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Illustration du dos: Globe terrestre, dit «Globe Vert», Martin Waldseemüller, Saint-Dié, ca 1507 (BnF, Cartes et Plans, Res. Ge A 335): l'océan Indien (cliché BnF).

***Topoi* Supplément 15**

MÉDITERRANÉE ET OCÉAN INDIEN

Deux mondes en miroir

Édité par Didier Marcotte

Sommaire

Avant-Propos

Didier MARCOTTE, « Deux mers en miroir » 5-11

Figures et circulations antiques

Francesco PRONTERA, « La terre vue de la mer : de la Méditerranée à l'océan » 13-23

Jehan DESANGES, « Bilan des recherches sur les escales gréco-romaines au long de la côte africaine de la mer Rouge et du golfe d'Aden dans le dernier quart de siècle » 25-44

Jean-François SALLES, « La baie du Bengale dans l'Antiquité. Une voie ouverte vers l'Est » 45-82

Federico DE ROMANIS, « Structural aspects of a commercial entreprise to Muziris. On SB XVIII 13167 again » 83-100

Pierre SCHNEIDER, « Comment naissent les perles ? Échanges marchands et transferts de savoir, de l'océan Indien à la Méditerranée » 101-117

Didier MARCOTTE, « La fin de l'*Indiké* d'Arrien » 119-143

Héritages et élargissements médiévaux

Patrick GAUTIER DALCHÉ, « Un débat scientifique au Moyen Âge : l'habitation de la zone torride (jusqu'au XIII^e siècle) » 145-181

Emmanuelle VAGNON, «La cartographie occidentale de l'océan Indien au Moyen Âge et à la Renaissance : une évolution non linéaire»	183-205
Jean-Charles DUCÈNE, «Savoirs lettrés arabes et persans sur l'océan Indien (IX ^e -XV ^e s.)»	207-224
Dionisius AGIUS, «Sea zones : the Balkhī school's conceptual mapping of the Indian Ocean»	225-243

Le temps des synthèses

Marica MILANESI, «Ramusio : la synthèse des savoirs sur l'océan»	245-256
Luis Felipe THOMAZ, «L'invention de l'océan Indien»	257-306
Jean-Louis BACQUÉ-GRAMMONT, «L'océan Indien dans les sources ottomanes»	307-315
Dejanirah COUTO, «Contribution of Portuguese narrative sources to the history of Qal'at al-Bahrain : some information on the expeditions of 1521 and 1529»	317-333
Rila MUKHERJEE, «Indian Ocean and the Mediterranean : one world, two seas, multiple routes?»	335-387
Philippe BEAUJARD, «L'océan Indien, un espace central du système-monde afro-urasien avant le XVI ^e siècle»	389-411

STRUCTURAL ASPECTS OF A COMMERCIAL ENTERPRISE TO MUZIRIS (ON SB XVIII 13167 AGAIN)

That the two texts of the so-called ‘Muziris papyrus’¹ – a loan contract² for a commercial voyage Alexandria-Muziris-Alexandria on the recto and, from what we can see, a monetary evaluation of three-quarters of a South Indian cargo shipped out in a vessel named the *Hermapollon* – were somehow related seems hardly questionable. By establishing the deadline for the repayment of the debt at the “time fixed for repayment in the Muziris loan contracts”, the text on the recto proves to be a loan contract financing a commercial voyage to South India. By including commodities such as Gangetic nard and ivory as both whole tusks and trimmings³, the text on the verso shows that the cargo evaluated had been imported precisely from South India. But when it comes to defining more precisely how the two texts relate each other, there is no simple straightforward answer. Setting aside other details that will not be dealt with here, it is not immediately clear how a cargo valued at almost 10,000,000 dr. on the *verso* of the papyrus could be imported by a single merchant supported by a single loan granted by a single lender with the contract as laid out on the *recto*. This question becomes even more significant after two recently proposed reconstructions of (almost) the entire cargo of the *Hermapollon*⁴.

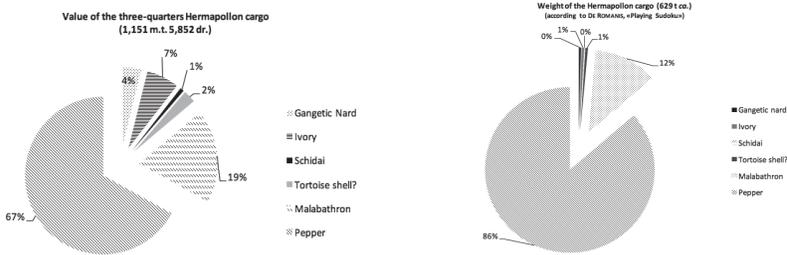
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1. SB XVIII 13167. *Editio princeps* by HARRAUER *et al.* 1985. Pertinent studies by THÜR 1987; THÜR 1988; CASSON 1986; CASSON 1990; DE ROMANIS 1998; DE ROMANIS 2012; DE ROMANIS 2014a; RATHBONE 2000; MORELLI 2011. Based on palaeography, HARRAUER and SUIPESTEIJN, p. 129 suggested a mid-second century CE chronology.
 2. DE ROMANIS 2014a.
 3. DE ROMANIS 2014b, available at <http://dlib.nyu.edu/awdl/isaw/isaw-papers/8/>.
 4. MORELLI 2011; DE ROMANIS 2012.

The cargo of the *Hermapollon*

In fact, new readings of the *verso* text have offered decisive clues about the nature and quantitative dimensions of the commodities evaluated (besides Gangetic nard and ivory). In particular, at *verso* col. i, l. 25-26⁵, both Morelli and myself, independently of one another, came to the conclusion that the sum of 771 money talents and 4,632 drachmae is the correct reading. Both Morelli and I take that sum – around 67 percent of the value of the three-quarters cargo recorded at *verso* col. ii, l. 29⁶ – to represent the value of (almost) three-quarters of the pepper cargo. However, while Morelli thinks that it results from a price of 24 drachmae per *mina* and a quantity of 3,215 weight talents and 43 *minae* of pepper, which means that the entire pepper cargo was approximately 131.5 tons, I believe that only a price of 6 drachmae per *mina* can account for all the other numeric values given at *verso* col. i, ll. 1-3 and 20-27. Therefore, the value of three-quarters of the pepper loaded on the *Hermapollon* was about 13,300 (possibly 13,308) weight talents and 44.25 *minae*, which means that the entire pepper cargo was more than 540 (possibly 544.5) tons.

The weight number of another commodity was recorded at *verso* col. i, ll. 17 and 18. At l. 18, Morelli reads the first two digits as 1,200. In my opinion, they are 1,800, possibly followed by 60. I take it as the weight number of the (almost) three-quarters of the *malabathron* (dried leaves of *tamāla*, a native plant), which after pepper was the most important commodity in the ships plying the waters between Egypt and South India⁷. Therefore, the entire *malabathron* cargo would be at least 1,600 weight talents (some 49 tons) according to Morelli's reading and at least 2,480 (some 76 tons) according to mine. Morelli assumes a price of 20 *drachmae* per *mina* and a value, for the three-quarters of the cargo, of some 240 money talents. I postulate a price of 12 *drachmae* per *mina* and a value, for the (almost) three-quarters, of some 220 money talents. Finally, at col. i, ll. 14-16, I identify the evaluation of (almost) three-quarters of a sixth commodity, whose weight number ends (l. 14) with 31.5 *minae*. Its value must have been less than 30 money talents (this commodity may have been tortoise shell).

