Grain for Delos

By Joshua D. Sosin, Durham, NC

A decade ago Gary Reger offered an arresting analysis of Delian sitònia-funds, special endowments that were dedicated to the purchase of grain. He argued that these funds suffered “chronic cash shortfall[s]” of roughly 25%. The study contributed to Reger’s more comprehensive argument that free Delos was not a great hub of trade, but rather a “Kykladic backwater”. I do not wish to challenge the broader thesis, but will argue that Reger’s observations on the mechanics of the Delian sitònia-funds need modification.

Early Sitònia

A scrap of the hieropoioi accounts from 301 BC tells us that the city borrowed 1,000 drachmas from Apollo in order to purchase grain. Half a century later there was another loan to purchase grain; the hieropoioi of Apollo report lending the city 10,050 drachmas.

Reger translates and explains:

And for the purchase of grain we borrowed of the sacred money by decree for the city and for the guarantors [three persons are named] 10,500 dr on the hypothecation of the public incomes. The money was lent to the hieropoioi themselves (the first-person-plural subject of the sentence), on behalf of the city and three guarantors ... The repayment of the loan was accomplished through the obligation of public income.

But δανείζω in the active voice means “lend”, not borrow, and takes a dative indirect object (τῇ πόλει καὶ προδανεισταῖς). 'Υπέρ plus the genitive, and not a

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2 IG XI.2 146.A.20-21: δανείζως Ἡ/Ἡ/errupted ἀλλὰ καὶ ἄλλας ἐπʼ ὑποτήρη τῆς ἡ/η πόλεις ἐπίταχτα X ... 400 drachmas, and another 1,000 for the price of the grain that the city purchased.
3 IG XI.2 287.A.123-125 (250 BC); for MP (124) corrected from MP see V. Chankowski-Sablet C. Feyel, “Comptes de la fin de l’indépendance délienne”, BCH 121 (1997) 103-124, at 123.
Sitōnia in 209 BC

Reger suggested that the Delians created the sitōnia-fund in 209 BC, observing that the hieropoioi for that year recorded two payments to sitōnai, in the amounts of 13,014 drachmas and 25,138 drachmas 1/12 obols:

\[ \cdots \text{καὶ θείαι} \text{εἰς Αρτεμίσιον} \text{ΜΜΠΗΔΔΓΗ}[+\text{]} \cdots \text{θέσαν} \cdots \cdots \text{ος παροισίας} \text{βολῆς καὶ γραμματίων} \text{Εὐχελείῳ καὶ Τελεστοκίτων} \cdots \text{παροισίας} \]


12 ὅ[σου]ς ἤ ΜΧΧΧΗΗΗΗ Λοπόν ἐν Ἀρτεμίσισι ΜΜΠΗΔΔΓΔΓΗ[+\text{]}] καὶ ἤμειζ — — [... τὸ ΦΦΠΠ τὸ πᾶν ἐν Ἀρτεμίσισι ΜΜΠΗΔΔΓΔΓΗ[+\text{]}] καὶ τῆς πόλεως [Εὐχελείῳ, τοῦ τῶν ιερο[ι]ποιῶν Τελεστοκίτων].

The following explanation of events is offered:

In its very first occurrence, in 209 B.C., the fund received a payment of 13,014 dr early in the year, and another in Artemision (4) of 25,138 dr and a few obols. The sitōnai seem to have repaid to the hieropoioi in Artemision (4) a total of at least 27,488 dr 1/12 ob, though certainty about these transactions is impossible, owing to the lacunae in the text.

Thus two payments are envisioned, but λοπόν ἐν Ἀρτεμίσισι ΜΜΠΗΔΔΓΔΓΗ[+\text{]}] in line 12 means, “The balance in the Temple of Artemis (is) 25,138 drachmas 1/12 obols”. Reger has mistaked the temple of Artemis (Ἀρτεμίσιον) for the month of Artemision (Ἀρτεμίσιον). Λοπόν is the subject of an elliptical verb, not the direct object of ἔδομεν of the preceding sentence. The Greek does not say who paid in the 27,488 drachmas 1/12 obols. The account simply states that money was in the temple of Artemis. The syntax in this portion of the text is clear: it is addition.

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Table 1. Transactions in I Délos 1 362.A.12-13.

