

# THE EVOLUTION OF LAYOUT IN CYRENAEAN OFFICIAL DOCUMENTS (4TH–2ND CENTURIES BCE)\*

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## 1. OFFICIAL DOCUMENTS FROM CLASSICAL AND HELLENISTIC CYRENE

In the seventh century, Greeks from the Aegean islands started settling in the eastern part of what is today Libya. Among the many cities they founded in this region, one soon gained pride of place: Cyrene, an inland settlement that secured control of most of the fertile lands of Cyrenaica and flourished thanks to both its agriculture and commerce. It should therefore come as no surprise that most Greek inscriptions from ancient Libya are from Cyrene. Yet, if we were to compare the epigraphic production of Cyrene with that of other Greek cities, the result would most likely be disappointing. This is due to a set of concurring factors.

On the one hand, there was no marble-like stone to quarry in Cyrenaica. As a result, Cyrenaeans were left with no other choice but to import fine quality marble from abroad or resort to the local brittle limestone whenever they wished to inscribe their official documents in stone. For example, when the Cyrenaeans decided to inscribe the so-called Oath of the Founders (ca. 370), they had to secure a slab of “shiny white marble” for this purpose.<sup>1</sup> Since cop-

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<sup>1</sup> *IG Cyrenaica*<sup>2</sup> 011000 (Rosamilia 2023a, no. 1), ll. 16–17: καταγράφειν δὲ τὸδε τὸ ψάφισμα ἐν στάλ[αν] | λυγδίναν. The adjective λυγδίνος recurs in two other documents from Cyrenaica: the monumental altar of Apollo dedicated by Philon son of Annikeris in around the mid-fourth century (*IG Cyrenaica*<sup>2</sup> 017900; Rosamilia 2023a, no. 66a: Φ[ί]λων Αννικερῖο[ς] | τὸ[ν] β[ε]β[η]μὸν ἀνέθηκε τὸν λυγδ[ί]νο[ν]) and an early-first-century decree from Arsinoe/Taucheira honouring Aleximachos son of Sosistratos (*IG Cyrenaica*<sup>2</sup> 066900, ll. 72–74: οἱ δὲ ἔφοροι | τὸν τε ἀνδριάντα ἀναθέντων | καὶ στάλαν «λυγδίναν παρ' αὐτῶ[ν]; cf. also Rosamilia 2023a, 60–61). Although a *scholion* to Pindar (*Sch. Pi. N. 4.129c* Drachmann) tells us that Πάριος δὲ λίθος ἔστιν ὁ καλούμενος λυγδίνος, petrological analysis of the altar of Philon proved that at least some of the mar-

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per and tin were equally rare in the region, bronze was hardly more accessible as a medium.<sup>2</sup>

In addition, aside from a few lists of names and ritual norms, Cyrenaean seldom chose to put up official documents for permanent display, so much so that today only four or five decrees antedating the Augustan age survive.<sup>3</sup> While this situation may be due in part to the many active lime kilns at the Sanctuary of Apollo and the Agora,<sup>4</sup> Cyrenaean epigraphic habit did, in fact, privilege the inscription of private documents – especially dedications by rich members of the local élite – to the detriment of official epigraphy.<sup>5</sup>

Despite the Cyrenaean reluctance – most likely cultural as well as economic – to inscribe and display public documents in civic spaces, however, an interesting dossier of thirty-something official inscriptions by a local board of the city’s magistrates – the *damiergoi* – has been preserved.

## 2. THE ACCOUNTS OF THE *DAMIERGOI*

The accounts of the *damiergoi* are a dossier consisting of thirty-eight inscriptions, nearly all of them fragmentary, dating from ca. 365 to the late second century. The *damiergoi* were a board of three civic magistrates who administered a few sacred estates<sup>6</sup> and used their revenues to cover various expenses, including that of organising tragic and dithyrambic contests as well as processions, the salaries and benefits of a small number of civic and sacred personnel, and sacrifices.<sup>7</sup> The last of these were the most important item on their list of expenses as they made clear in their reiteration of the claim that they had fulfilled their sacrificial obligations.<sup>8</sup> In two

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ble slabs came instead from Proconnesus (Lazzarini and Luni 2010, 194 and 202 table 7; samples KY 35 and KY 30). This, in turn, points to a more generic meaning of *λύγδιος*: “shiny/of shining white stone”. On this adjective, cf. Robert, *Hellenica* XI–XII, 118–119 n. 7; Laronde 1987, 112; Rosamilia 2023a, 67 n. 89.

<sup>2</sup> As far as I know, no inscribed bronze objects or tablets have been found in Cyrenaica. Thus, despite the popularity of the use of this metal for this purpose among the Western Greeks – cf. e.g., the tablets from Entella or the temple dossier from Locri Epizephyrii – the Cyrenaean apparently never used it as a medium for publishing their official documents.

<sup>3</sup> Rosamilia 2023a, 53–56.

<sup>4</sup> Del Moro 2008.

<sup>5</sup> On Cyrenaean epigraphic production up to the Augustan period, see Rosamilia 2023a, 52–89.

<sup>6</sup> Although it was long thought that the sacred estates belonged to Apollo and were the ones originally administered by the Battiad dynasty (Chamoux 1953, 217–218; Laronde 1987, 333; Chamoux 1988, 147–148; Dobias-Lalou 1993, 25), Migeotte (2014, 165) proved that the gods involved in the expenses did not include Apollo; see also Rosamilia 2023a, 186–189 and 193.

<sup>7</sup> On the expenses of the *damiergoi*, see Oliverio 1933, 116–122; Chamoux 1988, 151–154; Dobias-Lalou 1993; Ceccarelli and Milanezi 2007; Migeotte 2014, 360–361; Rosamilia 2023a, 186–189.

<sup>8</sup> In the fourth century, the expression ἐξίων : βουθυσιῶν ἡσσῶν (“expenses, there being included the ox-sacrifices”) is first attested in *IG Cyrenaica*<sup>2</sup> 011400 (Rosamilia 2023a, no. 27), l. 17; see also *IG Cyrenaica*<sup>2</sup> 013600 and 012000 (Rosamilia 2023a, nos. 41–42). The alternative τὸ πᾶν ἐξί[η]δὸν τῶ ἐνιαυτῶ | σὺν ἱεροθυσίαις

fragmentary accounts, sacrifices are mentioned in connection with the *τιμαχίον*, a local term for the seat of a board of magistrates.<sup>9</sup> Since a civic decree on the cult of Ptolemaic rulers from ca. 108 states that each board of magistrates should decorate its own *τιμαχεῖον* with garlands and that the *damiergoi* and the *hiarothytai* should do the same for the *prytaneion* and the *stoai* (i.e., the agora),<sup>10</sup> it stands to reason that the seat of the *damiergoi* was none other than the city's *prytaneion* and that most of the sacrifices provided for and performed by the *damiergoi* took place in the agora.

However, only a few of the accounts contain a detailed list of the year's expenses<sup>11</sup> as the *damiergoi* focused on the price of crops rather than on how they spent their revenues. The accounts show that the lists of crop prices were the result of a procedure that the *damiergoi* called *καρπῶ τίμασις*.<sup>12</sup> While the letting out of sacred properties and the collection of rents in kind – either in the form of fixed quantities of specific crops or as a fraction of the harvest – were probably instrumental in providing the *damiergoi* with a stable source of revenue, the word *τίμασις* sheds little light on the nature of the operations involved. For instance, we do not know how exactly the *damiergoi* fixed the crop prices that they later inscribed, or to whose benefit these prices were fixed.<sup>13</sup> Similarly, we have barely any clues as to whether the *τίμασις* took place before or after the harvest, that is, whether the *damiergoi* sold the rights over crops still in the field (for example, farming out the collection of rents that were due) or sold the crops themselves once harvested.<sup>14</sup> More troubling still,

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("total expenses of the year, including sacrifices") recurs in *IG Cyrenaica*<sup>2</sup> 011600 (Rosamilia 2023a, no. 30), ll. 19–20. This account also states that the *damiergoi* acquired the oxen to be sacrificed at the price of 52 drachmas per ox (ll. 17–19). By the second century a new expression is attested, namely, τὸ πᾶν, τὰ ἱαρεῖα ἐθῆθη ("total; the sacrifices were performed"); see *IG Cyrenaica*<sup>2</sup> 014300 (Rosamilia 2023a, no. 57), l. 30, and *IG Cyrenaica*<sup>2</sup> 014500 (Rosamilia 2023a, no. 61), l. 29.

<sup>9</sup> *IG Cyrenaica*<sup>2</sup> 088200 (Rosamilia 2023a, no. 36), ll. 24–25: τὸ πᾶν ἱαρ[οθυσῶν - - -]ἰ τὸ τιμαχ[ῆ]ον - - - (ca. 350–340). *IG Cyrenaica*<sup>2</sup> 013500 (Rosamilia 2023a, no. 52), ll. 7–9: [ἐξιδόν· ἱα]ροθυσῶς | [- - -] ἐκ τῶ τι[μαχεῖο? - - -] (ca. 280–260). On the word *τιμαχίον*, see Dobias-Lalou 1988, 64–68; Dobias-Lalou 2000, 104 and 237.

