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A SURVEY OF ἀπλῶ, δι(δι)πλῶ AND τριπλῶ MEASURES IN THE PAPYRI

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A SURVEY OF ἀπλᾶ, δι(δι)πλᾶ AND τριπλᾶ MEASURES IN THE PAPYRI

§ 0, Introduction:

It is well known that the documentary papyri from Graeco-Roman Egypt present in connection with the names of jars, measures and containers a number of terms for indicating a multiple of a basic standard measure. In an earlier paper¹ N. Kruit and I reviewed (pp. 105-110) already various metrological terms like ἡμίχους, δίχους, τρίχους, τετράχους etc. and the μονό-, δί-, τρί- and τετράχωρον. In this survey I shall discuss² the evidence concerning jar names ending in -πλοῦν available in the Duke Data Bank on Documentary Papyri (PHI CD-ROM # 7, accessed via 'Silver Mountain Software for PHI'). To be sure, I have not made an exhaustive effort to scrutinize all not yet indexed papyrological text editions as, e.g., SB XX (## 14069 - 15202) and I do not claim to have used recent journal publications exhaustively. Even so, I venture to think that most of the relevant evidence is surveyed.

§ 1, The ἀπλοῦν:

Before all it should be noted that in 13 texts belonging to the Heroninus archives (III^p)³ the phrasing 'ἀπλᾶ μονόχωρα *n*' indicates the total number of basic units (the μονόχωρον) resulting from a conversion of previously mentioned δίχωρα into [εἰς!] μονόχωρα; cf. P.Flor. II 209.5, 210.8, 254^v.8; P.Lond. III 1210.11,15,18; P.Prag. II 129.4; SB VI 9052.31, 9072.33, 9079.6,10, 9409 (7).50,53,56,80,92, 9415 (26).3; XII 11035.7-8;⁴ XIV 11555.iii.35, 12054^v.ii.138; the basic multiplication factors are: 1 Ὀξυρυγχίτιον = 1.5 μονόχωρον; 1 δίχωρον = 2 μονόχωρα. At first sight, SB XIV 11555 (= a re-edition of P.Flor. II 148^v), presents a problem; the text mentions (ll. 32-35)

0095 μονόχωρα =	0095	μονόχωρα +
0561 δίχωρα =	1122	μονόχωρα +
1215 Ὀξυρυγχίτια =	1822.5	μονόχωρα +
	1039	ἀπλᾶ μονόχωρα

The total, however, should be 3039<.5>. The half μονόχωρον may have been disregarded by the scribe, when it came to adding up thousands of μονόχωρα.⁵

Furthermore, individual attestations of the ἀπλοῦν / ἀπλοκέραμον are found in 10 more papyri: SB VI 9029.4 (Arsin., III^p); SB XVI 12283.1-2 (Arsin., IV^p); CPR V 26.786,790,792,1008 (Hermop., V^p)⁶; P.Herm. 38.10 (Hermop.?, V^p); P.Leipzig 27^v.3 (Memphites?, III^p); P.Oxy. XLIX 3515.5 (Oxy., late III^p; ἀπλοκέρ.); L 3595.20 (Oxy., mid III^p; ἀπλοκέρ.); P.Vindob.Sijp. 26.16 (Oxy., III^p)⁷; P.Neph. 38.17,20,24 (Prov. ?, IV^p)⁸; SB XIV 12061.1-4 (Prov.?, IV^p).

¹ Published in Archiv f. Papyrusforschung 45 (1999) 96-127.

² I am most grateful to my colleague N. Kruit (Leiden) for various suggestions for improvement of the interpretation of individual documents and the presentation of a number of texts occurring in this paper.

³ On these archives see especially the study of D. Rathbone, *Economic Rationalism and Rural Society in 3rd century A.D. Egypt*, Cambridge 1991.

⁴ At first sight the restoration οἶν[ον ἀπλᾶ μονό]χωρα 1[50] may seem fairly gratuitous, but it is supported by sufficient parallel documents.

