JAMES CLACKSON

A GREEK PAPYRUS IN ARMENIAN SCRIPT


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0 Introduction
This article concerns a papyrus containing Greek in Armenian script which is housed in the Bibliothèque Nationale in Paris (inventory number BnF Arm 332). Portions of the text and photographs have already been published, but I present here the first full edition and commentary. My edition differs substantially from previous readings of the text which did not recognise that the text, as mounted, was misaligned.

1 History of the Text
I have discussed the history and possible origin of the text in more detail elsewhere (Clackson forthcoming a). The text was originally bought at the end of the last century by the French scholar Auguste Carrière from an Arab dealer, who did not reveal the provenance, but Carrière suspected that it came from the Faiyum. In 1892 Carrière informed the Mechitharist congregations in Venice and Vienna that the text contained Greek in Armenian characters and sent them each a photograph of one side of the text. The text was first mentioned in print in the Armenian journal Bazmavêp in 1892 (p. 39) and then discussed in a work concerning Armenian palaeography (Taşēan 1898: 93-105, also printed in the Armenian journal Handês Amsôreay 11 (1897) 325-331); since the first discussions of the papyrus were written in Armenian, many scholars remained unaware of its existence. In 1937, Georges Cuendet, unable to locate the original, published an edition of one side of the text based on the photograph which Carrière had sent to the Vienna Mechitharists. The photograph from which Cuendet worked also omitted several portions of the text. In 1993 Dickran Kouymjian rediscovered the original text in the Oriental Manuscripts collections of the Bibliothèque Nationale in Paris. Kouymjian also discovered a complete transcription of the papyrus in the Bibliothèque Nationale, which is likely to have been made by Carrière himself.

2 Description of the Text
The papyrus is currently mounted as if it were a single unbroken text, but actually consists of 4 separate fragments. Two small fragments, containing portions of between 4 and 6 lines, are presently mounted upside down and back to front in relation to the two large fragments, which both contain between 27 and 30 lines on each side. I label the 2 large fragments Fragment 1 and Fragment 2. These two fragments are mounted alongside one another and appear to present a single continuous text (see Images 1 & 2). However, examination of line-heights, script, papyrus fibres and content show that although the two fragments do join, their present alignment with one another is incorrect and Fragment 1 should be moved up 3 lines in relation to Fragment 2. Fragment 3 is currently mounted at extreme bottom left, alongside the final three lines, upside-down and back to front. This fragment joins at the bottom of Fragment 1, alongside the last three lines of Fragment 2. Fragment 4 is currently mounted at extreme bottom right, alongside the final six lines, upside down and back to front (see Images 3 & 4 for the realigned text). Traces of letters at the bottom of this fragment fit exactly with the letters on the third line of Fragment 1, and consequently it should be aligned at the top left of the sheet.

The left hand and bottom margins of the text are preserved. The top margin is not preserved. The realigned text is approximately 192 mm high and 224 mm wide. From an identifiable Diogenes chreia preserved on side B it appears that there was space for 20-21 letters (i.e. approximately 80 mm) before...
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the right hand margin of the text at its widest. The space between the right and left hand margins must consequently have been approximately 300 mm.

3 Script and Date

This text is the only surviving example of Armenian script written on papyrus, and the hand is considerably different from those found in the earliest Armenian manuscripts. Dating of the text on palaeographical terms is consequently difficult, if not impossible, and there are no clear contextual or linguistic indications that might aid dating, except that the creation of the Armenian alphabet in c. 400 AD gives a clear terminus post quem. The first dating of the text was made by Carrière who tentatively assigned it to the 6-7th century (reported at Bazmavêp (1892) p. 39). Later scholars (Taşean, Cuendet and Leroy) followed this dating, thinking that the text was more likely to have been written before the Arab conquest of Egypt. Hengstenberg (1938) thought this reasoning flawed, since Greek was likely to have continued to be spoken in Egypt after the Conquest (c. 641 AD), and he proposed to assign the papyrus to the 7-8th centuries. An earlier date has been put forward by Kouymjian (1996 and forthcoming), after an extensive study of the letter-forms which he believes are closest to those found in lapidary inscriptions dated to the 5th century AD. There is evidence from inscriptions and papyri to show that there were Armenians in Egypt before the seventh century AD, and the presence of the Armenians in the Byzantine army and administration is well known (see further Clackson forthcoming a). As I shall show more fully below, linguistic analysis of the language and transcription of the text is not incompatible with a 5-7th century date.

The handwriting is rapid, fluent and easy with many joined up letters, and considerable variation in the formation of individual letters (see Image 5). Line-heights are very consistent, and there are generally no spaces left blank. In some places extra written material has been added between two lines of text. Phrases and separate words which form part of a list are normally separated by a colon (in the Armenian script, a colon is the equivalent to a full-stop) but sometimes by a single dot or apostrophe. There are a couple of extra notational devices: a horizontal bar written above the word θεός ‘God’ in its three attestations in line 23 of side A, and an X written above the end of the second word in line 20 of side A.

4 Synopsis of contents

All the identifiable material on the papyrus is Greek, and there is no evidence for any other language. The text contains 4 different types of material:
1) conversational phrases;
2) rudimentary verb conjugations;
3) word-lists arranged by topic;
4) chreiae and sententiae.

All of these categories are also found among ‘educational’ texts from antiquity, and this text has parallels both with papyrus finds and the bilingual Greek-Latin material gathered under the title of Hermeneumata (see further Clackson forthcoming a). For 1) compare the colloquia sections of the Hermeneumata (see Korhonen 1996), which are also attested on papyrus (P.Prag.Gr. III 237 and P.Berol. inv. 10582, published together at Kramer 1996: 53-4). The conjugations found on this papyrus are never complete, and are sporadically distributed through the text. However, they can be compared to the presence of conjugated material in the Hermeneumata and on papyri (note in particular the bilingual text P.Berol. 21246 edited by Brashear (1981) and Kramer (1983 text 1) which contains partial paradigms interspersed with vocabulary items and phrases). The word-lists have clear parallels with the capitula glossaries of the Hermeneumata, and with papyrus bilingual glossaries (see Kramer 1996: 35) and monolingual word-lists.5 Chreiae and sententiae are of course familiar from papyrus texts: the

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4 I am indebted to Kalle Korhonen for pointing out the full extent of the similarities to the Hermeneumata material. See further the commentary on A6.

5 For example P.Tebt. II 278 (Cribiore 1996 cat. 99) which contains a list of occupations, or P.Mon.Epiph. 621 (Cribiore 1996 cat. 123), a list of bird-names.
famous *P. Bour*. 1 has Diogenes chreiae followed by maxims, just as found on this text, and the Hermeneumata Leidensia has a section of *Hadriani sententiae* (*CGL* III 30-7). The Greek used in the papyrus however appears to show a different register to that preserved in other educational material, see further section 7 below.

The order of the material on each side of the papyrus is as follows:
Side A (previously published side, written across the fibres)
1-5 obscure
6-19 Colloquia (with inserted conjugations at 14 and 17)
19-22 Word-lists (19-20 *de ferramentis*, 20-21 *de artificibus*, 21-2 *de pellibus*)
23 Christian blessings
24 Colloquia
24-35 Word-lists (*24 de supellectili*, *de fictilibus*, 25-30 *de membris humanis*, 31-2 *de militia*, 33 *de uestimentibus*, 34-5 horsemanship)

Side B (unpublished side, written along the fibres)
1-2 obscure
3-20 Word-lists (3-5 *de escis* (?), 6 *de holeribus*, 7 *de escis*, 8 *de fictilibus*, 9-10 no clear topic, 10 *de caelo*, 11-2 *de moribus humanis*, 13-5 no clear topic, 15-6 *de cognitione*, 17 no clear topic, 18 conjugations, 19 *de tempestatibus*, 19-20 adjectives)
20-4 Diogenes chreiae
24-5 Sententiae
25-33 Word-lists (?) (largely with no clear topic except 25 *de cognitione* (?), 26 *de nauigatione*, 31 *de linteamine* (?) and 32-3 *menses*)
34 Colloquia

It is not possible to say with certainty which side was written first, but my impression is that Side A precedes Side B. This is partly because of physical factors, (the writing seems neatest at the top of Side A) but mainly because of the content. Unfortunately, a comparison of the contents with the order of sections in the Hermeneumata is little help, since there is no ‘standard’ order to the surviving texts (the colloquia may precede or follow the word-lists sections and the capitula sections of the word-lists appear in different orders). However, even though the material on this text is very haphazard, and many sections appear to interrupt or run into others, it does seem that the material on side A is better ordered than on Side B. It would be unlikely that the writer of this piece would take down the almost random vocabulary on some lines of B before progressing to the well ordered and extensive lists of body-parts, for example, on side A.

5 Texts

The edition of the text is presented as follows. For each side I present first a transcription of the Armenian text, in which I have attempted to represent the actual position of the writing on the papyrus, and then I give a line-by-line transcription with a separate Greek transliteration, followed by a ‘normalised’ reading text of the Greek and translation.

