

Diocletian's Edict and the «castrensis modius»

« In antiquity and by most scholars of modern times it has been confidently asserted that the edict of ceiling prices and wages of Diocletian immediately proved to be a failure. I am not so sure... ». So W. L. Westermann; and he brought to notice several papyri registering the prices of articles for sale, evidently in accordance with the intent of the edict. In still another papyrus, egg-sellers promised not to sell their eggs secretly, and not to hoard them, in accordance with the threat in the introduction of the edict, uttered against the merchant « who, possessing the necessities of life and business, believes that subsequently to this regulation he must withdraw them from the general market ». These testimonies fall between the years 327 and 342, suggesting the vigor of the edict long after it was posted (1).

But A. E. R. Boak had published a papyrus which Westermann might have cited, registering wheat in storage « at the public bank of the nome, according to orders », at the rate of 100 *denarii* for the *modius castrensis* — exactly the rate laid down by Diocletian, but here in force in the year 312 (2). It is worth noting that, in the matter even of this staple, the edict was still being observed after eleven years, though inflation certainly resumed its course later (3).

More important, the unit of measurement, « the camp measure »,

(1) The papyri are PSI 202, P. Oxy. 83 and 85 (cf. P. Ant 38, a. 301), treated by Westermann in « Price controls and wages », *The Age of Diocletian, A Symposium* (New York, Metropolitan Museum, 1953) 32 ff. Add P.Cair. Isidor. 54 (314), showing an army tunic requisitioned at exactly the price of the edict. Lactantius, *de mort. persecut.* 7.6, was the first to incriminate the edict's failure, and it was true that it did not serve its purpose. The Egyptian evidence does prove, however, that it was by no means promptly abandoned — that, at least in some places and in regard to some products, it worked.

(2) A. E. R. BOAK, *Harvard Studies in Class. Philol.* 51 (1940) 50, on P.Caire journ. d'entrée 57030 B, republished with corrections as P.Cair. Isidor. 11 (312).

(3) A. C. JOHNSON, *Egypt and the Roman Empire* (Ann Arbor 1951) 58; P. Rainer E 2000.

is the one made prevalent by Diocletian. Before his reign, we have only one mention of wine at 4 obols per *sextarius castrensis*, in a Latin papyrus of 220 (1). Then, of course, the *castrensis modius* (KM) figures as the dominant unit for grains, transport, and two or three other items in Diocletian's edict, and it remains fairly common, so far as one can judge, for a century: used to prescribe the right amount of wheat and barley to be fed to horses, in two fourth-century veterinarians' handbooks; used to convert a rare Jewish measure into comprehensible terms, «in our *castrensis modius*», by Jerome; and assumed by Epiphanius when he refers to the *castrensis xestes*, of 24 ounces, «more or less» (2). A bronze cup from Antioch, perhaps dating to the early sixth century, has inscribed on it a guarantee of fair weight of a *sextarius castrensis* of 24 ounces (3). Considering the general sparsity of fourth-century texts, these occurrences of the KM and of its component units are enough to suggest that the KM was widely diffused, at least in the East, because the edict itself was widely diffused. And it is fitting that it should be a «camp measure» in which anti-inflationary prices around army centers were expressed and enforced, in 301.

It is also important to decide how big the KM was. The question is tied up with the value of a pound of gold, with the value of the *denarius*, and with the degree of inflation in 301, according to calculations and problems now familiar. Most recent scholars equate the KM with the *modius* — the ordinary, Roman, or Italic *modius* — and find themselves embarrassed by their assumption. If $KM = 2 \text{ modii}$, however, the edict is decidedly easier to interpret. The latter equation was accepted by Mommsen, Blümner, Hultsch and others, and more recently by Norsa, Oxé, and Boak, partly on the evidence of Jerome (which is explicit) (4). Add the evidence of the bronze cup,

(1) M. NORSA, in *Raccolta... Lumbroso* (Milano 1925) 322 ff. = P.Lat. Cavenaile 137.

(2) T. MOMMSEN, *Gesammelte Schriften* 2.308-9; J. E. DEAN, ed., *Epiphanius' Treatise on Weights and Measures* (Chicago 1935) 55.

(3) L. BORCHARDT and O. VIEDEBANNT, *Arch. Anzeiger*, 1923-1924, col. 153-164 = *IGLS* 1073.

(4) A. SEGRÈ (*Metrologia* 89-90; *Traditio* 3 (1945) 107) has been followed by L. C. WEST, *Studies in Roman Economic and Social History in Honor of A. C. Johnson* (Princeton 1951) 291; by A. C. JOHNSON, *loc. cit.*; and reluctantly by G. MICKWITZ, *Geld u. Wirtschaft*, usw. (Helsingfors 1932) 73, n. 148. If $KM = \text{modius}$, food prices of the edict are, very roughly, twice what they

which contained 24 ounces compared to the 12 of the ordinary *sextarius* (1). The KM may have been introduced as a closer approximation to several measures current in the eastern empire, which were equivalent to 2, or roughly 2, regular (Italic or Roman) *modii* (2). A « double *modius* » would be a convenience to the government.

There is, finally, the land measurement rather oddly reckoned in the amount of seed needed to sow it, giving an equation *castrensis iugerus* = 3 KM. This is found in a surveyor's handbook (3). The *castrensis iugerus* defined the « legal Roman *iugerum* », while the KM was a « widespread measure » (4); and Jerome's phrase, quoted above, indicates the same prevalence of « camp units ». The sum of all this of some value in showing, first, that the effect of the edict of Diocletian was by no means transitory, and second, that the force behind it was the army, active in surveying work, and the chief consumer of the empire.

RAMSAY MACMULLEN

should be, by comparison with other data of the period. This alone might have suggested a different equation. The alternative, $KM = 2 \text{ modii}$, is preferred by F. HULTSCH, *Griechische u. römische Metrologie*² (Berlin 1882) 121; *Metrologicorum scriptorum reliquiae* (Leipzig 1866) 2.35, n. 1; H. BLÜMNER, *Die Maximaltarif des Diocletian* (Berlin 1893) 60; MOMMSEN, *loc. cit.*; M. NORSA, *loc. cit.*; A. OXÉ, *Bonn. Jbb.* 147 (1942) 97; A. E. R. BOAK, *Harvard Studies in Class. Philol.* 51 (1940) 57 ff. and to P.Cair. Isidor. 11, p. 108; and *RE s.v. castrensis modius*. The texts are too conflicting and difficult to be treated here, and it does not seem to me possible to arrive at a certainty. But evidence favors a value of 2 *modii* for the KM.

(1) A. OXÉ, *op. cit.* 98; cf. *IGLS* 1073.

(2) The *modios xustos* and *sporimos modios* may have equalled 2 *modii* (see P.Cair. Isidor. 11, p. 108; P.Lips. 97, pp. 250-251; F. HULTSCH, *Metrologie* 616 n. 5 and 629; but cf. A. SEGRÈ, *Metrologia* 37), and so also a measure common « among the people of Pontus » (J. E. DEAN, *op. cit.* 141 and in *Egypt* (F. HULTSCH, *Metrologici* 1.41).

(3) *Ibid.* 2.34, n. 1 and 125-126.

(4) F. HULTSCH, *Metrologie* 616, n. and 629.