XI.—The Meaning of σὺν ἡμιολίᾳ and Kindred Expressions in Loan Contracts

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Σὺν ἡμιολίᾳ, *when it occurs as a modifier of the amount of the loan in the acknowl-edgment-of-receipt clause* (as opposed to the promise-to-repay clause), *means* "including 50% interest." While this formula had the undoubted advantage of brevity, it is possible that its use was dictated by more profound legal motives.

Loan agreements, which are exceedingly numerous among the papyri, have been the subject of frequent study[1] and are, on the whole, thoroughly understood, both in their technical and in their legal aspects. One type which is still sometimes misunderstood, however, is that in which the amount of the loan is qualified by the phrase σὺν ἡμιολίᾳ, σὺν διαφόρῳ or σὺν τόκῳ. Indeed, in the case of σὺν ἡμιολίᾳ misinterpretation is twofold, and the rule rather than the exception.

The individual terms involved are perfectly familiar. In the normal course of events the amount repaid on a loan might exceed the amount borrowed for one or more of three reasons. First, unless the loan were interest-free, there would be the stipulated interest (*Vertragszins*); secondly, many contracts provided a penalty, usually 50%, for failure to repay on time; thirdly, either instead of or (usually) in addition to[2] this penalty, late repayment might be subject to additional interest for the overtime (*Ver-zugszins*).

'Ημιολία, "an additional one-half,"[3] may, it is now clear, denote any of these three added amounts when they equal 50%.[4] The

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[1] For bibliography cf. R. Taubenschlag, *The Law of Greco-Roman Egypt in the Light of the Papyri* (New York, 1944) 258 note *. This work is cited hereafter simply as "Taubenschlag."

[2] Cf. Taubenschlag 262; A. Berger, *Die Strafklauseln in den Papyrusurkunden* (Leipzig and Berlin, 1911) 118–120, 123–124; below, note 63. The second work is cited hereafter simply as "Berger."

[3] Cf. Berger 19, 22–23, 55. The term ἡμιολία alone will be used in this paper for the sake of simplicity. It should be understood, however, that what is said of ἡμιολία is equally true of equivalent expressions employing the adjectival form ἡμιόλιος, "increased by one-half."

[4] It has frequently been stressed that ἡμιολία denotes an *amount*, not an *annual rate*, of 50%: cf. Berger 24, 92 n. 5, 123–124; L. Mitteis, *Grundzüge* (Leipzig-Berlin,

term occurs most often in the papyri as the penalty for failure to discharge an obligation on time.[5] But it early became apparent that in loans in kind ἡμιολία is also used occasionally to denote interest of 50%, and not merely the overtime interest,[6] which is after all a kind of penalty,[7] but even more frequently the simple contractual interest.[8] Moreover, the word sometimes appears in two of these senses, or even in all three connections, in the same document.[9]

Τόκος hardly requires comment: it is the regular Greek word for interest of any sort, usually in money.[10]

1912) 118–119; A. Segrè, *Atene e Roma* N.S. 5 (1924) 125–126. Note Hesychius and Photius, *s.v.* ἡμιολία· τὸ ἥμισυ τοῦ κεφαλαίου. Cf. also note 20, below.

[5] Cf. Taubenschlag 261–262; Berger 14–23, 55.

[6] *P. Amh.* 147 (IV/V century A.D.), 14–15 (for text and commentary see below, p. 130 and note 20); cf. *P. Oxy.* 1040 (225 A.D.), 25–26 διάφορον τοῦ ὑπερπεσόντος χρόνου ἐξ ἡμιολίας.

[7] Cf. Berger 118–120. That *Verzugszins* is really a penalty and not just a continuation of *Vertragszins* appears most clearly from *P. Oxy.* 1474 (216 A.D.), where the loan is interest-free but provides for overtime interest at the rate of half the principal.

[8] Cf. *P. Oxy.* 1040, Introd. (quoted below, p. 130); Berger 22 n. 2, 23–25, 91–92; Mitteis, *Grundzüge* 118; Segrè, *l.c.* (see note 4); A. C. Johnson, *Roman Egypt* (Baltimore, 1936) 460.

'Ημιολία (ἡμιόλιος) in the sense of "interest of one-half" is found in the papyri from the third century B.C. (e.g. *P. Cairo Zenon* 59414; quoted below, note 43) to the fourth or fifth century A.D. (*P. Amh.* 147). One-half the principal was the regular interest on loans in kind in Greco-Roman Egypt and elsewhere: cf. Mitteis, *l.c.*; Segrè, *l.c.*, who cites Assyrian and Babylonian parallels; Johnson, *l.c.*; *Codex Theodos.* 2.33.1 (325 A.D.): quicumque fruges humidas vel arentes indigentibus mutuas dederint, usurae nomine tertiam partem superfluam consequantur, id est ut, si summa crediti in duobus modiis fuerint, tertium modium amplius consequantur (cf. also the *Interpretatio*); Jerome, *Commentaria in Ezechielem Prophetam* (written at Bethlehem, ca. 400 A.D.) 6.210: solent in agris frumenti et milii vini et olei ceterarumque specierum usurae exigi . . . verbi gratia, ut hiemis tempore demus decem modios et in messe recipiamus quindecim, hoc est amplius partem mediam (Migne, *PL* 25, col. 184). Lower interest charges on loans in kind are sometimes found, e.g.: 40% — *P. Gen.* 9 (251 A.D.; text below, p. 136); 33⅓% — *P. Dem. Loeb* 3 (306/5 B.C.); P. Strassb. 71 (II century A.D.), on which see below, p. 138; *P. Fuad* 43 (190/1 A.D.); *P. Oxy.* 1640 (252 A.D.), overtime interest; and probably *P. Lond.* 218 (111 ? B.C.; text below, note 14) and *P. Flor.* 72 (128/9 A.D.), where the figures 13⅓ and 1⅓ artabs including interest strongly suggest loans of 10 artabs and 1 artab, respectively, at 33⅓% (cf. *P. Flor.* 72, 3 n.).

'Ημιολία does not occur as interest in loans of money, on which the highest interest permitted by law was 2% per month: cf. Taubenschlag 260; Johnson, *op. cit.* 450–452; Berger 118.

[9] *P. Amh.* 147, 7 (interest) and 15 (overtime interest); *P. Oxy.* 1040, 10 and 44 (interest), 24 (penalty for failure to repay on time) and 25–26 (overtime interest) — text quoted below, p. 137 and note 63.

