

## GRAIN LAND IN THE OXYRHYNCHITE NOME

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In ZPE 32 (1978) 237-40, H.C. Youtie has published P.Mich. inv. 335 verso, which he entitles, 'A Summary Register of Wheat Land.' From his analysis of the document he concludes, "the total revenue in wheat to be collected from domain land in the nome is given as 321,278 art., that from private land is 116,501 art. These yield a grand total of 437,779 art., well on the way to half a million artabas." We are troubled by these figures and believe the correct explanation is different.

Lines 1-4 give a figure of 281,278 art. for all categories, to which is added a charge of one-seventh, or 40,000 (rounded off), to give a total of 321,278. Line 6 gives a total amount of sown public land at 38,857 arouras, and lines 7-13 provide a breakdown of this sum, with γ(ίνονται) αὶ π(ροκείμενα) in line 13 indicating that this section is complete.

Next comes line 14, which the editor reads as ἐξ ὀ(μολόγου) γ(ῆς) (ἀρταβῶν) (μυριάδες) ια 'ςφα and translates as "Land subject to normal rates, 116,501 art." It is this figure which he adds to the 321,278 above to get his total. But one must be very suspicious of these figures: (1) If 38,857 arouras paid 321,278 art. of wheat in taxes, the effective rate is about 8.27 art./aroura, which is wholly impossible--only a minority of Egypt's land can have yielded this much, let alone paid it in taxes. (2) There is no reason to think this line refers to private land: indeed, the heading ἰδιω(τικῆς) appears in the next line, beginning a rubric which concluded no doubt in the missing second column (cf. p.237). (3) γῆς ἐξ ὀμολ(όγου) is already referred to in line 10, written differently and as a subcategory of public, not private, land.

On the excellent plate, we read this line, in fact, as ἐξ (ἀρταβῶν) γ, (ἀρταβῶν) (μυριάδες) ια 'ςφα. Now if one takes a rate of 3 art. per aroura applied to the total for public land, i.e. 38,857 ar., one gets 116,571, which compares closely to 116,501; we may suppose that the scribe left out the 70 accidentally, i.e. omitted

an omicron.

Now, if one subtracts this figure from the total before surcharge (281,278 art.), one gets 164,707. The number of arouras of private land in line 15 is 163,677, only 1,030 less, a discrepancy of well less than 1 per cent. It seems likely that the rate on private land was in fact 1 art. per aroura, and that had we the rest of the papyrus, we would find another small arithmetical error responsible for this tiny discrepancy. The Oxyrhynchite's total taxes were therefore 321,278 artabas.

Clear rates of taxation are naturally of interest. Here we get 1 art./ar. for private land, 3 art./ar. for public land. The 1:3 ratio is just as in the Arsinoite in the early fourth century, but there the amounts per aroura were exactly half (P.Cair.Isid. 11, introd.). One may suppose either (1) that P.Mich. inv.335 verso is later and reflects raised rates, or (2) that the Arsinoite enjoyed lower tax rates, or (3) that the Oxyrhynchite wheat land did not pay taxes also in barley, whereas all such land in the Arsinoite had  $\frac{3}{4}$  art. barley per aroura levied on it. Now wheat had an extra charge of 10 per cent in the Arsinoite, and barley the same plus an *epikouria* of 1 artaba per 18 arouras (i.e. per 13.5 art. of barley paid).<sup>1)</sup> The total burdens may thus have been:

	Arsinoite		Oxyrhynchite	
	private	public	private	public
wheat	.5	1.5	1	3
adding 10%	.55	1.65	(1/7) 1.14	3.43
barley	.75	.75		
adding 10%	.825	.825		
plus epikouria	.9	.9		

But it must be emphasized that we cannot prove that the Oxyrhynchite had no barley taxes (it seems unlikely), and we cannot tell what the correct answer to this problem is.

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1) A fuller discussion of the calculation of land taxes appears in *Chron.d'Eg.* 52 (1977) 330 n.1.