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5. To avoid confusion, I shall continue to label as 'col. i' and 'col. ii' the two more or less partially extant columns of the *verso* side. However, it should be noted that to the left of col. i there was one more column, which was the real col. i: DE ROMANIS 2012, p.94, nt. 35. Therefore, 'col. i' and 'col. ii' should be 'col. ii' and 'col. iii' respectively.
 6. Read by MORELLI 2011, p.214 as 1,151 money talents 5,852 *drachmae*.
 7. PME 56: πλεῖ δὲ εἰς τὰ ἐμπόρια ταῦτα μέ<γν>στα (ego: μεστὰ cod.) πλοῖα διὰ τὸν ὄγκον καὶ τὸ πλῆθος τοῦ πιπέρεως καὶ τοῦ μαλαβάθρου.



Sailing the *Erythrà thálassa*: εἰσπλεῖν / ἐκπλεῖν

At *verso* col. ii, ll. 27-28 all these commodities are said to have ‘sailed out on the ship the *Hermapollon*’⁸. As to where the *Hermapollon* was sailing from, different scholars reach different conclusions. According to the first editors, the participle ἐκπεπλευκῶτων alluded to a voyage from Alexandria to some other Mediterranean port, probably Rome⁹; in Thür’s interpretation it refers to the return voyage from South India to Egypt¹⁰; and Morelli views it as the downriver shipping from Coptos to Alexandria¹¹.

Morelli understands the verb ἐκπλέω as ‘partire per nave’, ‘to leave by ship’¹² and contends that it would be inconceivable for a resident in Egypt to use this verb

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8. Col. ii, ll. 27-28, ἐπὶ τὸ αὐτὸ τιμῆς μερῶν γ̄ τῶν ἐκπεπλευκῶτων|ἐν τῷ [εμ] Ἑρμαπόλλωνι πλοίῳ φορτίων.
9. HARRAUER *et al.* 1985, p.149-150: “Die gesamte Fracht besteht aus 6 Posten. Sie werden auf dem Schiff des Hermapollon von Alexandrien aus, wohl nach Rom, exportiert”. Apparently, they assumed that Ἑρμαπόλλωνι is the name of the ship-owner, *dativo pro genitivo posito*. Taking it as the name of the ship makes the dative logical.
10. THÜR 1987, p.239, nt. 45: “Aus dem Perfekt ἐκπεπλευκῶτων (Z. 27) wird klar, daß die Aufstellung den Export aus Indien, also den Import in das Imperium Romanum betrifft” (Thür’s emphasis).
11. MORELLI 2011, p.233: “Il conto poteva essere scritto nella stessa Copto, o a bordo della Hermapollon (sc. sailing from Coptos to Alexandria)”. However, downstream navigations to Alexandria were most usually expressed with the verb καταπλέω (cfr. κατοίσω, at *recto* col. ii, l. 6), not ἐκπλέω.
12. MORELLI 2011, p.230: “È difficile allora capire come un mercante greco-egizio che ha acquistato delle merci in India e le ha trasportate in Egitto, ne potesse parlare come di qualcosa che egli ha esportato o che è partito (*scil.* dall’India, non menzionata), invece che importato o arrivato in Egitto. Se si evita di interpretare liberamente il verbo ἐκπεπλευκῶτων in “esportate” o “importate”, e ci si tiene invece vicini al greco traducendo “partite per nave”, ci si rende meglio conto di quanto sia difficile pensare che una costruzione come “i carichi partiti sulla nave Hermapollon”, usata

in reference to a voyage from India to Egypt. A similar reasoning was implied by the first editors' statement that the commodities 'werden von Alexandrien aus [...] exportiert'. I find it difficult to agree with either point. Regarding the first point, consider the basic meaning of the verb ἐκπλέω is 'to sail out', 'to sail away'¹³: it may indeed mean 'to leave by ship', but not at the perfect tense, where it denotes, not a completed departure (so to speak), but rather a completed navigation¹⁴. If the writer meant that the commodities had just left either Coptos or Alexandria and that they were on their way to either Alexandria or Ostia, as Morelli and the first editors assume respectively, he should have written ἐκπλευσάντων¹⁵. If he writes ἐκπεπλευκότων, it is because the navigation is concluded: therefore, the commodities 'arrived by ship' rather than 'left by ship'.

As for the second point, the assumption that at *verso* col. ii, l. 27 the participle ἐκπεπλευκότων cannot indicate navigations from India to Egypt is unwarranted. Quite the contrary: as Thür realized, ἐκπεπλευκότων must refer to the navigation from India. As a matter of fact, literary and papyrological evidence more or less directly emanating from the social circle of the Indian Ocean merchants shows that in relation with voyages in the *Erythrà thálassa* the reciprocal couple εἰσπλέω/ἐκπλέω refers to navigations *from* and *to* Egypt respectively. Examples of εἰσπλέω for navigations from Egypt to other countries of the Red Sea/Indian Ocean area include:

1. O.Ber. II 198, l. 12: ἤκουσα γὰρ ὅτι καὶ σὺ εἰσπλ(ε)ῖς. The recipient is in Berenice, and he is about to leave from there.

2. PME 1: μετὰ δὲ αὐτὸν [sc. Μυδὸς ὄρμον] εἰσπλεόντων ἀπὸ χιλίων ὀκτακοσίων σταδίων ἐν δεξιᾷ ἢ Βερνίκη. To sail from Myos Hormos to Berenice direction is εἰσπλεῖν.

3. PME 20: διὸ καὶ εἰσπλεόντων <τὸν> (Fabricius) μέσον πλοῦν κατέχομεν <καὶ> (Gelenius) [εἰς τὴν Ἀραβικὴν χώραν] (Frisk) μᾶλλον παροξύνομεν ἄχρι τῆς Κατακακαυμένης νήσου. Again, sailing the Red Sea southwards is εἰσπλεῖν.

4. I.Portes 97, l. 18-19: γυναικῶν εἰσπλευουσῶν δραχμὰς εἴκοσι. The 'women who navigate' are charged twenty drachmas for the ἀποστόλιον. Despite Boyaval¹⁶, they must be women who embark in the Red Sea port to go abroad.

da persone che si trovavano in Egitto e senza alcun accenno al luogo di partenza, potesse fare riferimento al viaggio dall'India alla costa egiziana".

13. LSJ s.v.

14. E.g., Plut., *Cim.* 14: ἐπεὶ δὲ τῶν Περσῶν τινες οὐκ ἐβούλοντο τὴν Χερρόνησον ἐκλιπεῖν [...] καταφρονούντες τοῦ Κίμωνος μετ' ὀλίγων παντάπασι τριήρων Ἀθήνηθεν ἐκπεπλευκότος κτλ.

15. E.g., Diod. XX 32, 4: μετὰ δὲ ταῦτα τῶν Καρχηδονίων τριάκοντα ναυσὶν ἐκπλευσάντων ἐπ' αὐτοὺς τὸ μὲν πρῶτον ἐπεβάλοντο ναυμαχεῖν κτλ.

16. BOYAVAL 2004.

5. Ptol., *Geogr.* I 17, 3: μόνον γὰρ μεσημβρινώτερον ὁμολογεῖται τῶν στομάτων εἶναι τοῦ ποταμοῦ παρά τε τῶν ἐντεῦθεν εἰσπλευσάντων καὶ χρόνον πλείστον ἐπελθόντων τοὺς τόπους καὶ παρά τῶν ἐκεῖθεν ἀφικομένων πρὸς ἡμᾶς, καλούμενον ὑπὸ τῶν ἐγχωρίων Τίμουλα. Ptolemy's criticism of Marinus about the location of Semylla is also based on the opinion of those who sailed there from Egypt (τῶν ἐντεῦθεν εἰσπλευσάντων).