<sup>10</sup> *IG Cyrenaica*<sup>2</sup> 011100 (Rosamilia 2023a, no. 5), l. 17–26. The same decree also insists that they perform the sacrifices ὑπὲρ τὰς πόλιος (l. 21). On this document, see also Laronde 1987, 177. Its layout is discussed in A. Bencivenni's chapter in this volume.

<sup>11</sup> Exceptions include *IG Cyrenaica*<sup>2</sup> 011600 (Rosamilia 2023a, no. 30), 088200 (Rosamilia 2023a, no. 36), 011900+013600 (Rosamilia 2023a, no. 41; the attribution to a single account is not accepted by Dobias-Lalou, in *IG Cyrenaica*<sup>2</sup>), and 012300 (Rosamilia 2023a, no. 44), all dating from the fourth century. See also the slightly later *IG Cyrenaica*<sup>2</sup> 013500 (Rosamilia 2023a, no. 52).

<sup>12</sup> *IG Cyrenaica*<sup>2</sup> 011600 (Rosamilia 2023a, no. 30), l. 4. Most accounts adopt the expression *καρπὸς ἐτιμάθη* instead (but cf. *IG Cyrenaica*<sup>2</sup> 013300; Rosamilia 2023a, no. 53, l. 5).

<sup>13</sup> For instance, Oliverio 1933, 115–116 – followed by Waisglass 1954, 210 – thought that these crop prices served as a conversion rate so that the renters could pay their rent (supposedly in kind) in cash. See also Chamoux 1988, 148.

<sup>14</sup> The distinction between grapes sold ἔνδοξ or ἔξωξ τὰς προκλησίας in Phase-1 accounts may be connected to this problem.

we do not know whether the term *τίμασις* refers to the same procedure in the mid-fourth century as it does in the late second century.<sup>15</sup> Notwithstanding the precise nature of this *τίμασις*, the *damiergoi* devoted most of their accounts to crop lists, attesting thereby to the importance they placed on this aspect of their administration.

While a registration focusing solely on crop prices might seem natural, we are actually dealing here with extreme selectivity on the *damiergoi*'s part. To better understand what is going on, we can compare these Cyrenaean documents to early Hellenistic bronze tablets from Locri Epizephyrii. Several years after Alexander's death, the Locrians decided to use the funds of Zeus Olympios to cover many public expenses, including a war contribution that they owed to an unnamed *basileus*, either Pyrrhos of Epirus or Agathokles of Syracuse.<sup>16</sup> Whenever possible, they simply borrowed money from the sanctuary,<sup>17</sup> but in those few instances where the available funds were insufficient, they diverted sacred revenues to the war contribution.<sup>18</sup> Though in one instance the king seems to have accepted a contribution in kind,<sup>19</sup> in several others, the local magistrates had to sell crops in order to raise the needed money. Since the aim of the *hieromnamones* in charge of the sacred treasury was to record precisely how much the Locrians owed Zeus, tablets from the Locrian archive describe these transactions accurately. For example, the *hieromnamones* made sure that all relevant pieces of information were included in *IG Locri* 23, ll. 8-10:

1. The quantity of wheat and barley taken to be sold (333,50 *medimnoi* each).
2. The selling price per *medimnos*, namely, 2 staters for wheat and 1,33 staters for barley.
3. The total selling price per crop, i.e., the number of *medimnoi* times the price of each crop.

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<sup>15</sup> At least one account from the late second century – *IG Cyrenaica*<sup>2</sup> 014400 (Rosamilia 2023a, no. 62) – seems to indicate that the *damiergoi* farmed out the collection of these crops (Rosamilia 2023a, 185-187; see also Rosamilia 2016, 143-144). In addition, from the early third century onwards, the *τίμασις* likely took place twice a year. This is attested by the expression *καρποὶ ἐτιμάθεν* (in the plural) and the two lists of crops per account (one per semester).

<sup>16</sup> The mention of an unnamed *basileus* as the recipient of a *synteleia* in six of the Locrian tablets has generated much debate among modern scholars. De Franciscis (1972, 75-82) and Van Compernelle (1992) thought that this *basileus* was none other than Pyrrhos, a hypothesis convincingly revived by De Lisle (2021, 291-293). Although De Franciscis (1972, 77) rejected outright the identification of the *basileus* with Agathokles, Musti (1979, 214-215) was more open to the idea, and recent studies of contemporary numismatic evidence (Filocamo 2011; Castrizio, Filocamo 2014) have tried to make a case for this hypothesis. Finally, Costabile (1992) and Antonetti (1995, 353-355) believe that the tablets simply refer to some local magistrate called *basileus* or *archon basileus*, but this is hardly compatible with the word *synteleia*.

<sup>17</sup> *IG Locri* 1 and 13.

<sup>18</sup> *IG Locri* 23, esp. ll. 8-10. See also *IG Locri* 25, 30, and 31.

<sup>19</sup> Cf. the ninth of the grain-crops that “the king took” (*IG Locri* 25, l. 9: τῷ σίτῳ τὰς ἐνάτας τὰν ὀ βασιλεύς ἔλαβε).

In almost every *damiergoi* account, by contrast, only the second item is inscribed, so both ancient and modern readers have no way of calculating how much barley, wheat, or beans were sold by the *damiergoi* each year. At the end of each account we also find the total annual income, which coincides with the sum of each crop's total sales.

This does not mean that the *damiergoi* had access to less data than did the Locrian *hieromnamones*. On the contrary, they most likely kept records of all these data on more perishable materials, then chose what they wanted to have inscribed on stone based on their own priorities and goals. This shows that, much like contemporary Athenian documents, the *damiergoi* accounts were not meant to be transcriptions of *euthynai*, but rather a different type of document with its own distinct goal.

All these features must be borne in mind as we examine the evolution of *damiergoi* accounts and their layout over time. Yet, in order to proceed with our analysis, we need first to address a major dating problem. Although the *damiergoi* always mention the eponymous priest of Apollo at the beginning of their accounts, not all of these are well preserved, and only a few retain the priest's name in full or even in part. Furthermore, the loss of Classical and Hellenistic priest catalogues<sup>20</sup> leaves us with no clue regarding the dates of many documents. Consequently, we must look elsewhere if we wish to reconstruct a relative – or, if possible, absolute – chronology of these accounts.

The first step in the right direction was taken in 1933 by Gaspare Oliverio, who noticed that over the years the *damiergoi* shifted from local acrophonic to Milesian numerals in their accounts.<sup>21</sup> In 1987, André Laronde – who established the dates of a few early accounts on a prosopographical basis – observed that the names and positions of crops in these lists change over time and tried to rely on these data to revise the dates of later accounts.<sup>22</sup> The use of this criterion for dating is sometimes questionable, however, and Laronde's results are undermined by the fact that he dated all later accounts to the late third century.

In 2016 and again in 2023, I argued that we can break down the accounts of the *damiergoi* into four main phases on the basis of major layout or accounting innovations that – once adopted – could not easily be abandoned.<sup>23</sup> These four phases are:

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<sup>20</sup> That such catalogues existed in the first place can be inferred from a few surviving fragments, first and foremost *IG Cyrenaica*<sup>2</sup> 094800 (Rosamilia 2023a, no. 8), dating from the 330s, and the list from the end of Magas' reign (*IG Cyrenaica*<sup>2</sup> 096700; Rosamilia 2023a, no. 9; cf. also Rosamilia 2018, esp. 273–282). On priest lists from Cyrene, see Marengo 1996; Dobias-Lalou 2016, 247–252 and 258 nos. 16–21; Rosamilia 2023a, 93–133.

<sup>21</sup> Oliverio 1933, 136.

<sup>22</sup> Laronde 1987, 325–327.

<sup>23</sup> Rosamilia 2016, 86–89; Rosamilia 2023a, 154–155.

- Phase 1: Twenty-three accounts – the earliest ones (ca. 365–300) – which contain none of the later innovations. Most *damiergoi* accounts fall into this group, including the only four that are fully preserved.
- Phase 2: Six accounts that date roughly to the governorship and reign of Magas (ca. 290–270). These are the first accounts with a two-semester accounting time frame.
- Phase 3: Two accounts dating to two very different moments in the city’s history. The earlier one exhibits many similarities to Phase-2 accounts, especially if crop prices and currency are taken into account.<sup>24</sup> The later one, on the other hand, contains much lower prices, most likely the result of the adoption of the Ptolemaic coin standard. These two accounts are the first to use Milesian rather than local acrophonic numerals.
- Phase 4: Seven accounts that attest to the adoption of a two-sub-column format with crop names on the left and numerals for the crop prices on the right. This phase, which covers both the late third and most of the second century, can be further broken down into two sub-phases based on whether or not the *damiergoi* had already adopted the Ptolemaic bronze drachmas as a new accounting unit.<sup>25</sup>

Keeping these phases in mind, we can now examine the evolution of the *damiergoi* accounts from the standpoint of layout and medium.

