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THE MEANING OF VARIOUS WORDS RELATED TO WINE

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Some New Interpretations

We are relatively well informed about the production and trade of wine in Egypt. There are leases and sales of vineyards, labour contracts for work in vineyards, receipts for deliveries of wine, price lists including wine, loans and sales of wine, sales of wine for future delivery and various other texts, relating in some way to the trade in wine.

In this article I would like to discuss the meaning of several words and expressions we encounter in these kinds of texts. I will mainly concentrate on words that are found in the Byzantine contracts for sales of wine for future delivery¹. Until now these texts have been interpreted as involving cash loans that must be repaid in wine after the harvest with a guarantee clause in which the quality of the wine is warranted for several months after the delivery². This practice is unparalleled in the rest of the Roman empire. It will be demonstrated in the course of this article that the earlier interpretation of these texts is based on wrong translations of some of the words in the guarantee clauses. First, I will discuss the meaning of several words which follow. Secondly, I shall treat the implications of the proposed translations for the interpretation of texts relating to the practice of selling wine for future delivery.

The following words will be discussed here³:

ἀποίητος, mainly said of wine and found in the guarantee clause of sales of wine for future delivery, but also said of other objects and even of humans;

ὀζόμενος and **ὀζάριον**, the first being said of wine in the guarantee clauses, the second also being found in lists of wine and other texts from the correspondence of Heroninos⁴;

ὄξος, occurring in various texts concerning the production and trade of wine, also in the guarantee clauses;

¹ For this type of document cf. O. Montevecchi, *Aeg.* 24 (1944), pp. 131-158, R.S. Bagnall, *GRBS* 18 (1977), pp. 85-96, J.G. Keenan, *Proc. XVI Congr. of Pap.* (1981), pp. 479-485 and H.-A. Rupprecht, *Mneme G.A. Petropoulos II*, Athens 1984, pp. 273-283. Byzantine sales of wine for future delivery published up to date are: *P.Amst.* I 47-48; *P.Antin.* I 42; *VBP* IV 55; *BGU* XII 2176, 2207, 2209; *BGU* XIII 2332; *P.Coll.Youtie* II 93; *P.Col.* VIII 245; *CPR* VIII 60; *CPR* IX 25 + *SB* XVI 12489; *CPR* XIV 4; *P.Edfu* I 2; *P.Flor.* I 65; *P.Hamb.* III 221; *P.Heid.* V 356, 358-359; *P.Köln* IV 192; *P.Lond.* II 390; *P.Lond.* III 1001; *P.Lond.* V 1764, 1881; *P.L.Bat.* XIII 2; *P.L.Bat.* XVI 11; *P.Mich.* XI 608; *P.Mich.* XV 734, 743, 748; *P.Nepheros* 34; *P.Oxy.* XIV 1720; *P.Oxy.* XLIX 3512; *P.Prag.* I 45; *P.Rein.* II 102; *P.Ross.-Georg.* V 39; *SB* I 4487, 4504-4505, 4676, 4822; *SB* V 8264; *SB* VI 9593; *SB* XIV 11617; *SB* XVI 12401, 12486, 12488, 12490-12492, 12639, 13037; *P.Soc.* X 1122; *P.Strasb.* I 1; *P.Strasb.* VII 696; *Stud.Pal.* XX 162; *PUG* I 30; *P.Vatic.Aphr.* 9; *P.Palau Rib. inv.* 178 (*Aeg.* 66 (1986), pp. 134-136); R. Pintaudi-P.J. Sijpesteijn, *Tavolette lignee e cerate* (=Pap.Flor. XVIII) (1989), 8

² See F. Pringsheim, *The Greek Law of Sale*, pp. 493-496 and the various editions of these documents cited in the previous note.

³ For the occurrences of the words discussed in the sales of wine for future delivery as well as the provenance of these texts, see *P.Heid.* V, pp. 296-331 and my article *Local Customs in Sales of Wine for Future Delivery*. (*A Supplement to P.Heid.* V) (forthcoming).

⁴ For the trade of wine in the correspondence of Heroninos see J. Bingen, *Chr.d'Ég.* 63 (1988), pp. 367-378.

καλλονή, occurring in the guarantee clause of the Oxyrhynchite sales of wine for future delivery;
ληνός, not only being found in loans of wine or sales of wine for future delivery, but also in orders to deliver wine or in lists of wine in stock;

μόνιμος, said of wine in two Ptolemaic loans of wine, important also for the interpretation of παραμονή;

παραμονή, as καλλονή, is found in the guarantee clause of the Oxyrhynchite contracts, the meaning of which is partly based on the meaning of μόνιμος;

ρύσις, occurring in the clause in which the repayment date is given in sales of wine for future delivery, but also in lists of wine to denote to which vintage year wine belongs.

ἀποίητος

ἀποίητος: "not done, unsuitable" LIDDELL-SCOTT-JONES. This adjective is mostly found in connection with wine⁵, but also with wood (SB VI 9075), cheese (P.Haun. II 19), a cow (P.Lond. III 965), money (P.Lond. IV 1405) and humans (P.Petaus 26 and 93), confer P.Köln V 238 note on line 4. In that text the word qualified by ἀποίητος is lost.

