

## Siwa and its significance for Arabic dialectology

Lameen Souag, SOAS

Siwi, spoken at the oasis of Siwa in western Egypt, is best known for being the easternmost Berber language, but its very substantial Arabic element includes not only much of its lexicon and syntax but also several aspects of its morphology. The *q* reflex of *qāf* and the final *'imāla* of historic *ā* to *ī* shown in loanwords alone suffice to establish that the greater part of this influence derives neither from the Sulaymi Bedouin dialect spoken throughout western Egypt and eastern Libya nor from the modern Cairene dialect whose influence is spread throughout Egypt through media; instead, these two features link Siwa to other Egyptian oases. Some probable or certain Arabic elements borrowed into Siwi grammar, notably the suggestative particle *dā < da`*, the negation system including *lā* and *qatt*, the phenomenon of demonstrative agreement with the addressee, and the actor noun formation *a-CāCCēCī*, underline Siwi's archaism relative not only to the currently dominant Arabic dialects of the region but in some cases to most or all modern Arabic dialects. The depth of Arabic influence on Siwi, including several borrowed templatic morphemes at least one of which is inflectional, suggests very close social contact, and historical sources indicate a settled Arab presence in the oasis alongside Berber in the twelfth century. The Arabic element of Siwi thus appears to be a key resource for Arabic dialectology, providing a new source of evidence on sedentary Arabic dialects that reached western Egypt and Cyrenaica independently of the Banī Sulaym and probably prior to their 11<sup>th</sup> century arrival.

### 1 Introduction

Arabic dialectology need not be informed exclusively by dialects of Arabic. Examination of non-Arabic languages under heavy Arabic influence can sometimes provide information on the history of Arabic in a given region that could not be obtained by examination of the Arabic spoken there alone. Siwi, a heavily Arabised minority language of western Egypt which has been under Arabic influence since at least the seventh century, proves to be a case in point.

Siwi (*sīwī* or *šlān n īsīwān*) is a Berber language spoken at the oasis of Siwa in western Egypt (Maṭrūh Province), about 500 km west of the Nile and 250 km south of the Mediterranean coast, by a little less than 15,000 people<sup>1</sup>, forming a majority of the oasis' population. The nearest Egyptian

1 The Egyptian census of 2006, relevant portions of which can be viewed online at the URL [http://www.msrintranet.capmas.gov.eg/pls/census/cnsest\\_a\\_sex\\_ama?LANG=1&lname=0&YY=2006&cod=33&gv≡](http://www.msrintranet.capmas.gov.eg/pls/census/cnsest_a_sex_ama?LANG=1&lname=0&YY=2006&cod=33&gv≡), gives a population of 15,886 for Siwa, if we include the small Siwi-speaking town of Gara and exclude the

oasis, Bahariyya, is some 350 km to its east. As a Berber language, Siwi is distantly related to Arabic through common descent from proto-Afro-Asiatic; however, the time depth is sufficiently great that cognates are rare and usually easily distinguishable from loans. Despite Siwi's small minority status in Egypt, I have observed no indications of a shift to Arabic; Siwis continue to speak Siwi to their children.

My data on Siwi are based principally on two months' fieldwork there in spring 2008 supported by the UK's Arts and Humanities Research Council, supplemented by previous work, in particular the grammars of Vycichl (1998/2005) and Laoust (1932). Numerous Siwis were kind enough to answer my questions about their language; I wish to thank them all here, in particular my main consultant Sharīf Būgdūra. The transcription adopted here is based on academic Semitic orthography for convenience (the principal differences from Berber orthography are *š* not *c*, *`* not *ε*, and *ġ* not *γ*), with *ḥ* instead of *h*; it marks vowel length with a macron, although in most cases this is allophonic, and does not distinguish stress (which is grammatically relevant in noun phrases.) A colon marks prosodic lengthening of the last vowel in questions.

Coptic chronicles suggest that Siwa was already inhabited by the Masacaes, ethnic Berbers, before Arabs first reached the region in 642 (Fakhry 1973:91). Over the next few centuries, Arab geographers offer tantalising glimpses of the oasis' ethnolinguistic history (often under its earlier name of Santariyyah.) In the 11th century, Al-Bakrī (1913:14) notes *وأهلها بربر لا عرب فيهم* - "its inhabitants are Berbers, with no Arab among them." Yet just a century later, Al-'Idrīsī (1984:119) says *وبها منبر وقوم من البربر وأخلاق من العرب المحتضرة* "in it is a *minbar*, and people from the Berbers and various settled Arabs." This evidence for a significant Arab community inhabiting the oasis at this early date is of particular importance in interpreting the linguistic data. The first explicit mention of its language seems to occur in the fourteenth/fifteenth century work of al-Maqrīzī (2002:238), who says *لغتهم تُعرف بالسيوية تقرب إلى لغة زناتة* "their language is known as Siwi, and is close to the language of [the major Berber tribe] Zanātah"; interestingly, like later sources, he makes no mention of a settled Arab community at Siwa. The first known Siwi wordlist was gathered by Hornemann in 1798 (published 1802), and displays only minor differences from the language as spoken today.

---

Bedouin Arabic-speaking small villages of Maraḡi and Bahayeldin twenty kilometres to the east. A minority of non-Siwi Egyptians is also found in the town, reducing the figure slightly, but no estimate of their population is available.

The form of Arabic currently predominant throughout Maṭrūh Province and eastern Libya, and spoken natively by the Shihaybāt tribesmen inhabiting some of the small villages of Marāqī about twenty kilometres west of Siwa proper, is a Sulaymi Bedouin dialect of the type documented in Panetta 1943, Maṭar 1981, and Owens 1984, with typical characteristics such as the *g* reflex of Arabic *qāf*, the *gahawa*-syndrome (insertion of short *a* after laryngeals), and the preservation of feminine plural agreement marking. The Banī Sulaym first reached the region about 1049, and are thought to have played the principal role in its Arabisation. Laoust (1932:35) suggested in rather strong terms that this Bedouin dialect was the principal influence on Siwi:

“Il n'est pas douteux que le parler des populations d'origine hilalienne qui nomadisent de Selloum à El Hammam, ou qui ont planté leurs tentes dans la voisinage immédiat de l'oasis, s'apparente aux parlers bédouins du Maghreb, et que c'est à lui, plus qu'à Egypte civilisée et lointaine, que le langage des Sahariens de Siwa est redevable de la plupart de ses emprunts arabes.”<sup>2</sup>

Today Siwis, particularly educated ones, often prefer to adjust towards Cairene Arabic, given prestige by its association with culture and government; Siwa has after all been part of the Egyptian state to varying degrees since 1820 (Fakhry 1973:105), and, particularly since the oasis was opened up to tourism in the 1980s, immigrants from the Nile Valley are present. In fact, however, much of the Arabic element of Siwi can be proved not to derive from either dialect.

