



Universiteit  
Leiden  
The Netherlands

## **A Grammar of Awjila Berber (Libya) : based on Umberto Paradisi's material**

Putten, M. van

### **Citation**

Putten, M. van. (2013, October 1). *A Grammar of Awjila Berber (Libya) : based on Umberto Paradisi's material*. Retrieved from <https://hdl.handle.net/1887/21848>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/21848>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/21848> holds various files of this Leiden University dissertation.

**Author:** Putten, Marijn van

**Title:** A grammar of Awjila Berber (Libya) : based on Umberto Paradisi's material

**Issue Date:** 2013-10-01

# Chapter 4

## Verb

There are three morphological processes that influence the verb. These three processes are:

- 1. Person Number Gender (PNG) marking
- 2. Verbal derivation
- 3. Tense Aspect Mood (TAM) marking

### 4.1 PNG-marking

There are three types of PNG-marking, depending on mood and verb type.

- 1. Regular PNG-marking
- 2. Imperative PNG-marking
- 3. Stative PNG-marking

#### 4.1.1 Regular PNG-marking

Regular PNG-marking is used for all non-imperative verbs that do not belong to the stative verb class. The imperative has its own PNG-marking. The table below displays the PNG-marking, and is supplied with the full perfective paradigm of *arəv* ‘to write’, based on Beguinot (1924: 189) and Paradisi’s word list.

1sg.	-x, -y, -a	urəf-y, urəf-x
2sg.	t...-t	t-urəf-t
3sg.m.	y-	y-urəv
3sg.f.	t-	t-urəv
1pl.	n-	n-urəv
2pl.m.	t...-im	t-urəv-im
2pl.f.	t...-mət	t-urəv-mət
3pl.m.	-n	urəv-n
3pl.f.	-nət	urəv-nət

The 1sg. has three forms, *-x* is the form attested in Paradisi. This form is also the most common form in Zanon. Beguinot (1924) has *-y* and Zanon (1932) has both forms. The allomorph *-a* is used when the 1sg. is followed by an indirect object clitic.

- (2) *qàma a=nn-à=k*                      *ləhkàyət axir n=tà=nn-ək.*  
 now fut.=tell:fut.-1s=10.2sm story better of=PMPH=of-2sm  
 ‘Now I will tell you a story (even) better than yours!’ [PT:IV]

#### 4.1.2 Imperative PNG-marking

The imperative PNG-marking is limited to the second person, and is always attached to the imperative stem. Other Berber languages usually allow the imperative PNG-marking to be attached to the imperfective stem as well. Within the corpus, there is no evidence for this in Awjila. The imperative paradigm of the verb *ayəšš* ‘to love’<sup>1</sup> is given below as an example.

2sg	-ø	ayəšš-ø
2pl.m.	-at	ayəšš-àt
2pl.f.	-mæt	ayəšš-mæt

#### 4.1.3 Stative PNG-marking

Awjila has a stative verb class, containing verbs expressing permanent qualities. In the singular, the stative verb is inflected for person and gender, while the plural has one single form.<sup>2</sup> The table belows gives the paradigm, and an example verb *šəttəf* ‘to be black’

1sg.	-ax	šəttəf-àx
2sg.	-at	šəttəf-àt
3sg.m.	-ø	šəttəf-ø
3sg.f.	-ət	šəttəf-ət
pl.	-it	šəttəf-it

#### 4.1.4 The participle

There is a special form of PNG-marking that is normally called the “Participle” in Berber studies. The participle is used in relative clauses, and relative clause-like constructions,

<sup>1</sup>*ayəšš* ‘to love’ is the only complete imperative paradigm that is attested that has a root that ends in a consonant.

<sup>2</sup>The plural form is not attested in the text with the 1pl. or 2pl. It is therefore not possible to determine that it is a common plural form from the texts. Paradisi’s word list explicitly states that it is a common plural form. I assume that this is correct.

when the head of the relative clause functions as the subject in the relative clause.<sup>3</sup> The participle occurs with regular verbs and stative verbs.

The participle is formed by suffixing *-n* to the verb stem. Section 10.6 discusses its use and the syntax of relative clauses. Some examples of the participle are given below.

- (3) *i-šərw=ìs      ləhùdi s=alá      šará-n=a.*  
 3sm-tell:pf.=IO.3s Jew      from=rel. happen:res.-ptc.=res.  
 ‘the Jew told him about what had happened.’ [PT:V]
- (4) *u=bəʃədèn y-əxzár      əf=əlḥəməl=ənn-əs wa      zẓàk-ən      dax*  
 and=then 3sm-look:pf. on=load=of-3s      PMPH:ms be.heavy-ptc. in.order.to  
*a=y-ərḥəʃ=t*  
 fut.=3sm-lift:fut.=DO.3sm  
 ‘And then he looked at his load that was heavy to carry’ [PT:III]

In several Berber languages such as Ghadames, Tuareg, the participle agrees in gender and number with its subject, e.g. Ayr Tuareg (Kossmann 2011: 69).

In Awjila subject relatives are only attested with masculine singular heads, so it is unclear whether there is any subject agreement.

#### 4.1.4.1 Other

The words for ‘other, another’ are morphologically reminiscent of the participle as found in Tuareg. This is not unusual for this word, which often has participle-like forms in other Berber languages, cf. Figui (Kossmann 1997: 162) and Ghadames (Lanfry 1968: 364).

Paradisi distinguishes two forms: an “indefinite” form, *aqùṭən* ‘another’, and a “definite” form, *wàṭən* ‘other’. Both forms agree in gender and number with the noun they modify, and both are placed behind it. The table below illustrates the different forms.

	Definite	Indefinite
m.sg.	wà-ṭən	aqùṭən
m.pl.	wə-ṭnìn	aqùṭnìn
f.sg.	tà-ṭən	aqùṭət
f.pl.	tə-ṭnìnət	aqùṭnìnət

The definite forms have an initial *wa-* for the masculine and *ta-* for the feminine. These forms are similar to the pre-modifier pronominal heads described in section 6.3.1. Different from pre-modifier pronominal heads, the plural forms start with *wə-* and *tə-* instead of *wi-* and *ti-*.

<sup>3</sup>The name “Participle” is unfortunate as it suggests that it is a nominal verb form. In fact, it is a purely verbal form (Galand 2010: 234). It would be better to call these forms subject-relative forms.

The definite/indefinite distinction that Paradisi makes, is contradicted by the textual evidence, cf.

- (5) *Bəṣadən u=bəṣád səb(ə)ṣa ayyam y-əṣədd mərràt (mərràtət) aqùt-ət*  
 then and=after seven days 3sm-go:\*pf. time another-sf  
 ‘Then after seven days he went another time’ [PT:IX]

Here the form *aqùtət* clearly has an indefinite meaning, as would be expected from Paradisi’s description. But compare this to the following example:

- (6) *šəmm-át=dik tirìwt tàṭən, amišiw=ənn-ùk.*  
 cook:imp.-pm=IO.1s child other:sf dinner=of-1s  
 ‘Cook me another girl, (for) my dinner.’ [PT:XV]

In this sentence, a definite reading is impossible. This must certainly be read as ‘another girl’, and not ‘the other girl’. The story involves seven girls, and at this point of the story, the Ogre believes he has eaten one girl. This continues the next day, where the ogre says the following:

- (7) *U=šbaḥ=ənn-əs šəmm-át=dik tàṭən.*  
 and=tomorrow=of-3s cook:imp.-pm=IO.1s other:sf  
 ‘And the next day: cook another for me’ [PT:XV]

In both these sentences from the same text, Paradisi’s “definite” form *tàṭən* must be read as indefinite, as there are seven children, if we would translate ‘the other’, it would imply there were only two girls.

The examples that Paradisi cites in the word list (pg. 159, s.v. altro) agree with his definite versus indefinite description:

- (8) *iwínan aqùṭən*  
 one:sm another:sm  
 ‘another one’ [P: s.v. altro]
- (9) *àtma wəṭnìn*  
 brothers other:pm  
 ‘my other brothers’
- (10) *tḥilliwin təṭnìnət*  
 houses other:pf  
 ‘the other houses’
- (11) *iwátan t-ənni dila u=taṭən t-ənni ždàbyət*  
 one:sf 3sf-be:\*pf. at.here and=other:sf 3sf-be:\*pf. Ajdabiya  
 ‘one is here, and the other is in Ajdabiya’ [P: s.v. altro]

- (12) *mag ì-nni wàṭən?*  
 where 3sm-be(loc.):\*pf. other:sm  
 ‘where is the other one.’ [P: s.v. altro]

#### 4.1.5 Stem variation in Final \* verbs

Several verb types have a final vowel that alternates in quality depending on PNG-marking. In the discussion of the verb stems (see below, section 4.3.3), these verbs are marked by a final \* in their abstract verb structure (**cc\***, **nc\***, **vc\*** etc.). The final vowel may either be *-a*, *-i* or *-ø*. Some PNG-markings are not attested in the corpus with final \* verbs, therefore, several gaps are present in the table below.

	Fut.		Pf., Res., Impf.		Imp.	
1sg.	-a-x	a=fk-à-x	-i-x	fk-i-x		
2sg.	t...-a-t	a=d-g-a-t	t...-i-t	d-g-ì-t	-ø	əfk
3sg.m.	y...-ø	a=y-əfk	y...-a	y-əfk-á		
3sg.f.	t...-ø	a=tt-ùš	t...-a	t-ùf-a		
1pl.	<i>n.a.</i>		<i>n.a.</i>			
2pl.m.	t...-a-m	a=tt-əqqim-a-m	t...-a-m	t-əllum-à-m	-ø-at	fk-àt
2pl.f.	<i>n.a.</i>		<i>n.a.</i>		-i-mət	fk-ì-mət
3pl.m.	<i>n.a.</i>		-a-n	uf-à-n		
3pl.f.	-a-nət	a=mm-à-nət	-a-nət	uf-à-nət		

When a direct object clitic directly follows the stem of a verb of this type, with no intervening PNG-marking, the final vowel is always *-i*. The vowel *i* of the indirect object clitic always replaces the final vowel of these stem-types, when there is no intervening PNG-marking. In case of 1sg. *-dik* which does not start with a vowel, the vowel *-i* is used,<sup>4</sup> as with the direct object clitics, cf.