The meaning of ἀποίητος in connection with wine is discussed in P.Herm.Rees 33⁶, a sale of wine for future delivery, where the word occurs in the guarantee clause as in many other such contracts, mainly in those that originate from the Hermopolite nome. In the note on line 6 we find the following explanation: *the word means "not fit for use". Wine is "not fit for use" because it is "unmade", i.e. "not sufficiently fermented"*. Thus the editor of P.Herm.Rees 33 tries to explain why wine would not be fit for use. However, strictly speaking, the result of this explanation, the fact that unfermented wine is not fit for use, does not transform "unfermented" into a new translation of ἀποίητος. The wine is still "not fit for use", perhaps (but not necessarily) caused by the fact that the wine is unfermented. However, in many other texts from the Hermopolite nome in which the word can be found, (e.g. P.Amst. I 48, BGU XII 2176, SB XVI 12490-12492) "unfermented" has been adopted by the editors as the meaning of ἀποίητος. The editor of P.Haun. II 19 (where cheese is said to be ἀποίητος) translated the word in his *editio princeps* as "not ripe" and in P.Haun. II as "not fit for keeping". In the other texts a translation "not fit for use" or "unsuitable" is a correct one.

I do not think we must render ἀποίητος as "unfermented" if wine is concerned. In my opinion the word means "not fit for use" and nothing more. This view is based on three reasons:

1. "not fermented" is, strictly speaking, an impossible qualification of wine. Wine is fermented must. Must has to be fermented in order to become wine, so unfermented wine, technically speaking, does not exist. This argument is not applicable to the original translation as suggested in P.Herm.Rees 33 "not sufficiently fermented", but it is unlikely that the alpha-privans of ἀποίητος can express such a graduation⁷.

⁵ ἀποίητος said of wine occurs in the sales of wine for future delivery and in P.L.Bat. XVII 10. This text, together with P.Lond. I 113.11 (a) and P.Oxy. XVI 1974 concerns the replacement of bad wine.

⁶ Re-edited as SB XVI 12490.

⁷ It is unlikely that must in Egypt would not ferment. For fermentation the following conditions are necessary: 1) the presence of sugar capable of being fermented 2) the presence of ferment 3) an amount of water 4) the proper temperature. The first three conditions are fulfilled by nature: sugar and water are the main ingredients of grapes. Ferment is deposited on the skin of the grape and is mixed with the must during the pressing of the grapes. As to the temperature, the best temperature for fermentation lies between ± 12 °C and ± 24 °C. In Egypt there is a mean temperature of 12.8 °C in January and 27.8 °C in July (in Cairo, Lexicon der Ägyptologie, s.v. Klima) so that at the time of the vintage, at the end of the summer, the temperature is favorable for a good fermentation. The

2. In all the other texts ἀποίητος is best taken, both in context and from a grammatical point of view, as meaning "not fit for use". This applies also to P.Haun. II 19 despite the editors note. The cheeses are not fit for use, which may imply that they are not ripe or not fit for keeping, but it is unnecessary and unwarranted to incorporate these implications in the sense of ἀποίητος.

3. The third objection comes from a totally different angle. The guarantee clauses in which ἀποίητος occurs always consist of three elements, ἀποίητος, ὀζόμενος and ὄξος. In the Herakleopolite nome we find only two elements in the guarantee clause (see P.Coll.Youtie II 93 and SB XVI 12639), ὄξος and ὀζάριον. It is obvious that ὀζάριον matches ὀζόμενος, but we never find ἀποίητος in these contracts. The Herakleopolitan texts, however, have another characteristic which is not found in the other nomes: in the Herakleopolite nome the price is for wine which is always called ἐπιτήδειος, "suitable", "useful"⁸. Thus the wine has to be "ἐπιτήδειος" in the Herakleopolite nome, and in the guarantee clauses of other nomes "not ἀποίητος". So, whether it is stated in a positive or in a negative way, the wine to be delivered has to be suitable. Therefore, the sense "not fit for use" for ἀποίητος is the only right one.

ὀζόμενος, ὀζάριον

ὀζόμενος, ὀζάριον: not listed here is the word ὀζαρόν. I doubt whether this word really exists. The only place where we find this word for sure is in P.Flor. II 209 a document belonging to the correspondence of Heroninos. However, in another text from the same correspondence, SB VI 9406, ὀζάρια occurs (ll. 208 and 218). In Pap.Flor. XVIII 8 ὀζα[ρά has been restored by the editors. Since the end of the word is in a gap a restoration of ὀζα[ρία cannot be excluded and we may well have to interpret ὀζαρα in P.Flor. II 209 also as ὀζάρια.

The sense of ὀζόμενος has been discussed in BGU XII 2176, commentary on line 1: "schimmelig", aber die Grundbedeutung des Verbums, "riechen" liegt sicher auch zugrunde. The participle is usually translated as "musty". In P.Coll.Youtie II 93 ὀζάριον is translated as "verschimmelte Wein". Molds do not grow in wine, but wine can get a moldy taste if unclean vats are used⁹. In modern times, too, acetic fermentation (see below on ὄξος) and the development of a moldy taste are the most feared defects that can arise during the fermentation¹⁰. Moldy taste, like acetic fermentation, is irreversible and can only be prevented by using clean fermentation vats. Ὀζόμενος in connection with wine is best translated as "having a moldy taste" and ὀζάριον as "moldy tasting wine".

ὄξος

ὄξος: "pour wine, 'vin ordinaire', vinegar", LIDDELL-SCOTT-JONES, s.v. A recent explanation of the meaning of ὄξος is given by A. TCHERNIA, *Le vin de l'Italie romaine*, pp. 11-13. Examining

information concerning the fermentation of wine is mainly based on F. Schubert, Ueber die Weingärung, Würzburg 1848.