[10] Instances are too numerous to cite: cf., e.g., F. Preisigke, *Wörterbuch der griechischen Papyrusurkunden*, *s.v.*

Διάφορον basically, of course, means "difference." Hence it too is used to denote interest (which is, after all, the difference between what the borrower receives and what he repays).[11] It too may signify either contractual interest or overtime interest, and sometimes occurs in both these senses in the same document.[12] Moreover, until the fifth century (as the evidence now stands) διάφορον, like ἡμιολία, was used only of interest in kind on loans in kind.[13]

That ἡμιολία and διάφορον are used to denote interest on loans is thus not in question. Nor is there any room for misinterpretation when the interest clause of a loan contract is expressed with legal fullness, as, e.g., in *P. Rein.* 15 (109 B.C.), 13–18: ἐδάνεισεν] . . . πυροῦ ἀρτάβας εἴκοσι ἐξ δίμοιρ[ον] . . . τόκων ἡμιολίων, ἀρτάβα[ις δεκα]τρισὶ τρίτωι, τὰς δὲ πάσας πυροῦ ἀρτάβας τεσσαράκοντα ἀποδ[ότω] ὁ δεδανεισμένος κτλ, "X has lent . . . 26⅔ artabs of wheat . . . at interest of one-half (i.e., 13⅓ artabs), and the borrower is to repay the entire forty artabs of wheat," etc. At the other extreme from such elaborate fullness of expression is a formula compressed to an irreducible minimum, in which the borrower acknowledges that he has received and will repay σὺν ἡμιολίᾳ (διαφόρῳ, τόκῳ) ἀρτάβας *x*. This abbreviated formula, which (as the evidence now stands) makes its appearance late in the second century B.C. and continues increasingly in use until the late fourth or early fifth century A.D.,[14] has suffered

[11] Cf. *P. Oxy.* 1474, 14 n.; Preisigke, *Girowesen im griechischen Ägypten* (Strassburg, 1910) 93 n. 2 and *Wörterbuch* . . . *s.v.*, where, however, the following references should be deleted, since in these instances διάφορον does not denote interest: Petrie III 129a, b [cf. p. 319], p. 195; Rein 7, 18 [cf. Introd. and Transl.]; Lond. 194, 40; Soc 398, 10; Teb 99, 51; 120, 115 [cf. 115 n.]. Additional instances: *P. Fuad* 43 and note 13; on *P. Würz.* 6 (102 B.C.) in this connection see below p. 133. Cf. also *P. Oxy.* 1628 (73 B.C.), 16, where ἀδιάφορος = "interest-free" (cf. 16 n.).

Διάφορον thus occurs in the sense of "interest" in papyri from possibly the late second century B.C. (*P. Würz.* 6, 102 B.C.; but cf. below, p. 133) to the late sixth century A.D. (cf. below, note 13). With the exception of *P. Würz.* 6 (Theadelphia) and *P. Gen.* 9 (Heracleopolite nome), the papyri exhibiting this usage all come from Oxyrhynchus — which creates at least a strong presumption that the village of Πενισεκω mentioned in *P. Strassb.* 71 (provenience unknown) was located in the Oxyrhynchite nome.

[12] *P. Oxy.* 1040, 10–12 and 43 (interest) and 25 (overtime interest); *P. Oxy.* 1474, 14 (interest) and 18 (overtime int.). Cf. *P. Oxy.* 1640, 7 (overtime interest; beginning of document lost).

[13] Only in *P. Harr.* 86 (444 A.D.) and presumably in *P. Oxy.* 1042 (578 A.D.) does διάφορον denote interest in money. In *P. Oxy.* 1130 (484 A.D.) and *P. Warren* 10 (591/2 A.D.) διάφορον is used of interest in kind on a loan in specie.

[14] A. Loans in Kind

1. σὺν ἡμιολίᾳ.

P. Teb. 110 (92 or 59 B.C.): text below, pp. 130, 135.

P. Berl. Möller 4 (= SB 7341; 3 A.D.): text and signature below, note 59.

P. Oslo 37 (295 A.D.), 6–11: ὁμολογῶ ἔ[χε]ιν . . . σοὶ <ν> ὑμιολίᾳ πυροῦ

two kinds of misinterpretation, namely:

I. σὺν ἡμιολίᾳ taken to mean "including *penalty* of one-half" instead of "including *interest* of one-half"; and

II. σὺν ἡμιολίᾳ (διαφόρῳ, τόκῳ) taken to mean "*plus* interest" instead of "*including* interest."

> ἀ[ρτά]βας πέντε μέ(τρον) a . . ., ὡς (*l.* ἀς) καὶ ἐπάνα[γκες ἀπο]δώσω κτλ; 20–21 (signature): ἔσχον τὰς τοῦ πυροῦ ἀρτάβ[ας] σρὶν ὑ[μ]ιολίας {ἀρτά-βας} πέντε μέ(τρον) a.

P. Col. Inv. No. 166 (ined.; 326 A.D.), I 6–11 and II 5–11: ὁμολογῶ ἐσχηκέναι . . . πυροῦ . . . κεφαλέου σὺν ἡμιολείας ἀρτάβας ἐνενήκοντα . . ., ὄνπερ πυρὸν . . . ἐπάναγκ[ο]ν ἀποδώσω σοι κτλ.

PSI 42 (IV century A.D.), 1–7: ὁμολογεῖ . . . ἔχειν . . . σὺν [ἡμ]ιολεία πυροῦ ἀρτάβας [τριακονταεξ] καὶ κριθῆς ἀρτάβας ἔξ, ὧν καὶ τὴν ἀπό[δοσιν ἐπά]ναγκον ποιήσεται κτλ.

P. Oslo 38 (374 A.D.), 4–10: ὁμολογεῖ] . . . ἔχιν . . . [σ]ίτου καθαροῦ σὺν ἡμιολίᾳ [ἀρτάβ(ας) τεσσα]ράκοντα ἥμισυ, ἅσπερ . . . [ἀπο]δώσι κτλ; 17–19 (signature): ἀπ(έσχον)] . . . τοῦ σίτου καθαροῦ σὺν [ἡμ]ιο[λίᾳ ἀρτάβ(ας) τεσ]σαράκοντα ἥμισοι καὶ ἀποδόσω κτλ.

P. Amh. 147 (IV/V century A.D.), 5–9: ὁμολογῶ ἐσχηκαίνε . . . πυροῦ καθαροῦ σὺν καὶ τῇ ἀνιλημμένη ἡμιολίᾳ ἀρτάβας δέκα ὀκτὼ ἥμισυ τέταρτον . . ., ἅσπερ ἐπάναγκες . . . ἀποκαταστήσω κτλ.

On P. Würz. 6 and P. A.-M. Desrousseaux see below, pp. 133–134.

2. σὺν διαφόρῳ.