## 2 Phonological characteristics

### 2.1 Realisation of *qāf*

The most immediately striking difference between the Arabic element of Siwi and the dialects currently influencing it is the realisation of Arabic *qāf*. As already noted by Laoust (1932:35), in most Siwi loanwords from Arabic, this is realised as *q*, as in the following examples:

---

2 “There is no doubt that the dialect of the populations of Hilalian origin who live as nomads from Selloum to El Hammam, or who have pitched their tents in the oasis' immediate vicinity, belongs to the Maghreb Bedouin dialects, and that it is to them, more than to far-away civilised Egypt, that Siwa owes most of its Arabic loans.” The Banī Hilāl and Banī Sulaym went west from Egypt together, which is presumably why he conflates the two.

<i>qdər</i>	be able	قدر
<i>qtəm</i>	cut (vt.)	قطم
<i>sawəq</i>	shop (vi.)	ساوق
<i>abərqūq</i>	apricot	برقوق
<i>aqdaḥ</i>	measuring basket holding 1 <i>sā`</i>	قدح
<i>twərqət</i>	leaf	ورقة
<i>ləqtəb</i>	alfalfa	القضب
<i>ləqləm</i>	pen	القلم
<i>ləqzāz</i>	glass	زجاج (but cf. Cairo <i>'izāz</i> , Bedouin <i>gzāz</i> )
<i>n nbāq</i>	lote-fruit	نبق
<i>qbəl</i>	before	قبل
<i>aqrīb</i>	near	قريب
<i>lāḥəq</i>	because	على حق

There are also rarer instances of *g*, no doubt reflecting Bedouin influence:

<i>gāṣī</i>	hard	قاس
<i>əlmugbāṣ</i>	tweezers	قبس <
<i>glū</i>	fry	قلى

In a single high-frequency word, *qačči* “is not” (discussed in 3.3.3), some speakers substitute *'* or *g* for *q*. This alternation does not seem to have been recorded in earlier sources, and may be recent.

Within Egypt (cf. Behnstedt & Woidich 1985), the realisation of Arabic *qāf* as *q* is currently restricted to some of the oases, in particular Farafra and to a lesser extent East Dakhla and Kharja, and to two small fishing villages on the Delta sea coast (Burullus and Migheizil); elsewhere it is realised as either *g* or *'*. In eastern Libya and the Fezzan, all reported Arabic dialects realise *q* as *g* (Pereira 2005:54, Caubet 2004), and my personal encounters with speakers from Jagbūb and Jālū confirm that they too realise *qāf* as *g*. The only evidence I have found of the *q*-reflex of *qāf* in eastern Libya is in fact from another Berber language, that of Awjila, where Arabic loanwords recorded by Paradisi 1960 also display *q*, eg *tzenáqt* “street” < زنقة. Berber phonology offers no

motivation for a change of *g* into *q*: to the contrary, *g* was found in Proto-Berber (cf. Kossmann 1999) and appears commonly in Siwi in inherited vocabulary (eg *agmār* “horse”, *ggəz* “go down”, *aṭəggāl* “male in-law”.) This clearly contradicts Laoust's conclusion that Bedouin dialects were the primary influence on Siwa; instead, an old connection with other oasis communities, whose influence on modern Siwa is negligible, seems indicated.

## 2.2 Final *'imāla*

A second trait distancing the Arabic element of Siwi from the dialects currently influencing it, also linking it to some of the oasis dialects, is final *'imāla*. In Siwi, the historic final *-ā* in a number of Arabic loanwords is borrowed as *-ī*:

<i>mūsī</i>	Musa (p.n.)	موسى
<i>īsī</i>	Isa (p.n.)	عيسى
<i>lhənnī</i>	henna	الحنى
<i>ndī</i>	dew	الندى
<i>lūlī</i>	Dhuhr prayer <sup>3</sup>	الأولى
<i>la`mī</i>	blind	الأعمى
<i>šštī</i>	winter	الشتاء
<i>ddwī</i>	medicine	الدواء

although in other loans, notably after pharyngeals, it appears as *-ā*:

<i>ṭṭhā</i>	mid-morning meal	الضحى
<i>ləfā</i>	viper	الأفعى
<i>ləhwā</i>	air	الهواء
<i>ssmā</i>	sky	السماء

Borrowed Arabic verbs (eg *dwī* “talk a lot”, *krū* “hire”) are not useful for the examination of this

3 A non-borrowed word for the *dhuhr* prayer has a wide distribution across Berber, eg Tachelhit *tizwarn* (Bounfour and Boumalek 2001), Tuzabti *tizzarnin* (Delheure 1984), Taznatit *tizza`nin* (Boudot-Lamotte 1963:529, with ` < *r*), Tamajeq *tāzzar/təzzar/tezzar* (Alojaly 1980); it has been borrowed into some West African languages with *zb* in place of the modern *zz/zw*, cf. Kwarandzyey *t'izbəŋŋən* (own data), Wolof *tisbaar* (Diouf 2003). This word derives from the widespread Berber root *zwr* “be first”; the Siwi form probably constitutes a calque of this.

phenomenon, as when final *-ī* does occur in such verbs it can as easily be attributed to the imperfect as to *imāla* of the perfect, and Arabic verbs undergo Siwi vowel alternations, rather than borrowing perfect and imperfect stems separately. Historic *-ā* remains *-ā* in all attested comparatives, which are productively formed from trilaterals within Siwi (see 4):

<i>qwā</i>	stronger	أقوى
<i>gsā</i>	harder	أقسى
<i>hlā</i>	sweeter	أحلى

Words ending in *tā' marbūtah* do not undergo the shift, with a single known exception:

<i>satti</i>	six	ستة
--------------	-----	-----

No comparable phenomenon seems to be reported in Sulaymi Bedouin Arabic, and the final *imāla* found in some riverine Egyptian Arabic dialects, since it affects historic *tā' marbūtah* and usually takes it to *-e*, does not seem particularly comparable. A much better match is provided by the dialects of Dakhla and Farafra. In Dakhla stressed final */ā/* becomes */ī/* not only phrase-finally but even phrase-internally, and in Farafra it becomes */ī/* phrase-finally (Behnstedt & Woidich 1982:49).