⁸ There is only one sale for future delivery of wine not originating from the Herakleopolite nome in which ἐπιτήδειος is found, viz. Pap.Flor. XVIII 8 (Oxyrhynchite nome). Here too, we find in the guarantee clause only two elements, ὄξος (read ὄξη) and ὀζάρια (on which see below, **ὀζόμενος, ὀζάριον**), but not ἀποίητος.

⁹ See M. Amerine *et al.*, The Technology of Wine Making (4th ed. 1980), pp. 154-161 (*non vidi*). I came across this reference in B.W. Frier, ZS 100 (1983), p. 259, n. 10, where the meaning of *mucor* is discussed. *Mucor* ("mold") together with *acor* ("sourness") are the two deficiencies against which wine is often warranted in Roman sales of wine. On the Roman practice see also below.

¹⁰ See e.g. A. Egli, Weinbau im Deutschwallis (1982), pp. 239-240.

the possible composition of the *posca*, the soldiers drink, a mixture of water and *acetum* (=ὄξος), he concludes that ὄξος has to be translated as "vinegar" because of three arguments:

1. there is a distinction in Greek between "vinegar" and "sour wine" ('vin piqué'). The last is described as ὀξίνης οἶνος.
2. those texts in which ὄξος is used for an ordinary beverage are all satiric or comic and the word is apparently used in a metaphoric sense.
3. as a result of a comparison of the figures for lentils and ὄξος in P.Beatty Panop. 33 (line 245) a daily consumption of 0.15 l. ὄξος is calculated. This would be a ridiculous level of consumption if wine is concerned, which is diluted with no more than twice its volume, but a reasonable level of consumption in the case of vinegar which is diluted ten times.

As is stated by TCHERNIA, sour wine is a stage in the process of wine becoming vinegar and the difference between these two stages may be small. Nevertheless, the translation "vin ordinaire" seems much too optimistic.

Wine becomes vinegar because of an excessive exposure to air. A class of aerobic bacteria is responsible for the so-called "acetic fermentation", a process in which alcohol is transformed in acetic acid and ethyl acetate. This process is irreversible and can only be prevented by using clean fermentation vats and by avoiding the exposure to air of the new wine¹¹.

καλλονή

καλλονή: we find this word in the Oxyrhynchite guarantee clause of sales of wine on future delivery. It is rendered in different ways in the various editions: "chiarificazione e purificazione" (P.Flor. I 65)¹², "purifying" (P.L.Bat. XVI 11), "goodness" (P.Lond. V 1764, P.Mich. XI 608), "fine quality", "bonne qualité" (P.Mich. XV 748, SB V 8264).

The right sense of καλλονή has already been discussed by S.G. KAPSOMENAKIS, *Münch.Beitr.* 28 (1938), p. 53. Quite correctly the meaning "purification" as suggested by the editor of P.Flor. I 65 is rejected there. The sense "goodness" or "fine quality", supported by KAPSOMENAKIS, is already known from classical sources (cf. LIDDELL-SCOTT-JONES, s.v.).

ληνός

ληνός: this word can be translated in two different ways, either as "wine-press" (cf. M. SCHNEBEL, *Die Landwirtschaft*, p. 283) or as "fermentation vat" (cf. M. SCHNEBEL, l.c., p. 285, P.Mich. X 588, comm. on ll. 2-4). When translated as "wine-press", the crushing vat is meant, the mechanical wine-press in Greek papyri being described as στεμφυλοφυγικὸν ὄργανον (see e.g. P.Oxy. LI 3638, l. 9). Ληνός in this sense may be found in leases or sales of vineyards in the description of the equipment that is available in the vineyard. With the meaning "fermentation vat"

¹¹ Contact with air cannot be avoided during the fermentation of the must: the pressure of carbon dioxide, liberated in the fermentation process, would burst the fermentation vat if this is sealed off. The same carbon dioxide, however, protects the fermenting must from contact with air because it is heavier than air and thus forms a natural lid on the fermentation vat. The vats must be sealed from the 2nd fermentation onwards, i.e. at the end of the 1st vehement fermentation when most of the sugar has become alcohol. During this 2nd fermentation sugar is still transformed into alcohol and carbon dioxide, but much slower: the wine is not "boiling" as during the 1st fermentation, but gradually settles down; at the same time the wine becomes clarified. A small vent will suffice for the escape of carbon dioxide during this 2nd fermentation and vats have been found in Egypt with such a vent (see A. Lucas, *Ancient Egyptian Materials and Industries*, pp. 16-18). While the 1st fermentation is completed in about two weeks, the second can go on for several months (see also C. Seltman, *Wine in the Ancient World*, pp. 67-73).

¹² Cf. also M. Schnebel, *Die Landwirtschaft*, p. 291.

ληνός is synonymous to πίθος. I prefer the latter translation in the Ptolemaic loans of wine (P.Amh. II 48 and P.Grenf. II 24, see also below on μόνιμος), in sales of wine on future delivery (mainly from the Oxyrhynchite nome) and orders for payment of wine. In the loans and sales on future delivery where this word occurs (either as παρὰ ληνόν or as ἐπὶ ληνοῦ) it denotes the place where the ἀπόδοσις of the wine will take place. In my opinion this will happen as soon as the wine is put in the fermentation vats (see below). It is useful to compare also the Hermopolite contracts: in about 40% of those contracts, the measure to be used when the wine will be collected is the μέτρον τοῦ πίθου, so that here too we see a close connection between the delivery and the fermentation vat. Naturally, "fermentation vat" has to be the translation of ληνός (ληνός usually being specified by a number) in the orders for payment of wine, since wine can only be delivered if it is fully fermented¹³.