<table>
<thead>
<tr>
<th>Line</th>
<th>Transaction</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>The balance in the Temple of Artemis was 25,138 dr. 1/12 ob.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>And we [paid in N dr.]</td>
<td></td>
</tr>
<tr>
<td>12-13</td>
<td>[And]</td>
<td>850 dr.</td>
</tr>
<tr>
<td>13</td>
<td>The total in the Temple of Artemis is 27,488 dr. 1/12 ob.</td>
<td></td>
</tr>
</tbody>
</table>

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5 1. Délos 1 362.A.6-14; Reger, ClAnt 12 (1993) 319 Table 3, with discussion at 320.
7 “4” here indicates that Artemision was the fourth month in the Delian calendar.
9 Reger, ClAnt 12 (1993) 320, adds the text in the context of an argument as to the “significant timing of loans” for sitōnia.
two very well known third-century instances Erythrai and Samos commissioned sitōnai for what appear to have been one-time purchases of grain.

Sitōnia in 192 BC

Evidence for sitōnia in 192 BC consists of a handful of lines in the hieropoioi account for that year. The section of the account as it stands does not construe:

...[τῷ πάντας] Μύρων ἔδωκε τῷ δημοσίῳ Προκρίς ἐγκατέστησε τὴν δημοσίαν, καὶ καθαείς μετὰ τῆς δημοσίας, τοῖς εἰσὶν τοιούτως τοῖς παράδομοι προκρίς.

Evidence for that year: the section of the account as it stands does not construe.

From this we gave the grain-purchasers, 20,346 drachmas for the purchase of grain 34,890 drachmas to the god; from rents: ... And this other sum of money came in to the god; from rents: ...

Let us begin with lines 70–73, which are coherent independent from 68–69. The account records two deposits for the purchase of grain, the total of the two deposits, the subtraction of 47,000 drachmas from that total and the new balance.

The restoration, M[ενόλλεια]ων, in line 70 cannot be correct – Durrbach had doubts. If the hieropoioi had transferred the 34,890 drachmas 1/2 obols to Menylos, they could not subsequently have given the money to the sitōnai (έδωκε, 72). None of the figures in 70–73 is the result of modern deduction; all were recorded on the stone. And they tally. It would be perverse to suggest that the fractional numbers in 70 and 71 balance with those in 72 by coincidence. We keep math or Menylos, but not both.

In the place of M[ενόλλεια]ων I propose ὁ[γενόκαθε[ν]]ον. In the Delian hieropoioi accounts the phrase καὶ τοῦτο ἅρμανον typically introduces entries, and in this text it is not only the introduction of choice, but the phrase καὶ τοῦτο ἅρμανον is always followed by ἀργυρίων, never by another word. Thus, we may restore καὶ τοῦτο ἄρμανον νο[ν] αναφέρεται, that denotes the movement of money as it enters or leaves the hands of the hieropoioi. Of the available options ἀναφέρεται fits

<table>
<thead>
<tr>
<th>Line</th>
<th>Transaction</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>Deposit eis τῆς σειτονίας</td>
<td>34,890 dr. 1/2 ob.</td>
</tr>
<tr>
<td>71</td>
<td>Deposit eis τῆς σειτονίας</td>
<td>+ 20,346 dr. 1/2 ob.</td>
</tr>
<tr>
<td>72</td>
<td>Subtotal</td>
<td>55,236 dr. 1/2 ob.</td>
</tr>
<tr>
<td>73</td>
<td>Transfer to sitōnia</td>
<td>– 47,000 dr.</td>
</tr>
<tr>
<td>74</td>
<td>Balance in grain fund</td>
<td>8,236 dr. 1/2 ob.</td>
</tr>
</tbody>
</table>

The table 2. Transactions in I.Delos II 399.A 70–73

12 Ε. G. I. Θέσι παράδοσις ὁ[γενόκαθε[ν]]ον, not mu (M[ενόλεια]ων), seemed plausible to Durrbach, I.Delos II 399.A 62, and graphic confusion of omega and omicron is common enough in antiquity and now.
14 An alpha (ὁ[γενόκαθε[ν]]ον), not mu (M[ενόλεια]ων), seemed plausible to Durrbach, I.Delos II 399.A 62, and graphic confusion of omega and omicron is common enough in antiquity and now.
15 E. G. I. Θέσι παράδοσις ὁ[γενόκαθε[ν]]ον, not mu (M[ενόλεια]ων), seemed plausible to Durrbach, I.Delos II 399.A 62, and graphic confusion of omega and omicron is common enough in antiquity and now.
best, so that we might restore line 70; καὶ τὸ ἄλλο ἀγάργυρον εἰσὶν παρέδομεν ἐπὶ τοῦ θεοῦ παρεδόμενον; 399.A.74: εἰσήκει τοῦ θεοῦ ἀγάργυρον; 399.A.88: εἰσήκει τέλος; 399.A.122: εἰσήκει τοῦ ἐστιστικοῦ.