⁵ The remark made in CdE 55 [1980] 210 ad P.Flor. II 148^v.35: 'die Zahl ist mir unverständlich' seems to have been made only on the basis of a misunderstanding of how the calculation should be made. With his customary promptness R. Pintaudi checked the original papyrus and reported (by e-mail d.d. 6.v.2000) that there is no question that the gamma in the total amount Γ[ιθ]λθ (instead of Α[ιθ]λθ) is indeed correct. I am, of course, most grateful to Prof. Pintaudi for his kind help in this matter.

⁶ These 4 entries occur among numerous διπλᾶ entries; the text mentions also the terms ἀγγεῖον, κνίδιον and κοῦρι.

⁷ For this text cf. N. Kruit - K.A. Worp, *Geographical Jar Names*, Archiv [fn. 1] 46.1 (2000) fn. 111 [forthcoming].

⁸ The ἀπλοῦν is mentioned in this text next to entries for διπλᾶ, or (a few times) it is being followed by οἶνου κνίδια *n*; despite the 'lay-out' of the papyrus in ll. 15-17 (cf. the editorial comment ad loc.) it seems simpler to separate in l. 17 the element 'οἶνον κνί(δία) θ' from the preceding ἀπλ[ο]ῦν.

Analyzing these attestations one finds, next to the ἀπλᾶ μονόχωρα from the Heroninus archive,⁹ the terms ἀπλοῦν / ἀπλοκέραμον used in the period III^p – V^p in various provinces of Roman and early Byzantine Egypt. In contradistinction to the διπλοῦν (cf. below) there are next to the ἀπλᾶ μονόχωρα or ἀπλᾶ κεράμια no other combinations of ἀπλοῦν with another noun.¹⁰ Ἀπλᾶ were apparently used predominantly for packing wine; there are no attestations of other commodities packed in ἀπλᾶ. Actually, there are no straightforward indications for the actual size of a ἀπλοῦν, but it can be argued that in Roman Egypt the standard ἀπλοῦν contained 4 χόες; the terms ἀπλοῦν / ἀπλοκέραμον stand, of course, in opposition to the διπλοῦν / διπλοκέραμον of 8 χόες, i.e. 2 ἀπλᾶ = 1 διπλοῦν/ διπλοκέραμον.¹¹ It can also be argued that after the disappearance of the χοῦς as a standard measure of capacity¹² and its replacement by the *sextarius*/ξέστης, a standard ἀπλοῦν counted 4 *sext.* or less (διπλᾶ are known to have counted 4.5 – 8 *sext.*, cf. below, p. 148). One might argue that ἀπλᾶ are to be taken as ‘half’ διπλᾶ (cf. the situation in CPR V 26 and P.Neph. 38, perhaps also in SB XVI 12283); after all, the latter appear to be a far more common standard measure of reference in Egypt.¹³

§ 2, The διπλοῦν:

Attestations of διπλᾶ are found in a substantial number (approximately 120) of Greek documentary papyri and ostraka.¹⁴ The amounts of these διπλᾶ run from 1 single διπλοῦν to several thousands of διπλᾶ (the largest I encountered is given in PSI VIII 953.5: 36,700 διπλᾶ). As a complete listing of all attestations will be tedious I limit myself to some first observations. Scrutinizing the available evidence I find that the earliest attestations of διπλᾶ date from II^p, viz. P.Diog. 13, 14; P.Oxy. III 520; O. Bodl. II 2321, 2328; O.Brux. 20; O.Stras. 621, 622; WO II 1479, 1483; SB XIV 11960, while the latest attestations come from VII^p (cf., e.g., P.Apoll.). As with the ἀπλᾶ, there are no διπλᾶ attested in Ptolemaic Egypt; ‘double’ measures coming close are the Διλέσβια from P.Cair.Zen. IV 59684.2 and PSI V 535.28 (these apparently have 2x the size of a single Λέσβιον¹⁵).