P. Oxy. 1040 (225 A.D.): text below, p. 137 and note 63.

P. Gen. 9 (251 A.D.): text and signature below, p. 136.

On P. Strassb. 71 (II century A.D.) see below, pp. 137–138 and note 55.

3. σὺν τόκῳ (cf. LOANS IN MONEY, below).

P. Lond. 218 (Vol. II, p. 15; 111? B.C.), 2–5: ἐδάνεισεν . . . (πυροῦ) (ἀρτ.) ιγ γ' σὺν τόκῳ. τὸ δὲ δάνειον ἀποδότω κτλ.

P. Bad. 38 (105 A.D.), 1–3: ὁ]μ[ο]λογῶ ἐσχηκέψ[αι] . . . χρῆσιν πυροῦ [σ]ὺν τόκωι ἀρτάβας ϝἴκοσι, (γίνονται) (πυροῦ) σὺν τόκ[ωι ἀρτάβαι κ], ἃς καὶ μετρήσω σοι κτλ.

P. Lond. 975 (Vol. III, p. 230; 314 A.D.), 6–12, which should almost certainly, on the analogy of the preceding document and those in B. below, be restored: ὁμολογῶ [μ]εμετρῆ[σθ]αι . . . χρῆσιν ἔντοκον κεφαλαίου [σὺν τόκ]ῳ ἀράκο[υ] μὲν ἀρτάβας [τρεῖς καὶ] τ[.]μίου ἀρτ[ά]βην μίαν ἥμι[συ] . . . [ἐπὶ τὸ αὐτὸ τ]έσσαρας ἥμισυ. ὅμοια δὲ σ[οι μετ]ρ[ήσω κτλ; 23–24 (signature): μεμέτρημαι . . . ἀρτάβας τέσσαρας ἥμι[σ]υ καὶ μετρήσω κτλ.

B. LOANS IN MONEY (cf. esp. the wording of P. Col., P. Gen., P. Amh., P. Bad. and P. Lond. 975 in A. above; cf. also note 50 below)

σὺν τόκῳ.

P. Lips. 11 (247 A.D.), 1–3: ὁμολογῶ ἐσχηκέναι] . . . χρῆ[σι]ν ἔν[τοκ]ον . . . [κε]φαλαίο[υ] σὺν τόκῳ ἀργυρί[ο]υ δραχμὰς [χ]ειλίας [δι]ακοσ[ί]ας . . ., ἃς καὶ ἀποδώσω σοι κτλ; 12–13 (signature): ἔσχον καὶ ἀπ[ο]δώσω τ[ὰ]ς τοῦ ἀργυρίου δραχμὰς χειλίας διακοσ[ί]ας κτλ.

P. Rainer Inv. No. 2016 (publ. in CPR p. 59; early IV century A.D.), 3–7: ὁμολογῶ ἐσχηκέναι . . . χρῆσιν ἔντοκον κεφαλέου σὺν ἀνιλημμένου τόκου ἀργυρίου . . . τάλαντα ἑξακόσια τεσσεράκοντα . . ., ἅσπερ σοι ἀποδώσω κτλ; Verso (cf. Preisigke, *Berichtigungsliste der griechischen Papyrusurkunden aus Ägypten*, Vol. I [Berlin and Leipzig, 1922] 113): χ(ρῆσις)

I

When Grenfell and Hunt, in 1902, published *P. Teb.* 110, they took ὁμολογῶ ἔχειν παρὰ σοῦ πυρῶν ἀρτάβας εἴκοσι τέσσαρες ἥμισυ σὺν ἡμιολίᾳ, ἃς καὶ ἀποδώσω κτλ (lines 3–5) as signifying that "this loan is the renewal of a loan of 16⅓ artabae, which had become 24½ through failure to repay at the proper time," and referred to previously published *P. Amh.* 147 as a similar case.[15] This view — that σὺν ἡμιολίᾳ in such a context indicates the novation of a previous loan with the ἡμιολία penalty for default included in the principal of the new loan — has met with wide acceptance,[16] despite the fact (frequently overlooked) that it was challenged by Rabel as early as 1907, and that in 1910, in the light of the new and explicit evidence afforded by *P. Oxy.* 1040, Hunt reversed his original position and pointed out that "in *P. Tebt.* 110 and *P. Amh.* 147 the ἡμιολίαι should probably be . . . explained [simply as interest] rather than as fines incurred in connexion with previous transactions."[17]

The evidence amply confirms the latter view. To begin with, *P. Amh.* 147, as Rabel saw,[18] offers two grounds for rejecting the idea of novation. In the first place it is specifically stated that the loan is being made for the approaching planting.[19] Alone, this argument could be regarded as inconclusive, for it is just barely conceivable that such a statement might, intentionally or other-

. . . κεφ(αλαίου) σὺν [ἀνειλημμένου τόκου κτλ.

CPR 229 (no date given), 3–5: ὁμολογῶ ἐσχη[κέναι] . . . χρῆσιν ἔντοκον . . . [κεφαλαί]ου σὺν τόκ̣[ῳ (cf. *P. Lips.* 11, Introd.).

[15] *P. Teb.* 110, 5 n.

[16] Cf. *P. Berl. Möller*, pp. 48–49; P. M. Meyer, *Zeitschrift der Savigny-Stiftung, Rom. Abt.* 50 (1930) 530; Taubenschlag, *Zeitschrift der Savigny-Stiftung, Rom. Abt.* 51 (1931) 88, 90, and *op. cit.* 263 n. 38; U. Wilcken, *P. Würz.* 6, 13 n., *UPZ* II, p. 192 n. 1, and *APF* 13 (1939) 137–138; P. Jouguet, *Mélanges Desrousseaux* (Paris, 1937) 237. E. Weiss, in *RE s.v.* "Novatio" 17, 1161, cautiously leaves the question open.

[17] E. Rabel, *Zeitschrift der Savigny-Stiftung, Rom. Abt.* 28 (1907) 321 n. 3; A. S. Hunt, *P. Oxy.* 1040, Introd. Previously, in 1905, T. Reinach had expressed in passing (*P. Rein.* pp. 37, 38), but not developed, the opinion that ἡμιολία in *P. Teb.* 110 denotes 50% interest. Cf. also Taubenschlag, *l.c.* (see note 16) 88 n. 4; Mitteis, *Grundzüge* 117 n. 3; V. Arangio-Ruiz, *Bullettino dell' Istituto di Diritto Romano* 24 (1911) 213; Berger 91–92 (on pp. 15–16, 23, 26, however, Berger cites *P. Amh.* 147 for the latest known occurrence of ἡμιολία penalty).

[18] *L.c.* (see note 17).