As examples of ἐκπλέω for navigations from overseas to Egypt may be quoted:

1. O.Ber. II 129, ll. 7-9: μόνον ἔρτο (l. ἐρωτῶ) σε καὶ παρακαλῶ καὶ ἐξορκίζω σε τούτου ουσε.ηγκες καὶ τὴν μνήαν (l. μνείαν) σου το(ῦ) γεν(ν)ήσαντος ἐὰν ὕγα[ίνης] ἐκπλε(ῦ)σ(α)ι. From Berenice (l. 2), a mother writes to her son, who is probably in Arabia (l. 6) or at any rate overseas (ll. 1-2), begging him to sail back to Egypt.

2. PME 30: εἰσὶν δὲ ἐπίξενοι καὶ ἐπίμικτοι Ἀράβων τε καὶ Ἰνδῶν τινα μὲν Ἑλλήνων τῶν πρὸς ἐργασίαν ἐκπλεόντων. The peculiar ethnic mix of the Socotra island results from Arabs, Indians and additionally Greeks who sail back for trade. The admittedly ambiguous sense of this occurrence of ἐκπλεόντων is however clarified by:

3. PME 31: συνεχρήσαντο δὲ αὐτῇ καὶ ἀπὸ Μούζα τινὲς καὶ τῶν ἐκπλεόντων ἀπὸ (Müller: διὰ) Λιμυρικῆς καὶ Βαρυγάζων ὅσοι κατὰ τύχην εἰς αὐτὴν (Stuck: εἰς αὐτὰς) ἐπιβάλλοντες κτλ. Apart from traders from Muza, Socotra is approached by those who, sailing back from Limyrike and Barygaza bound for Egypt, call by chance there.

The use of the verbs εἰσπλέω/ἐκπλέω among the Indian Ocean merchants has, in my view, a very simple psychological explanation. The occurrences of ἐκπλέω cited by Morelli refer to travels that are perceived as one-way voyages, as departures (mainly from Alexandria) without (an immediate) return. On the contrary, commercial voyages in the Red Sea/Indian Ocean area were perceived as round trips that began and ended in the Red Sea ports of Egypt. Consistently, the outward journey was perceived as an εἰσπλεῖν and the return journey as an ἐκπλεῖν. Such a phenomenon is not exclusive to the Red Sea/Indian Ocean merchants; fourth century BCE Athenian traders also denote navigations *to* Athens with ἐκπλέω, if they are perceived as part of round trips that start from and end in Athens. It is thus not surprising that this use of ἐκπλέω also occurs in an Athenian ἀμφοτερόπλου maritime loan contract¹⁷.

17. [Dem.] XXXV 10: ἐδάνεισαν Ἀνδροκλῆς Σφήττιος καὶ Ναυσικράτης Καρύστιος Ἀρτέμωνι καὶ Ἀπολλοδόρῳ Φασηλίταις ἀργυρίου δραχμὰς τρισχιλίας Ἀθήνηθεν εἰς Μένδην ἢ Σκιώνην, καὶ ἐντεῦθεν εἰς Βόσπορον, ἐὰν δὲ βούλωνται, τῆς ἐπ' ἀριστερὰ μέχρι Βορυσθένους, καὶ πάλιν Ἀθήναζε, ἐπὶ διακοσίαις εἴκοσι πέντε τὰς χιλίας, ἐὰν δὲ μετ' Ἀρκτοῦρον ἐκπλεύσωσιν ἐκ τοῦ Πόντου ἐφ' Ἱερὸν κτλ. More often, ἐκπλέω refers to trips *from* Athens perceived as one-way voyages, cfr. e.g., Thuc. V 4, 2:

One ship, several merchants

The *Hermapollon* was, therefore, a seagoing vessel that had sailed out from South India – the most likely region from which a Roman Indiaman can export both Gangetic nard and ivory (and, as I argue, pepper, malabathron and tortoise shell) – and the six commodities evaluated in the verso of the Muziris papyrus represented its entire cargo. This conclusion raises another question: was the borrower of the Muziris loan contract the *only owner* of a cargo worthy almost 10,000,000 *drachmae* and including as much as 540 tons of pepper?

The hypothesis that all the *Hermapollon*'s cargo belonged to a single merchant contrasts with other scanty, but not insignificant, evidence about commercial navigations in the *Erythrà thálassa*. In particular, it is worth comparing this document with the abstract of the second century BCE maritime loan contract related to a commercial voyage to the *Aromatophoros*, that portion of the Somali coast stretching from Bab el-Mandeb to Cape Guardafui¹⁸. While the loan contract of the Muziris papyrus may have a single borrower, the loan for the voyage to the *Aromatophoros* is granted to no less than five shipmates (σύνπλοι), each individually identified by name, city of origin, and distinguishing features. The five shipmates were co-debtors and would be co-owners of the future cargo. Since they were just σύνπλοι and not συναύκληροι, they should not have been co-owners of the ship, although it cannot be excluded that one (or more) of them was (or were). What is also remarkable is that the five shipmates were compelled to form an integrated management plan for the cargo up to its final destination: after docking in an Egyptian port of the Red Sea, they were supposed to transfer all their cargo to an emporium (probably Alexandria) and to sell it either within a year from the month of the contract or within a certain number of days (between fifty and ninety) upon their return to Egypt¹⁹.

Chronologically closer to the Muziris papyrus is a bilingual inscription from Palmyra's *agorá* dated to March 157 CE, which offers an example of a joint commercial venture in the *Erythrà thálassa*. Here we have a group of merchants (ἔμποροι) who have just sailed back from northwest India (οἱ ἀν[αχ]θέντες ἀπὸ Σκυθ[ίας]) on a ship owned by Honainu, son of Haddudan ([ἐν] πλύφῳ Ονα[ιν]ου Αἰδοῦδανου)²⁰. The ship-owner is probably the same Honainu, son of Haddudan, who boasts about the construction of an annexe (a *stoá*?) to the Nabu sanctuary

Φαίαιξ δὲ ὁ Ἐρασιστράτου τρίτος αὐτὸς Ἀθηναίων πεμπόντων ναυσὶ δύο ἐς Ἰταλίαν καὶ Σικελίαν πρεσβευτῆς ὑπὸ τὸν αὐτὸν χρόνον ἐξέπλευσεν.

18. SB III 7169.

19. DE ROMANIS 2014a.

20. IGLS XVII 1, 250: Μᾶρκον Οὐλπ[ιο]ν Ἰαριαῖον Αἰτραν[ου] | τοῦ Αβγαρου υ[ιδ]ὸν τὸν φιλόπατριν | [ἔ]μποροι οἱ ἀν[αχ]θέντες ἀπὸ Σκυθ[ίας] | [ἐν] πλύφῳ (*sic*) Ονα[ιν]ου Αἰδοῦδανου τοῦ | [--- πάση προ]θυμῖα βοηθήσαντα | αὐτοῖς καὶ συναβρόμενον

in Palmyra²¹. The inscription does not specify how many merchants were in Honainu's ship but it implies that after landing at some port in the Persian Gulf they continued travelling together at least up to Palmyra, where the dedication was erected. It is also remarkable that the honorand of the inscription is not the ναύκληρος Honainu, but M. Ulpius Iaraios, "who most kindly helped and assisted them". We glimpse here a three-tiered collaboration, where the merchants take advantage of Honainu's investment in the ship and contribute to its productivity, while M. Ulpius Iaraios gives such vital support as to deserve a public recognition in Palmyra²². The same collaborative structure is implied in another bilingual inscription found at the temple of Baal at Palmyra, where a group of merchants, again having sailed back from northwest India on a ship identified by its owner's name, honors a benefactor²³.

