

Explaining the maritime freight charges in Diocletian's Prices Edict

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In an article published in this journal in 2007, P. Arnaud explored the price ceilings for maritime transport stipulated in the Prices Edict of A.D. 301.¹ In this document, maximum allowable freight charges for specific sea routes are expressed in *denarii (communes)* per *modius kastrensis*, the Edict's favored capacity unit that equaled 1.5 *modii italici* or c.12.9 liters. In contrast to unsuccessful earlier attempts to relate the attested prices to nautical distance, Arnaud argued that expenses reflected sailing time. Extrapolating from a handful of attested durations of sea voyages that match particular routes mentioned in the Edict, he hypothesized that the number of *denarii* in the prices was derived from the number of days of travel, at a conversion rate of 1 *denarius* per day. In his view, the compilers of the text had used this schematic formula to create standardized price ceilings.²

If correct, Arnaud's intuition offers a novel way to make sense of the otherwise decontextualized freight rates reported in the Edict. Earlier scholars had failed to establish a meaningful relationship between the attested prices and putative distances.³ In maritime transport, however, sailing time rather than distance is the critical variable. Arnaud's approach is consequently more promising on *a priori* grounds. Even so, he was unable to test his hypothesis in a more systematic way due to the fact no Roman sailing times are documented for most of the routes specified in the Edict. This is due to the objective of the text: while Hellenistic and Roman geographical sources report normative sailing times for numerous sea routes in the Mediterranean and the Black Sea,⁴ few of them were of use to the compilers of the Edict as they sought to impose price ceilings on connections between the main political centers of the Late Empire, such as Nicomedia, Alexandria, Antioch, Rome and Carthage, as well as a series of coastal provincial centers, which are either named (e.g., Aquileia, Ephesus or Thessalonica) or have to be inferred from provincial designations (e.g., Tarraco or Carthago Nova for *Spania* or Gades for *Baetica*). Moreover, no fewer than 4 of the 5 cases in which Arnaud observed matches between prices in *denarii* given in the Edict and days of travel documented elsewhere depend wholly or in part on the use of non-geographical sources that do not actually purport to provide normative information about sailing time. For these reasons, his entire reconstruction rests on shaky empirical foundations.

In the absence of evidence capable of directly corroborating his proposed conversion formula, Arnaud had to fall back on relating documented normative sailing times to discrete elements of the often more elongated routes specified in the Edict. This procedure suggested to him the presence in the Edict of multiple schematic calculations that were

1 P. Arnaud, "Diocletian's Prices Edict: the prices of seaborne transport and the average duration of maritime travel," *JRA* 20 (2007) 321-36.

2 *Ibid.* 330-31.

3 R. Duncan-Jones, *The economy of the Roman Empire* (2nd edn., Cambridge 1982) 367-68; cf. also J. Rougé, *Recherches sur l'organisation du commerce maritime en Méditerranée sous l'Empire romain* (Paris 1966) 98-99; K. Hopkins, "Models, ships and staples," in P. Garnsey and C. R. Whittaker (edd.), *Trade and famine in classical antiquity* (Cambridge 1983) 102-4; Arnaud (supra n.1) 329.

4 Collected in great detail by P. Arnaud, "Les relations maritimes dans le Pont-Euxin d'après les données numériques des géographes anciens," *REA* 94 (1992) 57-77; *Les routes de la navigation antique: itinéraires en Méditerranée* (Paris 2005).