On the Fringes of Egyptian Language and Linguistics

Verb Borrowing from Arabic into Coptic

Tonio Sebastian Richter

1 Arabic verbs in Coptic texts

This article is an homage to Antonio Loprieno the keen observer and thinker of synchronic and diachronic diversity in the Egyptian-Coptic language. It deals with a feature of language change in its hitherto widely ignored terminal phase, the late Coptic language.

Literary Coptic of almost all literary genres exhibits a strongly conservative language norm up to the latest copies and compositions.[1] Only a few literary varieties of Coptic, such as Nitrian Bohairic[2] and the idiom of 10th-century Sahidic poetry[3], give us glimpses of the development that the language underwent during its last centuries.[4]

There are however only two kinds of text, 10th/11th-century scientific manuscripts (e. g. Richter 2010; Richter 2014; Richter 2015) and 10th/11th-century documentary texts (mostly letters, but also some legal documents and accounts),[5] where the language change in the lexicon becomes fully apparent, including significant borrowing from Arabic.[6] As goes without saying, the vast majority of the ca. 500 Arabic words in Coptic identified so far,[7] are nouns.

---

1   It is worth noticing that the great bulk of literary manuscripts originating from the White Monastery, i. e. a main source of our notion of 'Standard Sahidic', seem to have been copied contemporarily to the record of the latest Coptic documentary texts with all their heavy deviations from this very norm. Even considerably later literary copies such as MS. Bodl. Hunt. 393 (1393 CE, the "Treatise on the mysterium of the characters of the Greek alphabet", ed. Hebbelynck 1900/01, more recently dealt with by Bandt 2007), usually display some average literary Sahidic. On diglossia in the Egyptian language cf. the honorand's classical contribution: Loprieno 1996.

2   On which cf. Shisha-Halevy 1991; Shisha-Halevy 2007; Grossman 2007.

3   Ed. Erman 1897 who called this type of text 'Koptische Volkslitteratur', and Junker 1908/11.

4   On the language shift of Coptic speakers towards Arabic from the 10th century onwards cf. Décobert 1992; Papaconstantinou 2007; Papaconstantinou 2012; Rubenson 1996; Richter 2009a; Sidarus 2013; Zaborowski 2008.

5   On Arabic words in late Coptic letters: Delattre et al. 2012; in legal documents: Richter 1999; Richter 2000; Richter 2001; Richter 2003; Richter 2004; in accounts: Legendre 2015; Richter 2008b and (fc. a).

6   On which cf. generally Chassinat 1921: 21–47; Worrell 1934; Vycichl 1991; Richter 2006 and (fc. b).

7   A glossary of Arabic words in Coptic texts is under preparation.

When I first came across what looked to me like an Arabic *verb* in a Coptic text, I was surprised and a bit disbelieving: As to the best of my knowedge, nobody had ever mentioned the like.[8] Having since then encountered more than twenty-five types of Arabic verbs (cf. below, Appendix I), the situation of (late) Coptic seems to me similar to that of Spanish and Portugese: The number of borrowed verbs therein "is considerably higher than traditionally assumed" (Kiesler 2007, 285; cf. Corriente 1999, 53).

If one wonders how a whole set of language data could so completely be overlooked by scholars, a plain although sufficient explanation might be this: The most unmistakeable instances of verb borrowing from Arabic occur in a Coptic text corpus which is virtually unpublished and whose mere existence is widely unkown, the corpus of 10th/11th-century Coptic alchemical manuscripts.[9] A general feature of these texts is their strong dependence on Arabic patterns at several levels, up to an extent which makes them likely to be renderings of contemporary Arabic works.[10]

In alchemy – the very art of *doing* things – distinctively terminological values could be absorbed by verbs and might have increased their borrowability. In fact, many instances of Arabic verbs in Coptic alchemical texts belong to the so-called *tadābīr* 'procedures' (Ullmann 1972: 261–265), a terminological set of technical basic concepts of alchemical practice, such as exx. (1)–(5) (cf. Appendix II, below).

(1) ⲧⲁⲡⲉⲣⲓ (< *dabara* II) 'to prepare, to procede' (i. e. the verbal archilexeme of *tadbir*)

(2) ⲁϩⲙⲓ (< *ḥamma* IV) 'to heat up'

(3) ⲉⲓϭⲟⲩⲓ (< *šawā* I) 'to roast, to calcinate'

(4) ⲛϩⲁⲗ (< *ḥalla* VII) 'to dissolve'

(5) ⲁⲕⲏⲧ (< *ʕaqada* II) 'to fix, to boil down, to thicken by heating'

2 Verb borrowing from Arabic in a cross-linguistic perspective

A brief survey of the typology of verb borrowing[11] into other contact languages of Arabic may serve us as a general background and starting point.

2.1 Borrowing verbal semantics from the stock of deverbal nouns

Several languages, some of them recognized as hospitable to Arabic loanwords, provide only scarce evidence of *verb* borrowing, instead forming loan-based verbal expressions by means of verbalizing strategies applied to nominal input forms. Examples are e. g.

---

8   Meanwhile I noticed Worrell's brief note on ⲉⲥⲧⲁⲩⲃⲓⲉⲓ in *P.Mich.Copt. III* 18, line 9 (Worrell 1942: 206). Also Crum (Notebook 83) identified some Arabic verbs in his transcription of the alchemical manuscripts *P.Bodl.MSS. (P) a.* 1, 2 and 3.

9   Stern 1885; MacCoull 1988; Richter 2009b; Richter 2010; Richter 2015. An edition of the corpus by the present author is under preparation.

10   Proposed already by Stern 1885: 102; for a discussion of possible scenarios of transmission cf. Richter 2009b.

11   On which in general see Wichman/Wohlgemuth 2008; Wohlgemuth 2010.

2.1.1 Persian

"Arabic loanwords in Persian are almost entirely nominal in origin [...] Verbs are not borrowed in inflected forms, but Arabic action nouns (*maṣdar*) and other deverbal nominals may form Persian verbs in one of two ways: i. Synthetically, by suffixation of the Persian past stem and infinitive, [...] ii. Analytically, by combining with a dummy auxiliary" (Perry 2008: 575–576).