It is also worthwhile to note that in the same year, 157 CE, several other dedications were set in Palmyra's *agorá* to the same M. Ulpius Iaraios. In January, he is honored by a caravan returning from Spasinu Charax²⁴. In March (the same month he is recognized by the traders from India mentioned above) he receives another dedication from a probably different group of merchants, united under the leadership of two members of the group²⁵. In April, it is Thaimeis son of

τειμης |χάριν Δύστρω (sic) ηζύ' έτους šlm' dnh dy[mrqs 'lpys yrhy br hynm 'bgr] | dy 'qymw |lh tgrý' dy ---|] hynnw br |hdwdn---| | [ly]qrh by[rh 'dr šnt 468].

21. IGLS XVII 1, 183: [τιὴν στοῶν σὺν παντὶ κόσμῳ?] ἐξ ἰδίων ἔκτισεν Οὐαινοσ Ἀδδοῦδανου τοῦ Μ[εζζαβανα? --- ὑπὲρ ἑαυτοῦ] καὶ Ἀσφη ἀπελευθέρου αὐτοῦ [σοτηρίας ἔτους --- τετρακοσι]οστοῦ μηνὸς Δείου [mrlt' dh 'bd mn kysh hynnw br |hdwdn br] mzb[n'] | 'l hywhy whyw 'spys br |hry hynnw byrh 'yr šnt 4 ---]
22. On the organizational structure of the Palmyra's trade, cfr. WILL 1957; YON 2002, p. 100-106. See somewhat different views in YOUNG 2001, p. 149-156.
23. IGLS XVII 1, 26: [---] | [τὸ]ν φιλό[πατρι]ν οἱ ἀναχθέντες ἀπὸ | Σκυθίας ἐν πλοίῳ Βε[ε]λαιου--- | ἔμποροι συνλαβόμε[νον] αὐτοῖς πάντως | [κ]αὶ πάση σπου[δῇ] βοιθήσαντα τειμης | [χάριν] μηνὶ --- τοῦ ... ἔτους | [---] | dy 'qym[w---] | dy b'l[y] bwpwr šlm [...|y|---] | šry lmrb' 'md'r' [---]. It has been suggested that the ship belonged to more than one person and that the honorand was the same M. Ulpius Iaraios: cfr. J.-B. Yon's commentary, *ad loc.*
24. IGLS XVII 1, 249: Μάρκον Οὔλιον Ιαριαο|ν Αιρανου τοῦ Αβγαρου | υἱὸν ἡ ἀναβάσα ἀπὸ Σπ[α]σίνου Χάρακος συνο|δία διὰ (Ια)δδαιου Ζαβδίλα | τοῦ Ιαδδαιου τειμης | χάριν ἔτους ηζύ' | [μ]ηνὸς Αὐδναίου | šlm mrqws 'lpys yrhy br hynm | 'bgr dy 'qymt lh šyrt' dy | slqt mn krk' bšyrt ydy br zbdl[h] | ydy lyqrh byrh tbt šnt [4]||68].
25. Inv. X 87 (= PAT 0306, but the Greek text does not relate to the Aramaic inscription: cfr. J.-B. Yon's commentary on IGLS XVII 1, 248): [š]l[m] ' dnh d]y mrqs 'lps | yrhy br hynm 'bgr dy | 'qymw lh hynm br yrhy | br tym' whbyby br | yrhy br hynm bny 'nwb | rhmwhy wtgrý' dy slq | 'mhwn lyqrh by(r)h 'dr | šnt 468.

Thaimarsu (another merchant?) who gives him credit for his help²⁶. Whatever the nature of Iaraios' assistance, it seems that he was able to back several different traders within the same year. It is likely that this exceptional concentration of honors resulted from extraordinary circumstances that required unusual levels of support from M. Ulpius Iaraios in 157²⁷. Still, that does not mean that in less difficult situations Palmyrene merchants did not receive support from people like him.

A virtual employee of the lender?

The extraordinary amount of pepper on board classifies the *Hermapollon* as one of the gigantic μέγιστα πλοῖα that used to ply between Egypt and South India in the first centuries of the Christian era. The ships used by the five σύνπλοι bound for the *Aromatophoros* or the Palmyrene merchants sailing back from *Skythia* must have been much smaller than the *Hermapollon*. How does one explain, then, the circumstance that the Muziris papyrus loan contract is agreed between one single lender and one single borrower?

The lender of the Muziris papyrus loan contract is apparently a man of considerable means, whose agents in the Red Sea ports, at Coptos and at Alexandria show that his involvement in the India trade is not sporadic. About the merchant, very little can be said apart from the obvious fact that he is compelled to borrow in order to carry on his business. The contrast between a resourceful lender and a needy merchant, combined with the assumption that the merchant was the only owner of all the *Hermapollon*'s cargo, led D. Rathbone to imagine that the merchant was almost an employee of the lender²⁸. In Rathbone's view, there is a hiatus between the legal forms of the loan contract, which traditionally reflect a scenario where it was the merchant who sought capital for his venture, and the economic realities that would emerge from the Muziris loan contract, in which, it

26. IGLS XVII 1, 255: Μάρκον Οὔλπιον Ιαραιον | Αιρανου τοῦ Αβγαρου υἱὸν Θαιμεις | Θαιμαρσου τοῦ Λισαμσου τοῦ Γουρ|ονναιου τὸν ἑαυτοῦ εὐεργέτην | τειμῆς χάριν ἔτους ηξή' μηνός Ξ|ανδικού | [šlm mṛqs 'lpws yrḥy br ḥym] 'bgr dy | ['qym lh tym' br tymrsw lšmš gwrny | [--bk]l šbw klh lyqrh bnyšn šnt [440+]28.

27. BOWERSOCK 1989, p.167.

28. RATHBONE 2000, p. 43: "Instead of a merchant planning a venture and seeking capital where he could find it, we have a financier investing in the trade with India who recruited merchants to run the individual trips"; RATHBONE 2003, p.221: "This financier was a regular and specialist investor: he had the huge financial resources necessary, and was prepared to bear the huge risk; he used a pro forma contract; he had agents on the route; probably he had a similar network for distributing and marketing the goods to Rome and other cities. In effect he, not the merchant, was the initiator and entrepreneur; the merchant was almost his employee, but not a direct employee".

is claimed, it was the financier who was ‘the initiator and entrepreneur’. The most remarkable consequence of the allegedly uneven dealings between the financier and the merchant of the Muziris papyrus loan contract would be that, at the end of the commercial venture, the latter paid the quarter-tax in kind and sold at an agreed price the remaining three-quarters of the cargo to the former, who would have distributed the commodities to Rome and other cities.

The unequal partnership between an all-powerful lender and a borrower/virtual employee could perhaps explain how a single merchant managed to import a fabulous cargo such as the one on the *Hermapollon*. However, certain details in the two texts of the Muziris papyrus undermine Rathbone’s argument. In particular, the hypothesis that the borrower sold all the cargo to the lender is weakened by the fact that the monetary evaluation of the three-quarters of the cargo calculated in the *verso* included the shares taken in addition by the arabarchs. If those shares were deliberately taken by the arabarchs as surcharges arithmetically determined²⁹, it is difficult to see why the buyer should pay for them as well. Apparently, the monetary estimate of the three-quarters of the cargo was *not* preliminary to the sale of all those commodities to a single buyer. Moreover, in order to imagine a borrower who was a virtual employee of the lender, we would have to postulate a loan that was not substantially lower than the almost 7,000,000 dr. calculated as the value of the three-quarters of the cargo³⁰. I shall argue that the lender’s financial support was, on the contrary, limited and – more importantly – very cautiously granted. As a consequence, the relationship between lender and borrower must have been less unequal than anticipated.