As far as fractions are concerned I note that, while a noun *ἡμιδιπλοῦν* is not attested, fractions of a ‘half diploun’ [= 1 ἀπλοῦν], do occur sometimes;¹⁶ furthermore, one finds sometimes the fraction ‘1/3 διπλοῦν’ in some lists of wine distributions.¹⁷ Smaller fractions of διπλᾶ may result from arithmetical operations while calculating the daily rations provided to a given number of people for a number of

⁹ In these papyri one finds the natural opposition of μονόχωρα vs. δίχωρα [i.e. that of a 4-chous vs. an 8-chous jar]; on these jars/measures cf. Archiv [fn. 1] 45 [1999] 126-127.

¹⁰ Like, e.g., a hypothetical combination ‘Κνίδιον ἀπλοῦν’ occurring next to the Κνίδιον διπλοῦν (for which cf. below).

¹¹ Cf. Archiv [fn. 1] 45 (1999) 119.

¹² In the 4th/5th century A.D., cf. Archiv [fn. 1] 45 [1999] 118 fn. 29.

¹³ One only has to take into account the restricted number of ἀπλᾶ attestations versus the much larger number of διπλᾶ attestations. In passing I note here that apparently there are no instances of the ἀπλοῦν in Coptic documents. One finds a term ⲥⲓⲡⲗⲟⲩⲛ in at least three published ostraka, two from Wadi Sarga (WS 123.14,17; 164.9) and one from Medinet Habu (published by R. Engelhard in Annales du Service 21 [1921] 124). This is explained by C. Kuentz as the Lat. *simpulum*; one might argue that it is the equivalent of the Greek ἀπλοῦν. At the same time the question arises why one does not encounter some term like *σίπλουν in late Byzantine Greek papyri, and why the Coptic population of Egypt would have used a Latin term for a jar type, if there existed already a Greek term for the same jar. Non liquet.

¹⁴ Like with the alternation ἀπλᾶ / ἀπλοκέραμα there exists next to the διπλοῦν also a term διπλοκέραμον (on the correct form of the noun cf. O.Claud. II 280.7n.) found in Oxyrhynchite papyri (cf. already Archiv [fn. 1] 45 [1999] 119 fn. 32 for P.Oxy. XIV 1735.5, 1751^v.3; XLIX 3515.5,7,8, 3520.4,6,10,11, 3521.3,6; L 3595.12,47, 3596.12,17,30,35, 3597.9,42; P.Vindob.Sijp. 26.16) and in some ostraka from the Thebaid and Mons Claudianus, cf. O.Bodl. II 1859.13, 2487.4, 2525.3; WO II 1166.4; O.Claud. II 280.7.

¹⁵ For this measure, cf. N. Kruit - K.A. Worp, *Geographical Jar Names*, § 3.1, Archiv f. Papyrusforschung 46.1 (2000) [forthcoming].

¹⁶ Cf. P.Amst. I 78.3,4,6,8; P.Princ. II 88.2,4; PSI VIII 953.3 and O.Stras. 653.

¹⁷ Cf. P.Amst. I 78.10 and the note to P.Neph. 38.14, δι[π](λᾶ) βγ: „über γ steht kein Strich, um die Zahl als Bruchteil zu kennzeichnen. Wenn man nicht trotzdem ‚2 1/3‘ verstehen soll, könnte γ als Korrektur zu β gemeint sein“.

days; cf. in particular P.Oxy. XVI 1920, presenting fractions of 1/2, 1/4, 1/8, and 2/3, 1/3, 1/12, 1/24 διπλᾶ (note the 2 series of fractions).