### 3. MEDIUM AND LAYOUT

#### 3.1 Fourth-Century Accounts (Phase 1: ca. 365–300)

The *damiergoi* started inscribing their accounts in around 365. At least one out of three accounts from Phase 1 (twenty-three out of ca. seventy) has survived, even if in fragmentary condition. As one of the earliest accounts, which dates to the priesthood of Ka[r]tisthen[es] son of Mnasia[s],<sup>26</sup> is preceded by a few lines of another text that probably refers to the *prytaneion*, we may even have a small fragment of the official document prescribing the publication of the accounts followed by the earliest *damiergoi* account ever inscribed on stone.<sup>27</sup>

<sup>24</sup> See Rosamilia 2023a, 176–178.

<sup>25</sup> Rosamilia 2016, 88–96 (reprinted with minor alterations in Rosamilia 2023a, 179–184); Rosamilia 2017.

<sup>26</sup> *IG Cyrenaica*<sup>2</sup> 012500 (Rosamilia 2023a, no. 31). The priest of Apollo is very likely a direct descendant of Kratisthenes son of Mnaseas, who won the four-horse chariot race in Olympia in 464 (Paus. 6.18.1; Moretti, *Olympionikai* 257) after his father, Mnaseas “the Libyan”, won the *hoplitodromia* in Olympia in 484 (Paus. 6.13.7; Moretti, *Olympionikai* 194). On this family, see Laronde 1987, 146; Rosamilia 2023a, 99 priest S07, and 162.

<sup>27</sup> Rosamilia 2023a, 53, 156, and 162.

During Phase 1, the *damiergoi* inscribed their accounts on different types of stone media. While five accounts were inscribed onto the same marble plinth, most fragments from this phase appear on slabs or small stelae. Very few Phase-1 inscriptions – none later than the 340s – include architectural features, such as pilasters along the sides<sup>28</sup> or a moulding along the upper part of the inscribed side.<sup>29</sup> Later accounts from the same phase tend to be inscribed on thin marble slabs, which could hardly have been free-standing. Since the *damiergoi* were closely linked to the *prytaneion*, it is likely that most of these accounts were affixed to the walls of this building. Cyrene's first *prytaneion* was a small structure on the south-west corner of the agora,<sup>30</sup> and was demolished in the late fourth century during the interventions that transformed the nearby open-air *temenos* of Apollo into a small ashlar temple.<sup>31</sup> Since the *prytaneion* was erected on stone foundations out of mud bricks covered in plaster, marble panelling on its outer or inner walls would have worked extremely well.

The *damiergoi* apparently never made long-term plans for the publication of their accounts. Instead, each annual board of *damiergoi* decided on the publication of its own account. This led to a varied epigraphic landscape, as revealed by a closer look at the accounts inscribed on the marble plinth. Up until recently, scholars regarded this sub-dossier of five accounts as a series published in five (nearly) consecutive years, without ever asking themselves whether the *damiergoi* had really inscribed these accounts one after the other. Thanks to a parallel provided by an extremely fragmentary list of eponymous priests of Apollo,<sup>32</sup> we can now easily reconstruct the order in which the *damiergoi* inscribed their accounts on the plinth (Table 1).

The first four accounts were inscribed over the years ca. 340-330, according to an order that can be reconstructed as the left side before the front, and the upper before the lower part of each side. Although in one case the *damiergoi* inscribed two accounts in a row, they allowed at least three years to pass before inscribing the fourth account. In addition, while most of the inscriptions were done before the War of Thibron (324-321), about 15 years passed before the *damiergoi* of the year of Eukleidas son of Paraibatas decided to inscribe their account on the right side, just below a crack in the stone that had marred the upper portion of this face.

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<sup>28</sup> Rosamilia 2023a, no. 41 (*IG Cyrenaica*<sup>2</sup> 011900+013600).

<sup>29</sup> *IG Cyrenaica*<sup>2</sup> 012900 (Rosamilia 2023a, no. 32); *IG Cyrenaica*<sup>2</sup> 012200 (Rosamilia 2023a, no. 40); *IG Cyrenaica*<sup>2</sup> 012400 (Rosamilia 2023a, no. 38).

<sup>30</sup> V. Purcaro, in Bonacasa and Ensoli 2000, 84; Purcaro 2001, esp. 49-56; Lippolis *et al.* 2007, 850-851.

<sup>31</sup> Purcaro 2001, 61-80 (Temple of Apollo, first phase). On the earlier open-air *temenos*, see Purcaro 2001, 25-45; Lippolis *et al.* 2007, 851; Kenrick 2013, 175-176 no. 30.

<sup>32</sup> *IG Cyrenaica*<sup>2</sup> 094800 (Rosamilia 2023a, no. 8). This list was first identified by Dobias-Lalou 2016, 250. On it, see now Rosamilia 2023a, 94 and 159-162.

Table 1. Relationship between the fragmentary fourth-century list of eponymous priests of Apollo (*IG Cyrenaica*<sup>2</sup> 094800; Rosamilia 2023a, no. 8) and the *damiergoi* accounts inscribed on the plinth. Those priests whose names are preceded by an asterisk are not recorded on the surviving fragment of the list. From Rosamilia 2023a, 161 table 4.10 (re-elaborated).

Priest of Apollo	Account	Position on the plinth	Date
*Ch[--- son of ---]	<i>IG Cyrenaica</i> <sup>2</sup> 011700 (Rosamilia 2023a, no. 26)	Upper left side	ca. 340
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[---]s son of (H)a[---]	---	---	ca. 337
Iason son of Xouth[os]	---	---	ca. 336
Philothales son of Ia[son]	<i>IG Cyrenaica</i> <sup>2</sup> 011400 (Rosamilia 2023a, no. 27)	Upper front side	ca. 335
Epigenes son of Ep[itimidias]	<i>IG Cyrenaica</i> <sup>2</sup> 011800 (Rosamilia 2023a, no. 28)	Lower left side	ca. 334
Kletomach[os son of ---]	---	---	ca. 333
Theochres[tos son of ---]	---	---	ca. 332
Sthen[on son of ---]	---	---	ca. 331
Tim[onax son of Agis]	<i>IG Cyrenaica</i> <sup>2</sup> 011500 (Rosamilia 2023a, no. 29)	Lower front side	ca. 330
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*Eukleidas son of Paraibatas	<i>IG Cyrenaica</i> <sup>2</sup> 011600 (Rosamilia 2023a, no. 30)	Right side (lower)	ca. 315

Since the accounts were inscribed on the marble plinth over a period of nearly three decades, the plinth was not the officially designated medium on which the *damiergoi* published their accounts year after year, but rather an inscribable medium situated in the right place, which they could use if they chose to. While the *damiergoi* mentioned in the earliest account inscribed on the plinth may have been responsible for its erection, it is equally possible that they were simply the first to take advantage of the smooth vertical surfaces of an already existent monument, whose precise nature eludes us.<sup>33</sup>

<sup>33</sup> The plinth was topped by a separate crowning element, now lost (see Oliverio 1933, 85: “Il piano superiore è leggermente incavato, e vi poggiava verisimilmente una lastra di marmo”). The plinth’s width would have been compatible with the east anta of the *stoa* in front of the *prytaneion*, but marble architectural elements, save decorated portals, are extremely rare in fourth-century Cyrene (see Gasparini 2014; Rosamilia 2023a, 83–85). On the other hand, statue bases with a top moulding course are hardly attested before the Hellenistic period (see Biard 2017, 195–197), though this could be a precocious example.



Furthermore, the order in which the accounts are inscribed provides us with interesting information about the visibility of the plinth and its collocation in the fourth century. Although the back of the plinth is not smooth and was thus probably set against a wall, the left side was inscribed first and thus clearly regarded as the most conspicuous one. This suggests that the plinth was set up in a space past which people moved in a single direction, such as the left side of a small building's entrance or pronaos. Due to the connection between the *damiergoi* and the *prytaneion*, this building and its surroundings are again the most likely settings for the plinth.

As we have seen, to the west of the *prytaneion* stood an open-air *temenos* of Apollo, whose earliest phases date back to the foundation of the city. Now, from the time the Cyrenaean built the *prytaneion* people could only enter this small *temenos* from the north, through a passage that was not on axis with the sanctuary's altar. If the plinth was originally erected on the east side of the *temenos*, against the western wall of the *prytaneion*, it would have stood right in front of the *temenos*' entrance. Its left side would thus have been visible to anyone entering the *temenos* and even from the agora, while its front would have been easily readable by anyone inside the sacred precinct. The plinth's right side, however, would have been crammed in a corner between two walls, where it could only have been read by someone standing between the plinth and the *temenos*' southern wall. This – along with the existing crack in the stone – would explain why the right side was perceived as a less desirable option and was not inscribed for nearly 20 years.