<i>yəččá</i> ‘he ate’ [P:s.v. mangiare]	<i>yəččì=t</i> ‘he ate it’ [PT:XV]
<i>yəfká</i> ‘he gave’ [P: s.v. dare]	<i>yəfk=isìn</i> ‘he gave them’ [PT:XV]
<i>ayəfk</i> ‘he will give’ [P: s.v. dare]	<i>ayəfk=is</i> ‘I will give him’ [PT:V]
<i>yəfká</i> ‘he gave’ [P: s.v. dare]	<i>yəfki=dik</i> ‘He gave me’ [PT:V]

Besides the regular verbs that have stem-final vowel variation, there is a second group which is different in that the 3sg.m. and 3sg.f. do not have an ending *-a* in the perfective. These verbs will be marked with a final (\*), e.g. **cvċ(\*)** (section 4.3.3.18).

<sup>4</sup>The 1pl. indirect object clitic *-dikkəni* is unattested with verbs with final \*.

## 4.2 Derivational prefixes

Awjila verbs may have three derivational prefixes. These form new verbs with derived meanings, which are similar in form and function to those in other Berber languages (Galand 2010: 298-310): the causative prefix *š-*, the passive prefix *t-*, *tt-*, *tw-* and the middle prefix *m-*. There is one example of a combination of derivational prefixes. Verbs derived with these prefixes have default accent in all verb forms.

### 4.2.1 Causative

By far the most productive and best-attested derivation is the causative, which is formed with the prefix *š-*.

imp. sg. *šə̀ndəl* ‘to cover’, derived from *ə̀ndəl* ‘to be covered’

imp. sg. *šùɣər* ‘to lose something’, derived from *uyər* ‘to get lost’

The causative prefix has an allomorph *s-* that is used when the first or second root consonant *z* or *ʒ*.

imp. sg. *s=əzik*, *s-əgzək* ‘to heal (trans.)’, derived from *zik* ‘to get better’

imp. sg. *s=əzwər* ‘to swell; to make steep’, derived from *zəwwər* ‘to be large’

imp. sg. *s-əzzək* ‘to make heavy’, derived from *zzək* ‘to be heavy’

Some causative verbs with a consonant *z* as the second root consonant have free variation between *š-* and *s-*:

imp. sg. *š-əgzəl*, *s-əgzəl* ‘to shorten, lower’, derived from the stative verb *gəzzəl* ‘to be short, low’

imp. sg. *š-əyzəf*, *s-əyzəf* ‘to lengthen’, derived from the stative verb *yəzzəf* ‘to be long’

The only causative verb with *s* in the root, has free variation between the allomorphs *š-* and *s-*:

imp. sg. *š-əts*, *s-əts* ‘to make someone laugh’, derived from *aṭs*, *atṣ* ‘to laugh’

imp. sg. *š-ùkər* ‘to cause to steal’ has an impf. 1sg. *sukər-x* with a causative prefix *s-* instead of *š-*.

There is one verb with *ž* in the root where the causative prefix has become *ž-*: *ž-iž* ‘to sell’, from *iž* ‘to be sold’. The other causative that has a *ž* in the root has a regular causative prefix: *š-əžži* ‘to cause to milk’ from *əžži* ‘to milk’.

The causative increases the valency of a verb, by adding a direct object. The increase of valency can have multiple effects, as it may be appended to an intransitive



verb, a transitive verb and even a ditransitive verb. The overview below gives several examples.

Intransitive verbs can be made transitive with the causative prefix:

<i>udán</i> ‘to get dressed’	> š- <i>ùdán</i> ‘to dress s.o.’
<i>glùl</i> ‘to play’	> š- <i>əglùl</i> ‘to make s.o. play’
<i>əkri</i> ‘to return’	> š- <i>əkri</i> ‘to return s.th.’
<i>əkkār</i> ‘to get up’	> š- <i>əkkār</i> ‘to make s.o. get up’

Similarly, intransitive stative verbs may also receive the causative prefix in order to make them transitive.<sup>5</sup>

<i>fəšūš</i> ‘to be light’	> š- <i>əfšəš</i> ‘to lighten’
<i>gəzzəl</i> ‘to be short, low’	> š- <i>əgzəl</i> , <i>s-əgzəl</i> ‘to shorten, lower’

A common feature in Berber languages is the lability of verbs (Galand 2010: 291ff.). Such verbs can be used both in intransitive and transitive constructions. Labile verbs may also receive the causative prefix. In such cases, the verb becomes purely transitive. There is only one unambiguous example of this process in Awjila:

<i>uɣār</i> ‘to get lost; to lose s.th.’	> š- <i>ùɣār</i> ‘to lose s.th.’
--	----------------------------------

Verbs that only have a transitive interpretation, become ditransitive by appending the causative prefix.

<i>əčč</i> ‘to eat’	> š- <i>əčč</i> ‘to make s.o. eat’
<i>agəl, gul</i> ‘to see’	> š- <i>əgəl</i> ‘to show’
<i>ayār</i> ‘to read’	> š- <i>əyār</i> ‘to make s.o. read’
<i>àkər, ùkər</i> ‘to steal’	> š- <i>ùkər</i> ‘to make s.o. steal’

In one single case, a verb that is already ditransitive is made tritransitive by applying the causative prefix:

<i>əfk</i> ‘to give’	> š- <i>əfk</i> ‘to make s.o. give’
----------------------	-------------------------------------

Berber languages often employ the causative prefix on nouns to make denominal verbs. There is very little evidence for this process in Awjila, a single example may be: *gudìn* ‘urine’, and the related verb š-*əggəd* ‘to urinate, defecate’.

<sup>5</sup>We have one instance where the causative that is derived from

### 4.2.2 Passive

The passive is formed by a *tw-* prefix in front of verbs that start with a plain vowel, a *tt-* prefix before *a* and *t-* in front of a consonant.<sup>6</sup> This following overview lists all attested passive verbs.

<i>amt</i> 'to bury'	> pf. 3sg.m. <i>i-tt-àmt</i> 'to be buried'
<i>any</i> 'to kill'	> pf. 3sg.m. <i>i-tt-àny</i> 'to be killed'
<i>əzwát</i> 'to slam; to throw'	> res. 3sg.m. <i>i-t-zəwìta</i> 'to be thrown on the ground'
<i>àžəṭ</i> 'to grind, mill'	> res. 3sg.m. <i>i-tt-ižìta</i> 'to be ground, be milled'
<i>yar</i> 'to open'	> imp. sg. <i>ttw-àr</i> , <i>tw-àr</i> 'to open, to be open, to be opened'
<i>àrəv</i> , <i>ùrəv</i> 'to write'	> pf. 3sg.m. <i>i-tw-àrəv</i> 'to be written'
<i>š-išəf</i> 'to sieve'	> res. 3sg.m. <i>i-t-š-išif=a</i> 'to be sieved'

Only one of these passive verbs appears in the texts: *ttw-àr* 'to be opened; to open'. This passive verb "has both a passive and non-passive reading. In the sentence below, the verb is clearly passive:

- (13) *əlbàb i-twàr=a*  
 door 3sm-be.opened:res.=res.  
 'The door is opened.' [P: s.v. aprire]

In the following sentence the verb could be read passive or active:

- (14) *U=y-ətwàr arəqùṭ u=y-əḥsəb=tənət y-ufi=tənət*  
 and=3sm-open:×pf. bag and=3sm-count:×pf.=DO.3pf 3sm-find:×pf.=DO.3pf  
*ənqəṣ-nit=a iwínan*  
 lack:res.-3pf=res. one:sm  
 'And he opened the bag (or: the bag was opened) and counted them and found them lacking one (pound)' [PT:V]

In the next sentence, only an active reading is possible:

- (15) *Bəḥədèn uša-n=iz=d itnèn ən=qəttáfan, iwínan i-twàr*  
 Then come:×pf.-3pm=10.3s=come two of=thieves, one:ms 3sm-open:×pf.  
*azìṭ u=y-ərḥəf=t idd-əs w=iwínan y-əqqən*  
 donkey and=3sm-take.away:×pf.=DO.3sm with-3s and=one:ms 3sm-tie:×pf.  
*imàn=n-əs amakàn n=azìṭ.*  
 self=of-3s place of=donkey  
 'Then came two thieves, one untied the donkey and took it away with him, and one tied himself (in) place of the donkey.' [PT:VII]

<sup>6</sup>Paradisi always writes this passive prefix as *tu-* which may also stand for *tuw-*, see pg. ?? for a discussion.

### 4.2.3 Middle

The middle/reciprocal formation, found in other Berber languages with the *mm*- prefix, only has few attestations Awjila. There is only one clear example of the *mm*- prefix.

- (16) *Undú uši-γ=d ká, a=n-mḥàsəb nək ɪdd-əs yom əlqiyàma.*  
 if come:×pf.-is neg. fut.=1p-settle.the.score:fut. I with-3s day.of.resurrection  
 'If I do not come, we —him (who suffers) and me— will settle the score at the day of resurrection.' [PT:II]

The semantics of this verb must be understood as a middle that expresses togetherness. It is derived from the Arabic verb *ḥāsaba* 'to hold accountable', which is modified by the prefix to mean something like 'to hold accountable together' or 'to settle the score together'.

There are two verbs whose initial *mm*- probably goes back to the middle prefix.

- imp. sg. *əmməkt, mməkti* 'to remember', cf. Ghd. *əktət* 'to remember'; Kb. *mməkti* 'to remember'  
 imp. sg. *əmməg* 'to become, to be, to turn into'. Probably derived from *ag* 'to do, put, place'.

### 4.2.4 Combined prefixes

There is one example of a combined prefix, a passive derived from a causative *šišəf* 'to sieve', which does not have a non-causative counterpart:

- res. 3sg.m. *i-t-š-išifa* 'to be sieved'

## 4.3 Morphology of the verb stem

There are six types of verbal stems that mark Tense, Aspect and Mood:

1. Imperative
2. Perfective
3. Sequential perfective
4. Resultative
5. Future
6. Imperfective

There are four different types of morphological marking to distinguish the different TAM stems.

1. Clitic TAM-marking
2. TAM-marking through prefixes
3. TAM-marking through apophony
4. Accentual TAM-marking

**Clitic TAM-marking.** There are two clitics that are used to mark TAM: the future clitic *a=* and the resultative clitic *=a*. They are discussed in detail in sections 4.3.1.2 and 4.3.1.5.

