

The Surplus of the Athenian *Phoros*

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IN THEIR ATTEMPTS to understand the tribute income of the First Athenian Empire, historians have found that an unimpeachable contemporary source is challenged by undeniable physical evidence: explicit statements of Thucydides are directly contradicted by the epigraphical record of the quotas paid to Athena on the tribute collected by Athens. This paper proposes a new theory aimed at resolving this long-standing dilemma.

I

Thucydides 1.96 states that when the Delian League was established (in 478/7) the allies were assessed a total of 460 talents in tribute; at 2.13 he reports that by the outbreak of the Peloponnesian War (431/0) the tribute income had reached an average of 600T. Yet according to the figures of the tribute quota lists, Athens' revenue was at most some 390T in 431/0 and probably between 200T and 250T when the League was founded.¹ The discrepancy, over 200T in each case, is considerable.

How likely is it that Thucydides knew the correct amount of the Athenian tribute?² Such financial statistics were matters of public record, with tribute quotas and assessments since 454/3 inscribed on

¹ Surviving records of the *aparchai* paid to Athena on the incoming *phoros* are woefully incomplete. However, by combining the accounts of several years, we can obtain a reasonable maximum estimate of about 390T for the total tribute paid in 454/3 and thereafter. B. D. Meritt, H. T. Wade-Gery, and M. F. McGregor, *The Athenian Tribute Lists* (Cambridge [Mass.]/Princeton 1939–1953) I 241, estimate the increase in tribute due from new states joining the League between 478/7 and 454/3 at 122T or so (*cf.* n.19 *infra*); the increase resulting from states shifting from the ship-contributing category to the cash-contributing category (*e.g.* Naxos and Thasos) is subject to much doubt, but probably ranged from 15T to 65T, with the larger figure more likely. Based on this reasoning, the total rise in monetary contributions would have been 140–190T between 478/7 and 454/3, yielding a cash total of some 200–250T in 478/7. *Cf.* *ATL* III 239–43 and A. W. Gomme, *A Historical Commentary on Thucydides* I (Oxford 1945) 273–80.

² *Cf.* S. K. Eddy, “460 Talents Once More,” *CP* 63 (1968) 187f, for many of the following arguments.

marble stelae set up on the Acropolis.³ By 431 Thucydides had begun the research for his history and was probably deeply involved in Athenian public life (we know that he served as *strategos* in 424).⁴ It is implausible that a close observer who went to such great pains to uncover all available information about the war from every source, and who recognized the great significance of Athens' financial status for her military strength (*cf.* 1.42, 1.84, 2.13), would make a patent error in reporting publicly-posted tribute income. Thucydides very likely had access to the 478/7 total as well, stipulated in the widely famous 'Assessment of Aristides', whose figures were sufficiently well-known to be cited simply by name in diplomatic treaties;⁵ presumably a written copy was kept in the Athenian archives, as well as in the archives of the other principal founders of the Delian League. The possibility of textual corruption in Thucydides—a highly unlikely 'double corruption', involving both the 478/7 and 431/0 figures—can virtually be ruled out: Plutarch (*Arist.* 24) quotes the 460τ and 600τ totals as Thucydides gives them.

If Thucydides' numbers are correct, then perhaps it is our understanding of them that is in error. Indeed, this has been the view of 'orthodox' revisionism: it is argued by the authors of *ATL* and others that Thucydides' figure of 460τ includes both cash tribute income (perhaps 260τ) and the equivalent cash value of the ships supplied by the remaining allies.⁶ But this interpretation violates the direct wording of Thucydides 1.96, where the term *phoros* is used explicitly for monetary contributions as distinguished from the ships, with the *phoros* in the first assessment put at 460τ:

παραλαμβάνοντες δὲ οἱ Ἀθηναῖοι τὴν ἡγεμονίαν τούτῳ τῷ τρόπῳ ἐκόντων τῶν ξυμμάχων διὰ τὸ Πανσανίου μῦθος, ἔταξαν ἅς τε ἔδει παρέχειν τῶν πόλεων χρήματα πρὸς τὸν βάρβαρον καὶ ἅς ναῦς καὶ Ἑλληνοταμίαι τότε πρῶτον Ἀθηναίοις κατέστη ἀρχή, οἱ ἐδέχοντο τὸν φόρον· οὕτω γὰρ ὠνομάσθη τῶν χρημάτων ἡ φορά. ἦν δ' ὁ πρῶτος φόρος ταχθεὶς τετρακόσια τάλαντα καὶ ἐξήκοντα⁷

³ *Cf.* *ATL* III 12–16.

⁴ Thuc. 4.104. He mentions that he was of an age to understand what was happening throughout the years of war (5.26) and began writing his history at the very beginning of conflict (1.1).

⁵ For example, in the treaty of Nicias (Thuc. 5.18).

⁶ *Cf.* *ATL* III 236–43; Gomme (*supra* n.1) 284–86; Eddy (*supra* n.2) 184–95.

⁷ The distinction made here appears elsewhere: at 7.57.4 Thucydides describes certain Athenian allies as being "subject to *phoros*," but says of the Chians that they were "not subject to *phoros*, but brought ships in as independent allies." For a thorough discussion of the linguistic problems at issue, *cf.* M. H. Chambers, "Four Hundred Sixty Talents," *CP* 53 (1958) 26–32, esp. 27f.

If we attempt to salvage Thucydides' accuracy by 'reinterpreting' his statement to mean that the 460T in *phoros* included both cash and ships, we are in effect emending the text—an approach that should be taken only as a last resort.

Again, Thucydides reports a tribute figure of 600T for 431/0:

θαρσεῖν τε ἐκέλευε προσιώντων μὲν ἑξακοσίων ταλάντων ὡς ἐπὶ τὸ πολὺ φόρον κατ' ἐνιαυτὸν ἀπὸ τῶν ξυμμάχων τῇ πόλει ἄνευ τῆς ἄλλης προσόδου, ὑπαρχόντων δὲ ἐν τῇ ἀκροπόλει ἔτι τότε ἀργυρίου ἐπισήμου ἑξακισχιλίων ταλάντων (τὰ γὰρ πλεῖστα τριακοσίων ἀποδέοντα μύρια ἐγένετο, ἀφ' ὧν ἕς τε τὰ προπύλαια τῆς ἀκροπόλεως καὶ τὰλλα οἰκοδομήματα καὶ ἐς Ποτείδαιαν ἀπανηλώθη) (2.13.3).⁸

Since the quota list allows a tribute total of no more than 390T for this period, it is argued by *ATL*, Gomme, Eddy, and others that the figure of 600T comprises the cash tribute, the value of the ships of Chios and Lesbos, the Samian indemnity (strictly speaking, not tribute at all), the port revenue of Amphipolis, and the foreign income of the Goddess Athena—in other words, all Athens' overseas revenue.⁹ Related attempts to assign specific amounts for these sources are purely conjectural and must, once again, do violence to the words of Thucydides describing the 600T as *φόρος ἀπὸ τῶν ξυμμάχων τῇ πόλει*.

Such freedom does not, in the main, characterize ancient authorities. Plutarch, as we have pointed out, uses Thucydides' figures without comment, which suggests that they were in agreement with the numbers from his other sources.¹⁰ According to Xenophon, total

⁸ Tr. Crawley: "Here [the Athenians] had no reason to despond. Apart from other sources of income, an average revenue of six hundred talents of silver was drawn from the tribute of the allies; and there were still six thousand talents of coined silver in the Acropolis, out of nine thousand seven hundred that had once been there, from which the money had been taken for the porch of the Acropolis, the other public buildings, and for Potidaea."