The two accounts on the front of the plinth offer us a good opportunity to discuss the layout of these documents. The account of the year in which Philothales son of Iason was priest of Apollo<sup>34</sup> is inscribed on the upper part of this side (Fig. 15, above). The text has huge margins along both its sides. Save the invocation θεοί, written in widely-spaced letters at the very top of the document, the account is inscribed as a continuous text: the cutter did not use blank spaces, line breaks, or indentations to make the sections of the account more easily identifiable for the occasional reader. Nonetheless, the use of double *stigmai* to mark word breaks is consistent throughout the text. One can also detect traces of a major mistake on the letter-cutter's part – one that offers some insight into the cutting procedure. At l. 18, a bad miscalculation of the length of several figures led to a major alteration of the planned layout. This is particularly evident in the word λουπόν, “remainder”, which was not inscribed from left to right. The cutter must have inscribed the letters ΠΙΟΝ as well as the abbreviation for *mnai* and one or two figures before realising that he was running out of space. He then added the letters ΛΟ – smaller and extremely crammed – along with the total income. The same cramming is evident in the second half of the line, showing that the inscriber did his best to leave the right-hand margin undisturbed.

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<sup>34</sup> *IG Cyrenaica*<sup>2</sup> 011400 (Rosamilia 2023a, no. 27).

Since the beginning of the word *παρόρηγμα* is added at the end of l. 18, it stands to reason that the first letters of l. 19 were already inscribed – possibly as a placeholder for the entire line – when the cutter realised his mistake.

In the account dating to the priesthood of Timonax son of Agis,<sup>35</sup> inscribed five years later on the lower half of the same side (Fig. 15, below), we find similar features. Here the widely spaced invocation *θεοί*, though not centred, is still followed by a block of continuous text. Nonetheless, there are some differences. In this account, the letter-cutter<sup>36</sup> favoured larger letters, possibly to compensate for the fact that the text was inscribed closer to the ground. At the same time, he took full advantage of the plinth's width and inscribed the text across the entire face, leaving no uninscribed margin. While this account is the only one on the plinth for which the cutter adopted a similar solution, its position on the side facing away from the back wall must have made it highly effective.

In both accounts, differences from earlier documents are evident. Around the beginning of the fourth century, the Cyrenaeans published a list of names on stone that was organized into four columns, whose heading was later obliterated (ca. 400),<sup>37</sup> as well as a fragmentary regulation mentioning *hiaromnamones* and sacred fines (ca. 390–370).<sup>38</sup> In both cases, the letter-cutter adopted an unusual layout and inscribed these texts *stoichedon*.<sup>39</sup> Probably influenced by Athenian practice, this type of layout had already fallen out of favour by around 370, when the so-called Oath of the Founders was inscribed, and a few years before the *damiergoi* inscribed their earliest account.<sup>40</sup>

These two accounts indicate that the *damiergoi*'s choice of layout was not meant to enhance legibility or even clarity. This becomes particularly evident if we compare these inscriptions to an early-fourth-century lead tablet (Fig. 16)<sup>41</sup> found by Italian archaeologists between the temple of Apollo and the so-called *geronteion*.<sup>42</sup>

<sup>35</sup> *IG Cyrenaica*<sup>2</sup> 011500 (Rosamilia 2023a, no. 29).

<sup>36</sup> For brevity's sake, this chapter attributes decisions on the layout of these accounts to *damiergoi* and letter-cutters with practically no distinction. However, we do not have enough data at our disposal to determine who had ultimate responsibility for each inscription's layout in Cyrene. We do not know whether and to what extent the *damiergoi* delegated decisions about the documents' layout to the letter-cutters, nor whether other magistrates or even the local assembly had any say in the matter.

<sup>37</sup> *IG Cyrenaica*<sup>2</sup> 014700 (Rosamilia 2023a, no. 70). On this list, see also Dobias-Lalou 2000, 32–34; Dobias-Lalou 2015, 73–74; Dobias-Lalou 2016, 244–245 and 258 no. 11; Rosamilia 2023a, 46–48 and 70.

<sup>38</sup> *IG Cyrenaica*<sup>2</sup> 100400 (Rosamilia 2023a, no. 17).

<sup>39</sup> Bacchielli 1985.

<sup>40</sup> See n. 1 above.

<sup>41</sup> *IG Cyrenaica*<sup>2</sup> 081200 (Rosamilia 2023a, no. 25). On this tablet, see also Gasperini 1990, 22–33; Rosamilia 2023a, 147–152. This document is discussed in D. Amendola's chapter, case no. [29].

<sup>42</sup> Stucchi 1975, 132; V. Purcaro, in Bonacasa and Ensoli 2000, 84; Lippolis *et al.* 2007, 850; Kenrick 2013, 176 no. 31.

This document reveals that the Cyrenaean magistrates and scribes could resort to more sophisticated ways of organising economic data if they chose to do so. The lead tablet contains a record of several deposits of silver stored together. Each entry occupies a single line and is separated from those above and below by *paragraphoi*, indicating that the tablet's writer used line breaks as a tool for organising data. Moreover, l. 7 of this same tablet, which contains the sum of the previous six lines, is written in larger letters, and is set apart by longer *paragraphoi* that emphasise it. None of these layout devices is used in the *damiergoi* accounts. The lead tablet was discovered still rolled up, which attests to its nature as an archival record or receipt, meant solely for the eyes of magistrates and officials. Once again, this proves that not only the content of the accounts, but also their layout were the result of a deliberate choice, one that focused on the publication of an official document on stone *per se* rather than on ensuring that all the details of the *damiergoi*'s administration were easily accessible to the local population through the said document's publication.

All things considered, the *damiergoi* accounts inscribed on this plinth have quite similar layouts, but the same does not hold true for all Phase-1 accounts. For instance, in the account dating from the priesthood of Iasis (ca. 345),<sup>43</sup> the letter-cutter organised the first few lines using vacats and line breaks. He isolated the words [θεοί. δαμει]ργέντων at the centre of the first line, then set aside the next two lines for the names of the three *damiergoi* (ll. 2-3). The next item he had to inscribe was the name of the eponymous priest of Apollo (ll. 4-5). However, since it could not be written on a single line, the letter-cutter decided to inscribe the account as a single block of text from the middle section of l. 5.

The account dating to the year of Bathykles (ca. 330-315)<sup>44</sup> displays similar features. In it, the letter-cutter made sure not to hyphenate the different elements in the document's header. His layout strategy in the case of the eponymous priest of Apollo may too have included indentation so as to centre the first part of the priest's title in the inscribable space.<sup>45</sup> However, once he inserted the name, he immediately had it followed by the opening of the crop list – [κα]ρπὸς ἐπι[μάθη] (ll. 7-8) – which is thus neither isolated on a single line nor hyphen-free. The letter-cutter made no effort to line break the crop list that follows, to the point that even some syllables extend across two lines.<sup>46</sup>

In sum, even if both the accounts on the plinth and the ones on marble slabs contributed to the creation of an epigraphic landscape, it was not a totally homogeneous one.

<sup>43</sup> *IG Cyrenaica*<sup>2</sup> 012200 (Rosamilia 2023a, no. 40).

<sup>44</sup> *IG Cyrenaica*<sup>2</sup> 013000 (Rosamilia 2023a, no. 43).

<sup>45</sup> *IG Cyrenaica*<sup>2</sup> 013000 (Rosamilia 2023a, no. 43), l. 5: [vacat τῷ Ἀπόλλ]ωνος vacat.

<sup>46</sup> *IG Cyrenaica*<sup>2</sup> 013000 (Rosamilia 2023a, no. 43), ll. 9-10 (ῥ[ῖπος]) and 12-13 ([πρ]οκλησ[ί]τας).

### 3.2 Accounts from the Reign of Magas or Slightly Later (Phases 2 and 3: ca. 300–230)

In the early years of the third century, the accounts of the *damiergoi* began to change. The first major innovation in the Phase-2 accounts lay in the introduction of the semester as a new accounting time frame. Thus, at least from the year of Magas son of Philippos<sup>47</sup> – Ptolemy II’s stepson, soon to become king Magas of Cyrene – each crop price was recorded twice per year. This decision was probably the result of innovative accounting and administrative practices, which had almost no direct effect on the layout of the documents, except for nearly doubling their length.

During Phase 2, a second innovation contributed to the lengthening of the accounts, namely, the increasingly frequent recording on stone of the unit of measurement used for each crop. This had more to do with the *damiergoi*’s decision regarding what data to inscribe than with any external change. In the past, the *damiergoi* had rightly felt that such units could nearly always be omitted as they were obvious for any local reader.<sup>48</sup> After all, who in Cyrene measured grain in anything else but *medimnoi*? These two innovations reveal to us that Phase-2 *damiergoi* were most likely aiming at greater clarity and precision in their accounts, even at the expense of brevity.

The increased length of the accounts led the *damiergoi* to innovations in inscribable media as well. Of the six accounts dating to Phase 2, at least three were written on stelae embellished with architectonic elements (Fig. 17).<sup>49</sup> In each of these three, the lower field occupied by the inscription is framed by two pilasters and an entab-

<sup>47</sup> *IG Cyrenaica*<sup>2</sup> 063900 (Rosamilia 2023a, no. 49). This account is the earliest from Phase 2 and likely dates from the 280s.

