

GRAIN DISTRIBUTIONS AND THE REVENUE OF THE TEMPLE OF HERA ON SAMOS

DANIEL J. GARGOLA

GOVERNMENTS, ANCIENT AS WELL AS MODERN, frequently have shown great concern over the adequate supply of food for their citizens; failure to do so could result in human misery and social instability. In many modern states, food is made available at no cost or at reduced cost to poorer segments of the population. Attempts to analyze the activities of Greek city-states in this field have often been marred by assumptions drawn from modern practices and especially from the conviction that measures including the distribution of food must be concerned primarily with subsistence. This paper seeks to demonstrate that one of the most important pieces of evidence in these matters—a law from Hellenistic Samos providing for free distribution of grain to citizens—has been consistently misinterpreted as a measure intended to improve or preserve the standard of living of citizens. A close examination of the text will reveal that those who framed the law were not concerned primarily with the supply of food to the city or to individual citizens either in times of crisis or in more normal circumstances. The law instead was aimed at the simplification of the financial administration of the temple of Hera; that is, the grain law's primary purpose was to convert a revenue in kind into cash in a way that was orderly, secure, and convenient. The law, then, serves more as evidence for the administrative practices and the temple procedures of Greek states than it does for their social services.

The following works will be cited by the author's name only: T. Wiegand and U. von Wilamowitz-Moellendorf, "Ein Gesetz von Samos über die Beschaffung von Brotkorn aus öffentlichen Mitteln," *SBBerlin* (1904) 917–931; J. Pouilloux, *Choix d'inscriptions grecques*, (Paris 1960); A. R. Hands, *Charities and Social Aid in Greece and Rome* (Ithaca 1968); R. Bogaert, *Banques et banquiers dans les cités grecques* (Leiden 1968); P. Veyne, *Le Pain et le cirque: sociologie historique d'un pluralisme politique* (Paris 1976); G. Thür and C. Koch, "Prozessrechtlicher Kommentar zum 'Getreidegesetz' aus Samos," *AnzWien* 118 (1981) 61–88; L. Foxhall and H. A. Forbes, "Sitometreia: The Role of Grain as a Staple Food in Classical Antiquity," *Chiron* 12 (1982) 41–90; G. Shipley, *A History of Samos 800–188 B.C.* (Oxford 1987); P. Garnsey, *Famine and Food Supply in the Graeco-Roman World: Responses to Risk and Crisis* (Cambridge 1988); L. Migeotte, "Distributions de grain à Samos à la période hellénistique: le 'pain gratuit' pour tous?," *Opes Atticae: Mélanges offerts aux professeurs R. Bogaert et H. van Looy in Sacris erudiri: Jaarboek voor Godsdienstwetenschappen* 31 (1989–90) 297–308.

I

The inscription was found early in this century at the site of the ancient city of Samos; it was published shortly afterwards by U. von Wilamowitz-Moellendorff and T. Wiegand.¹ Since that time a number of scholars have reproduced the text and commented on it.² The text is inscribed on a marble column, roughly square in cross section, 1.73 meters in height and with sides between .40 and .46 meters.³ Writing covers three faces of the stone, usually designated A, B and C. The first of those contains the latter portion of the grain law itself, while the remaining two, B and C, contain a list of names followed by numbers, presumably the contributors to a fund and the amount of their contributions. Side A, with 93 lines, is in good condition, but the lists of names and numbers are worn.

The original editors dated the inscription to the beginning of the second century B.C. on the basis of the letter forms and found confirmation in the spelling and syntax.⁴ Half a century later Christian Habicht sought to strengthen the dating through the use of prosopographical evidence gathered from the list of names accompanying the law.⁵ The law, then, probably was enacted in the last years of the third century or the first of the second.⁶

¹Wiegand and Wilamowitz 917–931. Their version of the text was reprinted in the same year by Th. Thalheim, "Gesetz von Samos über Getreideankauf und -vertheilung," *Hermes* 39 (1904) 604–610.

²See W. Dittenberger, *Syll.*³ no. 976; Pouilloux no. 34, where Wilamowitz's text is reproduced. Wilamowitz and Pouilloux provide the text of all three faces, while the other has only one (A). Recently, Thür and Koch (61–88) produced a new edition of the text of side A, which contains the main body of the law, from photographs and a squeeze. In this article the text of Thür and Koch for A will be used—B and C exist only in Wilamowitz's version. English translations (based on Wilamowitz's text) with commentary can be found in Hands 178–180; M. M. Austin, *The Hellenistic World from Alexander to the Roman Conquest* (Cambridge 1981) no. 116; and R. Bagnall and P. Derow, *Greek Historical Documents: the Hellenistic Period* (Chico, Cal. 1981) no. 63. Photographs of the stone and of a squeeze of side A can be found in Migeotte, plates 2–11.

³Thus, Thür and Koch 61. Wilamowitz gives approximately the same figures for the width of the stone, but places its height at 1.23 meters, possibly a typographical error.

⁴Wiegand and Wilamowitz 922–923. In the commentary to *Syll.*³ no. 976 the grain law is dated to 188 on the assumption that land on the mainland gained by Samos in a Roman arbitration of this year was the same as the land that produced the half-tithe. No evidence, however, specifically identifies any portion of the Anaitis as the source of the grain; see below, n. 50.

⁵C. Habicht, "Samische Volksbeschlüsse der hellenistischen Zeit," *AM* 72 (1957) 233–241: a certain Diodorus, the son of Dioscurides, appears as one of the contributors to the fund (B, line 42), while the same name is found on an honorific inscription dated to the years 201–197.