The Armenian letters used in the papyrus, their conventional transliteration and the Greek transliteration I employ, are as follows (following their order in the Armenian alphabet):

```
upper case lower case
абгдеетилкмныопсттрв
αβγδεζηθιλκμννοπςτρωρυφχ
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Note that I have used the signs *h* and *y* to represent the aspirate and the palatal glide in the Greek transliteration.
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FBN332 a (published side) Fibres are vertical.

Notes
1. Smudge, with what looks like ∫ written over. 2. A mark X written above end of word. 3. These letters are reconstructed from the bottom strokes.
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7 εκρη. α.... γανεσιν. τιμινεουκεδοκεσ: ζιχισον: πιν 

7 τιμή η και ούκ έδοκες, 

and you did not pay the price.

8 μετατουκευκακιουσεμε: ποσοχρονογειχαπτελθεσαδε 

8 μετ´ αυτού και ούκ έπηκουσε με. πόσον χρόνον έχεις ἀφ´ ὑπε ἡλθες ὁδε 

8 with him and you did not understand me. How long have you had since you came here?

9 όσον: δοσμεσθρευνιν. ιγνινοτιββιλινεμε. αφο´ε´φ..ε[ ] 

9 δός μ´ ὑτι βιβλιον ἕχω 

Give me (?) that I have a book

10 τεμμεσεμερον: αλικέλιθεν: αχομενιπαςομενπινιποσε 

10 σήμερον ἢ λέγω ποιόν πευόμε μεν τινα / την ἀ-

10 today. Should we go or stay? We will make

11 εςορτίσαςομενπελεθυνεισινεικαιαντουεσπίτιου 

11 έρωτει σπουδάζωμεν ἀπελθεῖν ποιήσειν την χρεῖαν τοῖς ὑπετίου 

11 he asks let us hasten to go to perform the service of the house / hospital.

12 ουκιτελεν. σινωθενθελε: ουκελτινεροτις: εροδιστιθεν....[ ] 

12 ού κι έτελ- μαθεὶν θέλω. ούκ έλθειν ἄνερτείς. ἤρωτεαι 

12 not cheap (?) I want to learn. You do not ask me to come. I asked

13 καπειντιαμενπιλημπιεροτιε 

13 αναχορειοι: αναχορειοι: εκινοσουκεσαχ [ ] 

13 Ανεχορῆσε. Ανεχώρησα. Ανεχώρησαν. ἐκείνος ούκ ἔσχε 

13 He withdrew. I withdrew. That man did not have

14 <ήη> μερον ού σχολάζω, ούριν έρχομαι. Ηλθε 

14 Today I am not at leisure, tomorrow I am going. He went
He made. How do you make? Where do we go? Show me the road. I gave to you as well. I gave them to him. That man was able and strong. We have. You have. He has. I ate well. Eat don’t wait elsewhere.

he had you made plough. waggon.

sickle. sickle. craftsman intelligent youth.

fixed. (?) cap height. bellows sack shoe-strap. of a farmer.
23 Ἰ στον ονόμα το ῥήσαμεν ο θεός φιματάζησεν ὅ θεός βοήθησεν σ’, ὁ θεός θεραπεύση σε the name. And God guard you. God help you. God heal you.


25 Ἐξανασκέμεθα ὑπερτερωμένους ἀνθρώπους το λαόν ἐν αὐτούς εἶδος εὐνοία βλέφαρα blond curly-haired. swarthy ear-ring eyelids


27 7-9 letters ἐλεφαντός. ἡλικία. κεφαλή. όρθαλμος. όςίον. τρίχην μέτωπον. ὄρφος. κόρη. man. age. head. eye. ear. hair forehead. eyebrow. pupil.

28 7-9 letters ἐλεφαντός. ἡλικία. κεφαλή. όρθαλμος. όςίον. τρίχην μέτωπον. ὄρφος. κόρη. man. age. head. eye. ear. hair forehead. eyebrow. pupil.

29 7-9 letters ἐλεφαντός. ἡλικία. κεφαλή. όρθαλμος. όςίον. τρίχην μέτωπον. ὄρφος. κόρη. man. age. head. eye. ear. hair forehead. eyebrow. pupil.
    foot. nerve. vein. blood. body. skull. brain
31 7-9 letters: podarin: neur. fl°ba.
    podãrion:    neËron. fl°ba.
32u 8-10 letters: kantárion: skou̇tar: zoû̇ni: tobias: brȧ
    kontâriοn. skoutâriοn. ζώνη. τούβια. βρά[kia
    sock
    spear. shield. belt. leggings. trousers.
33 8-10 letters: μαφορ: kalėkȧli̇: fel̄on: kамӣ: fał̄
    μαφόριον. καράκαλλον. φελόνι. καμάσιον.
    headdress. hood. cloak. shirt.
34u 8-10 letters: kapȧ 'n̄ ora
    kapα 'νορα
34 8-10 letters: ativlanat: krou̇mit: θρόνοs: i̇π̄ari̇ōn: s̄λ̄la
    λανάτων. θρόνος. ἰππάριον. σέλλα
    woollen cloth / garment. chair. horse. saddle.
35 8-10 letters: kapȧ t̄r̄iōn
    καπ[ι]στριον
    bridle
    dismount
BNF332 B (unpublished side) Fibres are horizontal

[Page content]

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<table>
<thead>
<tr>
<th>Page</th>
<th>Greek Text</th>
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<tbody>
<tr>
<td>32</td>
<td>᾿Ο:1ΒΑΡΜΟ:Ι1ΒΑΚΟ Ν1ΒΑΥΝ1ΥΒΙ’ΙΜYSΟ</td>
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<td>33</td>
<td>᾿Ο:ΙΜ Υ1ΒΟ: ΠΙ:ΜYS Ο:ΙΜ</td>
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<td>34</td>
<td>᾿Ο:ΙΜ</td>
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</tbody>
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1 | ᾿Ο:ΙΜ | μέλισκος. skewer. |
2 | ᾿Ο:ΙΜ | σκεφτασεν |  |
3 | ᾿Ο:ΙΜ | σκονκε. |
4 | ᾿Ο:ΙΜ | σκονκε. |
5 | ᾿Ο:ΙΜ | σκονκε. |
6 | ᾿Ο:ΙΜ | σκονκε. |
7 | ᾿Ο:ΙΜ | σκονκε. |

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1 | ᾿Ο:ΙΜ | σκονκε. |
2 | ᾿Ο:ΙΜ | σκονκε. |
3 | ᾿Ο:ΙΜ | σκονκε. |
4 | ᾿Ο:ΙΜ | σκονκε. |
5 | ᾿Ο:ΙΜ | σκονκε. |
6 | ᾿Ο:ΙΜ | σκονκε. |
7 | ᾿Ο:ΙΜ | σκονκε. |
8u

8 ἀνύμπλωτην

8 ἀνύμπλωτην ἐστὶν ἐν τῇ ἑλένης ἑστὶν ἐν ἡμέρᾳ ἡμῶνς. Σ]\n
οἱχιμενον


τήγανον. κυθρίον. ποτήριον. πινάκιον. καυκτεσμαστήτι.

pan. jug. cup. plate. cup.

9 ἧλιος ὁ ἄλογος πυρὸς ἐν τῇ ἑλένης ἐστὶν ἐν τῇ ἑλένῃ]

[διόν:χσαλα:φακιν:αρπαγινσουβλιν:λπτραφας:φικουμ]

ζύλαι. φάκιον. ἁρπάζῃ σουβλίον. λεπτοράτις. σφήκομα]

wood. flask. hook. awl. fine-stitching. cord

10 ἡμερολογία ἐν ἑλένῃ.


πλινθαριον. λιθαριον. σκληρόν. ἀσπαλόν. κάπνος. νέφος. εὐθία. γνόφοις

brick. stone. hard. soft. smoke. cloud. clear sky. darkness.

11 ἡμερολογία ἐν τῇ ἑλένῃ.

[ποσ:παραλυτικως:λεπρας:κέλλος:υδρπτικος:μυξατιον]

paralytic. leper. club-footed. dropsical.

12 ἡμερολογία ἐν τῇ ἑλένῃ.


κακον. κακος. κακος. κακος. μην. ίσαπις

weak. unpleasant. bad-smelling. good. bad. baldmoney. jasper

13 ἡμερολογία ἐν τῇ ἑλένῃ.

[σοφαρχικαλαποτι:σκορπια:παρατιος:καθαρος]

louse. shoemaker’s last. scorpion. garden. blond

14 ἡμερολογία ἐν τῇ ἑλένῃ.

[ενσαμιρισμισμενεν:εγινα:νιφος:με]

small nature don’t hurry. (?) put to the test! wash (?)
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15 bayanadakvndosoroos: bele: niyiyine: r'chome:patere:ti
baath drakos / drakontos oros. ti o ge eyrosmi. pathep. mtehp
deep snake / snake's hill. (?) I the earth (?) I go. (?) father. mother

16 bayiusdrakondosoros: beli
bi ninge: exome: pater:chle rov
adele: o: theia theios. etairos. kalpos. agnovo. idion
sister. daughter aunt uncle. companion lap. wifeless. private

17 bayExX0osos [7-9 letters] posanwpos..wamtonwpos. tnu
men skinoma:be [7-9 letters] sxiimi: kalami:theta. thermon:chle rov
sknymi. scomi. kalamos. thermon. xiaro: tent.
rope. reed. hot. warm.

18 bepatposos [7-9 letters] xalososos
fasto: ep:apinikos [7-9 letters] oligorisad:ase:mioligoros
apofero: apynge: olygorysas !ope:braxas: me olygrami
I bring back. He brought back. I neglected. he escaped. don't you neglect

19 bayEYsosos [7-9 letters] tgpamposos xamposos tnu.
chalazia: katoigd: drusos. eivtho. me strebl:os
hail. squall. dew. straight. not crooked

20 baryX0ososos [7-9 letters] ==nporposos on o:nomosos
lov:glukosoukpirovon.>biosososko: vi kosifilo:sofisidov
glykon. (?) pikro: Diogenes h: kuniokos filosofos ido:
sweet. bitter. Diogenes, the Cynic philosopher, seeing

21 bayEYsososos ==nporposos on o:nomosos xamposos
lov:glukosoukpirovon.>biosososko: vi kosifilo:sofisidov
glykon. (?) pikro: Diogenes, h: kuniokos filosofos ido:
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lov:glukosoukpirovon.>biosososko: vi kosifilo:sofisidov
glykon. (?) pikro: Diogenes, h: kuniokos filosofos ido:
sweet. bitter. Diogenes, the Cynic philosopher, seeing

21 su:epen ta:pei ta:pei me krou:as: ena, to: tek:onta ov:k [eido: (?)]
said 'enough (??) (?!) lest hitting someone, not knowing who fathered you ??
23] ἦν ὁ κύριος σας ἰδὼν πόλιν μικράν μεγάλας πόλεως ἐχου[σαν
is hurt] your father. Diogenes, the Cynic philosopher, seeing a small town with large gates,
24] ἢ θέλειτε ὁ πατὴρ σου, διότι σας ἠθάλασσαν πόλις μεγάλη, ἧ...[to shunt the gates] in case the city escapes. To understand the letters is the beginning of life. The beginning
25] ἀλλὰ τὰ γράμματα ἐπὶ θεοῦ. μακρός, κονδύλος
to learn the letters. The fear of the Lord is the beginning of wisdom. long. short.
26] θέλει τὸν πατέρα του λέγειν. μακρός. κονδύλος. freeman old man. junior. young man. slave-girl. slave king
27] ὁ πατέρας του λέγειν. μακρός. κονδύλος. carriage. sand. keel. boat. sailor. put out to sea. put in to land
28] ὁ πατέρας του λέγειν. μακρός. κονδύλος. of him/it archimandrite. right. left. up. down
29] ὁ πατέρας του λέγειν. μακρός. κονδύλος. poor. humble. stranger. gulf. fatherland, country
30] ὁ πατέρας του λέγειν. μακρός. κονδύλος. of him/it archimandrite. right. left. up. down
You didn’t come. You want I want I don’t want. [ ] not want.
6 Commentary

Side A

Transcription Notes

6 Traces of the lower parts of further letters run to the end of the fragment.
7 Letter at end of first fragment must be Φ although only the horizontal cross bar remains.
9 Readings of the middle and the end of the line are very doubtful. There is a smudge after η which is written above the line, but there seem not to be any letters beneath the smudge.
13 Only traces of the final η on this line remain.
20 The letter before the break could also be Φ or Φ.
22 ΨΗΣΙΥΨΙΥ (γέλεμοικειν). Cuendet read ΨΗΤΣΙΥΨΙΥ (Γέλεμοικειν) (1937: 224-5) and Leroy: γέλεμοικειν (1938: 516); the latter is impossible and the former unlikely. The Σ (ς) is formed with a very open downward loop.
23 A horizontal stroke is written above the letters ΘΕΙΙΙΙ in all three cases on this line.
25 This line is squashed between lines 24 and 26, and must have been written after line 26.
32 There are traces of the tops of further letters at the end of this line.

Notes

1-5 These lines are too short and fragmentary to allow any secure interpretation, and the Greek equivalents and translations given are very tentative. It is not even wholly clear whether this section contained word-lists or phrases. Note that the material on line 4 may be in part paralleled at line A34 and A34a below.