<sup>48</sup> There are a few exceptions: in Phase 1, *damiergoi* seldom speak of ἄχυρα, “chaff” (cf., however, *IG Cyrenaica*<sup>2</sup> 011600, l. 6; Rosamilia 2023a, no. 30). Instead, they generally speak of ἀχύρων ῥίπος, “a wicker-basket of chaff”. This is most likely because in the accounts, ἄχυρα indicates the byproduct of threshing and winnowing: a loose mass of (mainly) husks and (possibly) straw swept from the threshing floor that had to be put into wicker baskets for transport and storage. As a result, in the Cyrenaicans’ minds this loose content became virtually indistinguishable from its container. In addition, in a couple of Phase-1 accounts – *IG Cyrenaica*<sup>2</sup> 012910 and 088300 (Rosamilia 2023a, nos. 34 and 46) – we find καρφέων ... ἄμαξα, “a wagonload of hay”, instead of the more widespread κάρρη, “hay”. In later accounts, neither of these units of measurement is ever abbreviated (see n. 76 below).

<sup>49</sup> *IG Cyrenaica*<sup>2</sup> 063900 and 013300 (Rosamilia 2023a, nos. 49 and 53) are the best-preserved examples. A third inscription (*IG Cyrenaica*<sup>2</sup> 013500; Rosamilia 2023a, no. 52) preserves part of the right pilaster, but its upper and left parts are missing. *IG Cyrenaica*<sup>2</sup> 013700 (Rosamilia 2023a, no. 51) does not include any pillars, but might have had some decoration on the top. In its current state, *IG Cyrenaica*<sup>2</sup> 013400 (Rosamilia 2023a, no. 54), possibly the most recent account from Phase 2, does not have any architectonic features. However, its sides are missing, and its upper part was heavily reworked when this fragment was reshaped to replace a piece of a broken Roman marble statue. Since the first line of text cannot accommodate the invocation to the gods, it is possible that the invocation originally stood on some entablature that is now lost. The sixth account (*IG Cyrenaica*<sup>2</sup> 009420; Rosamilia 2023a, no. 50) is known only through an early-20th-century transcription.

lature. This innovation had some consequences from a *mise en page* point of view. Almost all the text in these accounts is inscribed in the lower field, but in the two whose entablature is preserved, the first line of text is set in the architrave. In both cases, it is the size of the architrave that determines the letters' height, making those in the first line larger than those in the rest of the document. Whether this line consists of a simple invocation to the gods<sup>50</sup> or also mentions the *damiergoi*,<sup>51</sup> the letters are widely spaced in imitation of contemporary architectural inscriptions. Moreover, in at least one case, the name of the eponymous priest of Apollo is written on a separate line in larger letters, even though the line itself is not inscribed on the entablature.<sup>52</sup>

The adoption of Milesian numerals – the innovation distinguishing Phase-3 accounts from earlier ones – led to no change in the medium or layout. Of the two accounts dating to this phase, the earlier one<sup>53</sup> is inscribed on what had possibly been a free-standing stele with no ornamentation, while the later one<sup>54</sup> is cut on a stele adorned with pilasters on both sides. Since the upper portion of the second account is missing, we cannot be sure whether the pilasters were surmounted by an inscribed architrave, though this seems probable. Its last lines also demonstrate the use of vacats to isolate the main elements of the closing section, that is, the year's revenues and expenses, as well as the *παρόρεγμα* for the *damiergoi*.<sup>55</sup> However, the decision to inscribe the totals before their labels – an unparalleled innovation in *damiergoi* accounts – and a small mistake on the part of the cutter, who wrote the figures of both the income and the expenditure on the same line (l. 3), led to a rather messy and confused layout.

### 3.3 Later Accounts from Ptolemaic Cyrene (Phase 4: ca. 230–140)

Phase 4 coincides with a major innovation in the accounts' layout: in the late third century, the *damiergoi* started inscribing crop lists in a two-sub-column format

<sup>50</sup> *IG Cyrenaica*<sup>2</sup> 063900 (Rosamilia 2023a, no. 49), l. 1: [θε]οί.

<sup>51</sup> *IG Cyrenaica*<sup>2</sup> 013300 (Rosamilia 2023a, no. 53), l. 1: [θ]εός, δα[μ]ιεργέ[των]. The mention of the *damiergoi* may have been meant as a title for the whole account, which would explain the relevance bestowed on it.

<sup>52</sup> *IG Cyrenaica*<sup>2</sup> 013400 (Rosamilia 2023a, no. 54). See also n. 49 above.

<sup>53</sup> *IG Cyrenaica*<sup>2</sup> 013800 (Rosamilia 2023a, no. 55).

<sup>54</sup> *IG Cyrenaica*<sup>2</sup> 014100 (Rosamilia 2023a, no. 56). The dating of this inscription is particularly tricky. I argued in favour of a date circa 250–230 (Rosamilia 2023a, 177 and 315) on the basis of a palaeographical comparison between this text and a statue base for a Queen Arsinoe from Ptolemais (*IG Cyrenaica*<sup>2</sup> 033700). However, Stefano Caneva (2016, 213; see also *SEG* LXVI 2343) has pointed out that the queen honoured in Ptolemais is instead Arsinoe III, sister and wife of Ptolemy IV. This points to a slightly later date of around 230–220.

<sup>55</sup> The *paroregma* is always mentioned at the end of the accounts and is not included among the revenues or expenditures of the *damiergoi*, which proves that its payment involved other funds. Its precise nature is not easy to ascertain, but it was probably a sort of allowance that the *damiergoi* received from the city. On the *paroregma*, see Chamoux 1988, 145; Dobias-Lalou 2000, 239; Rosamilia 2023a, 189.

with numerals on the right. Since by this date each account included two separate crop lists, one per semester, the *damiergoi* also decided to inscribe them side by side. The advantages of this innovation from the point of clarity are evident; not only did it make each crop and its price stand out and easily findable without a need to peruse the entire text, but it also enabled readers to compare the prices of the same crop over two semesters. This is particularly clear in the account of the year of Hagesistratos son of Po[- -] (ca. 220; Fig. 18), which is among the best preserved.<sup>56</sup>

Since the *damiergoi* had already *de facto* abandoned the idea of a continuous text that maximised the number of letters per line while minimising the number of lines, they also started to use line breaks to isolate individual elements in the accounts' opening and closing sections. For example, in the account of the year of Hagesistratos the first seven lines provide the reader with a single piece of information each.<sup>57</sup> These opening lines can vary quite a bit in length, so the letter-cutter shifted to a somewhat centred layout in ll. 3 and 7 in order to minimise visual discrepancies. Notably, the same does not hold true for the first line, where the letters of the invocation θεοί are widely spaced.<sup>58</sup> A similar phenomenon is at work in the final three lines of the same account, where one finds the total income, the total expenditure, and the *παρόρεγμα* of the *damiergoi*, each on a separate line. In this case, however, the lines are nearly the same length, and the cutter has aligned them on the left.<sup>59</sup>

This major change in the layout of Phase-4 accounts calls for closer examination. No doubt preliminary documents on perishable media (papyrus) and administrative practices in contemporary Egypt influenced the outcome, but this did not happen overnight. A similar layout, in fact, can already be found in Cyrene, in a long list of subscribers dating from the priesthood of Nikobolos (ca. 270).<sup>60</sup> This type of

<sup>56</sup> *IG Cyrenaica*<sup>2</sup> 014300 (Rosamilia 2023a, no. 57). On this priest of Apollo, see Rosamilia 2023a, 106 priest S68, and 178.

<sup>57</sup> Namely: l. 1, invocation to the gods; l. 2, eponymous dating; l. 3, δαμ[ιεργέντων], introducing the list of *damiergoi*; ll. 4-6, names of the three *damiergoi*, one per line; l. 7, καρποὶ ἐτιμ[άθεν], introducing the two lists of crop prices, one per semester.

<sup>58</sup> Other accounts adopt slightly different strategies to isolate the word δαμιεργέντων and the expression καρποὶ ἐτιμάθεν in the opening section, such as increased letter spacing (*IG Cyrenaica*<sup>2</sup> 014200 and 014000; Rosamilia 2023a, nos. 59-60) or indentation (*IG Cyrenaica*<sup>2</sup> 014400-014500; Rosamilia 2023a, nos. 61-62). In *IG Cyrenaica*<sup>2</sup> 014400 (Rosamilia 2023a, no. 62), the cutter also inserted a small blank space between ll. 6-7, isolating the opening section from the crop lists and their opening title καρποὶ ἐτιμάθεν.

<sup>59</sup> The same occurs in *IG Cyrenaica*<sup>2</sup> 014500 (Rosamilia 2023a, no. 61), ll. 29-31, the only other Phase-4 account that partly preserves the closing section.