[19] *P. Amh.* 147, 6–7 εἰς κατασπορὰν τῆς εὐτυχοῦς μελλούσης η ινδ(ικτίονος) πυροῦ . . . σὺν . . . ἡμιολίᾳ κτλ. Similarly, as Arangio-Ruiz pointed out (see note 17), in *P. Oxy.* 1040 the grain loaned is specifically described as derived from the last preceding harvest.

wise, be included in the novation of a defaulted loan. But the contract continues (lines 12–15): εἰ δὲ . . . τὴν ἀπόδοσιν μὴ ποιήσωμε, ἐκ{κ}τίσω σοι καὶ τῶν ὑπερπεσόντων χρόνων τὰς ὑπὲρ αὐτῶν ἡμιολείας. The important word here is καί: for to say "I will pay you *also* the 50% interest for the overtime"[20] almost surely implies "in addition to the already-mentioned 50% interest on the loan" — i.e., the σὺν ἡμιολίᾳ in line 7.

Furthermore, if σὺν ἡμιολίᾳ is taken as indicating novation, the contracts in question (note 14 A.1) are left without any mention of interest on the new obligation. Such unequivocal cases of novation as we do have regularly specify whether the novated loan is at interest or not.[21]

Completely conclusive, finally, is the evidence of *P. Oxy.* 1040 (which led Hunt to abandon the idea of novation) and the other contracts employing, in place of σὺν ἡμιολίᾳ, the parallel phrase σὺν διαφόρῳ or σὺν τόκῳ,[22] which cannot possibly mean "including penalty" but can mean only "including interest."

It is clear, then, that in contracts of loan in kind, σὺν ἡμιολίᾳ modifying the amount of the loan is not a sign of novation but means "including interest of 50%."[23] This conclusion may be of

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[20] To be sure, τὰς . . . ἡμιολείας must here mean interest "at the rate of 50%" instead of the usual "amount of 50%" (cf. note 4); but this is surely, especially in view of the late date of the document (iv/v century), a natural and understandable ellipsis for διάφορον . . . ἐξ ἡμιολίας, as it is more fully expressed in *P. Oxy.* 1040, 25–26 (cf. also *P. Oxy.* 1474, 18 διάφορον ἐξ ἡμισείας, which the editors correctly translate "interest for the overtime at the rate of half the capital," and 1640, 7 διάφορον ἐκ τρίτου, which they translate "an extra payment at the rate of one-third").

Holding insistently to the principle that ἡμιολία is an amount not a rate, Berger (92 n. 5 and 124) is led to conclude that overtime interest can be designated as ἡμιολία only when the stipulated rate and the length of the overtime period combine to equal one-half the principal. This view might hold if the expression occurred in receipts for repayment of loans, but is manifestly impossible in a loan contract, such as *P. Amh.* 147, where, the duration of a possible future delay in repayment being unpredictable, overtime interest can be expressed only as a rate.

[21] Interest-free: *P. Adl. Gr.* 4; *BGU* 1156; *P. Grenf.* ii, 27; *P. Lond.* 1766; *P. Par.* 7 (= *UPZ* 190); *P. Rein.* 8 and 31. Interest-bearing: *P. Grenf.* ii, 89; *P. Lond.* 1699 (cf. 13 n.); *P. Teb.* 818. In *PSI* 389 (242 b.c.), on the other hand, it seems, even after taking the present mutilated state of the papyrus into account, as though no specific mention of interest was made. *P. Warren* 8 (= *SB* 7663; 86 a.d.) also makes no mention of interest, but the figures in which the amount of the debt is expressed — 181½ artabs of wheat and 87 artabs of barley — look very much as though they include the usual interest of one-half ($121 + 60\frac{1}{2} = 181\frac{1}{2}$, $58 + 29 = 87$).

[22] Cf. note 14 A. 2, 3 and B.

[23] If there is a characteristic phraseology of novation, it would seem to lie in the unambiguous reference (frequently with the verb ὀφείλω or προσοφείλω) to the unpaid debt: cf. note 27 and the texts cited in note 21.

more than immediate significance, for with these contracts elimi-
nated there remains no indisputable evidence that novation in
Greco-Roman Egypt ever incorporated the penalty for the previous
default.[24] *BGU* 1156 (15 B.C.) may record such a case, but is too
lacunose for certainty.[25] *P. Par.* 7 (= *UPZ* 190) is commonly
cited as the classic example of such an arrangement.[26] This loan
of $22\frac{1}{2}$ artabs is specifically stated to represent the novation of a
previous loan of 14 artabs;[27] and the figure $22\frac{1}{2}$ has usually been
explained as consisting of 14 for the old loan + 7 for ἡμιολία penalty
+ $1\frac{1}{2}$ for interest[28] — "peut-être à tort d'ailleurs, car ce n'est pas dit
dans le texte," remarks Jouguet,[29] the only one even to question
this view in recent years. Though he pursues this doubt no
further, Jouguet carefully eschews the term "interest" and cau-
tiously speaks of the $1\frac{1}{2}$ artabs as "des frais supplémentaires."
This caution is well-founded, for interest as low as $1\frac{1}{2}$ artabs on
14 is unknown in Greco-Roman Egypt.[30] It would be much more
consistent with what we know from other sources to picture the
$22\frac{1}{2}$ artabs as made up of the old loan (14) + ἡμιολία *interest* on
the old loan (7) + unspecified extras ($1\frac{1}{2}$).[31]

[24] On the possible implication of this fact see the end of this discussion, pp. 134 f.

[25] Cf. Berger 91. In a letter to me, Dr. O. M. Pearl suggests that *BGU* 1053
(= Mitteis, *Chrestomathie* No. 105), a similarly worded contract, may present an
analogous situation, namely, one contract for 120 drachmas increased by default to
180 dr., and one contract for 120 dr., both subsumed in the new contract for 300 dr.

[26] Cf. Wilcken, *UPZ* 190, Introd. (including bibliography of previous literature)
and *APF* 13 (1939) 137–8; Taubenschlag, *Zeitschrift der Savigny-Stiftung, Rom. Abt.*
51 (1931) 88 and *op. cit.* 320 n. 4.

[27] Lines 16–20: τοῦτο δ' ἐστὶν τὸ δάνειον ὃ ἀνωμολογήσατο ἔχειν . . . ἀνθ' ὧν
προ<σ>ώφειλεν . . . (πυροῦ) (ἀρτ.) ιδ. Note, incidentally, that there is no mention
of ἡμιολία here; the term (ἡμιόλιον) occurs only in line 14, where it is laid down as the
penalty in the event of default on the present (novated) loan.

[28] Cf. Wilcken, *ll. cc.* (see note 26), who similarly regards the 13 artabs of *P. A.-M.
Desrousseaux* as consisting of 8 (old loan) + 4 (penalty for default) + 1 (interest).