⁹ *ATL* III 334–41 contains the following estimates: 388T in tribute; 50T from the Samian indemnity; 25–30T in other sacred revenues of the gods; 70–75T from the port revenue of Amphipolis; and the remaining 60T or so from unknown other imperial revenue sources and the 10% tax. Aside from the 388T in tribute (the maximum possible figure suggested by the quota lists), all these amounts are essentially simple guesses chosen to fit the 600T total. Eddy (*supra* n.2) 195 borrows these figures for the tribute, the Samian indemnity, the sacred revenue, and the port revenue of Amphipolis, for a total of 533–543T. To this he adds the capital value of the ships contributed by Chios and Lesbos, which he estimates to have been 65T, yielding a combined total of 598–608T. He remarks that the close correspondence of this figure to the desired 600T total given by Thucydides may seem "rather too neat"—an understatement, since the calculation is based mostly upon pure guesswork.

¹⁰ Plutarch generally mentions any disagreements among his sources: *Ages.* 32; *Alex.* 15, 18, 27, 31, 38, 46; *Them.* 32; *Per.* 9, 10, 24; *Arist.* 1.

Athenian income was 1,000τ at the beginning of the Peloponnesian War, a figure consistent with Thucydides' 600τ in tribute alone.¹¹ Nepos (*Arist.* 3.1) repeats the figure of 460τ for Athens' first tribute collection. Only Diodorus dissents from this harmony of sources, putting Athenian tribute revenue at 560τ in 478/7 and 460τ in 431/0 (*Diod.* 11.47.1, 12.40.2); but these figures contradict simple logic and evidence that tribute actually increased during this period.

In weighing the plausibility of the figures from literary evidence against those from the quota lists, it is helpful to consider the external evidence for the size of accumulated tribute surplus. In 450/49, after the Peace of Callias, the accumulated tribute reserve, then apparently 5,000τ, was liquidated by Pericles in order to pay for the construction of the Parthenon and other public works.¹² It is likely that sailors' pay was 3 obols per day in this period; if we use the standard figure of 200 men per trireme, we find that naval expenses for a ship came to roughly 100 drachmas per day, or half a talent per month.¹³ Between the foundation of the Delian League and the Peace of Callias, League fleets were involved in a number of costly campaigns: 200 ships under Cimon destroyed a large Persian fleet at the Eurymedon (*Thuc.* 1.100; *Plut. Cim.* 12); later, 200 ships were involved in a lengthy operation in Egypt (*Thuc.* 1.104, 109f); perhaps 100 or more Athenian and allied ships served in a war against Aegina.¹⁴ A further 200 ships were later led by Cimon against Cyprus (*Thuc.* 1.112). Although we do not know the exact length of any of these campaigns (the war in Egypt lasted a full six years, but some of the League ships may have been transferred before the end), the

¹¹ *Anab.* 7.1.27. The emphasis Thucydides places on the tribute portion of Athens' total income would seem rather odd if it generally amounted to little more than a third of the total (somewhat less than 390τ—a maximum estimate—out of more than 1,000τ); it would be natural if it comprised nearly 60% (600τ out of over 1,000τ).

¹² *Plut. Per.* 12; for discussion of further evidence in the Strasbourg Papyrus (*cf. ATL* III 281; H. T. Wade-Gery and B. D. Meritt, *Hesperia* 26 [1957] 163–88) see R. Meiggs, *The Athenian Empire* (Oxford 1972) 515–18, and C. W. Fornara, *Archaic Times to the End of the Peloponnesian War* (Cambridge 1983) 95–97 no. 94. It is possible that the 5,000τ expended did not represent the total amount of the accumulated reserve.

¹³ *Thuc.* 8.45. With the sharp bidding competition for sailors, pay seems to have risen to 1 drachma per day by the time of the Peloponnesian War: *Thuc.* 1.21, 3.17.4, 6.8.1. The figure of 200 men per trireme is implied by Thucydides; *cf. Meiggs (supra n.12)* 259, 427. These estimates seem fully consistent with the record of expenditures for the Samian revolt: *cf. A. French, "The Tribute of the Allies," Historia* 21 (1972) 1–20, esp. 5.

¹⁴ *Thuc.* 1.105 reports that the Athenians captured 70 Aeginetan ships in a major naval battle; since the Aeginetans were renowned for their naval excellence (*cf. Hdt.* 8.93), it seems likely that more than 100 Athenian and allied ships were involved. However, it must be admitted that we cannot be sure that the Delian League was officially involved.

total cost of these operations must have been considerable, perhaps 5,500τ.¹⁵ This period also saw wars against various rebellious members of the Delian League, such as Thasos and Naxos: the total cost here must have been 1,500–2,500τ.¹⁶ Some of these expenses may have been defrayed through the sale of captured slaves or booty—though many actions, notably the last stages of the catastrophe in Egypt, did not lend themselves to profitable looting.¹⁷ When we add the cost of maintaining peacetime patrols, constructing new ships, and fighting such minor campaigns as those at Eion, Scyros, Sestus, Byzantium, and Carystus (Thuc. 1.98), we are left with a likely net expenditure to the League of at least 10,000τ in the 29 years from 478/7 to 450/49.¹⁸

If we use Thucydides' figure of 460τ for the first tribute assessment, and if we take the rise in tribute between 478/7 and 450/49 (due to new members joining the League and old members shifting from the ship-contributing class to the cash-contributing class) to be about 100τ,¹⁹ then tribute in 450/49 was roughly 560τ. If we use

¹⁵ Very rough estimates: in the Eurymedon campaign, 200 ships × 0.5τ/month × 8 month campaigning season = 800τ; in the Aegina campaign, 100 ships × 0.5τ/month × 8(?) months = 400τ; in Egypt, 100 ships (a conjectural average strength) × 0.5τ per month × 70 months (= 6 full years, since crews would have to be paid during winters, or equivalently fed) = 3,500τ or more; Cyprus campaign, 200 ships × 0.5τ per month × 8 months = 800τ: a total of 5,500τ. Our estimate could be substantially changed by many unknowns, e.g. if the Athenian-Aeginetan war were not an affair of the League, our total would be reduced by 400τ; if 200 ships had remained in Egypt during the full six years, our total would be raised by 3,500τ; but overall it is probably conservative, especially since we are assuming that sailors were paid only half a drachma per day, which may be low. It is important to note that allied ships participating in League operations would almost certainly have drawn their pay from League funds just as Athenian ships did. The major ship-contributing states (such as Samos, Chios, and Lesbos) would have demanded equality with Athens on this point at the foundation of the League, and would have taken concerted action against any change in the terms.

¹⁶ Over two years of siege at Thasos—a strong state—probably came to at least 1,500–2,000τ, since a nine-month siege of Samos cost 1,200τ, and the more than two years of siege at Potidaea cost 2,000τ. The cost of the Naxos revolt is unclear, though we do know that there was a naval blockade and siege (Thuc. 1.137).

¹⁷ In one celebrated incident, Cimon obtained a huge sum of money by ransoming the high-ranking Persian nobles whom he had captured at Eion and Byzantium (Plut. *Cim.* 9); the money was enough to maintain his fleet for four months. Assuming that Cimon's force included 50 ships (since there was no Persian naval opposition at this time, a large fleet would have been unnecessary), he raised over 100τ.

¹⁸ We might also consider the cost of the operations in the First Peloponnesian War during this period, though it is difficult to determine whether League funds were drawn upon. The overall figure of 10,000τ is subject to much uncertainty, but is probably conservative; cf. *supra* nn.15 and 16.

¹⁹ This is rather more conservative than the figure of 135+τ estimated in *ATL* III 239–43, and widely accepted. The *ATL* figure is based on the assumption that Persian power in Thrace did not collapse so rapidly as to allow inclusion of Aenos and Abdera in the first assessment of 478/7; but Htd. 7.106.2 seems to imply that it did, as does

510τ as the approximate average tribute for the 29 years [= $0.5 \times (460\tau + 560\tau)$], we get a total tribute income for the period of about 14,790τ. Subtracting the 10,000τ in League expenditures yields a reserve of just under 5,000τ in 450/49, the figure for the actual reserve at that time. That our estimates yield an answer so close to the correct 5,000τ is simple coincidence and has no significance; what is important is that a 5,000τ reserve in 450/49 is compatible with the tribute income figures of Thucydides.