μόνιμος

μόνιμος: this word occurs in two Ptolemaic loans of wine, P.Amh. II 48 and P.Grenf. II 24¹⁴. It is usually translated as "wine which will keep" (LIDDELL-SCOTT-JONES, s.v). In these texts the borrower has to repay an amount of wine in the month Mesore (P.Grenf. II 24) or Epeiph (P.Amh. II 48) παρὰ ληνόν, wine which must be μόνιμος (καὶ ἀρεστός, P.Grenf. II 24) until the last day of Hathyr. Together with P.L.Bat. XVII 4 they are the only examples of such loans from Ptolemaic time in Greek¹⁵. From the same period, some demotic loans of wine are preserved¹⁶. P.Amh. II 48 and P.Grenf. II 24 as well as the demotic ones, which provide an exact parallel for the Greek loans, all originate from Pathyris/Krokodilopolis. I shall provide here a transcription and transliteration of the relevant phrases of P.Heid.Dem. 29 which is the easiest to consult for Greek papyrologists. After that, they will be compared to the Greek passages in order to discover the correct sense of μόνιμος.

After the date and the mentioning of the contracting parties, P.Heid.Dem. 29 goes on with¹⁷

¹³ Cf. P.Flor. II 246* in the new edition of D. Rathbone, ZPE 75 (1988), p. 159-161. In this text wine has to be supplied from the readier ones. Apparently not all wine is sufficiently fermented, but more in one vat than in another. The wine to be delivered has to be from the fourth and ninth ληνός.

¹⁴ For the readings of P.Grenf. II 24 see BL 1, p. 186. The V^o has been published by G. Messeri-Savorelli, Misc.Pap. (1980), p. 223, n. 69. The text is newly edited by P.W. Pestman, The New Papyrological Primer, Nr. 10. The reading τῶι in l. 1 of the V^o by G. Messeri-Savorelli is incorrect: there is only a stain on the papyrus (checked on the original by T.S. Pattie and A.M.F.W. Verhoogt). The adjective μόνιμος is in the papyri only found in P.Amh. II 48, P.Grenf. II 24 and SPP XXII 4 II, l. 12 (see P.Köln IV 192, comm. on l. 6) This last text, however, adds nothing worthwhile for the interpretation of μόνιμος. The references in S. Daris, Spoglio Lessicale Papirologico and E. Kiessling, WB Suppl. I have to be deleted; they all refer to the proper name Μόνιμος (for SB VI 9445 see now P.Med. I².56 and for SB V 8068 see P.Fouad 12). The Monimos of SB VI 9472 is the same one as in the earlier mentioned P.Flor. II 209 (see above **ὄζόμενος, ὄζάριον**) and 246*. On this person and his function see D. Rathbone, ZPE 75 (1988), p. 160.

¹⁵ In P.L.Bat. XVII 4 the sentences are different from those in the two other texts. P.Köln V 220 is also called a "loan of wine", but is totally different from the other loans. For the interpretation of P.Köln V 220 see now the explanation of T. Reekmans and R. Bogaert, ZPE 68 (1987), p. 75. There are two loans of wine from Byzantine time, see J. Gascou, Anagenesis 1 (1981), pp. 225-230.

¹⁶ Demotic loans of wine are listed in P.Heid.Dem. 29, n. III. I would like to thank S.P. Vleeming for helping me with the readings of the demotic texts.

¹⁷ The transcription I give here is the same as that in the edition except for l. 8: in P.Heid.Dem 29 the month of the return was read as *ibd 3 pr.t* i.e. the third month of the winter, but this reading has to be rejected. Instead of *pr.t* I read *šmw* (the summer). The papyrus is broken off before *ibd 3*, so that it is not impossible that we have to read

- 5 [- - *wn mtw-tn*] *irp* 15 *t³j-w ps.t* [You have] 15 (measures) wine, their half is
 [*irp* 7 1/2 *r*] *irp* 15 *cⁿ iw-irj-n-j n rn* [7 1/2 wine, makes] 15 wine again, against me on behalf of
 [- - *iw*] *p³j-w 5w h2n-w. Mtw-j dj.t* [- - while] their interest is in them. I shall give them
st
 [*n-tn r hn r h³.t-sp -*] ^r*ibd* 4¹ *šmw crqj* [to you up to year x], the 4th month of the summer
h2r r³ (=Mesore), the last day - -
 [- *mtw-j*] *dj.t c^hc-w n p³ pr-ḥd r hn* [- I shall] make them stay in the store house (= ταμειῶν) up
 (*r*) to
- 10 [*h³.t-sp - ibd* 3 *h³.t crqj*]; *p³ irp ntj iw-f* [year x+1, the 3rd month of the inundation period (=Hathyr),
r bjn n.im-w the last day:] the wine which will become bad among
 them,
 [*mtw-j dj.t irp iw-f n*] *fr n t³j-f šbt m* [I shall give wine that is] good as its exchange for its value
swntj-f
 [- - -] *n p³ t³ n rm-f* (see P.Heid.Dem. 29 note IV)
 [*iw-j tm dj.t st*] *r hn r p³ ssw-hrw* [If I shall not give them] before the term of day
 [*ntj hrj iw-j r dj.t st*] *irm p³j-w 1 r* [mentioned above, I shall give them] with their 1 makes
 1 1/2 *n p³ ibd* [] 1 1/2 in the month []

The same formulas with only some minor variations can be found in P.BM dem. 10.492, ll. 7-15¹⁸, P.Cairo 30.744, ll. 7-17¹⁹ and probably P.Adler dem. 4, ll. 6-9²⁰. I was not able to consult P.BM dem. 10.506 in which, according to P.Heid.dem. 29 note IV, there is also a clause concerning the storage of the wine.

