilised in Table 7 are set out in Table 8.⁴⁵ Most of the Berber forms are self-evidently Sigmatic (for proposed non-Sigmatic forms see Table 3 in *TAF* §6.2.8), so that none can be identified as specifically Semitic. However, note the 2fs forms and the Tuareg 2p forms, which appear to suggest *m* as some kind of feminine marker not occurring elsewhere in Sigmatic. Ait Hassan and Ait Ayache 1p form *-aġ* seems at first glance not to be Sigmatic, but alternative Kabyle form *(a)naġ* suggests that the equivalent independent 1p pronoun may be a source for these forms, although the differences between the suffixed and independent forms would remain to be accounted for.⁴⁶ Tuareg 1p *-na* may reflect the original Berber form or could have been taken from Arabic.

TABLE 8 SELECTED DIRECT OBJECT PRONOUNS

Person	Kabyle	Ait Hassan	Ait Ayache	Tuareg	Babylonian	Arabic	Egyptian
1s	-yi	-yyi	-i	-iyi	-nī	-nī	-i
2ms	-k	-k	-š	-k	-ka	-ka	-k
2fs	-kem	-km	-šm	-m	-ki	-ki	-č
3ms	-t	-t	-t	-s/-t	-šu	-hu	-f
3fs	-t	-tt	-tt		-ša	-hā	-s
1p	-(a)ġ/ (a)naġ	-aġ	-aġ	-na	-na	-nā	-n
2mp	-kwen	-kn	-qn	-wm	-kun	-kum	-čn
2fp	-kwent	-knt	-qnt	-wmt	-kin	-kunna	
3mp	-ten	-yyin	-tn	-sn/-tn	-šun	-hum	-sn
3fp	-tent	-yyint	-tnt	-snt/-tnt	-šin	-hunna	

8.3 Demonstrative Pronouns

8.3.1 Independent demonstrative pronouns for three Berber dialects along with selected other languages are set out in Table 9.⁴⁷ These data suggest prefixed *t-* as a common and presumably Sigmatic

⁴⁵ Sources : *MCK* p28 (Kabyle), *GdB* p133 (Ait Hassan), *RGT* p49 (Ait Ayache – compare the Ait Seghrouchen forms on p79), *OCG* §36.2 (all others).

⁴⁶ The Ait Seghrouchen form is *-ak*, which offers a degree of support for the conjecture offered here.

⁴⁷ Sources : *GdB* p138 (Ait Hassan), *RGT* p69 (Ait Ayache – the Ait Seghrouchen forms (p81) are identical), Gardiner *EG* §110 (Egyptian), Lipiński, *OCG* 326 (Tuareg), von Soden *GAG* §45 (Akkadian). For variant Semitic forms see *OCG* §36.32ff. In Semitic, a demonstrative pronoun may either precede or follow its noun, depending on the language (*OCG* §36.36). For Egyptian, note also the abbreviated ‘near’ forms *pà*, *tà* and *nà*. When qualifying nouns, Ait Ayache (at least) utilises variant forms suffixed to their noun, although these would appear to originate in the independent forms (*RGT* 69).

element in the feminine forms, and perhaps *w-* or *u-* in masculine forms. An *n*-based morpheme also forms part of the Akkadian, Beḍawiē and Egyptian near deictics but, in contrast, forms part of the Berber far deictics. Note also the *n*-element in Beḍawiē masculine and Egyptian plural far deictics although, on the basis of the Akkadian forms, all these may result from a shift $l \rightarrow n$.