Products packed in διπλᾶ are:

(a) Liquids like wine, must, vinegar, etc.:

οἶνου διπλᾶ = very common; one finds the following further specifications:

οἶνου εὐαρέστου διπλᾶ: P.Neph. 34.3

οἶνου νέου ἐπιτηδείου διπλᾶ ἐκ ξεστῶν 7: P.Select. 2.7,8

οἶνου νέου ἐπιτηδείου διπλᾶ πενταξεστιαῖα: P.Coll.Youtie II 93.8

οἶνου νέου εὐαρέστου ἐπιτηδείου ἐπιχωρίου διπλᾶ: SB XVI 12639.17,19

οἶνου παλαιοῦ διπλᾶ: P.Apoll. 94.1; P.Erl. 111.10 (cf. Archiv [fn. 1] 45 [1999] 109); P.Soc. III 191.2,3; O.Stras. 658.2-5,8

μούστου διπλᾶ: P.Erl. 111.11 (cf. Archiv [fn. 1] 45 [1999] 109)

ῥξους διπλᾶ: P.Soc. VIII 953.2.4,6,9,12,14,37

σταλάγματος διπλᾶ: P.Oxy. XVI 2051.6ff. (σταλάγματος = στάγματος? Cf. ZPE 84 [1990] 69-74)

(b) Fish sauce (Garum):

γάρου χυδαίου δι(πλ.): P.Erl. 111.15 (cf. Archiv [fn. 1] 45 [1999] 109)

(c) Fish:

θρισσιῶν δ(ιπλᾶ) σφραγ(ισθέντα): P.Oxy. XVI 1923.9

(d) Pickled preserves:

ταριχίων διπλᾶ: P.Oxy. III 520.6,8,11,21

(e) Turnips (probably pickled):

γογ]γυλιδίων σε...να δι(πλοῦν) α: P.Erl. 86.8¹⁸

(f) Meat:

κρεῶν δ(ιπλᾶ) σφραγ(ισθ.): P.Oxy. XVI 1923.10; κρέως δι(πλᾶ) (l. δι(πλοῦν)) α: P.Erl. 86.7 (cf. fn. 18)

(g) Coins:

κέρματος διπλοῦν κνίδιον 1: P.Oxy. XXXIV 2729.11 (on packing coins in jars cf. P.Hamb. IV 267)

Special qualifications of/found with διπλᾶ are:

διπλᾶ γαρηρά ('for garum'):

P.IFAO II 12.b (for this text cf. Archiv 45 [1999] 109)

διπλᾶ κεράμια (= διπλοκέραμα?)

Διπλᾶ κεράμια only in CPR VI 62.4 (Hermop.), SPP VIII 1177.3 (Hermop.?); SB VI 9029.2 (Fayum). For διπλοκέραμα cf. fn. 14.

διπλᾶ, sc. Κολοφώνια:

SB I 2094¹⁹

διπλᾶ κοῦφα 'empty'?:

P.Lond. V 1656.6,7,13²⁰; WO II 1483.6

διπλᾶ μεγάλα 'big':

SB VIII 9683.19

διπλᾶ μικρά 'small':

CPR XIV 51.3 (+ λάη μεγάλα)

διπλᾶ μoustάρια 'for must':

SB XVIII 13922.2

As to the size of a διπλοῦν in Roman Egypt, it probably contained 8 χόες = ± 26.25 l (cf. above, fn. 11). In Byzantine Egypt, however, the situation is not so simple. One finds in papyri from this period (i.e. from the late IVth/early Vth century onwards):

(1) διπλᾶ sizes ranging between 4.5 and 8 sext. (i.e. between ± 2.5 - ± 4.3 l);²¹

(2) equivalences like 'n διπλᾶ = n Κνίδια' or v.v., 'n' being the same number in both cases);

(3) references to διπλᾶ Κνίδια.

¹⁸ The *ed.princ.* prints in this and in the previous line (7): δι(πλᾶ) α. For the product cf. D. Hagedorn in ZPE 71 [1988] 286-87 ad CPR IX 28.3, κογκυλιδίων διδιπλοῦν 1. Unfortunately I cannot find a solution for the problematic reading 'σε...να'.

¹⁹ For this text cf. Archiv 45 [fn. 1] (1999) 119 fn. 32 and N. Kruit - K.A. Worp, *Geographical Jar Names*, § 3.2 s.v. Κολοφώνιον (forthcoming in Archiv 46.1 [2000]).

²⁰ For this text cf. N. Kruit - K.A. Worp, *Geographical Jar Names*, § 3.2 s.v. Θηβαϊκόν (forthcoming in Archiv 46.1 [2000]).