2.1.2 Turkish

"Verbal concepts are derived from Arabic nominal forms using the typical agglutinative techniques of Turkish [...], more often in phraseological constructions with auxiliary verbs [...] . Finite verb are very seldom borrowed from Arabic, a considerable number of them can be found in nominalized constructions with the verbal negation *lā-* [...]: *lā-yenkesir* 'unbreakable'" (Kirchner 2009: 585).[12]

2.1.3 Somali

"With verbs, Somali derivational suffixes can be used, e.g. *bāraka* 'to bless' > *barakee* 'to bless' [...] There are some examples of Arabic participles or verbal nouns (*maṣdars*) used as verbs, e.g. *mamnū'* 'forbidden' > *mamnuuc* 'to forbid'" (Zaborski 2009: 274).

Also in some languages generally using other strategies, such as Songhay (cf. below, 2.3.1), derivation from nominal input forms can be an option.[13]

2.2 Recipient language root-and-pattern morphology applied to Arabic roots

In some languages with a verbal morphology close to that of Arabic, verb borrowing from Arabic is common and unproblematic, as e.g. in Berber languages:

"Verbal morphology is doubtless the part of the language least affected by Arabic influence. Verbs are always borrowed as lexical items which do not affect morphology. Since the Berber verbal system contains verbal forms similar in appearance to those in Arabic (although not necessarily in meaning) their adaptation does not present any difficulty" (Aguadé/Behnstedt 2006: 292).

2.3 Arabic inflected verb forms as input forms

In some African languages, derivation from Arabic imperfect and imperative forms is the regular way of borrowing Arabic verbs.[14]

---

12 The same strategy is described for other Turkish languages such as Uyghur and Usbek by Nugteren 2009a: 606; Nugteren 2009b: 610.

13 Cf. Baldi 2009a: 281 on the remarkable tendency of the Kaado dialect of Songhay "to borrow nominals with the Arabic article as verbs: *ḥuzn* 'sadness' > àlhúuzù 'to try to frighten someone'; *ḥanna* 'to pity, have mercy' > àlhánnà 'to ask forgiveness'".

14 Cf. also Zaborski 2009: 274 on the imperative as a sporadic input form of Arabic verb borrowing in Somali: "Rather idiosyncratic is *akhri* 'to read', which may go back to the Arabic imperative".

2.3.1 Songhay

In Songhay, the 3d sg. masculine imperfect *ya-ktulu*, the most frequent and most unmarked inflected imperfect form, is normally used: "Verbal loans are very few, less than 10 percent [...], most of them derive from the Arabic imperfect: *ya'fā* (< *'afā* 'to forgive') [...] *ya'muru* (< *'amara* 'to order, command') > *yaamar* 'to predominate, order'" (Baldi 2009a: 281).

2.3.2 Fulfulde

The prevalent input form of Arabic verbs in Fulfulde seems to be the imperfect, however stripped of inflectional affixes, thereby getting close and often identical to imperative forms. This strategy is the one we will consider but eventually discard for our Coptic examples (34)–(35): "Arabic verbs in Fulfulde are probably imperfect forms stripped of affixes. This hypothesis is challenged by the fact that in several derived verbs, an Arabic imperfect without affixes is identical to an imperative. Fulfulde *jarriboo* 'to test, to try, etc.' may come from Arabic imperative *yujarribu* or imperative *jarrib* [...] . However, affix stripping is required in non-derived verbs even if the imperative is the source; compare Fulfulde *dursa* 'to know by heart, to recite' to Arabic imperfect *yadrusu* and imperative *udrus* 'learn!, study!'. The Arabic imperative could not always be the masculine singular, whose vocalism in hollow verbs differs from that of the imperfect; compare Fulfulde *tuuba* 'to repent' to Arabic imperfect *yatūbu* masculine singular imperative *tub* and feminine singular *tūbī*.

From a semantic point of view, an imperative is only a likely source in oral borrowing, but in Fulfulde many Arabic loanwords seem to have been borrowed from the written language; in such a situation, a feminine, dual, or plural imperative is a less probable source than a singular masculine" (Theil 2008: 139–140).

3 Morphosyntax of Arabic loan verbs in Coptic

The evidence of verb borrowing in the alchemical manuscripts which is rather unproblematic in terms of philology (cf. above) helps us modelling the morphology of verb borrowing from Arabic into Coptic in more general terms. Arabic loan verbs in Coptic exhibit some recurrent morphological patterns which point to their likely Arabic input forms. Once established, they help us to recognize Arabic loaned verbs in other, less easily accessible contexts such as in documentary texts, the other Coptic type of text bearing evidence for linguistic borrowing from Arabic at all.

3.1 Morphological patterns of Arabic verbs in Coptic texts

Three major patterns of Arabic verbs in Coptic texts are shown in exx. (6)–(22).