TABLE 9 INDEPENDENT DEMONSTRATIVE PRONOUNS

	Ait Hassan	Ait Ayache	Tuareg	Beḍawiē (Nominative)	Akkadian	Arabic	Egyptian
				Near			
ms	wa(d)	wa		ūn	annū(m)	(hā)dā	pw, pwy, pn
fs	ta(d)	ta		tūn	annītu(m)	(hā)dīhi	tw, twy, tn
mp	wi(d)	wi		ān	ann(i)ūtu(m)	(hā)'ulā'i	
fp	ti(d)	ti		tān	ann(i)ātu(m)		nw, nn
				Far			
ms	wan(hut)	wann	wu/wa	bēn	ullū(m)	dālika	pf, pfy
fs	tan(hut)	tann	tu/ta	bēt	ullītu(m)	tilka	tf
mp	win(hut)	winn	win	balīn	ullūtu(m)	'ulā'ika	nf
fp	tin(hut)	tinn	tin	balīt	ull(i)ātu(m)		

8.3.2 Optional element *d* in the Ait Hassan near deictics is reminiscent of Semitic dental-based elements (*OCG* p328/9), but how widespread is this morpheme in Berber and can it be shown not to be an Arabic loan?⁴⁸ Ait Ayache has a variant form *-ddġ* for the suffixed demonstrative, but is the *dd* element related to the Ait Hassan morpheme?

9. Lexicon

9.1 Swadesh Listing

9.1.1 A Swadesh analysis based on around 170 items in the Kabyle lexicon yielded 44 (about 26%) that with greater or lesser confidence can be associated with equivalents in the Semitic languages, and 26 (15%) with items in the Egyptian lexicon ; these totals are skewed somewhat by the fact that 12 (7%) of the relevant items are in effect Sigmatic and thus common to both Semitic and Egyptian. When the weaker correlates are excluded the totals effectively reduce to 18% Semitic and 10% Egyptian. Of course a problem is to distinguish originally Sigmatic/Common Semitic/Egyptian words from possible Punic (?) or relatively late Arabic loans. But a potentially useful check on the latter is where a Kabyle word has a Tuareg equivalent (as listed in J-M Dallet's *Dictionnaire Kabyle-Français [DKF]*), the latter dialect being generally assumed to have incorporated fewer Arabic loans than the former

9.1.2 Among Kabyle items taken to be more strongly correlated with Sigmatic equivalents are *iles*

⁴⁸ A *d*-based element is not mentioned by Basset.

‘tongue’ (also Tuareg) vs Semitic **lišān* vs Egyptian *ns* ; *aman* ‘water’ vs Semitic **ma’u* vs Egyptian *mw* ; *yemma* ‘mother’ (Tuareg *ma*) vs Semitic **’umm* vs Egyptian *mwt*. Among items with an apparently Semitic correlate are Kabyle *summ* ‘suck’ (Tuareg *sūmem*) vs Semitic **mšš* ; *jen* ‘sleep’ (Tuareg *egen*) vs Semitic **γšn*. Although there are so far no compelling direct Berber-Egyptian correlates, among possible matches are *igēs* ‘bone’ (Tuareg *iṛes*) vs Egyptian *qs* ; *aḍar* ‘foot’ (Tuareg *aḍer*) vs Egyptian *rd* ; *dwi* ‘push’ vs Egyptian *wdi*.

9.2 Verb Forms Common to Kabyle and Tuareg

9.2.1 Introduction

9.2.1 A listing of verbs common to Kabyle and Tuareg, based on the entries in *DKF* and the classification of Kabyle verbs in *MCK*, yielded totals for the various Kabyle patterns identified by Nait-Zerad as shown in Table 10, ignoring types with only one attested example ; the $\equiv_{G_{PA}}$ forms cited are Kabyle. The assumption underlying this exercise was that verbs common to both dialects are more likely to be original to Berber rather than loans from Arabic or elsewhere ; note that only a few of these verbs are assigned an Arabic correlate in *DKF*. Semitic (and Egyptian) correlates have been proposed for certain of these forms, the more convincing examples being shown in Table 11.