### 2.3 Solar *m*

In Siwi, Arabic nouns are often borrowed together with their article. As observed by Vycichl (2005:194), *m* is treated as a solar letter in a number of Arabic loans, though not in all:

<i>amməyrəb</i>	Maghrib prayer	المغرب
<i>amməsrəb</i>	path	المسرب
<i>ammərbət</i>	rectangular bed in garden	المربط

This is not internally motivated by Siwi phonology, which allows the cluster *lm* not only in other Arabic loans (*əlmətlūl* “entrance hall”) but also in inherited Berber vocabulary, eg *lməd* “learn”<sup>4</sup>, *məłmi* “when?”. Nor is it typical of Sulaymi or Cairene Arabic. However, as Vycichl notes, many

<sup>4</sup> This verb is probably one of the several Punic loanwords into Berber, cf. Hebrew and Aramaic *lmd* “learn”. Arabic has the derived noun *tilmīd* “pupil”, but not the verb itself.

Yemeni varieties have *am-* as the definite article, and have since Classical times. Unfortunately, this feature does not appear in Behnstedt & Woidich 1985, so it remains unclear whether it is attested elsewhere in modern Egypt; in any case, it suggests a significant Yemeni component among the Arab tribes that first reached the region.

### 3 Grammatical characteristics

#### 3.1 Suggestative

Whereas many languages' Arabic element is limited to particular words, Siwi's long contact with Arabic has allowed it to adopt a number of grammatical forms as well, including morphological processes, function words, and syntactic calques. Many of these, such as the elative, are sufficiently widespread across Arabic that they yield little dialectologically interesting information. However, a few appear to be of greater interest.

Suggestions in Siwi are formed by prefixing a previously undocumented particle *dā-* to the verb in the aorist, best translated in English with “let”. It was translated into the colloquial with *xallī*, but Arabic forms with *xallī* were rarely translated using it; instead, I had most success eliciting this through the MSA construction *fal-* plus the jussive. However, it is not used in all the same contexts as *fal-* would be in Arabic. Un-elicited examples yielded some helpful illustrations of its pragmatic meaning:

- A man was talking about taking a second wife. I suggest his first wife will get angry, and he says: *dā-təgdəb!* “Let her get angry!”
- We were discussing how the Western Sahara issue leads to tension between Algeria and Morocco, and one person suggests: *dā-iznant!* “Let them [Algeria and Morocco] divide it!”

Berber offers a few vaguely similar preverbal particles to compare. The usual future marker across Berber is *ad-*, and this is also sometimes used in an optative sense; but neither the phonetic nor the semantic similarity appears compelling. In the Berber of Ghadames in Libya, a particle *dā-* marks the future in subordinate affirmative clauses (Lanfry 1973:50), contrasting with *d-* in main clauses; a historical connection with this could be envisaged.

However, a much closer match in meaning seems to be given by the Arabic construction *da` X V*, eg *da`hā taḡḡab* دعها تغضب “let her get angry!” Verbs meaning “let” have developed into fixed preverbal particles more than once within Arabic. In the nearby oasis of Bahariyya and in Fərsāf in Mesopotamia, an invariant preverbal particle *xal-* marking suggestions has developed from *xallī* “let” (Drop & Woidich 2007:75, Jastrow 1978:310), and in some Mesopotamian *qəltu*-dialects, a particle *da-* may be used to reinforce an imperative, including on 1st person plural forms (Jastrow 1978:310). Phonetically, the only difference is the lack of *`ayn*, and this is not at all unexpected: *`ayn* is frequently (though not regularly) dropped in Siwi loans from Arabic, as in *əljmət* “Friday” < الجمعة, *tmāšart* “oil-press” < معصرة, *qmu* “oppress” < قمع, *nfu* “benefit” < نفع. The most plausible etymology for Siwi *dā-* thus appears to be Arabic *da`*.

However, *da`* seems not to be reported in any dialect of Arabic spoken in the region, though it has survived in more easterly dialects, such as Najdi (Ingham 1994), Afghan Arabic (Ingham 2005:33), and Bukhara Arabic (Axvlediani 1985:74). Until more documentation on the oasis dialects in particular emerges, it would be rash to say that *da`* has not survived anywhere else in the region; but it is certainly an archaism not explicable in terms of the main dialects currently influencing Siwi.

### 3.2 Feminine plural marking

Most Berber languages, like Classical Arabic and other Semitic languages, distinguish feminine from masculine plural in a wide range of contexts, including 2nd and 3rd person verbal and pronominal agreement. Siwi stands out in this context for its poverty of feminine marking. Even the geographically nearest Berber language, Awjila, distinguishes the two, eg (Paradisi 1960:177, *sub* 'voi', 'vostro'):

	Independent pronoun	Object pronoun	Possessive suffix
2m.pl.	<i>kemmîm</i>	<i>-kim</i>	<i>-ennekîm</i>
2f. pl.	<i>kemmîmet</i>	<i>-kmet</i>	<i>-ennékmet</i>

In Siwi, by contrast, neither pronouns nor verbal agreement ever distinguish gender in the plural, and this has been true at least since the early twentieth century (Laoust 1932:108); in these, the historic masculine plural is used for both genders.

Loss of feminine plural marking is a fairly natural simplification, but certainly not an inevitable one; and contact frequently plays a role in inducing natural grammatical changes (cf. Heine & Kuteva 2005). The Bedouin dialect currently spoken around Siwa continues to distinguish masculine from feminine plurals, in both verbal agreement and pronouns. However, most sedentary Egyptian dialects, including those of the oases (Behnstedt & Woidich 1982:54), do not. Given the clear evidence for extensive contact between Siwi and a non-Bedouin Arabic dialect, it seems probable that its loss of feminine plural agreement owes something to Arabic influence.

### 3.3 Negation

#### 3.3.1 *lā* “not”

In Siwi, sentential negation is handled by *lā* for all but copular sentences, irrespective of tense, aspect, mood, or negation:

<i>lā ʒrīx hədd ssīh</i>	NEG see.PRF.1SG anyone there	I didn't see anyone there.
<i>lā gā-nūsd-āk</i>	NEG FUT-1P.come-2SG.DAT	We won't come to you.
<i>lā xəbbār-āsən</i>	NEG tell.HAB-3PL.DAT	Don't tell them.
<i>lā ġūr-ī šra</i>	NEG at-1SG anything	I don't have a thing.
<i>lā dī</i>	NEG there_is	There isn't any.

The negative particle has no morphological effect on the verb negated, except in the imperative. This contrasts strikingly with other Berber languages. Almost all Berber languages, including Siwi's nearest neighbour, Awjila (Paradisi 1960:170), use a negative marker derived from *\*wār*; in most of them, this affects the form of the verb negated at least in the preterite (typically, an *i* is inserted) and leads to any object pronoun clitics being placed preverbally rather than postverbally. No other Berber language is reported to use *lā* as an unmarked negator. There are some eastern Kabyle dialects that use a bipartite verbal negation *ur... ula*, rather than more common Kabyle forms such as *ur... ara* (Rabdi 2004), but this transparently represents a relatively recent reanalysis of the old Arabic borrowing *ula* “(not) even”, not a common retention from proto-Berber. These points confirm that, as Laoust (1932:265) already stated without giving arguments, Siwi *lā* is an

Arabic borrowing.