[29] *L.c.* (see note 16).

[30] Cf. note 8, and the table of loans in G. Mickwitz, *Geld und Wirtschaft im
römischen Reich des vierten Jahrhunderts n. Chr.* (Helsingfors, 1932) 207–225.

[31] Cf. *P. Rein*, pp. 37, 65 n. 4, 129 n. 3; perhaps Rabel, *l.c.* (see note 17) 319
(ambiguous on this point); Mitteis, *Grundzüge* 117 and *Chrestomathie* No. 225, Introd.
Berger (91) suggests that the $1\frac{1}{2}$ artabs represent overtime interest, but the document
was drawn up on April 12, by which time interest for overtime since the preceding
harvest would be about 4 or 5 artabs. However, in this novation a daughter assumes
a debt contracted by her father, who died some time after defaulting the loan: might
the overtime interest have ceased with the original debtor's death? In Roman law,
death of the creditor could sometimes have this effect: cf. *Dig.* 22.1.9.1 (Papinian).

That the interest on the original loan was frequently included in novation is
attested by Justinian's law illegalizing the collection of interest upon interest (*Cod.
Just.* 4.32.28, 529 A.D.; cf. 7.54.3 pr. and 2, 531 A.D.).

There remain two quittances, *P. Würz.* 6 and *P. A.-M. Des-rousseaux*, in which σὺν ἡμιολίᾳ is thought to indicate the penalty included in a novated loan.[32] Though hitherto unquestioned, this view is not only a priori suspect in the light of what has been demonstrated above on σὺν ἡμιολίᾳ in loan contracts, but is open to question also on other grounds. In *P. Würz.* 6 the creditor ac-knowledges the repayment of ἃς ὠφείλοσαν αὐτῶι κατὰ συγγραφὴν δανείου ἐξαμάρτυρον πυρῶν ἀρτάβας δέκα 'δύο' σὺν ἡμιολίαι καὶ τὰ <τού>των προσ[γ]εγενημένα διάφορα (lines 12–14).[33] Wilcken took this to mean that the debtors repaid "twelve artabs of wheat, including penalty of one-half, and the interest thereupon."[34] Now it is noteworthy that διάφορα is here plural, whereas "interest" is regularly expressed by the singular, διάφορον.[35] But even if it be granted that Wilcken's interpretation renders the individual terms correctly, one cannot help wondering whether a formula which was careful to specify that the principal of the loan included a penalty for a previous default would merely allude to the interest without stating its amount.[36] Jouguet, too, though he accepted the idea of novation, was apparently not satisfied with the interpretation of these διάφορα as interest, but preferred to regard them, like the 1½ artabs of *P. Par.* 7, as undetermined "frais supplémentaires."[37] But if the διάφορα are here unspecified extras, then σὺν ἡμιολίαι can mean "in-cluding 50% interest," as in the contracts discussed above — in fact, its appearance in the quittance is probably explained by its having been copied verbatim from the loan contract, to which specific reference is made (κατὰ συγγραφὴν δανείου) — in which case the loan becomes one of eight artabs at the usual interest of one-half, and the implication of novation disappears. A parallel situa-tion where διάφορα represent not interest but some extras in addition

[32] Cf. Wilcken, *P. Würz.* p. 47 and *APF* 13 (1939) 137–8; Jouguet, *op. cit.* (see note 16) 229, 237; Taubenschlag 320 n. 4.

[33] Similarly in the signature, lines 32–36; lines 15–19 have καὶ μὴ ἐξέστωι . . . ἐπελθεῖν . . . περὶ τῶν π[ρ]ογεγραμμένων π[υρο]ῦ ἀρτ[α]β(ῶν) δέκα δύο καὶ τῶν τούτων διαφόρων.

[34] Wilcken, *ll. cc.* (see note 32).

[35] For instances see notes 11–13 and 43.

[36] As is done, e.g., in *P. Oxy.* 1042.

[37] *L.c.* (see note 16). Again (cf. note 31) one inevitably wonders whether these "frais supplémentaires" represent overtime interest. If so, they must have been very small, since *P. Würz.* 6 is dated July 11 (i.e., still in the post-harvest repayment season) — a fact which, in turn, might explain why the διάφορα are merely mentioned without their amount being specified.

to interest occurs in *P. Oxy.* 1118 (i/ii century A.D.), 6–7: τοὺς προσοφειλομένους τόκους καὶ τὰ [διά]φορα.

In *P. A.-M. Desrousseaux*[38] the presumptive evidence against novation is perhaps even stronger. In this case, we are told (lines 11–13), a cow had been given as security for the loan by means of a fiduciary sale, a procedure familiar in classical Greece (where it is known as πρᾶσις ἐπὶ λύσει) as well as in Greco-Roman Egypt (where the term is usually ὠνὴ ἐν πίστει). The object of a fiduciary sale passed immediately to the "purchaser" (i.e., the creditor of the loan), for his use during the term of the loan; he was obligated to return it upon repayment of the loan, but acquired the right to dispose of it if the loan was not repaid on time.[39] Under these conditions a ἡμιολία penalty would obviously be gratuitous, and it is in fact never found in such transactions.[40] In the case under consideration it is still possible to argue that the cow was given as security at the time of novation including penalty, rather than at the time the original loan was granted;[41] otherwise, σὺν ἡμιολίαι must mean "including interest of one-half."

To sum up: a definitive judgment on these quittances — and therefore on the larger question of the ἡμιολία in novation — is not yet possible in view of the ambiguities remaining; but, given especially the fact that σὺν ἡμιολίᾳ ἀρτάβας *x* in loan contracts means "*x* artabs including 50% interest," the burden of proof is surely upon those who would have this same expression mean something else in the quittances just discussed. What can be asserted, in any case, is that there is to date no certain evidence that the penalty for previous default was ever included in the novation of a loan in Greco-Roman Egypt — a fact which suggests that the

[38] Cf. notes 28, 32. Lines 5–10 read ὁμολογεῖ . . . ἀπέχειν . . . ἃς ὤφειλεν . . . κατὰ συγγραφὴν δανείου ἐξαμάρτ[υρον] κριθῆς ἀρτάβας δεκατρεῖς σὺν ἡμιολίαι κτλ.

[39] Cf. Taubenschlag 206–207.