The words ἀπὸ τοῦ οικιᾶ οἰκία παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαῖα εἰσὶν παρεδομένοι τοῦ τοῦ ἄγαργυρου καὶ Φωκαί
The same account that is used to tell a story of massive financial shortfall could be adduced in support of the opposite. Perhaps an investment of 47,000 drachmas returned 55,236 drachmas 4\(\frac{1}{12}\) obols, yielding a profit of roughly 18\%\(^2\). If, moreover, the situation were so dire - as a net loss of over a quarter drachmas returned 55,236 drachmas 4\(\frac{1}{12}\) obols, yielding a profit of roughly 72\%\(^2\) - why were only 47,000 drachmas disbursed to the sitônai? Why not try to recoup the losses? The Greek does not suggest that the fund was a losing proposition. If we do not begin with minimalist assumptions about the Delian grain-market it is equally plausible that an investment of 18\% for 193/2 Be, so that the god, and ultimately the state, earned a handsome profit. On current evidence any conclusion as to loss or gain will remain a modern invention\(^3\).

Sitônia in 180/79 BC

\(I.\)\(D\)élôs II 442.A.90–140 (179 BC) furnishes rich data on the operations of a grain fund in 180/79 BC. I present that data in a series of tables below. Lines 90–97 record money received by the current hieropoioi, in the magistracy of Démarès, from the previous hieropoioi, and transferred into the public kîbôtos; the account includes the qualification and date of deposit, and the bank through which the sealed jar containing the funds came.

<table>
<thead>
<tr>
<th>Line</th>
<th>Qualification of Dep.</th>
<th>Date</th>
<th>Deposited</th>
<th>Bank of</th>
<th>Sum Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>90–91</td>
<td>εις τὴν σιτωνίαν</td>
<td>Posid.</td>
<td>Phôk.</td>
<td>Phâ&amp;S</td>
<td>10,000 dr.</td>
</tr>
<tr>
<td>93–94</td>
<td>εις τὴν σιτωνίαν</td>
<td>Posid.</td>
<td>Phôk.</td>
<td>N&amp;H</td>
<td>4,000 dr.</td>
</tr>
</tbody>
</table>

**sub-total** 18,560 dr.

\(^{29}\) 8,236 dr. 4\(\frac{1}{12}\) ob. = 18\% \times 47,000 dr.

\(^{30}\) It is worth noting that in one case, not mentioned by Reger, but noticed by Fantasia, Serta historia antiqua 2 (1989) 49 n. 5, the hieropoioi refer, in a list of public monies received εις τὴν ἄλλην αὐρωπίαν (\(I.\)\(D\)élôs II 399.A.35–36), to the deposit of "surplus from the sitônia" (52–54): Αὔλην σαμανον ἐν ὧν ἄνθρωπος ἥλιος ἁλυσοῦσθαι ἀναστήσας ἀργονός | [Σωκράτους] ἀργοκόλων | Εὐκλείδης καὶ Αντίγονος ἔθεσεν κατὰ τὸ πηλίκονα ἑώς τὴν ἱστανούσαν ἀπὸ τῆς [Σωκράτους]. (Another jar in which were 148 drachmas 3 obols, bearing the inscription, "In the magistracy of Sôкратos the hieropoioi Euxénidês and Antigonus deposited, according to the decree of the people, the surplus from the sitônia and that which they received from Sôkräfte and Polyxenos "). We do not know whether the surplus was generated by sale of grain, i.e. that it was surplus revenue, or whether it was deposited for the purpose of sitônia, but not spent. The phrase, τὸ πηλίκονα ἐκ τῶν ἀδικητάκτων may suggest the latter, i.e. that the money was left over from the purchase of grain, not its sale. The account is from 192 BC, but refers to a deposit made in 195.