**TAM-marking through prefixes.** There are two types of TAM-prefixes: imperfective marker *t-* and imperative marker *a-*. *t-* is added directly to the root. It is the tool that some verb types use to mark the imperfective, e.g. pf. 3sg.m. *yattáf*, impf. 3sg.m. *itattáf* ‘to seize’. Some verb types receive an initial prefix *a-* in the imperative, e.g. imp. sg. *àsəy*, but pf. 3sg.m. *isáy* ‘to buy’.

**TAM-marking through apophony.** Apophony is another morphological tool to mark TAM. One apophonic process is the change of *u* to *a*. Some verb types show alternation between initial *a-* in the imperative stem, and *u-* in the future and perfective stem. The change from *u-* to *a-* is also found as a means to mark the imperfective. In one verb type, initial *ya-* in the imperative stem alternates with initial *u-* in the future and perfective stems; The imperative singular of some stems starts with *a-* which is absent in all other forms.

Lengthening of the middle or last consonant of a verb root is another apophonic tool to mark the imperfective in some verb types. Finally, some verb types have a vowel *a* before the last consonant of the stem to mark the imperfective.

imp. sg. *àkər*; *ùkər*; pf. 3sg.m. *y-ùkər*; impf. 3sg.m. *i-tàkər* ‘to steal’  
 imp. sg. *yar*; pf. 3sg.m. *y-urá* ‘to open’  
 imp. sg. *àsəy*; imp. pl.m. *səy-àt*; pf. 3sg.m. *i-sáy* ‘to buy’  
 imp. sg. *əlmád*; impf. 3sg.m. *i-ləmməd* ‘to learn’  
 imp. sg. *fənzər*; impf. 3sg.m. *i-fənzàr* ‘to bleed (from the nose)’

**Accentual TAM-marking.** The presence or absence of a lexical accent may also mark TAM. Several verb types have a final phonological accent in the imperative stem and perfective stem. Phonological accent is the defining difference between the perfective and the sequential perfective. When object clitics follow either of these stems, it is

impossible to determine which of the two is represented, as the cliticization makes the accent fall on the final syllable of the stem, whether it were a phonological accent or not. Some verb types have phonological final accent in all TAM-stems. Some examples of accentual TAM-marking are given below.

pf. 3sg.m. *yufá*, seq. 3sg.m. *yùfa* ‘to find’  
 pf. 3sg.m. *yǎčča*, seq. 3sg.m. *yǎččá* ‘to eat’

### 4.3.1 Verbal clitics

Several clitics may precede or follow the verb. The verb, together with its clitics, forms a single accent unit. Preceding the verb, we find the negative clitic *ur=* and the future clitic *a=*. Following the verb, we find the direct object and indirect object pronominal clitics, the resultative clitic *=a* and the lexicalized deictic clitic *=d*. These clitics appears in a fixed order around the verb which can be represented schematically as follows:

Negative=Future=[Verb]=Indirect Object=Direct Object=Resultative

#### 4.3.1.1 Negative clitic *ur=*

The negative clitic *ur=* is sometimes used, but the negative particle *ká* (see section 4.3.2), which follows the verb, is much more common. In his word list, Paradisi (s.v. *non*) mentions the variants *wur*, *wul* and *ul*, which are not attested in the texts or example sentences in the vocabulary.

#### 4.3.1.2 Future clitic *a=*

The clitic *a=* is used to mark future or non-real events. It is always followed by a future verb stem. Different from its cognate *a(d)* in other Berber languages, the presence of *a=* has no effect on the placement of post-verbal clitics, which remain behind the verb. The example below contains several futures with direct objects and indirect objects:

- (17) *wəllàhi qàma a=hdaf-à=s*                      *təs(ə)ʕa mǎyət*    *id=təs(ə)ʕa u=təsʕin*  
 by.god now fut.=throw:fut.-1s=10.3s nine hundred with=nine and=ninety  
*žnì w=a=ggulà-x=t*                      *a=y-uyí=tənət*                      *nay wəla.*  
 pound and=fut.=see:fut.-1s=DO.3sm fut.=3sm-take:fut.=DO.3pf or not.  
 ‘By god, now I will throw to him 999 pounds and see if he will take it or not.’  
 [PT:V]

#### 4.3.1.3 Object clitics

The direct object clitics and indirect object clitics are discussed in more detail in sections 6.1.2 and 6.1.3.

#### 4.3.1.4 The lexicalized deictic clitic =*d*

Berber languages often have the post-verbal directional clitics =*dd* ‘hither’ and =*nn* ‘thither’, which indicate the direction of an action. These directional clitics are no longer productive in Awjila. There is no evidence of =*nn* left anywhere in the language. The clitic =*d* is still present as a lexicalized element found in the verbs *yi=d* ‘to come’ and *ayi=d* ‘to bring’<sup>7</sup>. Because the clitic no longer has a discernable semantic meaning, I have decided to gloss them as part of the verb: =*d* is glossed ‘come’ and ‘bring’, depending on which verb it follows.

While the =*d* no longer has meaning of its own, it still behaves as a clitic. It follows the indirect object clitic, e.g.

- (18) *Y-uš=iž=d      Žhà.*  
          3sm-come:P-IO.3s Jha  
          ‘Jha came to him’ [PT:VI]

In the imperfective, the clitic =*d* has an allomorph =*da*.

- impf. 1sg. *tašì-γ=da*, 2sg. *(t)tašì-d=da*, 3sg.m. *i-tašà=da*  
 impf. 1sg. *təggi-γ=da*, 3sg.m. *i-təggà=da*

Notice that the 1sg. PNG-marker -*x* is voiced to -*γ* in front of this clitic.

The future 3sg.m. and 3sg.f. of *yi=d* do not have the clitic.

- fut. 1sg. *a=ušá-γ=d* 3sg.m. *a=γ-uš* 3sg.f. *a=tt-uš* [Z:VI]

#### 4.3.1.5 Resultative clitic =*a*

The resultative clitic =*a* follows all other clitics. If the syllable that precedes the clitic =*a* contains *ə*, the vowel in that syllable is changed to *i*.

The sentences below show the 3sg.f. direct object marker =*tət* both with and without the resultative marker behind it. The second sentence also has the 3pl.f. subject marker -*nət* reflected as -*nìt* due to the resultative clitic =*a* behind it.

- (19) *u=ku    t-γəlli-t      a=tt-uyà-t=tət      syàr-i?*  
          and=you 2s-want:\*pf.-2s fut.=2s-take:fut.-2s=DO.3sf from=1s  
          ‘and you want to take it from me?’ [PT:V]

- (20) *nək wa      əhdəf-x=tìt=a      i=kú    dax      a=ggulà-x=ku*  
          I      PMPH:sm threw:res.-1s=DO.3sf dat.=you in.order.to fut=see:fut.-1s=DO.2sm  
          *a=t-tuyə-(t)=tənət      ənqəš-nìt=a      nəy wàla.*  
          fut.=2s-take:fut.-2s=DO.3pf lack:res.-3pf=res. or    not

<sup>7</sup>Both verbs have suppletive imperatives. The other stems use the roots *vš\**(=*d*) and *gg\**=*d* respectively.

'I am the one who has thrown it to you in order to see if you would take them missing (one pound) or not.' [PT:V]

When the resultative clitic is directly preceded by the vowel *a*, the clitic has the allomorph =*ya*, e.g. pf. 3sg.m. *yəfká*, res. 3sg.m. *yəfká=ya* 'to give'. When the perfective stem of a verb ends in *i*, this vowel is changed to *a* in the resultative, and again, the resultative clitic is =*ya*, e.g. pf. 3sg.m. *yənṭí*, res. 3sg.m. *yənṭà=ya* 'to taste'.

### 4.3.2 Negation

Negation is normally marked with *ká* placed behind the verbal complex. This particle has its own accent. Alternatively, but only rarely, negative clitic *ur=* is used (see section 4.3.1.1). The sentence below present a typical sentence with the negator *ká*, which is also provided with an alternative negation with the negative clitic *ur=*.

- (21) *aḥwa t-nə-d=dik ká* (or: *ur=t-nə-d=dik*) *žlan=ìya u=nək*  
 why 2s-say:pf.-2s=IO.1s neg. neg.=2s-say:pf.-2s=IO.1s words-prox.:p and=I  
*nnì-x ar=ùṭa?*  
 be(loc.):pf.-1s to=below

Why did you not tell me these words when (litt. and) I was still below?' [PT:VI]

There are a few cases where we find double negation in Awjila Berber. In these cases, besides the addition of a particle *ká*, the negative clitic *ur=* stands in front of the verb.

- (22) *ur=n-à=k=a ká bəṣàd a=t-qimà-t idd-í t-əṣəddi-t ká?*  
 neg.=say:res.-1s=IO.2sm=res. neg. when fut.-2s-stay:fut.-2s with-1s 2s-go-impf.-2s neg.  
 'Did I not tell you that when you stay with me not to go (anywhere?)' [PT:XIII]

### 4.3.3 Verb stems

The basic verb types are categorized here by their abstract structure. Every consonant of the verb is marked *c*, when a root has a long consonant it is marked as *c̄*. Long vowels are marked *v*, the final variable vowel is marked \* and the variable vowel that does not end in *-a* in the 3sg.m. and 3sg.f. is marked (\*). By applying schemes to these structures, we get the different TAM-stems of the verbs. For example a *ccc* structure receives a *|cəcəc|* scheme to form the imperfective.

The following sections discuss the verb type and their TAM-stem formations individually. Every verb type is presented with the imperative, perfective, future, imperfective stems and their verbal noun. The sequential perfective and the resultative have not been included. The resultative is regularly derived from the perfective by adding the resultative clitic =*a* (see section 4.3.1.5). The sequential perfective only occurs with

ccc, cc\*, c̄\* and vc\* verbs. It is formed by giving the perfective default accent instead of phonological final accent.

#### 4.3.3.1 ccc

This type is the most common verb type. There are no verbs with the full paradigm attested. The regular pattern is<sup>8</sup>:

imp.  əccəc	pf.  əccác	fut.  əccəc	impf.  cəc̄əc	v.n.  acəcac	
ədyáz	y-ədyáz	<i>n.a.</i>	i-dəyyəz	adəyáz	'to sing'
əqláz	<i>n.a.</i>	a=y-əqləz	i-qəlləz	aqəlàz	'to lie'
əyráš	y-əyráš	<i>n.a.</i>	<i>n.a.</i>	ayəràš	'to slaughter'
ərwəf	y-ərwəf	<i>n.a.</i>	i-rəwwəf	<i>n.a.</i>	'to fear'

Besides this general pattern, there is some variation. Some imperatives have a |cəc̄əc| pattern, e.g. *gəbás* 'to encircle' and *kərás* (besides *əkráš*) 'to tie, to knot'.