⁶S. V. Tracy ("Hands in Samian Inscriptions of the Hellenistic Period," *Chiron* 20 [1990] 92; and "The Date of the Grain Decree from Samos," *Chiron* 20 [1990] 97–100)

Wiegand and Wilamowitz thought that the fourth side of the column originally was inscribed with the first part of the law.⁷ Recent examinations of the stone have led to a different conclusion, and it appears that this side never was inscribed. Signs of an anathyrosis on the top of the stone, moreover, indicate that another column was placed on top of the surviving one.⁸ Thus, one should envisage the surviving pillar placed with the blank side against a structure, such as a building, and surmounted with another (Migeotte 300); for the sake of stability the missing stone probably was no larger than the surviving one and may well have been significantly smaller.

Existing portions of the text of the law contain detailed regulations defining how officials were to be chosen, what they were to do in office, and how they were to proceed in their tasks, while establishing penalties for failure to comply. The law instructs the *prytaneis* to hold elections to fill three types of office, two of which, the *meledonoi* and the grain commissioners (οἱ ἐπὶ τοῦ σίτου) apparently were created by the law, while the third, the *sitones*, may have already existed and continued to have functions not covered by the law.⁹ The two grain commissioners were chosen from the two tribes which together made up the citizen body, while the *meledonoi*, the exact number of which are unknown, were chosen by the *chiliastyes*, sub-units of the tribe. The *sitones* was chosen from the entire citizen body, i.e., from all the members of tribes and *chiliastyes* voting together.

These officials administered money from a fund probably put together from the contributions recorded on the other sides. The *meledonoi* were responsible for the fund itself, though it was not administered as a whole.¹⁰ The *meledonos* of each *chiliastys* was expected to loan a share of the fund and collect the principal and interest at the end of the term of the loan.

has sought to date the inscription approximately half a century earlier, to the years around 260, using letter forms as well as prosopographical evidence. His conclusions, however, are tentative and it is preferable at this time to retain the original date.

⁷Wiegand and Wilamowitz (917) thought that the writing on this face had been worn away by subsequent use, and that this side originally contained the beginning of the law; in this, they were followed by Pouilloux 127.

⁸Thür and Koch 61–62; Migeotte 300 (see also plate 8). Shipley (213) also holds that the fourth side of the column never bore any writing and that the beginning of the law must have been on another stone, but he does not elaborate.

⁹The law provides for the election of a *sitones*, but it did not assign any responsibilities to him until the ninth month of the year. Furthermore, although the elections were annual, the *sitones* did not necessarily have assignments under the law every year—he only purchased grain when there was excess interest which the people had decreed should be spent. This official, then, probably had other responsibilities—presumably involving the purchase of grain—and the grain law only added to them, while establishing some regulations for the election. *SEG* I 366, line 38, dating to the middle of the third century, indicates that the office of *sitones* may have functioned at that time, if only sporadically.

¹⁰Note the provisions in lines 65–85.

The *meledonoi* next turned the interest over to the two grain commissioners. These officials were to buy grain from the twentieth belonging to the goddess—presumably Hera, the patron deity of the city—and collected from the district of Anaia on the mainland. The minimum price for the grain, five drachmas and two obols, also was fixed in the law.¹¹

The grain commissioners arranged the actual distribution. Beginning in the month of Pelusion—the first of the Samian year and our late June and early July—the commissioners were required to distribute this grain free to the citizens monthly, giving each two measures (*metra*). The law limited distributions to the first ten days of each month; citizens traveling, however, could receive grain until the thirtieth day of the month, if they returned in time. The grain commissioners were to continue monthly distributions in this fashion until the grain available was exhausted. Each month the grain commissioners were to provide the city's record-keepers, the *exetastai*, a list of the recipients by *chiliastys*.

A striking feature of the distributions is that a close connection between the receipt of grain and the *chiliastys* was maintained. The citizens received their portions according to their *chiliastys* and, if the *meledonos* of a particular *chiliastys* failed to loan out his portion of the fund's capital or collect the interest from his loans, the members of that *chiliastys* were to receive no grain unless someone else supplied the money needed to purchase it.¹²

These distributions were the main focus of the law, but it also made provision for an occasional secondary purchase and distribution of grain. If any money from the interest was left after Hera's grain was purchased, the citizen body was empowered to decide in the ninth month of the official year, Artemision, whether to save it for next year, or buy more grain for distribution in the current year. If the choice was to purchase more grain, then the *sitones* was called upon. This official, elected at least nine months earlier and apparently without duties under the law until this moment, was to arrange this, purchasing the additional grain from Anaia unless the citizens thought it more advantageous to buy elsewhere.¹³

The surviving sections of the law are detailed and narrowly focused. They provide, for example, exact descriptions of the procedures the *prytaneis* were to follow while holding elections, while ignoring matters such as the collection and the transport of the grain itself, probably not within the areas of responsibility of the officials appointed under the terms of the law. Extant portions of the text contain provisions for the financial guarantees

¹¹The word used is *sitos* which can mean "wheat" or "grain." Since only one price was given, only one type of grain probably was involved. The distributions, therefore, most likely were of wheat.

¹²See lines 53–55; 65–71.

¹³Garnsey (16) suggests that the matter was brought up at this time because it would then have been possible to roughly estimate the size of the new harvest.

to be provided from those who borrowed from the interest and descriptions of the penalties to be paid by officials who failed in their responsibilities.