\(^{31}\) We can only guess whether \(I.\)\(D\)élôs II 441.3–4 (180 BC) is in some way related to this deposit, also routed through the bank of Nymphodôros and Hêralkêidês.

Table 3a. Transfer of deposits εἰς τὴν σιτωνίαν. \(I.\)\(D\)élôs II 442.A.90–97. For the last three entries see the corresponding entries in Table 3c. Phôk. = in the magistracy of Phôkaieus; Phâ&S = the bank of Phîlon and Sîlênos; H&M = Hellên and Mantineus; N&H = Nymphodôros and Hêralkêidês.

<table>
<thead>
<tr>
<th>Line</th>
<th>Qualification of Dep.</th>
<th>Date deposited by tamai</th>
<th>Bank of</th>
<th>Sum</th>
</tr>
</thead>
</table>

**sub-total** 18,560 dr.

<table>
<thead>
<tr>
<th>Line</th>
<th>Qualification of Dep.</th>
<th>Date deposited by tamai</th>
<th>Bank of</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>111–112</td>
<td>εἰς τὴν σιτωνίαν</td>
<td>Metag.</td>
<td>Dêm.</td>
<td>N&amp;H</td>
</tr>
</tbody>
</table>

**sub-total** 14,564 dr. 2\(\frac{1}{12}\) ob.

<table>
<thead>
<tr>
<th>Line</th>
<th>Qualification of Dep.</th>
<th>Date deposited by tamai</th>
<th>Bank of</th>
<th>Sum</th>
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</table>

**sub-total** 18,560 dr.

<table>
<thead>
<tr>
<th>Line</th>
<th>Qualification of Dep.</th>
<th>Date deposited by tamai</th>
<th>Bank of</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>120–121</td>
<td>εἰς τῶν ἀδικητάκτων</td>
<td>Posid.</td>
<td>Dêm.</td>
<td>N&amp;H</td>
</tr>
</tbody>
</table>

**sub-total** 3,874 dr. 3\(\frac{1}{12}\) ob.

Table 3b. Deposits εἰς τὴν σιτωνίαν. \(I.\)\(D\)élôs II 442.A.106–122. Dêm. = in the magistracy of Démarès.

Lines 122–140 record money withdrawn by the hieropoioi for transfer to the sitônai, in the magistracy of Démarès, including the date of withdrawal.
and here we must conjecture, because the account tracks money
the
the
the
and again, we must conjecture

Table 3c. Money withdrawn for transfer to the

Table 3d. Deposits and withdrawals for sítônia in 180/79, as derived from I.Délos II 442.A.90-140.

Table 3d. Deposits and withdrawals for sítônia in 180/79, as derived from I.Délos II 442.A.90-140.
Fantasia this cannot be coincidence. The force of the argument is unclear. Nevertheless, Fantasia is, I suggest, right for a simpler reason. It is evident from the same sealed jars in which it had been deposited the month before. At no time can the fund be shown to have had more than 18,560 drachmas (3½ obols). The Delians thus moved the same 18,560 drachmas three times per year. The sitōnia-fund was a rolling fund capitalized at 18,560 drachmas with thrice-annual turnover.

Four deposits made by the tamiai in 180/79 are qualified by the phrase, κατὰ τὴν διάταξιν, which should indicate money that was allocated in the annual budget. Reger clarifies:

The careful distinction between these deposits [i.e. those labeled κατὰ τὴν διάταξιν] and the rest is not likely to be accidental; it is meant to distinguish, I believe, between funds realized from the sale of grain and plowed back into the sitōnia (funds simply εἰς τὴν οκτώβιον) and funds added to the sitōnia by the ekklesia to bring the grain fund up to full size. But deposits designated κατὰ τὴν διάταξιν were made throughout the year. Surely when the Delians assembled to set the annual budget (diataxis) they could not have predicted the amounts by which the fund would be deficient as a result of three separate sales across an entire year. Perhaps the annual budget reserved a large block of cash from which deficits could be rectified. But the provision of make-up money, even from earmarked funds, suggests randomness, and deposits designated κατὰ τὴν διάταξιν give the appearance of order: all, for reasons unexplained and unknown, were routed through the bank of Hellên and Mantineus. No other bank appears to have handled such deposits. The dictionary-meaning of κατὰ τὴν διάταξιν is clear enough, but precisely what procedure the phrase indicated seems beyond knowing for now.