6 The alignment of Fragment 4 with the main text shows that we have here the reproduction of two sides of a conversation. Kalle Korhonen (p.c. 15/10/98) suggests that this is parallel to the ‘quarreling with the money-lender’ section (§26) of the Colloquium Harleianum (CGL III 113.72-114.45 = 643). This would consequently represent a significant link between the ‘phrase-book’ sections of the papyrus and the Colloquia. The interpretation of χροστας as χροστατες ‘you owe’ follows Grégoire (in Leroy 1938: 517). Although the contraction of ευ to ο is not found in Greek papyri, it does occur in Coptic documents of the sixth century (for example, K3B I 024, 025).

7 The reading τιμινοκεδοκεσ and interpretation τιμη και εκδοκεσ follow Cuendet 1937: 223. The reading is however uncertain (the τ may be better read as an ρ), and the word order with misplaced και is odd. I can find no Greek word to match οποιον or ζικ-x at the line end and beginning.

8 Εδοκεσ for Εδοκες ‘you gave’ shows the Modern Greek form replacement of 2nd person singular -ας by -ες, attested elsewhere in the papyrus (Gignac II 348f.).

9 posορονονεγαστατελθεσδε: the phrase πονον χρονον ἔχεις ἀπό can be paralleled in 6th century AD literary texts: cf. Eusebius of Alexandria Sermones 4.1 (333A in Migne’s text, PG 86) πόσον χρόνον ἔχει ἄρι ’how long has he been sick?’

9 The reading of this line is doubtful, and no secure interpretation can be given.

10 τεμεις cannot be securely identified; it most likely represents a form of a verb in -τεμα.

σεμερον: here Greek η is transcribed as ε when it occurs before a nasal (cf. Gignac I 243, who cites a parallel spelling σεμερον from 599 AD).

αλεκληθεν: there are several possible interpretations, none of them particularly convincing:

i) ἀλελη εκληθη ‘another was bent’;
ii) ἀλελη εκληθη ‘another was closed’ (for parallel form ἀκληθη cf. P.Ross.Georg. II text 26, col. II, 2);
iii) ἀλη εκληθη ‘another was called’;
iv) ἀλη εξειλθην ‘another was left’ (compare the metathesis of δεμα for δεμα at line 21 below).

11 αφτις is here interpreted as ἀφωτει, standing for ἀφωτη and showing the confusion of -τω and -τω verbs met with elsewhere in the papyri (cf. Gignac II 364f.). Note the parallel of αφ for εφ at A23 (θυρωτη-θεραπευ-); however, the compound verb (which shows the same confusion of declension), is spelled ἀφωτησις at A12, σπεδαζωευσιν is here interpreted as σπεδαζωευσιν (other verbs ending in -δαιμον or -δαιμοι in LSI are: αδαιμον, κηδαιμον, κλαιαιμον, κύκλαιμον, κυθαιμον, κυθαιμον, σεπαιμον, κεπαιμον). This word shows the only example of Greek ευ or εγ represented by ο in this text, but the substitution of o or ο for ου is not uncommon in papyri (Gignac I 208-212, note the citation of επισποδοσμου for επισποδοσμου on 212).

12 ουκιταλειαν συμβούλθεω: if the form γεμελα does stand for some form of ευτελης ‘cheap’ it may show a parallel with the ‘Folium Parisinum’ (P.Louvre Eg. 3239, published at Kramer 1983: 89-95), a bilingual glossary with Greek written in Latin characters, which includes the gloss ‘ bile utelo’ (line 20, for uillis ευτελος). Note the representation of the
In this and in the following lines the phrases become shorter and seem to function as practice for verbal conjugations.

In this line we have the first examples of attempts to conjugate verbal paradigms. Note that here there appears to be no rationale behind the order in which the forms are cited. The compound verb is written without an augment, a feature found elsewhere in the papyri (Gignac II 223-4).

In the middle of this line the lacuna evident after the correct realignment of the text begins.

After the two adjectives at the start, this line contains two verbal conjugations (in each case the 1st plural is given first).

In this text of the confusion between voiced and voiceless velars, but there are several cases of voiceless consonants, widespread in Egyptian Greek as evidenced by the papyri (Gignac I 79). This is the only example in this text of the confusion between voiced and voiceless velars, but there are several cases of ι for δ and ζ for τ. The first verb is obviously έξω, but the identity of the second, apparently a future tense, is uncertain. The first word should perhaps be interpreted as τούτον 'it was this one'; an alternative explanation τούτον έν 'this one thing' seems less likely as it is not a complete phrase and consequently unlikely to be written between punctuation marks. Note that in several other places in this text en is apparently meaningless added to the end of words: μενον (B5), κυκουν (B9), ἔλευσεν (B17).

After the two adjectives at the start, this line contains two verbal conjugations (in each case the 1st plural is given first). The first word appears to be the aorist δεικτευει, which has a Byzantine Greek meaning of 'field', and this would fit in with the derived form δεικτευεμεν earlier in the line reveals once more that this text reflects the vagaries of the spoken language.

The middle of this line the lacuna evident after the correct realignment of the text begins.

The second word could only be άμαξα 'wagon' or άμαχος 'without battle' or a derivative. The first option is supported by the reading of αλατρον as άμαχον which shows dissimilation of r, p and assimilation of vowels paralleled by φαλατρον for φαλάτρα in A31. Note also the occurrence of both terms in the de ferramentis section of the Hermeneumata Einsidlenia (CGL III 362.52 and 36); tool-names continue at the beginning of the next line.

The first word appears to be the aorist ἔχησε, formed parallel to future σχήσω and perfect ἔχησα; or it could be ἔχησε from σχήζω 'split'. The reading and interpretation of the following word is uncertain; it is perhaps to be identified with στρήμα which has a Byzantine Greek meaning of 'field', and this would fit in with the agricultural terms later in the line. However, the word στρεμά is not found in published Greek papyri. The final word is certainly the aorist ἐτοίμησες but the preceding text is difficult to make sense of. One suggestion might be ἤμιν καὶ σοι (then reading ἐπόησεν σ- ) 'he made for us and for you.' However, the word order with initial positioning of the indirect object pronouns seems unusual (cf. Horrocks 1997: 59).

The second word could only be άμαχος 'without battle' or a derivative. The first option is supported by the reading of αλατρον as άμαχον which shows dissimilation of r, p and assimilation of vowels paralleled by φαλατρον for φαλάτρα in A31. Note also the occurrence of both terms in the de ferramentis section of the Hermeneumata Einsidlenia (CGL III 362.52 and 36); tool-names continue at the beginning of the next line.

The second word has a cross written above the ending, the significance of which is uncertain. It is not clear why here alone the author of this text repeats a nominal form. It seems unlikely that he is attempting to decline the word (which in Greek actually takes the form δράπανον or δραπάνη). τούδε was interpreted by Cuendet (1938: 63 and Leroy 1938: 520) as οὐδείς 'no one' but there appears to be an extra letter at the beginning of the word, although it is very smudged. Perhaps here we have another tool-name, Greek διοδός, only attested as the gloss of Latin bidens 'two-pronged fork' (CGL III 362.60).
This line contains three Christian formulae of blessing, with a single horizontal stroke written above the word 

\[ \text{ἀπλανεῖς} \]

word relating to handicraft beginning the beginning of another word written above the line. A reading φρονιμίβαι 'intelligent force' is less likely; note that φρόνιμος usually serves as the masculine and feminine form.

\[ \text{χρηρα:} \] given the theme of professions in the first three words, the interpretation χρηρα 'widow' seems unlikely and a word relating to handicraft beginning χρηρ- would be preferable, but no such word can be read.

.ιεροειδεια read from the lower parts of the letters only, and hence uncertain.

\[ \text{έγεντι} \] (a less likely reading is εδεντι); there is no word in LSI ending -έτης or -ήτης or -είτης which could plausibly fit here. A possible interpretation is οἱ γένεται 'parents', or some compound of οἶκος.

δρομα was interpreted by Leroy as a form of δρομή (1938: 520). There are at least two other possibilities: δρο may here stand for τρ as βρ stands for πρ elsewhere in this text, in which case the word may represent Greek τρήμα 'perforation'; or this could be a metathesised form of δέμα 'skin'. I have preferred the last explanation since material in the following line suggests that we have here words from a de pellibus section, paralleled in the Hermeneumata (CGL III 24, 194, 326, 370).

\[ \text{απλανεῖν:} \] the reading is secure, and the most obvious interpretation is that given, with Greek ἀπολανής. However, this would then represent one of the few occurrences of the loss of an accented final syllable, and the meaning 'unwandering' does not seem to tie in with the rest of the line. A more likely equivalent to fit the context is Greek ὀξλον 'shield', included in the de pellibus section at e.g. CGL III 370, but the representation of the Greek o by a is unparalleled elsewhere in the text.

\[ \text{γλεμακιν:} \] there is no attested Greek word ending -γλαμάκιν / -ης, -γλαμάκιν / -ης or -γλαμάκιν / -ης, nor is there any word ending -γλαμ-, -γλή- or -γλακ-, of which this could be a derivative. It is possible that the word shows labdacism, and we have here a variant of the (unattested) word γρεμάκιν, a derivative of the rare γρέμιον 'game, wild animal' (attested in a Byzantine papyrus, SB I 5301, where it occurs four times), replaced in Mediaeval and Modern Greek by αγριμι.