The formulas of the two Greek texts are exactly parallel to the demotic ones:

1. the κεράμια borrowed are ἄτοκα, the demotic "while their interest is in them"²¹;
2. the date of the return is at the end of the summer, Epeiph²² in P.Amh. II 48, Mesore in P.Grenf. II 24;

¹*ibd* 4¹ (both signs are the same except that *ibd* 4 has one more stroke at the right hand side, i.e. the part of the papyrus that is broken off).

¹⁸ In P.BM dem. 10492 (ined.) the wine is characterized as being sweet, the measure of the wine is specified and the costs for the transportation of the wine to the house of the lender will be paid by the borrower. The last two elements also occur in P.Amh. II 48: μέτρον ἰ τῶι Πελαίου (l. 7-8) and ἀποκαταστησάτω εἰς οἶκον [ν ἰ π]ρὸς αὐτὴν τοῖς ἰδίοις (ll. 10-11).

¹⁹ The date of P.Cairo 30.744 has to be corrected: according to the editor we have to supplement *H3.t-sp* 8 (year 8), according to P.Heid.dem. 29 (cf. n. III) *H3.t-sp* 6 (year 6). Since in this text too, the wine has to be returned in the 4th month of the summer (Mesore) of year seven (ll. 9-10) and will be put in the store-house until the 3rd month of the inundation period (Hathyr) of the next year (ll. 12-13), one would expect that the same month (Hathyr 28) mentioned in the date in l. 1 is that of the 7th year. A trace of the number 7 is indeed still visible in l. 1.

²⁰ Lines 8 and 9 were not read by the editor. Now that more parallels are available we can identify the long stroke visible in l. 8 as belonging to *pr-ḥd*. At the end of l. 9 the end of the penalty clause in case of failure of delivery can be recognized: *irm* [*p³j=w¹ 1 r 1 1/2 n p³ ibd ntj m-s³ p³ [ibd n rn]=f* (together with their 1 makes 1 1/2 in the month after the month mentioned). Read in l. 7 probably *šmw* instead of *pr.t*.

²¹ Cf. P.W. Pestman, JJP 16-17 (1971), pp. 7-29, esp. pp. 22-23. Cf. also the expression σὺν ἡμιολίᾳ in P.L.Bat. XVII 4, l. 5 (with the comm. ad loc. and P.W. Pestman, l.c., p. 10).

²² In P.L.Bat. XVII 4 the date of the delivery is also Epeiph. This month lasts in 114 BC (=the date of P.L.Bat. XVII 4, according to J. Bingen, Chr.d'Ég. 87-88 (1969), p. 156) from July 18 to August 16. Epeiph 30 in P.Amh. II 48 is August 15. The difference between the usual date of delivery as mentioned in the Byzantine contracts, viz. Mesore (= July 25-August 23), is only a week, not a whole month as it would seem at first sight.

3. the wine has to be μόνιμος until Hathyr;
4. if the wine is not returned in the term that is specified, the borrower has to pay 1 1/2 times the amount borrowed (P.Grenf. II 24) or a fine (P.Amh. II 48).

The only element that seems to be different is the demotic *mtw-j dj.t ḥc-w n pꜣ pr-ḥd* (I shall make them stay in the store-house, = ταμειῖον²³) and the Greek παρεχέτω τὸν οἶνον μόνιμον. In my opinion there is no difference at all. Both sentences appear on the same spot in the contracts and are followed by the same date (Hathyr). Μόνιμος therefore has to be translated as "to be kept", "to be laid-up", a sense which is in perfect harmony with the first sense given by LIDDELL-SCOTT-JONES for μόνιμος *i.e.* "staying in one's place", "stationary". The fact that a whole sentence in the demotic texts is summarized in a single word in the Greek ones, is another example of the explicitness of the former and the brevity of the latter (just like ἄτοκος and its demotic counterpart). Therefore it is very likely that the formula describing the exchange of wine that has become bad is only expressed by the word ἀρεστός in P.Grenf. II 24. The wine has to be good until Hathyr, implying that the supplier must replace any bad wine.

For the storage of wine during its fermentation, see also on παραμονή.

παραμονή

παραμονή: just as καλλονή παραμονή is found in the guarantee clauses of Oxyrhynchite sales of wine for future delivery. As a translation we find "conservazione e 'assistenza" (P.Flor. I 65), "durability" (P.Lond. V 1764, P.Mich. XI 608), "Konservierung", "conservation" (M. SCHNEBEL, *Die Landwirtschaft*, p. 291, SB V 8264).

In explaining the meaning of παραμονή the editor of P.Lond. V 1764 refers to Athenaeus 30 Ε τὸν (sc. οἶνον) πρὸς παραμονὴν ἐπιτήδειον. In P.Mich. XI 608 references to P.Amh. II 48 and P.Grenf. II 24 are added where the adjective μόνιμος said of wine can be found, translated up to now as "*wine* which will keep". In P.Köln IV 192 an adjective παραμόνιμος occurs, translated by the editor as "haltbar".

