PHILIP MAYERSON

Α N OTE ON P. Col. x 280.14: κενώματα μέτρ ϕ οἰνικ $\hat{\phi}$ κοτυλ $\hat{\omega}$ ν δεκαεννέα

aus: Zeitschrift für Papyrologie und Epigraphik 132 (2000) 255–256

© Dr. Rudolf Habelt GmbH, Bonn

Α ΝΟΤΕ ΟΝ Ρ. Col. Χ 280.14: κενώματα μέτρω οἰνικῶ κοτυλῶν δεκαεννέα

P.~Col.~280, dated to 269-277, seemingly from Oxyrhynchus, is a well crafted lease or labor contract for a vineyard which the editor has taken pains to restore from similar Oxyrhynchite documents. Unfortunately, the financial arrangements found in lines 3-10 are poorly preserved, but from the context of the document it appears certain that the lessor of the vineyard was to receive a quantity of wine as part of the arrangement. In contracts of this kind as well as in sales of wine, it was a common practice for the recipient to provide empty jars ($\kappa \epsilon v \dot{\omega} \mu \alpha \tau \alpha / \kappa c \dot{\omega} \phi \alpha)$ which were of unstated capacity. P.~Col.~280 is unusual in that the contract specifies that empty jars provided by the lessor were to hold a precise number of cotylae. The agreed upon number of jars or the amount of wine to be provided was undoubtedly stated in the lost lines 3-10. It is this stated specification of cotylae per jar that calls for comment on the metric value of the cotyla and the possible relationship of 280 to P.Oxy. L 3595. We hope to demonstrate that there is a link between these two documents, and that 280 originated in an Oxyrhynchite environment and that its cotylae were of the kind that P.~Oxy. 3595 cited as Maximian.

Turning to the document itself, we accept the improved restorations by N. Kruit and K.A. Worp (APF 45 [1999] 101: line 13f., "(the lessees) ἀποδότως αν τῷ μεμιςθωκότι τὸν μὲν | [οἶνον ἀπὸ γλεύκους νέου ἀδόλου παρ]ὰ ληνὸν εἰς ὃν [π]αρέξει ὁ μεμιςθωκὼς κενώματα μέτρφ οἰνικῷ κοτυλῶν δεκαεννέα. Kruit and Worp translate: "They shall return (rather: "deliver") the wine from new and unadulterated must at the vat for which the lessor will furnish empty wine jars, (measuring the wine to be returned [or: "delivered"]) by the wine measure of nineteen κοτύλαι." Το arrive at this translation, they construe μέτρφ οἰνικῷ with ἀποδότως αν (contrary to the first edititor) and suggest that "the 19 κοτύλαι indicate the size of the 'decanting measure'," as if a c. 5 liter vessel was used to draw off wine from the catch basin (ὑπολήνιον) and then poured into the empty jars.

This interpretation invites correction. The significant aspect of *P. Col.* 280.14 is that it does not state the maximum capacity of the empty jars which the lessor was to provide for his wine, as the first editor thought;² nor are we dealing with Kruit's and Worp's "decanting measure", but with the content, namely, the amount each jar was to hold. The crux in interpreting κενώματα μέτρφ οἰνικῷ κοτυλῶν δεκαεννέα lies in the meaning of the phrase μέτρφ οἰνικῷ. The word μέτρφ in the present context is unusual in that it is used generally for dry measures, for such products as wheat or barley. Taken together with οἰνικῷ, it is even more unusual for, according to a search in the Duke Databank of Documentary Texts, the phrase is only once attested elsewhere.³ In its application to κενώματα, the words μέτρφ οἰνικῷ κοτυλῶν δεκαεννέα define precisely how much wine the lessees were to put into each jar: "...the lessor will provide empty jars with a measure for wine of 19 cotylae." In other words the jars to be provided by the lessor were to hold at least 19 cotylae of wine, and, for the reasons stated below, had a capacity greater than that number. Without the two words μέτρφ οἰνικῷ the phrase would read "empty jars of 19 cotylae."

¹ He thought that κοτύλαι determined the capacity of the wine jars. Kruit and Worp argued against this.

² There is also no indication that the empty jars were to be used as storage jars, i.e. $\pi i\theta \sigma i$, as was also thought by the first editor.

³ P. Oslo II 43 of AD 140-41, a draft for a receipt for payment in advance for wine, deals (lines 1-4) with the unstated price of wine to an unnamed buyer for an unstated number of tetrachoa jars (τιμὴν οἴνου κεραμίων τετραχόων λεγομένων πόσων) for which the seller (sic) agrees to provide empty (tetrachoa) and to supply the wine on such and such a date μέτρω οἰνικῷ Θέωνοςτο[ῦ ἀ]δελφιδοῦ cou... It is apparent that the intention of the buyer was to make sure that the tetrachoa would get their full complement of wine by having his nephew Theon, who held a lease on the vineyard, fill the tetrachoa and, by using his "wine measure," to make an accurate calculation of the amount of wine he was purchasing in tetrachoa jars.