Pattern I: # ⲁ/ⲉ/ⲉⲓ Cˊ C ⲁ/ⲉ/ⲟ/ⲟⲩ/ⲱ C #

(6) ⲁⲓⲗⲟⲩⲡ

(7) ⲁⲙⲙⲟⲩⲣ

(8) ⲉⲓϣⲙⲉⲭ

(9) ⲉⲛⲟⲱⲣ

(10) (ⲉ)ⲛϩⲁⲗ

(11) ⲉⲥⲗⲱϩ

(12) ⲉⲥϩⲁⲕ

Pattern II: # C ⲁ/ⲉ 'C ⲉ/ⲏ C #

(13) ⲁⲕⲏⲧ (primae ⲉ̣)

(14) ⲉⲥⲏⲗ (primae ⲉ̣)

(15) ⲥⲁⲗⲏ (ultimae ⲩ)

(16) ⲥⲁⲣⲣⲏⲃ

(17) ⲟⲩⲁⲕⲏⲥ

(18) ϩⲁⲩⲉϭ

Pattern III #'ⲁ/ⲉ/ⲉⲓ C C ⲓ #

(19) ⲁⲗⲙⲓ

(20) ⲁϩⲙⲓ

(21) ⲉ(ⲓ)ϣⲟⲩⲉⲓ

(22) ⲉⲓϭⲣⲓ

Since each of these patterns is unlikely to underly native Coptic verbs or Greek loaned verbs in Coptic, instances of verbal lexemes whose Arabic cognates have not been traced as yet[15] can still be identified as Arabic loan verbs, such as exx. (23) and (24).

(23) ⲁϩⲧⲟⲣ (likely instance of Pattern I; derivation uncertain (root *H/Ḥ–D/Ḍ/T/Ṭ–R/L?*))

(24) ⲟⲩⲁⲭⲏⲣ (likely instance of Pattern II; derivation uncertain (root *W–K/Ḫ–R/L?*))

3.2 Input forms of Arabic verbs borrowed into Coptic

3.2.1 Imperative as a preferred input form

In terms of Arabic morphology, the noticed patterns point to Arabic imperatives as preferred input forms of verb borrowing from Arabic into Coptic,[16] as is shown in exx. (25)–(32).

Arabic strong verb

(25) ⲥⲁⲉⲓⲇ (*ṣaʕida* II 'to sublimate') < imperative: *ṣaṣṣid* (infinitive: *taṣṣīd*)

(26) ⲧⲁⲡⲉⲣⲓ (dabara II 'to prepare') < imperative: *dabbir* (infinitive: *tadbīr*)

(27) ⲁⲕⲏⲧ (*ʕaqada* IV 'to boil down, to thicken') < imperative: *ʕaqqid* (infinitive: *iʕqād*)

(28) ⲉⲗϩⲥ (*laḥafa* IV 'to cover') < imperative *alḥif* (infinitive: *ilḥāf*)

---

15 On difficulties to interpret Coptic spellings of Arabic words, cf. Richter (fc. b).

16 On imperative morphology cf. for Classical Arabic cf. Fischer 2002: §220, 106–107; for Standard Arabic Fradkin 2008: 269–273; for Arabic dialects El-Hassan 2008: 266–267. I am grateful to my friend and esteemed colleague Dr. Boris Liebrenz (University of Leipzig) who discussed issues of Arabic verbal morphology with me and advised me in some questionable points.

Arabic hollow verb (ultimae infirmae)

(29) ⲥⲁ϶ⲃⲓ, ⲥⲁⲃⲃⲓ (*ṣafā* II 'to clean') < imperative: *ṣaffi* (infinitive: *taṣfīa*)

(30) ⲉ(ⲓ)ϣⲟⲩⲉⲓ (*šawā* I 'to roast, to fry') < imperative: *išwi* (infinitive: *išwā*)

(31) ⲉⲓϭⲣⲓ (*ǧarā* I 'to carry out') < imperative: *aǧri* (infinitive: *iǧrā*)

(32) ⲉⲥⲧⲁⲩⲃⲓⲉⲓ (*wafā* X 'to receive in full'): < *istawfi* (infinitive: *istiyfā*)

The imperative, "being one of the shortest, most 'naked' verb forms [...] in many languages", and therefore a *grundform* and quotation form par excellence, is a cross-linguistically well-attested input form of borrowed verbs.[17]

3.2.2 Imperfect as a possible input form

Apart from more or less unquestionable imperatives, there are a few instances such as exx. (33)–(34) which at first glance look like Arabic *imperfect* forms stripped of personal prefixes – i. e. like instances of the strategy noticed as a regular way of Arabic verb borrowing in Fulfulde (cf. above, 2.3.2). Given however the overwhelming evidence for imperatives as Arabic input forms in Coptic, those instances may rather be interpreted as (colloqiual) imperatives.

(33) ⲁⲙ(ⲙ)ⲟⲩⲣ (*ʔamara* 'to command') – imperfect: *yaʔmur(u)*, (infinitive: *ʔamr*, imperative: *mur*, but originally [Lane 1863–1893: I/1, 95b] أَوْمُرْ, and so in colloquial language)

(34) ⲛϩⲁⲗ (*ḥalla* VII 'to dissolve') – imperfect: *yanhall(u)* (infinitive: *inhilāl*; imperative: *inhalil*, however in colloquial language also *inhall*)[18]

3.2.3 Other possible input forms?

A few instances such as exx. (35) and (36) seem to attest for exceptional occurrences of other input forms, however neither of them seems to hold true.

(34) ⲅⲁⲍⲁⲟⲩⲁⲛ (*ǧazā*, 'to conquer, to capture'), infinitive *ǧazwān* 'to wish, to aim' (Lane 1863–1893: I/6, 2257a): In the only Coptic attestation *P.Bodl(P) c.10* = *P.Bal.* 122 the word is part of the proper name *Abdallah ibn Ġazouan*, thus not an instance of verb borrowing.

(35) ⲟⲩⲉⲗⲟⲩⲉⲗⲉ "to yelp, to howl, to bark": Crum *CD* 478a) and Westendorf *KHWb* 270 suggest Arabic *walwala* (Wehr 1952/1985⁵ s. v.) as etymology of the Coptic verb. Unlike the other Arabic verbs in Coptic, however, this onomatopoetic *hapax* fits Coptic verbal word formation; its Arabic origin is doubted by Černý 1976: 211–212; Vycichl 1983: 232b.