[40] Cf. Taubenschlag, *ibid.* notes 7–10, for a list of pertinent documents, to which add now *P. Mich.* 328–330, 332, 335. The inapplicability of the ἡμιολία penalty in secured loans — a fact which has, I believe, hitherto been overlooked — is beautifully illustrated by *P. Teb.* 817 (182 B.C.), in which a man borrows some money, pledging his house as security: if he does not produce and guarantee the security as stated, the loan becomes payable forthwith; if then he does not repay the (now unsecured) loan, he becomes liable for the amount of the loan plus ἡμιολία penalty and overtime interest. Similarly, in *P. Rainer* Inv. No. 2016 (cf. note 14 B), since the loan is secured by a mortgage, provision is made for overtime interest but not for ἡμιολία penalty.

[41] As far as I can see there is unfortunately no way of deciding this crucial point from the text.

creditor's consent to novation of a defaulted loan may have entailed the waiver or extinction of penalties for the previous default.[42]

II

The parallel phrases σὺν ἡμιολίᾳ, σὺν διαφόρῳ and σὺν τόκῳ differ only in that ἡμιολία is restricted to interest of one-half, while διάφορον and τόκος can denote interest charges of any magnitude. Therefore, to avoid unduly cumbersome citation, ἡμιολία will be used in the discussion that follows to represent the whole group, and what is said below of σὺν ἡμιολίᾳ should be understood as applying, with the difference just noted, also to σὺν διαφόρῳ and σὺν τόκῳ.

There are a few contracts in which the borrower, after acknowledging his indebtedness, promises to discharge it σὺν ἡμιολίᾳ or μεθ' ἡμιολίας, "along with [i.e., plus] 50% interest."[43] It should be noted that in these cases the phrase σὺν ἡμιολίᾳ occurs in the promise-to-repay clause, and is an adverbial modifier of the verb "to repay." Quite different is the formula with which we are concerned — e.g. P. Teb. 110, 3–5 ὁμολογῶ ἔχειν παρὰ σοῦ πυρῶν ἀρτάβας εἴκοσι τέσσαρες ἥμισυ σὺν ἡμιολίᾳ, ἃς καὶ ἀποδώσω κτλ.[44] Here σὺν ἡμιολίᾳ is found in the clause acknowledging receipt, and is an adjectival modifier of the amount of the loan, not a modifier of the verb. Yet here too

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[42] This is, of course, an *argumentum ex silentio*, but, barring the unlikely discovery of a legal text on the subject, no other kind of argument is or will be possible in the nature of the case. It is noteworthy, however, that *novatio* extinguished *mora* in post-classical Roman law: cf. *Dig.* 46.2.8 pr. (Ulpian) (but not in classical law: cf. Γ. Α. Πετρόπουλος, Ἱστορία καὶ εἰσηγήσεις τοῦ Ῥωμαϊκοῦ δικαίου [Athens, 1944] 758 n. 21). The creditor's chief *quid pro quo* for waiving the penalty for default would be the avoidance of the potential "headaches" of collection, on which cf. *P. Oxy.* 237, VIII, 9–18 and P. Collinet, *Atti del IV Congresso internazionale di Papirologia* (Milan, 1936) 89–92.

[43] The following may serve as examples:

ἡμιολία: *P. Flor.* 54, 14–15, 17–20; cf. *P. Cairo Zenon* 59414, 6–9 ἀποδώσομεν δέ σοι ἐγ νέων ἡμιόλιον. This clause, which is simply a promise to repay with interest, must be carefully distinguished from the very common penalty-for-default clause ἐκτείσω (aut sim.) μεθ' ἡμιολίας (or ἡμιόλιον): cf. notes 5, 40, 63.

διάφορον: *P. Fuad* 43, 39–50; *P. Oxy.* 1042, 26–28; *P. Warren* 10, 14–15; cf. *P. Oxy.* 988, II, 1 ff. ἀποδώσω . . . τὰ προκείμενα κεφάλαια σὺν τοῖς συναχθησομένοις διαφόροις, where the plural διαφόροις may be due to the plural κεφάλαια. Cf. also below, p. 137 and note 55, on *P. Strassb.* 71. Similarly *P. Oxy.* 1474, 14 ταύτας ἀποδώσιν σοι χωρὶς διαφόρου.

τόκοι: *P. Oxy.* 507, 13.

ἐπικέρδεια is found in this context in the Byzantine period: *P. Lips.* 13 (366 A.D.), 18–19 (cf. 23–24) ἃ καὶ ἀποδώ[σ]ω . . . μετὰ τῆς συναχθησομένης ἐπικερδίας; similarly *P. Giss.* 53 (IV century A.D.), *P. Cairo Masp.* 67163 and 67309 (both 569 A.D.), *P. Lond.* 1737 (613 A.D.).

[44] The other texts employing this formula are listed in note 14.

σὺν ἡμιολίᾳ has sometimes been mistaken to mean "plus 50%."[45] In this erroneous view the borrower of *P. Teb.* 110 is pictured as receiving $24\frac{1}{2}$ artabs and promising to pay back $24\frac{1}{2} + 12\frac{1}{4}$, or $36\frac{3}{4}$ artabs. But, as most editors and commentators have already indicated,[46] the only sense grammatically admissible is "I acknowledge receipt of wheat to the amount, including 50% interest, of $24\frac{1}{2}$ artabs, which I will repay. . . ." In other words, the borrower received $16\frac{1}{3}$ artabs and was to repay $16\frac{1}{3} + 8\frac{1}{6} = 24\frac{1}{2}$ artabs. The figure $24\frac{1}{2}$ is not only qualified as "including the additional one-half" (σὺν ἡμιολίᾳ), but is further characterized as the amount to be repaid (ἃs καὶ ἀποδώσω).

If further proof is needed, it is provided by those cases where the formula reads σὺν τῇ ἀνιλημμένῃ (or ἐπηγμένῃ) ἡμιολίᾳ,[47] which can hardly mean anything but "with the 50% interest (already) added on."[48] And if any lingering doubt still subsists that this is what the σὺν ἡμιολίᾳ formula under discussion really means, it must be decisively dispelled by two of the texts in question, which express the contractual conditions with an explicitness that leaves no room for ambiguity. *P. Gen.* 9, a loan of money and seed, has (I, 2–10 and II, 2–9): ὁμολ[ο]γῶ εἰληφέναι[ι . . . παρὰ] σοῦ δάν[ει]ον ἔντοκον . . . λαχανοσπέρμου ἀρτάβας δέκα . . . διαφόρου τοῦ λαχάνου [ἀρταβῶ]ν τεσσάρων, (γίνονται) λαχάνου σὺν διαφόρῳ [(ἀρτ.) ιδ, ἅ]περ πάντα ἀποδώσω σοι κτλ, "I acknowledge having taken from you an interest-bearing loan (consisting of) . . . ten artabs of vegetable seed . . . at interest of four artabs of vegetables — equals, including interest, 14 artabs of vegetables — all of which I will repay . . ."; after which the borrower signs (I, 24–26 and II, 23–25) δεδάνισμαι . . . λαχάνου σὺν διαφόρῳ ἀρτάβας δεκατέσσαρας καὶ ἀποδώσω ὡς πρόκειται, "I

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[45] Reinach, *P. Rein.* pp. 37, 38 (on *P. Teb.* 110); Mickwitz, *Geld u. Wirtschaft* 207, 209, 216, 217, 219 (on *SB* 7341, *P. Bad.* 38, *P. Lips.* 11, *P. Oslo* 37 and 38, *PSI* 42, *P. Amh.* 147).