Loan and travel costs

A rough idea of the lender’s financial commitment is given by *recto* Col. ii, ll. 7-16:

καὶ κατοίσω εἰς τὴν | [ἐν Ἀλε]ξανδρείᾳ τῆς τετάρτης παραλημπτικὴν ἀποθήκην
καὶ ὁ[μοίω]ς ποιήσω ὑπὸ τὴν σὴν ἢ τῶν σῶν ἐξουσίαν καὶ σφραγεῖδα (sic) ταῖς |
[---]ίου ἀπὸ τοῦ νῦν μέχρι τεταρτολογίας δαπάναις πάσαις καὶ φο[ρέτρω]ν ὄρους
καὶ ναύλων ποταμίων καὶ τῶν ἄλλων κατὰ μέρος ἀνα[λωμά]των πρὸς τὸ ἐνστάτος
τοῦ ἐν ταῖς κατὰ Μουζεῖριν τοῦ δα[νείου] σ[υ]νγραφαῖς (sic) τῆς ἀποδόσεως
ὄρισμένου χρόνου ἐὰν μὴ δικαί[ως] τότε χρεολυτῶ (sic) τὸ προκείμενον ἐν ἐμοὶ
δάνειον τότε εἶναι | πρὸς σ]ὲ καὶ τοὺς σοὺς ἐπιτρόπους ἢ φροντιστὰς τὴν ἐγλογὴν
(sic) καὶ ὄλο[σχερῆ] ἐξουσίαν ὡς ἐὰν αἰρήσθε ποιήσασθαι κτλ.

29. A surcharge arithmetically determined: DE ROMANIS 2012, p.94-95, nt. 38; DE ROMANIS 2014b.

30. RATHBONE 2002, p.221.

Due to the loss of the first column and to the lacuna at l. 10, it is not immediately clear why “all the expenditures [...] from now to the collection of the quarter-tax” were mentioned in this sentence. Some commentators assume that they could be met by the lender and consequently increased the borrower’s loan³¹; others think that the costs were met by the borrower and therefore did not increase his debt³². Assuming that the contract refers to a second loan agreed in a Red Sea port by the same two parties who pledged the first loan at the beginning of the voyage³³, Morelli restores [ἐκ τοῦ ἰδ]ίου at l. 10 and understands the dative ταῖς – δαπάναις πάσαις as circumstantial or modal. His translation runs as follows: “e lo trasporterò ai magazzini della *tetarte* in Alessandria etc. [...], e lo metterò ugualmente sotto la tua disposizione etc. [...], con tutte le spese di tasca mia propria da adesso fino alla *tetartologia*, sia dei costi del trasporto attraverso il deserto che dei noli fluviali che delle altre singole uscite”³⁴.

In the abstract, Morelli’s interpretation seems very attractive. First, as Morelli legitimately emphasizes, circumstantial or modal datives with δαπᾶναι and ἀναλώματα occur very frequently in the papyri, when it comes to determining who has to bear some expenses³⁵. Second, a restoration [ἐκ τοῦ ἰδ]ίου looks rather unproblematic. Third, it sounds rational to postpone the financing of the travel costs from the Red Sea to Alexandria until the arrival of the commodities from India. Nonetheless, attractive as it seems, Morelli’s interpretation still does not fit the context. To begin with, the assumption of a second loan contract signed in a Red Sea port is compatible neither with the loss of the entire *recto* col. i, nor with the information at *recto* col. ii, l. 1³⁶, nor with the supposed emphasis that the travel costs had to be borne by the borrower. Since the rationale of the alleged second loan would be to enable the borrower to meet the subsequent expenditures, it would be awkwardly redundant to specify that the borrower had to cover the

31. THÜR 1987; THÜR 1988.

32. HARRAUER *et al.* 1985; CASSON 1986; CASSON 1990; MORELLI 2011. The interpretations given by Harrauer/Sijpesteijn and Casson do not need to be fully discussed here. It will be enough to remark that the former postulated an unnecessary lacuna at l. 12 between ἀναλώμα]των πρὸς and τὸ ἐνστάντος, while the latter read at l. 10 a palaeographically implausible [τοῦ λοι]ποῦ.

33. MORELLI 2011, p. 206: “Il contratto allora deve riguardare solo il trasporto dal Mar Rosso ad Alessandria, e non il viaggio per mare o in generale la parte precedente dell’impresa. Questa doveva essere invece oggetto delle κατὰ Μουζεῖπιν τοῦ δανείου συγγραφαί delle ll. 12–13, contratte verosimilmente in Alessandria. Probabilmente si tratta qui di un secondo finanziamento”.

34. MORELLI 2011, p. 204.

35. MORELLI 2011, p. 203.

36. Cfr. DE ROMANIS 2014a.

cost of those expenditures for which he had sought the loan in the first place. A lender may want to make clear that the borrower has not nor will not pledged his assets elsewhere³⁷, but the lender should not object if someone else were to bear expenses in the borrower's stead. In a loan contract, stating that the borrower is expected to cover the costs supposedly financed by the loan would be a legally irrelevant truism.

Morelli's restoration and interpretation would be less problematic if one assumed that the contract was signed in Alexandria and concerned a single loan, delivered at the beginning of the commercial venture. In that case, the phrase ταῖς [ἐκ τοῦ ἰδ]ίου ἀπὸ τοῦ νῦν μέχρι τεταρτολογίας δαπάναις πάσαις would clarify that the borrower is expected to repay his loan in Alexandria without receiving any other financial support up to that point. The clause καὶ φο[ρέτρῳ]ν ὄρους καὶ ναύλων ποταμίων καὶ τῶν ἄλλων κατὰ μέρος ἀνα[λωμά]των would be only *partially* explanatory of ταῖς – δαπάναις πάσαις and all the sentence would sound like this: “taking on myself all the expenses from now [beginning of the commercial enterprise] to the payment of the quarter-tax [end of the same], *including* [namely, besides other, more obvious expenses] the transports across the desert, the river fares and the other particular expenditures”.

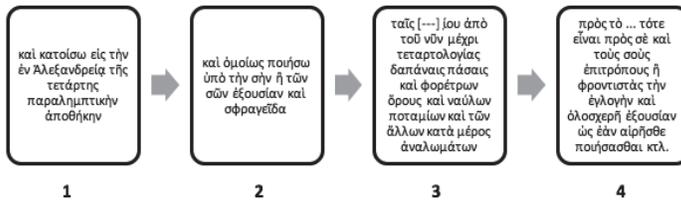
True, in this way the postponement of the financing of the travel costs from the Red Sea to Alexandria would evaporate: the entire loan would be granted at the beginning of the enterprise, and the two parties would have to rely more than was strictly necessary on the expensive (for the merchant) and risky (for the financier) maritime credit. Such a hypothesis does not agree with the picture of a financier involved in financing the Indian Ocean trade on a large scale and on a permanent basis. A type of financial support that was designed to be safer for the financier and cheaper for the merchant – and therefore likely to be replicated, by the lender, several times with several partners each year – would have instead focused as much as possible on the expenses incurred *after* the return from India. Admittedly, this observation would not carry much weight if the text itself did not recommend an interpretation consistent with it.

My reluctance to accept Morelli's clever interpretation of the words ταῖς – ἀναλωμά]των stems from their relative position in the sentence. As a matter of fact, the sequence is:

Since the dative ταῖς – δαπάναις πάσαις is sandwiched between ποιήσω ὑπὸ τὴν σὴν – σφραγεῖδα (2) and its subordinate clause πρὸς τὸ – εἶναι (4)³⁸, it

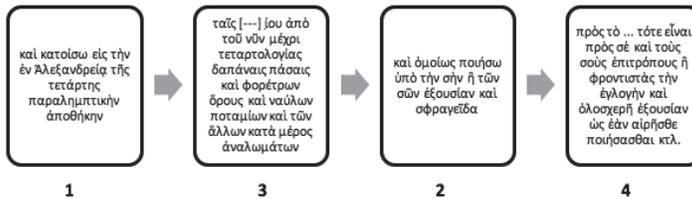
37. [Dem.] XXXV 11: ὑποτιθέασι δὲ ταῦτα, οὐκ ὀφείλοντες ἐπὶ τούτοις ἄλλῳ οὐδενὶ οὐδὲν ἀργύριον, οὐδ' ἐπιδανείσονται.