The narrow focus of the surviving portions of the law makes it likely that the missing sections were similarly detailed. The most obvious subject for regulation is the fund itself, its collection and management. Other provisions probably covered the financial guarantees to be provided by borrowers from the fund. The known provisions of the law do not establish the interest rate or the term of the loan; the law certainly set a term and it may have established a fixed rate of interest.¹⁴

II

The Samian inscription provides the clearest, most detailed, and least ambiguous evidence for a system of subsidized grain distributions in the Hellenistic world. Interpreting the law and placing it within its proper social and political context, then, is a matter of some significance. The grain fund has received considerable scholarly attention, and, reasonably enough, concern for the food supply of all or some of the citizens has been seen as the motive behind the enactment of the legislation. Such views focus on the need to ensure that enough grain was available – Greek states often were not self-sufficient in this area—and the desire that all or most citizens be able to obtain what was necessary to live.

Such interpretations seem, at first glance, to make sense. Greek states did take steps to ensure an adequate food supply, focusing their attention on cereals, the staple of the ancient diet, which were relatively easy to store and transport (Garnsey 69–86). Generally, the activities of city-states had two different goals: governments acted to ensure that there was an adequate supply of food available and they took care that market regulations were in place so that the free movement and sale of these commodities would not be impaired.

States were able to exercise some control over their domestic markets. At Athens, for example, officials known as *sitophylakes* took care that grain was sold in the market at a just price and that millers and bakers sold meal and bread at the proper price and the proper weight (*Ath. Pol.* 51). In other cities legislation sought to prohibit hoarding (Garnsey 76–77).

The unhindered circulation of grain in the city markets was only part of the solution. An adequate amount of grain had to be available. Thus, some cities banned the export of food.¹⁵ In many cases steps were taken to import grain.¹⁶ Elected officials were expected to maintain good relations

¹⁴For examples of fixed interest rates for public funds, see *IG IX* 1.694; *XII* 7.515.

¹⁵*Ps.-Aris. Oeconomica* 2.1348b33; Plutarch *Solon* 15, 24.

¹⁶On the organization of the grain trade, see L. Casson, "The Grain Trade of the Hellenistic World," *TAPA* 85 (1954) 168–187 (= *Ancient Trade and Society* [Detroit 1984] 70–95); and D. Rathbone, "The Grain Trade and Grain Shortage in the Hellenistic

with merchants who were able to import grain into the city and to grant honors to those who did so (Garnsey 70–74). In some states an official used a special fund to purchase grain in foreign markets and transport it to the city. This imported grain often was sold at market prices or even above (Garnsey 70–71). In times of famine private citizens might subsidize the sale at a lower price, but this was an irregular occurrence.¹⁷ Most Greek states probably lacked the monetary resources to undertake such projects out of public funds, and the needed capital often was raised through private contributions.

Funds for the purchase and resale of grain and regulations of market practices may have been common, but distributions of substantial amounts of grain, in good years as well as in bad, to citizens at no cost or at reduced rates were rare. In the past, many scholars have held that regular subsidized distributions of grain were a common feature in Hellenistic cities.¹⁸ With few exceptions, however, the evidence is sparse, fragmentary, and difficult to interpret, and, in many cases, the amount of grain involved is found on closer examination to be small.¹⁹ The counter-examples are instructive and involve exceptionally wealthy states. At Rhodes, the poor, we are told, traditionally were fed by the rich as a form of liturgy (Strabo 14.2.5). Outside the Greek world, Rome began subsidized distributions to its citizens in 123 B.C., during the tribunate of C. Gracchus; the city was the dominant imperial power in the Mediterranean world and was able to require weaker neighbors to bear the cost.²² These instances—and modern practices—often serve as the background against which grain distribution projects in less wealthy cities are judged.

In reconstructions of the practices of Greek cities in these matters the Samian grain law occupies an important place. The law has been used by many scholars as an indication that a desire to improve the standard of

East," in *Trade and Famine in Classical Antiquity*, ed. P. Garnsey and C. R. Whittaker (Cambridge 1983, Cambridge Philological Society Supp. 8) 45–53.

¹⁷An inscription from Delos records the honors granted to a Byzantine merchant who sold 500 *medimnoi* at a price below the market rate (*IG XI* 4.627). Similar sales occurred at other places: for example, one of 2500 *medimnoi* at Ephesus (*Syll.*³ 354) and another of 3000 at Athens (*IG II*² 360). See Casson (above, n. 16) 174.

¹⁸H. Francotte, "Le Pain à bon marché et le pain gratuit dans les cités grecques," in *Mélanges de droit public grec* (Geneva 1910) 291–312; H. Bolkestein, *Wohltätigkeit und Armenpflege im vorchristlichen Altertum* (Utrecht 1939) 262–267; W. W. Tarn and G. T. Griffith, *Hellenistic Civilization* (New York 1961) 107–108; A. H. M. Jones, *The Greek City from Alexander to Justinian* (Oxford 1940) 217–218; G. Rickman, *The Corn Supply of Ancient Rome* (Oxford 1980) 156–157; Hands 95–97.

¹⁹The evidence is surveyed in L. Migeotte, "Le Pain quotidien dans les cités hellénistiques: une 'affaire d'état'?", *Hommage à la mémoire de Ernest Pascal* (Québec 1990, *Cahiers des études anciennes* 24) 291–300; and "Le Pain quotidien dans les cités hellénistiques. À propos des fonds permanents pour l'approvisionnement en grain," *Cahiers du centre G. Glotz* 2 (1991) 19–41.

²²Garnsey 182; Rickman (above, n. 18) 159.

living or to guarantee an adequate food supply to all citizens lay behind other less certain distributions and, indeed, behind many attempts to purchase grain for resale in the market.²¹ Recent studies express similar views. In his history of Samos, G. Shipley saw the law as "... enacted to ensure that a relatively large number of citizens got at least some wheat during part of the year."²² P. Garnsey, surveying actions taken by ancient states with regard to their food supply, interpreted the Samian law "... as proof that the island still suffered periodically from food crisis," and went on to observe that "it would be interesting to know how far the Samians, in organising the fund and the grain distributions that it paid for, were building on existing institutions and practice; and for how long the fund and the elaborate machinery for administering it were maintained."²³ In the remainder of this paper, we will test such views against the text of the law itself and will propose an alternate interpretation.