---

17 Wohlgemuth 2010: 79; cf. also Wichmann/Wohlgemuth 2008.

18 As Boris Liebrenz kindly confirmed.

3.2.4 Syntactic integration of Arabic verbs in Coptic

As goes almost without saying, the syntactic status of Arabic verbs in Coptic, regardless of their morphological value in terms of Arabic, is that of an infinitive in the absolute state. As such they may fill slots open to infinitives and take the role of verbal predicates, as in exx. (36)–(38) and (42)–(43), or function as imperatives, as in exx. (39)–(41)

(36) ϣⲁⲛⲧϥⲛ̅ⲣⲁⲗ '… until it dissolves' *BL Or.MS 3669(1)*, VIII,18

(37) ⲁⲓⲛⲁⲩ ⲉⲡⲥⲁϩ ⲛⲧⲁϥⲥⲁⲉⲓⲁ ⲛⲡⲁⲥⲥⲓⲡⲁⲕ ⲛ̅ⲍ ⲛ̅ⲥⲟⲡ 'I saw the master sublimating the quicksilver 7 times' *Bodl. MS.Copt. (P) a.1, g* 1

Also in the Fayyumic dialect, where verb borrowing from Greek can be managed by means of a 'light verb strategy' (Wichman/Wohlgemuth 2008: 93–96), an Arabic verb occurs in direct insertion (ex. 38).

(38) *P.Fay.Copt.* 15,11 ϣⲁⲡ ⲟⲩⲗⲉⲕⲱⲧⲥⲓ ⲛⲏⲣⲡ ⲛⲁⲛ ⲛⲥⲁⲓⲏ ⲕⲁⲧⲁⲣⲁⲕ ⲛⲏⲣⲡ ⲛⲁⲗⲉⲩ ⲛϣⲁⲟⲩⲉⲥⲗⲱϩ 'Get us wine for one dinar, good one according to you(r judgement), white wine which will be proper'

As in the case of Greek loaned verbs in Coptic,[19] the accusative object role is generally operated by the preposition ⲛ-/ⲙⲙⲟ=, as shown in exx. (37) and (39)–(43).

(39) ⲥⲁⲉⲓⲁ ⲙⲙⲟⲟⲩ 'sublimate them'(*Bodl. MS. Copt. (P) a.1*, a 11)

(40) ⲁⲕⲏⲧ ⲙⲟⲟⲩ ϩⲓⲭⲱ ⲟⲩⲕⲱϩⲧ ⲉϥⲕⲉⲣⲉ 'boil them down on a tempered fire' (*Bodl. MS. Copt. (P) a.3*, 28–30)

(41) ⲉⲓϣⲟⲩⲉⲓ ⲙⲙⲟⲟⲩ ⲧⲥⲟⲟⲩ ⲕⲁⲧⲁ ⲅ ⲛϩⲟⲟⲩ 'roast them (and) water them for 3 days' (*Bodl. MS. Copt. (P) a.1*, f 12

(42) ⲗⲏⲡⲟⲛ ⲉⲧⲃⲉ ⲡ̄ⲟ̄ⲥ ⲛⲛⲉⲕⲣⲁⲩⲉϭ ⲉⲙⲟⲓ ⲁⲛ ⲧⲁⲉⲓ ⲣⲏⲥ 'Further, for the Lord's sake, you shall not urge me again that I come southwards' *P.Ryl.Copt.* 368,13–14

(43) ⲁⲛϭⲟⲡ ⲧⲁⲓⲟⲩ ⲯⲓⲥ ⲟⲩϭⲟⲥ ⲛ̅ϩⲁⲗⲁⲕⲟⲧⲧⲉ … ⲙ̄ⲡⲁⲧⲛⲥⲁⲣⲣⲏⲃ ⲙⲟⲟⲩ 'we took fifty-nine dinars …, before we changed them' *P.Gascou* C8

---

[19] A remarkable exception being found in the 14th-century rhymed poem "Triadon" (von Lemm 1903; Nagel 1983), one of the latest known Sahidic texts, where the Greek verb ⲙⲓⲥⲑⲟⲩ 'to rent, to lease, to hire' occurs two times in pre-pronominal state (ⲙⲓⲥⲑⲟ=): ⲁⲛⲁⲩ ⲉⲡⲉⲓⲛⲁⲩⲕⲗⲏⲣⲟⲥ ⲛⲧⲁⲓⲙⲓⲥⲑⲟⲟϥ (stanza 429,1) 'Look at this skipper whom I hired'; ⲧⲁⲛⲧⲟⲩ ϣⲁⲣⲟⲓ ⲛⲧⲁϣⲟⲡⲟⲩ ⲛⲧⲁⲙⲓⲥⲑⲟⲟ(ⲟ)ⲩ (stanza 721,2) 'and I'll bring them to me, so that I receive them and hire them'. Although this piece of literature is rich of odd forms, not at least due to the need for end rhymes (note that both instances of ⲙⲓⲥⲑⲟ= occur at the end of the verse), these forms still bear evidence for a general although usually refused license of the language to derive such forms from Greek loaned verbs, and give us an idea of really "complete integration", where "the loan verb is treated as if it were native" (Wichmann/Wohlgemuth 2008: 109).

Appendix I: List of Arabic verbs in Coptic texts

ⲁⲓⲗⲟⲩⲡ ? *ṣalaba* II 'to can, to preserve' Wehr 1952: s.v., *Bodl.MS.Copt. (P) a.2*, 56

ⲁⲕⲏⲧ, ⲁⲕⲧ *ṣaqada* II and IV 'to make coagulate, thicken by cooking' Wahrmund 1898: II
    282f.; Wehr 1952: 564; *BL Or.MS: 3669(1)* XII,5; *Bodl.Ms.Copt. a.1*, b 7.10; *Bodl.
    Ms.Copt. a.3*, 28.30; *Ryl.* 106,12; *SBK* 001, 10