38. Pace HARRAUER *et al.* 1985, p.141, and RATHBONE 2000, p.41, there is no need to postulate a lacuna in the text. The insertion ἐνστάντος – τὸ προκειμένον ἐν ἐμοὶ δάνειον may look clumsy (N. Lewis *apud* CASSON 1990, p.197), but the syntax of the extant portion of the document is nonetheless straightforward.



must mean something logically connected with the action of the regent clause. As a consequence, the dative ταῖς – δαπάναις πάσαις can be understood as circumstantial or modal only if the act of ποιεῖν ὑπὸ τὴν σφραγίδα was itself an expenditure. If this is not the case – and I believe it is not – one has to conclude that the dative ταῖς – δαπάναις πάσαις cannot be circumstantial/modal. To put it another way: if these lines really meant that the borrower had to bear all the expenditures from the beginning to the end of the commercial venture, the words ταῖς [---] σοῦ – ἀναλωμάτων (3) should have been positioned after καὶ κατοίσω εἰς τὴν – ἀποθήκην (1) and before καὶ ὁμοίως ποιήσω (2), like this:

As mentioned earlier, Thür rejected the idea that the borrower promised to bear all the expenditures and chose not to interpret the dative ταῖς – δαπάναις πάσαις as circumstantial/modal. Instead he took it as a *dativus causae*³⁹, restoring



[τοῦ πλο]σοῦ at l. 10. In his view, the costs for the transports in Egypt were, in theory at least, borne by the borrower. Thür's reconstruction is that since the borrower was likely to return from India with insufficient funds, the lender or his agents would have to cover the borrower's transport expenditures, thereby augmenting the original loan amount⁴⁰. There are two inconsistencies here that need to be

39. THÜR 1988, p. 231: "Mit dem schlichten Dativ ist die Kostenübernahme freilich nicht zu begründen. Die Wendung ist vielmehr als *dat. causae* adverbial unmittelbar auf das vorige zu beziehen: „Ich werde (die Waren) unter dein Verfügungsrecht stellen wegen aller Aufwendungen“. Die Aufwendungen für die Waren des *ego* können in diesem Zusammenhang nur *tu* oder seine Vertreter gemacht haben, den *tu* hat durch die *Hypothek* ein Recht an den Waren des *ego*".

40. THÜR 1987, p. 234, nt. 11: "Grundsätzlich hatte der *Empros* (sic) die Transportkosten für seine Waren selbst zu bestreiten ([δῶσω], Z. 2). Doch konnte er aus Indien ohne das hierfür nötige Bargeld zurückkommen. So wie er war aber auch der Kreditgeber daran interessiert, daß die für Darlehen beschafften Waren möglichst rasch zur

addressed. The first is that restoring [τοῦ πλο]ίου at l. 10 is illogical if – as Thür himself posits – the words ἀπὸ τοῦ νῦν μέχρι τεταρτολογίας indicate the entire time span of an Alexandria-Muziris-Alexandria commercial enterprise⁴¹. The second is that since the borrower is expected to repay a loan only (δάνειον)⁴², the lender’s right of disposal cannot be justified solely by the additional expenditures he may have borne. If Thür’s reconstruction were right, the borrower would have to repay *both* the loan and the additional expenses and the lender’s right of disposal would have to be justified τῷ δανείῳ καὶ ταῖς – δαπάναις πάσαις.

The only possibility I see to understand the dative ταῖς – δαπάναις πάσαις as a complement of ποιήσω ὑπὸ τὴν σὴν – σφραγεῖδα is to take it as the value at which the commodities are placed ‘under the power and seal’ of the lender. The dative ταῖς – δαπάναις πάσαις expresses the *measure* of the lender’s rights: the commodities will be under the lender’s control as long as the expenditures discharged by the loan are not repaid. True, the value for which something is pledged, denoted by genitive case in classical Greek⁴³, is normally expressed by πρὸς + accusative in the papyri⁴⁴. But in this case a shift to a simple dative – a sort of either instrumental dative or *dativus relationis*⁴⁵ – may have been recommended by the two πρὸς + accusative that follow (πρὸς τὸ – εἶναι πρὸς σὲ κτλ.), which would make a third πρὸς + accusative sound awkward.

The idea underlying this interpretation is that the expenditures *exactly coincide* with the amount of the loan. The financier did not lend a fixed sum in a single installment at the beginning of the enterprise. He rather agreed to cover certain expenditures, which formed the basis of the loan – in particular, the transport costs between Alexandria and the Red Sea for both the outward and return journeys as well as other minor expenditures such as storehouse rental fees

Tetarte nach Alexandria gelangten [...]. Also konnte der Fall eintreten, daß der Kreditgeber oder seine Leute für den *Emporos* Transportkosten auslegten. Für die Erstattung dieser ‚Nebenkosten‘ [...] war der Kreditgeber ebenso gesichert wie für die Rückzahlung des Darlehens”; THÜR 1988, p.232: “Die Klausel „... wegen aller künftigen Aufwendungen von jetzt an bis zur Erhebung der Tetarte“ werden vorsichtige Geschäftsleute bereits im Zusammenhang mit der Darlehensgewährung („jetzt“) in eine Hypothekenurkunde aufnehmen. Damit ist lediglich gesagt, daß *tu* jeden Betrag, den er über die Darlehenssumme hinaus in das Geschäft investiert, von *ego* als Aufwendungen zurückverlangen kann”.

41. As rightly pointed out by MORELLI 2011, p.203-204.
42. *Recto*, col. ii, ll. 13-14: ἐὰν μὴ δικαί[ως τότε]ε χρεολυτῶ τὸ προκείμενον ἐν ἐμοὶ δάνειον κτλ.
43. E.g., Is. VI 33: οἰκίαν [...] τεττάρων καὶ τετταράκοντα μῶν ὑποκειμένην ἀπέλυσε; Dem. XXXIX 11: ἐπτά μῶν [...] ἢ ἄλλη οὐσία ὑπέκειτο.
44. MAYSER 1933, p.506-507.
45. MAYSER 1926, p.283; 285.

in Coptos and Alexandria⁴⁶. From this perspective, at *recto* col. ii, l. 10 something like ἐκ δανε]ίου or ἐκ τοῦ δανε]ίου or τοῦ δανε]ίου may be restored and at ll. 10-11 the words καὶ φο|ρέτρῳ]ν ὄρους – ἀναλωμάτων can be taken as fully explanatory of ταῖς – δαπάναις πάσαις. A translation of these lines would be: “I shall place [sc. the commodities] under your or your people’s power and seal for (the value of) all the expenditures covered by the loan from now to the payment of the quarter-tax, both those for the transports costs across the desert and the river freights and the other particular expenses”.

In sum, the loan covered only the transport costs in Egypt – both across the desert and along the river– and other minor disbursements. It financed neither the sea voyage nor the purchase of the Indian commodities. As a consequence, the loan contract was only partially a maritime one, since only the money spent for the river and desert haulage on the outward journey was vulnerable to the *periculum maris*. Taking into account the network of agents all along the road between Alexandria and the Red Sea, such limited and prudent funding suggests that in the same year the same lender may have been underwriting similar loan contracts with other partners.