III

This brief survey of the known practices of Greek states has provided good reason to doubt the grain law was designed to guarantee the food supply of the island city or to maintain or improve the standard of living. The Samian grain fund brought no additional grain into the territory of the city. The main distributions were made with grain from Samian territory, and the secondary distributions were also expected to use grain from this region. If there was a grain shortage in Samos the operation of the mechanism established by the law would not ameliorate it in any way; this legislation, in other words, could not resolve any actual or possible food crisis.²⁴

A desire to maintain or improve the standard of living is more difficult to disprove as a motive for the law; a free distribution of even small amounts of grain clearly aided those who received it. There are, however, a number of reasons to doubt that concern for a more equitable distribution of food lay behind the law. In this regard, investigation must focus on two aspects: the number of potential recipients and the amount of grain they received.

²¹Bolkestein (above, n. 18) 262-264; Tarn and Griffith (above, n. 18) 107; Hands 95; Veyne 222-223; Francotte (above, n. 18) 291-312; and F. W. Walbank, *The Hellenistic World* (Cambridge, Mass. 1981) 161. All use the Samian law in this way.

²²Shipley (221) here contrasts wheat, which he postulates on the basis of the inscription to have been in short supply, with barley, which he holds to have been plentiful. In his view, the law, then, was intended to guarantee that the citizens received some of the higher quality—and more expensive—grain.

²³Garnsey 16. M. Rostovtzeff, *The Social and Economic History of the Hellenistic World* (Oxford 1941) 2.672-673, also held that the Samian grain law was a sign of poor conditions on the island

²⁴Other programs may have been operating; see above, n. 9.

The prime factor must be the amount of grain actually distributed, and it is clear that the legislators were not interested in maximizing the amount of grain available. Concern, that is, for assisting the most people for the longest time was not the main focus of the law. The framers of the law specified a floor price—not a maximum and not even a fixed price—for the grain:²⁵ "... giving to the goddess a price not less than that which the *demos* established earlier: 5 [drachmas] and 2 obols."²⁶ At the same time they did not allow the grain commissioners to seek grain at a more advantageous rate elsewhere.²⁷

The scale of the Samian distribution can be estimated with reasonable confidence, and this should allow its importance in the lives of the citizens to be determined. To be sure, a lack of precision in the units leaves a margin of error. In the following calculations we will seek to determine the maximum amount of grain available through the fund under the best conditions; the actual scale of the project could well have been significantly smaller.

As we have noted, two sides of the column (B and C) contain lists of names followed by numbers. These probably represent the contributors to the fund and their contributions. Generally, each entry contains the name of the donor, a patronymic, often the names of sons, and the size of the contribution, not expressed in numerals but written out. No units are specified, but the amounts almost certainly are in drachmas.²⁸ Both sides, unfortunately, are damaged. On B the names generally are better preserved than the numbers, while the reverse is true on C. In all there are approximately 125 places on the stone where the amount of a contribution certainly or probably appeared; 82 are on B and 43 on C. Of the entries 65

²⁵Shipley (219) thought that the law established a "fixed reduced price." The wording, however, makes it clear that a floor price was established and not a fixed price or a ceiling price.

²⁶Lines 24–27: ἐκείνοι δὲ ἀγοραζέτωσαν σίτον τὸν ἀπὸ τῆς εἰκοστῆς ἀπομετ<ρούμε>νον τῆς ἐξ Ἀναΐων, διδόντες τῇ θεᾷ τιμὴν μὴ ἐλάσσονα ἢς πρότερον ὁ δῆμος τέταχεν <δραχμάς> πέντε καὶ δύο ὀβολούς. The first unit, drachma, is not on the stone. Instead, there is a space of about five letters which apparently was never inscribed (see Thür and Koch 73, n. 18). The use of obol, however, makes the identity of the first unit secure.

²⁷Pouilloux (134), pointing to provisions for a possible secondary purchase of grain late in the year, held that purchasers were allowed to seek the best price in grain. This freedom, however, was not allowed for the main purchase which must have taken the bulk of the money from the fund.

²⁸Wiegand and Wilamowitz 928; Garnsey 81, n. 27; Thür and Koch 77, n. 38; and Shipley 219. Another decree from Samos (*SEG* I 367), of approximately the same date and also concerning the temple of Hera, is arranged in the same manner as our inscription. Three of the four sides of the column have lists of names followed by numbers; only the first figure on each side has the unit given: drachmas. The corresponding places on both sides of our inscription would have been on the missing upper portion of the column.

are complete or have enough letters surviving to enable the word to be read with certainty. The amounts are standardized: 100, 200, 250, 300, 500 and 1,000. In 28 of the remaining instances enough has survived that, given the standardization of contributions, they can be restored with probability. The evidence for the remaining cases is not sufficient for restoration.

The overall size of the fund clearly was not large. Of the 93 known and probable amounts, most are small; 59 of the contributions are for the minimum recorded, 100 drachmas, and only one is for the maximum, 1,000. In all 15,700 drachmas were provided. If the average for these 93 cases (approximately 170 drachmas) holds for the 32 that could not be restored, the total amount recorded on the lower column would have been approximately 21,000 drachmas or $3\frac{1}{2}$ talents.²⁹

Any estimate of the amount recorded on the missing upper portion of inscription must be less certain, since its size is not known. Nevertheless, a reasonable attempt can be made. This column apparently was fastened to the lower by means of a peg inserted into a hole made in the top of the lower stone.³⁰ Such an arrangement clearly would be more stable if the larger segment were on the bottom.³¹ In fact, the smaller the upper section, the greater would be the stability of the whole. Thus, we can be confident that the upper stone would have been no larger than the surviving one; it may well have been significantly smaller.

