The question to be discussed here is the following: Did the ancients have a standard unit to measure a ship’s carrying capacity, and if so, what was that unit?

As far as I know the question has always been put in this way, probably unconsciously, and it certainly has always been answered thus, that there was a standard unit, namely the unit of weight, the talent, which was identical with the amphora, the one being the water-weight, the other the content of a cubic foot, the same relationship therefore, as that between a cubic metre and the ton of 1000 kgs.

1) I here wish to express my deep-felt gratitude to Professor Lionel Casson of New York University, who has read, and much improved, my type-script. Likewise I gratefully acknowledge my debt to Mr. W. P. Fornerod of Delft for his willingness to analyze the problem of ancient stowing; to Professor W. Glasbergen for generous help in preparing the illustrations to Appendix I; and to the Centre National de la Recherche Scientifique, Paris, in particular the Comité de la Revue Gallia, for permission to reproduce fig. 89 of Benoit’s *L’épave du Grand Congloué* (App. I, fig. 1).

2) E. Lubeck, *Das Seewesen der Griechen und Römer*, I (1890), 22: „Im Altertum bezeichnete man <die Grössenklasse der Kauffahrer> nach griechischen Talenten oder römischen Amphorae (26,27 Kilogr.), später auch nach Medimnen (dem attischen Getreidemass = 42,5 Kilogr.) (L. quotes Assmann, „Seewesen“ in Baumeister, Denkmäler des klassischen Altertums, III, 1622). — C. Torr, *Ancient Ships* (1895), 25: “The amount of cargo carried by various merchantships is here and there recorded, this amount being generally computed by the talent or the amphora (my italics), which each weighed about a fortieth part of a ton (n. 66: As the talent and the amphora each represented a cubic foot of water—each weighed very nearly 57 lbs). And the largest merchant-ships are always described as carrying ten thousand talents, or 250 tons, though they may really have carried rather more, ten thousand being a round number of the vaguest sort.”—A. Köster, *Das antike Seewesen* (1923), 161: „Grössere Fahrzeuge, wie sie zur Zeit des peloponnesischen Krieges benutzt wurden, hatten eine Tragfähigkeit von 10.000 Talenten = 261,96 Tonnen . . . von Plinius erwähnte Seeschiffe . . . fassten 3000 Am-
If this were true, it would be most remarkable for more than one reason. In the first place this straightforward answer presupposes that in ancient times there existed a uniformity in ship’s registry, which is quite unknown elsewhere, and which certainly would be in strange contradiction with the universal, and natural, lack of such uniformity in the other departments of ancient measuring and weighing; in the second place it implies that the ancient traders, quite differently from moderns, preferred a rather small unit of weight to the bigger units of capacity which they had as well. But, as we shall see, it is very doubtful whether such a simple answer to our question is at all possible. Both the available evidence and general considerations point in quite another direction.

Probably the current answer to this question has in large part been inspired by the assumption that modern and ancient usage was analogous. As we shall see, this is true, but modern scholars seem to have had a very simplistic idea of modern usage, which has led them to impute a uniform usage to the ancients.

Our modern notion of “tonnage” is the result of a long process, in which traditional and scientific elements were gradually blended, until we now have several kinds of tonnage which have only one thing in common, namely that none has anything to do with a real vessel of any kind. The modern word “ton” denotes either weight or capacity: in case of the former, the weight may be either about 907 kgs (short ton) or 1000 kgs (metric ton) or about 1016 kgs (long or dead-weight ton); when denoting capacity, “ton” may mean one cubic metre, or 40 cubic feet (freight ton), or 100 cubic feet (register ton, i.e. 2.83 cubic metres). Thus the expression “10,000 tons” as applied to a ship may mean quite different things and indeed is used in different ways by a harbour-master, who is interested in the total cubic capacity of a ship and reckons in register tons; by a stevedore, who expresses carrying capacity in dead weight tons or freight tons (the choice depends on the specific gravity of cargoes, it being impractical to weigh cork or to measure phoren (Raummass) à 26. 196 1 = 78. 788 cbm = 27.8 Registertonnen”. — L. Casson, The Size of Ancient Merchant Ships, Studi in Onore di A. Calderini e R. Paribeni (1956), I, 234 also considers the talent to have been the unit of ancient ship-measurement.