Ἔμποροι and ναύκληροι Ἐρυθραῖοι

If the loan granted via the Muziris papyrus contract was the only external financial support for the *Hermapollon*’s commercial venture, it is likely that the merchant, far from being a virtual employee of the financier, had considerable means of his own in terms of financial resources and facilities. The hypothesis that the borrower was himself a ship-owner – suggested by the circumstance that the loan did not finance the sea voyage– is not precluded by the fact that the loan was secured by the commodities rather than the ship. One can hardly doubt that almost 7,000,000 dr. in Indian commodities warehoused in Alexandria was a far more attractive security than a very large ship stuck in the Red Sea – especially if the contract, in its lost portion, also entitled the lender to seize the ship, should the security be insufficient to repay his debt⁴⁷.

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46. Even if at *recto* col. ii, l. 2 the borrower promised to pay a certain amount of money to a cameleer connected with the lender ([δόσω τ]ῷ σῶ καμηλεῖτι ἄλλα (τάλαντα), as the first editors read it; Morelli, however, reads [δ]όσω καμηλεῖτι ἀξιοχρέω), we should understand that it was the lender (or his agents) who paid.
47. *Recto* col. ii ends with τοῦ δὲ περὶ τὴν ἐνθήκην ἐνλείμματός | [τ]ε καὶ πλεονάσματος πρὸς ἐμὲ τὸν δεδανεισμένον καὶ ὑποτεθεῖ- (ll. 25-26; ἐνλείμματος has been read by MORELLI 2011, p. 200, nt. 3). It may have followed a condition similar to Dem. XXXV 12: καὶ ἐάν τι ἐλλείπη τοῦ ἀργυρίου, ὃ δεῖ γενέσθαι τοῖς δανείασαι κατὰ τὴν συγγραφὴν, παρὰ Ἀρτέμωνος καὶ Ἀπολλοδώρου ἔστω ἡ πράξις τοῖς δανείασαι καὶ ἐκ τῶν τούτων ἀπάντων, καὶ ἐγγείων καὶ ναυτικῶν κτλ.

More often than not, it can be a challenge to draw relevant conclusions from epigraphic evidence related to ναύκληροι⁴⁸ active in the *Erythrà thálassa*. For example, determining the circumstances of the inscription of a Severus ναύκληρος at el-Kanaïs, on the Edfu-Berenice road, is problematic⁴⁹. It is also difficult to say where the ναύκληρος Septi(mius) Paniskos was returning from, when he left his *proskýnema* at Hoq (Socotra)⁵⁰. But some epigraphic texts are more transparent. The Alexandrian citizenship declared by the ναύκληρος Aurelius Sarapion in his votive gift in the shrine of Dios connects his navigations from Berenice with the resale of the imported commodities in his home city⁵¹. An inscription from Medamut (Upper Egypt) characterizes two women – probably sisters – as ναύκληροι καὶ ἔμποροι Ἐρυθραϊκαί, ‘Red Sea/Indian Ocean ναύκληροι and merchants’⁵². The peculiar designation makes it clear that the two women unsurprisingly merged the possession of seagoing vessels with the import of Indian Ocean commodities, most likely through the use of agents. Their high social standing, obvious from the honorific title *matronae stolatae*⁵³, suggests that the size of their business enterprise was considerable. Although the precise date of the inscription cannot be ascertained, a date between the end of the second century and the second third of the third century CE has been suggested on palaeographical grounds⁵⁴. The allegedly later chronology of the inscription does not preclude a pertinent comparison with the Muziris papyrus. In fact, unless Isidora and Olympias were rather unconventional ladies, they must have been offspring of a *dynastie*

48. Owners or possessors of a ship: VÉLISSAROPOULOS 1980, p.48-56.

49. IKanaïs 57 = SB I 4028: μνησθῆ Σευσηρος Μο[σχ]ίωνος | ναύκληρος Ἰοάγ[νο]υ | [καὶ] Κλαυδίας.

50. BUCCHARIN 2012. For occasional trade in Socotra while sailing back from either Barygaza or Limyirike, cfr. PME 31, quoted above.

51. CUVIGNY 2010, p.255-256, n. 12: Αὐ(ρήλιος) Σαραπίων | Ἀλεξανδρεὺς | ναύκληρος | ἀνέθηκα | ἐπ’ ἀγαθῶ.

52. SB V 7539: Λητοῖ θεᾶ μεγίστη| Αἰλία Ἰσιδώρα καὶ Αἰλί[α] | Ὀλυμπιάς ματρῶνα | στολάται, ναύκληροι κα[ὶ] | [ἔμπο]ροι Ἐρυθραϊκαί, ἄμ[α] | --- Α]πολιναρίω | ἐπάρχ[ω ---]ς Ὀλυμπιάδος καὶ [Ἰσιδώρας] | ἀμφοτέρων [---] | ἀνέθηκαν [ἐπ’ ἀγαθῶ]. On the document, see recently RUFFING 2011. At l. 6, a restoration ἐπάρχ[ω ὄρου]ς should be considered as a possibility. On the titulatures of the prefects of Berenice, cfr. BULOW-JACOBSEN and CUVIGNY 2007. The letters καὶ εμπο[in a fragmentary third century CE bilingual Greco-Palmyrene inscription from Tentyra (IPortes 39, l. 3) make it likely that the honorand was another ‘Red Sea/Indian Ocean ναύκληρος and merchant’.

53. HOLTHEIDE 1980.

54. JOUGUET 1931, p.1-2.

*marchande*⁵⁵. Their ships and commercial interests in the *Erythrà thálassa* must have been an ‘inherited business’ (ἐμπορὴ πατρώϊος⁵⁶), at which their ancestors excelled even before they got the Roman citizenship, under either Hadrian or Antoninus Pius. Therefore, Isidora’s and Olympias’ ancestors were already in the Indian Ocean trade when Dionysius was writing his *Periegesis* and the Muziris papyrus contract was subscribed. But how did they trade? Were they the only merchants on board of their vessels? Or did they also welcome other merchants, like the Palmyrene ναύκληροι?

Even assuming that the borrower of the Muziris papyrus loan contract was the ναύκληρος of the *Hermapollon*, even if he was as rich as Isidora and Olympias, it would still be difficult, I think, to admit that he managed to import such an enormous cargo on his own. The possibility that behind the *façade* of the single signatory exists a rather large partnership of merchants (represented by a single delegate who could be the owner of the *Hermapollon*) is in part supported by the honors conferred by a certain number of Ἀδριανοὶ Παλμυρηνοὶ Ἐρυ(θραϊκοὶ) ἔμποροι to a descendant (and, most probably, a successor) of Ἀδριανοὶ Παλμυρηνοὶ ναύκληροι Ἐρυθραϊκοί⁵⁷. Dedicators and honorand of this inscription from Coptos probably cooperated in one or more commercial ventures carried out in the Red Sea/Indian Ocean with the ships that were possessed by the ναύκληρος but transporting commodities belonging to both ναύκληρος and ἔμποροι. If this hypothesis is correct, it seems reasonable to suggest that these merchants required the same assistance that the lender of the Muziris papyrus loan contract extended to his co-signatory. It is therefore arguable that the Indian Ocean trade from Egypt very often followed a three-tiered organizational system comparable (although not necessarily identical) to that of the Palmyra’s caravan trade: a partnership of merchants, united under the leadership of a ναύκληρος, financed by an underwriter like the lender of the Muziris papyrus contract.

Federico DE ROMANIS

55. Cfr. TCHERNIA 2011, p.57-99.

56. Dion. Per. 709-712: οὐ γάρ μοι βίος ἐστὶ μελαινάων ἐπὶ νηῶν, οὐδέ μοι ἐμπορὴ πατρώϊος, οὐδ’ ἐπὶ Γάγγην/ ἔρχομαι, οἷά περ ἄλλοι, Ἐρυθραίου διὰ πόντου, / ψυχῆς οὐκ ἀλέγοντες, ἴν’ ἄσπετον ὄλβον ἔλθωνται. The “réceptivité de Denys à l’égard du savoir des marchands de l’océan Indien” is rightly emphasized by SCHNEIDER 2014.