On the stone the lists fill all of side B and most of C. In the original arrangement, the corresponding sides of the upper stone probably would have been completely filled. Thus, if the upper and lower segments were approximately the same size, the two missing faces probably each would record contributions in the same range as B: 14,000 drachmas. When the possible 28,000 drachmas of the upper stone are added to the 21,000 of the lower, the maximum amount of the fund would be around 50,000 drachmas.³²

The interest rate for loans made from the fund is not given in the surviving portions of the law. Loans from the funds of the temple at Delos, however, were made for centuries at the rate of 10%.³³ Generally, in the first half of the second century, loans made on good security were cheaper, some as low as $6\frac{2}{3}\%$.³⁴ The grain law established stiff penalties, paid from the property of the offending official, for *meledonoi* who failed to collect the

²⁹Wiegand and Wilamowitz (928) and Bogaert (206) placed the total at around 20,000 drachmas; Shipley (213) thought it "over 18,000 drachmas," while Garnsey (81) put the full amount at 21,312 drachmas.

³⁰Thür and Koch 61-62; Migeotte 300 (see also plate 8).

³¹Migeotte (300) suggests that the two sections were of comparable size.

³²Migeotte (302) places it at 49,680.

³³G. Billeter, *Geschichte des Zinsfusses im griechisch-römischen Altertum bis auf Justinian* (Leipzig 1898) 58-60.

³⁴Billeter, *op. cit.* 87.

principal and interest; security must have been an important concern for the lender. Since we are looking to establish an upper limit for the scale of the distributions, the higher rate, 10%, will be used, but we must keep in mind that the actual rate of interest could well be smaller. From a fund of 50,000 drachmas, then, no more than around 5,000 drachmas probably would be earned each year.

The law established 5 drachmas and 2 obols as the minimum price for a unit of grain; if the market price happened to be higher presumably this would be paid. Although unspecified, that unit was probably the *medimnos*, slightly more than 50 liters or $1\frac{1}{2}$ bushels.³⁵ With the largest possible capital lent at a high rate of interest the revenue of 5,000 drachmas would purchase at the lowest possible price less than 1000 *medimnoi*.³⁶

The law also contains instructions as to the size of each monthly ration: two measures (*metra*) for each citizen every month for as long as the grain lasted. Again the unit is not specified. Since the most common unit for grain was the *medimnos*, some scholars have taken this as the unit.³⁷ Now, one *medimnos* of grain should feed an active adult male for a month, and two would take care of the grain requirements of a household for the same period.³⁸ At this rate, the subsistence needs in grain of a family would be met with no cost to them in any month in which they received rations.

We must remember, however, that at most no more than 1000 *medimnoi* of grain were available. A monthly ration of two *medimnoi* would provide no more than 500 rations, and Samos had well over 500 citizens. This is a strong argument against the identification of the *metron* with the *medimnos*, since the entire supply would then be exhausted within the first month. In fact, those traveling and, as a result, eligible to receive grain until the thirtieth day of each month, probably would be disappointed even in the first month of the distribution.

Clearly, the mechanics of the system call for a smaller unit.³⁹ If the measure was the *choinix*, the smallest unit generally used for grain in Greece

³⁵The *medimnos* was the standard unit for grain. An examination of known prices of wheat makes the identification more likely. At Delos in the early second century, prices as high as 11 drachmas a *medimnos* and as low as 3 are known. Slightly later prices of $5\frac{1}{2}$ drachmas and 4 drachmas are found (see Heichelheim, *RE Supp.* 6 [1935] 819-892, s.v. "sitos"). The floor price, as could be expected, is toward the low end of this range. See Bogaert 206; Thür and Koch 73, n. 18; Shipley 219; Garnsey 81, n. 27.

³⁶Migeotte (304) puts the amount at $937\frac{1}{2}$ *medimnoi*. Shipley (219) and Garnsey (81, n. 27) place the amount of grain around 400 *medimnoi*, using figures for the income derived only from the contributions recorded on surviving portions of the stone.

³⁷Bolkestein (above, n. 18) 264; *Syll.*³ 976; Foxhall and Forbes 60; Thür and Koch 75, n. 29. Wiegand and Wilamowitz (925), Pouilloux (34), Shipley (219), and Garnsey (81) leave the question of the unit open.

³⁸Foxhall and Forbes 59-60.

³⁹Migeotte 305-306; Shipley 219-220.

and 1/48th of a *medimnos*, many more rations would be available. In 1000 *medimnoi* there are 48,000 *choinikes*. A ration of two *choinikes* would provide 24,000 units; much more appropriate for the provisions of the law. Two *choinikes*, however, provides no more than two days subsistence for an adult male;⁴⁰ this is a minor amount for a single man and insignificant for a family.⁴¹

The small scale of the operation is even more apparent when we consider the size of the citizen body. The population of Samos is not known with certainty; based on modern population figures Shipley thought that the highest, and most probable, level for ancient Samos would approach 50,000—members of citizen families, resident aliens, and slaves; within this group the adult male citizen body—the potential recipients of the grain—would have numbered between 6,000 and 12,000 (Shipley 12–15.). At the lower end of this range of variation, the amount of grain available, 1000 *medimnoi*, distributed at two *medimnoi* per citizen per month would have supported no more than one citizen household in twelve for one month of the year, while at the higher end only one in twenty-four would benefit. With 6000 adult male citizens—again the bottom of the range—and with a ration of two *choinikes*, the supply of grain would last for no more than four months if most potential recipients sought grain.