TABLE 10 VERB TYPES COMMON TO KABYLE AND TUAREG

Type	$\equiv_{G_{PA}}$	Total	Type	$\equiv_{G_{PA}}$	Total	Type	$\equiv_{G_{PA}}$	Total
1	yekrez	58	34	yejlujjul	14	108	yursun	2
2	iger	12	39	yeḡḡunžer	4	112	yulwu	2
3	yeddez	21	54	yeffudi	3	122	igem	7
8	inežžes	3	58	yuGal	2	123	yerr	13
9	yetteftef	11	63	yader	7	126	yebdu	13
12	yefferkekk	4	66	yawi	2	130	yig̃lil	3
14	yedri	10	71	yagad	2	137	yili	2
30	ilug̃	2	80	yennam	3	156	yiwzil	3
32	isumm	2	87	yenkikez	4	159	yiswir	2

9.2.2 These common verb types comprise only a small subset of the total number of types in Kabyle, so that, at the present time, postulated correspondences between Berber and Semitic verbs cannot formally be separated from chance. On a more positive note, just over half the verbs in Table 10 are of types where there is a $\equiv_{G_{PR}}$ option without phoneme *T₁* (see Table 1). Whether this is also due to chance or whether these $\equiv_{G_{PR}}$ patterns are older and thus more likely to occur in older correlates seems impossible to say.

TABLE 11 KABYLE/TUAREG VERBS WITH APPARENT SEMITIC COGNATES

Semitic	Kabyle	Type	Sense
Strong Roots			
Hb (prs)	yebrez	1	separate ; divide
Ar (frj)	yefrej	1	cut off ; separate
Ge (kmr)	yejmer	1	gather ; accumulate
Ar (kmš)	yečmez	1	scratch
Ar (qrđ)	yegwed	1	cut
Ar (jrm)	yergem	1	injure
Ar (dás)	yeddez	3	pound ; crush
Hb (mrḥ)	yemri	14	rub
Hb (rgá)	iluǧ	30	b disturbed ; disturb
Ar (hdl)	yader	63	lower ; descend
Ar (ḥnf)	yaneḥ	63	bend sideways ; turn aside
Hb (ḥsr)	yašar	63	lose ; b lacking
Hb (láṭ)	yellaz	80	swallow greedily ; b hungry
Hb (rkš)	yenkikez	87	keep moving ; move
Ar (šár)	yissin	125	know
Hb (rkb)	yerku	126	rot
Ar (rḥđ)	yirid	130	wash ; b washed
Hb (7ášl)	yažay	153	b sluggish ; b slow
I-n Roots			
Ar (nǧz)	iǧez	2	hollow out ; bore into
Hb (ntr)	eččer	3	get up ; spring up
Ar (nqá)	yerki	14	soak
Hamzated Roots			
Ar (ǧkd)	yaǧ	70	take
Hb (dǧg)	yagad	71	b afraid ; fear
Hb (sbà)	isew	122	drink
Se (ǧkl)	yečč	123	eat
Geminate Roots			
Hb (gll)	ič ^w er	2	b rolled ; roll ay
Ar (mdd)	imed	2	enlarge ; spread
Ar (qbb)	yefṭef	3	seize ; tk hold of
Ar (mzz)	isumm	32	suck
Hb (dmm)	ssusem	34	keep silent
Ar (tff)	isusef	35	spit
Hb (hll)	yeflali	58	appear
Ar (qll)	yeqqaR	80	b dry
Ar (áđđ)	iǧezz	119	bite
Ar (rđđ)	yerṣ	123	crush ; shatter
Hb (bdd)	yebđu	126	divide
Hb (rdd)	yendu	126	beat out ; b beaten
I-Weak Roots			
Hb (yšn)	ijen	2	sleep
Eg (wčs)	eččes	3	lift up
II-Weak Roots			

Semitic	Kabyle	Type	Sense
Ar (kwn)	yuǧal	60	become
Se (šwm)	yuzum	108	fast
Se (mwt)	yemmet	121	die
III-y Roots			
Ge (nšy)	yenšew	1	b plucked ; pull out
Ar (ndy)	yenži	14	b moist ; drip
Hb (ály)	yali	74	climb ; ascend
Hb (nky)	ineǧ	122	smite ; kill
Hb (kry)	iǧeǧ	122	burn
Hb (pšy)	yefsu	126	open ; infasten
Se (šny)	yičniw	130	(double) ; b a twin
III-w Roots			
Hb (šbw)	išuff	32	b swollen
Doubly-Weak Roots			
Se (áty)	yečč	123	come ; come fm
	yas	140	come
Quadriradicals			
Eg (nwdw)	yennegneg	9	swing ; swing away
Ar (qrqá)	yerřekřek	9	crackle ; crack
Ge (hñks)	yeǧǧunžer	39	b hooked ; b lame