57. SEG XXXIV 1593: ...ΛΚΤΑΚ· τὸν ἄ[---] | ὄσιον Ζαβδάλα Σαλμά|νου καὶ Ἀνεΐνα Ἀδρια|νῶν Παλμυρηνῶν | ναυκλήρων Ἐρυθραϊκῶν, | ἀναστήσαντα ἀπὸ θεμελίου | τὸ προπύλαιον καὶ τὰς στουὰς | τρεῖς καὶ τὰ θυρώματα ἐκ και|νῆς, τὰ πάντα ἐκ τῶν ἰδίων | αὐτοῦ φιλοκαγαθίας χάριν | [Ἀ]δριανοὶ Παλμυρηνοὶ Ἐρυ(θραϊκοὶ) | ἔμποροι τὸν φίλον. The epithet Ἀδριανοὶ shows that the inscription is later than Hadrianus’ visit to Palmyra in 130 CE: cfr. H. HALFMANN 1986, p.129-135; 193; 206. REINACH 1912, p.65, recommended a chronology within the second century CE. Other epigraphic and papyrological evidence on Palmyrene presence in Egypt in DIJKSTRA *et al.* 1999.

Bibliography

- BOWERSOCK G.W. 1989, «La Mésène (Maišân) antonine», in T.FAHD (ed.), *L'Arabie préislamique et son environnement historique et culturel*, Leiden, p. 159-168.
- BOYVAL B. 2004, «Sur un passage controversé du Tarif de Coptos», *Chronique d'Égypte* 79, p. 263-265.
- BUCHARIN M. 2012, «The Greek inscriptions at Hoq», in I. STRAUCH (ed.), *Foreign Sailors on Socotra. The inscriptions and drawings from the cave Hoq*, Bremen, p. 494-500.
- BÜLOW-JACOBSEN A. and H. CUVIGNY 2007, «Sulpicius Serenus, *procurator Augusti* et la titulature des préfets de Bérénice», *Chiron* 37, p. 11-33.
- CASSON L. 1986, «P. Vindob. G. 40.822 and the Shipping of the Goods from India», *Bulletin of the American Society of Papyrologists* 23, p. 73-79.
- CASSON L. 1990, «New Light on Maritime Loans: P. Vindob. G 40822», *ZPE* 84, p. 195-206.
- CUVIGNY H. 2010, «The Shrine in the *praesidium* of Dios (Eastern Desert of Egypt): Graffiti and Oracles in Context», *Chiron* 40, p. 245-299.
- DE ROMANIS F. 1998, «Commercio, metrologia, fiscalità. Su P. Vindob. 40 822 verso», *Mélanges de l'École Française de Rome* 110, p. 11-60.
- DE ROMANIS F. 2012, «Playing Sudoku on the Verso of the 'Muziris Papyrus': Pepper, Malabathron and Tortoise Shell in the Cargo of the *Hermapollon*», *Journal of Ancient Indian History* 27, p. 75-101.
- DE ROMANIS F. 2014a, «Time to Repay a Maritime Loan: A Note on SB III 7169 and SB XVIII 13167 Recto», *Sileno* 40, p. 73-89.
- DE ROMANIS F. 2014b, «Ivory from Muziris», *Institute for the Study of the Ancient World Papers* 8.
- DIJKSTRA M. and A.M.F.W. VERHOOGT 1999, «The Greek-Palmyrene Inscription», in S.E.SIDEBOTHAM and W.Z. WENDRICH (eds.), *Berenike 1997. Report of the 1997 Excavations at Berenike and the Survey of the Egyptian Eastern Desert*, Leiden, p. 207-218.
- HALFMANN M. 1986, *Itinera principum. Geschichte und Typologie der Kaiserreisen im römischen Reich*, Stuttgart.
- HARRAUER H. and P. SUPESTEIJN 1985, «Ein neues Dokument zu Roms Indienhandel, P. Vindob. G 40.822», *Anzeiger d. Österreichischen Akad. d. Wissenschaften, Phil.-Hist. Klasse* 122, p. 124-155.
- HOLTHEIDE B. 1980, «Matrona stolata-femina stolata», *ZPE* 38, p. 127-134.
- JOUGUET P. 1931, «Dédicace grecque de Médamoud», *BIFAO* 31, p. 1-29.
- MAYSER E. 1926, *Grammatik der griechischen Papyri aus der Ptolemäerzeit*, II 2.1, Berlin-Leipzig.
- MAYSER E. 1933, *Grammatik der griechischen Papyri aus der Ptolemäerzeit*, II 2.2, Berlin-Leipzig.
- MORELLI F. 2011, «Dal Mar Rosso ad Alessandria. Il verso (ma anche il recto) del "papiro di Muziris" (SB XVIII 13167)», *Tyche* 26, p. 199-234.
- RATHBONE D. 2000, «The 'Muziris' Papyrus (SB XVIII 13167): Financing Roman Trade with India», in M. ABD-EL-GHANI, S.Z. BASSIOUNI and W.A. FARAG (eds.), *Alexandrian*

- Studies II in Honor of Mostafa el Abbadi*, Société Archéologique d'Alexandrie, Alexandria, p.39-50.
- RATHBONE D.W. 2002, «Koptos the Emporion: Economy and Society, I - III AD», *Topoi* Suppl. 3, p.179-198.
- RATHBONE D.W. 2003, «The Financing of Maritime Commerce in the Roman Empire, I-II AD», in E. LO CASCIO (ed.), *Credito e moneta nel mondo romano. Atti degli incontri capresi di storia dell'economia antica (Capri 12-14 ottobre 2000)*, Bari, p.197-229.
- REINACH A.J. 1912, «Rapport sur les fouilles de Coptos: deuxième campagne, janvier-février 1911», *Bulletin de la société française des fouilles archéologiques* 3, 2.
- RUFFING K. 2011, «Militärische und zivile Seefahrt im Roten Meer. Einige Überlegungen zu SEG VIII 703 = SB V 7539 = AE 1930, 53», in B. ONKEN and D. ROHDE (eds.), *"In omni historia curiosus". Studien zur Geschichte von der Antike bis zur Neuzeit. Festschrift für Helmuth Schneider zum 65. Geburtstag*, Wiesbaden, p.23-30.
- SCHNEIDER P. 2014, «Savoirs lettrés et savoirs pratiques. Denys d'Alexandrie et les marchands alexandrins», *Topoi* 19, p.547-563.
- TCHERNIA A. 2011, *Les Romains et le commerce*, Naples.
- THÜR G. 1987, «Hypotheken-Urkunden eines Seedarlehens für eine Reise nach Muziris und Apographe für die Tetarte in Alexandria (zu P.Vindob. G 40.822)», *Tyche* 2, p.229-245.
- THÜR G. 1988, «Zum Seedarlehen κατά Μουζείριον», *Tyche* 3, p.229-233.
- VÉLISSAROPOULOS J. 1980, *Les naoclères grecs. Recherches sur les institutions maritimes en Grèce et dans l'Orient hellénisé*, Genève-Paris.
- WILL E. 1957, «Marchands et chefs de caravane à Palmyre», *Syria* 34, p.262-277
- YON J.-B. 2002, *Les notables de Palmyre*, Beyrouth.
- YOUNG G.K. 2001, *Rome's Eastern Trade. International Commerce and Imperial Policy 31 BC-AD 305*, London-New York.