Although the interpretation of γλεμακιν suggests that the next word could be read as κομπόλάκιν, an otherwise unattested diminutive of κύμπης 'camel', I have preferred to read κομπέλακιν 'cap' (attested in a 7th century papyrus, SB VIII 9754), as suggested by Leroy (1938: 522f.), since this fits the context better.

The reading ιιονφοσσαι ύψους is clear, but this does not fit the context well. Perhaps one should see this as an error for υψός 'web'.

\[ \text{φωτοσαγίγμωροι:} \] the first six letters were interpreted as a verb form ψωτας translated as 'tu fais le fier' at Leroy 1938: 520 (suggested by H. Grégoire), but it is better to equate them with the noun φώτα 'bellows, bladder' (cf CGL III 24).

In what follows, rather than read a dissimulation from some form containing γρηγορ-, it is preferable to divide two other terms which occur in the de pellibus sections of the Hermeneumata, cf. CGL III 326 and 370. σιγη may stand for σάγος, σάκκος, σάγμα or σαγη. In the papyri σάγος appears to mean 'cloak' or 'cloth', σάκκος 'sack' or 'sackcloth' (a meaning that is also given for σαγος at CGL III 269.43), and σάγμα and σαγη mean 'pack'-'saddle'. I take λγοτρι to represent a Greek borrowing of Latin ligula, diminutive of lingua, meaning 'strap for shoes' rather than a writing of the Greek word λιγογύριν 'amber' which does not fit the context.

\[ \text{ιστικωσια:} \] this line contains three Christian formule of blessing, with a single horizontal stroke written above the word θεός in each of its three occurrences.

\[ \text{καθισθενοφασκριστεν:} \] compare P. Caur. Masp. I 67005 ε 27 θεός φιλάξη υμάς P. Oxy. LVII 3858.25 ο θεός φιλάξη σε (with parallel papyrus texts given in the note).

\[ \text{οδοδημακθοσ:} \] compare the formula, frequent in 5th-7th century texts, θεός βοήθησον τὸν δολωλόν σου.

\[ \text{οδοδικασματε:} \] clearly a formula involving the verb θρηπετέω, perhaps with the sense of 'care for' rather than 'heal'. I have been unable to find any comparable formula attested on papyri or in early Christian works.

\[ \text{ιστικωσια:} \] this line contains the last phrase to survive on this side of the text, followed by the beginning of a more organised vocabulary which on this line corresponds roughly to the de superellitellis and de fictilibus sections of the Hermeneumata (CGL III 24, 25, 92, 193, 376, etc.).

\[ \text{περισσοποπετομι:} \] the interpretation 'what price did you give him' (note genitive for dative, as at line A12) relies on construing τι with τιμήν; if this is thought unlikely, the text might be interpreted 'what did you give him as the price' (so Leroy 1938: 524) or it may be read with breaks in between phrases (note the lack of punctuation after εγωρασα ήγορασα ι bought'). Hence 'What did you give him?' 'The price'.

\[ \text{λεβητιον} \] clearly represents λεβητιον 'cauldron'. The change of ι to τ in the initial syllable is unparalleled elsewhere in this text; it is possible that this represents some form of vowel assimilation, whereby the first vowel is articulated more closely to the second, as seen elsewhere in this text (cf. A28 below). In later Greek the word takes the form λεβετίον.
In this and the following lines body parts are listed thematically. It may be significant that the order of elements listed is generally paralleled by the de membris humanis word-lists in the Hermeneumata (CGL III 85, oölôðreì CGL III 174 and 247) and the other in the de natura humana section (e.g. CGL III 252-3). The representation of oölòs as oûlòs is noteworthy, as is the form μελαχρόνς which is an attested variant of μελαχρός. The word for ‘ear-ring’ évdóton is written above óptón ‘ear’. The final word can be read as βλέφαρα ‘eyelids’, clearly fitting between the words for ‘brow’ and ‘eye’ on the line below. It is not clear what the three letters before this word represent; the word ἕπιθθώρα ‘eyelids’ appears as a hapax in the list of body-parts in Dioscorus’ Greek-Coptic glossary (P.Lond. 1821.24 = MPER xviii 256.24), and it is possible that we have here a matching form ἕπιθθώρα, otherwise unattested. Note that Dioscorus’ glossary has many similarities to the Hermeneumata lists, see Clackson forthcoming a).

In this and the following lines body parts are listed thematically. It may be significant that the order of elements listed is generally paralleled by the de membris humanis word-lists in the Hermeneumata (CGL III 11-3, 84-6, 174-7, 246-9, 310-2, 349-51, 394-5). ‘Man’ (ἄνθρωπος) is mentioned first, followed by words relating to general attributes and sometimes also descriptive terms (here ἥλις and the words in the first half of line 25). Body parts ‘proper’ start with the head and then move down to the feet by way of back, belly, arms, with the internal organs interspersed and tackled on to the end of the list. Kalle Korhonen has undertaken a systematic comparison of this list with the synonymous items in the Hermeneumata (e-mail 29/5/99), and notes ‘the order of the words in the glossary follows to some extent the CGL order. Only in the end of the “Armenian” glossary does the maker of the selection suddenly seem to turn back to near the beginning of the list. I would not call this correlation a coincidence (I do not know if there is a “natural” order in which any given person would list body parts), but rather say that the writer of the word-list had a model comparable to the Hermeneumata topical glossaries.’ Korhonen also notes that ‘in the single glosses, the CGL glossaries constantly use a different word for “throat”, “spine”, “liver”, “penis” and “skull.”’

In the hippocratic vocabulary compiled by the 1st century AD grammarian Erotian, Leroy (1938: 525) preferred to read γούλα ‘gum’, a diminutive of oûlòs with ‘irrational’ γ as in Modern Greek γούλη.

ςφόνδυλος: note the metathesis of vowels from Greek ςφόνδυλος. In Greek the word is written both as ςφόνδυλος and ςφόνδυλος: the only other occurrence in the papyrus is written ςφόνδυλος (SB XVI 12359 l. 7).

ςφύς is certainly to be identified as ςφύς ‘finger-nail’ (Modern Greek ςφύς). There are two possible interpretations for the initial ςφ: i) this represents the vowel [ə] which is the outcome of initial o- with lip rounding anticipating u [y] in following syllable; ii) the word is actually already ςφύς in the spoken language and ςφυς is in fact the Armenian word for ‘and’ as the speaker switches between Armenian and Greek. Possibility i) seems much more likely than ii).

ςφύς: these words (Classical Greek ἄντρης ‘Thumb’ and σπλήν ‘spleen’, Modern Greek σπλήν) should be considered together with βλέφαρα on line 26 below (metathesis of φλέβα, Classical Greek φλέβα, Modern Greek φλέβα). Both σπλήν and βλέφαρα appear to show the Modern Greek form, where the words are declined as feminine nouns in -ο, but there is little evidence for this change outside the words μῆτρον and θυγότητα in papyri (Gignac II 46 and 63); the first evidence for a nominative form σπλήν is much later in the history of Greek. It is perfectly possible that the forms given here are not in fact examples of the Modern Greek nominative singular, but are in fact accusative singular. The author of this papyrus very frequently confuses nominative and accusative (note for example τραχέλον: σφόνδυλον: on A27 for τράχηλος: σφόνδυλος), perhaps reflecting the fact that in Armenian there is no morphological difference between nominative and accusative singular in all nominal declensions.

ςφύς: the word for ‘liver’ given here, σφύς, continues in Modern Greek as the replacement of Classical ἄντρης. σφύς is already attested with the meaning ‘liver’ in Galen. A parallel use of the word to denote the human liver may be found in the gloss ζυγων : ἥπαρ in Dioscorus’ glossary (P.Lond. 1821.50 = MPER xviii 256.50) which the original editors suggested should be read as ςφύς, a variant of ςφύς.

ςφύς resists certain explanation. There is no Greek word beginning ςφυμ-, ςφυμ-, ςφυμ- or ςφυμ; given the context, an identification with ςφυμ (diminutive of ςφύς ‘bodily fluid, humour’ seems likely, although this term does not appear in the de membris humanis sections of the Hermeneumata; less likely is some form of ςφύς ‘bladder’.

The reading of the first visible letter of the first word is uncertain. If it is ς then the word might be ςφυμ ‘voice’.
λάτρης: the reading of the initial letter is possible, and this reading is the only which would give a suitable body-part term for this word, albeit a rare one: λιπόρας ‘fat’ is not listed in LSI, but occurs in a 6th-7th century papyrus (Stud.Pal. XX 250.5), and Lýpos occurs in the Hermeneumata word-lists (CGL III 248.50).

βίζιν: identification with Modern Greek βυζίν ‘breast’ was tentatively proposed by Leroy (1938: 537), although he could find no literary attestation of the word before the 12th century. A papyrus parallel has since been published, the 6th century P.Wash.Univ. II 108.9 (βυζίν, see commentary for further references to the word from medical authors).

In this line the word-list moves on to terms relating to warfare (cf. the section de militia). Note also that the form is extant in the Hermeneumata biz̄: ubera (CGL III 13) and βίζια: mamillae (CGL III 311) (only the second cited in LSI Rev. Suppl. s.v. βίζιν).

In this line the word-list moves on to terms relating to warfare (cf. the section de militia in the Hermeneumata, CGL III 27-8, 208-9, 298-9, 352-3, 395); note that many of the terms listed do not appear in the Hermeneumata.

This line clearly contains vocabulary relating to clothing, parallel to the de ueste / de vestimentibus sections in the Hermeneumata (CGL III 21-2, 92 etc.). The only match with the vocabulary of the Hermeneumata is φλον / φλιν ‘cloak’. This word was loaned into Armenian already by the time of the Bible translation (2 Tim. 4, 13) as φλιν (LSJ s.v. φλιν). The next word may well be a derivative of φλισμός ‘whinny’ cf. φλωμισμίας ‘hot-tempered’ (of a horse) (Hesychius).