ⲁⲗⲙⲓ *lamm* IV 'to collect, to reunite', *Bodl. MS.Copt. (P) a.2*, 28(?).71

ⲁⲙⲙⲟⲩⲣ, ⲁⲙⲱⲣ *ʾamara* 'to authorize, to charge' *P.Teschlot* 1,3.11; 3,18; 4,17; 5,15; *P.Lond.
    Copt. I* 660*; *P.Köln* 466,18

ⲁⲅⲙⲓ *ḥamma* IV 'to heat up', e.g. *Bodl.MS.Copt. (P) a.1*, e 12; *Bodl.MS.Copt. (P) a.1*, g 3;
    Bodl. MS.Copt. (P) a.2, 4; *Bodl. MS.Copt. (P) a.3*, 44

ⲁⲅⲧⲟⲣ ? *P.Ryl.Copt.* 367,4

ⲉⲓⲙⲟⲩⲉⲓ, ⲉⲙⲟⲩⲉⲓ, ⲙⲟⲩⲉⲓ *šawā* I, vb. Wahrmund 1898: I/1 1023a 'braten, braten lassen';
    Ullmann 1976: 57 and 1972: 263 s.v. *tašawiya* 'Röstung, Calzination', *BL. Or.MS
    3669(1)* VI,3; VII,5.15; *Bodl.MS.Copt. (P) a.1*, f 10.12 *Bodl. MS.Copt. (P) a.2*, 1.
    26.27.55; *Bodl. MS.Copt. (P) a.3*, 19.20add.26.60.

ⲉⲓⲅⲣⲓ *ǧarā* IV, Wehr 1952: 109: 'to let flow', *Bodl.MS.Copt. (P) a.2*, 32.32add.

ⲉⲛⲑⲱⲣ *naṭara* Wehr 1952: 838: 'disperse, spread, scatter', *Bodl.MS.Copt. (P) a.2*, 31

ⲉⲥⲅⲁⲕ *zahaqa* Wahrmund 1898: I 852; Ullmann 1972: 262 s.v. *saḥq* 'to grind', *BL Or. MS
    3669(1)*, XI 4

ⲉⲥⲛⲗ *ṣazala* 'to remove, to suspend' *P.Ryl.Copt.* 373, 23.25

ⲉⲥⲗⲱⲅ *ṣalaḥa* 'to be good, to be proper' *P.Fay.Copt.* 15,11

ⲉⲥⲧⲁⲩⲃⲓⲉⲓ *wafā* X 'to recieve in full' *P.Mich.Copt. III* 18,9

ⲉⲧⲧⲁⲙ, ettam *adama* II Wahrmund 1898: I 39b; Wehr 1952: 9: 'to add ingredients, to unify
    things, to add one to the other', *Bodl. MS.Copt. (P) a.2*, 33)

ⲑⲉⲛⲉⲅ ? *tanaḥa* Wahrmund 1898: I 353b 'to stay', *Bodl.MS.Copt. (P) a.2*, 11

ⲗⲉⲡⲉ ? *labba* 'to remain, to stay (in a place)' *P.Teshlot* 11,4–7

ⲗⲓ, ⲗⲓⲓ (ⲉⲃⲟⲗ) ? *lawā*, infinitive *layy* 'to turn, to bend' ? *lāʿa* II 'to torture' or ? *waliʿa* II 'to
    inflame, to melt down'? Cf. Crum *CD* 135a s.v. "meaning unknown, relates to melting
    of metals", *BL Or. MS 3669(1)*, XIII 7.18, XIV 5–6

ⲛ̄ⲅⲁⲗ *ḥalla* VII 'to dissolve' Ullmann 1976: 27, *BL Or.MS 3669(1)*, VIII,18

ⲡⲟⲩⲧⲏⲕ ? *P.University College 71024*, 14

сллт, сле1д *ṣaⁱida* II Ullmann 1972: 263, s.v. *taṣⁱid* 'to distill, to sublimate', e.g. *BL Or. MS 3669(1)*, XII,15.16; *Bodl. MS.Copt. (P) a.1, a* 11, *g* 1.4; *Bodl. MS.Copt. (P) a.3,* 9

сллн *ṣalla* II 'to bless' *P.Lond.Copt. I* 1132,21

слррнв *ṣarafa* 'to change money' *P.Gascou* C8

слчв1, слвв1 *ṣaffy* Ullmann 1976: 52 and 1972: 263, s.v. *taṣfiya*: 'to clean, to purify'; e.g. *BL Or.MS 3669(1)*, XI,18; XV,8

тлпер1 *dabara* II Ullmann 1976: 33 'to prepare, to prodeed' *BL Or. MS 3669(1)*

оүлкнч *waqafa* 'to stick with s.o., to support s.o.'s *P.Ryl.Copt.* 306,6.10; *P.Mon.Epiph.* 280(?)

оүлхнр ? *wakara* 'to move into a new house' (Wahrmundt 1898: I/2 1215) or ? *wakala* 'to authorize, to entrust (Wehr 1952: s.v.) or ? *P.Fay.Copt.* 15,13

ⲁⲩнⲅ *ahwaǧa* 'to need, to urge' (Wehr 1952: s.v.) *P.Ryl.Copt.* 368,13–14

Appendix II: Arabic terms from the terminological set of *tadābīr* "procedures" (Ullmann 1972: 261–265) and their Coptic spellings