On the other hand, if we use the tribute quota records we get nonsense. Tribute was under 390τ in 450/49, and probably averaged 300–350τ or less from 478/7 to 450/49, yielding a total tribute income of well under 10,000τ: less than the League's probable expenditures during these years. The Delian League must have been on the verge of bankruptcy throughout this period; an accumulated surplus of 5,000τ is impossible.²⁰

Fluctuations in the new tribute surplus generated between 449/8 and 431/0 tend to support this verdict. Thucydides tells us that the Athenian cash reserve reached a maximum of 9,700τ sometime before 433/2.²¹ It is clear that Athens made little or no distinction between her own funds and those of the League after the reorganization following the Peace of Callias in 450/49.²² Since all or nearly all previous cash was used in the building projects at Athens, and since no tribute was collected for the reserve in 449/8, we may assume that the later accumulation began in 448/7, drawing upon each year's surplus of tribute and non-tribute cash income. Between 448/7 and

the absence of any recorded campaign against these wealthy and important cities. Their presence in the first assessment would reduce the later increase by 27τ. Furthermore, forty of the cities that probably joined between 478/7 and 450/49 were small inland Carian towns, often sporadic in their payment and apparently removed from the rolls around 441 (presumably because they were not worth the effort of collection); if we subtract the defaulting portion of their total assessment of about 26τ, the net increase in tribute comes to some 100τ.

²⁰ This discrepancy between the figures of the tribute quota lists and the size of the accumulated reserve is fully noted by *ATL* III 238. The authors resort to the hypothesis that during the first three decades of the League's existence, "little, if any" of the incoming *phoros* was actually spent on campaigning expenses, but stored away, instead, to produce the remarkably large 5,000τ reserve total mentioned.

²¹ 2.13. Probably a few years earlier: the building of the Propylaea, which eventually cost 2,012τ, was begun in 437/6; it was probably around this date that the 9,700τ maximum was reached and the reserve began to decline. 433/2 is the latest possible date: cf. Fornara (*supra* n.12) 132f no. 118.

²² Pericles essentially admitted as much, according to Plut. *Per.* 12. The permanent transfer of the treasury to Athens, the Peace with Persia (which removed the purpose of the Delian League), and the uses to which Athens put League funds all make this clear.

433/2, Athenian forces were involved in heavy fighting preceding the Thirty Years Truce, and in suppressing rebellions in Euboea, Samos, and Byzantium. The Samos/Byzantium campaign alone cost at least 1,400T, though much of the expense may have been repaid by 433/2 through the Samian indemnity.²³

The total cost of these efforts, together with peacetime patrols and the construction of new ships, could hardly have been less than 3,000T.²⁴ Thucydides' tribute figures of 600T in 431/0 and (perhaps) 560T in 448/7, combined with about 400T in other Athenian revenue,²⁵ would yield a gross income of about 15,680T by 433/2 [= 0.5 × (960T + 1,000T) × 16 years]. When we subtract jurors' pay, the cost of festivals, building maintenance, and other regular expenditures of the Athenian state, together with the military expense of 3,000T or more described above, a balance of 9,700T in the reserve seems likely.

In contrast, the tribute lists report a gross annual income of at most 390T from 448/7 to 433/2, generally averaging quite a bit less. If we use the figure of 400T in other Athenian revenue,²⁶ then the

²³ Thuc. 1.112–17. It is generally agreed that the Samian revolt cost Athens about 1,200T, while concurrent operations against Byzantium brought the total to 1,400T (though the latter figure may actually correspond to the costs of Samos alone); the evidence is summarized and discussed by Meiggs (*supra* n.12) 192; Fornara (*supra* n.12) 112 no. 113, and “On the Chronology of the Samian War,” *JHS* 99 (1979) 7–19. *ATL* III 334f suggested that the Samian indemnity came to 50T per year, but this is pure speculation: since Samos appears to be paying as late as 414/3, the rate cannot have been greater than some 50T per year, and may have been much less.

²⁴ At most, some 350T of the Samian indemnity could have been paid by by 433/2; the net cost of the Samos-Byzantium revolt would have been at least 1,100T at this point. The expense of the other Athenian operations prior to the Thirty Years Peace can have been no less than 1,000T if we add the cost of Pericles' Black Sea expedition, *ca* 436 (Plut. *Per.* 20). There is, moreover, the disputed issue of the peacetime patrols of at least sixty triremes that Pericles is said to have manned for eight months of every year in order to provide employment for Athenian citizens (*Per.* 11). Even allowing for public holidays, this would come to 150–200T each year. Although we are not told just when Pericles began this policy, and since military actions would have filled many of the years from 448/7 to 433/2 (when these sixty triremes would have made up part of the Athenian battle fleet without creating any additional burden), the total extra cost of these patrols must have approached 1,000T; *cf.* Meiggs (*supra* n.12) 427. When we add the cost of constructing new ships and maintaining old ones during this sixteen-year period, a total of 3,000T for military expenses seems conservative.

²⁵ *Cf.* Thuc. 2.13; Xen. *Anab.* 7.1.27.

²⁶ The figure of 400T in non-tribute Athenian revenue is admittedly questionable, since it is derived by subtracting the 600T tribute figure of Thuc. 2.13 from the 1,000T total income figure of Xen. *Anab.* 7.1.27: *i.e.*, we are assuming that Xenophon's figure was based on knowledge consistent with Thucydides'. However, it seems inherently unlikely that Athens' non-tribute income was much greater than 400T in any event (*cf. supra* n.11). Furthermore, Aristophanes' *Wasps*, produced in 422, puts the total Athenian income at that time at between 1,500 and 2,000T (*Vesp.* 656–64; probably closer

maximum possible total Athenian income during this period would have been about 12,640τ [= (390τ + 400τ) × 16 years], which seems only remotely possible. It would require that total Athenian expenditures in this 16-year period were less than 3,000τ—very low, considering that our rough estimate of military costs alone came to more than this. By 422, Athenian juries were absorbing 150τ each year (Ar. *Vesp.* 662f), and even if the yearly cost of earlier juries were only half that, the subsequent sixteen years would have involved a total cost of 1,200τ. Our ignorance of the magnitude of other Athenian civil expenditures²⁷ makes it difficult to reach a defensible total, but the 390τ tribute figure seems to be ruled out by a reserve of 9,700τ. The size of Athens' accumulated surplus thus strongly supports Thucydides' tribute figures; it all but excludes those of the tribute quota lists.

II

It seems evident that Thucydides' cash tribute totals are just what they are represented to be, and are probably correct. The nature and function of the tribute quota lists remain a problem.²⁸ Even casual examination reveals anomalies. According to Thucydides, the Athenians were severe in exacting tribute, "insisting on obligations being met exactly," with failure to produce the agreed amount of tribute being tantamount to revolt.²⁹ Yet the quota lists are disturbingly variable, with tributary states producing their assessments only about half (!) the time.³⁰ Athens may have been willing to tolerate non-

to the high figure); if we combine this with the 1,460τ tribute total in the Assessment of 425 (which, as we will argue below, was probably close to the true income), we obtain results fully consistent with an approximately constant 400τ in non-tribute revenue.

²⁷ *Ath. Pol.* provides some figures (e.g. 42.3, 49.4, 50.1, 52.2), but they are incomplete and often dubious.

²⁸ Many of the arguments made in this section are directly parallel to those of Gomme (*supra* n.1) 275ff and French (*supra* n.13). Cf. n.35 *infra*.

²⁹ Thuc. 1.99.1: αἰτίαι δὲ ἄλλαι τε ἦσαν τῶν ἀποστάσεων καὶ μέγιστα αἱ τῶν φόρων καὶ νεῶν ἔκδειαι καὶ λιποστράτιον εἴ τῳ ἐγένετο· οἱ γὰρ Ἀθηναῖοι ἀκριβῶς ἐπρασσον καὶ λυπηροὶ ἦσαν οὐκ εἰωθόσιν οὐδὲ βουλομένοις ταλαιπωρεῖν προσάγοντες τὰς ἀνάγκας. The exact meaning of Thucydides' words is analyzed in Gomme (*supra* n.1) 283.