9.2.2 Correlates of Semitic Strong Verbs

9.2.3 From the discussion in Sections 2 and 3, it comes as no surprise that Kabyle Type 1 verbs (*yekrez* vs *ikerrez*) are prominent among the correlates in Table 11. However note that roots with a Semitic/Egyptian correlate incorporating a pharyngeal consonant tend to be absent from the Type 1 subset, such that where a Semitic correlate with a pharyngeal is postulated, as for example Hb *mrh* ‘rub’ or Ar *hñf* ‘bend’, the proposed Kabyle equivalents *yemri* (vs *imerri*) and *yanef* (vs *yettanef*) are formed on roots which in Semitic terms would be ‘weak’ ; the former is Type 14 and the latter Type 63, where the *a* of *yanef* may be a trace of the original pharyngeal. As will be seen from Table 11, other Kabyle verb types are conjectured to be equivalent to Semitic strong-roots with a pharyngeal in second position. Note also Hb *rkb* ‘rot’ correlating with Kabyle *yerku* vs *irekku* (Type 126), where final root consonant *b* appears to have reduced to *u*.

9.2.4 Semitic verbs with $r_1 = n$ have a ‘weak’ G_{PE} paradigm in certain Semitic languages⁴⁹ and there is evidence for the relative weakness of this consonant in Kabyle also, for example *eččer* vs *yettənčer* (Type

⁴⁹ See for example W. Gesenius & E. Kautzsch, *Hebrew Grammar*, p520.

3) perhaps equivalent to Hb *ntr* ‘spring up’⁵⁰

9.2.3 Correlates of Semitic Weak Verbs

9.2.5 As will be seen from Table 11, Kabyle/Tuareg verbs with apparent Semitic correlates on weak roots are drawn from various Kabyle verb types. Of these, Types 14 and 126 have a final vowel, not dissimilar to the final vowel in the G_{PA} forms of Semitic III-weak verbs; for example *yenži* vs *inežži* ‘drip’ (Type 14) equivalent perhaps to Ar *rdy*, and *yefsu* vs *ifessu* ‘stretch’ (Type 126) perhaps equivalent to Hb *pšy* ‘open, part’. Associated with these is *yali* ‘climb’, equivalent to Hb *ály*, but whose ≡G_{PR} form is *yettali* (Type 74); note also Type 122, as for example *ineg* vs *ineqq* ‘kill’ possibly equivalent to Hb *nky*, assuming the final weak radical to have been lost.

9.2.6 Table 11 contains fewer examples of equivalents to I-weak and II-weak roots. There are two examples of the former of which *ijen* vs *yejjan*, apparently equivalent to Hb *yšn* ‘sleep’, is Type 2. Note also *iččes* vs *iteččes* (Type 3) perhaps equivalent to Eg *wčs* ‘lift up’. Of the three Kabyle verbs with II-weak equivalents, *yuzum* vs *yettuzum* ‘fast’ (Type 108), equivalent to Semitic *šwm*, appears to preserve traces of the medial *w/u* although this is not true of the other two examples *yugal* ‘be, become’ (Type 60), perhaps equivalent to Arabic *kwn* and *yemmet* ‘die’ (Type 121) equivalent to Semitic *mwt*.