The two verbs that clearly have a |cəc̄əc| pattern in the imperative have a phonological accent on the final syllable in the imperfective: *ikərráš* 'to tie, to knot', *igəbbáš* 'to encircle'. One other verb has this irregular accent in the imperfective: *ətkár*, *itəkkár* 'to fill up'

The verbs *trəs* 'to braid hair' has an irregular imperfective formations of the shape |cəc̄àc| impf.3sg.f. *t̄ərràs*.

The verb *ərwəl* 'to flee' has an unusual form in the resultative 3pl.m.: *ərwilina*, with *i* instead of *ə* as the final vowel in the root. This phenomenon is discussed in more detail in section 10.5.4 footnote 3.

#### 4.3.3.2 cc\*

This verb type has two root consonants and a final vowel -a in the 3sg.m. perfective and no vowel in the 3sg.m. future and imperative. The vowel alternation is discussed in section 4.1.5. The table below gives some of the verbs that belong to this type.

imp.  əcc	pf.  əcc*	fut.  əcc*'	impf.  cəc̄*	v.n.  acəcū	
əfk	y-əfká	a=y-əfk	i-fəkká	<i>n.a.</i>	'to give'
agáz	y-əgza	a=y-əgəz	i-gəzza	agəzzu	'to cut'
aqəl	y-əqlá	a=y-əqəl	i-qəllá	aqəllu	'to roast'
aṭs	y-əṭsa	a=y-əṭs	i-təṣṣá	təṣṣàt	'to laugh'

<sup>8</sup>Where possible, I give 3sg.m. examples for pf., fut. and impf. in the following sections



Verbs of this type undergo morphophonological epenthesis in this type: If the last consonant of the root stands word-finally and the last consonant of the verb is *r*, *l* or *n*, *ə* is inserted before the last consonant (cf. a similar situation in Tuareg Heath 2005: 66). This final inserted *ə* almost always has a phonological accent in the imperative.

Verb that insert *ə* usually have an initial vowel *a* in the imperative, cf. *abán* ‘to build, construct’, *agár* ‘to gather, assemble’, *aqál* ‘to roast’, but: *aṭs* ‘to laugh’, *ədž* ‘to let go of’, *əfk* ‘to give’, *ərz* ‘to break’, *əmt* ‘to bury’.

There are two verbs with inserted *ə* which have a variant with an initial *ə*: *əsəl*, *əsəl* ‘to hear’, *avál*, *əvəl* ‘to cry, weep’.

One verb has final *z*, but still has an inserted *ə*: *agáz* ‘to cut’.

Two verbs, one with two stops, the other with two fricatives, also have an inserted *ə*: *aḥásš* ‘to crush dates’, *əṭəb* ‘to close the eyes’. Note that *əṭəb* has default accent.

*šəw* ‘to drink’ has a different imperative than all other verbs.

The verb *ənəy* ‘to kill’ appears to have an inserted *ə*, while the rule specified above does not apply. Perhaps this *ə* in this word is truly epenthetic. While this is difficult to determine, the spelling by Paradisi may suggest this <áněg>. The sign <ě> is often employed to write epenthetic vowels (see pg. 30).

The forms that do not insert *ə* before the last consonant have two different formations. We find two schemes: |əcc| and |acc|. *əfk* ‘to give’, for example has the scheme |əcc|, but *əmt* ‘to bury’ has the scheme |acc|. The two other verbs with this shape, <*arž*> ‘to break’ and <*aṭs*> ‘to laugh’ are ambiguous as the <*a*> in these emphatic environments could represent both *ə* and *a*.

Note that *ə* is not inserted when a vowel is added to the stem. This is the only case in Awjila where resyllabification takes place when *ə* ends up in an open syllable.<sup>9</sup>

There are several instances in the data where the imperfective has a final accent, instead of the anticipated penultimate accent, e.g. *i-fəkká* ‘to give’, *i-qəllá* ‘to roast’.

The verb (*t*)*tla=ya* (res.3sg.f.) ‘to become pregnant’ belongs to the cc\* verbs, but displays some irregularities: The initial cluster *tl* is sometimes replaced by *ll* (e.g. res. 1sg. *tli-x=a*, *lli-x=a*). Sometimes the PNG-prefix *t-* is lost in front of *t* of the root (e.g. 2sg. *tə-tli-t=a*, (*t*)*tli-t=a* 3sg.f. (*t*)*tla=ya*).

Two verbs in this group have an irregular verbal noun of the shape |tcəcāt|: *aṭs* ‘to laugh’ v.n. (*t*)*təṣṣàt*;<sup>10</sup> *šəw* ‘to drink’ v.n. *tšəwwàt*.

The verb *əvəl*, *avəl* ‘to cry’ has an irregular verbal noun of an entirely different formation: *vlin*.

<sup>9</sup>From a historical perspective the vowel must be epenthetic. Roots of this type go back to PB \*ăccəʔ verbs. There was no short vowel present between the two root consonants. See Kossmann (2001).

<sup>10</sup>Paradisi often does not distinguish initial *tt-* from initial *t-*.

## 4.3.3.3 nc\*

Verbs of this type have lost their initial radical *n* in all forms except for the imperfective and the verbal noun. There are three verbs that belong to this type. The verbal noun formation has the consonantal shape |tcācāt| that we also occur as an irregular verbal noun shape in the cc\* verbs. Notice that the 3sg.m. prefix *y-* is lost in the perfective in front of the *i* of the root.

imp.	pf.	fut.	impf.	v.n.	
ic	ic*'	ic*	nēc*	tnēcāt	
iš	iša	a=y-iš	i-nəšša	tnəššāt	'to sleep'
iv	ivá	a=y-iv	i-nəvva	tnəvvāt	'to fall'
iž	<i>n.a.</i>	a=y-iž	i-nəžža	<i>n.a.</i>	'to be sold'

## 4.3.3.4 cci

Verbs with two root consonants that end in a vowel *i* belong to this group. The stem formation is similar to the ccc and cc\* verbs. The resultative formation of cci verbs is identical to that of the cc\* verbs, with a root final *-a* rather than *-i*, e.g. *y-ənṭà=ya* (instead of the regular resultative: *\*y-ənṭi=ya*).

imp.	pf.	fut.	impf.	v.n.	
əccí	əccí	əccí	cēcí	acēcí	
ənṭí	y-ənṭí	a=y-ənṭí	i-nəṭṭi	anəṭṭí	'to taste'
əngi	y-əngi	a=y-əngi	i-nəgga	anəggi	'to touch'
ərní	y-ərní	a=y-ərní	i-rənni	arənní	'to increase, bid'

The accent in this verb type is somewhat unpredictable. The perfectives usually have final accent, but *əngi* 'to touch' does not. The future form of *a=y-ənṭí* 'to taste' has a final accent, while *a=y-əngi* 'to touch' and *a=y-ərní* 'to bid, increase' do not. There is no obvious explanation for this.

The verb *ški* 'to leave' has an irregular perfective *y-əšk* besides the regular perfective *y-əški*. This well-attested verb is only found with the regular perfective *y-əški* in the text corpus. The verb has an irregular verbal noun *škùy*.

The verb *əngi* 'to touch' has an irregular impf. stem: *nəgga* rather than the expected *nəggi*. The verbal noun of this verb has the default accent, rather than a phonological accent found in the other two verbs.

*ərní* 'to bid, increase' has an irregular verbal noun which rather corresponds to the cc\* verbs: *arənnú* (also: *arənnu*) besides the regular formation. We also find a pf. 3pl.m. form *rənnà-n* besides the regular *rənni-y-ən*, which is also a form that belong to a cc\* verb.

4.3.3.5  $\bar{c}c$ 

This verbs type has a long initial consonant and a short second consonant. In most cases, it has a phonological accent on the final syllable in all stems.

imp.	pf.	fut.	impf.	v.n.	
əčəc	əčəc	əčəc	təčəc	əčuc	
əttáf	y-əttáf	a=y-əttáf	i-təttáf	<i>n.a.</i>	'to seize'
əkkár	y-əkkár	a=y-əkkár	i-təkkər	əkkùr	'to get up'
əqqən	y-əqqən	<i>n.a.</i>	i-təqqən	əqqùn	'to bind, tie'
əššən	i-ššən	<i>n.a.</i>	i-təššən	(əš)šùn	'to know'
əmmág	y-əmmág	a=y-əmmág	<i>n.a.</i>	<i>n.a.</i>	'to become'
əwwáq	y-əwwáq	<i>n.a.</i>	i-təwwáq	əwwùq	'to uproot'
àzzəl	i-zzil=a (res.)	a=y-əzzəl	i-təzzəl	<i>n.a.</i>	'to have bowel movement'

Several verbs have default accent in the imperfective, namely: *əkkáš* impf. *i-təkkáš* 'to take off, remove', *əllák* impf. *i-təllək* 'to delouse' and *àzzəl* impf. *i-təzzəl* 'to have bowel movement'; *əkkár* ipf. *i-təkkər*. The verb *əwwáq* 'to uproot' has default accent in the perfective and imperfective.

Note that *àzzəl* 'to have bowel movement' has an unexpected initial long vowel *a* and an irregular accent in the imperative. Unlike the other verbs of this type, it has default accent in all attested stems.

Two verbs have an irregular imperfective formation *təčac*: *əggás* impf. *i-təggàs* 'to roast'. The other verb appears to have this formation in the impf.1sg. but not in the impf. 3sg.m.: *əššár* impf. 1sg. *təššàr-x* 3sg.m. *i-təššár* 'to mix, blend'.

The verb *əmmág* 'to become' has an irregular pf.1sg. *mməggi-x* instead of expected *\*\*mmág-x*. Moreover, the res.3sg.m. also lengthens the final consonant of the stem as observed in the pf.1sg. *y-əmmìgg=a* instead of the expected *\*\*y-əmmìg=a*.<sup>11</sup>

4.3.3.6  $\bar{c}^*$ 

This verb type has a long initial consonant, followed by a variable final vowel. This is only a small group of verbs, two of them have irregular imperfectives.<sup>12</sup> The table below shows all verbs that belong to this group.