I have already demonstrated that the translation "*wine* which will keep" for μόνιμος has to be rejected. The meaning "durability" or "conservation" for παραμονή can no longer be based on this adjective. Nor can this meaning in my opinion be derived from the cited Athenaeus passage: ἐπιτήδειος is the word which indicates the *ability* for "keeping" ("keeping" is the sense given by LIDDELL-SCOTT-JONES for this passage); this ability must not be included in the sense of παραμονή. The same applies for the other passage cited by LIDDELL-SCOTT-JONES *s.v.*, Geoponica 6.16.3, γλεῦκος εἰς παραμονὴν χρήσιμον. Here too, the *ability* for "keeping" is rendered by a separate word.

In accordance with the sense of μόνιμος ("stored, laid-up"), παραμονή, in my opinion, has to be translated as "keeping", "storage"²⁴. The storage of the wine is also stipulated in

²³ For the storage of wine in a ταμειῖον see e.g. P.Ryl. IV 564 and PSI VI 620, both from the Zenon-archive. It might be possible that the ληνός mentioned in the Greek contracts was placed in such a store-house.

²⁴ Παραμόνιμος in P.Köln IV 192 has probably to be translated in the same way as μόνιμος. The adjective stands in a peculiar place in this contract, viz. in the description of the wine the price of which has been received, and not in the guarantee clause where it is expected. But so is δυσωτης: according to the editor this word is not another quality designation of the wine, unless the word is a mistake for (οὐ) δυσώδους. In my opinion this last explanation is very likely. (Οὐ) δυσώδους is similar to οὐκ ὀζομένον. Ὀζόμενος, or similar, would also be expected to stand in the guarantee clause, so that the position of παραμωνίμου (so on the papyrus) does not need to bother us.

P.Strasb. VII 696 (Hermopolite nome), lines 7-9: καὶ ἐτοίμως ἔχω φυλάξαι τὸν προκείμεν[ον] | οἶνον ἐν τῷ ἡλιαστηρίῳ μέχρι τῆς τούτων | μεταφορᾶς..

ῥύσις

ῥύσις: the word ῥύσις is mainly used in a chronological context. In lists of wine, wine-accounts, orders for payment of wine etc. the wine can be described as belonging to the ῥύσις of a certain year. The word also occurs in sales of wine for future delivery. In the Oxyrhynchite contracts we find the phrase ἐξ οἴνου ῥύσεως of the coming indiction/epinemesis (i.e. from wine of an indiction that is one number higher than the current indiction) in the clause where the date of the return of the wine is specified. The month given in this clause is Mesore as in all contracts. The cited passage with ῥύσις does not have to mean that the wine is delivered after Mesore (viz. after the start of the new indiction in Thoth). The phrase was interpreted in that way by the editors of SB V 8264 and recently in P.Mich. XV 748, comm. on l. 10. The correct explanation of the different numbers of the indictions has been given by R.S. Bagnall-K.A. Worp, *Chron.Syst.*, p. 26, n. 20: the chronological indiction is starting Thoth 1, but the crops and the harvest are reckoned by the fiscal indiction, starting Pachon 1 and therefore already being one number higher in Mesore. The correctness of this explanation is proved by P.Oxy. XVI 1974, one of the texts concerning the replacement of bad wine (cf. note 5): this text is dated Pachon 2 of the 1st indiction, but the wine which has turned sour is said to be from the ῥύσις of the *past* 1st indiction. The date is according to the chronological indiction, the ῥύσις is counted to the fiscal one just ended.

The word ῥύσις itself has been interpreted in many ways, but the most obvious translation is "flow", being an equivalent of "yield" (see LIDDELL-SCOTT-JONES s.v.). For this sense cf. P.Oxy. XVI 1859 (VI/VII), a request that certain persons should be allowed two days to complete their harvest which they started on the date of this request; they are said to produce a great yield (ῥύσις) of wine. The word does not mean the drawing-off of the fermentation vats as is often suggested: this process is described with the verb κινεῖν (cf. M. SCHNEBEL, *Die Landwirtschaft*, p. 289 and SB VIII 9778).

Now that the meaning of several words we encounter in sales of wine on future delivery has been corrected, we have to examine the consequences of these new translations for the interpretation of this kind of texts. The demotic texts have given the clue for the right interpretation of μόνιμος and so partly for that of παραμονή too. Although it is stated in those texts that the wine has to be given back before the last day of Mesore, the wine will be stored for three more months and the quality is guaranteed until this last date. With the new translation of μόνιμος and παραμονή we see the same practice explicitly mentioned in some of the Greek contracts too, especially in the Oxyrhynchite ones. What does this practice tell us? Apparently the lender becomes the owner of the new wine in Mesore, but it will be stored for him for three more months by the borrower. After this period the wine can be collected and the quality will be established²⁵.