However, the implications of this are worth exploring. Throughout modern Arabic dialects, *mā* is the commonest, least marked negator, and *lā* is limited to two comparatively marginal contexts: “neither... nor” constructions, and certain non-declarative moods. Even the latter usage is absent in much of Egypt. If the dialect Siwi was exposed to restricted *lā* to such a limited set of contexts, why would Siwi have adopted it? One would expect Siwi to have borrowed *mā*, as the only other Berber language I know of to have borrowed its negator from Arabic, Ghomara (Colin 1929), in fact did.

However, in Classical Arabic *lā* is the default negator for the imperfect - or, to view it morphologically, for the prefix conjugation - and the imperative. Compare the Siwi and Classical Arabic subject agreement markers for verbs (the Siwi ones are irrespective of tense or aspect; the Classical dual and 2nd person feminine are omitted for convenience):

<b>Siwi</b>		<b>Arabic - imperfect</b>		<b>Arabic - perfect</b>		
	sg	pl	sg	pl	sg	pl
1	-āx	n-	'a-	na-	-tu	-nā
2	-āṭ	-m	ta-	ta-...-ū(na)	-ta	-tum
3m	y-	y-...-n	ya-	ya-...-ū(na)	-a	-ū
3f	t-		ta-	ya-...-na	-at	-na

A Siwi trying to use a Classical-like strategy to negate a Siwi verb would find no forms strongly reminiscent of the Arabic perfect, but would find four forms (3m, 3f, 1pl, 3pl) practically identical to the Arabic imperfect<sup>5</sup>, which would most naturally be negated with *lā*. This would provide the otherwise missing motivation for Siwi's adoption of *lā* rather than *mā* - but would have the surprising implication that the dialect influencing Siwi was in this respect closer to Classical Arabic than any currently surviving Arabic dialect.

### 3.3.2 *qətt* “(not) at all”

<sup>5</sup> These four agreement affixes are not themselves Arabic borrowings, of course; cognates are found throughout Berber, and, like similar affixes in Cushitic and Chadic, represent a shared Afro-Asiatic inheritance.

Siwi allows reinforcement of a negative with the postverbal particle *qətt* (“not at all”), not previously recorded:

*lā gūr-ək asīwəl dīd-i qətt*  
 NEG at-2SG speech with-1SG at\_all  
 You have nothing at all to say to me.

*nīš həttā mərṛā ččīx əttūt n əməllāl qətt*  
 I even time eat.PRF.1SG mulberries GEN white at\_all  
 I never ate white mulberries at all.

This is obviously Arabic **لَا** (the initial *q* alone would have sufficed to make a Berber etymology for it implausible.) *qətt* is not as rare as might be supposed across the Arab world, having been retained in a number of fringe areas, including eastern Arabia (Holes 2002), the Sudan (ʿAwn 1982), Hassaniya (Heath 2004), Cyprus and Malta (Borg 2004), and parts of Anatolia (Jastrow 2005). However, in the context of the available data on Egypt and eastern Libya it appears unprecedented. Again, Siwi appears to display a locally rare or even absent Arabic archaism.

### 3.3.3 *qačči* “is not”

The copula is negated by *qačči* (some speakers pronounce it *ačči* or *yačči*) in Siwi:

*yardən wənn qačči yardən-ənnək*  
 grain REL NEG.COP grain-2SG.POSS  
 grain that's not yours

*əttəqrīr 'ačči fəll-āsən nətnən*  
 decision NEG.COP on-3PL them  
 The decision is not for *them* (to make).

*qačči* is also used to handle metalinguistic negation:

*šakk qačči nəggrāt g lajzā'i:r?*  
 you.SG NEG.COP live.HAB.2SG in Algeria?  
 Isn't it the case that you live in Algeria?

*'ačč umm<sup>w</sup>īg-āk-a lā nəbbx-a?*  
 NEG.COP say.PRF.1SG-2SG.DAT-PFV NEG throw-3M.OBJ  
 Is it not the case that I told you “don't throw it?”

*ūš-i lkubb<sup>w</sup>āyət tāzuwwart 'āčči tāhəkkəkt*  
 give-1SG.DAT cup big NEG.COP little  
 Give me the big cup, not the small one.

The initial non-geminate *q* indicates that this is unlikely to be a Berber word, since in proto-Berber, *g* and *q* are believed to have been in complementary distribution: *q* occurred in geminates, *g* everywhere else (Kossmann 1999:242-6). Knowing that *qačči* is attested in Siwi, and that reflexes of *šay'* are widely used as the second element in negative constructions in Arabic, it seems natural to seek an etymology as *qačči* + *šay'*, parallel to Maghrebi *māšī* < *mā* + *šay'*. The plausibility of this is reinforced by the fact that such a combination is in fact attested in several peripheral Arabic dialects, with the meaning “nothing”:

- Bukhara *kaččiš* “nothing” (Axvlediani 1985:93)
- Kormakiti (Cyprus) *kičš* “nothing” (Borg 2004:389)
- Kindērib (Mesopotamia) *qačči šīya* “nothing” (Jastrow 2005)

But this, again, does not appear to be attested in Egypt or Libya, indicating that this archaism preserved in Siwi is locally rare or perhaps even absent.

### 3.4 Demonstrative agreement with addressee

Qur'ānic Arabic displays a cross-linguistically rare phenomenon: certain demonstratives, in particular *dālīka* (m. sg. referent) / *tilka* (f. sg. referent) “that”, may agree in gender and number with the addressee, yielding *dālīkumā/tilkumā* (to 2 people), *dālīkum/tilkum* (to more than 2 people

including a man), and *dālikunna/tilkunna* (to more than 2 women). Thus, for example:

- Sūrat Yūsuf, v. 32: فذلكن الذي لمتنني فيه *fa-dālikunna lladī lumtunnānī fih* “That (with 2f.pl. ending) is he about whom you (f.pl.) blamed me” - said by Pharaoh's wife addressing her female friends
- Sūrat Yūsuf, v. 37: ذلكما مما علمني ربي *dālikumā mim mā `allamanī rabbī* “That (with 2du. ending) is from what my Lord has taught me” - said by Yūsuf addressing his two cellmates

Vycichl (2005:175) briefly observed that the same phenomenon occurs in Siwi for the adverbial demonstrative “thus, like that” - *amsōk* when speaking to a man, *amsōm* to a woman, *amsērwan* to a group. In my fieldwork I found that it extends to medial demonstratives in Siwi in general<sup>6</sup>:

“that”:	m.sg. addressee	f.sg. addressee	pl. addressee
m.sg. ref.	<i>wōk</i>	<i>tōk</i>	<i>wiyyōk</i>
f.sg. ref.	<i>wōm</i>	<i>tōm</i>	<i>wiyyōm</i>
pl. ref.	<i>wērwan</i>	<i>tērwan</i>	<i>wiyyērwan</i>

The nature of Siwi society means that male investigators will rarely observe a situation where women are being addressed, but a retelling of the story of Yūsuf provided some comparatively natural examples:

- *yumṣ̣-ās:*      *ā wāldī...*      *wō-k*      *xēr*      *azuwwār*  
say.PRF.3MSG: oh my\_son... **that.M-2MSG** good      great  
He told him: O my son... **that** is a great good.
- *yumṣ̣-ās*      *i tālt-ānnās:*      *wō-m*      *gē-yānfū-yānax*  
say.PRF.3MSG to woman-3SG.POSS: **that.M-2FSG** FUT-benefit.3MSG-1PL.DAT  
He told his wife: **that one** will benefit us
- *yumṣ̣-ān-āsən:...*      *wiyy-ērwan*      *ixərbīna*  
say.PRF.3PL-3PL.DAT:... **that.PL-2PL** do\_mischief.3PL.PRF.PFV  
They told them: ... **those ones** have done mischief

6 The feminine addressee forms are first tabulated in Šālih 2000, though his explanation does not make it clear that these endings vary only according to the addressee and not according to the referent. He says that *ووك* and *توك* are used “إذا نتحدث مع الذكر ونشير إلى الذكر” and that *ووم* and *تووم* are used “إذا نتحدث مع الأنثى ونشير إلى الأنثى”.

Laoust (1932:147) actually contains an instance of *wōm*, in the context of a jackal telling a hyena (feminine in Siwi) “that's the state of the world” (*wom əlḥal n-əddənit*); understandably not recognising it, he misanalysed it as *wa am* “this is like”. This, along with the unexpected *r* in the plural forms (discussed below), confirms that the feature is not a recent development.

The parallel between Classical Arabic and Siwi in this feature is striking, as is the fact that they seem to share this feature to the exclusion of any modern Arabic dialect. But is it best explained by influence, or independent parallel development, or a little of both?

The fact that most Berber languages do not have any of the three suffixes (*-k*, *-m*, *-r-wən*) in their demonstrative paradigms (cf. Basset 1952: 34) alone suggests that this feature is an innovation, and the *r* provides an important clue to its internal development. The regular Siwi (and pan-Berber) 2nd person suffixes for prepositions are m. sg. *-k*, f. sg. *-m*, pl. *-wən*; if in this one paradigm an unexplained *r* appears between the stem and the suffix, this is most obviously interpreted, like the *li-* in Arabic *dālika*, as a remnant of some preposition. The obvious choice is *gūr* “at”. The Siwi preposition *af* “on”, from pan-Berber *gəf*, already suggests that *g* has a certain tendency to be deleted in high-frequency items. Moreover, the pan-Berber base for demonstratives is *wa* (m.sg.) / *ta* (f. sg.) / *wi* (m. pl.), reflected in the proximal demonstrative m. *wā* or *wāya*, f. *tā* or *tāya*, pl. *wī* or *wiyya* “this”, and a merging of *ā+ū* would explain the otherwise unexpected *ō* in the medial forms. We can conclude that the original forms were something like “this at you”, just as the Arabic forms were “this to you”. It is not certain whether this innovation may be found elsewhere in Berber; if two decent grammars of Siwi have missed it, it can scarcely be expected that the meager materials available on smaller eastern Berber languages would have recorded it. But it does appear that no such phenomenon is found in the better documented Berber languages.

What are the chances of such an unusual development occurring independently at random in two neighbouring languages? That depends on whether the grammaticalisation path in question - namely, demonstrative + spatial preposition + 2nd person affix > medial demonstrative agreeing in person - is rare or common. The most extensive survey currently available of attested grammaticalisation paths is Heine & Kuteva 2002; this work, listing 400 grammaticalisation processes using data from roughly 500 languages, does not include this particular path, suggesting

that it is cross-linguistically rare. The chances of independent parallel development are thus low, making the odds of Arabic influence high. However, that would have quite surprising implications for the Arabic dialect that influenced Siwa: it suggests that it had a feature - demonstrative agreement with the addressee - attested in no currently surviving Arabic dialect, and marginal even in Classical Arabic. Greater certainty on this point will require a custom typological survey based on a large sample of genetically and areally independent languages to quantify the phenomenon's rarity.

### 3.5 Actor nouns

A quite productive form referring to the habitual doer of an action in Siwi, not previously documented, is  $\bar{a}C\bar{a}CC\bar{e}C\bar{i}$  (for biliterals,  $\bar{a}CC\bar{e}C\bar{i}$ ), sporadically recorded with  $\bar{a}$  in place of  $\bar{e}$ :

$\bar{a}c\bar{c}$  “eat” >  $\bar{a}c\bar{c}\bar{e}w\bar{i}$  “glutton”

$rw\bar{a}l$  “flee” >  $aruww\bar{e}l\bar{i}$  “flee-er”

$\bar{g}d\bar{a}b$  “get angry” >  $\bar{a}\bar{g}\bar{a}d\bar{d}\bar{e}b\bar{i}$  “choleric person”

غضب

$j\bar{a}ll$  “swear” >  $\bar{a}j\bar{a}ll\bar{e}w\bar{i}$  “someone who swears a lot”

$lukk$  “get dirty” >  $\bar{a}lukk\bar{e}w\bar{i}$  “something that gets dirty easily”

$kr\bar{u}$  “hire” >  $\bar{a}kr\bar{a}w\bar{i}$  “hired labourer”

كرى

$s\bar{i}w\bar{a}l$  “speak” >  $\bar{a}s\bar{i}w\bar{e}l\bar{i}$  “chatty person”

I am aware of no Berber antecedent for this form, whereas it appears to have an obvious link to the Arabic form  $fa`\bar{a}l$  + nisba  $\bar{i}$ . This form is attested sporadically in a number of dialects, eg in Tunis  $\bar{a}yy\bar{a}d\bar{i}$  “one who celebrates a feast”,  $\bar{h}aww\bar{a}\bar{s}\bar{i}$  “haberdasher” (Singer 1984:553). However, it appears to be much more productive in the dialects of the Sudanic area, including eastern Sudanese (Reichmuth 1983:176), Chadian (Julien de Pommerol 1999:37), and Nigerian (Owens 1993:80), each of which uses this fairly productively to form nouns of occupation (eg Nigerian  $\bar{b}ayy\bar{a}a'i$  “seller”,  $\bar{g}ann\bar{a}a\bar{s}\bar{i}$  “hunter”, Chadian  $\bar{h}add\bar{a}d\bar{i}$  “blacksmith”,  $\bar{x}ayy\bar{a}t\bar{i}$  “tailor”, Sudanese  $\bar{h}a\bar{t}\bar{t}\bar{a}b\bar{i}$  “wood-gatherer”,  $\bar{a}bb\bar{a}l\bar{i}$  “camel-herder”.) Since these dialects must originally have spread south from Egypt and Libya, it would be unsurprising for this trait to have once been widespread in Arabic dialects of the Western Desert (in the absence of detailed information on the oasis dialects, in fact, it is possible that it is still present.) This would again appear to constitute a probable

archaism linking Siwa to more distant dialects as against those currently affecting it.