<sup>11</sup>These irregular forms can probably attributed to the origin of this verb. This verb was probably originally a *mm-* derivation of the verb *ag* 'to do', a verb that also has variation in its final consonant length, and has a variable final vowel.

<sup>12</sup>For a discussion on the origin of *əčč* 'to eat' and *əmm* 'to be cooked, be ready, be ripened' see Kossmann (2008).

imp.  əč	pf.  əč*'	fut.  əč*	impf.  təč*	v.n.  əčú	
əčč	y-əččá	<i>n.a.</i>	i-ttətta	əččú	'to eat'
<i>n.a.</i>	y-əmmá	a=y-əmm	i-nənná	tənənnàt	'to be cooked'
əww	y-əwwa	<i>n.a.</i>	i-təwwa	əwwu	'to knead'
əžž	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	əžžú	'to plant'
əss	<i>n.a.</i>	<i>n.a.</i>	i-təssá	əssú	'to spread (a mat)'

The imperfective 3sg.m. of əss 'to spread (a mat), to stretch (to make the bed)' (*i-təssá*) and the 3sg.f. of əčč 'to eat' (*(t-)təttá*) have phonological accent on the final syllable, while the accent in the rest of the examples have default accent. The verbal noun of əww 'to knead' has an unexpected default accent.

The irregular verb *ayì=d, yayì=d* 'to bring' largely functions as a č\* verb, but it has a suppletive imperative *ayì=d, yayì=d* and it has a petrified directional clitic =*d* that has become part of the stem. The imperfective has an allomorph =*da* of this directional clitic. We find this same behaviour with the other verb that has the directional clitic, see section 4.3.3.12 *yì=d* 'to go'. The table below gives the paradigm of this verb:

imp.	pf.	fut.	impf.	v.n.	
ayì=d, yayì=d	y- əggà=d=a (res.)	a=y- əggá=d	i-təggà=da	əggú	'to bring'

#### 4.3.3.7 či

There is only one verb of this type, and it is only attested in the perfective: 3sg.m. *yənni* 'to be, to exist'. Paradisi claims that the morphologically perfective verb can also be used as a future. No instances of this use are found in the corpus.

#### 4.3.3.8 cc

This group of verbs has only two root consonants. The imperfective has two different formations. Below follows an overview of all attested verbs in this class.

imp.  acác	pf.  (ə)các	fut.  các	impf.  təcác   tēcac	v.n.  acuc	
ayǫš	y-əyǫš	a=i-yǫš	i-təyǫš	<i>n.a.</i>	'to love'
àsəy	i-səy	a=i-səy	ai-təssày	asùy	'to buy'
avér	i-vér	a=i-v(v)ér	i-təvvér	avùr	'to close'
avət	<i>n.a.</i>	<i>n.a.</i>	i-təvvət	avùt	'to swear'
azém	<i>n.a.</i>	<i>n.a.</i>	i-təzzàm	azùm	'to shave'
àžət	<i>n.a.</i>	<i>n.a.</i>	i-təžžət	<i>n.a.</i>	'to grind, mill'
wət	i-wət	<i>n.a.</i>	i-təwwət	əwùt	'to arrive'

*ayǫš* 'to love' has a perfective stem |əcác| while all other verbs have |các|. The verb *àsəy* 'to buy' has a different accent in the imperative, and an unexpected initial *a-* in the impf.3sg.m.; this is absent in the impf.1sg.: *təssàx-x*.

The imperative and verbal noun of *wət* 'to arrive; to reach' lacks an initial *a-*.

#### 4.3.3.9 c\*

Only three verbs belong to this verb class, all of them are listed below. With *ilaya*, only the resultative is attested. The verb *ag* 'to do, put, place' irregularly lengthens the final *g* in the future stem.

imp.  ac	pf.  c*'	fut.  əc	impf.  təcā	v.n.  acú	
ag	i-gá	a=y-əgg	i-təgga	agú	'to do, put'
an=ìs	i-n=ìs	a=i-n=ìs	i-tənn=ìs	<i>n.a.</i>	'to say to s.o.'
<i>n.a.</i>	i-lay=a (res.)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	'to be a creditor'

The verb *an=ìs* belongs to this group, but it has taken on a somewhat different formation than *ag* 'to do, put'. *an=ìs* has an obligatory 3sg. indirect object marker. Because the initial vowel *i* of the 3sg. indirect object marker always replaces the final alternating vowel in many forms, the final alternating vowel does not show up in the surface form. The lack of an alternating vowel in the surface form has spread to some forms where we would expect it, e.g. pf. 2sg. *t-nə-d=ìs* not *\*\*t-ni-d=ìs*. But the pf. 3pl.m. still retains a reflex of the alternating final vowel: *na-n=ìs*.

Because *i-la=ya* 'to be a creditor' is only attested as a resultative, it can also be a ci verb.

## 4.3.3.10 ci

There is only one verb with this structure, which is only found in the impf. 3sg.m. *i-gàʔ* ‘to cultivate’.

## 4.3.3.11 vcc

This verb type can be split in two subtypes: first, verbs that have an initial vowel *u* or *a* in the imperative; second, verbs that have an initial *i* in the imperative. The verbs that belong to the first type, are well-attested in the texts, cf.

imp.  ucəc	pf.  ucəc	fut.  ucəc	impf.  tacəc	v.n.  ucuc	
udən	<i>n.a.</i>	<i>n.a.</i>	i-tàdən	udùn	‘to be dressed’
ugəm	<i>n.a.</i>	<i>n.a.</i>	i-tàgəm	ugùm	‘to draw wa- ter’
uḡər	y-ùḡər	a-y-ùḡər	itəḡər	<i>n.a.</i>	‘to get lost’
àkər, ùkər	y-ùkər	<i>n.a.</i>	i-tàkər	ukùr	‘to steal’
arəv, ùrəv	y-urəv	a-y-ùrəv	i-tàrəv	arràv	‘to write’
asák, usák	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to take away’
<i>n.a.</i>	uṣəl-ən	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to arrive’
uṭər	y-ùṭər	a-y-ùṭər	i-tàṭər	<i>n.a.</i>	‘to twist, roll up’

Three verbs of this type have an alternative imperative shape |acəc| besides |ucəc|: *àkər, ùkər* ‘to steal’, *arəv, ùrəv* ‘to write’ and *asák, usák* ‘to take away’.

Some verbs have a phonological final accent in the perfective, while others have default accent. We find one verb that has a phonological final accent (*yurəv* ‘to write’), while the two other forms that inform us about the accent have penultimate accent. Beguinot (1924: 189) has the full perfective paradigm of *arəv*. Here it has a phonological final accent in all forms where we would expect it (3sg.m. *y-urəv* 3sg.f. *t-urəv* and 1pl *n-urəv*). Beguinot also has an unexpected accent on the antepenultimate syllable in the 3pl.m.: *úrəv-ən*, this position is rarely found accented in Paradisi’s material. The imperative accent of this verb is variable as well, but the final phonological accent occurs more often.

*arəv, ùrəv* ‘to write’ has an irregular verbal noun *arràv*.

Verbs that have an initial long vowel *i* keep this *i* in all TAM-stems. The vowel is changed to *u* in the verbal noun. The verbal noun formation is therefore identical to the verbs described above. Note that initial *y-* of the 3sg.m. is lost in front of initial *i*. The future is unattested. The imperfective formation is different from the verbs described above. These verbs receive an imperfective marker *t-* and place a vowel *a* before the last consonant.

imp.  icəc	pf.  icəc	impf.  ticac	v.n.  ucuc	
<i>n.a.</i>	irìd=a (res.)	<i>n.a.</i>	<i>n.a.</i>	'to be washed'
irəš	iriš-in=a (res.)	i-tirəš	urùš	'to descend'
<i>n.a.</i>	irəy=a (res.)	<i>n.a.</i>	<i>n.a.</i>	'to be raw'
ìwən	<i>n.a.</i>	i-tiwàn	<i>n.a.</i>	'to satiate'

The verb *irəš* 'to descend' has an unusual form in the resultative, with two *i* vowels in the stem. This phenomenon is discussed in more detail in section 10.5.4 footnote 3. The verb also has an alternative imperfective formation *i-ttərrəš* besides the regular *i-tirəš*.

The preceding schwa in the res. 3sg.m. *irə=ya* 'to be raw' is not changed to *i*, but the 3pl.m. and 3pl.f. have two *i* vowels in the stem: *iriyi-n=a*, *iri-nit=a*. This second vowel *i* in the stem should probably be considered a colouring of ə in the vicinity of *y*.

#### 4.3.3.12 vc\*

This verb type contains several well-attested verbs.

imp.  yac	pf.  ucá	fut.  uc	impf.  taca	v.n.  ucú	
uf	ucá	a=y-ùf	i-tàfa	ufú	'to find'
yax	y-uýá	a=y-ùy	i-tàya	uyú	'to take'
yan	y-uná	a=y-ùn	i-tàna	unú	'to enter'
yar	y-urá	a=y-ùr	i-tàra	urú	'to open'
yi-d	y-ušà-d	a=y-ùš	i-tašà=da	ušú	'to go'

*uf* 'to find' has an irregular imperative based on the perfective stem, rather than the expected *\*\*yaf*. The verb *yi=d*, *y-ušà=d* 'to go' has a suppletive imperative. The imperative, perfective, resultative and imperfective stems have the directional clitic =*d* as a petrified element. Note that this clitic has an allomorph =*da* in the imperfective. This is similar to the irregular verb *ayì=d* 'to bring' which is the only other verb with a petrified directional clitic, and has the imperfective *i-təggà=da*.

#### 4.3.3.13 cccc

For this stem type, the future and perfective are not attested, and the derived resultative stem is found only once. All verbs except for *sərfəq* 'to slap, to smack' have default accent.

imp.  cəccəc	pf.  cəccəc  (?)	impf.  cəccac	v.n.  acəccəc	
<i>n.a.</i>	y-əbəlbiš=a (res.)	<i>n.a.</i>	<i>n.a.</i>	‘to form a bulb’
<i>n.a.</i>	<i>n.a.</i>	i-ddəhwàr	<i>n.a.</i>	‘to go around’
fənžər	<i>n.a.</i>	i-fənžār	afənžər	‘to bleed (from the nose)’
fàr(ə)tək	<i>n.a.</i>	<i>n.a.</i>	afərtək	‘to unstitch’
qəstəm	<i>n.a.</i>	t-qəstəm	aqəstəm	‘to apply collyrium’
sənsər	<i>n.a.</i>	i-sənsər	ásənsər	‘to blow one’s nose’
sərfəq	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to slap, to smack’
šəkšək	<i>n.a.</i>	i-šəkšək	ašəkšək	‘to winnow barley’

*sərfəq* ‘to slap, to smack’, also appears as *sərfəg*.