²¹ Hence, starting out from an 8-sext. *diploῦn* an amount of 36,700 *dipla* in PSI VIII 953.5 (cf. above, p. 146) would be the equivalent of as much as ca. 158,000 liter.

To complicate things further, the Κνίδιον itself shows considerable variations in size, i.e. between 3 – 8 *sext.* (= ± 1.5 - 4.3 l). Categories ‘1’ and ‘2’ may overlap each other, but at the same time there may be, then, a conflict with category ‘3’, i.e. if in a papyrus a basic Κνίδιον would have counted 8 *sext.* (hence a double Κνίδιον would have counted 16 *sext.*); the calculation works out well only if the Κνίδια of category ‘3’ counted 3 or 4 *sext.*, hence their doubles would have counted 6 or 8 *sext.* So much seems certain that in many individual cases it is not easy to conceptualize the precise relationship of Κνίδια and διπλᾶ.²²

Finally, one finds (cf. already Archiv [fn. 1] 45 (1999) 117 fn. 28) also the equivalence ‘διπλᾶ *n* = σηκώματα *n*’ (cf. above sub ‘2’) and in P.Prag. II 149.3-5 (V^p) the equation διπλᾶ 59 = καμήλια [= ‘camel cargos’] 3, i.e. 1 camel carried ± 20 διπλᾶ. As far as their weight is concerned, there is not necessarily a problem with this, even if the *dipla* were 8-*sext.* *dipla* of 4.3 l each, because a camel could carry about 180 - 200 kg. (cf. W. Habermann in MBAH 9.1 [1990] 50-94, esp. 82-83).

Finally, the διπλοῦν is also encountered in a substantial number of Coptic documentary texts, practically always as a wine measure (except in **BM** 696 [ῥξος] and **ST** 255.10 [λαψάνη]), viz.:²³ **BKU** II 278.6; III 364.6; **BM** # 561²⁴, 613, 688, 691, 696 (ῥξος?); **CMSS** 30.7, 45^{sp. 1, sp.2}; **CO** 234 - 236 (p. 60), 464 (p. 43), 509 (p. 46), Ad 30 (p. 45); **CPR** II 227.6, 228^{v.7-11}²⁵; XII 4.8,9,11,31,40; **Ep** II 84A.10, 101.11.18, 436.2?, 548.18; **Hall** pl. XXIV # 2.3; pl. XL # 1.5; pl. LXXXIX 1^{v.8}; **KOW** 31.6, 58.2, 138.1,3; **KSB** I 35.3, 275.6; **KTM** 81.10; **Mich** IV.19.2²⁶; **OMH** 155.8; **ST** 131.1,3, 255.10 (λαψάνη), 327.7.10,11, 350.9, 351.10; **Tor** IV 43.5-7,9-10²⁷; **VC** 123.1-14 passim; **BASP** 19 (1982) 64-65.30 (commodity?); *Aegyptus* 74 (1994) 77-78.2-3; cf. also *ibidem*, 89.3,4,7 and 81.4n. The Coptic documents do not give any further information on the size of a διπλοῦν.

§ 3, The διδιπλοῦν:

Unambiguous attestations of this measure²⁸ are found in the following documents (listed in chronological order): BGU XII 2175.8 (V^p; cf. BL VII 24); SB XIV 12050.18 (V^p); CPR IX 28.3 (VI^p; cf. BL IX 70); XIV 4.9,10 (VI^p); SB XIV 12132.14 (VI^p; the commodity was probably wine?), XX 15202.verso + BL X 234 (VI^p) and P.Wash.Univ. II 105.3,4 (VI/VII^p).