<sup>60</sup> *IG Cyrenaica*<sup>2</sup> 065200, 065210, and 097170; Rosamilia 2023a, nos. 68a-68c. A small fragment (*IG Cyrenaica*<sup>2</sup> 009300; Rosamilia 2023a, no. 69), likely pertaining to a different subscription from the same period, also attests to the use of Milesian numerals. On these documents, cf. Migeotte, *Souscriptions* 86; Dobias-Lalou 2016, 241-242 and 257 nos. 5-7; Dobias-Lalou 2017, 190-191; Rosamilia 2023a, 205-207. On Nikobolos, see also Rosamilia 2023a, 102 priest S39.

document, however, had no antecedent in Cyrenaean epigraphy, which gave its compilers and cutter a free hand when it came to the layout of the text. The *damiergoi*, by contrast, were following a longstanding tradition that limited their autonomous initiative to some degree. As a result, it took the *damiergoi* about half a century to adopt the new layout for their accounts. Once they did so, however, it became commonplace in similar documents. We find it again, for instance, in a list of silver vessels appended to an official Ptolemaic *prostagma* dating from the second half of the second century.<sup>61</sup>

As far as the medium is concerned, some further changes took place during Phase 4. Whereas accounts of the early third century were usually inscribed on free-standing stelae, no fragment dating from Phase 4 reveals any trace of architectural decoration. In addition, the inscriptions are nearly square in format. The account of the year of Hagesistratos, for example, is 380 mm high and 345 mm wide (a nearly 1:1 ratio). If we take into consideration their slenderness (ca. 35 mm for the account of the year of Hagesistratos), it seems extremely probable that all Phase-4 accounts were inscribed on marble panels meant to be affixed to a wall. This leads to the question of the identity of the building or structure on whose walls the accounts were displayed.

Since the older *prytaneion* was no longer standing by the late third century, we must look elsewhere. The first possibility would be the new *oikos*-temple of Apollo on the western side of the agora,<sup>62</sup> but the connection between the *damiergoi* and the *prytaneion* remained strong until the end of the second century. Unfortunately, the so-called newer *prytaneion* – a square building with a porticoed central courtyard lying in the south-east corner of the agora<sup>63</sup> – has never undergone extensive excavation, while the public buildings on its eastern side have likewise remained unexplored. Although the lack of information on the precise location where nearly all the fragmentary accounts were discovered in the 1920s does not help, in 1960, a fragment of a late account was found beneath the so-called Temple of the Octagonal Bases<sup>64</sup> on the eastern side of the agora. This findspot was extremely close to the new *prytaneion* and the other *archeia*, which stood on the opposite side of the main road, and may be our best clue about the building where these later accounts were displayed. Unfortunately, lacking further data, we can only make educated guesses.

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<sup>61</sup> *IG Cyrenaica*<sup>2</sup> 016800 (see now Rosamilia 2023b). However, this text reveals some other layout devices. Vessels are divided according to capacity and, after a full description of the first vessel, others of similar capacity are listed simply as ἄλλο, though this word is always written in letters that are perceptibly more widely spaced than those in the rest of the document.

<sup>62</sup> See § 3.1 above.

<sup>63</sup> Stucchi 1975, 134–135; S. Ensoli, in Bonacasa and Ensoli 2000, 86; Kenrick 2013, 171–172 no. 24.

<sup>64</sup> *IG Cyrenaica*<sup>2</sup> 107150 (Rosamilia 2023a, no. 63); see also Rosamilia 2017, 151–153. The importance of this finding in the eastern part of the agora has already been stressed by Rosamilia 2023a, 156. On this temple, see Stucchi 1975, 198 and 245–246; Kenrick 2013, 171 no. 22.

#### 4. FIGURES, NUMBERS, AND ABBREVIATIONS

##### 4.1 Earlier Accounts (Phases 1 and 2)

A distinguishing feature of the *damiergoi* accounts from the very outset is the use of the local acrophonic notation to record crop prices and monetary figures.<sup>65</sup> Thanks to the inscribed lead tablet from the agora,<sup>66</sup> we can easily reconstruct the introduction and first stages of the development of this notational system, which preceded the accounts of the *damiergoi* by several decades. Originating as a set of signs meant to describe the main denominations of Cyrenaean coins, the meaning of each sign soon doubled to describe an amount in *mnai* as well. Because of this double meaning, the Cyrenaean placed another sign – a *my* flanked on both sides by double *stigmai*, the abbreviation for  $\mu(\nu\alpha\tilde{\iota})$ <sup>67</sup> – before these signs whenever the total amount rose to above one *mna*.<sup>68</sup>

If this notation offered some advantage from the point of view of accounting – for instance, one could now easily note the value of each local coin – it also had two major disadvantages. The Cyrenaean system does not, in fact, allow for synthetic notations and lacks versatility. More precisely, while other acrophonic systems could be used to write down pure numbers and monetary figures, the Cyrenaean one could only be used for the latter purpose. Due to its limitations, Cyrenaean acrophonic notation was not immune to influence from its Attic counterpart even during the fourth century. For instance, in two Phase-1 accounts we find the Attic signs  $\Delta$  and  $\Gamma$  instead of their local equivalents ( $\text{ΞΞ}\text{C}$  and  $\text{ΞZ}$ ) noting 10 and 5 drachmas, respectively.<sup>69</sup>

As far as abbreviations and numerals are concerned, Phase-2 accounts exhibit little difference from their predecessors. There are no abbreviations, and local acrophonic numerals are still used, albeit with some innovations. For instance, one fragmentary account preserves some figures of the total annual outflow: [- - -]H $\text{Ξ}\text{Ξ}\text{C}$ », that is, [- - -]+110,50 drachmas. This attests to the fact that the *damiergoi* replaced the local sign for *mna* (an *obelos*) with a *heta*, the standard acrophonical notation for 100 (i.e.,

<sup>65</sup> Ferri 1923a; Ferri 1923b, 181; Tod 1926–1927, 149–150 no. 61A; Oliverio 1933, 103–105 and 122–130; Tod 1936–1937, 255–257 no. 95; Gasperini 1986; Gasperini 1987; Laronde 1987, 241–245; Chamoux 1988, 146–147; Gasperini 1990, 28–30; Foraboschi 1996; Rosamilia 2016, 86–87; Dobias-Lalou 2017, 195–199; Rosamilia 2023a, 140–144.

<sup>66</sup> See n. 41 above. On this document, see now Rosamilia 2023a, 147–152. Aside from this lead tablet and the accounts of the *damiergoi*, the acrophonic system recurs only in the late-fourth-century “Stele of the *syla*” (*IG Cyrenaica Verse*<sup>2</sup> 033 + *IG Cyrenaica*<sup>2</sup> 097100; Rosamilia 2023a, no. 7).

<sup>67</sup> This is the only abbreviation attested in accounts from Phases 1 and 2.

<sup>68</sup> For example, the notation : M :  $\text{Ξ}\text{Ξ}\text{C}$  : stands for 500 *mnai* (i.e., 50.000 drachmas), while the signs :  $\text{Ξ}\text{Ξ}\text{C}$  : without the initial *my* add up to only 10 drachmas.

<sup>69</sup> *IG Cyrenaica*<sup>2</sup> 011800 (Rosamilia 2023a, no. 28), l. 9; *IG Cyrenaica*<sup>2</sup> 088300 (Rosamilia 2023a, no. 46), l. 3.



drachmas). While this innovation may also have been due to the influence of contemporary Athenian practice, it shows that the system was becoming increasingly outdated and vestigial. For this reason, it should come as no surprise that, in the next phase, the *damiergoi* abandoned the local acrophonic notation system altogether.

#### 4.2 Later Accounts (Phases 3 and 4)

Phase-3 accounts differ from earlier ones in their adoption of Milesian numerals. The earliest document from Cyrene to do so is quite likely the long list of subscribers dating to the year in which Nikobolos son of Iason was priest of Apollo (ca. 270).<sup>70</sup> The *damiergoi* employed the earlier notation in their accounts at least until the time of the priesthood of Philinos son of Philinos (ca. 270–260).<sup>71</sup> Although we have no idea whether the priesthood of Nikobolos preceded or followed Philinos', we can reconstruct events in two equally plausible ways. On the one hand, the Cyrenaean may have started using Milesian numerals in all their official documents in response to some official deliberation at a precise moment in time. On the other, it is equally possible that the *damiergoi* kept the local notation alive for several years after it had fallen out of favour with the general population out of conservatism and conformity to the local administrative tradition. In any case, by the time of the priesthood of Poly[- -] (ca. 260),<sup>72</sup> the *damiergoi* had adopted the Milesian numerals exclusively in their accounts. These numerals occur in Egyptian documents as early as the fourth century and became the only alternative to writing numbers in full from the early third century on. This is why it is easy to assume that the introduction of Milesian numerals in Cyrenaica was spearheaded by Ptolemaic officials who were well versed in Egyptian administrative practices. However, since the adoption of Milesian numerals in Cyrene took place prior to the death of king Magas, this phenomenon was most likely due not to direct Egyptian influence, but rather to the Cyrenaean's decision to modernise their accounting practices.<sup>73</sup>

Phase 3 saw a second important innovation, however, one first encountered in the later account from this period:<sup>74</sup> the adoption of abbreviations for most mea-

<sup>70</sup> See n. 60 above.

<sup>71</sup> The latest Phase-2 account – *IG Cyrenaica*<sup>2</sup> 013400 (Rosamilia 2023a, no. 54) – dates from the priesthood of Phil[- -]. On his identification with the priest Philinos son of Philinos, who erected a statue in the sanctuary of Apollo during his tenure (*IG Cyrenaica*<sup>2</sup> 009200), see also Rosamilia 2023a, 103–104 priests S44 and S44bis, and 171–172.

<sup>72</sup> *IG Cyrenaica*<sup>2</sup> 013800 (Rosamilia 2023a, no. 55). This is the earlier account from Phase 3.