So too the deposits labeled τῶν ἀκατατάκτων / ἐκ τῶν ἀδιατάκτων / ἐκ τῶν ἀκατατάκτων. Reger suggests that these "undesignated funds" were called on to replenish the fund when revenue from the sale of grain fell short. On this inter-pretation the rubrics indicated two classes of extraordinary deposit to the sitōnia fund to rectify shortfall, one reserved in advance by budgetary provision and the other consisting of funds that had not been earmarked. Now, the 3,885 drachmas 3½ obols in "undesignated funds" that were given to the sitōnia in Bouphoniôn under Dēmãrês (135–138) raised Metageitnion’s slim deposit of 14,674 drachmas 2½ obols to 18,650 drachmas — plus half an obol, to be precise. Thus, Reger suggests that the sale of grain fell short by 3,885 drachmas 3½ obols, and so the ekklelësia contributed that much (plus a half-obel, for some reason) to the fund to bring it up to full strength. But if the ekklelësia did provide the 3,885 drachmas 3½ obols for this purpose, it can only have been by incredible coincidence, since the tamiai deposited the 3,885 drachmas 3½ obols in a sealed jar in Posideôn under Phókaieus, nine months before the shortfall is alleged to have occurred (see Table 3d above). Once again the dictionary-meaning of a phrase seems straightforward, while the procedure that the phrase flagged remains obscure.

Reger calculated total alleged shortfalls for 179 BC by adding the money deposited κατὰ τὴν διάταξιν in 179 (13,060 drachmas) to the "undesignated funds" (3,885 drachmas 3½ obols). Thus, he concluded that "across the whole year [sc. 179 BC] the grain fund was underfunded by 16,945 dr, or about 30 percent of the total required". But it is not evident that either designation indicates rectification of shortfall of the sort envisioned by Reger. Thus, the sum of deposits under the two rubrics furnishes weak measurement of the fund’s profitability. We do not know even whether logic permits us to add the two catego-

36 18,560 dr. and 3,885 dr. 3½ obols were deposited in Posideôn under Phókaieus (90–97), and 18,560 dr. and 3,874 dr. 3½ obols in Posideôn under Dēmãrês, but in both cases the latter deposits were ñ τῶν ἀδιατάκτων (vel sim.), not strictly part of the fund’s capital.
37 Larsen, ESA R IV 347, appears to notice that the three banks handled the money in the same sealed jars, and so concluded “that the fund consisted of 55,680 drachmas and that not the purchasing but the sale of grain was distributed somewhat evenly throughout the year.” I.Délos II 442.A.91–92 + 125–126, 106–107 + 129–130, 110–111 + 133–134, 118–119.
41 The three designations appear to be variants of identical meaning; or, if there is a shade of difference, it is beyond our grasp.
43 Migeotte, Cahiers Glotz 2 (1991) 30 n. 35: “sans doute par erreur”.
44 But if deposits κατὰ τὴν διάταξιν were designed “to bring the grain fund up to full size”, as Reger, CLAnt 12 (1993) 322, suggests, then to gauge sales in 179 BC we must exclude the deposit recorded at 91–92 (also 125–126), and include the one recorded at 118–119, so that the alleged shortfall, in this category alone, would have been 18,060 drachmas.
45 Not 3,885 drachmas 3½ obols, ibid.
ties together with any meaning, much less whether the result of such an operation suggests negative profitability.

But maybe there is a pattern in the data. The accounts report only two occasions on which regular deposits were accompanied by "undesignated funds", 3,885 drachmas 3 1/12 obols in Posideon under Phokaeus (90-97) and 3,784 drachmas 3 1/12 obols in Posideon under Dēmarēs (115-121). Perhaps in satisfaction of some operational rule, which is unknown to us, additional funds of roughly the same amount were deposited in the last month of the year. Anyway, it seems safe to consider it unlikely that someone predicted nine months in advance that grain-sales would result in a shortfall of 3,885 drachmas.

While we cannot reconstruct all the operational details from the accounts, there is nothing to indicate fiscal disaster. The accounts do not suggest that the sitōnia-fund experienced any shortfall in 179 BC, much less one of ca. 30 percent.