The word before φλον could be κίση ‘manger’.

The text was misread as βίζια and hence this word interpreted as βύζιαν by Cuendet (1937: 226) and Leroy (1938: 527), although it was already correctly read by Taşcan (Handes Anxoray 11 (1897) p. 330). Since βύζια is attested on line 21 above, this interpretation is now indefensible. The previous word νεύρον gives a clue to the correct explanation: βύζια is a metathesis of φλια, accusative of Classical Greek φλιά ‘vein’ and the form taken by the nominative in Modern Greek. Note that in the Hermeneumata νεύρον and φλια are usually listed next to each other (CGL III 11.51-2, 246.62-3, 350.1-2).

νοτικοβίν: this word literally means ‘little earthen vessel, potsherd’, and consequently would be out of place in a list of body-parts unless it has taken the same meaning of Latin testa which comes to mean ‘skull’ and thence ‘head’, as French tête (this explanation was already suggested by Leroy 1938: 526). This meaning is unparalleled for Greek νοτικοβίν or related forms, unless one sees as significant the inclusion of the gloss ‘ostracon : testa’ before words for ‘occiput’ and after words for ‘brain’ in the list of body parts at CGL III 174.58.

In this line the word-list moves on to terms relating to warfare (cf. the section de militia in the Hermeneumata, CGL III 27-8, 208-9, 298-9, 352-3, 395); note that many of the terms listed do not appear in the Hermeneumata.

κρανίον: κρανίον ‘head’, a rare word also attested in a 7th century papyrus (SB VI 9140.6).

σκαριάν in this context must represent σκάριαν ‘sword’, although it is the only case in this text where a Greek aspirated consonant is not represented by an Armenian aspirate when in intervocalic position. It is possible that there is here some influence from the homophonous Greek term for a measure of capacity which is written as either σκάριαν or σκάριαν in papyri (cf. Mayerson PZE 121 (1998) 226-8).

σακρύμιον: σακρύμιον ‘daggar’, although rare, is supported by the context; it does not appear in papyri nor in the Hermeneumata.

συκώχαν is written above the line. The interpretation συκώχαν ‘fig’ seems not to fit the context as well as συκώχαν (LSJ and Leroy 1938: 527) / συκώχα (O.Amst. text 23.3), meaning either ‘lasso’ which fits with the military vocabulary of the line, or ‘sock’ given the presence of words for military clothing at the end of the line.

τομία: Leroy’s (1938: 527) interpretation as τομία ‘leggings’ (Latin tibiae) is attractive, although the first occurrence of the word is late (9th century, in the Chronicle of Georges Monarchos, according to the TLG CD-ROM). The Latin term tibiales features in two of the extant de militia sections of the Hermeneumata (CGL III 208.50 and 299.9), listed near balteum ‘sword-belt’ (208.59 and 299.10) which is glossed by Greek ζώνη at CGL III 353.18, and braces (208.60 glossing anusfurides).
κατάβαση is (following Leroy 1938: 529 and 534f) probably to be interpreted as κατάβαση the koiné form of the imperative of compounds of βάντα (Funk 1961: 48) which lies behind Modern Greek κατάβαση. The inclusion of the imperative is paralleled on the Latin-Greek glossary P.Berol. 21860 (Maehler forthcoming), which has ἀνάβασις 'dismount'.

The representation of Greek β as Armenian 和服务 (where transliterated by u) is only found in this text here and at B28 where οὖν is written σουν. In both places Β stands between two α vowels, and it is possible that the Armenian transcription captures a particular allophone of Β in this position; the sequence οὖν occurs nowhere else on the papyrus. κινεῖ reading and interpretation uncertain, but a connection with some form of κινεῖ 'I move' seems likely.

# Side B

Transcription Notes

4 Only the lower parts of the first 10 characters are visible and the first 4 characters are very uncertain.
12 The first three letters of this line are much larger than letters on the rest of the line or anywhere else in the text.
15 ἀφος ὕλος (βιολίαν ἕνα): the last letter cannot be securely identified; it has a thick vertical stroke, without the characteristic slant which the other letters on this line show. In formation it comes closest to θ(ι) or perhaps Φ(ι). What is read here as ἀφος ὕλος appears at first sight to be ἄπασι β(ον) but the vertical strokes of the Φ have hooks to the right at the bottom, hence the given reading.
17 The lacuna in the centre of the papyrus starts here. In the second half of the line several letters are illegible owing to damage to the papyrus.
21 The end of the line is smudged but the given reading is possible.
27 The reading ΠΡΩΝΘΗΣ ἀποζύγων is guaranteed by the context although the Π(ζ) is uniquely formed with a very long upper stroke, which must result from a slip of the pen.
28 Readings in this line are very doubtful.
34 The large gaps left between some letters on this final line suggest that when the text was written the preservation of the bottom margin was in no better state than it is today, and the writer deliberately wrote around the gaps.

Notes

3 There are no Greek words which contain the sequence ελίσχις; it is likely that as at A27 where οὐρανοῦξις stands for οὐρανίσκος we have another word ending in -ισχις. Of the seven possible candidates (κόββλισκον, μελίσκον, οξιλίσκον, σκελίσκον, σφηλίσκον, χελίσκον and χελίσκον) only οξιλίσκος 'skewer, bar, obelisk' is attested in Greek papyri.

4 Ἰδόν: the beginning of this word is not clear from the context. I have restored λέντιον (a borrowing from Latin linteum attested in koiné Greek) as an example. Another possibility could be a substantiated form of ἱνοῖος 'of India' referring to some foodstuff. The following word 'sardine' suggests that we have here a de piscibus or de exsis section, probably continued in the next line and picked up again at line 7 (note the existence of de piscibus glossaries on papyrus, P.Oxy. XXIII 2660 and 2660a, and Kramer 1983 text 5). An alternative reading could be ἀφίλιον 'Sardian stone.'

5 ἐλαυν: the interpretation ἐλαυνον 'oil' is suggested by the following word 'milk', but I can find no comparable spellings in Greek papyri, and it is possible that one should rather restore e.g. ὑλαυνον 'of glass' or λοσπελευν 'profit'. ἱβριν: there are a large number of Greek derivatives ending in -ιβριν but the available space means that the most likely reconstruction here is Greek ϊδρα 'water-jug,' which would fit the context well. The following word may be the late Greek κοββλίσκον 'a sort of probe', but the relationship with the context is less clear.

6 This line appears to contain material from a de holeribus section (cf. CGL III 18, 185, 265 etc. and, on papyrus, P.Oxy. XXXIII 2660 and 2660a); ανθθ stands clearly for ἄνθησιν 'dill' and the following word, τρηδας, probably represents a form of the word for 'lettuce' τριδας or τριδάκον with metathesis of the two dals; note the variant forms attested include θριπδας, θριδας, θριδας, θριδας and θριδας-. The word before ανθθ may accordingly be restored as σερις 'endive' or κόροιον 'coriander'. The reading and interpretation of the final two words on the line is very tentative; the form τομίδιον is nowhere attested in Greek.

7 ἐπευσενεξε: the interpretation given, ἐπευσενεξες ἐν ἀπεξε 'he made, he boiled', is uncertain. The word for 'boil' may be connected with culinary items on surrounding lines. Note that ζωίδιον is spelt ζωιδίον elsewhere in this text. As given, the text καλονισματον is interpreted μη ἀλμυρόν 'not salty'. An alternative reading καλονισματον could be interpreted μη αχιμέρον 'not pointed' - but the word αχιμέρος is only attested very late in Greek (it is not found in any Classical text nor papyrus, nor mentioned in Kriaras' dictionary (Kriaras 1968-9)). The reading of the next word is difficult, but μιαρτον is most likely. Given the surrounding context, it seems best to suppose that this stands for μη ἀρτυτον 'not seasoned'. Note the collocation of ἄρτυτον, ἄλας and ἀλμυρός and ζέο in the de exsis section of one of the glossaries (CGL III 254.69 - 255.11).

8 The recognisable words in this line describe kitchenware, and can be compared to items listed in the de fictilibus sections of the Hermeneuema (cf. CGL III 270 (τύχημα, χόρτα), CGL III 326 (ποτήριον), CGL III 193, 369 (πινάκιον), but the words at the beginning, the end, and written above the line have resisted secure interpretation: there
are no attested Greek words which match them given the usual equivalencies shown elsewhere in this text. It is possible that the final term on the line σουσος’ε it might be a derivative of ζωμός ‘soup’, perhaps ζωμοστρον from ζομόστρον / ζωμοστρόν ‘soup-ladle’. The reading of the letters in the interline is uncertain but there may be some derivative of ονύς in its meaning ‘onyx’.

9 The words on this line do not correspond to the contents of any single section of the Hermeneumata, but, like much of the vocabulary of this side of they papyrus, the grouping appears much less structured. The word φαικες probably stands for φαίκειν a diminutive of φααικες ‘little’ or anything shaped like a lentil’ (attested with the probable meaning ‘flash’ at P.Leid.Inst. 13.12, 7th-8th century AD). αρεπτες probably stands for ἀρπέτεις ‘hook, grappling-iron, rake’ rather than ἀρπάγη ‘seizure, rape’. However ἀρπάγη is not attested in papyri or Kriaras’ dictionary, and the grammarian Trypho implies it is an archaic word (Frag. 2.6.8). It is, however, attested in Modern Greek and Shipp (1979: 98) sees this as a survival of the ancient word.

λεπτόφως interpretation of this word as a compound meaning ‘fine stitching’ sel sim. from λεπτός and ράπτων ‘I sew’ would fit in with the preceding word well, and, although untested, could be matched by e.g. λεπτοφως ‘fine-spin’. The omission of vowels in this word probably shows the Armenian orthographic convention whereby the unstressed central vowel schwa ((ə)) is not represented in writing. For the pronunciation of unstressed Greek ε and ο as [ə] see Gignac I 292.