#### 4 The intensity of Arabic influence on Siwi

While many details remain to be worked out, it is generally agreed in contact linguistics that the intensity and nature of social contact is a key factor determining the intensity of linguistic influence. One effort to pin this vague notion down was made by Thomason & Kaufman (1988:74); their scale may be briefly summarised as follows:

1. Casual contact: lexical borrowing only
2. Slightly more intense contact: slight structural borrowing (including function words, minor syntactic and lexical semantic features)
3. More intense contact: slightly more structural borrowing (including adpositions, derivational affixes, and perhaps pronouns and low numbers, and some lexically conditioned word order shifts)
4. Strong cultural pressure: moderate structural borrowing (including major structural features and borrowed inflectional affixes and categories)
5. Very strong cultural pressure: heavy structural borrowing (including for example major structural features that disrupt the typology, bound pronominal elements)

This is of little use without a tighter definition of contact and pressure, but the examples given in their discussion for 4 (Romansh < German, Estonian < German, Ossetic < Caucasian, northern Dravidian < Indic, some Romani dialects, Warndarang < Nunggubuyu, Uzbek < Tajik, Baonan Mongol < Chinese) and 5 on the scale are all associated with widespread bilingualism, ready access to native speakers of the language, and a large degree of participation in a common culture. Even *a priori* one would assume that borrowing inflectional affixes and major structural features would be unfeasible without widespread bilingualism, and in a culture without extensive formal schooling - in this case, one where women rarely travel at all - such a level of bilingualism seems unlikely without geographically and socially close relations.

Where does Siwi fit on this scale? Significant Arabic syntactic influence on Siwi was already noted by Laoust (1932:144) and further demonstrated by Leguil (1986), so it would be greater than 3.

Moreover, Siwi has borrowed several pieces of templatic morphology from Arabic, including one that would generally be classed as inflectional, bringing it up to 4. The actor noun has been discussed above (3.5), but adjectival morphology provides some more productive and remarkable examples.

#### 4.1 Adjectival morphology of Arabic origin

##### 4.1.1 The comparative

The comparative in Siwi, already noted in Walker (1921:32), is formed by imposing the template  $C_1C_2\partial C_3$  on a triliteral adjective, which can be of several forms including  $a-C_1C_2VC_3$ ,  $C_1\bar{a}C_2\partial C_3$ ,  $a-C_1C_2ayyiC_3$ , and  $a-C_1\partial C_2C_2VC_3$ . (As in Arabic, it cannot be formed from longer adjectives.) Thus:

<i>agzāl</i> “short” > <i>gzəl</i> “shorter” (< Berber)	
<i>azəttāf</i> “black” > <i>ztəf</i> “blacker” (< Berber)	
<i>azuwwār</i> “big” > <i>zwər</i> “bigger” (< Berber)	
<i>aqdīm</i> “old” > <i>qdəm</i> “older”	قديم
<i>ašmāl</i> “bad” > <i>šməl</i> “worse”	شمال (< “left”)
<i>wā`ar</i> “difficult” > <i>w`ər</i> “more difficult”	وعر (< “rugged”)

If the third radical is weak (etymological *y* or *w*), yielding patterns such as  $a-C_1C_2V$  and  $C_1\bar{a}C_2\bar{i}$ , the result is  $CC\bar{a}$ :

<i>qāwī</i> “strong” > <i>qwā</i> “stronger”	قوي
<i>gāšī</i> “hard” > <i>gsā</i> “harder”	قاس
<i>hlū</i> “sweet” > <i>hlā</i> “sweeter”	حلو

Unlike Classical Arabic, when the last two root consonants are identical they are still separated by a schwa rather than becoming a geminate:

<i>aməllāl</i> “white” > <i>mləl</i> “whiter” (< Berber)	
<i>axfīf</i> “light” > <i>xfəf</i> “lighter”	خفيف

The *y* of the Arabic diminutive infix *-ayy-* does not behave as a root letter:

*akwayyis* “good” > *kwəs* “better”

While Vycichl (2005:212) notes that Siwi is “one of the few Berber languages to have developed a comparative” and Laoust (1932:142) notes that forms like *zwər* are “généralement inconnues dans la plupart des parlers”<sup>7</sup> and even that Arabic adjectives are so numerous in Siwi as to render Berber ones “rares”, neither author makes the obvious comparison to the Arabic elative *'af'al*, which would regularly become *f'əl* in the Siwi vowel system, which usually reduces Arabic short vowels to *ə* and does not allow contrastive *ə* word-initially. Most of the better-documented Berber varieties, including Tuareg (Sudlow 2001:116), use an analytic construction with “on” which has been calqued into many Maghreb Arabic dialects (Aguadé & Vicente 1997). Neither Laoust nor Vycichl cites any other Berber dialect with comparative forms, and Basset (1952:42) flatly states that “le berbère ne possède pas d'expression morphologique du degré”<sup>8</sup>. Nafusi in eastern Libya, according to Beguinot 1942:126, forms comparatives with a different strategy - either using Arabic *áktar* or borrowing Arabic comparatives verbatim (for example, *ákbār* “bigger” corresponding to native *moqqár* “big”) - but, whatever the reliability of this rather surprising data, there is no question of it constituting anything but Arabic influence. It would in any case be surprising if this were a shared inheritance from Afro-Asiatic, given that the Arabic comparative use of such forms is isolated even within Semitic. Lipinski 1997:279 compares some minor adjective patterns in Hebrew and Akkadian to Arabic *'af'al*, but in neither language are they used to form comparatives; the only other case he lists is Western Neo-Aramaic, where he states that it is borrowed from Arabic.

#### 4.1.2 The superlative

The superlative is formed by adding *-hum* to the elative (even though the Siwi 3rd person plural possessive affix is pan-Berber *nsən*.) The origin of this construction in Arabic forms like *'akbar-hum* “the biggest of them” is obvious, and is briefly noted in Vycichl (2005:212), who draws comparisons to eastern Libyan and Sudanese dialects. Thus, for example:

7 “Generally unknown in the majority of dialects”

8 “Berber does not possess a morphological expression of degree.”