[46] Cf. C. Wessely, *CPR* p. 59 ("den Zins inbegriffen"); Mitteis, *P. Lips.* 11, Introd.; Rabel, *l.c.* (see note 17); Grenfell and Hunt, *P. Teb.* I, p. 471 ("including the additional one half"); Berger, 91 n. 5; Arangio-Ruiz, *l.c.* (see note 17); Wilcken, *P. Würz.* p. 47 ("einschliesslich der 50%") and *APF* 13 (1939) 137–8; Jouguet, *op. cit.* (see note 16) 233, 237 ("avec et y compris le(s) 50%"); H. C. Youtie and O. M. Pearl, *P. Mich.* VI, p. 102, where *P. Mich.* 399, 1–4 σίτου . . . σὺν εἰκ(οστῇ) ἀρ(τάβας) τρῖς δωδέκατον is correctly translated "of grain . . . including the twentieth, three and one-twelfth artabs." Note also how clearly "inclusive" (σὺν) and "plus" (καὶ) are distinguished in *P. Würz.* 6 (text quoted above, p. 133 and note 33).

[47] *SB* 7341, *P. Rainer* Inv. No. 2016, *P. Amh.* 147 (cf. note 14).

[48] Cf. Berger 91 n. 5. Note also the contrast between this perfect participle and the future συναχθησόμενος in note 43.

have borrowed . . . including interest, fourteen artabs of vege-
tables, and will repay as stated above." Equally explicit is *P. Oxy.*
1040: in lines 9–13 the borrowers acknowledge that they have re-
ceived ἀρτάβας τέσσαρας ἐπὶ διαφόρῳ ἡμιολίας,[49] ὡς εἶναι ἐπὶ τὸ αὐτὸ
πυροῦ σὺν διαφόρῳ ἀρτάβας ἕξ, ἅσπερ ἀποδώσω (sic) κτλ, "four artabs at
interest of one-half, so that the total, including interest, is six
artabs of wheat, which we will pay back . . ."; and further along
penalties are provided in case they do not repay as agreed τὰ]ς
προκειμένας τοῦ πυροῦ σὺν δι[αφό]ρῳ ἀρτάβας ἕξ (lines 22–23), "the afore-
mentioned six (including interest) artabs of wheat."

It is thus eminently clear that the compressed formula ἔχω σὺν
ἡμιολίᾳ ἀρτάβας *x*, like the more frequent χρῆσιν ἔντοκον,[50] has the
effect of expressing the loan in terms, not of the amount actually
borrowed, but of *the amount, including interest, to be repaid.* This is,
no doubt, similar *in effect* to the modern practice of discount, or
interest deducted in advance. But viewing the contractual situa-
tion in terms of modern practice involves a very real danger of
misinterpretation, for while discount and interest are the same in
that they both represent the difference between what the borrower
receives and what he pays back, they are different when expressed
as fractions or percentages: thus, a discount [deduction] of 50%
(from the total amount to be repaid) equals interest [addition] of
100% (on the principal), a discount of 1/3 equals interest of 1/2,
and a discount of 1/4 equals interest of 1/3.[51] The kind of error
into which it is possible to fall by thinking of σὺν ἡμιολίᾳ in terms
of discount can be seen in the case of *P. Strassb.* 71, in which a
granary-guard is instructed: μέτρησον . . . Πάσειτι . . . ἀρτάβας τρῖς
καὶ γραψάσθω τοῦ πυροῦ σὺν διαφόρῳ ἐκ τρίτου (lines 2–9). Preisigke[52]
explained this as meaning that the loan was subject to a $33\frac{1}{3}$%
discount, so that the farmer had to pay back three artabs but
actually received only two. This interpretation is impossible be-

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[49] Cf. lines 43–44 (signature), and *P. Fuad* 43, 30–31 ἐπὶ διαφόρῳ ἐκ τρίτου.

[50] Cf. G. Vitelli, *P. Flor.* 72, 3 n. For other occurrences of this expression see
Preisigke, *Wörterbuch* . . . *s.v.*, 2); cases where χρῆσιν ἔντοκον is fortified by a sub-
sequent σὺν τόκῳ are cited above, note 14 B (cf. also *P. Gen.* 9, above p. 136). Here,
too, Mickwitz, *Geld u. Wirtschaft* 208–218, erroneously takes the amount specified as
the principal of the loan.

[51] I.e.: $(1 - 50\%) = \frac{1}{2}$, but $(\frac{1}{2} + 100\%) = 1$; $(1 - 33\frac{1}{3}\%) = \frac{2}{3}$, but $(\frac{2}{3} + 50\%)$
$= 1$; $(1 - 25\%) = \frac{3}{4}$, but $(\frac{3}{4} + 33\frac{1}{3}\%) = 1$.

[52] *P. Strassb.* 71, Introd.; cf. *Fachwörter des öffentlichen Verwaltungsdienstes Ägyptens*
(Göttingen, 1915) 56, *s.v.* διάφορον 4: "im voraus bezahlter Zins, d. h. ein Zins der bei
Empfang eines Darlehens im voraus vom Darlehen abgezogen wird."

cause the mathematical operation involved in σὺν διαφόρῳ is *addition*
(interest), not *subtraction* (discount); under the terms envisaged by
Preisigke the *interest* would have been one artab on two, or 50%.[53]
The instructions to the granary-guard were: "measure out to Paseis
three artabs of wheat, and let him sign (a note) for the wheat with
interest of one-third" — which means, as Grenfell and Hunt saw,[54]
that Paseis received three artabs and engaged to repay four.[55]

Correctly viewed then, σὺν ἡμιολίᾳ (διαφόρῳ, τόκῳ) in the context
under consideration represents not "a sort of banker's discount,"[56]
but *interest added on in advance.*[57]   As already noted, the formula
ἔχω σὺν ἡμιολίᾳ ἀρτάβας x by-passes the amount borrowed and at
once couches the contract in terms of the amount to be repaid.
A certain conciseness is thus inherent in this formula, but was
conciseness its chief purpose?   The fact that by this formula the
borrower is placed in the position of *acknowledging actual receipt
of the total amount (including interest) which he promises to repay,*[58]
suggests that something more than the saving of words and paper
is at stake.   *P. Berl. Möller* 4 (= *SB* 7341) is particularly instruc-
tive in this connection: here we have the usual acknowledgment
by the borrower that he has received the full contractual sum

[53] Johnson (*Roman Egypt* 449) notes this point but fails to see that it invalidates
Preisigke's interpretation, which he accepts (cf. also 460 n. 61).