Reger concluded that annual losses of 25-30% were structurally integral to the Delian sitōnia-funds: "The most reasonable explanation of the loss is resale of grain at a discount of about 25 to 30 percent below market price." If the grain was sold at a discount we may assume that it was offered below current retail price, but sitōnia with more than three talents in hand would have bought off the boat, at wholesale prices. The state could have sold below the prevailing retail price, yet above the price at which it had purchased the grain, and still turned a profit, or at least broken even. There is no evidence of loss and no way, on current data, to correlate alleged loss with whatever discounts the state may have offered.

Conclusion

If the Delian sitōnia-funds were resorted to often, in spite of the fact that their very structure ensured massive capital loss, then they would fit broadly with Reger's conception of the economy of free Delos. If the island was not a great center for trade in grain, then the commodity would have been neither very plentiful nor very cheap. The frequent necessity of propping up supply would have conditioned Apollo's functionaries and the citizens of Delos to accept the loss of more than half a talent of silver per year after year. Reger suggests that by the third century Delos could afford large annual "outlays to make up the chronic cash shortfall" because that was when "the local economic scene picked up". In prosperous times states are willing to subsidize food, but the accounts suggest that routine capital loss is a modern invention, not an ancient reality. Whether Reger's complex and learned assessment of the Delian economy holds or not is a question beyond the scope of this brief note, but if it does stand, it will not be on the legs of the sitōnia fund. "Le dossier délien est réouvert, il n'est pas épuisé."

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49 Reger, ClAnt 12 (1993) 328. Reger (319) argues that this money-losing institution was popular, suggesting that since two loans (of 17 attested loans, spanning the years 301-178) of roughly 50,000 drachmas were designated εἰς τὴν σιτωνίαν (I.Δέλος II 399. A.72 = 47,000; 442. A.127, 132, 139 = 55,680), all loans over 4,000 drachmas - six loans by this metric - were for the same purpose. But as we have seen, 442. A does not attest a loan of 55,680 drachmas, and the 4,000-drachma benchmark is not decisive: in 301 Delos borrowed 1,000 drachmas for the purchase of grain (IG XI.2 146.A.20-21). There are other problems. The loan reported at IG XI.2 148.75-76 is presumed to be for sitōnia because it is "three times greater than the 4,000 maximum for loans for other purposes" (320). But if the number 4,000 has no external significance, how can multiples of it indicate anything? IG XI.2 158.B.1-45 is taken (ibid.) to indicate a loan for sitōnia because it is "large" and was contracted in winter. But in 179 BC (442. A.122-140) sitōnia purchased grain three times throughout the calendar year. The loans attested at I.Δέλος I 354.10-13 are assumed (ibid.) to be for sitōnia because their sums approximate 50,000 drachmas. This in itself proves little (a car loan can approximate a home-improvement loan); in fact 354.13 reads "Μ", 10,000. I.Δέλος I 362.A.11-14 records, as we have seen, disbursement to the sitōnai of 13,014 drachmas, not 38,152. Finally, I.Δέλος II 443.A.b.30 records a deposit of 5,000 drachmas, not "50,000+", εἰς τὴν σιτωνίαν; line 36, not mentioned by Reger, records another deposit of 6,000 drachmas, for the same. We might imagine loans totaling roughly 50,000 drachmas in the huge lacunas. Perhaps six loans for sitōnia over more than a century constitute popularity but the data are less than conclusive.

50 A rolling sitōnia-fund from third-century Koroneia was used to purchase grain for sale at cut rates, and its founder envisioned the possibility of profits: SEG XLIII 205.24-29: ἐπὶ δὲ καὶ διαπωλειόνθa πάντα τὸν οίνον, ἔλλογον πάντα τοῖς κατοίκισσαῖς τοῖς συναναγόμενοι ἀπὸ τὸ έτους τώρας τής εἰς τέκνον τὴν τὴν ἐπίστευσαν ἄργους ἔλλογον καταβάλλοντο τῷ ταμίῳ παραχέμει τῇ ἐπιστεί οὔτω τοῖς πόλοις καὶ οὕτωρρέχει τοῖς γεωργοῖς (Once they have sold all the grain they shall render an account with the overseers of the revenue gathered from the sale. If there is more than seven hundred drachmas of silver [the amount of the principal] they shall turn it over immediately to the treasurer and this money shall belong to the city and shall be reserved for administration); see Migeotte, Boeotia Antiqua 3 (1993) 19 and n. 48 above.