φικοι is interpreted here as a representation of the scantily attested Greek word σφήκοιρας ‘cord’ (glossed as nodas at CGL II 449.30); a reading φικας, also possible, gives no satisfactory Greek interpretation.

10 The reconstruction of πλανθέριον ‘brick’ is fairly certain, since there are no other words ending in -νθαιρουν which would be suitable. The first two words on this line could thus be taken from a de habitatio section (compare e.g. CGL III 312). The words at the end of the line appear to be taken from a de caelo or de temperastibus section (cf. CGL III 9, and 293-4). Curiously, further terms which are also grouped with terms for ‘cloud’, ‘clear sky’ etc. in the Hermeneumata occur later at B19.

ενφως the context strongly supports the interpretation of this as νέφως ‘cloud’ (following ‘smoke’) but the initial ε- is puzzling. A possible explanation is that the writing represents η νέφως showing an otherwise unattested second declension feminine form (on interchange between second and third declension forms see Gignac II 98-101).

A reading of ουδεις as ουδεις ‘fair weather, clear sky’ fits the context much better than ουδεις ‘no one’, but such an interpretation is problematic for two reasons: firstly, although the interchange of ου and ευ is sporadically attested in Greek papyri, there it probably reflects orthographic confusion, rather than similar pronunciation of the two diphthongs (Gignac I 216); secondly, nowhere else in this text is there unambiguous evidence for the loss of a final -α.

σκνωφος γνωφως is the normal late Greek form. I can find no parallel for σκνωφος, which may reflect a conflation of the two Greek words for ‘gloom’, γνωφος and ζωφος.

11-12 These two lines may have parallels in a fragmentary Greek-Latin glossary on papyrus (J.P. Vindob L 150, published at Kramer 1988), which has words thematically organised de moribus humanis (see also CGL III 177, 249 etc. for this section in the Hermeneumata, and note also the de natura humana sections, which have many similar terms, at CGL III 13, 86 and 328). In the glossary published by Kramer the Latin words m[ancus and p]erosus occur on lines 18 and 19 of the verso, for which the Greek terms are missing, but the equivalents in the glossaries are κυλλὸς καὶ άθρός, which are attested here. The writing of άθρός with an intervocalic οι, στις, is in keeping with the normal Armenian practice in loans from foreign languages: note Greek άθροι borrowed as Armenian ayer (see also Thumb 1900: 408). Kalle Korhonen (p.c.) suggests to me that στις may be a representation of Greek άτεθής, and notes that in the de natura humana list at CGL III 328-30 κυλλὸς, άθθενθης and άτεθής all occur.

The context makes the interpretation of κάλλος as a representation of κυλλὸς virtually certain, yet the representation of Greek ο as ο and the retention of the geminate is unusual for the language of this papyrus (although Greek υ is represented as Armenian ε in a few loanwords, see Thumb 1900: 398-400 for discussion). It is not fanciful to think that the word may be influenced by Arm. xef ‘lame’. The word μυξάριον ‘snot’ is rare in Greek, and the reading is not certain, but a transition from ‘dropsy’ to ‘snot’ is not unlikely.

12 ητοχος the reading is uncertain, it is possible that the correct reading is ητοχος in which case the word φαρμακον ‘drug’ is the most likely candidate to fit here. The interpretation of the end of the line is very tentative; I have taken μι to represent the plant-name μιμος since the negative μι does not make good sense followed by the noun ‘jasper’.

The first word in this and the following two lines is written with a large amount of blank space to the left, and below the line height of the rest of the line. There is also a gap of approximately three letters space before the next word. The word σθρας occurs only in Hesychius, glossed as ψηθρας ‘louse’, but there is no other possible equivalent (one might think of θρας ‘pimple’ or άθρας ‘coal’ as the closest candidates). In the rest of the line the thematic organisation of words seems to be ignored.

κάλλαστι: this is here interpreted as καλλάσσιον, the diminutive of καλλας ‘shoemaker’s last’. The word is not directly attested in Classical Greek (the reference in LSJ to Galen 6.364, may be incorrect. Kuehn’s text has καλλάσσιον, the dative of καλλαστος). Note that καλλαστο: is found as a loan in Armenian (какапар) and Persian with the meaning ‘model’ (Hübschmann 1897: 163). The following terms in this line suggest that the word still has its technical meaning in this passage. The variant spelling καλλαστος is also found in Greek texts, and Thumb (1900: 394) suggested that the Armenian loanword shows medial а by analogy to the Armenian composition vowel; this could also be the explanation for the form found here, but an inner Greek explanation is equally, if not more, likely.
The writing of χληρον ‘warm’ as χλέρον probably shows loss of unaccented τ and raising of α to η before ρ (Gignac I 304 and 278). In Pontic Greek the word for warmth is χλέρα, which may continue the Ionic form χληρός (Shipp 1979: 571), but there is no compelling reason to see this as a Pontic form.

The writing απινικε reflects the spoken form of the aorist of φέρω, which is spell in many different ways in Greek papyri, see Cribiore II 297. Further conjugation of ἀλώγρεω continues at the end of the line, interrupted by another word which is possibly interpreted as ‘he escaped’ (although this assumes loss of a preverb, it is to be preferred to the interpretation ἔδρασε ‘he did’ since the verb δράω did not occur in spoken Greek of this date).

There are four Greek words which end in -aza: ἀζα ‘heat’ etc., μάζα ‘treasure’, μάζα ‘barley cake’ and χάλαζα ‘hail’; the last one is almost certainly correct in this context given that καθηδρίζω can be interpreted as καθατηδρίζω ‘squall’. The word after the break may be a form of δράσος ‘dew’ perhaps preceded by the fem. definite article. The terms χάλαζα and δράσος are found close together in the de cuelo section of the Hermeneumata Leidensia (CGL 9.48 and 9.46); note, however that other terms from this section appear in line 7 above. The next word κριόδωρ could be for κρόδωρ ‘anger’ or a derivative.

The beginning of this line remains obscure (although perhaps one might read ἀνία περατεόν ‘up a persa-tree’) and I have tentatively attempted to reconstruct the chreia after Giannantoni 1990 II no. 211: θεοσάμενος (scil. Diogenes) υἱὸν ἔταιρας λίθου εἰς ὄξλον βάλλοντα, ‘πρόσχε, ἤπειρον πατέρα πλήξες’, (var. δ δ καὶ Διογένης ἐκατακωμα, εἰς παῖδα λίθους ὡς ἀνάμιστα εἰκόνων ὡραίον ἐκ πατέρα τρόπον ὡς δηλώσα ὡς ὡδόν) on the basis of πατήρ σου at the beginning of line 23, but the reconstruction remains very uncertain.

The reconstruction of this chreia is certain, cf. Giannantoni 1990 II no. 286 (= Gnom. Vat. n. 168): Διογένης θεοσάμενος μικράν πόλιν μεγάλας πύλας ἔρχοντο ἤπειρον κλείσατε ταῖς πύλαις, μὴ ἡ πόλις ἐξαλθή.’ This chreia consequently gives some idea of the original width of the text.

As in P.Bour. 1, the Diogenes chreia are followed immediately by sententiae (for sententiae found on papyri see Jackel 1964 and Cribiore 1996: 46). The sententiae given here do not however seem to be alphabetically ordered, as in many school-texts. The first sententia appears to be a variant / conflation of ἑρμηνεύσα τοῦ φρονεῖν τὰ γράμματα (a perennial school-text favourite, cf. Cribiore 1996 cat. 148, 158, 160, 319 line 1 (Jackel 1964 Pap. XIII 1), 393 with ἐρμηνεύσα τοῦ ψεύτου τὸ ψεύτω τὰ γράμματα (Jaekel 1964 Pap. XIV 8) and ἐρμηνεύσα μεγάλης τοῦ βίου τὰ γράμματα (SB III 6218). The next sententia on the papyrus also starts ἑρμηνεύσα, it is possible that the following word is μεγίστη but only the tops of the letters remain.

I have not been able to find a sententia which ends τὸ μαθητὰ τὰ γράμματα but cf. Jackel 1964 Pap. XIV 21 (= mon. 152) γράμματα μαθητῶν δει καὶ μαθητῶν νόμον ἔχειν. The following biblical sententia (Proverbs 1:7) is also attested elsewhere on Greek papyri, cf. Jackel 1964 Pap. XIII 1 etc. The text reverts back to word-lists from sententiae as suddenly as it left them.
A Greek Papyrus in Armenian Script

7 Linguistic Features

7.0 Overview

This text is especially important for the insight it gives into spoken Egyptian Greek of the first Millennium6. Unlike all texts involving written Greek, the author does not appear to have had any schooling in writing or spelling Greek, and so his reproduction of Greek sounds does not have to be seen through the filter of an archaic orthographic system. The vocabulary used in the text and the colloquial syntax of some of the phrases is far removed from the standard Koiné. Even so one may wonder how close the language preserved in this text was to everyday spoken Greek. In some respects the text appears to use forms which we would not expect to have still been in use after the 4th century AD, such as a stop pronunciation of Greek β; and the stop pronunciation of Greek χ (never transcribed by the voiceless Armenian fricative ʰ, see below). In other respects however the language confirms the picture of Egyptian Greek phonology which emerges from the papyri (and as presented by Gignac), showing ample evidence, for example, of the retention of a distinction between ˀ and ʰ; interchange between medial voiced and voiceless stops; and retention of [h-] and loss of distinction between geminates and non-geminates. The papyrus is particularly interesting in showing some sound changes in progress, thus for example there are a couple of instances of ˀ represented by Armenian i, alongside a far greater number represented by iw [y].