Kind of procedure	Part of speech	Arabic terms	Coptic spellings	Meaning
tadbīr procedure	verb	*dabara* II	ⲧⲁⲡⲉⲣⲓ	to prepare, to manage
al-taṣfiyyah purifaction (κάθαρσις)	nomen actionis	*al-taṣfiyyah*	ⲁⲑⲉⲥⲟⲩⲉ	purifaction, filtering
	verb	*ṣafā* II	ⲥⲁϥⲃⲓ, ⲥⲁⲃⲃⲓ	to purify, to filter
	adjective	*al-muṣaffī*	ⲁⲗⲙⲟⲩⲥⲁⲃⲃⲓ	purified, filtered
taʿqīd fixation (πῆξις)	verb	*ʿaqada* IV	ⲁⲕ(ⲏ)ⲧ	to fix, to thicken
	adjective	*al-ʿaqd*	ⲁⲗⲁ(ⲁ)ⲕⲧ	fixed, thickened
taṣʿīd sublimation (ἀνάβασις)	verb	*ṣaʿida* II	ⲥⲁⲁⲧ, ⲥⲁⲉⲓⲇ	to distil, to sublimate
	adjective	*al-muṣaʿʿad*	ⲁⲗⲙⲟⲩⲥⲁⲁⲧ, ⲁⲗⲙⲟⲩⲥⲁⲉⲓⲇ	distiled, sublimated
taʿrīq mild heating (ἵδρωσις)	adjective	*ʿariqa* II	ⲉⲣⲁⲕⲓ	'sublimé' (Chassinat 1921)
tašwiyyah calcination (ὄπτησις)	verb	*šawā* I	ⲉ(ⲓ)ϣⲟⲩⲉⲓ, ϣⲟⲩⲉⲓ	to calcinate, to roast
taḥlīl dissolution (λύσις)	verb	*ḥalla* VII	ⲛϩⲁⲗ	to dissolve
	adjektive	*maḥlūl*	ⲙⲁϩⲗⲟⲩⲗ	dissolved
al-tasqiyyah watering (βροχή)	nomen actionis	*al-tasqiyyah*	ⲁⲑⲉⲥⲕⲓⲉⲓⲉ	dilution
tamwīh watering (ἐξυδάτωσις)	adjective	*al-māwī* (< *mauh* to dilute)	ⲁⲗⲙⲟⲩⲟⲩⲉⲓ	watered down
saḥq trituration (λείωσις)	verb	*saḥaqa*	ⲉⲥϩⲁⲕ	to crush, to pound

Bibliography

Aguadé/Behnstedt 2006

J. Aguadé/P. Behnstedt, Berber, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 1, 289–293.

Baldi 2009a

S. Baldi, Songhay, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 4, 279–282.

Baldi 2009b

S. Baldi, Songhay, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 4, 381–387.

Bandt 2007

C. Bandt, Der Traktat „Vom Mysterium der Buchstaben", Texte und Untersuchungen zur altchristlichen Literatur 162, Berlin.

Blau 1988

J. Blau, Some Observations on a Middle Arabic Egyptian Text in Coptic Characters, in: J. Blau (ed.), Studies in Middle Arabic and its Judaeo-Arabic Variety, Jerusalem, 145–194.

Björnesjö 1996

S. Björnesjö, L'arabisation de l'Égypte: le témoignage papyrologique, in: Égypte – Monde Arabe 27/28, 93–106.

Burmester 1965/66

O.H.E. Burmester, Further Leaves from the Arabic MS. in Coptic Script of the Apophthegmata Patrum, in: Bulletin de la Société d'archéologie copte 18, 51–64.

Casanova 1901

P. Casanova, Un texte arabe transcrit en caractères coptes, in: Bulletin de l'Institute français d'archéologie orientale 1, 1–20.

Galtier 1906

É. Galtier, Coptica-arabica III: Un manuscrit copte en charactères arabes, in: Bulletin de l'institute français d'archéologie orientale 5, 91–111.

Chassinat 1921

É. Chassinat, Un papyrus médical copte, Mémoires publiés par les membres de l'Institut français d'archéologie orientale du Caire 32, Le Caire.

Corriente 1999

F. Corriente, Diccinario de arabismos y voces afines en iberoromance, Madrid.

Delattre et. al. 2012

A. Delattre/B. Liebrenz/T.S. Richter/N. Vanthiegem, Écrire en Arabe et en copte, in: Chronique d'Égypte 87, 170–188.

Décobert 1992

Chr. Décobert, Sur l'arabisation et l'islamisation de l'Égypte médiévale, in: Ch. Décobert (ed.), Itinéraires d'Égypte. Mélanges offerts au père Maurice Martin s.j., Bibliothèque d'Étude 107, Le Caire, 273–300.

Diem/Radenberg 1994

W. Diem/H.-P. Radenberg, A Dictionary of the Arabic Material of S.D. Goitein's A Mediterranean Society, Wiesbaden.

Erman 1897

A. Erman, Bruchstücke koptischer Volkslitteratur, Berlin.

Dozy 1845

R. Dozy, Dictionnaire détaillé des noms des vêtements ches les Arabes, Amsterdam.

Dozy 1881

R. Dozy, Supplément aux dictionnaires arabes, Leiden[2].

Dozy/Engelmann 1974

R. Dozy/W.H. Engelmann, Glossaire de les mots espagnols et portugais derives de l'arabe, Leiden 1869, repr. Beirut[2].

El-Hassan 2008

R. El-Hassan, Mood (Arabic Dialects), in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 3, 262–269.

Fischer 2002

W. Fischer, Grammatik des Klassischen Arabisch, Porta Linguarum Orientalium, 3rd ed., Wiesbaden.

Fradkin 2008

R. Fradkin, Mood (Standard Arabic), in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 3, 269–273.

Garcin 1987

J.-C. Garcin, L'arabisation de l'Égypte, in: Revue de l'Occident musulman et de la Méditerrannée 343, Numero speciale: Monde arabe, migrations et identités, 130–137.

Grossmann 2007

E. Grossman, Worknotes on the Syntax of Nitrian Bohairic: A Hitherto Unnoticed Circumstantial Conversion, In: N. Bosson / A. Boud'hors (eds), Actes du huitième congrès international d'études coptes, Paris, 28 juin – 3 juillet 2004, Orientalia Lovaniensia Analecta 163, Leuven/Paris/Dudley, Ma., vol. 2, 711–725.

Hebbelynck 1900/01

A. Hebbelynck, Les Mystères des Lettres Grecques. Texte Copte, Traduction, Notes, in: Le Muséon 19, 5–36. 105–136. 269–300; 20, 5–33. 369–414.