³⁰ Cf. *ATL* III 265–74 and Meiggs (*supra* n.12) 524–30 (both make unconvincing attempts to minimize the degree of tribute payment variability). Of the more than 200 members of the League in the period 453–439, the number apparently paying any tribute at all in a given year ranged from 140 to 173, averaging about 160. Worse still,

payment occasionally under special circumstances,³¹ but it is difficult to believe that she remained content to rule an empire of incorrigible dead-beats. During the Peloponnesian War, Athenian armies were sent into the hills of inland Lycia and Caria to exact tribute measured in *minai* from villages which, as often as not, fought and killed the tribute collectors (Thuc. 2.69, 3.19). Would Athens have tolerated regular default by wealthy islands defenseless before the Athenian navy?³²

Even more puzzling are those great cities subject to Athens that seem to have paid little or no tribute. Many of Athens' proudest possessions fall into this category: Naupactus, captured in (perhaps) 461 and made an important naval base,³³ paid no tribute; Sestus, one of the strongest and richest cities on the Hellespont, paid only 500 or 1,000 drachma per year and often nothing;³⁴ Thasos, a large and powerful city used as a base for Athenian ships, paid only 3T in tribute until 443, when the figure rose to a more reasonable 30T;³⁵

a large number of these paid only a fraction of their assessed tribute. The authors of *ATL* speculate that some cities may have continued to furnish ships instead of cash early in this period, others may have been included in the payments of a larger city nearby, and some (mostly in upland Caria) may simply have defaulted. But even the most generous estimates of the numbers in each of these categories fails to bring the number of cities paying or otherwise accounted for into line with the number of cities assessed. And in each full panel, many cities we would expect to see present are missing. See the Appendix for a brief listing of cities exhibiting severe irregularity in payment.

³¹ Thus in 430 Methone, an Athenian subject city that Perdiccas of Macedonia claimed within his sphere of influence, had its tribute remitted except for the token payment of the quota due the Goddess. The Methone decrees make reference to the delicate political situation between Athens and Macedonia, and this is undoubtedly the cause of Athens' unusual decision. Cf. *ATL* III 133–37; Thuc. 2.29.6, 2.80.7.

³² The writers of *ATL* incline to believe so. Aegina, for example, is said to have "made a partial payment in 449 and probably none at all in 477 [*sic*: read 447] and 446" (*ATL* III 303): this about a rich island without walls or ships and within sight of Attica (cf. Thuc. 1.108). In fact, it is not certain that Aegina was absent from the 447 and 446 assessments; but the statement exemplifies the weak position *ATL* is forced to take regarding cities missing from the quota lists.

³³ A squadron of twenty ships under Phormio was stationed there at the start of the Peloponnesian War (Thuc. 2.80). Later, Demosthenes based his expedition into Aetolia from Naupactus (Thuc. 3.94).

³⁴ Sestus' greatness is described at Hdt. 9.114–17; it was the Persian grandees from Sestus and Byzantium for whom Cimon received the large cash ransom mentioned in Plut. *Cim.* 9: cf. *supra* n. 17.

³⁵ Thasos' enormous wealth is detailed in Hdt. 6.46f. The authors of *ATL* (III 258f) argue that after stripping Thasos of its mines and other mainland possessions, Athens demanded only 3T per year from the island itself, but this seems unlikely. Plut. *Cim.* 14 states that the gold mines seized by Athens were those on the mainland, along with the other Thasian possessions there; yet according to Herodotus, perhaps a third of Thasos' wealth was derived from mines on the island itself. Thus, Thasian public

and Samos, largest and strongest of Athens' subjects, and Amphipolis, Athens' most important possession in Thrace—described by Thucydides (4.108) as an important source of revenue—paid no tribute at all, if we are to trust the evidence of the tribute lists.³⁶

Clearly, we cannot rely upon the epigraphical evidence as a complete record of Athens' tribute income. As to what the lists actually represent, a simple answer suggests itself: they record the quota paid to Athena on the *surplus* of each year's tribute, the *aparche* on the *phoros* that was sent to Athens rather than spent in the field by shipyards, squadrons stationed at naval bases, or garrisons.³⁷ This explanation has much to recommend it. It would have been much more efficient for Athenian squadrons based at major cities to draw some or all of their pay from the tribute of that city, rather than for the *phoros* to be transported to Athens each year and then returned for local use, with the risk of theft or loss in either direction.³⁸ It

revenue (excluding taxes of any sort) must have remained at well over 50T in an average year, rising to perhaps 100T during peak years. Athens would have drawn more than 3T from a state with a financial base this large. Furthermore, Thasos was a large island, close to Samos in size; even without its gold-mining revenue, we would expect it to contribute more than the 3T paid by small islands such as Cythnos. The sudden increase in Thasian tribute from 3T to 30T is commonly ascribed to an Athenian return of the mainland mines to Thasos, but this seems highly implausible. Athens would have been improbably generous to forego 80T or more in mine income in return for 27T in extra tribute. Return of the mines would have done little more than double Thasos' public revenue; this could hardly explain a tribute rise of 900%.

³⁶ Samos had manned some 70 ships on short notice during her revolt (Thuc. 1.116); after defeat, she was forced into what was clearly the standard tributary relationship (*cf.* Thuc. 7.57.4), yet no tribute seems ever to have been paid. Samos was forced to make good the cost of the revolt as indemnity, leading to the common belief among modern historians that Athens was content to receive only this money, without demanding actual tribute from Samos. This seems implausible: repayment of war expenses would have been meaningless as a mere replacement for regular tribute. The revolt in 440/39 had cost Athens over 1,200T, and it seems that Samos was still paying installments at least as late as 414/3: this translates into indemnity payments of less than 50T per year—possibly much less, since we have no means of determining the closing date of the payments. This amount is not unduly high for a city of Samos' wealth and size, probably no more than we would have expected Samos' ordinary tribute to have been, and perhaps on the low side following a hard and bitter campaign and siege in which the Samians branded captured Athenians and Athens returned the mutilation in kind (Plut. *Per.* 26).

³⁷ Gomme (*supra* n.1) 273–80 and French (*supra* n.13) 7–20 arrive independently at much the same conclusion, that the quota lists cannot be considered a complete accounting of the tribute paid. Each argues that cash or supplies provided to locally-based Athenian forces often went unmatched by payment of *aparchai* to Athena; French goes so far as to suggest that “the [tribute displayed at the Dionysia] was treated more like the surplus on last year's operations than as the income for the following year” (19). But neither extends this simple idea to its logical conclusion: namely, that the tribute lists serve as a reasonably accurate record of the *surplus* tribute brought to Athens each year.

³⁸ So French (*supra* n.13) 11.

seems more than pure coincidence, for example, that the seven-ship Athenian squadron based at Thasos in 424 (Thuc. 4.105) would have consumed roughly 28T in tribute during an eight-month campaigning season—almost exactly the difference between Thasos’ ‘correct’ payment of 30T and the 3T or less that it pays for a number of years. The transfer of this squadron from Thasos to another city and back again would explain irregularities in the amount of tribute reaching Athens. The same reasoning would apply to payment for garrisons or ship-building at allied shipyards. In fact, Plutarch explicitly tells us that the Athenians accepted empty ships from their tributary allies in place of cash payment.³⁹

The religious question is more difficult to analyze: few matters are as difficult to reconstruct as the unwritten obligations of piety. It can, of course, be argued that the Athenians would have felt a religious obligation to pay to Athena an *aparche* on tribute expended in the field as well as on tribute brought back to Athens. It seems equally plausible that a quota was generally paid only on the surplus tribute, since it was only this sum that, after being brought to Athens, would have been placed under the Goddess’ protection.⁴⁰ A number of tribute rubrics have been invoked as evidence against this latter hypothesis. The heading *αἶδε πόλεις καταδηλοῦσι τὸν φόρον* (“these cities present a voucher for tribute”) has been restored in Lists 25 and 26 (for 430/29 and 429/8);⁴¹ with the aid of further restoration the cities of Myrina, Imbros, and Sestus appear under this heading in both years, along with Alopeconnesus in the latter only.⁴² This is usually understood to mean that these cities contributed their *phoros* to local Athenian forces and were given vouchers so certifying, but paid their quotas to Athena nonetheless. This reconstruction is plausible, but far from certain. Another rubric, *μισθὸν ἐτέλεσαν αἶδε ἀπὸ τοῦ φόρου τῆ στρατιᾶ* (“these cities furnished pay for a military force out of their tribute”), is much clearer.⁴³ The syntely centered on Erythrae is restored under this heading for 430/29, Lampsacus and Byzantium for 428/7, and the cities of Lemnos and Imbros for 421/0.⁴⁴ The rubric *μισθὸν ἐτέλεσαν αἶδε ἀπὸ τοῦ Ἑλλησποντίου*

³⁹ *Cim.* 11; cf. n.57 *infra*.