The verbal noun *ásənsər* has a phonological accent on the antepenultimate syllable. This position is very rarely accented in Awjila.

#### 4.3.3.14 cċc ~ cċc

The majority of the words of this class are loans from Arabic stem II verbs. Paradisi did not include Arabic loanwords in his word list, so most of these words are only attested in the texts. The initial consonant of the stem is sometimes lengthened (see 2.1.2).

imp.  cəcċc	pf./fut.  cəcċc	impf.  cəcċac	v.n.  acəcċəm	
<i>n.a.</i>	<i>n.a.</i>	i-dəwwàr	<i>n.a.</i>	‘to look around’
<i>n.a.</i>	i-ğəlləb=(tən)	<i>n.a.</i>	<i>n.a.</i>	‘to defeat s.o.’
<i>n.a.</i>	y-əḥəşşila (res.)	<i>n.a.</i>	<i>n.a.</i>	‘to obtain’
<i>n.a.</i>	<i>n.a.</i>	i-xəbbar	<i>n.a.</i>	‘to tell’
<i>n.a.</i>	y-əxəmməm	<i>n.a.</i>	<i>n.a.</i>	‘to think, ponder’
<i>n.a.</i>	<i>n.a.</i>	i-xəṭṭəm	<i>n.a.</i>	‘to drop by someone’
kəffən=(tən)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to wrap’
<i>n.a.</i>	i-kkəmməl	<i>n.a.</i>	<i>n.a.</i>	‘to finish’
nəddəm	<i>n.a.</i>	i-nəddàm	anəddəm	‘to be sleepy’
rəwwəḥ	i-rəwwəḥ	i-rəwwəḥ	<i>n.a.</i>	‘to return (home)’
<i>n.a.</i>	a=i-səbbəḥ (fut.)	<i>n.a.</i>	<i>n.a.</i>	‘to swim’
<i>n.a.</i>	i-ssəlləm	səlləm-ən	<i>n.a.</i>	‘to greet’
sənnəṭ	<i>n.a.</i>	t-sənnàṭ	<i>n.a.</i>	‘to hear, to listen’
<i>n.a.</i>	t-şəddəqt=(i)=ya (res.)	<i>n.a.</i>	<i>n.a.</i>	‘to believe’
şərrəṭ	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to draw a line’
šəqqəš	<i>n.a.</i>	i-šəqqàš	<i>n.a.</i>	‘to clap your hands’
<i>n.a.</i>	i-wəddən	i-wəddàn	<i>n.a.</i>	‘to crow (rooster)’
<i>n.a.</i>	<i>n.a.</i>	ġəyyàn-əx	<i>n.a.</i>	‘to be ill’



The verb *sənnəṭ* ‘to hear, to listen’ is only attested in the imperative and imperfective. The imperfective forms attested in text XV, cannot be translated with an imperfective meaning. Despite their morphological imperfective shape, they behave like perfectives semantically.

#### 4.3.3.15 cċ\*

Only one verb belongs to this verb type, which is only attested in the imperative sg. and pl.f., and perfective 3sg.f.

imp. sg. *wətti-(dikkəni)* pl.f. *wətti-məṭ*; pf. 3sg.f. *t-wəṭṭa* ‘to prepare’

This verb is a loan from ELA *wattī* ‘to make ready, to prepare’, a stem II derivation of the |vc\*| verb *y-utà=ya* ‘to be ready’, derived from ELA *yūtī* ‘to be ready’.

#### 4.3.3.16 cċi

Only one verb belongs to this group, an auxiliary verb that does not distinguish aspect: *i-ḡəlli* ‘to want’.

#### 4.3.3.17 cvcc

The *cvcc* type is not well-attested. The formation of the imperfective appears to be marked by *a*-infixation, but we only have one verb that provides evidence for this. The verbal noun is unattested for this type.

imp.  cvcəc	pf.  əcvcəc	fut.  cvcəc	impf.  cvcac	
<i>n.a.</i>	<i>y-əqārəb</i>	<i>n.a.</i>	<i>n.a.</i>	‘to draw near’
<i>ṣūsəṃ</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to be quiet’
<i>n.a.</i>	<i>i-ḡayəṭ</i>	<i>a=ḡayyəṭ-ən=(dik)</i>	<i>i-ḡay(y)əṭ</i>	‘to yell, scream’

#### 4.3.3.18 cvċ(\*) ~ cṽċ(\*)

All but one verb in this group are Arabic loanwords of the type pf. *lamma* impf. *yalummu*. All verbs of this type have a long vowel *u* in the root, that appears to be a retention of the Arabic short *u*. Verbs of this type lack a final *-a* in the perfective 3sg. The imperfective and verbal noun are unattested. Note that the verbs of Arabic origin, that is, all but the verb *šugg*, usually have a long initial consonant.

imp.  cuċ	pf.  cuċ(*)	fut.  cuċ(*)	
<i>n.a.</i>	y-əddùgg	<i>n.a.</i>	‘to knock’
llumm-àt	i-llùm(m)	<i>n.a.</i>	‘to gather, to stay together’
<i>n.a.</i>	y-əmmùdd	<i>n.a.</i>	‘to extend’
šugg	i-šùgg (but šuggi-x)	a=i-šùgg	‘to wait for’

#### 4.3.3.19 c̄vc(\*)

This verb type behaves in a similar way to the *cvc̄* verbs, in that the perfective has no final *-a* in the 3sg. forms. In the imperfective, the verb has final *-a*.

imp.  c̄vc	pf.  əc̄vc(*)	fut.  əc̄vc(*)	impf.  t̄cac*	v.n.  t̄cacat	
<i>n.a.</i>	y-əffùd=a (res.)	a=y-əffùd	i-t̄fàda	t̄fadàt	‘to be thirsty’
<i>n.a.</i>	y-əllùz	<i>n.a.</i>	i-t̄làza	t̄lazàt	‘to be hungry’
əqqùr	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to dry out’
qim	y-əqqim (but: qqimì-x)	a=tt-əqqíma-m	i-tqqìma	<i>n.a.</i>	‘to remain, sit’

Note the stem vowels change in the imperfective forms of *y-əllùz* ‘to be hungry’ and *y-əffùd=a* ‘to be thirsty’, while the vowel of *qim* does not.

#### 4.3.3.20 cvc(\*)/cvc\*

These verbs have no final vowel in the pf. 3sg.m., but this vowel is present in all other forms.

imp.  cvc	pf.  cvc(*)	fut.  cvc(*)	impf.  cvc*	v.n.  acvc	
nàγ	i-nàγ	a=i-nàγ	<i>n.a.</i>	anàγ	‘to call’
sas	<i>n.a.</i>	<i>n.a.</i>	i-sàsa	asàs	‘to beg’
zìk	i-zìk	a=y-əzìk	<i>n.a.</i>	<i>n.a.</i>	‘to become well’
z̄um	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to fast’
mud	i-mùd	a=i-mùd	mudà-n	amùd	‘to pray’
žin	i-žina	<i>n.a.</i>	<i>n.a.</i>	t̄mžint	‘to divide’
<i>n.a.</i>	šarà-n=a (res.)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to happen’

One verb has a final *-a* in the perfective, namely, *žin* pf.3sg.m. *i-žina* ‘to divide’. This verb may be more properly defined as a *cvc\** verb rather than a *cvc(\*)* verb. It has an irregular verbal noun *t̄mžint*.

### 4.3.3.21 ccvc(\*)/ccvc

In one verb with the structure **ccvc**, we find the same alternating vowel pattern as other (\*) final verbs (*glulì-x*, *i-glùl*), while the other verb lacks it (*žvùv-x*, *y-ážvuv*).

imp.  ccvc	pf.  ccvc(*)	impf.  taccvc*	v.n.  ccic(ən)	
glùl	i-glùl	i-təglùla	glilən	‘to play’
ərgìg	<i>n.a.</i>	i-tərgìga	rgìg	‘to shake’
šlìl	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to rinse’
<i>n.a.</i>	y-əvrùr=a (res.)	<i>n.a.</i>	<i>n.a.</i>	‘to be fertilized (a palm)’
žvùv	y-ážvuv	<i>n.a.</i>	<i>n.a.</i>	‘to burn incense’

*y-əvrùr=a* ‘to be fertilized (a palm)’ has an irregular res.3pl.m. form *vrir-in=a*, which has a root vowel *i* instead of the expected *u*. This phenomenon is discussed in more detail in section 10.5.4 footnote 3

### 4.3.4 Verbs with final t/y variation

Some verbs have a final consonant *t* in the 3sg.m., and *y* in 1sg. These verbs come from a variety of different stems, but they all share this final consonant pattern. There are three verbs that belong to this class.

imp.	pf.	fut.	impf.	v.n.	
mmùt	mmuy-ix, i-mmùt	a=mmúya-x, a=y-əmmùt	<i>n.a.</i> <i>n.a.</i>	təməttìnt	‘to die’
šərwìt	šərwì-x, i-šərwìt	<i>n.a.</i> <i>n.a.</i>	<i>n.a.</i> i-šərwàyt	<i>n.a.</i>	‘to speak, tell’
awìt	wì-x, i-wìt	a=i-wi-x, a=i-wìt	təwwì-x, i-təwwəyt	tìta	‘to blow, hit’

*mmùt* ‘to die’ is essentially a **cvc(\*)** verb, whose last consonant is *t/y*. The verbal noun is irregular.

*šərwìt* ‘to speak, tell’ is morphologically identical to **š-cci** verb (see below), except that there is an additional consonant *t* at the end of some forms.

*awìt* ‘to blow, hit’ is irregular, and does not behave like any other verb in the language.