<sup>73</sup> On Milesian numerals in Cyrene, see Dobias-Lalou 2017, 187–190; Rosamilia 2023a, 144–145. The adoption of Milesian numerals presented the *damiergoi* with some challenges, first and foremost, in the notation of values above 999. To solve this problem, they resorted to *parakuismata* (for 1.000) and *my* (for 10.000) with a superimposed multiplication exponent. On this use of *parakuismata*, see Soldati 2009; Hammerstaedt 2009.

<sup>74</sup> *IG Cyrenaica*<sup>2</sup> 014100 (Rosamilia 2023a, no. 56).

surement units.<sup>75</sup> The first we find in this document – an *alpha* superscribed with the bar of a *tau* – is a standard abbreviation for τά(λαντων) that recurs abundantly in Egyptian papyri,<sup>76</sup> both as a weigh and a monetary unit.<sup>77</sup>

Conversely, the two other abbreviations that occur in this text are neither strictly speaking Graeco–Egyptian ones, nor do they recur in Ptolemaic papyri, though they still belong to the same writing tradition.<sup>78</sup> Scholars unanimously agree that the ligature *my+epsilon* used in connection with grains and pulses stands for μέ(διμνος), the most common dry unit of measurement in the Greek world.<sup>79</sup> The lack of parallels in papyri is easily explained by the fact that Egyptians measured grains by the *artaba*, a local unit slightly smaller than a standard Attic *medimnos*.

The case of the third abbreviation attested in the accounts, the one used for liquids, is even more complex. The *damiergoi* measured oil and wine according to a unit whose abbreviation consists of a *my* with a superimposed *sigma*. Gaspare Oliverio – who misread most attestations as a *my* with a superimposed *tau* – interpreted it as an abbreviation for μ(ε)τ(ρητής), the most common Greek unit of measurement for liquids. Since 1958, when the account dated to the priesthood of Magas was first published,<sup>80</sup> it has become apparent that the *damiergoi* measured wine and oil according to the *smireus*, a local unit of measurement also mentioned by Hesychius.<sup>81</sup> For this reason, André Laronde – who still accepted Oliverio’s interpretation of the abbreviation – proposed that the adoption of *metretai* as units of measurement reveal traces of Ptolemaic influence.<sup>82</sup> However, neither Oliverio nor Laronde noticed that such an interpretation clashes with the fact that ancient Greeks generally abbreviated words through suspension rather than contraction.<sup>83</sup> Several years later, Catherine

<sup>75</sup> In the surviving accounts, both the ἄμαξα (used for hay) and the local ῥίπος (used to measure ἄχυρα, i.e., chaff or, more likely, straw) are never abbreviated. On these units, cf. Oliverio 1933, 109–110; Dobias-Lalou 1985, 180; Dobias-Lalou 2000, 202.

<sup>76</sup> On abbreviation in papyri, see Wilcken 2010, 47–54; Blanchard 1974; Gonis 2009.

<sup>77</sup> The latter use is not attested in Cyrenaica except in an early-first-century honorary decree for Aleximachos from Arsinoe/Taucheira (*IG Cyrenaica*<sup>2</sup> 066900, l. 49); see Dobias-Lalou 2017, 200–201; Rosamilia 2023a, 203–204.

<sup>78</sup> Cf. also the abbreviation found in *O.Cret.Chers.* 1–75 (ca. 150–250 CE): a *my* with a superimposed *epsilon*, which N. Litinas, *O.Cret.Chers.* at pp. 11–16, interprets as standing for με(τρητής).

<sup>79</sup> In second-century accounts, the *damiergoi* added a superimposed *delta* to the juxtaposed *my* and *epsilon* (see Tab. 2).

<sup>80</sup> *IG Cyrenaica*<sup>2</sup> 063900 (Rosamilia 2023a, no. 49), l. 8: [οἴνω? συμ]πεύς ἄν : XX. The text was first published by Fraser 1958, no. 2, who noticed the connection (see esp. 108).

<sup>81</sup> Hsch. σ 1265, s.v. συμπεύς Hansen: συμπεύς: μέτρον οἰνικὸν εἰς Πεντάπολιν Λιβύης. On the *smireus*, see Fraser 1958, 106–107; Dobias-Lalou 1985, 180; Chamoux 1988, 151; Dobias-Lalou 2000, 202–203.

<sup>82</sup> Laronde 1987, 326–327. This idea was originally followed in part by Dobias-Lalou 1985, 180, as well.

<sup>83</sup> McLean 2002, 51. See also Threatte, *Grammar*, I, 99–101.

Dobias-Lalou realised that this abbreviation stood for the word  $\sigma\mu(\text{μερούς})$ , thereby proving that the liquid unit of measurement had never changed.

Abbreviations in Phase-4 documents are not limited to units of measurements. In the account dating from the year of Hagesistratos, we find ligatures for wheat and barley for the first time. These are attested in other accounts (Fig. 19) and have close parallels in contemporary Egyptian texts.<sup>84</sup> This same account contains a third abbreviation not found in other Cyrenaean documents: a *kappa*, whose vertical stroke is surmounted by the V-shaped upper part of an *upsilon*, a ligature for  $\kappa\upsilon(\alpha\mu\omicron\iota)$ , i.e., lentils. While ligatures for pulses are quite rare in Egyptian documents and abbreviations through suspension are far more widespread,<sup>85</sup> a similar “monogram” recurs in several Hellenistic papyri.<sup>86</sup>

The context that saw the adoption of these abbreviations calls for closer analysis. Since the upper portion of the account in which these abbreviations for units of measurement occur for the first time does not survive, we cannot exclude the possibility that it included abbreviations for crops as well. Quite the contrary: it stands to reason that the *damiergoi* adopted both sets of abbreviations at around the same time, namely, after Ptolemaic control over Cyrenaica tightened in the 250s. In such case, these abbreviations may attest to the influence of Graeco-Egyptian accounting practices and administrative traditions even at the civic level.

The later evolution of this practice too merits a closer look. Abbreviations for units of measurement became a recurring feature in Phase-4 accounts; nonetheless, in the long run the *damiergoi* stopped using abbreviations for crop names and reverted to writing them out in full.<sup>87</sup> This may have happened because the crop abbreviations borrowed from Egypt were incompatible with local needs. For instance, the ligature for wheat used by the *damiergoi* is formed by crossing a *pi* with an *upsilon* and is easily understandable as a *siglum* for  $\pi\upsilon(\rho\omicron\iota)$ . In the local dialect of Cyrene, however, the same word is spelled  $\sigma\pi\upsilon\rho\omicron\iota$ , with an initial *sigma* that is missing from

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<sup>84</sup> Wilcken 2010, 48; Blanchard 1974, 4. Early occurrences of the abbreviation for wheat ( $\pi\upsilon\rho\omicron\iota$ ) include, for instance, P.Cair.Zen. I 59004, col. I, l. 2 (redistribution of flour for a party traveling through Palestine; likely summer 259) and BGU VI 1227, l. 14 (attribution of a *kleros* to a Cyrenaean; Oxyrhynchite nome, nov. 259). For particularly well-preserved attestations, see BGU VII 1505 (*ostrakon* receipt; Philadelphia, Arsinoite nome; 16th regnal year of either Ptolemy IV or Ptolemy V, that is, 206 or 189). For barley, see, for instance, P.Cair.Zen. II 59292 (an account of cereal expenditures from the estate of Apollonios; 250), wherein the abbreviation for wheat is attested as well.

<sup>85</sup> Cf. e.g., P.Tebt. III 845, frg. 2, l. 25:  $\kappa\upsilon\acute{\alpha}(\mu\omicron\upsilon\upsilon) \nu\eta'$  (account of cereals and other produce from the Tantathoites toparchy; 22nd regnal year, possibly of Ptolemy II: 264).

<sup>86</sup> P.Tebt. III 828, ll. 5 and 13 (Tebtynis; report on unproductive land, 130/29 or slightly later).

<sup>87</sup> On the dating of Phase-4 accounts, see Rosamilia 2017; Rosamilia 2016, 88–96. The latter is reprinted with minor additions in Rosamilia 2023a, 179–184.

the ligature.<sup>88</sup> As a result, these abbreviations could easily be perceived as foreign. Even so, another factor may be more relevant.

As proven by Phase-1 accounts, local viewers did not need to have the *damiergoi* write down units of measurement in order to understand the accounts. For this reason, ligatures for measurement units could easily be ignored with no loss of information. On the other hand, abbreviations for crop names, while perfectly comprehensible to the *damiergoi* and Ptolemaic officials, could be nearly unintelligible to the local population. If the *damiergoi* were really striving for greater readability when they stopped using crop abbreviations in their accounts, then they must have still looked upon the general Cyrenaean population as their main audience.

## 5. CONCLUSIONS

As we have seen, a preliminary division of the thirty-eight surviving *damiergoi* accounts into four different phases provides us with a fundamental starting point for the study of the evolution of the layout, medium, and publication strategies of the *damiergoi*.