*azuwwār* “big” > *zwərhum* “the biggest” (Berber)

*ašmāl* “bad” > *šməlhum* “the worst”

*akwayyis* “good” > *kwəshum* “the best”

Both the comparative and superlative are generally considered to be inflectional categories (Stump 1998:31).

#### 4.1.3 The deadjectival noun

Not previously documented is the deadjectival noun, formed from the Arabic definite article *lā-/al-* +  $C_1C_2āC_3ət$  (for adjectival patterns, see 4.1.1.) The article appears as *lā-* before lunar (non-coronal) consonants, and *əC<sub>1</sub>-* with gemination before solar (coronal) ones, faithfully reproducing a morphophonological idiosyncrasy of the Arabic definite article. The form is present in Arabic (eg Classical *naḍāfah* “cleanliness” *نظافة* < *naḍīf* “clean” *نظيف*) but has been generalised to be productive for all trilateral adjectives, Arabic or Berber. Thus:

<i>aməllāl</i> “white” (< Berber)	>	<i>ləmlālət</i> “whiteness”
<i>awrāg</i> “green” (< Ber. “yellow”)	>	<i>ləwrāgət</i> “greenness”
<i>āgzāl</i> “short” (< Ber.)	>	<i>ləgzālət</i> “shortness”
<i>azəttāf</i> “black” (< Ber.)	>	<i>zztāfət</i> “blackness”
<i>atrār</i> “new” (< Ber.)	>	<i>ttrārət</i> “newness”
<i>āzdād</i> “thin” (< Ber.)	>	<i>əzzdādət</i> “thinness”
<i>āzuwwār</i> “big” (< Ber.)	>	<i>əzzwārət</i> “bigness, size”
<i>āhəkkīk</i> “small” (etym. unclear)	>	<i>lahkākət</i> “smallness”
<i>atxīn</i> “thick” (< Arabic <i>ثخين</i> )	>	<i>əttxānət</i> “thickness”
<i>akwayyis</i> “good” (< Egy. Arabic)	>	<i>ləkwāsət</i> “goodness, beauty”
<i>ašmāl</i> “bad” (< Ar. “left”)	>	<i>ššmālət</i> “badness”
<i>aṇīf</i> “clean” (Ar. <i>نظيف</i> )	>	<i>nṇtāfət</i> “cleanness”
<i>šārəf</i> “old (human)” (Ar. <i>شارف</i> )	>	<i>ššrāfət</i> “old age”
<i>wāsā</i> “wide” (< Ar. <i>واسع</i> )	>	<i>ləwsā`ət</i> “wideness”
<i>atiyyāq</i> “narrow” (< Ar. <i>ضيق</i> )	>	<i>ttyāqət</i> “narrowness”
<i>aṭwīl</i> “long, tall” (< Ar. <i>طويل</i> )	>	<i>.ttwālət</i> “length”

If the third radical is weak, the result is *lCCāwāt*:

*ḥāmī* “hot” (< Ar. *حَمِي*) > *lāḥmāwāt* “heat”

Thus Siwi reaches stage 4 of the scale, at least. In any case, most Berber languages are in intense, often prolonged contact with Arabic, but none has been reported to exhibit anything comparable to this degree of productive morphological borrowing, and few have reached even a comparable level of syntactic influence. This strongly suggests that Siwi's historical contact with Arabic has not been limited to long-distance trade or seasonal encounters with nomads, but involved at the least closer social contact and widespread bilingualism.

## 5 Conclusion

We have seen that the Arabic element of Siwi includes a number of elements that cannot reasonably be ascribed to the dialects currently influencing it. Its phonological features seem to link it to the dialects of the Egyptian oases, particularly Farafra and Dakhla, while some of its grammatical features seem to have no as yet reported nearby analogues. The extent of Arabic influence on Siwi appears far greater than would be expected from contact limited to long-distance trade. Al-'Idrīsī gives us clear evidence of the existence of a significant Arabic-speaking community in Siwa itself at least in the 12th century. A plausible explanation for this otherwise surprising situation is thus that the Arabic element of Siwi in part represents a record of the extinct Arabic dialect of Siwa. What is certain is that the Arabic element of Siwi records a dialect of Arabic that once existed in the region and is no longer fully present.

A more detailed comparative examination of Siwi, in particular of its large Arabic lexicon, can be expected to shed further light on the history of Arabic in the region. More broadly, the potential value of other heavily Arabised non-Arabic languages for Arabic dialectology should be explored; it cannot be assumed that their Arabic elements will reflect a dialect familiar from other sources.

## Bibliography

- Aguadé, Jordi & Ángeles Vicente. 1997. “Un calco semántico del bereber en árabe dialectal magrebí: el uso de la preposición *ʕla* en el comparativo” in *Estudios de Dialectología Norteafricana y Andalusí* 2, 1997, pp. 225-240.  
 Alojaly, Ghoubaid. 1980. *Lexique touareg-français*. Akademisk Forlag: Copenhagen.