9.2.4 Correlates of Semitic Hamzated and Geminate Roots

9.2.7 Table 11 lists four Kabyle verbs with possible correlates in Semitic hamzated verbs, but of these perhaps only *aġ* (Tuareg *aher*) vs *yettag* ‘take’ (Type 70), equivalent to Semitic *akd*, is reasonably secure. Type 71 form *yagad* (vs *yettag^wad*) ‘be afraid’, possibly equivalent to Hebrew *dāg*, is encouraging but is not supported by its Tuareg equivalent *ūksađ*.

9.2.8 Other than strong roots, Kabyle verbs with geminate Semitic equivalents form the largest block in the table. The data is somewhat weakened by the fact that the Kabyle forms are drawn from a range of different types, of which only Type 2 (e.g. *imed* vs *yemmad* ‘spread’) and Type 126 (e.g. *yebdu* vs *ibettu* ‘divide’) occur more than once. Nonetheless there are persuasive examples among the remainder, for instance *isumm* vs *yettsummu* ‘suck’ (Type 32) equivalent perhaps to Ar *mzz* and *yeqqar* vs *yettgar* ‘be dry’ (Type 80) equivalent to Hb *qll*.

9.2.5 Quadraticals

9.2.9 Quadriradicals are generally more common in Berber than in Semitic and occur principally as

⁵⁰ Note that the Tuareg form is *enčer* (DKF p412)

Type 9. As Table 3 shows, the vast majority of Type 9 verbs have a T_I -based $\equiv_{G_{PR}}$ form, in contrast to the examples cited in Table 11. Compare also Berber *yefferkekk* (Type 12) and Arabic *frqá*, both ‘crack’.

Bibliography

- ABDEL-MASSIH, E.T., *A Reference Grammar of Tamazight*, Ann Arbor 1971.
- BASSET, A., *La langue berbère (Handbook of African Languages 1)*, 2nd ed., London 1952.
- BRIGHT, J., *A History of Israel*, London 1966.
- COHEN, D., *La phrase nominale et l'évolution du système verbal en sémitique; études de syntaxe historique*, Leuven 1984.
- DALLET, J-M, *Dictionnaire Kabyle-Français*, Paris 1982
- GARDINER, A., *Egyptian Grammar*, 3rd ed revised., Oxford 1988.
- GESENIUS, W. & E. KAUTZSCH, *Hebrew Grammar*, 2nd English edition by A.E. Cowley, Oxford 1910 (reprint: 1966).
- LIPÍŃSKI, E., *Outline of a Comparative Grammar of the Semitic Languages*, 2nd Edition, Leuven 2001.
- MOSCATI, S., *An Introduction to the Comparative Grammar of the Semitic Languages*, Wiesbaden 1964 (reprint: 1969 & 1980).
- NAÏT-ZERRAD, K., *Manual de Conjugaison Kabyle*, Paris 1994.
- SODEN, W. VON, *Grundriss der akkadischen Grammatik*, Roma 1952; *Ergänzungsheft*, Roma 1969.
- SADIQI, F., *Grammaire du Berbère*, Pans 1997.

Bibliographical Abbreviations

ACSE	Aspect in Common Semitic and Egyptian
BdSL	Beḍawiē as a Semitic Language
DKF	DALLET, J-M, <i>Dictionnaire Kabyle-Français</i>
EG	GARDINER, A., <i>Egyptian Grammar</i>
ESVS	COHEN, D., <i>La phrase nominale et l'évolution du système verbal en sémitique</i>
GAG	SODEN, W. VON, <i>Grundriss der akkadischen Grammatik</i>
GdB	SADIQI, F., <i>Grammaire du Berbère</i>
ICGSL	MOSCATI, S. et al, <i>An Introduction to the Comparative Grammar of the Semitic Languages</i>
MCK	NAÏT-ZERRAD, K., <i>Manual de Conjugaison Kabyle</i>

MPSVS	Towards a Morphology of the pre-Semitic Verbal System
OCG	LIPÍŃSKI, E., Outline of a Comparative Grammar of the Semitic Languages
LLB	BASSET, A., La langue berbère
RGT	ABDEL-MASSIH, E.T., A Reference Grammar of Tamazight
TAF	The Afroasiatic Fallacy