⁴⁰ Admittedly, the case of Methone, which was required to pay only the quota on the tribute, is unusual. Given the questions of international protocol involved (*supra* n.31), Athens may have wished to use the quota payment as a face-saving device, allowing her to claim nominal if not *de facto* control.

⁴¹ *ATL* I 449f.

⁴² *Supra* n.41.

⁴³ *ATL* I 454.

⁴⁴ *Supra* n.43.

φόρον (“these cities furnished pay out of the Hellespontine tribute”) is restored over a long list of important Hellespontine cities (Chalcedon, Cyzicus, Lampsacus, Elaeus, Abydus, Byzantium, Parium, Madytus, and Dardanus) for 430/29 and 429/8 (Alopoconnesus is added in the former year).⁴⁵

Taken together, this rubric evidence might seem to indicate that piety would compel Athenians to pay a quota to the Goddess on all tribute, whether spent in the field or brought to Athens; if so, then the lists of *aparchai* paid would be equivalent to any record of tribute collected. However, this argument is far from conclusive. One might equally well suppose that payment of quotas on tribute expended in the field represents an exception to standard procedure. In all but one instance the entries in question occur in the first few years of the Peloponnesian War, and none earlier. Except for Erythrae, all the cities involved are in or around the Hellespont. The lack of standardized wording in the rubrics may indicate the uncommon nature of the situation.⁴⁶

The explanation of these unusual payments may be a very simple one: the extreme piety of some individual. Perhaps the Athenian commander in the area during these years—the man who would have collected and spent the tribute mentioned by the rubrics—considered it impious to deny the Goddess her usual share and so reserved a sixtieth part of the money for this purpose.⁴⁷ Similarly, pious individuals or local authorities might occasionally have paid their city’s tribute quota themselves or reserved some of the tribute for this use, persuading the local Athenian officials to agree.

More serious difficulty has been seen in the poor correlation between irregular tribute payments and the presence of large Athenian military forces in the vicinity.⁴⁸ For example, during the years that saw large Athenian fleets besieging Samos and Byzantium (440/39?) and Potidaea (432–429), irregularities in tribute quota payments from neighboring cities (including partial payment and actual default) are no more severe than those for the same cities in more normal years.

⁴⁵ *ATL* I 453f.

⁴⁶ It seems likely that the three distinct rubric headings refer to essentially the same situation. *Cf. ATL* III 88.

⁴⁷ The story of Nicias, whose superstition concerning an eclipse of the moon led to the annihilation of the large Athenian army in Sicily (Thuc. 7.54), is well known. It is not difficult to imagine such a man sending *aparche* to Athena on tribute he had spent in the field, even if this were not customary. This need not imply that Nicias himself was connected with any of the anomalous quota payments.

⁴⁸ *Cf. French (supra* n.13) 13–16. It is this difficulty that convinces French to abandon his tentative steps toward affirming the surplus tribute hypothesis.

This suggests that Athenian forces either did not regularly draw on the tribute income of nearby cities, or that they did so but still sent the tribute quota to Athens. However, we need not assume that a large Athenian task force would always find it worthwhile to ‘scour clean’ the surplus tribute of nearby cities. In the sieges of Samos and Potidaea, the Athenian forces were enormous, consuming a hundred or more talents in pay each month;⁴⁹ their size and importance would have required that they were well and regularly supplied with funds from the central Athenian reserve, and not expected to subsist on the paltry tribute available from nearby cities. In this situation, an Athenian commander would have had little reason to detach several ships to ply the coast in order to supplement his hundreds of talents in silver by four or five talents more.⁵⁰ In any case, spontaneous exactions by local commanders would have tended to increase confusion, hindering tribute collection and making verification of proper payment difficult. For the sake of orderly bookkeeping, the *hellenotamiai* would have frowned on such haphazard and piecemeal exactions, in contrast to the regular expenditure of local tribute money on locally-based squadrons, garrisons, and shipyard work in amounts previously decided at Athens.

Finally, it should be emphasized that surplus tribute collected from subject cities and sent to Athens (perhaps 300–350T per year, according to the tribute quota lists) was merely a local surplus and did not necessarily represent a net annual increment to the accumulated reserve. Fleets based at the Piraeus would have drawn their pay from central funds at Athens, and especially large expeditionary forces would have done the same. For this reason the surplus *phoros* could

⁴⁹ Cf. *supra* n.16.

⁵⁰ In the case of the Samian revolt, the thirty-two “nearby” cities listed by French (*supra* n.13) 13f should probably be reduced to the fifteen or so on the coast or within a fifty miles’ sail of Samos; for these, the maximum yearly surplus tribute was apparently just over twenty talents. In any given year, only part of this would have been available, and this sum would not have been collected in full until the time of the Dionysia. During most of the year, a fund-raising detachment would have been forced to sail hundreds of miles to over a dozen cities along the coast in return for a half-dozen talents of silver at most. These figures for the number of nearby towns and the maximum amount of total surplus tribute available are roughly the same in the case of Potidaea: cf. French 16, but note that he lists several cities a hundred miles or more distant. Finally, in the case of Byzantium, Thuc. 1.116f gives little indication that any serious fighting took place; and in view of the considerable force Athens had concentrated against Samos (over 215 ships from Athens, Chios, and Lesbos), few remaining triremes would have been available for use against Byzantium—probably no more than those normally stationed in the Hellespontine area. Once mighty Samos had been defeated, Byzantium probably submitted peacefully (cf. Thuc. 1.117).

have held constant at 350τ or so during the early years of the Peloponnesian War, while the Athenian reserve shrank by hundreds of talents a year.

III

It is appropriate at this point to turn to predictions based on the theory we are presenting, to determine how well (or how poorly) they are borne out by the evidence available. Unfortunately, only a small number of tribute assessment figures survive. In the ninth assessment (425/4), we have individual records for most of the islands and perhaps two dozen other cities, along with a number of area totals; we have records of about twenty cities from the tenth assessment (421) and a handful of figures and fragments from various other assessments.⁵¹ For many of the subject cities the assessments show implausibly high increases over the tribute payments implied by the tribute quota lists, precisely as we would expect if in many cases the quota payments correspond to only a portion of the tribute paid. In the ninth assessment, Abdera rises from 10τ to 75τ; Maronea, from 3τ to 21+τ; Samothrace, from 2τ to 15τ; Aenus, from 4τ or total absence to 20τ; Caunus, from 3,000 dr. to 10τ; Eretria, from 3τ to 15τ; Chalcis, from 3τ to 10τ; Ceos and Coresia, from 3τ to 10τ; Tenos, from 2τ to 10τ.⁵² Given the forceful language of this particular decree,⁵³ we would expect a substantial increase between the payments of 429/8 and 425/4. Indeed, total assessments rose just over 100% between 432/1 and 425/4 (if we assume that Thucydides' figure of 600τ for annual *phoros* was close to the actual assessment of the time);⁵⁴ but

⁵¹ Much of the following material is derived from *ATL* I (register of tribute quotas and assessments); II 79–83 (additions and corrections to the register), 122–24 (index to the amounts of tribute), 442–60 (supplements to the register, including name variations, fragments, syntely lists, and rubrics); and Meiggs (*supra* n.12) 324–50, 538–61.