### 4.3.5 Further unclassifiable and irregular verbs

Several verbs remain that are either unique in formation, or behave irregularly and therefore defy precise classification.

imp.	pf.	fut.	impf.	v.n.	
agól, gul	i-gùl, i-gùla	a=i-gùl	i-gəwwól	agəwəl	'to see'
əmməkt	y-əmməкта	<i>n.a.</i>	i-mməкта	<i>n.a.</i>	'to remember'
əṛəw	t-əṛəw	a=tt-iṛəw	təṛəw	tərwa	'to give birth'
tùwi	i-ttùwi	<i>n.a.</i>	i-tàya	atùwi	'to forget'
<i>n.a.</i>	lləwəšì-n=a (res.)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	'to wither'
<i>n.a.</i>	y-ətəmənna	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	'to wish'
uf tavərgàt	<i>n.a.</i>	<i>n.a.</i>	i-vərga	təvərgàt	'to dream'

The verb *agól, gul* 'to see' is an irregular verb. In the imperative, it has two forms, one of which appears to be a *cc\** verb, while the other behaves like a *cvc(\*)* verb. In the perfective we find the *cvc(\*)* stem with two variants, one where the final variable vowel *-a* is missing in the 3sg.m. as would be expected with a *cvc(\*)* verb, and one variant where it is present. The resultative and future both point to a root shape *gul*. Finally, the imperfective and the verbal noun appear to be derived from a *ccc* verb *\*əgwəl*.

The verb *əmməkt, mməkti* 'to remember' is a verb with a unique structure. The imperative has two variants one without a vowel and one with a final vowel *i*. The perfective stem points to a final variable vowel, which would correspond to the imperative *əmməkt*. The imperfective is only distinguished from the perfective by a final phonological stress. This is the only imperfective stem that is distinguished from the perfective by means of a phonological stress..

The verb *əṛəw* 'to give birth' is an irregular verb whose stems seem to draw from different formations. The imperative and perfective appear to have a *cc* structure, while the resultative *t-iṛìw=a* and future appear to have a *icc* structure, finally the imperative formation is that of a *|vcc|* verb, the verbal noun is a unique formation.

*tùwi* 'to forget' has an irregular formation. Like the verb types *cvc(\*)* and *cvē(\*)* this verb lacks a final alternating vowel in the 3sg.m. but it is present in the 1sg. form *tuwiyi-x*. The root shape would appear to be *cvci(\*)*; this type of verb is otherwise unattested. From such a root shape, the verbal noun formation can readily be understood (*a-* prefixed in front of the root), but the imperfective is unexpected.

The verb *lləwəšìna* 'to wither' (res.3pl.m.) is only attested in this one form, so nothing more can be said about its formation. It is clear, though, that this structure (*ccē?*) is not attested for any other verb in the language. Similarly, pf. 3sg.m. *yətəmənna* 'to wish' is the only verb of its type (*ccē\**?), and only found in this one form.

*uftavərgàt* has a suppletive, phrasal imperative that iterally means 'to find a dream'. The attested imperfectives of the verb, use the root that we find in the noun *təvərgàt* 'dream' as a verbal stem with three root consonants, but its formation is completely different from verbs with a *ccc* structure. The noun *təvərgàt* should probably be considered a verbal noun, as it follows the same scheme *|t(ə)-cəccà-t|* as the verbal nouns of the *nc\** type, and some of the *cc\** type.

### 4.3.6 Stative verbs stems

Stative verbs are significantly different from other verbs in Awjila. First of all, they have different PNG-marking than the other verbs.

In other languages, for example Kabyle (Chaker 1983: 114-118), stative verbs have a special PNG-marking in the perfective, similar to the PNG-marking that the stative verbs in Awjila have. In Kabyle, these stative verbs may appear in other TAMS other than the perfective. In the other TAMS, the verb takes regular PNG-marking. There is little evidence for any TAM opposition of stative verbs in Awjila, but there is one verb that may point to such an analysis.

The verb *dərùš* ‘to be few’ has a related word that is only attested in the imperative and imperfective: *àdrəš*, *i-dərrəsh* ‘to decrease (intrans.)’. It is possible that these two verb belong to the same paradigm, and that similar to Kabyle, *dərùš* is the special perfective with a resultative meaning of the verb (cf. Mettouchi 2004: 106f.).<sup>13</sup>

There are only a few stative verb structures; *cċc* is by far the most common. The three smaller categories are *ccvc*, *cvcc* and *c̄vc*. The stem scheme changes according to PNG-marking. Below, I provide the full paradigm of each of these verbs.

#### 4.3.6.1 *cċc*

By far the largest group of stative verbs have the structure *cċcċc* in the 3sg.m. The table below gives an overview of all of these verbs in Awjila.

One notices several interesting apophonic processes in this verb class. The 3sg.m. and plural always have a long medial consonant, which is shortened in the 1sg., 2sg. and 3sg.f. The plural form infixes a vowel *i* before the last consonant.

1sg.	2sg.	3sg.m.	3sg.f.	pl.	
cċcc-ax	cċcc-at	cċcċc	cċcc-ət	cċcċic-it	
gəzl-àx	gəzl-àt	gəzzəl	gəzl-ət	gəzzil-it	‘to be short’
ɣəzf-àx	ɣəzf-àt	ɣəzzəf	ɣəzf-ət	ɣəzzif-it	‘to be long’
ləqq-àx	ləqq-àt	ləqqəq	ləqq-ət	ləqqiq-it	‘to be thin’
məll-àx	məll-àt	məlləl	məll-ət	məllil-it	‘to be white’
məšk-àx	məšk-àt	məššək	məšk-ət	məššik-it	‘to be small’
šətf-àx	šətf-àt	šəttəf	šətf-ət	šəttif-it	‘to be black’
zəwɣ-àx	zəwɣ-àt	zəwwəɣ	zəwɣ-ət	zəwɣ-it	‘to be red’
zəwr-àx	zəwr-àt	zəwwər	zəwr-ət	zəwwir-it	‘to be large’
məqər-àx, məqqər-àx	məqər-àt,	məqqər	məqər-ət, məqqər-ət	məqqayr-it	‘to be big’

<sup>13</sup>The absence of the perfective of *àdrəš* may be an accidental lacuna in the word list (the future is also absent). It is possible that, like Zenaga, Awjila has a non-stative perfective verb that is semantically distinct from the stative verb (Taine-Cheikh 2003: 666).

*màqqar* ‘to be big’ has a few irregular formations. The 1sg. and 3sg.f., besides their regular formations, have formations based on the 3sg.m. stem: *màqqar-àx*, *màqqar-ət*. The plural form has a diphthong in the final root syllable rather than a long vowel *i*. Perhaps this is the same kind of diphthongization that we find in some of the forms of the verb *qim* ‘to remain, stay, sit’, although those forms are clearly transcribed differently in Paradisi, cf. <qqäimīḥ> and <moqqāirīt>. The antepenultimate accent in the 3sg.f. form *màqar-ət*, *màqqar-ət* suggests that the *ə* between *q* and *r* is epenthetic.

*mállál* ‘to be white’ has a phonological final accent in the 3sg.m., 3sg.f. and pl.; *məššák* ‘to be small’ shares this accent in the 3sg.m. and 3sg.f. but not in the pl.

*zəwwəy* ‘to be red’ lacks the inserted *i* before the last root consonant in the plural.

#### 4.3.6.2 ccvc

1sg.	2sg.	3sg.m.	3sg.f.	pl.	
cəcúc-ax	cəcuc-at	cəcuc	cəcuc-ət	cəcuc-it	
fəšúš-ax	fəšuš-àt	fəšùš	fəšùš-ət	fəšuš-ìt	‘to be light’
<i>n.a.</i>	<i>n.a.</i>	dərùš	dərùš-ət	dəruš-ìt	‘to be few’

The 1sg. of *fəšùš* has a phonological accent on the penultimate syllable.

#### 4.3.6.3 cvcc

1sg.	2sg.	3sg.m.	3sg.f.	pl.	
cvcc-ax	cvcc-at	cvcc	cvcc-ət	cvc(i)c-it	
qarəz-àx	qarəz-àt	qàrəz	qàrəz-ət	qariz-ìt	‘to be narrow’
vurk-ax	vurk-àt	vurk, vurək	vùrk-ət	vurək-ìt	‘to be broad’

The *ə* between *r* and *z* in all forms of *qàrəz* is probably epenthetic. This explains the antepenultimate accent of the 3sg.f.

*vurk* ‘to be broad, wide’ does not have an inserted *-i-* before the last root consonant in the plural.

#### 4.3.6.4 c̄vc

1sg.	2sg.	3sg.m.	3sg.f.	pl.	
c̄vc-ax	c̄vc-at	c̄vc	c̄vc-ət	c̄vc-it	
zṛák-ax	zṛák-at	zṛàk	zṛàk-ət	zṛak-ìt	‘to be heavy’
<i>n.a.</i>	<i>n.a.</i>	mmùm	mmùm-ət	mmum-ìt	‘to be sweet’

The long vowel of the root has a lexical accent in the 1sg. and 2sg.

### 4.3.6.5 vcvc

There is one stative verb with the structure **vcvc**. Note that the 3sg.f. and pl. are identical.

3sg.m.	3sg.f.	pl.	
vcvc	vcvcit	vcvcit	
aḏùḃ	aḏuy-ìt	aḏuy-ìt	‘to be bitter’

### 4.3.6.6 ccv

One stative verb has the structure **ccv**. Note that the 3sg.m. has two forms, one without suffix as expected, and one with a suffix *-ən*. Perhaps this *-ən* is simply the participle ending, but we do not have any examples sentences where this form is used, so it cannot be confirmed.

3sg.m.	3sg.f.	pl.	
ccv(-ən)	ccvy-ət	ccvy-it	
mri, mriy-ən	mriy-ət	mriy-ìt	‘to be beautiful’

### 4.3.6.7 Stative verbs of Arabic origin

Arabic adjectives are treated as stative verbs. The attested Arabic adjectives are listed in the table below.