Junker 1908/11

H. Junker, Koptische Poesie des 10. Jahrhunderts, Berlin.

Kiesler 1994

R. Kiesler, Kleines vergleichendes Wörterbuch der Arabismen im Iberoromanischen und Italienischen, Tübingen – Basel.

Kiesler 2007

R. Kiesler, Ibero-Romance, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 2, 281–286.

Kirchner 2009

M. Kirchner, Turkish, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 4, 583–589.

Lane 1863–1893

E.W. Lane, An Arabic-English Lexicon, book I, parts 1–8, London.

Legendre 2015

M. Legendre, Perméabilité linguistique et anthroponymique entre copte et arabe: L'exemple d'un compte en caractères coptes du Fayoum fatimide. En anexe: Répertoire des anthroponymes arabes trouvés, in: T.S. Richter (eds), Coptica Argentoratensia. Conférences et documents de la 3ᵉ université d'été internationale en papyrologie copte (Strasbourg, 18–25 juillet 2010), Cahiers de la Bibliothèque Copte. Louvain, 325–440.

Lemm 1903

O. von Lemm 1903. Das Triadon. Ein sahidisches Lehrgedicht mit arabischer Übersetzung, St. Pétersbourg.

Lonnet 2009
    A. Lonnet, South Arabian, Modern, in: Encyclopedia of Arabic Language and Linguistics, vol. 4, 297–300.
Loprieno 1996
    A. Loprieno, Linguistic Variety and Egyptian Literature, in: A. Loprieno (ed.), Ancient Egyptian Literature. History and Forms, Probleme der Ägyptologie 10. Leiden/New York/Köln, 515–529.
MacCoull 1985
    L.S.B. MacCoull, Three Cultures under Arab Rule: The Fate of Coptic, in: Bulletin de la Société d'archéologie Copte 27, 61–70.
MacCoull 1988
    L.S.B. MacCoull, Coptic Alchemy and Craft Technology in Early Islamic Egypt: The Papyrological Evidence, in: M. J. S. Chiat (ed.), The Medieval Mediterranean. Cross-Cultural Contacts, Medieval Studies at Minnesota 3, St. Cloud, Minnesota, 101–104.
MacCoull 1989
    L.S.B. MacCoull, The Strange Death of Coptic Culture, in: Coptic Church Review 10/2, 35–45.
MacCoull 2000
    L.S.B. MacCoull, Notes on the Martyrdom of John of Phanijoit (BHO 519), in: Medieval Encounters 6, 58–79.
Matras 2009
    Y. Matras, Language Contact, Cambridge.
Nagel 1983
    P. Nagel 1983. Das Triadon. Ein sahidisches Lehrgedicht des 14. Jahrhunderts, Halle/Saale.
Nugteren 2009a
    H. Nugteren, Uyghur, in: Encyclopedia of Arabic Language and Linguistics, vol. 4, 603–608.
Nugteren 2009b
    H. Nugteren, Uzbek, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 4, 608–612.
Papaconstantinou 2007
    A. Papaconstantinou, "They Shall Speak the Arabic Language and Take Pride in it": Reconsidering the Fate of Coptic after the Arab Conquest, in: Le Museón 120, 273–299.
Papaconstantinou 2012
    A. Papaconstantinou, Why did Coptic Fail Where Aramaic Succeeded? Linguistic Developments in Egypt and the Near East After the Arab Conquest, in: A. Mullen/P. James (eds), Multilingualism in the Graeco-Roman Worlds, Cambridge, 58–76.
Perry 2008
    J.P. Perry, Persian, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 3, 573–580.
Richter 1999
    T.S. Richter, Spätkoptische Rechtsurkunden neu bearbeitet: BM Or. 4917(15) und P.Med.Copto inv. 69.69, in: The Journal of Juristic Papyrology 29, 85–92.
Richter 2000
    T.S. Richter, Spätkoptische Rechtsurkunden neu bearbeitet (II): Die Rechtsurkunden des Teschlot-Archivs, in: The Journal of Juristic Papyrology 30, 95–148.
Richter 2001
    T.S. Richter, Arabische Lehnworte und Formeln in koptischen Rechtsurkunden, in: The Journal of Juristic Papyrology 31, 75–89.
Richter 2003
    T.S. Richter, Tonio Sebastian 2003. Spätkoptische Rechtsurkunden neu bearbeitet (III): P.Lond.

Copt. I 487 – Arabische Pacht in koptischem Gewand, in: The Journal of Juristic Papyrology 33, 213–230.

Richter 2004

T.S. Richter, O.Crum Ad. 15 and the Emergence of Arabic Words in Coptic Legal Documents," in: P. Sijpesteijn/L. Sundelin (eds), Papyrology and the History of Early Islamic Egypt, Islamic History and Civilization vol. 55, Leiden, 97–114.

Richter 2006

T.S. Richter, Coptic[, Arabic loanwords in], in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics 1, 495–501.

Richter 2008a

T.S. Richter, Coptic letters, in: E.M. Grob/A. Kaplony (eds), Documentary letters from the Middle East. The evidence in Greek, Coptic, South Arabian, Pehlevi, and Arabic (1st–15th cent. CE), Asiatische Studien, special issue 62/3, 739–770.

Richter 2008b

T.S. Richter, P.Lips. inv. 250 and 260, two 10th/11th-Century Coptic Documents, in: Late Antique Egypt: Texts and Studies in Honor of James Keenan, Bulletin of the American Society of Papyrologists 45, 209–224.

Richter 2009a

T.S. Richter, Greek, Coptic, and the 'Language of the Hijra'. Rise and Decline of the Coptic Language in Late Antique and Medieval Egypt, in: H. Cotton/R. Hoyland/J. Price/D.J. Wasserstein (eds), From Hellenism to Islam: Cultural and Linguistic Change in the Roman Near East, Cambridge, 402–446.