⁵² In each case the first figure is based upon the latest surviving quota payment prior to 425/4 (generally from 429/8). I have not included here the numerous increases of 200% or less.

⁵³ “[As to the tribute, since] it has become too little [The] tribute is not [to be assessed] for any [city for less] than [the amount it previously happened to pay] unless there appears to be [impoverishment so that] its area is unable [to pay more.]” Penalties for malfeasance are threatened at every turn. The translation is that of Fornara (*supra* n.12) 154 no. 136; cf. Meiggs (*supra* n.12) 325–32.

⁵⁴ This is not to imply that assessed figures corresponded *exactly* to tribute actually received; this point seems obvious, but helps to remove one apparent inconsistency from the surplus tribute hypothesis. As argued above, the *phoros* in the first assessment came to 460τ. If we add to this sum the roughly 70τ in *phoros* from cities probably not included in the first assessment but known to have been tributary by the end

a tribute increase for an individual city of 400% or 500% is highly suspicious.

The assessment subtotals seem to confirm these doubts. The distribution of tribute payment among regional groupings differs radically between quota records and assessment records. The subtotals for the ninth assessment are: Hellespontine district, 250–300T; Thraceward district, 310–350T; Island district, close to 150T; Actaeon and Euxine cities, perhaps 100–150T; Ionian-Carian district, roughly 550–580T.⁵⁵ The latest tribute quota figures prior to this assessment (mostly based on 429/8 and earlier) show the distribution: Hellespontine district, 85T; Thraceward district, 120T; Island district, 63T; Ionian-Carian district, 110T (with Ionia contributing about 50T and Caria about 60T).⁵⁶ Leaving out the Actaeon and Euxine cities, which appear not to have paid tribute before the 425/4 assessment, the distribution of tribute may be tabulated as follows (for 430/29 the apparent assessment, based on that of 429/8) to show the apparent increase:

of the Peloponnesian War, together with the 39T from Naxos and Thasos (which had moved into the *phoros*-contributing category), we obtain a total assessment for these states of some 570T in 432. This figure might seem to conflict with Thucydides' 600T in total *phoros* income after we have added the large additional tribute payments by Samos, Naupactus, and Amphipolis for which we have argued above. However, Thuc. 2.13 refers to the 600T as the average amount of incoming *phoros*, not the official assessment, and if we assume (say) a 90% collection rate, the assessed tribute in 432 may have been as high as 667T. It is also conceivable that the first assessment of 478/7 included cities (perhaps in Cyprus) which were no longer paying *phoros* in 432; cf. Meiggs (*supra* n.12) 56–58.

⁵⁵ Owing to difficulties of restoration, the subtotals for the Hellespontine and Thraceward regions are uncertain. Although we lack the Island subtotal, it can be obtained by adding the individual assessments, nearly all of which survive (omitting Melos, which Athens apparently tried but failed to coerce into League membership at this time). The subtotal for the Actaeon and Euxine cities is an estimate based on surviving assessments and fragments; cf. Meiggs (*supra* n.12) 328f. Subtracting all these subtotals (and Melos' 15T) from the surviving grand total of 1,460T yields the approximate subtotal for Ionia-Caria. (This figure might have to be reduced if other cities, such as Naupactus, not in any of the previously-mentioned subtotals, paid tribute.)

⁵⁶ It has not escaped the notice and curiosity of scholars that the great and powerful cities of Ionia, so vividly described by Herodotus, paid a total tribute of only 50T, seemingly proving Ionia to be the poorest by far of the League's tribute districts. A theory postulating the economic decline of Ionia has been the result: cf. Meiggs (*supra* n.12) 270f. This view may contain some truth, but it must be emphasized that in the only actual assessment we possess (the ninth), Ionia exhibits no sign of economic decline whatever, producing together with Caria the lion's share of tribute. Admittedly, tribute assessed does not always correspond to tribute paid, as in the case of Melos; but Athenian assessors certainly had a much better idea of Ionia's economic health than we do, and if they chose to set Ionia's assessment as roughly the same as those of, e.g. the Thraceward district, it was because they believed that the cities of Ionia could pay as much.

<i>Region</i>	<i>430/29</i>	<i>425/4</i>	<i>Increase</i>
Ion.-Car.	110T (29%)	ca 565T (43%)	414%
Thrac.	120T (32%)	ca 330T (25%)	175%
Helles.	85T (22%)	ca 275T (21%)	224%
Island	63T (17%)	ca 150T (11%)	138%
Total	378T	ca 1320T	250% (avg.)

The startling rise in the relative contribution of Ionia-Caria is especially difficult to accept at face value. The surplus tribute hypothesis provides a reasonable solution: the quota lists ignore much of Ionia's tribute because many of the great Ionian cities, such as Samos, Miletus, and Erythrae, were being heavily utilized as naval bases or shipyards,⁵⁷ and hence sent little or none of their tribute to Athens. The strength of this proposition is best demonstrated through a case-by-case review of the evidence.⁵⁸

⁵⁷ It seems unlikely that Athens would have failed to make use of the valuable shipyards in Ionia and elsewhere; and in fact, according to Plutarch, "As time went on, the allies continued to pay their contributions to the war against Persia, but they did not provide men or ships on the scale that had been laid down for them. They soon tired of foreign expeditions, for they felt they no longer needed to fight, and only wanted to live in peace and till their lands. The barbarians had gone away and no longer troubled them and so they neither provided crews for their warships nor sent out troops . . . [Cimon] did not bring force to bear upon any of the Greeks and he accepted money or empty ships from all those who were unwilling to serve abroad" (*Cim.* 11, tr. Scott-Kilvert). If Plutarch had a valid source for this substitution of "empty ships" for tribute payment, then a large sum of missing tribute is accounted for. In 483 a trireme cost 1T (*Ath. Pol.* 22.7). If ship-building expenses rose along with most other prices (*e.g.* jurors' pay, soldiers' pay) in the general inflation of the next fifty years (*cf.* Meiggs [*supra* n.12] 331), a trireme may have cost close to 2T by the beginning of the Peloponnesian War. Since Athens maintained about 300 ships, and the average lifetime of a trireme seems to have been about 20 years (*cf.* Eddy [*supra* n.2] 189), some 15 new ships would have been needed each year. This figure should probably be raised to 30–40 when damage from fighting and loss in battle are taken into account (perhaps 80% of the years from 478/7 to 405/4 saw Athenian ships involved in significant naval combat). Therefore, 70T worth of new ships would have been produced on the average; if allied shipyards received half the business, a sizable portion of the 'missing' tribute is accounted for.

⁵⁸ *Cf.* Eddy (*supra* n.2) 189–94, who argues on strong empirical grounds that paying 1T in tribute was considered equivalent to providing one trireme to a League fleet; aside from several of the Ionian mainland cities whose tribute quota payments appear anomalously low and weaken Eddy's case, his evidence seems fairly conclusive. In any event, there must have been *some* recognized conversion factor between cash and ships in order to have made the original assessment process as objective and fair as possible; and from the examples we have, the ratio seems to have been on the order of 1.0—say between 0.7 and 1.3. Esthetics, which have always played a rôle in such matters, would probably have ensured that a ratio of exactly 1.0 was chosen. It is important to emphasize, *contra* Eddy, that contributing a ship almost certainly did not mean contributing its operating costs; these would have come to the considerable 4–8T per campaigning season, and were presumably paid out of League funds (*cf.* Plut. *Cim.* 11; Thuc. 1.99).