Cf. also

P.Rain.Cent. 151 ^{v.4,6} (IV/V ^p):	κυλι() διδι(πλᾶ) β αμ. ννιλα; διδι(πλᾶ) β
SPP VIII 1022.3 (IV/V ^p):	οἶνου διδι(πλᾶ) - (Ed.: ‘διπλᾶ’)
SB XVI 12841.5 (V ^p):	οἶνου διδι(πλᾶ) 9 (Ed.: ‘διπλᾶ’)
P.Köln IV 192.8 (V/VI ^p):	οἶνου διδι(πλᾶ) 50

In the case of the abbreviation ‘διδι’ in these four texts there is the question whether in all of them one should resolve ‘διδι(πλᾶ)’ or understand the abbreviation simply as ‘δι(πλᾶ)’, with the letters ‘δι’ written twice for indicating the plural;²⁹ the latter view was apparently adopted by the editors of SPP VIII 1022.3 and SB XVI 12841.5, and it may also be adopted for the P.Rain.Cent. 151^{v.4,6} (cf. ed.’s note to l. 4 and Taf. 106; in both ll. 4 and 6 one sees 2x a delta written on top of a iota) and for P.Köln

²² For this complicated situation cf. N. Kruit - K.A. Worp, *Geographical Jar Names*, § 3.2 s.v. Κνίδιον (forthcoming in Archiv [fn. 1] 46.1 [2000]). For their capacity in terms of *sextarii* cf. already Kruit & Worp in Archiv [fn. 1] 45 [1999] 116-117. In Roman Egypt the capacity of a *Knidion* ranged between 4 – 12 χόες [1 χόης = 6 *sext.* = 3.28 l]).

²³ I note with special gratitude that I owe the underlined references to the kindness of Dr. H. Förster (Vienna). In passing I observe that in Greek papyri λαψάνη is packed predominantly in κολοβά or ἀγγεῖα.

²⁴ Crum: διπλ(οκέραμον), but this resolution of the abbreviation is not self-imposing, cf. above fn. 14.

²⁵ The editor’s translation is incomplete; the text would benefit from re-publication.

²⁶ The ed.’s note ad loc. is incorrect; cf. l. 5, where one finds κνίδιον.

²⁷ ΔΙ/ ΔΙ/ probably error for ΔΙ/ΔΙ/; cf. below, sub διδιπλοῦν.

²⁸ P.J. Sijpesteijn was the first to discover it, cf. his papers *A New Measure: The διδιπλοῦν*, *Aegyptus* 55 [1975] 54-47 and *The Measure τὸ διδιπλοῦν*, *ZPE* 48 (1982) 124.

²⁹ In principle they should all be treated identically. Cf. also BGU XII 2179.4,6 + BL VII 25: δ/δ/ = δ(ι)δ(ιπλᾶ)? Ed.: „wohl Kürzung von δ(ια)δ(οθέντα)“.

IV 192.8 (cf. Taf. XXIa: δι/ δι/ is clearly visible). On the other hand, P.Wash.Univ. II 105.3,4 (cf. pl. XXVIIb) features 1 single διδι(πλοῦν) written as ‘2x delta on top of a iota’, like in P.Rain.Cent 151^v.4,6. The same problem is presented by the Coptic ostrakon **Tor** IV 43.5-7,9-10, in which the reading ΔΙ/ ΔΙ/ probably contains an error for ΔΙ/ΔΙ/; is this to be resolved as δι(πλᾶ), or as διδι(πλᾶ)?

The term διδιπλοῦν, seen to occur in Greek texts from the Vth - VI/VIIth century³⁰, is also found with certainty in (at least) four Coptic texts, viz. **BKU** I 94.4, **CO** Ad 17.10 (translation p. 26), **Ep** II 301.7 (transl. p. 234; cf. also fn. 1), and **Hall** 67 # 3.3 (cf. **Ep** II 301.7n.). While in these 4 texts the διδιπλοῦν is used exclusively for packing wine, the Greek papyri feature much the same practice, though here there is at least one exception, viz. CPR IX 28.3, κογκυλιδίων διδιπλοῦν 1³¹.