²⁵ The promise to store the wine would be senseless if the wine was delivered and taken away in Mesore. The editor of P.Strasb. VII 696, in which the storage in a heliasterion was stipulated, described the ll. 3-10 in which the quality of the wine is guaranteed until Tybi and the storage until the delivery as "Garantie de la qualité du vin jusqu'a la livraison en Tybi". However, it seems beyond doubt that we have to restore in the lost upper part of this text something like ἄπερ ἀποδώσω σοι ἐν (τῷ καιρῷ τῆς τρύγης) τῷ Μεσορῇ μηνί of the coming indiction as in all other

To understand this practice we have to take a closer look at the practice of wine-making in Egypt and also at the chronological sequence of the different processes of viticulture. In the sales of wine for future delivery the wine is said to be returned in Mesore (July-August). Before and during this month the grapes have to be picked and pressed. We know from several texts that the period of picking the grapes is between the end of July and the middle of August. Immediately after the gathering of the grapes they are pressed and the fermentation process begins²⁶. As explained above in note 11, the fermentation process can be divided in two stages, a rapid first fermentation which lasts about two weeks and a slower second one which can go on for several months. In Egypt the wine remained in the fermentation vats until the wine was available for consumption. Then the wine was drawn off from the vats. This happened in the months Choiak, Tybi, Mecheir or Phamenoth, i.e. in the period December-March²⁷. Other texts illustrate that at the same time the quality of the wine was established. For example, P.Oxy. XIV 1673 (II A.D.), a letter concerning the quality of wine in a number of fermentation vats: a part of the wine is stored away, a quantity is found to be sour, another quantity drinkable. The fragrant wine can not yet be established. This papyrus is dated in the month Tybi. See also P.Flor. II 246* (258 A.D.), already cited in note 13: in this letter Syros orders Heroninos to supply wine to Monimos from the readier ones from the ninth and fourth vat. Apparently not all wine is drinkable yet; the fermentation process has advanced more in some vats than in others. This text, too, is dated in Tybi.

With this information the practice described in the sales of wine for future delivery is much more comprehensible: the lender will become the owner of the wine as soon as the grapes are picked and pressed, at the beginning of the fermentation process, as the wording in the sales for future delivery clearly show: the wine to be delivered is often described as wine made of unadulterated must (οἶνος νέου μούστου or οἶνος ἀπὸ γλεύκου ἀδόλου), to be delivered at the time of the harvest (ἐν τῷ καιρῷ τῆς τρύγης or ἐν τῇ τρύγῃ)²⁸. The must is put into the ferment-

Hermopolite texts. In all the sales of wine for future delivery the month of the "return" is Mesore. I think we have to conclude that the date of the taking away of the wine in P. Strasb. VII 696 is the same as the date mentioned in the guarantee clause, viz. Tybi.

²⁶ For the date of the picking of the grapes see M. Schnebel, *Die Landwirtschaft*, pp. 275-276 and P.Soc. IV, p. 57, n. 2. The Zenon text cited there is P. Cairo Zen. III 59300 in which the writer complains about a lack of preparations for the coming vintage. This text is dated on June 23. Compare also P. Ryl. II, p. 381 and the Intr. there.

²⁷ See M. Schnebel, *Die Landwirtschaft*, pp. 287-288. Cf. also SB X 10290.

²⁸ The editor of BGU XII 2176 also assumed that the buyer/lender received must which had to ferment in the period Mesore-Tybi. However, he thought that the fermentation would take place at the residence of the buyer. I do not agree with this point of view. As I have demonstrated, the borrower/seller is responsible for storage. The fermentation in κοῦφα, small vats, which should be the case if this interpretation were right, is unattested in Hellenistic Egypt (see M. Schnebel, *Die Landwirtschaft*, pp. 285ff.). Another objection is the amount of wine that the lender would get eventually: if must would be measured out the amount of wine which would be left at the end of the fermentation would be less than the amount agreed upon in the contract because of the escape of carbon dioxide. In my opinion the measurement will take place at the end of the fermentation when the wine will be collected. P.W. Pestman in his introduction to P. Grenf. II 24 (*The New Papyrological Primer* Nr. 10) also states that must will be returned at the time of the vintage which has to be laid up for fermentation for three months. This explanation seems to be contradicted by the text from the Zenon archive cited there in the note on l. 12: in that text (a letter) "someone asks Zenon on 24 September for a *keramion* of new wine "if it is already fit for use" (P. Cairo Zen. III 59349, 7)". If wine has to ferment 3 months, it would be impossible that wine could be ready in September. However, in the cited Zenon text, not wine, but ὄξος is concerned, which does not require a fermentation as long as that of wine.

tation vats at that time. This is the reason why I prefer "fermentation vat" as the translation of ληνός. The quality of the wine cannot be established at this point. The wine still has to ferment and mature. To prevent any costs or damages for the lender (who is already the owner of the wine while the wine is not fit for use) during this ripening process, the storage and the quality of the wine is guaranteed till the end of this period. It surely is no coincidence that the dates in the guarantee clause go from Tybi till Pharmouthi, that is, exactly the period the drawing-off of the fermentation vats is attested in. The correctness of this interpretation is shown by one of the sales of wine for future delivery of the Roman period, viz. P. Oslo II 43. In that text, too, the price of wine is received in advance and wine of the yield of the current fourth year will be repaid in the coming fifth year. In this text however, the date of the return is not Mesore as usual, but Hathyr (the date mentioned in the storage/guarantee clause of the Ptolemaic loans of wine), that is three months later, after the completion of the fermentation. Furthermore, there is no guarantee clause in this contract, but the lender will receive the wine ἀφ' ἧς ἐάν ἀίρηι ληνοῦ, "from the fermentation vat you will choose". One step is skipped here, that is the transference of the proprietary rights in Mesore. The lender will not become the owner of a certain quantity of must stored in a fermentation vat before the fermentation, but he will receive wine in Hathyr, when the must is fully fermented. Then he himself can establish the quality and he can even choose from different vats. Therefore the guarantee clause is unnecessary in this text. The lender does not run a risk that the wine will deteriorate in the interval Mesore-Hathyr during its fermentation since he is not yet the owner. That risk is for the borrower. The contract ends with a penalty clause in case the borrower is unable to return the wine at the time agreed upon, thus protecting the lender against any risk. Quite exceptionally, the borrower will provide the κοῦφα.