At the level of greatest effectiveness—high interest rate, low price of grain, and small citizen body—the law would not provide a significant amount of grain for the population. If the measure used in the distributions was the *medimnos*, 1000 rations would provide subsistence for one month to about 8% of the citizen families, too little to help even the poor. With a smaller measure more citizens could receive grain and the distributions could continue longer, but the ration would decline in importance for the individual recipients. At two *choinikes*, the fund would provide a token amount of grain to most of the citizens for a third of the year. Thus, the distributions established by the law could provide little improvement in the standard of living of the citizens and, even in the best of cases, only a marginal improvement for a very few.

Some writers speculate that the distributions were intended to be received only by some small element of the population, such as the poor.⁴²

⁴⁰Foxhall and Forbes 51–55.

⁴¹Other units between the *medimnos* and the *choinix* are possible. If the measure was the *hekteus* (8 *choinikes*) 3000 rations would be available, each providing half the grain requirements for an adult male each month; the available rations probably would not last more than one month.

⁴²Shipley (219) speculated that "the citizens" mentioned by the law were defined in the missing portion to be some sub-set of the entire citizen body. Greek grain distributions, however, generally were not limited to the poor; see R. J. Rowland Jr., "The 'Very Poor' and the Grain Dole at Rome and Oxyrhynchus," *ZPE* 21 (1972) 69–72. At

The law identifies those eligible to receive rations clearly when it instructs the commissioners to give grain to those citizens who were present by *chiliastys*.⁴³ Membership in these sub-divisions of the tribe was one of the basic marks of citizenship;⁴⁴ there is no reason to imagine that the needy were divided evenly over these groups.⁴⁵ All adult male citizens clearly were qualified. This feature of the law probably indicates that symbolically the entire citizen body was the recipient.⁴⁶

IV

The Samian law, then, was not intended to guard against food shortages and certainly did not improve citizens' standards of living significantly. Its purpose must lie elsewhere. One important feature of the law—its close connection with the revenues of the temple of Hera—merits further attention. That tie is clearly indicated by the source of the grain; it was taken from the district of Anaia, and, more precisely, from the twentieth due to the goddess Hera from that region:

ἐκεῖνοι δὲ ἀγοραζέτωσαν σῖτον τὸν ἀπὸ τῆς εἰκοστῆς ἀπομετ<ρούμε>νον τῆς ἐξ Ἀναίων, διδόντες τῇ θεῷ τιμὴν μὴ ἐλάσσονα ἢς πρότερον ὁ δῆμος τέταχεν <δραχμὰς> πέντε καὶ δύ' ὀβολούς.

No other source was allowed for the main distributions, and any secondary purchase of grain could only be made with money remaining after the goddess's grain had been bought.

Rome, the distributions under the law of Gaius Gracchus were available to all citizens present; see Rickman (above, n. 18) 159.

⁴³See lines 52–55, and especially lines 53–54.

⁴⁴See L. Robert, *Opera minora selecta* 2 (Amsterdam 1969) 749–751; Shipley 286–289; N. F. Jones, *Public Organization in Ancient Greece: A Documentary Study* (Philadelphia 1987) 197–202. Thür and Koch (77, n. 38) offer the possibility that the principal allotted to each *chiliastys*—and, thus, the amount of grain that could be purchased for each—varied according to the number of citizens in the group.

⁴⁵Shipley (291–292) suggests that the *chiliastyes* were territorial in nature.

⁴⁶The total number of *chiliastyes* is unknown. Shipley 286–287, identifies seven, all from one tribe. Jones (above, n. 44) 199, gives eight, in a list that largely overlaps with Shipley's. If we speculate that the seven *chiliastyes* identified by Shipley as belonging to one tribe make up the entire complement of that tribe's *chiliastyes* and that the other tribe had the same number, then we can form some idea, if only a very rough one, of the number of these sub-units. If there were, in fact, fourteen *chiliastyes* in a citizen body of 6,000–12,000, each *chiliastys* would average between 400 and 800 adult men. The basic meaning of the word *chiliastys*, "group of one thousand," may confirm the order of magnitude. If 1000 *medimnoi* were divided equally among those *chiliastyes* each would receive less than 75 *medimnoi*, which would support only six adult males for a year; the poor again could not have benefited greatly. For the use of *chiliastys*, see P. Debord, "Chiliastys," *REA* 86 (1984) 201–211.

The framers of the law, in addition to dictating the source of the grain, also set the minimum amount that could be given for it. This floor price ensured—and probably was intended to ensure—that the goddess Hera received a fair price. No maximum was given; any higher price probably would have reflected the market rate, and fixing a ceiling could have cheated the goddess. In these provisions there is no indication that seeking the best deal for the people was a consideration. The system established by the law, then, regularly converted a revenue paid in kind to the temple of Hera into money at a rate that was advantageous to the patron deity of the city. This money, of course, would have been stored in the temple where it would serve as a source of loans for the city in times of need. The prime focus, in other words, was on the revenue of the temple.

The relationship between the fund itself and the revenue of the temple of Hera can also be seen in another feature of the system. In lines 27–37, the text contains provisions for dealing with excess interest after the grain from the twentieth had been purchased; to the framers of the law it must have appeared possible that there would be a surplus, even if only remotely so. In other words, the interest gained from loans made from the fund should have been able—at least occasionally—to pay for the entire revenue coming to the temple from Anaia and still have money to spare.⁴⁷

That conclusion invites the conjecture that the size of the fund was tailored to purchase the grain available from the half-tithe. In other words, the framers of the law may have estimated the amount of money needed to purchase the grain expected to come to the goddess from Anaia and then set a target for the contributions necessary to provide the money to buy it. As noted earlier, the known contributions come in standardized amounts: 100, 200, 250, 300, 500, and 1,000 drachmas. None of these sums is particularly large; in the mid-third century, one individual alone provided one talent (6,000 drachmas) for the city (*SEG* I 366). This standardization should mean that the amount to be contributed by individuals was widely acknowledged—although not necessarily formally set—and was determined by the relative worth of the contributors. The legislators, in other words, may well have had a target figure in mind.