The size of a διδιπλοῦν should be, of course, twice that of a διπλοῦν (for its sizes see above). In theory that could mean that in Roman times a διδιπλοῦν of 2 x 2 x 4 χόες would have contained as much as ca. 52.5 l. That, however, would probably make it a jar too heavy to handle, because one also has to reckon with the weight of the ceramics making the jar itself. Διδιπλᾶ are, however, attested only in Byzantine Egypt and we probably are dealing, then, with a jar containing (2 x 8 =) 16 *sext.* (at 0.546 l/each) = approx. 8.75 l; that is, of course, reasonable enough.³²

§ 4, The τριπλοῦν:

Attestations of τριπλᾶ occur apparently only in a few late VII^p texts from Edfu, viz. P.Apoll.Ano 93 A.1,2, B.10, C.2; 97 A.3,17, D.3, E.8. All of these τριπλᾶ are stated to be containers of wine. The basic question concerns the reference measure, to which the multiplier ‘3x’ refers. By the 7th century A.D. the χοῦς as a basic reference measure for liquids is no longer in use,³³ hence the τριπλοῦν should NOT be assumed to contain (3 x 4 =) 12 χόες, i.e. ± 39 l. (for 1 ἀπλοῦν = 4 χόες, cf. above). In principle one should reckon with amounts of 3x the size of a standard jar which is in common use in late Byzantine/early Arabic Egypt, e.g. the *Knidion* (cf. above for the link between that measure and the term διπλοῦν); on that basis one may calculate the size of 1 single τριπλοῦν as (3 x 8 =) 24 *sext.*, i.e. ca. 13 l; again, that seems reasonable enough.³⁴

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³⁰ Its attestations are, therefore, much later than the first attestations of the διπλοῦν, which come from the IInd century A.D.

³¹ Cf. BL IX 70 and above, fn. 18. To be sure, I have not been able to determine the product mentioned in P.Rain.Cent. 151^v.4,6.

³² For the full weight of the content + the jar itself cf. the approximations in Archiv [fn. 1] 45 (1999) 125 fn. 47: in the case of a διδιπλοῦν of ca. 52 l the jar itself might be assumed to have a weight of approx. 19 kg (= 26.7% of full weight), in the case of a διδιπλοῦν of ca. 8.75 l the jar itself may be assumed to have a weight of 4.75 kg (= 35% of full weight). NB: there appear to be no attestations in Greek of a metrological unit the *τετραπλοῦν (strictly speaking the equivalent of a διδιπλοῦν qua size).

³³ Cf. Archiv [fn. 1] 45 (1999) 118, fn. 29.

³⁴ A unit of 8 *sext.* was apparently a kind of benchmark in Byzantine Egypt, cf. the table in Archiv [fn. 1] 45 (1999) 116; to be sure, units of smaller numbers of *sext.* occur as well, cf. *ibid.* At least in theory there exists the possibility that, unlike the διπλοῦν, the term τριπλοῦν should by no means be linked directly with the Κνίδιον as a general standard. Therefore, one might also reckon with τριπλᾶ being, e.g., 3x the σπάθιον of 14 - 22 *sext.*, 3x the μάρις/μάριον of 19/20 *sext.*, 3x a λαγύνιον of 20 *sext.*, 3x a Σαίτιον of 18 - 22 *sext.*, or perhaps even 3x a Κόλλαθον of 25 *sext.*, i.e. with amounts ranging between 3 x 14 x 0.546 = ± 23 l and 3 x 25 x .0546 = ± 41 l (for the capacity of these jars in terms of *sextarii* cf. Archiv [fn. 1] 45 [1999] 113 fn. 24). Of course, to these amounts one should add the various weights of the empty jars themselves (for their calculation cf. Archiv fn. 1] 45 [1999] 125, fn. 47). While a single jar containing ± 41 l may turn out to be just a bit too large (though a μετρητής, the largest single metrological unit in Hellenistic Egypt, is known to have a capacity of ± 39 l, i.e. 2 l less), a vessel of 60 *sext.* would contain 32.75 l, i.e. well within the maximum limit of the metrological system used in Antiquity for liquids. Even so, I am inclined to consider such equivalences of the τριπλοῦν unlikely.