Miletus was the greatest of the Greek cities on the Anatolian coast, and had contributed 80 ships to the Greek fleet at Lade, a contingent larger than that of Samos (60 ships) or Lesbos (70) and exceeded only by the Chian force (100).⁵⁹ Miletus' resources would have been considerably reduced by the destruction inflicted by the Persians following Lade, but we would still expect to see Miletus paying 25–30T as a member of the League.⁶⁰ Instead, we find payment of 3T by a Milesian suburb in 454/3; Miletus pays 10T in 450/49, then 5T fairly regularly from 443/2 to 439/8; a payment of some sort is made by the same Milesian suburb in 427/6; and payments of 10T by Miletus more or less regularly from 421/0 to 418/7. These improbably low figures are most often explained politically: it is argued that Miletus revolted *ca* 454/3, was subdued after hard fighting that damaged the city's economic health (hence the low 10T figure), revolted again in the 440's, was again suppressed with further damage—reducing her viability to such an extent that Athens subsequently demanded only 5T in annual *phoros*.⁶¹ The revolts may have occurred (though the evidence for the second is thin), but the tribute reductions seem unlikely. History is not replete with examples of imperial powers magnanimously reducing their tribute demands of a province damaged in an unsuccessful revolt. Payment of a large Athenian garrison out of Miletus' own tribute offers a much better explanation of the statistics.⁶² Use of

⁵⁹ Htd. 6.7f. Miletus was admittedly the driving force behind the Ionian Revolt and probably made a greater relative effort than either Samos or Lesbos, whose contingents proved treacherous or faint-hearted in the battle (Htd. 6.13f). Still, Miletus must at this time have been close in strength to these great island states.

⁶⁰ Ancient cities were notoriously resilient, and often quickly regained their former strength after the alleged annihilation of the bulk of their population. The location of most cities was largely determined by geographical resources; major cities remained major cities. And since population was usually limited by available land and by warfare, a generation of peace was generally sufficient to make good even the most crippling manpower losses. Argos, which was said to have lost the overwhelming majority of its men in a war with Cleomenes of Sparta, was within a few decades again challenging Sparta for dominance in the Peloponnese (Htd. 6.76–83). In the case of Miletus, the forty years between Lade and 454 should have been time enough to repair the devastation vividly recorded by Htd. 8.18–22. My figure of 25T–30T is as low as it is only because the 80 ships at Lade represented Miletus' maximum strength, and its assessed strength would probably have been less than half that.

⁶¹ Cf. Eddy (*supra* n.2) 190f; Meiggs (*supra* n.12) 112–18, 562–65.

⁶² There is mention of a garrison in the Miletus decree (*ATL* II D11; tr. Fornara [*supra* n.12] 92–94 no.92), generally ascribed to 450/49 or so. After the alleged unrest or revolt in the 440's, the garrison may have been augmented; this would explain the drop in surplus tribute sent to Athens. Assuming pay of 4 obols per day (attested in the decree and quite reasonable for garrison troops), 1T would fund 25 men for a year; the 5T reduction in Miletus' surplus tribute would correspond to 125 additional men in garrison.

Miletus as a shipyard or naval base may also have been a contributing factor.

Similarly, Priene had sent 12 ships to Lade, yet it apparently paid only 1τ in *phoros*, and even that sum far from regularly. Teos had 17 ships at Lade, but seems to have paid only 6τ in *phoros*. In both these cases, the balance was probably used for ship construction or as pay for garrison troops.

We have less solid evidence concerning Erythrae, but here again the tribute paid seems suspiciously low. Its syntely (including Sidousa, Pteleon, Boutheia, and Polichna, along with Elaeusa) controlled an area larger than Samos, yet paid an irregular figure ranging from just under 8τ to just over 10τ. To be sure, Erythrae had provided only 8 ships at Lade, but we have no reason to believe that this was anything but a token effort.

Phocaea had sent just 3 ships to Lade, but this too was probably a mere gesture. Before the Persian conquest, the territory of Phocaea had been large enough to allow it to maintain a fleet of some 120 penteconters; even with a sizable reduction in its holdings and population, 3 triremes would represent a relatively minor effort.⁶³ After the Persians had been defeated and Phocaea had become a member of the Delian League, its payments were surprisingly low, ranging from 1τ 5,250 dr. to 3τ. Again, contributions in ship-building may be the explanation.

In view of all these cases—along with rich Ephesus, which, together with its suburbs, paid only 7τ down to 433/2—it is difficult to make sense of this 50τ tribute total for Ionia. Conversely, it is easy to imagine an Ionian contribution of perhaps 350τ (about one-quarter of all the tribute) in the only surviving assessment.⁶⁴

Further support for the surplus tribute hypothesis may be found in the surviving evidence of Athens' accounting procedure for tribute payments. The decree of Cleinias (generally dated 448/7) required the allied cities to send an account book to Athens, to be read in the

⁶³ Hdt. 1.163–68 tells us that the Phocaeans, under siege by the Persians, despaired of retaining their independence and planned to sail *en masse* to Corsica. In the event, less than half the Phocaeen fleet carried through with the plan, and reached Corsica with 60 fifty-oared galleys. This would make the Phocaeen fleet of this period greater than 120 penteconters, equivalent to perhaps 30 triremes.

⁶⁴ As analyzed above, the ninth assessment apparently includes an Ionian-Carian subtotal of some 565τ. The cases discussed here (Samos, Miletus, Priene, Teos, Erythrae, and Phocaea) suggest that most of this, perhaps 350τ, came from Ionia. The only surviving Ionian city assessment, that of Elaeusa in the Erythrae syntely, supports this conclusion. The entire syntely normally paid some 8τ to 10τ, of which Elaeusa was responsible for only 100 dr.; but in the assessment her payment jumps an astonishing 60-fold to 1τ.

boule as the tribute was being counted.⁶⁵ Under orthodox theory, this makes little sense. If virtually all *phoros* was to be sent to Athens, it would be easy for the *boule* to determine whether a city's payment was correct or not: each city's assessment was publicly posted on the Acropolis, and the *boule* undoubtedly had a written copy. At most, a single figure might be sent with each payment of *phoros*, attesting to the amount; this, together with the seals on the chest containing the tribute, would have been sufficient to distinguish cases of partial payment from cases of embezzlement by the couriers. An account book seems superfluous.

On the other hand, such a record would be an obvious necessity within the framework of the surplus tribute hypothesis. A particular city might have provided pay for garrison troops, supported a small naval squadron based in the area, built a few new ships at Athens' request—then sent the balance of the tribute to Athens around the time of the Greater Dionysia, the closing point of the League's financial year.⁶⁶ An account book would be essential in order to keep track of these various contributions and to distinguish honest tributaries from any claiming fictitious expenses. Even with such a system, there would be a strong temptation to cheat, as the Cleinias decree suggests (58–66):

All those who have brought (payment) [to Athens and who on the notice board] are listed as owing [— — —18— — —] publish to the people [— — —20— — — If] any of the cities [raises any dispute about the tribute] payment, claiming to have paid it [— — —16— — —] the government of the [city — — —20— — —] the cities and [— — —20— — —] not be permitted [— — —25— — —] let the liability be the [accuser's].

The text is fragmentary, but seems to describe a dispute over a city's claim to have paid part of its tribute for local military expenses.

Considerations of efficiency and the need to prevent false claims by subject cities would, in most cases, have caused Athens to regularize

⁶⁵ *ATL* II 50f and pl. II; tr. Fornara (*supra* n.12) 107–09 no. 98; cf. Meiggs (*supra* n.12) 212f.