3sg.m.	3sg.f.	pl.	
bàhi	bàhəy-ət	<i>n.a.</i>	‘to be good’
aḥàš	aḥàš-ət	aḥàš-ìt	‘to be ugly, bad’
qərìb	<i>n.a.</i>	<i>n.a.</i>	‘to be near’
qə̀wi	<i>n.a.</i>	<i>n.a.</i>	‘to be strong’
bə̀fid	<i>n.a.</i>	<i>n.a.</i>	‘to be far’
šəḥiḥ	<i>n.a.</i>	<i>n.a.</i>	‘to be healthy, truthful’
ḥəryàn	<i>n.a.</i>	<i>n.a.</i>	‘to be naked’

## 4.3.7 Causative verb stems

### 4.3.7.1 š-ccc

š-ccc verbs have a twofold origin: causatives regularly derived from the **ccc** verbs and causatives derived from stative verbs. Note that it is irrelevant what the original class of

the stative verb was, they always take the š-ccc causative. š-ccc has the same stems as cccc if one considers the causative prefix as a fourth root consonant. Below all attested verbs derived from stative verbs are given, and several examples of verbs derived from ccc verbs.

imp.  šəccəc	pf.  šəccəc	fut.  šəccəc	impf.  šəccac	v.n.  ašəccəc	
šədrəš	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to decrease (tr.)’
šəfšəš	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to lighten’
š-(s-)əgzəl	<i>n.a.</i>	<i>n.a.</i>	i-šəgzəl	asəgzəl	‘to shorten’
š-(s-)əyzəf	i-šəyzəf	<i>n.a.</i>	i-šəyzəf	<i>n.a.</i>	‘to lengthen’
šəmšək	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to reduce’
šəqrəz	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make narrow’
šəvrək	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to broaden’
šəlḥəm	i-šəlḥəm	a=i-šəlḥəm	i-šəlḥəm	<i>n.a.</i>	‘to light (a fire)’
šəlməd	<i>n.a.</i>	<i>n.a.</i>	i-šəlməd	<i>n.a.</i>	‘to teach’
šəntəṭ	i-šəntəṭ	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to join, attach’
šənfəl	šənfəl-x	<i>n.a.</i>	šənfəl-x	ašənfəl	‘to change’

š-əgzəl ‘to shorten, lower’ and š-əyzəf have variants with initial s- in the imperative: s-əgzəl, s-əyzəf. The verbal noun asəgzəl is only found with the initial s-.

There is one causative related to a stative verb that does not follow this pattern: šəmlil ‘to whiten’. Considering the vocalism of this formation, it should probably be considered a deadjectival derivation from the adjective mlil ‘white’, rather than a derivation from the stative verb.

#### 4.3.7.2 š-cc(\*)

This is the causative verb class of the cc\* verbs. The alternating vowel is not present in the pf. 3sg.m. while present in all other forms. The imperfective stem ends in -ay. Verbal nouns are unattested for this type.

imp.  šəc(ə)c	pf.  šəc(ə)c(*)	fut.  šəc(ə)c	impf.  šəccay	
šəfk	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to cause to give’
šəg(ə)l	i-šəg(ə)l	a=šəgl-à=(k)	i-šəglày	‘to show’
šəyər	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to cause to read’
šəny	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to extinguish’
šənt	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to prepare a meal’
šəṭs	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make laugh’
šəvəl	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make cry’



## 4.3.7.3 š-nc(\*)

These verbs are the causatives of the nc\* verbs. In the causative there is no evidence for the *n* that we still find in the imperfective of the non-causative. These verbs share the same imperfective ending -ay as we find in the š-cc\* verbs.

imp.  šic	pf.  šic(*)	fut.  šic	impf.  šicay	
šiš	<i>n.a.</i>	<i>n.a.</i>	i-šišày	‘to make s.o. sleep’
šiv	<i>n.a.</i>	<i>n.a.</i>	i-šivày	‘to cause to fall’
žiz	i-žiz	a=i-žiz	<i>n.a.</i>	‘to sell’

## 4.3.7.4 š-cci

This is the causative to the cci verbs. This group also has the ending -ay in the imperfective.

imp.  šacci	pf.  šacci	fut.  šacci	impf.  šaccay	
šəkri	i-šəkrì-	<i>n.a.</i>	<i>n.a.</i>	‘to return s.th.’
šəmbi	t-šəmbí	a=t-šəmbi	t-šəmbày	‘to suckle’
šənki	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make s.o. smell’
šəntí	<i>n.a.</i>	<i>n.a.</i>	i-šəntày	‘to make s.o. taste’
šərzi	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to cause to milk’
šəški	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make s.o. leave’

## 4.3.7.5 š-ċc

This type is only attested twice. One is a denominal causative from the noun *gudìn* ‘urine’, the other is derived from the verb *əkkár* ‘get up, take off’. From the sparse evidence available it seems that the formation is identical to the underived ċc verbs, where the causative prefix takes the position of the first root consonant.

imp. šəċəc	pf. <i>n.a.</i>	fut. <i>n.a.</i>	impf. šəċəc	v.n. ašəċəd	
šəggəd	<i>n.a.</i>	<i>n.a.</i>	i-šəggəd	ašəggəd	‘to urinate, defecate’
šəkkər	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to make someone get up’

## 4.3.7.6 š-ċ\*

Only two verbs are attested in this type. They are derived from original ċ\* verbs.

imp. šəċ	pf. šəċa	fut. šəċ	v.n. tcəċat	
šəċċ	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	‘to cause to eat’
šəmm	i-šəmma	a-i-šəmm	tšəmmàt	‘to cook’

*əmm* has an alternative causative derived from its irregular imperfective stem, only the imperative singular is known: *šnənn*.

#### 4.3.7.7 š-vcc

This causative corresponds to the *vcc* verbs. The *vcc* verb *irəd* ‘to be washed’ retains the vowel *i* in the causative. These verbs appear to conjugate in the same way as the *cvcc* verbs, where the causative prefix takes up the place of the first root consonant.

imp. švcəc	pf. švcəc	impf. švcac	v.n. ašvcəc	
šūdən	<i>n.a.</i>	i-šudən	<i>n.a.</i>	‘to dress’
širəd	<i>n.a.</i>	i-širad	aširəd	‘to wash’
šuyər	šuyir-x=a (res.)	i-šuyər	<i>n.a.</i>	‘to lose s.th.’

#### 4.3.7.8 š-vc(\*)

Only one verb is attested that belongs to this group: *šan* ‘to make s.o. enter, insert’, derived from the *vc\** verb *yan* ‘to enter’.

imp. šan	pf. i-šan	impf. šanày-x	‘to make s.o. enter, insert’
-------------	--------------	------------------	------------------------------

#### 4.3.7.9 š-ccvc

Two verbs belong to this group, and only their imp. sg. is known: *šəmlil* ‘to whiten’ which probably is a deadjectival verb and *šəglùl* ‘to make (s.o.) play’, which is the causative of the *|ccvc|* verb *glùl* ‘to play’.

#### 4.3.7.10 š-cvc

There is one causative that is derived from a *cvc* verb that belongs to this group: *səzik*, *səgzək* ‘to heal (trans.)’. It is derived from the verb *zik*. The origin of the variant with the root consonant *g* is unclear.

Two verbs that are derived from  $\bar{c}vc$  verbs belong here: *šqim* ‘to cause to remain, stay, sit’ and *šqar* ‘to cause to dry out’. They are derived from the  $\bar{c}vc$  verbs, but have lost the long initial consonants that is present in the non-causative forms.

#### 4.3.7.11 š- $\bar{c}vc$

One causative belong to this group, it is derived from the  $\bar{c}vc$  stative verb *ẓzak* ‘to be heavy’: *s-əẓzik* ‘to make heavy’.

### 4.3.8 Passive verb stems

#### 4.3.8.1 t-ccc

Only one verb is attested in this group, and only the res. 3sg.m. is known. *i-tzwiṭ=a* ‘to be thrown on the ground’, which is derived from the ccc verb *əzwəṭ* ‘to slam; to throw’.

#### 4.3.8.2 tt-cc(\*)

This group of passives is derived from the cc\* verbs. Only two verbs are attested in this group.

imp.	pf.	fut.	impf.	v.n.
<i>n.a.</i>	ttəcc(*)	ttəcc	<i>n.a.</i>	<i>n.a.</i>
<i>n.a.</i>	i-ttəmt	a=i-ttəmt	<i>n.a.</i>	<i>n.a.</i> ‘to be buried’
<i>n.a.</i>	i-ttəny	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i> ‘to be killed’

#### 4.3.8.3 tt-cc

One passive form is found that is derived from the cc verb *əžəṭ* ‘to grind, mill’: res. 3sg.m. *i-ttəžṭ=a*; fut. 3sg.m. *a=i-ttəžəṭ* ‘to be ground, be milled’.

#### 4.3.8.4 tw-vcc

Two passives, derived from the vcc verbs, belong to this group.

imp.	pf.	fut.	impf.	v.n.
<i>n.a.</i>	twacəc	twacəc	<i>n.a.</i>	<i>n.a.</i>
<i>n.a.</i>	i-twəkər	a=i-twəkər	<i>n.a.</i>	<i>n.a.</i> ‘to be stolen’
<i>n.a.</i>	i-twàrəv	a=i-twàrəv	<i>n.a.</i>	<i>n.a.</i> ‘to be written’

#### 4.3.8.5 tw-vc(\*)

One verb belong to this group. It is derived from a vc\* verb.

imp.sg. *twár*; pf. 1sg. *twari-x* 3sg.m. *i-twàr* ‘to open, to be open, to be opened’ derived from *yar* ‘to open’.

#### 4.3.8.6 t-cvcc

The only verb that belongs to this group is imp.sg. *tràwəl*; res.3sg.m. *i-trawil-a*; fut.3sg.m. *a-i-tràwəl* ‘to be born’. This verb does not have an active counterpart.

### 4.3.9 Middle verb stems

#### 4.3.9.1 m-c(\*)

Only the verb *ag* ‘to do, put’ has a (lexicalized) *m*- derivation. The final alternating vowel of the underived verb is absent in the pf. 3sg.m. of the derived verb.

imp.sg. *əmmág*; pf.3sg.m. *y-əmmág*; res. 3sg.m. *y-əmmigg-a*; fut.3sg.m. *a-y-əmmág* ‘to become, to be, to turn into’.

#### 4.3.9.2 m-cvcc

One verb belongs to this group, and it is only found once in text II: fut.1pl. *a=n-mhàsəb* ‘to settle the score together’, derived from the Arabic verb *hāsaba* ‘to hold responsible’. The underived form is unattested in the corpus.

### 4.3.10 Combined prefix verb stems

There is one verb with two prefixes in a row. It is a passive derivation of a verb which is only found in the causative: res.3sg.m. *i-tšišif=a* ‘to be sieved’.