If these conclusions are correct, the contributions actually made probably were in the expected range. The legislators, of course, may have expected the fund to be larger, but it is more likely that their goal was met. In 59 cases donors gave the lowest amount: 100 drachmas. In 21, they provided 200 drachmas. The overwhelming majority (80 out of 93) of the known contributions, then, were at the low end of the scale. If the framers of the law intended the fund to be substantially larger, either many of those

⁴⁷ Another feature of the law illustrates the close connection between the law and the territory of Anaia: the *sitones* was expected to buy grain there with any surplus interest and was able to purchase it elsewhere only on orders of the *demos*.

expected to contribute failed to do so or most of those who did contribute gave far less than was expected. In other words, there would have to have been massive resistance by the rich; there is no reason to suspect this.

The connection of the law with the revenue of the temple is emphasized and clarified by close examination of the lines that specify the source of the grain and fix the floor price. Here we find that the minimum price was not originally set in the grain law itself: . . . διδόντες τῇ θεῷ τιμὴν μὴ ἐλάσσονα ἢς πρότερον ὁ δῆμος τέταχεν . . . The framers of the law clearly describe that price as having been set earlier by the *demos*. The use of πρότερον coupled with the perfect of τάσσω clearly indicates that this minimum was the result of an action completed before the passage of the grain law. The *demos*, that is, had promised at some earlier date that the temple of Hera would receive at least 5 drachmas and 2 obols per measure for the grain. The grain law set up the procedures needed to guarantee that the promise was kept.

No indications as to the date and the circumstances of the original popular decree can be found in the text of the law; the grain law, which established the means to fulfill the pledge, may have closely followed the first decree, or the people could have made the promise in the more distant past and passed the grain law only after difficulties had arisen with earlier arrangements. Some speculation about the circumstances behind the earlier promise is possible. The temple received 5% of the grain grown in the Anaitis or a portion of it.⁴⁸ The revenue clearly does not derive from a temple estate. At Delos land owned by the temple of Apollo was leased for a cash rent as a result of competitive bidding;⁴⁹ the responsibility for converting crops into money belonged to the individual renting the land. Hera's revenue in kind from the mainland, calculated as a single, fixed percentage of the yield, indicates that a different form of land tenure was involved.

The years around 200 were turbulent ones and this was reflected in difficulties the Samians experienced in maintaining their control over the

⁴⁸The district of Anaia was an extensive one, including the alluvial plain and an unknown portion of the hills to the east, which are rarely more than five kilometers from the coast; its exact boundaries are uncertain and they clearly fluctuated over time (below, n. 50). Shipley (219) and Hands (95) assume that Hera's half-tithe was collected from the entire district. While possible, that is not necessarily the case, and the smaller the actual size of the fund—our calculations are of the maximum—the less likely such a conclusion becomes. If the temple actually collected 1000 *medimnoi*, the total harvest subject to the half-tithe would be around 20,000 *medimnoi*. A. Jardé, *Les Cereales dans l'antiquité grecque* (Paris 1925) 60 (see also Garnsey 95–96), estimated that Greek wheat yields averaged between eight and twelve hectoliters per hectare. Thus, at average yields 20,000 *medimnoi* would represent the harvest from about 1000 hectares or 10 km.², a figure which perhaps should be doubled to allow for fallow periods (see Garnsey 93–94). The fund at its maximum conceivably could have purchased the half-tithe from the entire region; a smaller fund probably could not.

⁴⁹See J. H. Kent, "The Temple Estates of Delos, Rheneia and Mykonos," *Hesperia* 17 (1948) 243–338; and B. Cavagnola, "I locatori delle proprietà del dio Apollo a Delo," *RendistLomb* 106 (1972) 51–115.

Anaitis.⁵⁰ In that period, for example, the southern portion of the territory, known as Batinetis, was the object of a dispute between Samos and Priene. Inscriptions from Priene reveal that Rhodian arbitrators awarded a portion of the territory to Priene in the years between 196 and 192 (*I Priene* 37). In 188, the Roman general Cn. Manlius Vulso and the legates who assisted him awarded land to Samos.⁵¹ In such circumstances, or in similar ones, the promise to a deity of a portion of the harvest of land threatened or thought to be threatened would be understandable.

The conclusion that the grain law was especially concerned with the handling of temple revenues is strengthened by other evidence. Another decree, if correctly restored, records that the Samians elected officials also called *meledonoi* by *chiliastys* to office at the Heraion.⁵² The *chiliastys*, then, appears to have been a common unit of organization for cultic purposes—although it need not have been limited to these purposes—and the title of *meledonos* was used for officials who supervised aspects of temple administration.⁵³

V

The operation of the mechanisms established by the grain law had benefits beyond the easy conversion of a revenue in kind into money. An examination of the way the system functioned clearly shows a number of possible advantages. In a Greek city, claims to high standing in the community rested mainly on election to office and on public benefactions.⁵⁴ The grain law clearly provided an opportunity for public benefactions, and the actual distribution of grain would advertise the gift. The measure also established a number of new elective offices: two grain commissioners and perhaps fourteen or more *meledonoi*.⁵⁵ The new positions would have made it much

⁵⁰See U. Fantasia, "Samo e Annia," *Serta historica antiqua* (Rome 1986, Pubblicazioni dell'istituto di storia antica e scienze ausiliarie dell'Università degli studi di Genova 15) 113–143; Shipley 185–201.