⁶⁶ None of this implies that most cities did anything but send all their tribute to Athens; in the overwhelming majority of cases, involving small cities producing trivial amounts of *phoros*, the quota probably corresponds exactly to the tribute paid. Generally, only the larger cities would have been utilized as land or naval bases or as shipyards: clearly, it would not have been worth the effort for a *strategos* with ten ships to dock at a town assessed 1,000 dr. in order to collect half a day's pay for his sailors. One may also speculate that Athenian field commanders needed special authorization from the Athenian government before making unplanned exactions of *phoros* from allied cities. It is well known that the Athenian *demos* scrutinized the behavior of its military officials carefully, and, except in extreme situations, would have viewed with the utmost distrust any independent authority to collect and spend revenue.

such local expenditures. It seems likely that individual cities were assigned a specific number of ships to build each year for a specific number of years. Similarly, the size of the squadron stationed at each naval base would have tended to remain constant, as would the size of any garrison. This would account for whatever consistency we find in the surplus tribute payment of many cities in the tribute quota lists.⁶⁷ During a period in which squadron movements and transfers were irregular and dictated by unplanned opportunities (as in the initial stages of a war), we would expect increased irregularities in the surplus tribute payments, and indeed this prediction seems to be confirmed in the first few years of the Peloponnesian War.⁶⁸

Perhaps the most striking support for the surplus tribute hypothesis comes from Isocrates' criticism of the arrogance of the Athenians towards their allies in the First Athenian Empire (8.82):⁶⁹

οὕτω γὰρ ἀκριβῶς εὕρισκον ἐξ ὧν ἄνθρωποι μάλιστα ἂν μισθηθεῖεν, ὥστ' ἐψηφίσαντο τὸ περιγιγνόμενον ἐκ τῶν φόρων ἀργύριον, διελόντες κατὰ τάλαντον, εἰς τὴν ὀρχήστραν τοῖς Διονυσίοις εἰσφέρειν ἐπειδὰν πλήρες ἦ τὸ θέατρον· καὶ τοῦτ' ἐποιοῦν, καὶ παρειαῖον τοὺς παῖδας τῶν ἐν τῷ πολέμῳ τετελευτηκότων, ἀμφοτέροις ἐπιδεικνύοντες τοῖς μὲν συμμάχοις τὰς τιμὰς τῆς οὐσίας αὐτῶν ὑπὸ μισθῶν εἰσφερομένης, τοῖς δ' ἄλλοις Ἑλλησι τὸ πλήθος τῶν ὀρφανῶν καὶ τὰς συμφορὰς τὰς διὰ τὴν πλεονεξίαν ταύτην γιγνομένας.

According to the decree referred to here, Athens used hired porters to carry “the surplus of the money from the tribute” (or “the surplus money from the tribute”) into the orchestra, talent by talent, during the City Dionysia—undoubtedly as a demonstration to the allies of Athens' greatness and the wealth of her empire.

According to the orthodox theory of Athens' methods of collecting tribute, the phrase “the surplus money from the tribute” is difficult to explain: for Athens spent far more than she received in tribute during the early years of the Archidamian War, when the decree was

⁶⁷ For example, Thasos pays 3T fairly regularly until after 448/7, and then generally pays 30T after 445/4. Cf. *supra* n.35.

⁶⁸ Too little of the 431/0 list is extant for analysis; but in the 430/29 quotas, of 85 cities whose payments survive 22 made irregular payments. In 429/8, there appear 6 irregular payments in a total of 37, though far fewer records remain of the Thraceward and Hellespontine states, where most of the irregularities of 430/29 occurred. By contrast, a typical list (such as that for 442/1) had 3 irregular payments in a total of 165 cities.

⁶⁹ I am indebted to the discussion of this passage in *ATL* III 16f and Meiggs (*supra* n.12) 433–44.

probably passed.⁷⁰ It is also unlikely that the phrase refers to the total accumulated surplus tribute, *i.e.*, to the reserve: for the size of the total reserve would have required many thousands of porters, each carrying the fifty pounds of silver making up a talent. Moreover, the swiftly-waning size of the reserve during the years of the Archidamian War would have resulted in a markedly reduced display each year, giving the allied representatives an embarrassing impression not of strength, but of progressive enfeeblement. As Meiggs shrewdly observes, a display of 2,000τ would not have reassured those allied representatives who remembered the 6,000τ reserve of 431.

These problems could be resolved by unnaturally interpreting the phrase τὸ περιγιγνόμενον ἐκ τῶν φόρων ἀργύριον as “the annually incoming tribute money.”⁷¹ Or we can grant to Isocrates’ words their plain meaning consistent with the surplus tribute hypothesis, allowing them to acquire the comfortably unexceptionable character of a well-worn cobblestone on a familiar path.

APPENDIX: Severe Variations in the Tribute Lists

Of the following list (see *supra* n.30) it should be emphasized that most of the city and tribute restorations are uncertain, and were generally arrived at by assuming maximum regularity in tribute payment; therefore, the actual records almost certainly showed substantially more irregularity than those given here (absent = absent from full panel; * = tribute restored; ? = city name restored).

ABDERA: 12τ 5,120 dr. in 454/3; 15τ in 452/1 and 450/49; 14τ in 448/7; 1τ + 15τ*? in 447/6 (the 1τ is presumably an arrears payment from the previous year); 15τ in 445/4; absent in 443/2; 15τ* in 442/1; 15τ* in 436/5; 15τ in 435/4 and 433/2; 10τ in 432/1 and 430/29; 10τ* in 429/8; assessed at 75τ? in 425/4 (this assessment included the towns around Abdera, which usually paid 3,000 dr.).

ARGILUS: 10τ 3,000 dr. in 454/3; 1τ in 446/5 to 443/2; 1τ* in 442/1 to 440/39; 1τ in 438/7; absent in 435/4; 1,000 dr. in 433/2; absent in 432/1; 1,000 dr. in 430/29 and 429/8.

BYZANTIUM: 15τ in 450/49; an irregular payment of some size in 448/7; 4τ 4,800 dr. + 3τ 5,840 dr. + (---)*? in 447/6; 15τ 4,300 dr. in 443/2 and 442/1; 15τ 469 dr.? in 441/0; 18τ 1,800 dr. in 433/2; 21τ 4,740 dr. +; 8τ 900 dr.? in 430/29; 15τ 90 dr. in 429/8; 20τ 1,170 + dr.? in 428/7.

⁷⁰ The text refers to wartime, and Ar. *Eq.* 313 (with schol.) indicates that Cleon was the author of the decree and that it was passed shortly after the death of Pericles.

⁷¹ As does A. E. Raubitschek, “Two Notes on Isocrates,” *TAPA* 72 (1941) 356–62, esp. 360.

CHALCEDON: 7T 3,010 dr. in 452/1; 3T in 450/49; 9T in 448/7, 447/6, and 445/4; 9T* in 444/3 and 443/2; 9T in 442/1 to 440/39; 9T? in 439/8; 6T* in 434/3; 6T in 433/2; 6T* in 432/1; 5T 5,100 dr. + 900 dr. in 430/29; 5T 5,100 dr. + 900 dr.? in 429/8.

MARONEA: 1T 3,000 dr. more or less regularly until 437/6; 10T from 436/5 to 433/2; absent in 432/1; 3T in 430/29 and 3T* in 429/8; assessed at 21+T in 425/4.

SELYMBRIA: 6T from 451/0 to 447/6 more or less; 5T from about 443/2 to 439/8; 900 dr. from about 435/4 to 432/1; 9T in 430/29.

SERMYLIA: 7T 4,320 dr. in 454/3; two restored payments, one of which was over 4T, in 453/2; 5T 5,500 dr. in 451/0; 3T in 448/7 and 447/6; 5T from about 446/5 to 440/39; 4T 3,000 dr. in 435/4 and 434/3; absent in 432/1 and 430/29.

TENEDOS: 4T 3,000 dr. in 452/1; 2T 5,280 dr. + 1T 3,720 dr. in 450/49; an irregular payment in 448/7; 2T 5,280 dr. + 3,240 dr. + 2,160 dr. in 447/6; 4T 3,000 dr. in 445/4 and 4T 3,000 dr.* in 444/3; 2T 5,280 dr.* in 443/2 and 2T 5,280 dr. in 442/1 and 441/0; 2T 5,020 dr.? in 440/39; 2T 5,280 dr. from about 435/4 to 429/8.

THASOS: 3T from about 454/3 to 451/0; 2T 2,760 dr.* in 448/7; 3,240 dr. + two other payments, one of which may be 3T, in 447/6; 30T in 444/3; absent in 443/2; 30T from about 440/39 to 429/8; assessed 60T? in 425/4.⁷²

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