There may also be a second reason for keeping the wine in the fermentation vats for some more months. Not only the quality of the wine will improve, but the price of wine tends to rise in the months following the harvest (see P.Oxy. LI 3628-3636 Intr.), so that the lender could get a better price if he can withhold his wine until a later date. By keeping the wine stored with the borrower, the lender is not himself running the risk of deterioration in the quality of the wine. In this way, the settling of a date may also be a form of protection for the borrower: the delivery cannot be delayed forever.

Until now, the guarantee clause has been interpreted as a guarantee of the wine after the delivery in Mesore until the month mentioned in the guarantee clause (see F. PRINGSHEIM, *The Greek Law of Sale*, pp. 493-496 and the various editions of the sales of wine for future delivery). In this view the wine was at the disposal of the lender in Mesore already. The wine was supposed to "keep" and if not, the inferior wine would be replaced. I have demonstrated above a) that not the "keeping" in the sense of "durability" is guaranteed, but the storage and b) that the removal of the wine has to be dated some months after Mesore. The must, the wine-to-be, is obtained by the lender in Mesore. Both the demotic texts as well as the Greek loans and sales for future delivery refer to that date also in the guarantee clauses: if the borrower is unable to provide the wine in Mesore, he will pay a penalty. In Mesore the wine will be handed over by the borrower to the lender and put aside in a fermentation vat for some months. After the completion of the fermentation the wine can be taken away by the lender. Then the wine will be measured and put in the vats the lender has to provide and at the same time the quality of the wine can be established.

This procedure of storing the wine with the borrower is in the interest of both lender and borrower. Already in Mesore the lender will be sure that he will receive the wine he lent/bought. If not, he will receive the penalty to be paid by the borrower which enables him to buy some other wine as early as Mesore. If the wine is "repaid" in Mesore, as it should be, it will not be fit for use. It still has to ferment and mature. The risk of any deterioration during this process as well as the costs involved for the storage are for the borrower.

The borrower's interest is the fact that he is in control of the conditions that may influence the fermentation of the wine. By storing the wine himself, he can prevent any misfortune. As I have explained earlier, clean fermentation vats and avoidance of contact with air are very important to prevent the wine from obtaining a moldy taste or becoming sour. If the wine is put in the fermentation vat and kept there by the borrower during its fermentation, he can use all his skill to produce a wine of good quality, thereby evading any extra costs for replacing bad wine.

In this way the practice in Egypt would not be different from that described in Roman law²⁹. In Roman law we find the following regulations concerning the sale of wine in *dolia*³⁰ (Dig. 18.6.15):

"if the sale is concluded, but the wine is not yet taken away by the buyer, and the wine, due to its own nature, deteriorated, the seller is liable in case he has guaranteed the fitness of the wine"

The wine is deteriorated if *acor* or *mucor* are found in it (that is if the wine is ὄξος or ὄζόμενος / ὄζάριον). This is established by tasting the wine. There is no specific term within which the tasting of the wine must take place³¹. Ulpianus (Dig. 18.6.4.1) recommends the seller of the wine to insist on a time limit for the tasting, since the seller is liable for the deterioration of the wine until that tasting: if no term is agreed upon, the seller is dependent on the buyer's will. If he chooses to taste the wine at the time he collects the wine, the seller is liable for all wine that has gone bad. Furthermore, the seller has to guard the wine and bears the risk up to its measurement (Dig. 18.6.1.1).

All these elements are also found in the Greek sales for future delivery:

1. the sale is concluded before the delivery
2. the wine to be delivered has to be good
3. the wine is bought before its quality can be established, in Roman practice when the wine is still fermenting, in the Greek contracts even before the vintage
4. the buyer already becomes the owner of the wine when this is still in the fermentation vats

²⁹ For a description of the practice of the sale of wine and Roman law, see B.W. Frier, *Roman Law and the Wine Trade: The problem of "Vinegar sold as Wine"*, ZS 100 (1983), pp. 257-295, esp. pp. 274-282. A description of the production of wine in Roman Italy, based on classical sources and archaeological evidence, is given by J.J. Rossiter, *Wine and Oil Processing at Roman Farms in Italy*, Phoenix 35 (1981), pp. 345-353. It turns out that the production methods in Egypt and Italy are basically the same.

³⁰ With *dolia* the large fermentation vats are meant, the equivalent of the Greek ληνοί and πίθοι.

³¹ Only in a model-contract concerning sale of wine in *dolia* (Cato, Agr. 148, 1-8) the term for the *degustatio* is given. In this contract the wine, warranted to be free of *acor* and *mucor*, is bought soon after its pressing, tasted within 3 days, measured, paid and delivered before 1 January and removed by the buyer before 1 October. Whether the warranty holds till the delivery is disputed, see B.W. Frier, ZS 100 (1983), pp. 276-277.

5. the fermenting wine has to be stored by the seller until it has been measured
6. the seller is liable for wine which has become "sour" or "moldy" before the wine is tasted

In the Greek contracts a term is settled for the liability of the quality of the wine. In the light of all the other texts illustrating the delivery of wine and the wine trade according to Roman law, it is clear that before that date the wine will be measured and tasted. If the wine is faultless, the liability will end at this point. If there is something wrong with the wine, the bad portion will be replaced.