As mentioned above, the treatment of the Greek stops is especially noteworthy. Armenian has a rich consonant system: three series of stops (voiceless, voiced and aspirated) as well as a voiced labio-dental

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6 I deal with the importance of this text for the Armenian language at Clackson forthcoming b.
fricative [v] and a voiceless velar fricative [x]. Since the writer of this text nowhere uses the Armenian letter x to transcribe Greek χ, nor v to transcribe Greek β, it appears that the register of Greek transcribed in this text did not include a fricative pronunciation of these sounds. However, the picture is complicated by the fact that we have two writings of Greek β with Armenian վ (which probably represented a labial-velar approximant) when between two alphas: katawaw for κατὰβας and sawan for σάβανων, which suggests that β was not pronounced as a stop in all environments. The transcription of β as a stop may reflect a more conservative pronunciation of Greek, but it could also bear witness to an Armenian convention for writing a sound, such as a bilabial fricative, for which they had no exact equivalent. Note that in Armenian loans from Greek the letter β is not transcribed by Armenian վ before the 8th century, nor is Greek χ transcribed by Armenian խ in loans before the 10th century (Thumb 1900: 412f).

Whereas the phonology on the whole seems more conservative than one might have expected, the vocabulary and word endings seem generally more advanced than the majority of Egyptian documents of comparable age. The suffix -ιον (frequently written -ин or even -ι) is extremely common, and the suffixes -αριον and -ακιον (generally rare, if not completely absent in the papyri, see Palmer 1946: 89) are also found. It is not quite clear whether the liberality of the use of the suffix -ιον really does reflect the spoken language or merely results from an unskilled speaker of the language overcompensating for his unfamiliarity with Greek declensions through overuse of a particular and convenient ending (and one which has an Armenian counterpart, since one noun declension in Classical Armenian is formed with final -ι in the nominative singular).

In a number of cases the ending of the Greek word is dropped altogether, a situation paralleled in Armenian loan-words from Greek, some of which retain the Greek ending and others not (Thumb 1900: 415-428). The loss of word-endings in this text seems to be associated with lack of final accentuation (details are given further below), and this may also reflect interference from a native Armenian speaker since in Armenian all words are accented on their final syllable. An Armenian speaker may consequently reinterpret the accent on a penultimate or antepenultimate syllable in Armenian terms as a marker of the word boundary.

The text contains a number of rare and unusual words, but only a few occur which are not otherwise attested in sub-literary and non-literary papyri. Indeed, as more texts are published, it is likely that the vocabulary of this text will find an increasing number of parallels; as it is, some of the words which Leroy could only find very late parallels for in 1938, such as βηζίν ‘breast’, are now attested much earlier in the papyri (see commentary on A29). There are still some forms for which no parallel can be found: ηπτοράγις ‘fine-stitching’, ἀνωβλέφαρον ‘upper-eyelid’, σκνόφος ‘darkness’ and a number of diminutives in -ιον not otherwise attested. The vocabulary also includes a number of Greek words which were originally borrowed from Latin, some of which are not otherwise attested on papyri (for example τούβιο ‘leggings’, A32).

As already shown, the language of this text accords well with what is known of Egyptian Greek as represented in the papyri. Of course this may be due to the fact that we have far more evidence for spoken Greek of this period from Egypt than from any other region, but it is significant that there is no specific evidence for any Pontic Greek forms in this text (Pontic Greek being the variety spoken closest to Armenia), which supports the view that this text was taken down by someone learning Greek in Egypt, and not an Armenian who had already learnt to speak Greek in their native land.

7.1 Phonology / Orthography

The Classical Armenian alphabet has 36 letters, but only 24 are used in this text (see above under section 5). These letters are given below in the transcription system normally used (note that these do not necessarily correspond to the IPA value of the symbols):
A Greek Papyrus in Armenian Script

voiceless stops: p t k
voiced stops: b d q
aspirated stops: pʰ tʰ kʰ
nasals: m n
sibilants: s z
aspirate: h
continuants: r l y w
vowels: a e i o ow

The letter y is used as a glide between [a] and [i] at B12 and also word initially in the same line (representing Greek τ before α); it is likely that this same letter is written at A9 and A24, although previously read as the Armenian aspirated affricate, c’ [tsʰ]. Note that in three out of four occurrences y is used between [a] and [i].

The letter w is only used following vowels: aw ew iw and ow. In Armenian orthography the digraph ow represents the back vowel [u], and Greek v is conventionally transliterated by the diphthong iw, which may have been pronounced as a rounded front vowel.

The letters ê c j are nowhere used in this text, although in Armenian loanwords from Greek *r is sometimes used to transcribe Greek r (see further below).

Geminates are not normally noted e.g. γlòsa = γλώσσα (A27), hipar = ἵππαριον (A34), but κῆθος = κυλλός (B12) (note possible influence of Arm. xel ‘lame’).

**Consonants**

The following equivalences are found:

**Gk π**
- p, sp’ewdis = σπεύδεις (B14) (confusion of aspirates after σ, cf. Gignac I 86).
- kolp’on = κόλπος (B16) (Gignac I 90 cites the parallel spelling κόλφος from papyri).

**Gk τ**
- τ: initially before r: breziut = πρεζιτου (B26).
- d: intervocally: erodisa = ἕρωτισσα (A12), kade /gcursive._id [ = kataïd- (B19), enowdin = ἐνώττων (A25), (Gignac I 82f, Gignac notes that ἐνώττων is the common form in papyri (I 294) and gives parallel examples of ἐνώδι(ο)ν from the 2nd century AD).

**Gk κ**
- k: owranisk’i = οὐρανίσκος (A27), ἐλίκσ’in = ἐβελίσκος (B3) (confusion of aspirates after σ, Gignac I 86).

**Gk β**
- b: kata wa = κατάβα (A35), sawan = σαβαν (B31) (development of fricative β, Gignac I 68f.).

**Gk δ**
- d: intervocally: ἰήτιν = διακτυλίδιον (A28u), ayitis = ἀιθές (B12), kakouten = κακοῦτης (B12), kalap’oti = καλαποῦτης (B13), paratisos = παράδεισος (B13).

**Gk γ**
- g: initially: sknop’os = γνόφος (B10) (Gignac I 77, but initial s obscure) intervocally: ep’aka = ἐψάγα (A18) p’akete = ϕάγετε (A18) (Gignac I 79).

**Gk φ**
- p’ (aspirated p).

**Gk θ**
- t’ (aspirated t).
- t: eltin = ἐλθεῖν (A12) (loss of aspiration after liquid, cf. Gignac I 90), spatôn = σπάθην (see also commentary on A31).

**Gk χ**
- k’ (aspirated k).
The variation in spelling of Egyptian month names (e.g. epib B32, epip' B33) is paralleled in Greek papyri from all periods.

Gk ξ and ψ always transcribed by k's and p's except B13 where sant'os may represent ξσωνθός.

This transcription is also standardly found in the Greek loanwords in Armenian (Thumb 1900: 414); see further Clackson forthcoming c.

Gk σ/ζ are represented by s if unvoiced or z if voiced (i.e. Greek ζ or σ immediately preceding a voiced consonant): e.g. brezi/bi = πρεβεβίτης (B26), spatin = σπάθην (A31), k'azma = χάζμα (B29), kozm- = κοσμ- (B31). The only apparent exception is zk'ołazo = σχολάζω (A14) where the initial sibilant is written with z although unvoiced; however this reading and interpretation is not secure.

Armenian has two distinct r phonemes, an approximant r and trilled ř. In Greek loanwords in Armenian both are used to represent Gk ρ, although in the earlier loans there is a marked preference for r over ř, except in the position before n when r is preferred (see Thumb 1900: 403 for statistics). In this text the trilled ř is never used, which lends some support to an early date for this text (note that the combination rn is nowhere found in this text). There are also at least two examples of dissimilation of r_r to ḫ_r in ḫ_r, in other papyri, the trilled ḫ is sometimes found in the position before n when r is preferred (see Thumb 1900: 403 for statistics). In this text the trilled ř is never used, which lends some support to an early date for this text (note that the combination rn is nowhere found in this text). There are also at least two examples of dissimilation of r_r to ḫ_r, in other papyri, the trilled ḫ is sometimes found in the position before n when r is preferred (see Thumb 1900: 403 for statistics).

Armenian also has two distinct lateral phonemes: a ‘clear’ (palatal) l and ‘dark’ (velar) ḫ. In Greek loanwords of the 5th-7th centuries, ḫ is used to represent Greek l in 73% of cases and l is used in 27% (figures from Thumb 1900: 404). A similar variation is found in this papyrus, where ḫ is used in 75% of cases to represent Greek l. Note that in this papyrus the two sounds appear sometimes to be free variation (note elt' = ḫlθ- (B24) but elt' = ḫlθ- elsewhere; kalapot (B13) but kaθam (B17) and kaθos (A18); goulín (A27) but douθi (B26)); although generally the choice between them seems to depend on context, with ḫ showing a preference for word-initial position and in the vicinity of front vowels, as the following table shows:

- Final -n is omitted in A8 posok'ronon = πόσον χρόνον, A24 timi = τιμήν, and in many diminutive forms in -i = -ινον.