⁵¹See R. Sherk, *Roman Documents from the Greek East* (Baltimore 1969) no. 10.

⁵²L. Robert, "Inscriptions de Lesbos et de Samos," *BCH* 59 (1935) 477–486, no. 3 (= Robert, *Opera minora selecta* 2.746–755).

⁵³The law (lines 3–8), when setting forth regulations for the elections of the *meledonoi*, requires each citizen to sit with his *chiliastys* and each *chiliastys* to occupy a different section of the theater. It would be interesting to know whether such requirements were typical of all electoral meetings or were ordained only for those dealing with the affairs of the *chiliastyes*.

⁵⁴See Veyne 228–241; and P. Gauthier, *Les Cités grecques et leurs bienfaiteurs* (Paris 1985, *BCH Supp.* 12) *passim*. One wonders if the failure of the law to clearly specify the size of the ration is the result of a desire to make the project—and the benefaction—seem greater than it actually was.

⁵⁵For the number of *chiliastyes*, and, thus, the number of *meledonoi*, see above, n. 48. The office of *sitones* may have already been in existence; see above, n. 9.

more likely for those seeking office—most of whom must have been among the contributors to the fund—to be successful at some level;⁵⁶ that is, the legislation increased significantly the opportunities for achieving political honors.

The potential advantages go beyond new offices and opportunities for gift-giving. The disposal of grain belonging to the patron deity of the city could easily cause serious difficulties for those charged with the task; such problems were largely removed by the purchase of grain under the mechanisms of the law and its distribution to the citizenry. The earlier decree placed a floor price on Hera's grain; under certain conditions this might be difficult to achieve on the open market. If officials sold the grain in large quantities to grain dealers, moreover, they could come to share in the unpopularity that such merchants often had, and their dealings with them could leave office-holders open to attack.⁵⁷ Those who might be charged with selling grain, in effect, served two masters with conflicting aims. On the one hand, they would be expected to get the best possible price for the goddess, while, on the other hand, the people, who dispensed honors and prestige, would be the ones ultimately paying the high price for an essential commodity. Thus, the sale of grain could be a source of difficulty for the temple officials; they could be criticized if they failed to get the best price, if they withheld part of the grain in the hope of higher prices, or if the sale seemed to result in excessive profits for the purchasers. Under the terms of the grain law, this sale would be removed from controversy. The competent officials certainly would be able to get the best price, since the money was provided from the fund, and the grain itself would be distributed broadly and without charge to a large number of citizens.

In the process of creating more offices and sheltering them from dangerous responsibilities, the framers of the grain law did not encumber most successful office-seekers with burdensome tasks. The *meledonoi*, the most numerous group of officials, were elected in the last month of the official year, our late May and early June and the month of the harvest on Samos; they probably took office almost immediately. The new *meledonoi* collected the money lent by their predecessors and paid the interest to the grain commissioners. No doubt they also made new loans at this time. Thus, the activities of the *meledonoi* were simple and were concentrated in a short

⁵⁶The office-holders would be chosen from the wealthier segments of the population. Lines 40–46 establish a property qualification for the grain commissioners of three talents and one for the *sitones* of two talents. At the beginning of the surviving text, there is a reference to the wealthiest citizens; the following lines cover the election of the *meledonoi*.

⁵⁷For an example of how dealings of public officials with grain dealers could result in political difficulties and even prosecutions for the officials, see T. Figueira, "Sitopolai and Sitophylakes in Lysias' 'Against the Graindealers': Governmental Intervention in the Athenian Economy," *Phoenix* 40 (1986) 149–171.

period at the beginning of the year; for most of the year they had no duties under the law. Barring malfeasance or incompetence the individual *meledonos* faced little risk and need expend little effort.

The two grain commissioners had the most burdensome task and, since they actually gave the grain to the citizens, they may have received the greatest political benefits.⁵⁹ The commissioners were given the interest collected by the *meledonoi*. Since these officials began their distributions with the official year in late June almost immediately after the harvest, they clearly took office no later than the *meledonoi*, again before the beginning of the official year. The collection of the half-tithe and its transport to the city must have been virtually completed by the end of the harvest, and clearly was not the responsibility of officials established by the law. The sale itself must have been simple. Once the price was set—probably by agreement with the temple authorities—and the amount of grain known, all that was needed was the transfer of money.

The commissioners then proceeded to supervise the distributions, a task certainly requiring their presence for the first ten days of each month. That portion of their job, depending on the amount of grain available and the number of recipients seeking grain, may not have lasted more than a few months; for much of the year—and most of each month—the commissioners must have had no responsibilities under the law.

The law which established the grain fund on the island of Samos was not intended to secure the food supply of the island or the standard of living of its citizens. Instead, the purpose of the legislation is to be sought in the political and administrative arrangements of the Samian state. The law enabled a revenue in grain to be converted into money and, in the process, ensured that earlier promises made to the patron deity of the city could be easily kept. At the same time, the law also served other interests of the class of office-holders and potential office-holders by establishing a number of new offices, while protecting the successful office-seeker from having to perform controversial tasks. The law, then, is evidence for the administrative, political, and financial arrangements of Greek cities above all else.⁶⁰

DEPARTMENT OF HISTORY
UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506-0027

⁵⁹Note that the commissioners never purchased grain in the open market. If a supplementary distribution was to be made the additional grain was purchased by the *sitones*, who probably already had similar responsibilities.

⁶⁰I would like to thank Professors H. C. Boren, J. Linderski, R. J. A. Talbert, W. C. West, and the readers for *Phoenix* for their helpful suggestions.