Richter 2009b

T.S. Richter, What Kind of Alchemy is Attested by Tenth-Century Coptic Manuscripts?, in: Ambix. Journal of the Society for the History of Alchemy and Chemistry 56/1 (March), 23–35.

Richter 2010

T.S. Richter, Naturoffenbarung und Erkenntnisritual. Diskurs und Praxis spätantiker Naturwissenschaft am Beispiel der Alchemie, in: H. Knuf/Chr. Leitz/D. von Recklinghausen (eds), Honi soit qui mal y pense. Studien zum pharaonischen, griechisch-römischen und spätantiken Ägypten zu Ehren von Heinz-Josef Thissen. Leuven/Paris/Walpole, 585–605.

Richter 2014

T.S. Richter, Neue koptische medizinische Rezepte, in: Zeitschrift für Ägyptische Sprache und Altertumskunde 141, 155–195.

Richter 2015

T.S. Richter, The master spoke: "Take one of the 'sun' and one unit of almulgam". Hitherto Unnoticed Coptic Papyrological Evidence for Early Arabic Alchemy, in: A.T. Schubert/P. Sijpesteijn (eds), Documents and the History of the Early Islamic World. 3rd Conference of the International Society for Arabic Papyrology, Alexandria, 23–26 March 2006, Islamic History and Civilization, Studies and Texts 111, Leiden: Brill, 194–233

Richter (fc. a)

T.S. Richter, Ein fatimidenzeitliches koptisches Rechnungsheft aus den Papieren Noël Girons, in: (a Festschrift).

Richter (fc. b)

T.S. Richter, Arabische Wörter in koptischen Texten: Ein Überblick, in: P. Dils/H.-W. Fischer-Elfert/L. Popko (eds), Probleme und Methoden der ägyptisch-koptischen Lexikographie. Vorträge der Leipziger Abschlusstagung des Akademieprojekts Thesaurus Linguae Aegyptiae, Abhandlungen der Sächsischen Akademie der Wissenschaften.

Richter/Schmelz 2010

T.S. Richter/G. Schmelz, Der spätkoptische Arbeitsvertrag P.Heid. kopt. inv. 451, in: The Journal of Juristic Papyrology 40, 185–203.

Rubenson 1996

S. Rubenson, Translating the Tradition: Some Remarks on the Arabization of the Patristic Heritage in Egypt, in: Medieval Encounters 2, 4–14.

Shisha-Halevy 1991

A. Shisha-Halevy, Bohairic, in: The Coptic Encyclopedia, vol. 8, 53–60.

Shisha-Halevy 2007

A. Shisha-Halevy, Topics in Coptic Syntax: Structural Studies in the Bohairic Dialect. Orientalia Lovaniensia Analecta 160. Louvain.

Sidarus 2013

A. Sidarus, From Coptic to Arabic in the Christian Literature of Egypt (7th–11th centuries), Coptica 12, 35–56.

Siggel 1950

A. Siggel, Arabisch-deutsches Wörterbuch der Stoffe aus den drei Naturreichen, die in den arabischen Handschriften vorkommen, nebst Anhang: Verzeichnis chemischer Geräte, Berlin.

Spiro-Bey 1895

S. Spiro-Bey, An Arabic-English Dictionary of the Colloquial Arabic of Egpyt. Containing the Vernacular Idioms and Expressions, Slang Phrases, Vocables, etc., Used by the Native Egyptians, Beirut.

Spiro-Bey 1923

S. Spiro-Bey, Arabic-English Dictionary of the Modern Arabic of Egypt, Cairo.

Stern 1885

L. Stern, Fragment eines koptischen Tractates über Alchimie, in: Zeitschrift für Äyptische Sprache und Altertumskunde 23, 102–119.

Theil 2008

R. Theil, Fulfulde, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 2, 137–142.

Ullmann 1972

M. Ullmann, Die Natur- und Geheimwissenschaften im Islam, Handbuch der Orientalistik I,VI/2, Leiden – Köln.

Ullmann 1976

M. Ullmann, Katalog der arabischen alchemistischen Handschriften der Chester Beatty Library, Teil II: Wörterverzeichnis. Wiesbaden.

Versteegh 2001

K. Versteegh, Linguistic Contacts Between Arabic and Other Languages, Arabica 48, 419–469.

Vycichl 1991

W. Vycichl, Vocabulary, Copto-Arabic, in: The Coptic Encyclopedia, vol. 8, 215.

Wahrmund 1898

A. Wahrmund, Handwörterbuch der neu-arabischen und deutschen Sprache, Graz.

Wehr 1952/1985⁵

H. Wehr, Arabisches Wörterbuch für die Schriftsprache der Gegenwart, Leipzig.

Wichmann/Wohlgemuth 2008

S. Wichmann/J. Wohlgemuth, Loan verbs in a typological perspective, in: Th. Stolz/D. Bakker/R. Palomo (eds), Aspects of Language Contact: New Theoretical, Methodological and Empirical Findings with Special Focus on Romanisation Processes, Empirical Approaches to Language Typology 35, Berlin, 89–122.

Wohlgemuth 2010

    J. Wohlgemuth, A Typology of Verbal Borrowings, Trends in Linguistics, Studies and Monographs 211, Berlin/New York.

Worrell 1934

    W.H. Worrell, Testimony of Arabic Words in Coptic in the Ninth or Tenth Century, in: W.H. Worrell, Coptic Sounds, Ann Arbor, 122–133.

Worrell 1942

    W.H. Worrell, Coptic Texts in the University of Michigan Collection, Michigan.

Zaborowski 2008

    J.A. Zaborowski, From Coptic to Arabic in Medieval Egypt, Medieval Encounters 14, 15–40.

Zaborski 2009

    A. Zaborski, Somali, in: K. Versteegh (ed.), Encyclopedia of Arabic Language and Linguistics, vol. 4, 272–275.