The use of imported marble as the only writing medium reflects a local epigraphic habit. Despite this, the physical characteristics and format of the inscribed accounts vary greatly over the decades, showing that the *damiergoi* never implemented any long-term publication plan. Early accounts privilege inscriptions on marble panels or a free-standing plinth whose sides preserve the only four accounts whose complete text survives. On the other hand, free-standing stelae with architectural decorations became increasingly common in Phases 2 and 3, but were completely abandoned in Phase 4, when inscriptions on marble panels became the norm again.

In terms of layout, early accounts tend to be inscribed as continuous texts, save, on occasion, for the first few lines. On the other hand, the letter-cutters of Phase-4 accounts resort to a two-sub-column format that probably indicates the influence of archival and administrative records on perishable media.

While many of the *damiergoi*'s decisions can be attributed to their conservatism – as can their use of local acrophonic numerals until the mid-third century, for example – some accounts attest to the impact of external practices and layout strategies. Attic acrophonic numerals, for instance, sometimes found their way into the accounts, while in the 260s, even the *damiergoi* resigned themselves to the fact that they had to use Milesian numerals (by then nearly standard) in their accounts. Moreover, once Ptolemaic control of the region intensified circa the mid-third century, the influence of Egyptian administrative practices on Cyrenaean accounts grew stronger and more widespread.

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<sup>88</sup> Dobias-Lalou 1985, 175; Dobias-Lalou 2000, 196.

On the other hand, in at least one instance, we can detect the audience's impact on the publication of these accounts. As we have seen, the *damiergoi* introduced abbreviations influenced by Egyptian ones for crops and units of measurement between later Phase-3 account and the earliest Phase-4 one. While abbreviations for units of measurement posed no problems for local readers, the same apparently did not hold true for those used for crops. The fact that these abbreviations disappear from later Phase-4 accounts probably attests to local resistance to their adoption, one strong enough to force a return to fully spelled-out names for crops.

All in all, the *damiergoi* accounts offer us a unique opportunity to view the *longue durée* evolution of the formatting, layout, and medium choices of a group of civic magistrates who faced the challenge of external influences, internal pressures, and their own conservatism over the course of more than two centuries.

#### ADDENDUM: CYRENAEAN SMIREIS IN P.MARM.

Whereas above we relied on papyrological evidence to shed light on some less understood aspects of Cyrenaean inscriptions and their layout, there is at least one case in which epigraphic evidence can probably return the compliment. At some point between the 15th and the 20th year of the joint reign of Septimius Severus and his sons Caracalla and Geta (206/7 to 211/2 CE), an unknown Roman administrator of the Marmarican nome had two lists of estates confiscated by the Fiscus compiled by two of his subordinates.<sup>89</sup> These two separate papyri were later reused, cut, and pasted together to create a new roll, on whose *verso* another scribe penned Favorinus of Arles' *On Exile* in around the mid-third century CE.

The two original documents – collectively known as P.Vat.Gr. 11 recto or the Papyrus Marmarica (P.Marm.) – list and describe over one hundred estates and provide details on the location revenues – in *denaria* or in kind – generated by each estate over a five-year period. One of the most puzzling aspects of these two exceptional documents is the fact that the revenues in wine and oil alternate between two different units of measurement. Most columns use the expected  $\kappa\epsilon\rho(\acute{\alpha}\mu\iota\omicron\nu)$ , but in some parts of columns I and IV<sup>90</sup> we find instead a puzzling abbreviation that consists of a *zeta* with a superimposed *my*. The initial editors of P.Marm. – Girolamo Vitelli and Medea Norsa – attributed a numerical value to the first letter and thus read this

<sup>89</sup> According to M. Norsa – G. Vitelli, P.Vat.Gr. 11, at p. XIX, P.Marm. dates from the last years of Commodus' reign. On the other hand, both Alessandri 2013 and Bastianini 2011, 2 n. 6, convincingly argue in favour of a date in the Severan period. In the absence of the document's header, one might legitimately ask whether P.Marm. registered revenues that had already been collected (Alessandri 2013, 238) or the revenues expected from the five-year farming-out contracts of these properties. If the latter is the case, P.Marm. might date from the 14th or 15th year of the joint reign of Septimius Severus and his sons, that is, 205/6 or 206/7 CE. On P.Marm. in general, see also Ricciardetto 2015, with further bibliography. Photos of this papyrus can be accessed at: <[https://digi.vatlib.it/view/MSS\\_Pap.Vat.gr.11](https://digi.vatlib.it/view/MSS_Pap.Vat.gr.11)>.

<sup>90</sup> P.Marm. col. 1, ll. 6 (twice), 10, and 12; col. 4, ll. 4 and 32.

abbreviation as ((ἐπτά)μ(ετρον) *scil.* κεράμιον, that is, as a “seven-unit *keramion*”.<sup>91</sup> In this context *keramion* is quite likely the equivalent of the Latin *amphora quadrantal*, the standard unit of measurement for liquids in the Roman Empire. Therefore, if we consider the *metron* as an equivalent of the Latin *congius* (i.e., 1/8 of the *keramion*), then this means that the *heptametron* was only 1/8 smaller than the *keramion*.<sup>92</sup> While this double standard probably had much to do with various local traditions across the Marmarican nome, we should still ask ourselves whether we are interpreting the abbreviation correctly, and consider whether an alternative explanation is possible.

As we have seen, the inhabitants of Cyrene had been using a local unit of measurement for liquids – the *smireus* – since at least the reign of Magas.<sup>93</sup> However, the alternative spelling <ζμ> for words beginning with <σμ> is quite common in Roman Egypt, where both would have been read as /zm/.<sup>94</sup> Therefore, it would not be surprising if the scribe of P.Marm. thought of this unit of measurement as a ζμρεός. This means that the abbreviation that recurs, albeit infrequently, in the P.Marm. is compatible with an ascending abbreviation for ζμ(ρεός). Admittedly, this abbreviation differs from the descending one attested in the *damiergoi* account from Cyrene, but it is based on the same logic as the ascending abbreviation for *medimnos* in the accounts. This suggests that though the origin of the abbreviation in P.Marm. may differ, it falls within the frame of the same tradition.

This new understanding of the abbreviation *zeta+my* in P.Marm. has several additional consequences. Not all the places mentioned in P.Marm. adopted the *smireis* as a measurement unit. For instance, in col. IV we find *smireis* in the Sybiake district,<sup>95</sup> while the inhabitants of the Septoumiake district (discussed next) used *keramia* instead.<sup>96</sup> The names of these two districts provide a possible clue for the reason behind this. Septoumiake, in particular, was probably named after the reigning emperor, Septimius Severus. This suggests at least some form of imperial-sanctioned intervention that may have easily involved the adoption of standard Roman weights and measures. Sybiake’s name, on the other hand, cannot be traced back to Roman or Greek roots and may, in fact, be a far older Libyan toponym. Another factor may instead be at play here: the districts’ collocation.

<sup>91</sup> M. Norsa – G. Vitelli, P.Vat.Gr. 11, at p. 51 on col. I l. 6; see also Catani 1985, 150. On *keramia*, see Wilcken 2010, 87.

<sup>92</sup> While measurements of wheat made μέτρῳ ἐλαιουργικῶ(ῶ) {ANA} ἑπταμέτροι Ἀθη(ναίῳ) τῆς ἀρτάβης (P.Flor. III 356, ll. 11-12) are attested sporadically in the Heracleopolite nome (see Clarysse 1985), this *metron* is clearly a dry measure.

<sup>93</sup> See § 4.2 above.

<sup>94</sup> Gignac, *Gram.* I, 120-122. See also Schwyzer, *Gr.Gramm.* I, 217-218 § 4, c, δ, 1.

<sup>95</sup> P.Marm. col. 4, ll. 1-39.

<sup>96</sup> P.Marm. col. 4, ll. 40-47.

Until quite recently, scholars were somewhat sceptical of the possibility of pinpointing the location of each district in Marmarica.<sup>97</sup> Thanks to the different descriptions of landscapes in the papyrus and the parallels provided by other ancient sources, Anna-Katharina Rieger was able to reconstruct a preliminary map of the Marmarican region and its districts in 2017. Independently of the present discussion, she placed both the Sybiake district and the one in col. I – the only ones in which *smireis* were used – on the western border of Marmarica, just east of Darnis.<sup>98</sup> Since the Cyrenaean had many vested interests in western Marmarica from at least the mid-fourth century on,<sup>99</sup> the *smireis*-using areas were thus comprised of places and populations that had been under the direct influence of Cyrene for a long time. It shall come as no surprise then that the conservative local *nomima*, even several centuries later, still included the traditional Cyrenaean units of measurement.

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<sup>97</sup> According to Catani 1985, 154, we should look for the Septoumiake region (or town) to the west of Katabathmos and close to Cyrenaica.

<sup>98</sup> Rieger 2017, 107 and 118–119.

<sup>99</sup> Laronde 1987, 219–232. See also the *diagramma* of Ptolemy I (spring 320), which granted citizen rights in Cyrene to the children of any Cyrenaean man and any Libyan woman born “between Katabathmos and Authamalax” (*IG Cyrenaica*<sup>2</sup> 010800, ll. 2–3; Rosamilia 2023a, no. 3).

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