It appears clear that the lessor wanted the lessees to fill his jars with 19 cotylae even though they could hold more than that amount. Since the contract called for the delivery at the $\lambda\eta\nu\acute{o}c$, the lessor was getting unfermented wine (γλεῦκοc) which requires a certain amount of free room in a jar for the process of fermentation to take place. Further support for the view that we are dealing with the contents of the empty jars rather than their capacity is found in the following line 15 (and note) which is restored in part on the authority of P. Oxy. XIV 1631.16-17 and XLVII 3354.18. The line is given as [απερ λαβόντα τὸν οἶνον <math>cυνθήcουcι] - - μετακεινή[coυc]ι καὶ παραφυλάξουcι ἄχρι ἐγκλειςμοῦ--- , "and when the jars have been filled with wine, they (the lessees) shall place them ...and they shall move and guard them until they are locked up."

There remains the matter of metric value of the cotyla in P. Col. 280. Is it the nominal Ptolemic cotyla, 19 of which Kruit and Worp assume to contain c. 5 l.? Or is it a redefined Oxyrhynchite cotyla of the third century? A survey of κοτυλ-for wine or winejars in the Duke Data Bank of Documetary Texts is enlightening. For the entire Oxyrhynchus archive only two references surfaced, *P. Oxy.* L 3595.37-38 and *PSI* XII 1252.9, of which 3595, a potter's contract, is the more significant of the two.⁴ The contract called for the manufacture of 15,000 tetrachoa winejars in which "each jar was to hold 20 Maximian cotylae up to the neck of the jar" (ἐκάστου τετραχόου χωροῦντος μέχρι χείλου κοτύλας Μαξιμιανὰς ἔκοσι).⁵ These Maximian cotylae applied to the capacity of two other sizes of jars, dichoa and diplokerama, and to the pottery contracts of *P. Oxy.* L 3596-97 even though no mention is made of the term Maximian cotylae (see H. Cockle, *JRS* 71 [1981] 87-97).

The application of *P. Oxy* 3595 to *P. Col.* 280 appears secure in terms of date and context. It also strengthens the view that *P. Col.* 280 originated in Oxyrhynchus and that the empty jars provided by the lessor were tetrachoa whose full capacity were 20 Maximian cotylae. I have estimated that each Maximian cotyla was approximately double the nominal Ptolemaic cotyla and the equivalent or near equivalent of the Roman sextarius/xestes, c. 11 liter (see my article in n. 5).

If the above assumptions are substantive, why did the lessor of *P. Col.*280 contract to have 19 Maximian cotylae of wine decanted into tetrachoa of 20 Maximian cotylae? As stated above, the likelihood is that space was left in the tetrachoa to allow for the process of fermentation to take place. Without it, the fermenting wine would rise and flow out of the jar; and if the jar was corked, it would "pop the cork". Note that *Geoponica* VI 12.2, dealing with the pouring of must $(\gamma \lambda \epsilon \hat{v} \kappa o \epsilon)$ into jars, cautions that "it is necessary to fill the jars neither too full or too sparingly, but to estimate how much the fermenting $(\dot{v}\pi o \zeta \acute{e}o v)$ must is likely to increase so as not to overflow $(\dot{v}\pi \epsilon p \chi \epsilon \hat{c} \theta \alpha \iota)$.6

To sum up, P.~Col.~XX~280 appears convincingly to have originated in Oxyrhynchus at a time in the third century, or somewhat earlier, when the nome was attempting to standardize its weights and measures. The Ptolemaic cotyla was revalued to fall in line with Roman sextarius on a one-to-one basis in place of the two-to-one Ptolemaic. In its application to P.~Col.~280, the 19 cotylae represented not 5 or 6 liters, but 10 or 12, a more reasonable amount per empty jar. The empty jars the lessor provided were undoubtedly tetrachoa, popular Oxyrhynchite winejars that bore the name of the nome (Ὀξυρυγχειτικὰ τετράχοα λεγόμενα/καλούμενα). In business transactions of limited duration, it wasn't necessary to specify cotylae that were Maximian (P.~Col.~280), that dichoa, tetrachoa, and diplokerama were based on the Maximian cotyla (P.~Oxy.~3596-97), or that they were Oxyrhynchite and held Maximian cotylae (P.~Oxy.~XVII~2153).

New York University

Philip Mayerson

⁴ A search for οἴνου κοτυλ- produced only one (sic) citation for the Roman period, *P. Stras.* V 345.15 (II spc).

⁵ For the translation of μέχρι χείλου, "up to the neck", see my article, "The Value of the Maximian Cotyla in *P. Oxy.* L 3595 and *PSI* XII 1252", ZPE 131 (2000) 167-169.

 $^{^6}$ The verb ζέω, boil, seethe, boil over", characterizes the action of the fermentation process. See my article, "Transactions Involving γλεῦκος/μοῦςτος: Must or Wine? or Must Wine?" BASP 36 (1999) 123-128.

⁷ See my article "The Relationship of *P. Oxy.* XVII 2153 to P. Oxy. L 3595" (in this volume).