[54] *P. Oxy.* 1474, 18 n.

[55] It is at first sight tempting to conclude that the contract for this loan was,
like those discussed above, to be couched (γραψάσθω) in terms of the amount, including
interest (σὺν διαφόρῳ), to be repaid.   Such a conclusion may, however, be unwarranted.
As explained above (p. 135), σὺν διαφόρῳ means "including interest" when it occurs in
the clause of the contract which acknowledges receipt, "plus interest" when it occurs
in the promise-to-repay clause.   In *P. Strassb.* 71, since the μέτρησον clause refers to the
receiving, the γραψάσθω clause (in which σὺν διαφόρῳ occurs) may refer to the repay-
ment—in which case the γραψάσθω clause would mean, in effect, "let him agree to
repay the wheat plus interest of one-third," rather than "let him sign (that he has
received) the wheat including interest of one-third."

[56] Johnson, *Roman Egypt* 449; cf. *P. Rein.* p. 92 n. 3 ("escompte en dedans").

[57] Cf. Rabel, *l.c.* (see note 17): "Die Zinsen . . . werden vornweg zum Kapital
geschlagen und mit diesem als empfangen bezeichnet"; Berger 92; Mitteis, *P. Lips.* 11,
Introd. and *Grundzüge* 118 n. 1.

[58] So, too, in the debtors' signatures cited above, note 14, and also in the signa-
tures of a number of contracts antedating slightly the earliest instance of σὺν ἡμιολίᾳ:
P. Rein. 9, 34–35; 15, 32–33; 16, 43–44 (surely to be restored, on the analogy of the
others, ἔ[χο]μεν τὰς τοῦ [π]υροῦ ἀρτάβας δ[ιακοσίας πεντήκοντα); 22, 32–33; 23, 31–32.
"L'emprunteur se reconnaît *hic et nunc* débiteur du total d'artabes formé en ajoutant
au capital prêté l'interêt de moitié" — *P. Rein.* p. 37; cf. Rabel, *l.c.* (see note 57).
Similarly, in the quittance issued upon repayment, the creditor acknowledges receipt
of the amount "which he lent": cf. *P. Rein.* 12, 3; 13, 6; 25, 7; 27, 1–2.

including interest (in this case, six artabs), followed by another
clause reiterating that he actually received the six artabs at the
time of the signing of the contract, after which the six artabs are
twice specifically termed "the loan" to be repaid.[59]   The clue to
this seemingly inordinate insistence on identifying the loan with
the amount to be repaid is found, I think, in those of the contracts
which go on to stipulate the penalties to be exacted in case of failure
to repay as agreed.   In *P. Lond.* 218, *P. Teb.* 110 and *SB* 7341
this penalty is a sum of money for each artab; in *P. Oxy.* 1040 it is
"an additional one-half" and overtime interest; *P. Rainer* Inv.
No. 2016 and *P. Amh.* 147 provide for overtime interest.   On
what were these penalties calculated?   Obviously on the amount
of the loan.[60]   But what was the "amount" of the loan?   Was it
the amount borrowed or the amount to be repaid?[61]   If this were
not made clear in the contract, a debtor in default and facing
execution proceedings might conceivably claim that penalties should
apply only to the principal and not to the interest.   This is, indeed,
specifically provided by some contracts.[62]   Others are equally
specific in making penalties apply to principal + interest, or the
amount to be repaid.[63]   This same effect is achieved with greater
simplicity but equal finality by the σὺν ἡμιολίᾳ (διαφόρῳ, τόκῳ) for-
mula, which, glossing over or omitting entirely any mention of the
principal borrowed, establishes from the start the amount to be
repaid as "the amount of the contract."   Perhaps this, rather than
brevity, was the primary purpose of the σὺν ἡμιολίᾳ formula.

[59] Lines 5–12: ἐδάνισεν . . . κριθῆς . . . ἀρτάβας ἐξ σὺν τῇ προσηγμένῃ ἡμιολίᾳ, ἃς
καὶ εἴληφεν παρ' αὐτοῦ παραχρ[ῆ]μα ἅμα τῇ συγγραφῇ ταύτῃ τιθεμένῃ κυρίᾳ. τὸ δὲ
δάνηον τοῦτο, τὰς ἐξ ἀρτάβας τῆς κριθῆς, ἀποδώτω κτλ; lines 31–37 (signature) ἔχω
. . . τ[ὸ] δάψιον, τὰς τῆς κριθῆς . . . ἀρτάβας ἐξ σὺν τῇ προσηγμένῃ ἡμιολίᾳ . . ., ἃς
καὶ ἀποδώσω κτλ.   Möller's explanation (p. 50) is perforce sophistical, because
it is based on the unreal assumption of a novation (cf. above, pp. 130–135).

[60] Cf., e.g., Berger 118: "ἡμιολία des Darlehensbetrag"; *P. Amh.* p. 180: "the due
sums greater by half."

[61] This question has received scant attention in the many studies on loans.   The
evidence would probably repay a thorough study.

[62] The expression is ἀποτίνειν τὸ μὲν δάνειον ἡμιόλιον (or σὺν ἡμιολίᾳ), τὸν δὲ τόκον
ἁπλοῦν: cf. e.g. *P. Mich.* 190 (172 b.c.), 22–24; *SB* 7532 (74 b.c.), 16–19; *BGU* 1147
(14/13 b.c.), 16–17.

[63] E.g. *P. Oxy.* 1040, 20–26 ἐ[ὰν] δὲ μὴ ἀποδῶ καθὰ ἐγραψάμε[θα τὰ]ς προκειμένας τοῦ
πυροῦ σὺν δι[αφό]ρῳ ἀρτάβας ἐξ, **ταύτας** { <σ>οι} ἐκτεί[σω σ]οι μεθ' ἡμιολίας καὶ διάφορον
{[δι]άφορον} τοῦ ὑπερπεσόντος χρόνου [ὁμοί]ως ἐξ ἡμιολίας.   Similarly τὰ **τούτων** διάφορα
in *P. Würz.* 6 (cf. above, p. 133 and note 33).   Cf. also *P. Rein.* p. 38 on *P. Rein.* 9
and 10.