The letter h is written in nine places, hawriôn = αὐρίων (A14) (αὐρίων is also found aspirated in papyri, Gignac I 137), hodwomen = ὑδώμων (A15), hiwpos' = ὑψός (A22), hema = σίμα (A30), hipar = ἵππαριον (A34 and perhaps A4), хаλα- = ἁλα- (B7), hiwdrópikos = ἡδροπικός (B11), and also in B33, where the Greek form has not been identified. In over a dozen places etymological h- is not written, e.g. o = έ (A23 and B20f.), odon = ὐδον (A15), ilikia = ἴλικια (A26) etc.

Vowels

The following representations of Greek vowels are found:

- Gk ι = i
- Gk ε = e
- Gk η = i (41+) in all positions.
- Gk η = e (16+) in the following environments:
  i) before or after a liquid: trak'elon τράχηλον (A28), paramerin = παραμέριον (A31), poter = ποτήριον (B8), skleron = σκληρόν (B10), pater = πατήρ (B15, but patir B23; note also mitir = μήτηρ B15) (Gignac I 243).
ii) before a nasal: semeron = σήμερον (A10) (Gignac I 243, n.b. parallel σέμερον from 599 AD).

iii) in final position (accented): Ἰπ’ε = οὐδελ’ή (B16), μεστή (?) (B21) (Gignac I 244).

i v) in 5 cases it stands for the temporal augment: elt’- ἢλθ- (A8, A14, B34), erodisa ἧρόσσα (A12) and esgorasa ἥγορασα (A24). This may be a morphological replacement (see Gignac II 233-4). The temporal augment is only represented by i- in the compounds apikousame ἐπικούσαμεν (A8) and apinike ἐπινίγκε (B18).

ii) before a nasal: semeron = σήμερον (A10) (Gignac I 243, n.b. parallel σέμερον from 599 AD).

iii) in final position (accented): Ἰπ’ε = οὐδελ’ή (B16), μεστή (?) (B21) (Gignac I 244).

v) in 5 cases it stands for the temporal augment: elt’- ἢλθ- (A8, A14, B34), erodisa ἧρόσσα (A12) and esgorasa ἥγορασα (A24). This may be a morphological replacement (see Gignac II 233-4). The temporal augment is only represented by i- in the compounds apikousame ἐπικούσαμεν (A8) and apinike ἐπινίγκε (B18).

v) in the word for ‘frying pan’ tεβα澜 = tεγα澜 (B8).

Gk α
Gk α o: only if sot’ rak’s (B13) is correctly interpreted as σάθραζ.
Gk υ
iw (14x)
Gk υ ow (2x): soukoton = σούκώτον (A28), k’soula = ξύλα (B9), and perhaps t’ou- if θυγάτηρ (B16) and soukarin if ζοκάριον (A32u) (Gignac I 215).

Gk υ i(2x): k’jrisok’ on for χρυσοχόος (A21), p’ilak’ si = φυλάξζ (A23), and possibly armiron if for ἀλιμόν (B7). Another example may be bizin = βλζον (B9), although the word only occurs in late Greek texts and the spelling with υ may be merely orthographic; βιβλίον (biblion A9) is normally spelt with i in papyri (Gignac I 268).

Gk o
o: sp’oundoλον = σφονδύλος (A27, possibly actually a metathesis of vowels).
Gk ω e: keλον = κυλλός (B11) although the interchange between u and e in unaccented syllables is recorded in papyri (Gignac I 273f), here the word may be influenced by Arm. κελ ‘lame’.

Gk o
o: sp’oundoλον = σφονδύλος (A27, possibly actually a metathesis of vowels); and soukarin if ζοκάριον (A32u).

Gk ω
ω: possibly at A28 if ewniwk’ = οὐνύχιον; this may be the effect of vocalic assimilation.

Gk ω
o
Gk ω
ow: enowδin = ἐνώδιον (A25), owtin = ὀτίον (A30), zowni = ζώνη (A32), kakouten = κακόδης (B12) (see Gignac I 208f. for the interchange between ω and ο in unaccented syllables)

Gk ω
iw: p’iβαλεον = ψωλίον (A29).
Gk ω
ow
Gk ω
o: spodazomen = σπονδάζομεν (A11).
Gk ω
aw: awρoστρικ’ = ωὐλότριχ- (A25).

Gk ω
aw
Gk ω
a: only if kamelakin = καμελάκιον (A22).
Gk ϵ
aw (3x)
Gk ϵ
iw: only if iwteλ = εὕτελ- (A12).
Gk ϵ
ow: only if owdi = εὐδίο (B10).
Gk ϵ
i
iw (6x)
Gk ϵ
iw: ρελων = πλοῖον (B 27), epewisen = ἐποιήσεν (?) (B7).

Gk α
a
Gk α
a: ka = καί (A 16), for parallel writings of κά for καί see Gignac I 194.
Gk ϵ
i
Gk ϵ
e: antik’era = ἀντίχειρ (A28) (interchange of ϵ and e before ρ, particularly frequent with χείρ, owing to confusion of the allomorphs χείρ- and χερ-, Gignac I 259).
Gk ο
e: κ’τερον = χλιμφόν (B17).

Vocalic assimilation: a number of vowel changes represent the effects of ‘vowel harmony’

Gk ϵ
i: libidin = λεβητίον (A24) note later Gk λεβετίον.
Gk ε a: t’arape- = θεραπευ- (A23), drapain = δρέπαν (A20), p’αλατρον = φάρετρα (A31) (these examples may reflect the vicinity to r, see above).
Gk o a: αλατρον = ἀροτρον (A24).
Gk o ew: ewniwk’ = ὕνωκιον (A28), here ew may represent [o] the outcome of initial o- with lip rounding anticipating [y] in following syllable.

Vowels in combination
a) contraction of [y] and [i]: piwsomen = ποιήσομεν (A10) (elsewhere ποιη- written piwi- or possibly pewi- (B7)).
b) loss of e in χρωστῶ (κ’rostis = χρωστεῖς (A6)), no examples in Greek papyri, but parallel examples from Coptic papyri of the 6th century (KSB I 024 and 025).

Prothetic vowels
An additional e- is written before a consonant cluster in A25 ek’sant’os for ἵσσωθός, and it is possible that the same phenomenon occurs at A14: ezk’oľazo for σχολάζω, although the reading is not certain. A prothetic vowel is also added to νέφος in B10 enep’os.

7.2 Morphology and Syntax

Nouns
Many nouns which are listed in word-lists on the papyrus lose their final syllables: this happens in 28 cases out of 114 words, i.e. 24% of the possible cases. It appears that this is associated with word-accent, as suggested above, since there is a tendency for unaccented syllables at the word end to be dropped, as can be seen from the following tables (which imitate those of Thumb 1900: 416f):

<table>
<thead>
<tr>
<th>Ending</th>
<th>Preserved</th>
<th>Ending lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>-α (+ neuters and plurals)</td>
<td>Accented 15 Unaccented 100</td>
<td>- Accented 2 Unaccented 0</td>
</tr>
<tr>
<td>-η and -ης</td>
<td>3 6</td>
<td>64 2</td>
</tr>
<tr>
<td>-ος and -ον</td>
<td>17 23</td>
<td>78 -</td>
</tr>
<tr>
<td>-τ(ο)ς and -τ(ο)ν</td>
<td>9 16</td>
<td>68 -</td>
</tr>
<tr>
<td>Total</td>
<td>29 60</td>
<td>76 2</td>
</tr>
</tbody>
</table>

Final accented syllables are dropped in 6.5% of all occurrences, final unaccented syllables in 30.2% of occurrences. The two accented final syllables which are dropped represent the body part κεφαλή (A26) and perhaps the adjective ἄπλαύης, although this form may be differently interpreted (see commentary on A22). It is possible that the writer of this passage actually used the diminutive κεφάλιν (cf. Modern Greek κεφάλι ‘head’) which would then have lost its final syllable regularly. The above table shows that there is considerable variation between different final syllables: in general final syllables with high vowels (-η and -τ) are more prone to loss than those with mid and low vowels (-ος and -α). This result is in close accord with the results obtained by Thumb (1900: 417) who also noted that -ον was more readily dropped in Armenian loanwords than -ος. Note also that the suffix -ον only appears in the full form -ον three times: βιβλον (A9, not in a word list), possibly ιδιον (B16, but the reading is doubtful) and in the adverbial form οὐρνο (A14, not in a word-list).

One observable factor which also may govern preservation of an unaccented ending in this text is the number of syllables of a word: very few disyllabic words lose their endings (saq A22 for σάγος, newr A30 for νεῦρος and perhaps mi B12 for μήνος), and it is possible that the writer was reluctant to write monosyllabic forms in the word-lists.

The following changes of declension are found:
- -ως > -ος: o’ros for ὄφρος (A26), ewt’on for εὐθός (B19) and gliwkon for γλυκός (B20) (Gignac II 79).
addition of -α to nom. sing. (?) (or citation of acc. sing.) in splina for σπλήν and antik’era for ἀντίξερα (A28) and blep’α for φλέψ (A30). This could be evidence for the transfer of third declension nouns to the first declension which took place in Greek, but there is little evidence for this change outside the words μήτηρ and θυγάτηρ in papyri (Gignac II 46 and 63); and it is possible that the Armenian writer views nominatives and accusatives as interchangeable (the cases are syncretic in all singular declensions in Armenian).

Further interchange between masculine / neuter forms (? nominative / accusative confusion) (Gignac II 42f.):

-ow to -h:
drosi for drÒsow (B19).

Further interchange between feminine / neuter forms (? nominative / accusative confusion) (Gignac II 42f.):
k’risok’on for χρυσόχοος (A21) (for the variant forms of this word in papyri, see Gignac II 35); trak’elon for τράχηλος (A27); kołp’on for κόλπος (B16) and many more; note also korin for κόρη (A26) (if not for κόριν) and p’alatron for φαρέτρα (A31).

Adjectives

Adjectives are frequently cited in the neuter singular and sometimes in the masculine, compare the following forms on side B:

σκληρόν, ἀπαλόν (B10), ἀπιδής (B12), θερόν, χλιαρόν (B17), μακρός (B25).

Verbs

There are a few noteworthy points about the verbal forms used:

1) the temporal augment appears to be omitted in at least 4 verb forms, e.g. elt’- ἤλθ- (A8, A14, B34), and in 5 further forms the augment ἀ- from a verb beginning with α- is represented by e, e.g. egorasa ἡγόρασα (A24) (see above and Gignac II 233-4).

2) the augment is omitted in the aorist of the compound ἀνοιχτόνων (A13) (Gignac II 223-4).

3) substitution of aorists in -α for aorist in -ov, ep’aka = ἔφαγα (A18) for ἔφαγον (Gignac II 344).

4) substitution of 2nd sing. aorist -ες for -ας, edokes = ἐδοκες (A7, A24) for ἐδοκας (Gignac II 348f.).

5) conjugation of contract verbs: aroti (A11), aneritis (A12) = (ἀν)ερωτής (Gignac II 364f.).

Syntax

The nature of the text means that in general there is little evidence for any complex syntactic structures. The longer sententiae and chreiae represent learned sentences and so do not reflect colloquial syntax, which is consequently only represented in the phrases given on side A, not all of which have been satisfactorily interpreted. However, the use of genitive for dative, well known from other texts from Egypt and elsewhere, is clearly attested: anedokaaواتئاعوئوئων = ἀνέδοκα αὐτὰ αὐτοῦ (for αὐτό) (A16); tiedokesawτωτιμι = τί ἐδοκεῖς αὐτό τιμῆν (A24).

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