- Axvlediani, Vladimir G. 1985. *Buxarskij arabskij dialekt: fonologija i morfologija*. Tbilisi: Metseniereba.
- `Awn, aš-Šarīf Qāsim. 1982. *Qāmūs al-Lahjah al-`āmmiyyah fī s-Sūdān*. Khartoum: ad-Dār as-Sūdāniyyah.
- Bakrī, `Abd Allāh ibn `Abd al-`Azīz (and tr. Mac Guckin de Slade). 1913. *Description de l'Afrique septentrionale*. Algiers: Adolphe Jourdain.
- Basset, André. 1952. *La langue berbère*. London: Oxford University Press.
- Beguino, Francesco. (1942). *Il Berbero Nefūsi di Fassāto. Grammatica, testi raccolti dalla viva voce, vocabolarietti*. Roma: Istituto per l'Oriente. (2nd ed.)
- Behnstedt, Peter & Manfred Woidich. 1982. "Die ägyptische Oasen - ein dialektologischer Vorbericht." *Zeitschrift für arabische Linguistik* 8, pp. 39-71.
- Behnstedt, Peter & Manfred Woidich. 1985. *Die ägyptisch-arabischen Dialekte: Band I & II*. Wiesbaden: Harrasowitz.
- Behnstedt, Peter & Manfred Woidich. 1988. *Die ägyptisch-arabischen Dialekte: Band III*. Wiesbaden: Harrasowitz.
- Behnstedt, Peter & Manfred Woidich. 1999. *Die ägyptisch-arabischen Dialekte: Band IV. Glossar, Arabisch-Deutsch*. Wiesbaden: Harrasowitz.
- Borg, Alexander. 2004. *A Comparative Glossary of Cypriot Maronite Arabic (Arabic-English)*. Leiden: Brill.
- Boudot-Lamotte, Antoine. 1964. "Notes ethnographiques et linguistiques sur le parler berbère de Timimoun". *Journal Asiatique* CCLII.
- Bounfour, Abdallah and Abdallah Boumalek. 2001. *Vocabulaire usuel de tachelhit: tachelhit-français*. Rabat: Centre Tarik Ibn Zyad.
- Caubet, Dominique. 2004. "Les parlers arabes nomades et sédentaires du Fezzān, d'après William et Philippe Marçais", in *Approaches to Arabic Dialects: A collection of articles presented to Manfred Woidich on the occasion of his sixtieth birthday*, ed. Martine Haak, Rudolf de Jong, and Kees Versteegh, 62-96. Leiden: Brill.
- Colin, G. S. 1929. "Le parler berbère des Gmāra", in *Hespéris* 9, pp. 43-58.
- Delheure, Jean. 1984. *Dictionnaire mozabite-français*. Paris: SELAF.
- Diouf, Jean Léopold. 2003. *Dictionnaire wolof-français et français-wolof*. Paris: Karthala.
- Drop, Hanke & Manfred Woidich. 2007. *il-Bahariyya - Grammatik und Texte*. Wiesbaden: Harrasowitz.
- Fakhry, Ahmed. 1973. *Siwa Oasis*. Cairo: American University in Cairo.
- Heath, Jeffrey. 2004. *Hassaniya Arabic (Mali) - English Dictionary*. Wiesbaden: Harrasowitz.
- Heine, Bernd & Tania Kuteva. 2002. *World Lexicon of Grammaticalisation*. Cambridge: Cambridge University Press.
- Heine, Bernd & Tania Kuteva. 2005. *Language Contact and Grammatical Change*. Cambridge: Cambridge University Press.
- Holes, Clive. 2002. "Reflexes of CLA *qad* and *qat* in the Arabic dialects of eastern and central Arabia", in ed. A. Youssi et al., *Aspects of the Dialects of Arabic Today*. Rabat: AMAPATRIL, pp. 88-97.
- Hornemann, Friedrich. 1802. *The journal of Frederick Horneman's travels, from Cairo to Mourzouk, the capital of the kingdom of Fezzan, in Africa, in the years 1797-8*. London: G. & W. Nicol.
- 'Idrīsī, Muḥammad ibn Muḥammad al-, ed. E. Cerulli. 1984. *Opus geographicum*. Napoli: Istituto Universitario Orientale.
- Ingham, Bruce. 1994. *Najdi Arabic - Central Arabian*. Amsterdam: John Benjamins.
- Ingham, Bruce. 2005. "Afghan Arabic". in ed. Kees Versteegh, *Encyclopedia of Arabic Language and Linguistics*. Leiden: Brill.
- Jastrow, Otto. 1978. *Die mesopotamisch-arabisch qeltu-Dialekte*. Wiesbaden: Steiner.
- Jastrow, Otto. 2005. *Glossar zu Kinderib (anatolisches Arabisch)*. Wiesbaden: Harrasowitz.
- Julien de Pommerol, Patrice. 1999. *Grammaire pratique de l'arabe tchadien*. Paris: Karthala.
- Kossmann, Maarten. 1999. *Essai sur la phonologie du proto-berbère*. Köln: Rüdiger Köppe.
- Lanfry, J. 1973. *Ghadamès II: Glossaire (parler des Ayt Waziten)*. Alger: Le Fichier Périodique.
- Laoust, Emile. 1932. *Siwa I: son parler*. Paris: Ernest Leroux.
- Leguil, Alphonse. 1986. "Notes sur le parler berbère de Siwa." *Bulletin des études africaines de l'Inalco*, vol. VI, no. 11, pp. 5-42; no. 12, pp. 97-124.
- Lipinski, Edward. 1997. *Semitic Languages: Outlines of a Comparative Grammar*. Leuven: Peeters.
- Maṭar, `Abd al-`Azīz. 1981. *Lahjat al-Badw fī s-Sāhil iš-Šamāliyy li-Jumhūriyyat Miṣr al-`Arabiyyah*. Cairo: Dar al-Ma`ārif.
- Maqrīzī, 'Aḥmad ibn `Alī, ed. Ayman Fu'ād Sayyid. 2002. *al-Mawā`iḍ wa-l-Ḥ'ibār fī Dīkr il-Khīṭat wa-l-`Ātār*. London: Furqān Institute.
- Owens, Jonathan. 1984. *A Short Reference Grammar of Eastern Libyan Arabic*. Wiesbaden: Otto Harrasowitz.
- Owens, Jonathan. 1993. *A Grammar of Nigerian Arabic*. Wiesbaden: Harrasowitz.
- Panetta, Ester. 1943. *L'arabo parlato di Bengasi*. La Libreria dello Stato: Roma.
- Paradisi, Umberto. "Il berbero di Augila: materiale lessicale", *Rivista degli Studi Orientali*, XXXV, 1960, p. 157-177.
- Pereira, Christophe. 2005. "Libya", in *Encyclopedia of Arabic Language and Linguistics*, ed. Kees Versteegh. Leiden: Brill.

- Rabdi, Larbi. 2004. *Le parler d'Ihbachen (Kabylie Orientale - Algérie)*. Köln: Rüdiger Köppe.
- Reichmuth, Stefan. 1983. *Der arabische Dialekt des Šukriyya im Ostsudan*. Hildesheim: Georg Olms.
- Šāliḥ, Muḥammad Šāliḥ Muḥammad. 2000. *al-Jawharah ad-Dahabiyyah fī Ma`rifat al-Luġah as-Sīwiyyah*. Dār al-Kitāb.
- Singer, Hans-Rudolf. 1984. *Grammatik der Arabischen von Tunis*. Berlin: Mouton de Gruyter.
- Stump, Gregory T. 1998. "Inflection", in eds. Andrew Spencer and Arnold Zwicky, *The Handbook of Morphology*. Oxford: Blackwell.
- Sudlow, David. 1997. *The Tamasheq of North-East Burkina Faso*. Köln: Rüdiger Köppe.
- Thomason, Sarah & Terence Kaufman. 1988. *Language Contact, Creolization, and Genetic Linguistics*. Berkeley: University of California Press.
- Vycichl, Werner. 2005. *Berberstudien & A Sketch of Siwi Berber*. Berber Studies Vol. 10. Köln: Rüdiger Köppe.
- Walker, W. Seymour. 1921. *The Siwi Language*. London: Kegan Paul.